

AP - 16

STAGE 2 REPORT

Date
August 2010

Jason Henry

From: Jason Henry
Sent: Monday, November 15, 2010 4:31 PM
To: 'Hansen, Edward J., EMNRD'
Subject: Plains Bob Durham Site (AP-0016) re-seeding documentation
Attachments: BobDurham_2010Seeding.pdf

RE: Re-seeding documentation
Plains Marketing, L.P.
Bob Durham Release Site (AP-0016)
Unit Letter C, Section 32, T19S, R37E, NMPM, Lea County, New Mexico

Ed,

Attached is the re-seeding information that you requested for the above referenced site. I will you mail you a hard copy of this document as well.

Please let me know if you have any questions or need more information.

Thank you,

Jason Henry
575-441-1099

11/16/2010

New Mexico State Land Office

Field Operations Division

(505) 827-5723 P.O. Box 1143 Santa Fe, NM 87504
(575) 392-8736 2702-D N. Grimes Hobbs, NM 88240
(575) 885-1323 N. Canal, Suite B Carlsbad, NM 88220
(575) 623-4979 1001 S. Atkinson Roswell, NM 88210
(575) 763-0796 105 E. 6th St. Clovis, NM 88101



REVEGETATION FORM

1. General Information

Site name: Bob Durham Site (TMM LF200-07)	Lease No.:					
U/L or Q/L or Q/L	Section: 32	Township: 19S	Range: 37E	County: Lea	Latitude:	Longitude:
Company Name: Plains Marketing, LP	Contract Name: Dason Henry					
Phone no.: (975) 441-1999	Email: jhenry@pmlp.com					
Address: 2530 State Hwy 214, Dover City, TX 79323						
Spill / Release ☒	P&A Well ☐	Pit Closure ☐	Facility Closure ☐	Other ☐		
OCD Spill No. AP-016	API No.:	Type:				
Site size: _____	acres	square feet	Map detail of site attached ☐			
Additional information:						

3. Soils

"Do not rip caliche subsoils; caliche rocks brought to the surface by ripping shall be removed."

Salvaged from site ☐	Bioremediated ☐	Imported ☐	Blended ☒	Depth (in): 12"	
Texture:	Describe soil & subsoil: sandy loam				
Soil prep methods: ☐	Rip ☐	Depth (in):	Disc ☐	Depth (in):	Kollerpack ☐
Date completed:	Photos attached ☐	Number of photos:			

4. Seeding

"Attach seed bag tags to this form; seed bag tags shall contain the site name and the S-T-R."

Custom seed mix ☐	Prescribed mix ☒	Seed mix name: BLM #3	Seeding date: 11/1/2010
Is seed mix divided into submixes based on seed size? Yes ☐ No ☒			
Drill Seeder ☐	Broadcast ☒	Hydroseeding ☐	
Drill Type:	Method:		
Soil conditions during seeding: Dry ☒ Damp ☐ Wet ☐			
Photos attached ☒	Observations:		
Number of photos: 5			

5. Additional Methods

Mulching ☐	Crimping ☐	Fertilizer ☐	Other ☐
Mulch type:	Type:	Describe:	
Tons/acre:	Lbs/acre:		
Photos attached ☐	Observations:		
Number of photos:			

5. Certification

I hereby certify that the information in this form and attachments is true and complete to the best of my knowledge and belief.

Name: _____	Title: _____	Date: _____
Signature: _____		

* Mail form and attachments to the Santa Fe office address listed above, attention: FOD - Environmental. Email completed scanned form and attachments to tkostrubala@sls.state.nm.us.

New Mexico State Land Office Review

Observations	Approve	Date field checked	Initials
Soil Condition:	Yes ☐ No ☐	/ /	
Seeding:	Yes ☐ No ☐	/ /	
Other:	Yes ☐ No ☐	/ /	
Additional Observations:			

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

Basin Environmental
3 Acre BLM #3 Drill Rate
3 - 1 Acre Bags @ 13.32 Bulk Pounds Each
Job: Bob Durham

Lot# M-9923

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Sideoats Grama	Texas	59.72%	69.00%	19.00%	88.00%	09/10	21.00
Vaughn							
Blue Grama	Texas	12.11%	79.00%	14.00%	93.00%	09/10	04.50
Not Stated							

Other Crop: 00.14% There Are 3 Bags For This Mix
Weed Seed: 00.38% This Bag Weighs 13.32 Bulk Pounds
Inert Matter: 27.75% Use this bag for 1 acres.
Total Bulk Pounds: 39.96

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 575-762-4759

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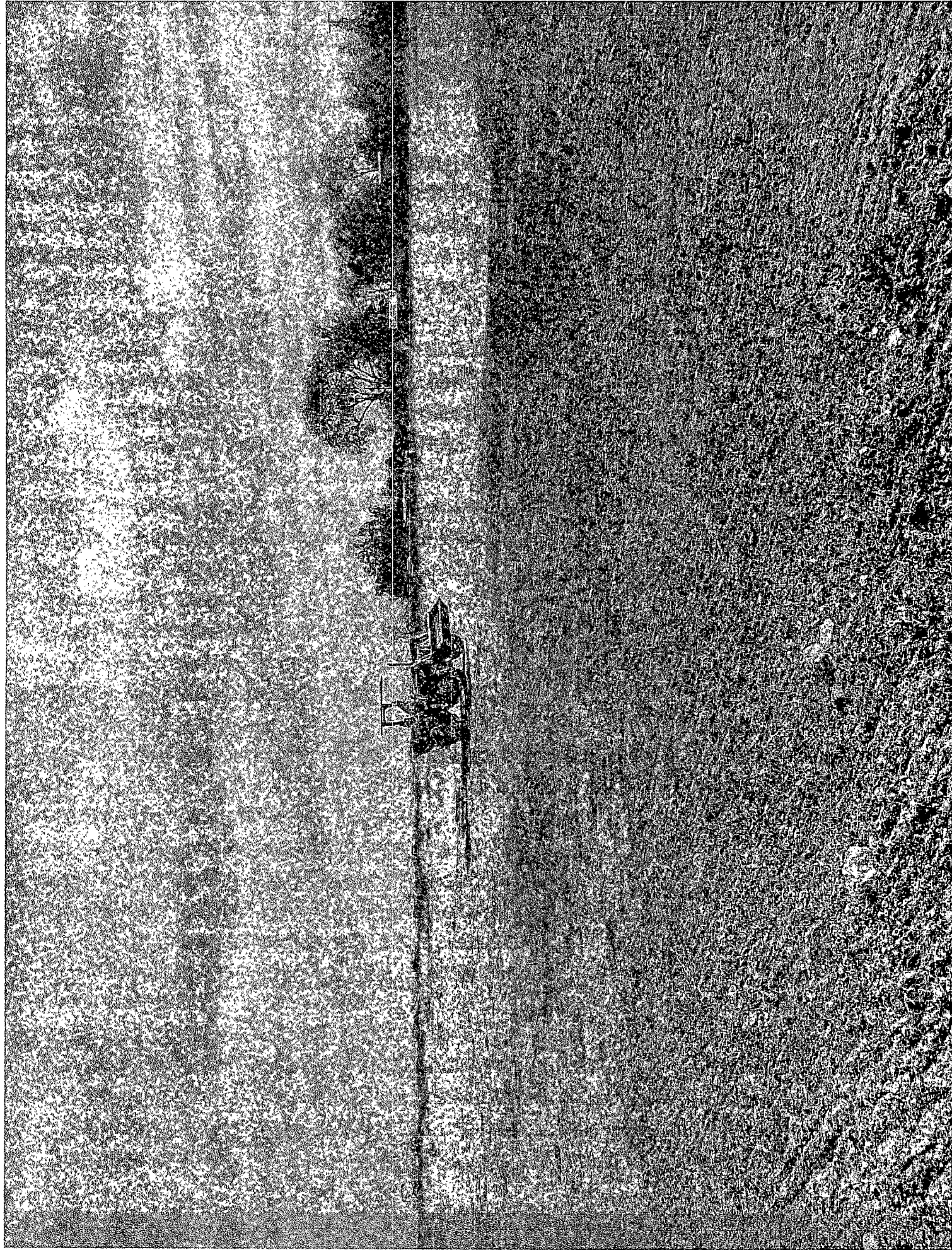
Curtis & Curtis Seed
4500 N. Prince
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Phone: 575-762-4759

Basin Environmental
3 Acre BLM #3 Drill Rate
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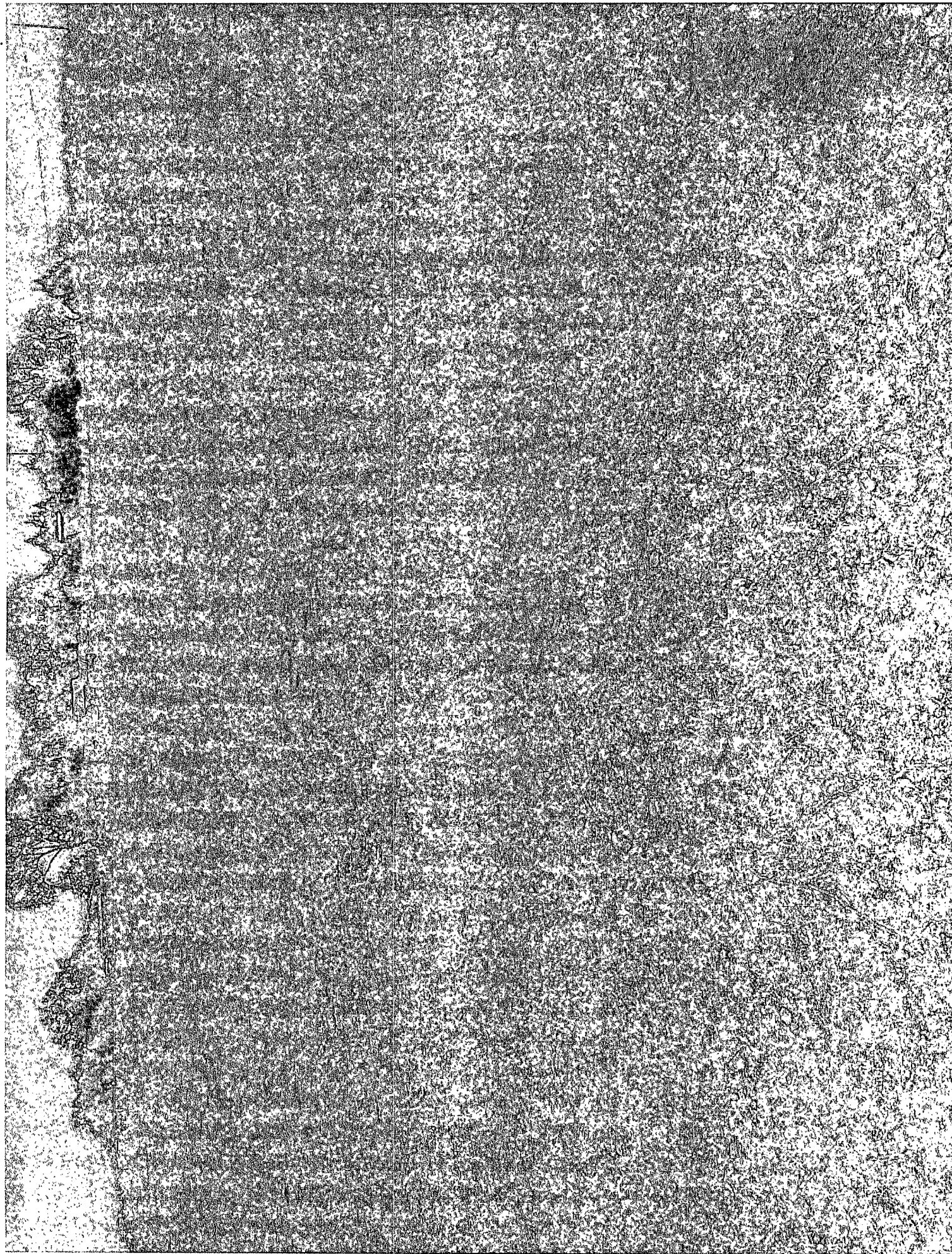
Lot# M-9923

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Vaughn							
Blue Grama	Texas	12.11%	79.00%	14.00%	93.00%	09/10	04.50
Not Stated							

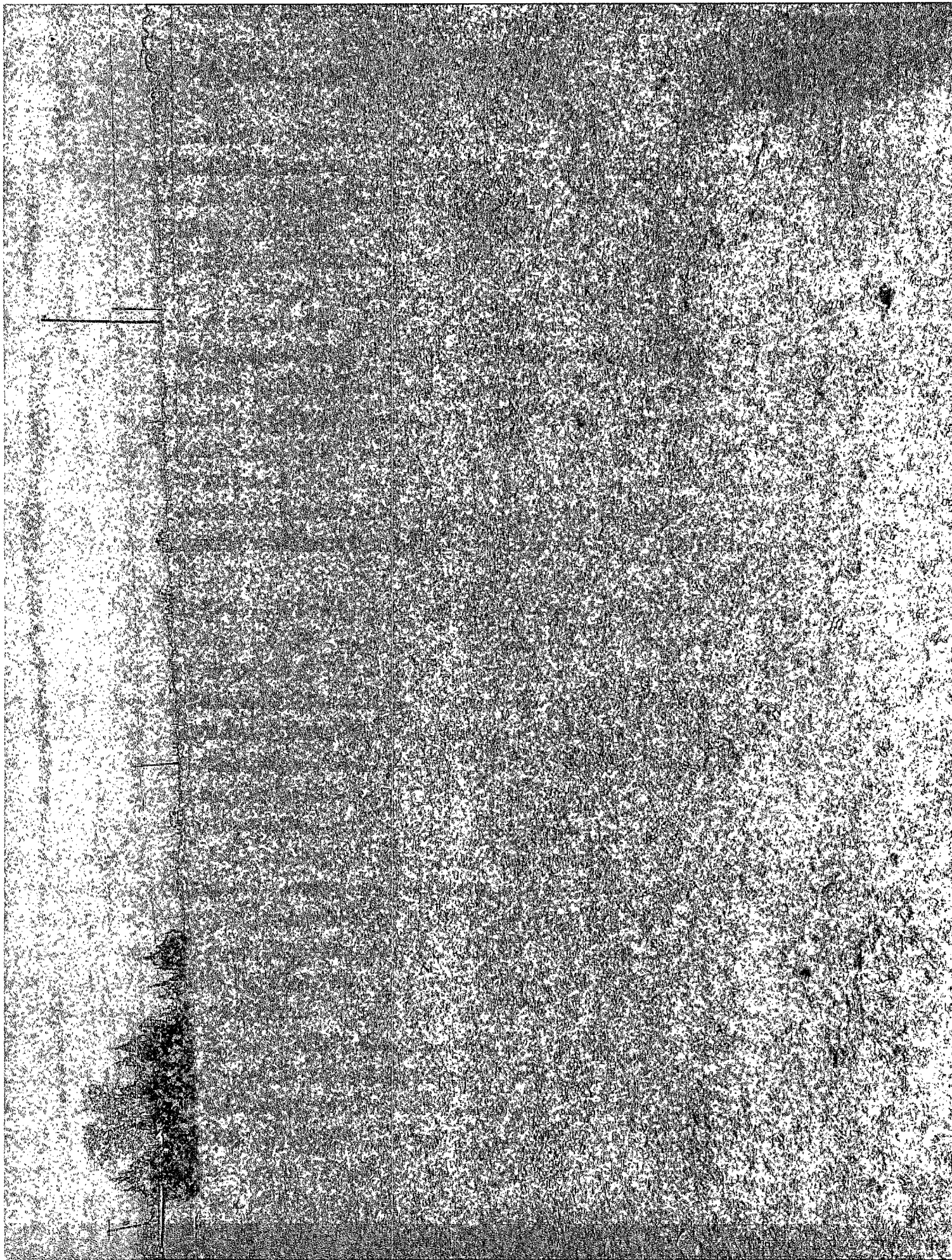
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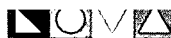












SOIL CLOSURE REQUEST

BOB DURHAM

NW ¼, NW ¼, SECTION 32, TOWNSHIP 19 SOUTH, RANGE 37 EAST

LEA COUNTY, NEW MEXICO

PLAINS SRS NUMBER: TNM LF 2000-07

NMOCD REF AP-0016

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

August 2010

Ronald K. Rounsaville
Senior Project Manager

2010 AUG 18

Brittan K. Byerly, P.G.
President

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- TABLE 1: Concentrations of BTEX and TPH in Soil

APPENDICES

- APPENDIX A: NMOCD Correspondence
APPENDIX B: Photographic Documentation
APPENDIX C: Laboratory Reports (On the attached CD)

1.0 INTRODUCTION

On behalf of Plains Pipeline, L.P. (Plains), NOVA Safety and Environmental (NOVA) is pleased to submit this Soil Closure Request to the New Mexico Oil Conservation Division (NMOCD) for the site known as Bob Durham (SRS # TNM LF-2000-7). The site is located approximately one mile west of the town of Monument, New Mexico, in the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 32, Township 19 South, and Range 37 East. The Bob Durham crude oil release was discovered in January 2000, while installing a polyethylene liner in the subject pipeline. During initial response activities, approximately 2,000 cubic yards (cy) of impacted soil was excavated from the release area. The initial excavation measured approximately 130 feet in length, 60 feet in width and approximately 16 feet below ground surface (bgs) at the deepest extent. A site map depicting the location of the initial excavation area, the locations of monitor wells and other site details, is provided as Figure 2. The volume of crude oil released from the pipeline is unknown. During initial response activities, concluding in March 2000, approximately 108 barrels of crude oil was recovered. This Soil Closure Request details the results of the NMOCD approved activities completed at the site. For reference, a Site Location Map is provided as Figure 1.

2.0 NMOCD SITE CLASSIFICATION

The depth to groundwater at the site is approximately 15 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 receptor water wells located within 200 feet of the site. 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

The approved Soil Closure Work Plan proposed that if hydrocarbon impact exceeding NMOCD cleanup standards existed in the soil below 15 feet in depth, then a synthetic liner would be installed in the excavation over the area exceeding the cleanup standards. Impacted excavated soil from the surface to 15 feet bgs would be treated on-site by blending and aeration techniques to achieve target concentrations (or below) as stated in the Work Plan. Pursuant to the Work Plan, treated soil above the liner will be blended to less than 1000 mg/kg TPH, less than 10 mg/Kg benzene and less than 50 mg/Kg total BTEX. The upper one foot of each excavation area will be backfilled with non-impacted top soil exhibiting a TPH concentration less than 100 mg/Kg.

3.0 SUMMARY OF RECENT FIELD ACTIVITIES

3.1 Impacted Soil Removal

Pursuant to the Soil Closure Work Plan, approved by the NMOCD on April 29, 2010, excavation of the impacted soils in the area of the release began on May 25, 2010. An excavator was utilized to remove impacted soil from the floor and sidewalls of two original excavation areas. The excavated soil was stockpiled on-site, pending laboratory analysis. As excavation activities progressed, soil samples were collected from the floor and sidewalls of the northern excavation area (Area # 2) and from the walls of the southern excavation area (Area # 1). Based on visual and olfactory observations, the final dimensions of the northern excavation area were approximately 60 feet in length (east to west) by 65 feet in width (north to south) and averaged approximately 10 feet in depth. The southern excavation measured approximately 120 feet in length (east-west) by 95 feet in width (north-south) and averaged approximately 15 feet in depth. An estimated 8,200 cubic yards of soil was brought to surface and remediated by mixing, blending and aeration methods. Excavation activities were completed on June 14, 2010. Figure 2 is an Excavation Area Map depicting the pipelines, the two excavation areas and other site details.

3.2 Excavated Soil Remediation

Excavated soil was staged in a large cleared area located north of the excavations. Non-impacted near-surface soil collected from within the cleared area was pushed up and used to blend with the impacted soil. Mixing and blending activities continued concurrently with excavation activities. Approximately 10,500 cubic yards of soil were brought to the surface for remediation. Following blending activities, twenty-one confirmation soil samples were collected for every 500 cubic yards of material and submitted for laboratory analysis for BTEX, EPA method 8021 and Total Petroleum Hydrocarbons, EPA method 8015.

3.3 Confirmation Soil Sampling – Excavation Areas

Confirmation soil samples collected from walls and floor of the excavation areas were submitted for laboratory analysis for TPH by Method 8015M and BTEX by Method 8021B. Laboratory submitted samples were placed in a new sterile glass container, equipped with a Teflon-lined lid furnished by the laboratory. Samples were labeled, placed on ice, and chilled to a temperature of approximately 4° C. Appropriate chain-of-custody documentation and shipping protocols were followed. The laboratory analytical reports are presented on the attached cd provided in Appendix C. Table 1 displays the analytical results of confirmation soil samples.

Northern Excavation Area

On May 27 and June 2, 2010, confirmation soil samples were collected from the floor and sidewalls of the northern excavation area. The analytical results of these soil samples indicated TPH and BTEX concentrations were below the NMOCD regulatory standards of 100 mg/Kg and 50 mg/Kg, respectively, with the exception of the soil samples collected at locations identified as N. Area #2, E. Floor, 10 ft. and N. Exc., SE. Wall, 8 ft. The analytical results for soil sample N.

Area #2, E. Floor, 10 ft. indicated a total petroleum hydrocarbon (TPH) concentration of 102.2 mg/Kg. The analytical results for soil sample N. Exc., SE. Wall, 8 ft. indicated the TPH concentration was 110.9 mg/Kg.

On June 12, 2010, the area surrounding soil sample N. Exc., SE. Wall, 8 ft. was excavated further to the west approximately 3 feet. Confirmation soil sample N. Exc., SE. Wall-2, 8 ft. was collected from the excavation sidewall and submitted for laboratory analysis. The analytical results for soil sample N. Exc., SE. Wall-2, 8 ft. indicated TPH concentrations were below the NMOCD regulatory standards.

Southern Excavation Area

On June 1, 2010, confirmation soil samples were collected from the sidewalls of the southern excavation area. The analytical results of these soil samples indicated TPH and BTEX concentrations were below the NMOCD regulatory standards of 100 mg/Kg and 50 mg/Kg, respectively, with the exception of the soil samples collected at the location identified as S. Exc. W. Cent. Wall, 12 ft. The analytical results for soil sample S. Exc. W. Cent. Wall, 12 ft. indicated a TPH concentration of 167 mg/Kg.

On June 17, 2010, the area surrounding soil sample S. Exc. W. Cent. Wall, 12 ft. was excavated further to the west approximately 3 feet. Confirmation soil sample S. Exc. W. Cent. Wall-2, 12 ft. was collected from the excavation sidewall and submitted for laboratory analysis. The analytical results for soil sample S. Exc. W. Cent. Wall-2, 12 ft. indicated TPH concentrations were below the NMOCD regulatory standards.

3.4 Confirmation Soil Sampling – Blended Soil Piles

From May 28 through June 23, 2010, the estimated 10,500 cubic yards of impacted soil from the two excavation areas were staged in a cleared area to the north of the excavation areas. Non-impacted soil collected from the staging area was used to mix with the impacted soil.

On June 2, 2010, 14 composite soil samples (SS-1 through SS-14) were collected from a portion of the blended soil stockpiles and submitted to the laboratory for analysis. The analytical results indicated the TPH concentration of the stockpile soil ranged from <50 mg/Kg to 462 mg/Kg. Benzene concentrations were less than 0.010 mg/Kg and total BTEX concentrations were below 50 mg/Kg. On June 15, 2010, following soil blending activities of additional soil stockpiles, 2 blended top soil samples (SS-15 and SS-16) along with 5 new composite stockpile soil samples (SS-17 through SS-21) were collected from the blended soil stockpile and submitted to the laboratory for analysis. The analytical results indicated the two blended top soil stockpiles exceeded the NMOCD approved limit of 100 mg/Kg with TPH concentrations of 681 mg/Kg and 653 mg/Kg. The analytical results on the five additional blended stockpile soil samples ranged from 532.6 mg/Kg to 1,130.1 mg/Kg. Benzene concentrations were less than 0.010 mg/Kg and total BTEX concentrations were below 50 mg/Kg. On June 23, 2010, following additional soil blending and aeration activities, two top soil stockpile samples and two blended soil stockpile samples were collected and submitted to the laboratory for analysis. The analytical results indicated the TPH concentrations of the two top soil stockpile samples were below the 100

mg/Kg approved limit and the two re-blended stockpile samples were below the approved 1,000 mg/Kg limit.

3.5 Synthetic Liner Placement

Upon receipt of laboratory analytical results indicating all of the identified areas of hydrocarbon impact were below the approved criteria set forth in the Soil Closure Work Plan for treated soils, preparation for the installation of the synthetic liner installation began as proposed in the Soil Closure Work Plan dated October 2008. The floor of the excavation required some leveling to provide an effective and efficient pathway for the channeling of moisture. Following the leveling activities, a six-inch layer of non-impacted sand, acquired locally, was placed in the excavation. The sand protects the synthetic liner from rips and tears and aids in the proper installation of the liner.

On June 17, 2010, synthetic liners were installed within the northern and southern excavation areas at depths of approximately 10 feet and 15 feet below ground surface, respectively, by a vendor trained in the proper installation of impermeable liners. Photographic documentation of the liner installation is provided as Appendix B. Following the synthetic liner installation an additional six-inch layer of non-impacted sand was placed on top of the liner to further protect the liner.

3.6 Backfilling and Surface Restoration

Based on analytical results of laboratory analyzed confirmation soil samples obtained from the excavation areas and remediated soil piles, the backfilling of the excavations with remediated soil commenced on June 18, 2010. The blended soil stockpile was placed in the excavations in twelve-inch lifts and compacted. A water truck was used to supply moisture to the soil to facilitate proper compaction.

On June 25, 2010, backfilling activities were completed and the disturbed area was contoured to fit the surrounding topography.

4.0 SOIL CLOSURE REQUEST

Plains has completed the activities proposed in the NMOCD approved Soil Closure Work Plan dated October 2008 and requests NMOCD approval for Soil Closure.

A complete (including groundwater) Site Closure Request will be submitted to the NMOCD after eight consecutive quarterly groundwater sampling events have demonstrated BTEX concentrations are below the NMOCD regulatory guidelines.

5.0 LIMITATIONS

NOVA has prepared this Soil Closure Request 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.

6.0 DISTRIBUTION

- Copy 1: Ed Hansen
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
- Copy 2: Larry Johnson
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division District 1
1625 French Drive
Hobbs, NM 88240
- Copy 3: Jason Henry
Plains Marketing, L.P.
2530 State Highway 214
Denver City, TX 79323
jhenry@paalp.com
- Copy 4: Jeff Dann
Plains Marketing, L.P.
333 Clay Street, Suite 1600
Houston, Texas 77002
jpdann@paalp.com
- Copy 5: NOVA Safety and Environmental.
2057 Commerce Drive
Midland, Texas 79703
rrounsaville@novatraining.cc

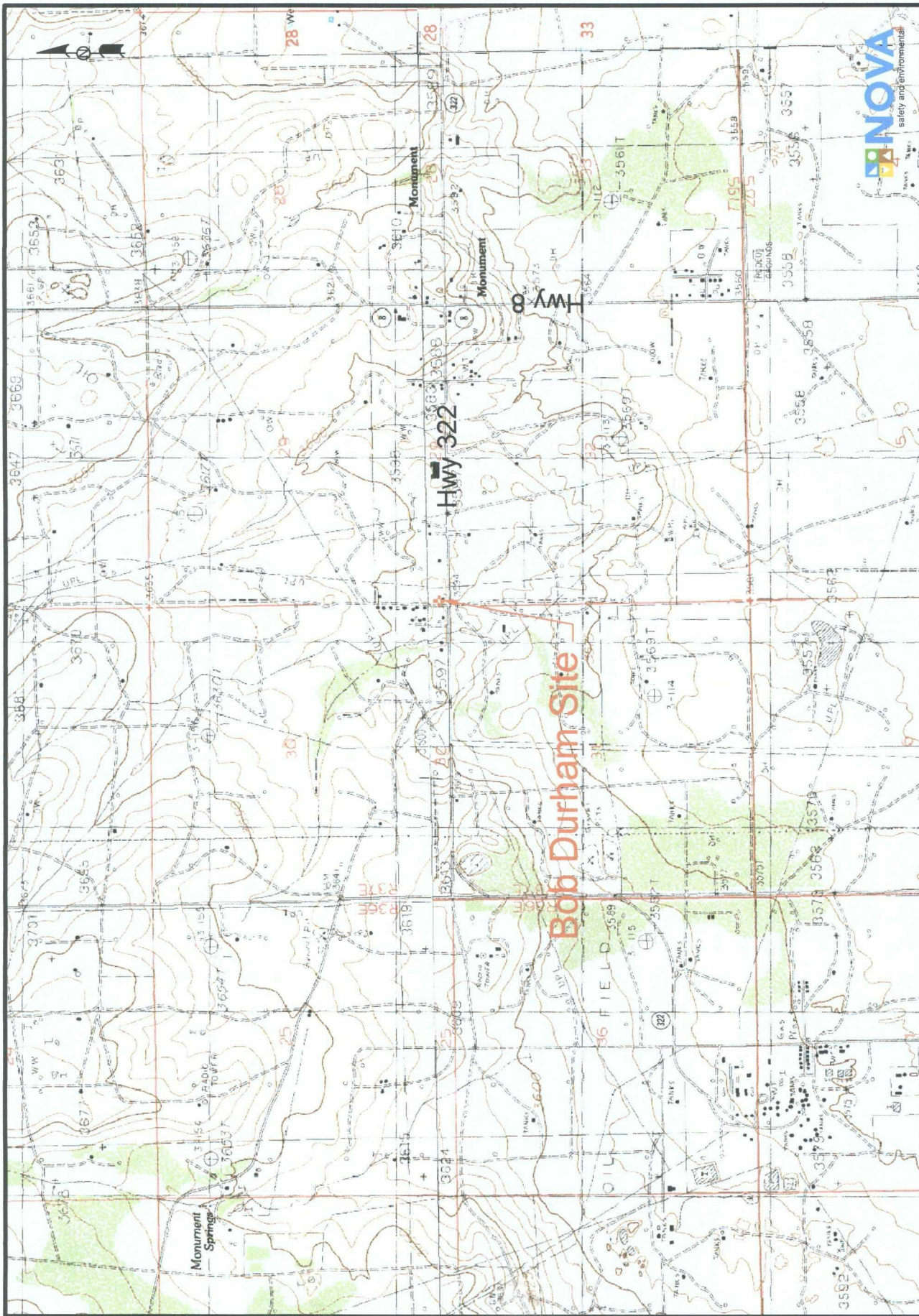


Figure 1
Site Location Map

NOVA Safety and Environmental

Plains Marketing, L.P.
Bob Durham
Lea County, NM

NMOCD Reference # AP-016

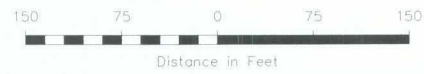
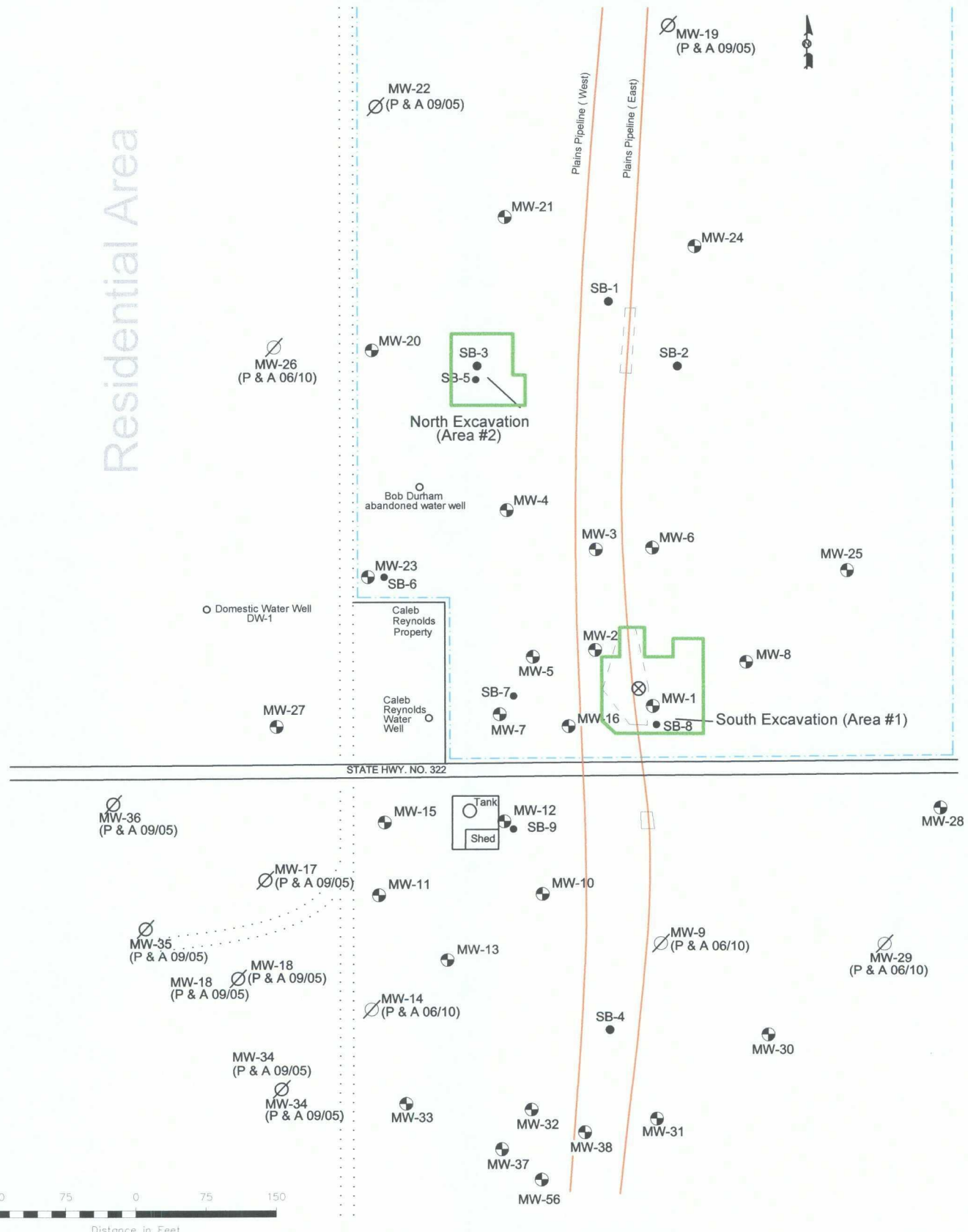
NW1/4 NW1/4 Sec 32 T19S R37E Lat. 32° 37' 27" Long. 103° 16' 53"

Drawn By: CDS

Prep. By: CDS

February 20, 2005

Residential Area



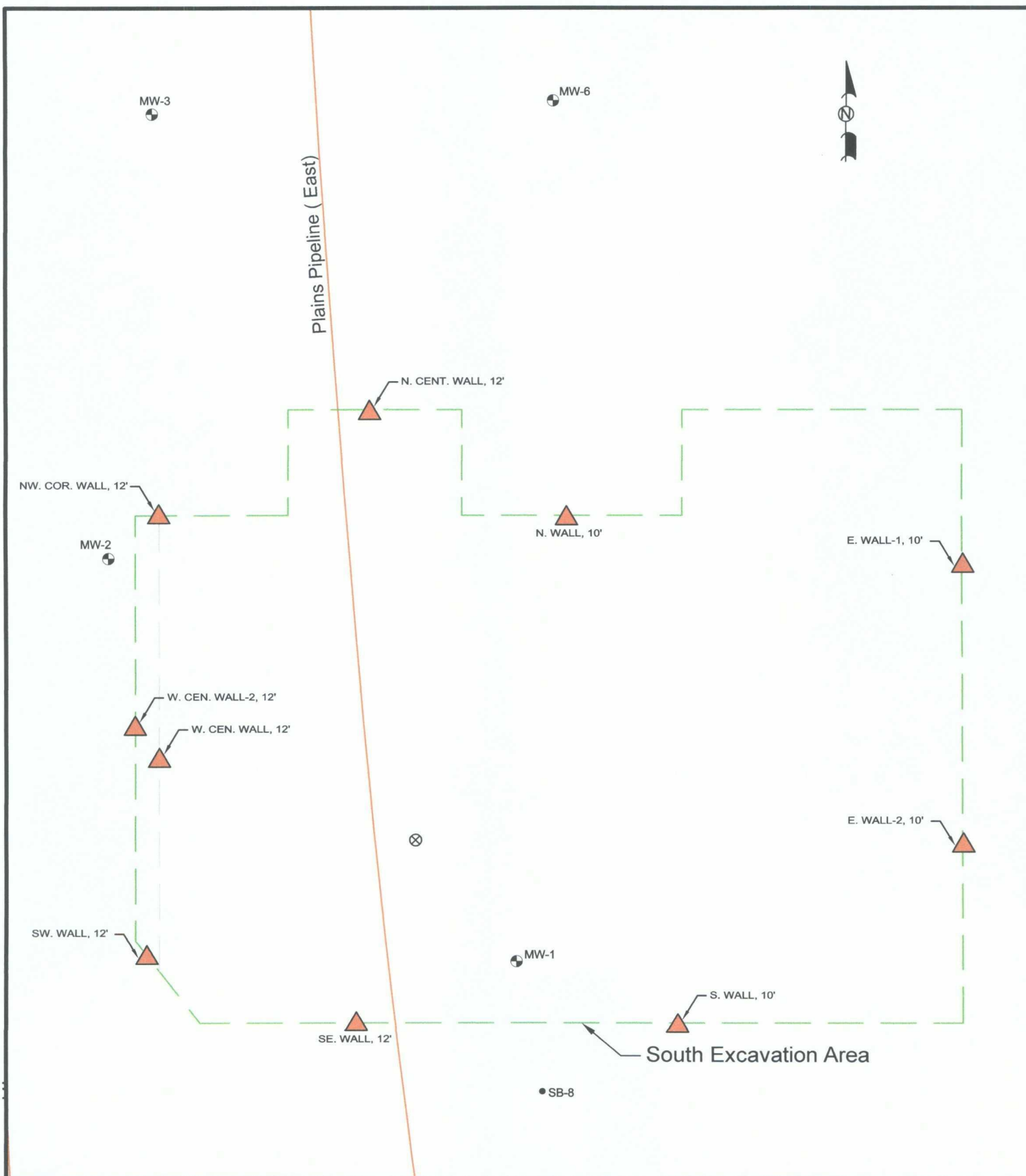
LEGEND:

	Monitor Well Location		Soil Boring Locations
	Release Point		Bob Durham Property Line
	Plains Pipeline L.P.		Excavation Areas
	Road		
	Existing Excavation Areas (Backfilled)		

Figure 2
Excavation Area Map
Plains Marketing, L.P.
Bob Durham
Lea County, NM

NOVA Safety and Environmental

NW1/4 NW1/4 Sec 32 T19S R37E		32° 37' 27"N 103° 16' 53"W	
Scale: 1" = 150'	CAD By: TA	Checked By: RKR	
July 06, 2010			



LEGEND:

- Monitor Well Location
- Excavation Areas
- Plains Pipeline L.P.
- Soil Sample Locations - Floors
- Soil Sample Locations - Walls

Figure 3
 Site Details & Confirmation
 Soil Sample Locations Map
 Plains Marketing, L.P.
 Bob Durham
 Lea County, NM

NOVA Safety and Environmental



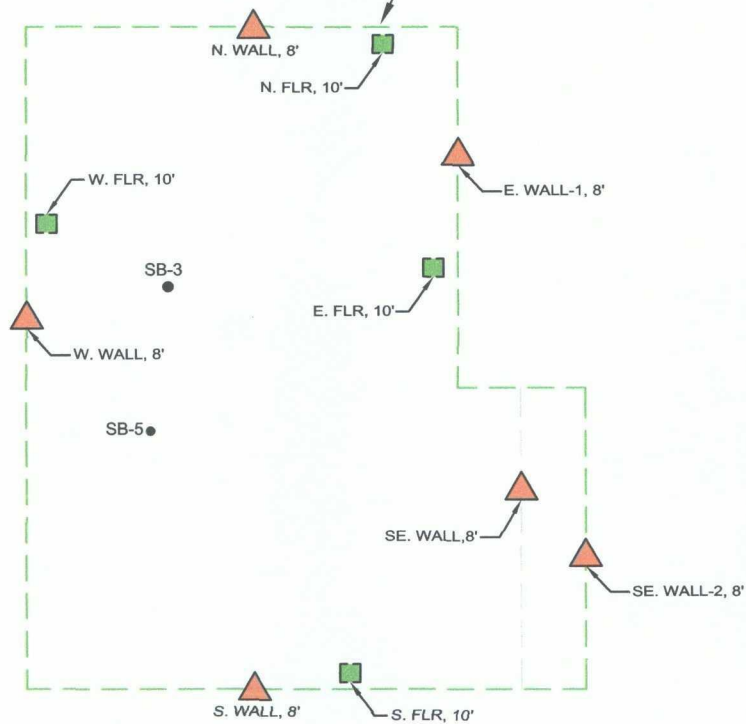
NW1/4 NW1/4 Sec 32 T19S R37E	32° 37' 27"N 103° 16' 53"W	
Scale: NTS	CAD By: TA	Checked By: RKR
July 06, 2010		

MW-21



MW-20

North Excavation Area



Plains Pipeline (West)

Bob Durham
abandoned water well

MW-4

LEGEND:

- Monitor Well Location
- Excavation Areas
- Plains Pipeline L.P.
- Soil Sample Locations - Floors
- Soil Sample Locations - Walls

Figure 4
Site Details & Confirmation
Soil Sample Locations Map
Plains Marketing, L.P.
Bob Durham
Lea County, NM

NOVA Safety and Environmental



NW1/4 NW1/4 Sec 32 T19S R37E	32° 37' 27"N 103° 16' 53"W
Scale: NTS	CAD By: TA
July 06, 2010	Checked By: RKR

TABLE 1

Concentrations of BTEX and TPH in Soil

Bob Durham

PLAINS PIPELINE, L.P.

Plains SRS # TNM LF-2000-7

NMOCD Reference AP-0016

SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH	SOIL STATUS	Method SW-8015b			Method SW 846-8021b				
				GRO C ₆ -C ₁₂ mg/Kg	DRO >C ₁₂ -C ₃₅ mg/Kg	Total TPH C ₆ -C ₃₅ mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethylbenzene mg/Kg	Xylene mg/Kg	Total BTEX mg/Kg
NMOCD REGULATORY STANDARD											
North Excavation Area Floor and Sidewall Sample Locations											
05/27/10	N Area #2, N. Wall, 8'	8'	In-Situ	23.7	<50.0	23.7	<0.010	<0.010	<0.010	0.0995	0.0995
05/27/10	N Area #2, W. Wall, 8'	8'	In-Situ	3.61	58	61.61	<0.010	<0.010	<0.010	<0.010	<0.010
05/27/10	N Area #2, E. Wall-1, 8'	8'	In-Situ	<1.0	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
05/27/10	N Area #2, S. Wall, 8'	8'	In-Situ	<1.0	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
05/27/10	N Area #2, E. Flr-1, 10'	10'	In-Situ	42.3	59.5	102.2	<0.010	<0.010	<0.010	0.129	0.129
05/27/10	N Area #2, N. Flr, 10'	10'	In-Situ	<1.0	<50	<50	<0.010	<0.010	<0.010	<0.010	<0.010
05/27/10	N Area #2, W. Flr, 10'	10'	In-Situ	<1.0	64.7	64.7	<0.010	<0.010	<0.010	<0.010	<0.010
05/27/10	N Area #2, S. Flr, 10'	10'	In-Situ	<1.0	<50	<50	<0.010	<0.010	<0.010	<0.010	<0.010
06/02/10	N Exc., SE. Wall, 8'	8'	Excavated	26.2	84.7	110.9	<0.010	<0.010	<0.010	0.0893	0.0893
06/10/10	N Exc., SE. Wall-2, 8'	8'	In-Situ	<2.00	<50.0	<50.0	NA	NA	NA	NA	NA
South Excavation Area Floor and Sidewall Sample Locations											
06/01/10	S. Exc. N Wall, 10'	10'	In-Situ	5.09	<50.0	<50.9	<0.020	<0.020	<0.020	0.0592	0.0592
06/01/10	S. Exc. S. Wall, 10'	10'	In-Situ	1.15	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020
06/01/10	S. Exc. E. Wall-1, 10'	10'	In-Situ	1.18	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020
06/01/10	S. Exc. E. Wall-2, 10'	10'	In-Situ	<1.00	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020
06/14/10	S. Exc. N. Cent Wall, 12'	12'	In-Situ	<2.00	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020
06/14/10	S. Exc. W. Cent Wall, 12'	12'	Excavated	<2.00	167	167	<0.020	<0.020	<0.020	<0.020	<0.020
06/14/10	S. Exc. NW. Cor Wall, 12'	12'	In-Situ	<2.00	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020
06/14/10	S. Exc. SW Wall, 12'	12'	In-Situ	<2.00	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020
06/14/10	S. Exc. SE Wall, 12'	12'	In-Situ	<2.00	<50.0	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020
06/17/10	S. Exc. W. Cent Wall-2, 12'	12'	In-Situ	<2.00	<50.0	<50.0	NA	NA	NA	NA	NA
Excavation Soil Stockpile Composite Samples											
06/02/10	Soil Stockpile, SS-1	--	Blended	45.2	<50.0	<50.0	<0.010	<0.010	<0.010	0.0943	0.0943
06/02/10	Soil Stockpile, SS-2	--	Blended	4.54	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
06/02/10	Soil Stockpile, SS-3	--	Blended	<1.00	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
06/02/10	Soil Stockpile, SS-4	--	Blended	<1.00	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
06/02/10	Soil Stockpile, SS-5	--	Blended	1.35	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
06/02/10	Soil Stockpile, SS-6	--	Blended	9.3	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
06/02/10	Soil Stockpile, SS-7	--	Blended	15.1	54	69.1	<0.010	<0.010	<0.010	<0.010	<0.010
06/02/10	Soil Stockpile, SS-8	--	Blended	116	122	238	<0.010	<0.010	<0.010	0.129	0.129
06/02/10	Soil Stockpile, SS-9	--	Blended	94.3	52.4	146.7	<0.010	<0.010	<0.010	0.0547	0.0547
06/02/10	Soil Stockpile, SS-10	--	Blended	202	149	351	<0.010	<0.010	<0.010	0.137	0.137
06/02/10	Soil Stockpile, SS-11	--	Blended	262	200	462	<0.010	<0.010	<0.010	0.308	0.308

TABLE 1

Concentrations of BTEX and TPH in Soil

Bob Durham

PLAINS PIPELINE, L.P.

Plains SRS # TNM LF-2000-7

NMOCD Reference AP-0016

SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH	SOIL STATUS	Method SW-8015b			Method SW 846-8021b				
				GRO C ₆ -C ₁₂ mg/Kg	DRO >C ₁₂ -C ₃₅ mg/Kg	Total TPH C ₆ -C ₃₅ mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethylbenzen e mg/Kg	Xylene mg/Kg	Total BTEX mg/Kg
NMOCD REGULATORY STANDARD											
06/02/10	Soil Stockpile, SS-12	--	Blended	178	193	371	<0.010	0.0478	0.0419	0.138	0.1799
06/02/10	Soil Stockpile, SS-13	--	Blended	164	132	296	<0.010	0.0521	<0.010	0.102	0.102
06/02/10	Soil Stockpile, SS-14	--	Blended	15.3	52.5	67.8	<0.010	<0.010	<0.010	<0.010	<0.010
06/15/10	Soil Stockpile, SS-15 (Top Soil)	--	Re-Blended	85.4	596	681.4	<0.020	<0.020	0.0311	0.262	0.2931
06/15/10	Soil Stockpile, SS-16 (Top Soil)	--	Re-Blended	197	456	653	<0.020	0.0847	0.068	0.192	0.3447
06/15/10	Soil Stockpile, SS-17	--	Re-Blended	60.1	1070	1130.1	<0.020	<0.020	<0.020	0.0546	0.0546
06/15/10	Soil Stockpile, SS-18	--	Re-Blended	55.2	1020	1075.2	<0.020	<0.020	<0.020	0.133	0.133
06/15/10	Soil Stockpile, SS-19	--	Blended	46.6	486	532.6	<0.020	<0.020	<0.020	0.065	0.065
06/15/10	Soil Stockpile, SS-20	--	Blended	49.6	633	682	<0.020	<0.020	0.249	0.0711	0.3201
06/15/10	Soil Stockpile, SS-21	--	Blended	75.5	473	548.5	<0.020	0.0457	0.0427	0.104	0.1924
06/23/10	SS-15B (Top Soil)	--	Blended	<15.8	48.2	48.2	NA	NA	NA	NA	NA
06/23/10	SS-16B (Top Soil)	--	Blended	<15.7	94.5	94.5	NA	NA	NA	NA	NA
06/23/10	Soil Stockpile, SS-17B	--	Blended	31.7	497.7	529	NA	NA	NA	NA	NA
06/23/10	Soil Stockpile, SS-18B	--	Blended	28.8	485.7	515	NA	NA	NA	NA	NA

NA = Not Analyzed

APPENDIX A
NMOCD Correspondence

Ron Rounsaville

From: "Jason Henry" <JHenry@paalp.com>
To: "Shawn M Harris" <SMHarris@paalp.com>; <rrounsaville@novatraining.cc>
Sent: Thursday, April 29, 2010 4:56 PM
Subject: Fw: Soil Closure Proposal Approval (AP-0016) Bob Durham Release Site

From: Hansen, Edward J., EMNRD
To: Jason Henry
Cc: Leking, Geoffrey R, EMNRD ; Jeffrey P Dann; Ron Rounsaville
Sent: Thu Apr 29 14:51:00 2010
Subject: Soil Closure Proposal Approval (AP-0016) Bob Durham Release Site

**RE: Soil Closure Proposal Approval
for the Plains Marketing, L.P.
Bob Durham Release Site (AP-0016)
Unit Letter C, Section 32, T19S, R37E, NMPM, Lea County, New Mexico**

Dear Mr. Henry:

The New Mexico Oil Conservation Division (OCD) has reviewed the submitted proposed Soil Closure Proposal (work plan), dated October, 2008, and supplemental information for the work plan, dated April 28, 2010, for the above-referenced site. The OCD hereby conditionally approves the work plan (i.e., Addendum to the Abatement Plan, AP-0016):

Plains Marketing, L.P. must submit to the OCD the Soil Closure Report within 90 days of this approval.

Please be advised that OCD approval of this work plan does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

Also, please be advised that the request for alternative groundwater sampling program for this Abatement Plan will be addressed under separate cover.

If you have questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

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8/13/2010



APPENDIX B

Photographic Documentation

Client: Plains Marketing, L.P.
Location: Lea County, New Mexico

Project Name: Bob Durham
Photographer: Jaime Fowler

Photograph No. 1

Direction: Northwest

Description: View of the synthetic Liner Installation within the Northern excavation area.



Photograph No. 2

Direction: West

Description: Synthetic Liner Installation within the Northern excavation area.



Client: Plains Marketing, L.P.
Location: Lea County, New Mexico

Project Name: Bob Durham
Photographer: Jaime Fowler

Photograph No. 3

Direction: South

Description: Synthetic Liner Installation within the Southern excavation area.



Photograph No. 4

Direction: Southeast

Description: Synthetic Liner Installation within the Southern excavation area.



Client: Plains Marketing, L.P.
Location: Lea County, New Mexico

Project Name: Bob Durham
Photographer: Jaime Fowler

Photograph No. 5

Direction: South

Description: Synthetic Liner Installation within the Southern excavation area.



Photograph No. 6

Direction: East

Description: Installation of liner cushion sand within the Southern excavation area.



APPENDIX C
Laboratory Analytical Report
~~(Located on the attached CD)~~



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
 200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
 5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
 E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
 NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
 LELAP-02003
 Kansas E-10317

El Paso: T104704221-08-TX
 LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Ron Rounsaville
 Nova Safety & Environmental
 2057 Commerce St.
 Midland, TX, 79703

Report Date: June 3, 2010

Work Order: 10052802



Project Location: Monument, Lea County, NM
 Project Name: Bob Durham
 Project Number: TNM-LF-2000-07

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
233011	N Area #2, N Wall, 8'	soil	2010-05-27	12:45	2010-05-27
233012	N Area #2, W Wall, 8'	soil	2010-05-27	12:40	2010-05-27
233013	N Area #2, E Wall-1, 8'	soil	2010-05-27	12:48	2010-05-27
233014	N Area #2, S Wall, 8'	soil	2010-05-27	12:52	2010-05-27
233015	N Area #2, E Flr.-1, 10'	soil	2010-05-27	12:57	2010-05-27
233016	N Area #2, N Flr., 10'	soil	2010-05-27	13:00	2010-05-27
233017	N Area #2, W Flr., 10'	soil	2010-05-27	13:03	2010-05-27
233018	N Area #2, S Flr., 10'	soil	2010-05-27	13:06	2010-05-27

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 22 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink, appearing to read "Michael Abel".

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2010-05-27 and assigned to work order 10052802. Samples for work order 10052802 were received intact at a temperature of 3.9 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	60388	2010-05-28 at 15:00	70519	2010-05-28 at 19:53
BTEX	S 8021B	60437	2010-06-02 at 14:15	70573	2010-06-02 at 16:31
TPH DRO - NEW	S 8015 D	60418	2010-06-01 at 13:52	70542	2010-06-01 at 13:52
TPH GRO	S 8015 D	60388	2010-05-28 at 15:00	70520	2010-05-28 at 20:21
TPH GRO	S 8015 D	60437	2010-06-02 at 14:15	70574	2010-06-02 at 16:59

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10052802 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 233011 - N Area #2, N Wall, 8'

Laboratory: Midland
Analysis: BTEX
QC Batch: 70519
Prep Batch: 60388

Analytical Method: S 8021B
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

Parameter	Flag	RL	Units	Dilution	RL
		Result			
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.0995	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.16	mg/Kg	1	2.00	108	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.05	mg/Kg	1	2.00	102	43.1 - 158.4

Sample: 233011 - N Area #2, N Wall, 8'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70542
Prep Batch: 60418

Analytical Method: S 8015 D
Date Analyzed: 2010-06-01
Sample Preparation: 2010-06-01

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		118	mg/Kg	1	100	118	70 - 130

Sample: 233011 - N Area #2, N Wall, 8'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70520
Prep Batch: 60388

Analytical Method: S 8015 D
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

continued ...

Report Date: June 3, 2010
TNM-LF-2000-07

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Bob Durham

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sample 233011 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		23.7	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.33	mg/Kg	1	2.00	116	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.25	mg/Kg	1	2.00	112	51.7 - 131.1

Sample: 233012 - N Area #2, W Wall, 8'

Laboratory: Midland
Analysis: BTEX
QC Batch: 70519
Prep Batch: 60388

Analytical Method: S 8021B
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.06	mg/Kg	1	2.00	103	43.1 - 158.4

Sample: 233012 - N Area #2, W Wall, 8'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70542
Prep Batch: 60418

Analytical Method: S 8015 D
Date Analyzed: 2010-06-01
Sample Preparation: 2010-06-01

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		58.0	mg/Kg	1	50.0

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		116	mg/Kg	1	100	116	70 - 130

Sample: 233012 - N Area #2, W Wall, 8'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70520
Prep Batch: 60388

Analytical Method: S 8015 D
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3.61	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.28	mg/Kg	1	2.00	114	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.10	mg/Kg	1	2.00	105	51.7 - 131.1

Sample: 233013 - N Area #2, E Wall-1, 8'

Laboratory: Midland
Analysis: BTEX
QC Batch: 70519
Prep Batch: 60388

Analytical Method: S 8021B
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.99	mg/Kg	1	2.00	100	43.1 - 158.4

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Sample: 233013 - N Area #2, E Wall-1, 8'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 70542 Date Analyzed: 2010-06-01 Analyzed By: kg
Prep Batch: 60418 Sample Preparation: 2010-06-01 Prepared By: kg

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-Tricosane		113	mg/Kg	1	100	113	70 - 130

Sample: 233013 - N Area #2, E Wall-1, 8'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70520 Date Analyzed: 2010-05-28 Analyzed By: AG
Prep Batch: 60388 Sample Preparation: 2010-05-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	51.7 - 131.1

Sample: 233014 - N Area #2, S Wall, 8'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 70519 Date Analyzed: 2010-05-28 Analyzed By: AG
Prep Batch: 60388 Sample Preparation: 2010-05-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.85	mg/Kg	1	2.00	92	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	43.1 - 158.4

Sample: 233014 - N Area #2, S Wall, 8'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70542
Prep Batch: 60418

Analytical Method: S 8015 D
Date Analyzed: 2010-06-01
Sample Preparation: 2010-06-01

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

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-Tricosane		109	mg/Kg	1	100	109	70 - 130

Sample: 233014 - N Area #2, S Wall, 8'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70520
Prep Batch: 60388

Analytical Method: S 8015 D
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.99	mg/Kg	1	2.00	100	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.79	mg/Kg	1	2.00	90	51.7 - 131.1

Sample: 233015 - N Area #2, E Flr.-1, 10'

Laboratory: Midland
Analysis: BTEX
QC Batch: 70519
Prep Batch: 60388

Analytical Method: S 8021B
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.129	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.55	mg/Kg	1	2.00	78	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.53	mg/Kg	1	2.00	76	43.1 - 158.4

Sample: 233015 - N Area #2, E Flr.-1, 10'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 70542 Date Analyzed: 2010-06-01 Analyzed By: kg
Prep Batch: 60418 Sample Preparation: 2010-06-01 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		59.9	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		116	mg/Kg	1	100	116	70 - 130

Sample: 233015 - N Area #2, E Flr.-1, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70520 Date Analyzed: 2010-05-28 Analyzed By: AG
Prep Batch: 60388 Sample Preparation: 2010-05-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		42.3	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.65	mg/Kg	1	2.00	82	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	51.7 - 131.1

Report Date: June 3, 2010
TNM-LF-2000-07

Work Order: 10052802
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Sample: 233016 - N Area #2, N Flr., 10'

Laboratory: Midland
Analysis: BTEX
QC Batch: 70519
Prep Batch: 60388

Analytical Method: S 8021B
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.31	mg/Kg	1	2.00	66	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.31	mg/Kg	1	2.00	66	43.1 - 158.4

Sample: 233016 - N Area #2, N Flr., 10'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70542
Prep Batch: 60418

Analytical Method: S 8015 D
Date Analyzed: 2010-06-01
Sample Preparation: 2010-06-01

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

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-Tricosane		118	mg/Kg	1	100	118	70 - 130

Sample: 233016 - N Area #2, N Flr., 10'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70520
Prep Batch: 60388

Analytical Method: S 8015 D
Date Analyzed: 2010-05-28
Sample Preparation: 2010-05-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.39	mg/Kg	1	2.00	70	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.44	mg/Kg	1	2.00	72	51.7 - 131.1

Sample: 233017 - N Area #2, W Flr., 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 70573

Prep Batch: 60437

Analytical Method: S 8021B

Date Analyzed: 2010-06-02

Sample Preparation: 2010-06-02

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.78	mg/Kg	1	2.00	89	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.65	mg/Kg	1	2.00	82	43.1 - 158.4

Sample: 233017 - N Area #2, W Flr., 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70542

Prep Batch: 60418

Analytical Method: S 8015 D

Date Analyzed: 2010-06-01

Sample Preparation: 2010-06-01

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		64.7	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		124	mg/Kg	1	100	124	70 - 130

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Sample: 233017 - N Area #2, W Flr., 10'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70574

Prep Batch: 60437

Analytical Method: S 8015 D

Date Analyzed: 2010-06-02

Sample Preparation: 2010-06-02

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	51.7 - 131.1

Sample: 233018 - N Area #2, S Flr., 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 70573

Prep Batch: 60437

Analytical Method: S 8021B

Date Analyzed: 2010-06-02

Sample Preparation: 2010-06-02

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.79	mg/Kg	1	2.00	90	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	43.1 - 158.4

Sample: 233018 - N Area #2, S Flr., 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70542

Prep Batch: 60418

Analytical Method: S 8015 D

Date Analyzed: 2010-06-01

Sample Preparation: 2010-06-01

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		114	mg/Kg	1	100	114	70 - 130

Sample: 233018 - N Area #2, S Flr., 10'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70574

Prep Batch: 60437

Analytical Method: S 8015 D

Date Analyzed: 2010-06-02

Sample Preparation: 2010-06-02

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	51.7 - 131.1

Method Blank (1) QC Batch: 70519

QC Batch: 70519

Prep Batch: 60388

Date Analyzed: 2010-05-28

QC Preparation: 2010-05-28

Analyzed By: AG

Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.66	mg/Kg	1	2.00	83	43.9 - 141.9

Method Blank (1) QC Batch: 70520

QC Batch: 70520

Prep Batch: 60388

Date Analyzed: 2010-05-28

QC Preparation: 2010-05-28

Analyzed By: AG

Prepared By: AG

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Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.68	mg/Kg	1	2.00	84	62 - 120.5

Method Blank (1) QC Batch: 70542

QC Batch: 70542
Prep Batch: 60418

Date Analyzed: 2010-06-01
QC Preparation: 2010-06-01

Analyzed By: kg
Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		93.9	mg/Kg	1	100	94	70 - 130

Method Blank (1) QC Batch: 70573

QC Batch: 70573
Prep Batch: 60437

Date Analyzed: 2010-06-02
QC Preparation: 2010-06-02

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.83	mg/Kg	1	2.00	92	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.50	mg/Kg	1	2.00	75	43.9 - 141.9

Method Blank (1) QC Batch: 70574

QC Batch: 70574
Prep Batch: 60437

Date Analyzed: 2010-06-02
QC Preparation: 2010-06-02

Analyzed By: AG
Prepared By: AG

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Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 70519
Prep Batch: 60388

Date Analyzed: 2010-05-28
QC Preparation: 2010-05-28

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.83	mg/Kg	1	2.00	<0.00410	92	75.4 - 115.7
Toluene	1.82	mg/Kg	1	2.00	<0.00310	91	78.4 - 113.6
Ethylbenzene	1.79	mg/Kg	1	2.00	<0.00240	90	76 - 114.2
Xylene	5.41	mg/Kg	1	6.00	<0.00650	90	76.9 - 113.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	75.4 - 115.7	3	20
Toluene	1.90	mg/Kg	1	2.00	<0.00310	95	78.4 - 113.6	4	20
Ethylbenzene	1.86	mg/Kg	1	2.00	<0.00240	93	76 - 114.2	4	20
Xylene	5.60	mg/Kg	1	6.00	<0.00650	93	76.9 - 113.6	3	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)	1.89	1.90	mg/Kg	1	2.00	94	95	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.86	1.88	mg/Kg	1	2.00	93	94	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 70520
Prep Batch: 60388

Date Analyzed: 2010-05-28
QC Preparation: 2010-05-28

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.2	mg/Kg	1	20.0	<0.396	76	52.5 - 114.3

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

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.4	mg/Kg	1	20.0	<0.396	77	52.5 - 114.3	1	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)	2.20	1.98	mg/Kg	1	2.00	110	99	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.99	1.79	mg/Kg	1	2.00	100	90	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 70542
Prep Batch: 60418

Date Analyzed: 2010-06-01
QC Preparation: 2010-06-01

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	325	mg/Kg	1	250	<5.86	130	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	310	mg/Kg	1	250	<5.86	124	57.4 - 133.4	5	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-Tricosane	108	121	mg/Kg	1	100	108	121	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 70573
Prep Batch: 60437

Date Analyzed: 2010-06-02
QC Preparation: 2010-06-02

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.83	mg/Kg	1	2.00	<0.00410	92	75.4 - 115.7
Toluene	1.84	mg/Kg	1	2.00	<0.00310	92	78.4 - 113.6
Ethylbenzene	1.80	mg/Kg	1	2.00	<0.00240	90	76 - 114.2
Xylene	5.44	mg/Kg	1	6.00	<0.00650	91	76.9 - 113.6

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

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.90	mg/Kg	1	2.00	<0.00410	95	75.4 - 115.7	4	20
Toluene	1.91	mg/Kg	1	2.00	<0.00310	96	78.4 - 113.6	4	20
Ethylbenzene	1.87	mg/Kg	1	2.00	<0.00240	94	76 - 114.2	4	20
Xylene	5.64	mg/Kg	1	6.00	<0.00650	94	76.9 - 113.6	4	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)	1.86	1.82	mg/Kg	1	2.00	93	91	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.76	1.76	mg/Kg	1	2.00	88	88	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 70574
Prep Batch: 60437

Date Analyzed: 2010-06-02
QC Preparation: 2010-06-02

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.4	mg/Kg	1	20.0	<0.396	77	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.0	mg/Kg	1	20.0	<0.396	80	52.5 - 114.3	4	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)	2.08	1.89	mg/Kg	1	2.00	104	94	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.83	1.66	mg/Kg	1	2.00	92	83	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 233249

QC Batch: 70519
Prep Batch: 60388

Date Analyzed: 2010-05-28
QC Preparation: 2010-05-28

Analyzed By: AG
Prepared By: AG

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.01	mg/Kg	1	2.00	<0.00410	100	57.7 - 140.7
Toluene	2.05	mg/Kg	1	2.00	<0.00310	102	53.4 - 146.6
Ethylbenzene	2.08	mg/Kg	1	2.00	<0.00240	104	62.1 - 141.6
Xylene	6.24	mg/Kg	1	6.00	<0.00650	104	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.97	mg/Kg	1	2.00	<0.00410	98	57.7 - 140.7	2	20
Toluene	2.03	mg/Kg	1	2.00	<0.00310	102	53.4 - 146.6	1	20
Ethylbenzene	2.07	mg/Kg	1	2.00	<0.00240	104	62.1 - 141.6	0	20
Xylene	6.22	mg/Kg	1	6.00	<0.00650	104	61.2 - 142.7	0	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)	1.69	1.94	mg/Kg	1	2	84	97	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.66	1.92	mg/Kg	1	2	83	96	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 233016

QC Batch: 70520
Prep Batch: 60388

Date Analyzed: 2010-05-28
QC Preparation: 2010-05-28

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	20.7	mg/Kg	1	20.0	<0.396	104	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.5	mg/Kg	1	20.0	<0.396	98	10 - 198.3	6	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)	2.02	2.24	mg/Kg	1	2	101	112	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.91	2.11	mg/Kg	1	2	96	106	58.6 - 140

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Matrix Spike (MS-1) Spiked Sample: 233168

QC Batch: 70542
Prep Batch: 60418

Date Analyzed: 2010-06-01
QC Preparation: 2010-06-01

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	320	mg/Kg	1	250	<5.86	128	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	367	mg/Kg	1	250	<5.86	147	35.2 - 167.1	14	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-Tricosane ¹	116	133	mg/Kg	1	100	116	133	70 - 130

Matrix Spike (MS-1) Spiked Sample: 233018

QC Batch: 70573
Prep Batch: 60437

Date Analyzed: 2010-06-02
QC Preparation: 2010-06-02

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.82	mg/Kg	1	2.00	<0.00410	91	57.7 - 140.7
Toluene	1.88	mg/Kg	1	2.00	<0.00310	94	53.4 - 146.6
Ethylbenzene	1.90	mg/Kg	1	2.00	<0.00240	95	62.1 - 141.6
Xylene	5.72	mg/Kg	1	6.00	<0.00650	95	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.86	mg/Kg	1	2.00	<0.00410	93	57.7 - 140.7	2	20
Toluene	1.92	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6	2	20
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	62.1 - 141.6	2	20
Xylene	5.82	mg/Kg	1	6.00	<0.00650	97	61.2 - 142.7	2	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)	1.48	1.54	mg/Kg	1	2	74	77	61.7 - 139.6

continued ...

¹High surrogate recovery due to peak interference.

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matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	1.44	1.48	mg/Kg	1	2	72	74	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 233165

QC Batch: 70574
Prep Batch: 60437

Date Analyzed: 2010-06-02
QC Preparation: 2010-06-02

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	25.1	mg/Kg	1	20.0	5.5866	98	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	26.8	mg/Kg	1	20.0	5.5866	106	10 - 198.3	7	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)	2.28	2.37	mg/Kg	1	2	114	118	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.42	2.38	mg/Kg	1	2	121	119	58.6 - 140

Standard (CCV-1)

QC Batch: 70519

Date Analyzed: 2010-05-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0936	94	80 - 120	2010-05-28
Toluene		mg/Kg	0.100	0.0938	94	80 - 120	2010-05-28
Ethylbenzene		mg/Kg	0.100	0.0926	93	80 - 120	2010-05-28
Xylene		mg/Kg	0.300	0.279	93	80 - 120	2010-05-28

Standard (CCV-2)

QC Batch: 70519

Date Analyzed: 2010-05-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0959	96	80 - 120	2010-05-28

continued ...

Report Date: June 3, 2010
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Bob Durham

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standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/Kg	0.100	0.0973	97	80 - 120	2010-05-28
Ethylbenzene		mg/Kg	0.100	0.0934	93	80 - 120	2010-05-28
Xylene		mg/Kg	0.300	0.280	93	80 - 120	2010-05-28

Standard (CCV-1)

QC Batch: 70520

Date Analyzed: 2010-05-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.924	92	80 - 120	2010-05-28

Standard (CCV-2)

QC Batch: 70520

Date Analyzed: 2010-05-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	80 - 120	2010-05-28

Standard (CCV-1)

QC Batch: 70542

Date Analyzed: 2010-06-01

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	298	119	80 - 120	2010-06-01

Standard (CCV-2)

QC Batch: 70542

Date Analyzed: 2010-06-01

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	300	120	80 - 120	2010-06-01

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Bob Durham

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Standard (CCV-1)

QC Batch: 70573

Date Analyzed: 2010-06-02

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0918	92	80 - 120	2010-06-02
Toluene		mg/Kg	0.100	0.0925	92	80 - 120	2010-06-02
Ethylbenzene		mg/Kg	0.100	0.0910	91	80 - 120	2010-06-02
Xylene		mg/Kg	0.300	0.274	91	80 - 120	2010-06-02

Standard (CCV-2)

QC Batch: 70573

Date Analyzed: 2010-06-02

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0906	91	80 - 120	2010-06-02
Toluene		mg/Kg	0.100	0.0911	91	80 - 120	2010-06-02
Ethylbenzene		mg/Kg	0.100	0.0879	88	80 - 120	2010-06-02
Xylene		mg/Kg	0.300	0.264	88	80 - 120	2010-06-02

Standard (CCV-1)

QC Batch: 70574

Date Analyzed: 2010-06-02

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.949	95	80 - 120	2010-06-02

Standard (CCV-2)

QC Batch: 70574

Date Analyzed: 2010-06-02

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.01	101	80 - 120	2010-06-02

TraceAnalysis, Inc.

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Company Name: **NOVA** Phone #:

Address: (Street, City, Zip) Fax #:

Contact Person: **Ron Rounsaville** E-mail:

Invoice to:

(If different from above) **PLAINS**

Project #:

SRS# TNM LF 2000-7

Project Name:

Bob Durham

Sample Signature:

Project Location (including state):
Lea Co. NM

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		TIME	DATE	Turn Around Time if different from standard	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE				DATE
233011	N. AREA #2, N. Wall, 8'	1	4oz	X											5/27/10	1245	
012	" , W. Wall, 8'	1	"	X												1240	
013	" , E. Wall-1, 8'	1	"	X												1248	
014	" , S. Wall, 8'	1	"	X												1252	
015	" , E. FLR-1, 10'	1	"	X												1257	
016	" , N. FLR, 10'	1	"	X												1300	
017	" , W. FLR, 10'	1	"	X												1303	
018	" , S. FLR, 10'	1	"	X												1306	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
<i>[Signature]</i>	NOVA	5/27/10	1607	<i>[Signature]</i>	NOVA	5/27/10	16:07	INST	OBS	COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR

LAB USE ONLY

REMARKS:

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

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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Carrier #



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Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX **El Paso:** T104704221-08-TX **Midland:** T104704392-08-TX
LELAP-02003
Kansas E-10317
LELAP-02002

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 14, 2010

Work Order: 10060319



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

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
233525	S Exc. N Wall, 10'	soil	2010-06-01	14:20	2010-06-03
233526	S Exc. S Wall, 10'	soil	2010-06-01	13:40	2010-06-03
233529	S Exc. E Wall-1, 10'	soil	2010-06-01	13:30	2010-06-03
233530	S Exc. E Wall-2, 10'	soil	2010-06-01	13:35	2010-06-03

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.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive, slightly slanted style.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2010-06-03 and assigned to work order 10060319. Samples for work order 10060319 were received intact at a temperature of 3.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	60520	2010-06-04 at 07:30	70659	2010-06-04 at 08:58
TPH DRO - NEW	S 8015 D	60469	2010-06-03 at 10:51	70609	2010-06-03 at 10:51
TPH GRO	S 8015 D	60520	2010-06-04 at 07:30	70660	2010-06-04 at 09:26

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10060319 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: June 14, 2010
TNM-LF-2000-07

Work Order: 10060319
Bob Durham

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Analytical Report

Sample: 233525 - S Exc. N Wall, 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 70659

Prep Batch: 60520

Analytical Method: S 8021B

Date Analyzed: 2010-06-04

Sample Preparation: 2010-06-04

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		0.0592	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.93	mg/Kg	1	2.00	96	38.4 - 157

Sample: 233525 - S Exc. N Wall, 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70609

Prep Batch: 60469

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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-Tricosane		126	mg/Kg	1	100	126	70 - 130

Sample: 233525 - S Exc. N Wall, 10'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70660

Prep Batch: 60520

Analytical Method: S 8015 D

Date Analyzed: 2010-06-04

Sample Preparation: 2010-06-04

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

Report Date: June 14, 2010
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Work Order: 10060319
Bob Durham

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sample 233525 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		5.09	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.19	mg/Kg	1	2.00	110	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.02	mg/Kg	1	2.00	101	51.7 - 131.1

Sample: 233526 - S Exc. S Wall, 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 70659

Prep Batch: 60520

Analytical Method: S 8021B

Date Analyzed: 2010-06-04

Sample Preparation: 2010-06-04

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.92	mg/Kg	1	2.00	96	38.4 - 157

Sample: 233526 - S Exc. S Wall, 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70609

Prep Batch: 60469

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	142	mg/Kg	1	100	142	70 - 130

Sample: 233526 - S Exc. S Wall, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70660 Date Analyzed: 2010-06-04 Analyzed By: AG
Prep Batch: 60520 Sample Preparation: 2010-06-04 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.15	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.14	mg/Kg	1	2.00	107	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.96	mg/Kg	1	2.00	98	51.7 - 131.1

Sample: 233529 - S Exc. E Wall-1, 10'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 70659 Date Analyzed: 2010-06-04 Analyzed By: AG
Prep Batch: 60520 Sample Preparation: 2010-06-04 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.74	mg/Kg	1	2.00	87	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.69	mg/Kg	1	2.00	84	38.4 - 157

Sample: 233529 - S Exc. E Wall-1, 10'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 70609 Date Analyzed: 2010-06-03 Analyzed By: kg
Prep Batch: 60469 Sample Preparation: 2010-06-03 Prepared By: kg

¹High surrogate recovery. Sample non-detect, result bias high.

Report Date: June 14, 2010
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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-Tricosane		110	mg/Kg	1	100	110	70 - 130

Sample: 233529 - S Exc. E Wall-1, 10'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70660
Prep Batch: 60520

Analytical Method: S 8015 D
Date Analyzed: 2010-06-04
Sample Preparation: 2010-06-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.18	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	51.7 - 131.1

Sample: 233530 - S ExcC. E Wall-2, 10'

Laboratory: Midland
Analysis: BTEX
QC Batch: 70659
Prep Batch: 60520

Analytical Method: S 8021B
Date Analyzed: 2010-06-04
Sample Preparation: 2010-06-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.64	mg/Kg	1	2.00	82	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.54	mg/Kg	1	2.00	77	38.4 - 157

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Sample: 233530 - S ExcC. E Wall-2, 10'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 70609 Date Analyzed: 2010-06-03 Analyzed By: kg
Prep Batch: 60469 Sample Preparation: 2010-06-03 Prepared By: kg

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-Tricosane		120	mg/Kg	1	100	120	70 - 130

Sample: 233530 - S ExcC. E Wall-2, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70660 Date Analyzed: 2010-06-04 Analyzed By: AG
Prep Batch: 60520 Sample Preparation: 2010-06-04 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.78	mg/Kg	1	2.00	89	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	51.7 - 131.1

Method Blank (1) QC Batch: 70609

QC Batch: 70609 Date Analyzed: 2010-06-03 Analyzed By: kg
Prep Batch: 60469 QC Preparation: 2010-06-03 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		95.4	mg/Kg	1	100	95	70 - 130

Method Blank (1) QC Batch: 70659

QC Batch: 70659
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.78	mg/Kg	1	2.00	89	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	55.4 - 104

Method Blank (1) QC Batch: 70660

QC Batch: 70660
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.67	mg/Kg	1	2.00	84	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 70609
Prep Batch: 60469

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	271	mg/Kg	1	250	<5.86	108	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	270	mg/Kg	1	250	<5.86	108	57.4 - 133.4	0	20

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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-Tricosane	125	106	mg/Kg	1	100	125	106	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 70659
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.86	mg/Kg	1	2.00	<0.0150	93	81.9 - 108
Toluene	1.87	mg/Kg	1	2.00	<0.00950	94	81.9 - 107
Ethylbenzene	1.80	mg/Kg	1	2.00	<0.0106	90	78.4 - 107
Xylene	5.41	mg/Kg	1	6.00	<0.00930	90	79.1 - 107

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.86	mg/Kg	1	2.00	<0.0150	93	81.9 - 108	0	20
Toluene	1.88	mg/Kg	1	2.00	<0.00950	94	81.9 - 107	0	20
Ethylbenzene	1.83	mg/Kg	1	2.00	<0.0106	92	78.4 - 107	2	20
Xylene	5.50	mg/Kg	1	6.00	<0.00930	92	79.1 - 107	2	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)	1.83	1.47	mg/Kg	1	2.00	92	74	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.76	1.43	mg/Kg	1	2.00	88	72	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 70660
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.5	mg/Kg	1	20.0	<0.396	78	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.6	mg/Kg	1	20.0	<0.396	78	52.5 - 114.3	1	20

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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)	1.88	2.02	mg/Kg	1	2.00	94	101	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.73	1.84	mg/Kg	1	2.00	86	92	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 233456

QC Batch: 70609
Prep Batch: 60469

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	300	mg/Kg	1	250	54	98	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	317	mg/Kg	1	250	54	105	35.2 - 167.1	6	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-Tricosane	109	120	mg/Kg	1	100	109	120	70 - 130

Matrix Spike (MS-1) Spiked Sample: 233529

QC Batch: 70659
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.81	mg/Kg	1	2.00	<0.0150	90	80.5 - 112
Toluene	1.87	mg/Kg	1	2.00	<0.00950	94	82.4 - 113
Ethylbenzene	1.87	mg/Kg	1	2.00	<0.0106	94	83.9 - 114
Xylene	5.62	mg/Kg	1	6.00	<0.00930	94	84 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.04	mg/Kg	1	2.00	<0.0150	102	80.5 - 112	12	20
Toluene	2.11	mg/Kg	1	2.00	<0.00950	106	82.4 - 113	12	20
Ethylbenzene	2.12	mg/Kg	1	2.00	<0.0106	106	83.9 - 114	12	20
Xylene	6.38	mg/Kg	1	6.00	<0.00930	106	84 - 114	13	20

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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)	1.10	1.61	mg/Kg	1	2	55	80	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.09	1.54	mg/Kg	1	2	54	77	35.5 - 129

Matrix Spike (MS-1) Spiked Sample: 233530

QC Batch: 70660
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.7	mg/Kg	1	20.0	<0.396	94	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.7	mg/Kg	1	20.0	<0.396	88	10 - 198.3	6	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)	1.95	1.78	mg/Kg	1	2	98	89	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.91	1.74	mg/Kg	1	2	96	87	58.6 - 140

Standard (CCV-2)

QC Batch: 70609

Date Analyzed: 2010-06-03

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	292	117	80 - 120	2010-06-03

Standard (CCV-3)

QC Batch: 70609

Date Analyzed: 2010-06-03

Analyzed By: kg

²Surrogate out due to peak interference.

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	80 - 120	2010-06-03

Standard (CCV-4)

QC Batch: 70609 Date Analyzed: 2010-06-03 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	290	116	80 - 120	2010-06-03

Standard (CCV-1)

QC Batch: 70659 Date Analyzed: 2010-06-04 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0958	96	80 - 120	2010-06-04
Toluene		mg/Kg	0.100	0.0967	97	80 - 120	2010-06-04
Ethylbenzene		mg/Kg	0.100	0.0910	91	80 - 120	2010-06-04
Xylene		mg/Kg	0.300	0.276	92	80 - 120	2010-06-04

Standard (CCV-2)

QC Batch: 70659 Date Analyzed: 2010-06-04 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0951	95	80 - 120	2010-06-04
Toluene		mg/Kg	0.100	0.0965	96	80 - 120	2010-06-04
Ethylbenzene		mg/Kg	0.100	0.0935	94	80 - 120	2010-06-04
Xylene		mg/Kg	0.300	0.280	93	80 - 120	2010-06-04

Standard (CCV-3)

QC Batch: 70659 Date Analyzed: 2010-06-04 Analyzed By: AG

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0963	96	80 - 120	2010-06-04
Toluene		mg/Kg	0.100	0.0982	98	80 - 120	2010-06-04
Ethylbenzene		mg/Kg	0.100	0.0943	94	80 - 120	2010-06-04
Xylene		mg/Kg	0.300	0.283	94	80 - 120	2010-06-04

Standard (CCV-1)

QC Batch: 70660

Date Analyzed: 2010-06-04

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.975	98	80 - 120	2010-06-04

Standard (CCV-2)

QC Batch: 70660

Date Analyzed: 2010-06-04

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.976	98	80 - 120	2010-06-04

Standard (CCV-3)

QC Batch: 70660

Date Analyzed: 2010-06-04

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.953	95	80 - 120	2010-06-04



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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 7, 2010

Work Order: 10060318



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

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
233524	N Exc. SE Wall, 8'	soil	2010-06-02	14:30	2010-06-03

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 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2010-06-03 and assigned to work order 10060318. Samples for work order 10060318 were received intact at a temperature of 3.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	60520	2010-06-04 at 07:30	70659	2010-06-04 at 08:58
TPH DRO - NEW	S 8015 D	60469	2010-06-03 at 10:51	70609	2010-06-03 at 10:51
TPH GRO	S 8015 D	60520	2010-06-04 at 07:30	70660	2010-06-04 at 09:26

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10060318 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 233524 - N Exc. SE Wall, 8'

Laboratory: Midland

Analysis: BTEX

QC Batch: 70659

Prep Batch: 60520

Analytical Method: S 8021B

Date Analyzed: 2010-06-04

Sample Preparation: 2010-06-04

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.0893	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.42	mg/Kg	1	2.00	71	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.37	mg/Kg	1	2.00	68	43.1 - 158.4

Sample: 233524 - N Exc. SE Wall, 8'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70609

Prep Batch: 60469

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		84.7	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	1	168	mg/Kg	1	100	168	70 - 130

Sample: 233524 - N Exc. SE Wall, 8'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70660

Prep Batch: 60520

Analytical Method: S 8015 D

Date Analyzed: 2010-06-04

Sample Preparation: 2010-06-04

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

¹ High surrogate recovery due to peak interference.

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sample 233524 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		26.2	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.51	mg/Kg	1	2.00	76	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.73	mg/Kg	1	2.00	86	51.7 - 131.1

Method Blank (1) QC Batch: 70609

QC Batch: 70609 Date Analyzed: 2010-06-03 Analyzed By: kg
Prep Batch: 60469 QC Preparation: 2010-06-03 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		95.4	mg/Kg	1	100	95	70 - 130

Method Blank (1) QC Batch: 70659

QC Batch: 70659 Date Analyzed: 2010-06-04 Analyzed By: AG
Prep Batch: 60520 QC Preparation: 2010-06-04 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.78	mg/Kg	1	2.00	89	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	43.9 - 141.9

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Method Blank (1) QC Batch: 70660

QC Batch: 70660
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.67	mg/Kg	1	2.00	84	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 70609
Prep Batch: 60469

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	271	mg/Kg	1	250	<5.86	108	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	270	mg/Kg	1	250	<5.86	108	57.4 - 133.4	0	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-Tricosane	125	106	mg/Kg	1	100	125	106	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 70659
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.86	mg/Kg	1	2.00	<0.00410	93	75.4 - 115.7
Toluene	1.87	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6
Ethylbenzene	1.80	mg/Kg	1	2.00	<0.00240	90	76 - 114.2
Xylene	5.41	mg/Kg	1	6.00	<0.00650	90	76.9 - 113.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.86	mg/Kg	1	2.00	<0.00410	93	75.4 - 115.7	0	20
Toluene	1.88	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6	0	20
Ethylbenzene	1.83	mg/Kg	1	2.00	<0.00240	92	76 - 114.2	2	20
Xylene	5.50	mg/Kg	1	6.00	<0.00650	92	76.9 - 113.6	2	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)	1.83	1.47	mg/Kg	1	2.00	92	74	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.76	1.43	mg/Kg	1	2.00	88	72	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 70660
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.5	mg/Kg	1	20.0	<0.396	78	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.6	mg/Kg	1	20.0	<0.396	78	52.5 - 114.3	1	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)	1.88	2.02	mg/Kg	1	2.00	94	101	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.73	1.84	mg/Kg	1	2.00	86	92	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 233456

QC Batch: 70609
Prep Batch: 60469

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	300	mg/Kg	1	250	54	98	35.2 - 167.1

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

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Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	317	mg/Kg	1	250	54	105	35.2 - 167.1	6	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-Tricosane	109	120	mg/Kg	1	100	109	120	70 - 130

Matrix Spike (MS-1) Spiked Sample: 233529

QC Batch: 70659
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.81	mg/Kg	1	2.00	<0.00410	90	57.7 - 140.7
Toluene	1.87	mg/Kg	1	2.00	<0.00310	94	53.4 - 146.6
Ethylbenzene	1.87	mg/Kg	1	2.00	<0.00240	94	62.1 - 141.6
Xylene	5.62	mg/Kg	1	6.00	<0.00650	94	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.04	mg/Kg	1	2.00	<0.00410	102	57.7 - 140.7	12	20
Toluene	2.11	mg/Kg	1	2.00	<0.00310	106	53.4 - 146.6	12	20
Ethylbenzene	2.12	mg/Kg	1	2.00	<0.00240	106	62.1 - 141.6	12	20
Xylene	6.38	mg/Kg	1	6.00	<0.00650	106	61.2 - 142.7	13	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)	² 1.10	1.61	mg/Kg	1	2	55	80	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.09	1.54	mg/Kg	1	2	54	77	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 233530

QC Batch: 70660
Prep Batch: 60520

Date Analyzed: 2010-06-04
QC Preparation: 2010-06-04

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.7	mg/Kg	1	20.0	<0.396	94	10 - 198.3

²Surrogate out due to peak interference.

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.7	mg/Kg	1	20.0	<0.396	88	10 - 198.3	6	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)	1.95	1.78	mg/Kg	1	2	98	89	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.91	1.74	mg/Kg	1	2	96	87	58.6 - 140

Standard (CCV-2)

QC Batch: 70609

Date Analyzed: 2010-06-03

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	292	117	80 - 120	2010-06-03

Standard (CCV-3)

QC Batch: 70609

Date Analyzed: 2010-06-03

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	80 - 120	2010-06-03

Standard (CCV-1)

QC Batch: 70659

Date Analyzed: 2010-06-04

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0958	96	80 - 120	2010-06-04
Toluene		mg/Kg	0.100	0.0967	97	80 - 120	2010-06-04
Ethylbenzene		mg/Kg	0.100	0.0910	91	80 - 120	2010-06-04
Xylene		mg/Kg	0.300	0.276	92	80 - 120	2010-06-04

Standard (CCV-2)

QC Batch: 70659

Date Analyzed: 2010-06-04

Analyzed By: AG

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0951	95	80 - 120	2010-06-04
Toluene		mg/Kg	0.100	0.0965	96	80 - 120	2010-06-04
Ethylbenzene		mg/Kg	0.100	0.0935	94	80 - 120	2010-06-04
Xylene		mg/Kg	0.300	0.280	93	80 - 120	2010-06-04

Standard (CCV-1)

QC Batch: 70660

Date Analyzed: 2010-06-04

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.975	98	80 - 120	2010-06-04

Standard (CCV-2)

QC Batch: 70660

Date Analyzed: 2010-06-04

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.976	98	80 - 120	2010-06-04

TraceAnalysis, Inc.

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Company Name:	NOVA	Phone #:	
Address:	(Street, City, Zip)	Fax #:	
Contact Person:	Ron Rounsaville	E-mail:	
Invoice to:		Project Name:	
(If different from above)	PLAINS		Bob Durham
Project #:	TNM LF 2000-7	Sampler Signature:	<i>Ronald Rounsaville</i>
Project Location (including state):	newmont, NM		

ANALYSIS REQUEST

(Circle or Specify Method No.)

[illegible]

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST
<i>[Signature]</i>	NAVA	6/3/16	0955	<i>[Signature]</i>	TSCC	6/3/16	9:35	OBS COR
<i>[Signature]</i>				<i>[Signature]</i>				OBS COR

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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Certifications

WBENC: 237019 HUB: 1752439743100-86536 DBE: VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX El Paso: T104704221-08-TX Midland: T104704392-08-TX
LELAP-02003 LELAP-02002
Kansas E-10317

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 7, 2010

Work Order: 10060308



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

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
233450	Soil Stockpile SS-1	soil	2010-06-02	14:44	2010-06-03
233451	Soil Stockpile SS-2	soil	2010-06-02	14:50	2010-06-03
233452	Soil Stockpile SS-3	soil	2010-06-02	14:55	2010-06-03
233453	Soil Stockpile SS-4	soil	2010-06-02	15:00	2010-06-03
233454	Soil Stockpile SS-5	soil	2010-06-02	15:05	2010-06-03
233455	Soil Stockpile SS-6	soil	2010-06-02	15:10	2010-06-03
233456	Soil Stockpile SS-7	soil	2010-06-02	15:15	2010-06-03
233457	Soil Stockpile SS-8	soil	2010-06-02	15:20	2010-06-03
233458	Soil Stockpile SS-9	soil	2010-06-02	15:25	2010-06-03
233459	Soil Stockpile SS-10	soil	2010-06-02	15:30	2010-06-03

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
233460	Soil Stockpile SS-11	soil	2010-06-02	15:35	2010-06-03
233461	Soil Stockpile SS-12	soil	2010-06-02	15:40	2010-06-03
233462	Soil Stockpile SS-13	soil	2010-06-02	15:45	2010-06-03
233463	Soil Stockpile SS-14	soil	2010-06-02	15:50	2010-06-03

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 26 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2010-06-03 and assigned to work order 10060308. Samples for work order 10060308 were received intact at a temperature of 3.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	60485	2010-06-03 at 10:30	70618	2010-06-03 at 12:09
TPH DRO - NEW	S 8015 D	60469	2010-06-03 at 10:51	70609	2010-06-03 at 10:51
TPH GRO	S 8015 D	60485	2010-06-03 at 10:30	70619	2010-06-03 at 12:37

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10060308 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

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Analytical Report

Sample: 233450 - Soil Stockpile SS-1

Laboratory: Midland

Analysis: BTEX

QC Batch: 70618

Prep Batch: 60485

Analytical Method: S 8021B

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.0943	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.52	mg/Kg	1	2.00	76	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	43.1 - 158.4

Sample: 233450 - Soil Stockpile SS-1

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70609

Prep Batch: 60469

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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-Tricosane		95.9	mg/Kg	1	100	96	70 - 130

Sample: 233450 - Soil Stockpile SS-1

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70619

Prep Batch: 60485

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

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sample 233450 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		45.2	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.60	mg/Kg	1	2.00	80	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.65	mg/Kg	1	2.00	82	51.7 - 131.1

Sample: 233451 - Soil Stockpile SS-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 70618
Prep Batch: 60485

Analytical Method: S 8021B
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.66	mg/Kg	1	2.00	83	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	43.1 - 158.4

Sample: 233451 - Soil Stockpile SS-2

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70609
Prep Batch: 60469

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		116	mg/Kg	1	100	116	70 - 130

Sample: 233451 - Soil Stockpile SS-2

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70619
Prep Batch: 60485

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		4.54	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.77	mg/Kg	1	2.00	88	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	51.7 - 131.1

Sample: 233452 - Soil Stockpile SS-3

Laboratory: Midland
Analysis: BTEX
QC Batch: 70618
Prep Batch: 60485

Analytical Method: S 8021B
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	43.1 - 158.4

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Sample: 233452 - Soil Stockpile SS-3

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70609
Prep Batch: 60469

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

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-Tricosane		110	mg/Kg	1	100	110	70 - 130

Sample: 233452 - Soil Stockpile SS-3

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70619
Prep Batch: 60485

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.88	mg/Kg	1	2.00	94	51.7 - 131.1

Sample: 233453 - Soil Stockpile SS-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 70618
Prep Batch: 60485

Analytical Method: S 8021B
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.21	mg/Kg	1	2.00	60	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.15	mg/Kg	1	2.00	58	43.1 - 158.4

Sample: 233453 - Soil Stockpile SS-4

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70609
Prep Batch: 60469

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

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-Tricosane		105	mg/Kg	1	100	105	70 - 130

Sample: 233453 - Soil Stockpile SS-4

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70619
Prep Batch: 60485

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.27	mg/Kg	1	2.00	64	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.16	mg/Kg	1	2.00	58	51.7 - 131.1

Sample: 233454 - Soil Stockpile SS-5

Laboratory: Midland
Analysis: BTEX
QC Batch: 70618
Prep Batch: 60485

Analytical Method: S 8021B
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.85	mg/Kg	1	2.00	92	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.75	mg/Kg	1	2.00	88	43.1 - 158.4

Sample: 233454 - Soil Stockpile SS-5

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70609
Prep Batch: 60469

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

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-Tricosane		122	mg/Kg	1	100	122	70 - 130

Sample: 233454 - Soil Stockpile SS-5

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70619
Prep Batch: 60485

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.35	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.76	mg/Kg	1	2.00	88	51.7 - 131.1

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Sample: 233455 - Soil Stockpile SS-6

Laboratory: Midland
Analysis: BTEX
QC Batch: 70618
Prep Batch: 60485

Analytical Method: S 8021B
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.08	mg/Kg	1	2.00	104	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.99	mg/Kg	1	2.00	100	43.1 - 158.4

Sample: 233455 - Soil Stockpile SS-6

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70609
Prep Batch: 60469

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

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-Tricosane		128	mg/Kg	1	100	128	70 - 130

Sample: 233455 - Soil Stockpile SS-6

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70619
Prep Batch: 60485

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		9.30	mg/Kg	1	1.00

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.23	mg/Kg	1	2.00	112	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.02	mg/Kg	1	2.00	101	51.7 - 131.1

Sample: 233456 - Soil Stockpile SS-7

Laboratory: Midland

Analysis: BTEX

QC Batch: 70618

Prep Batch: 60485

Analytical Method: S 8021B

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.79	mg/Kg	1	2.00	90	43.1 - 158.4

Sample: 233456 - Soil Stockpile SS-7

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70609

Prep Batch: 60469

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		54.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		111	mg/Kg	1	100	111	70 - 130

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Sample: 233456 - Soil Stockpile SS-7

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70619 Date Analyzed: 2010-06-03 Analyzed By: AG
Prep Batch: 60485 Sample Preparation: 2010-06-03 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		15.1	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.99	mg/Kg	1	2.00	100	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.95	mg/Kg	1	2.00	98	51.7 - 131.1

Sample: 233457 - Soil Stockpile SS-8

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 70618 Date Analyzed: 2010-06-03 Analyzed By: AG
Prep Batch: 60485 Sample Preparation: 2010-06-03 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.129	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.16	mg/Kg	1	2.00	108	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.35	mg/Kg	1	2.00	118	43.1 - 158.4

Sample: 233457 - Soil Stockpile SS-8

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 70609 Date Analyzed: 2010-06-03 Analyzed By: kg
Prep Batch: 60469 Sample Preparation: 2010-06-03 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		122	mg/Kg	1	50.0

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	1	132	mg/Kg	1	100	132	70 - 130

Sample: 233457 - Soil Stockpile SS-8

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70619

Prep Batch: 60485

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		116	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.29	mg/Kg	1	2.00	114	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.45	mg/Kg	1	2.00	122	51.7 - 131.1

Sample: 233458 - Soil Stockpile SS-9

Laboratory: Midland

Analysis: BTEX

QC Batch: 70618

Prep Batch: 60485

Analytical Method: S 8021B

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.0547	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.81	mg/Kg	1	2.00	90	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.88	mg/Kg	1	2.00	94	43.1 - 158.4

Sample: 233458 - Soil Stockpile SS-9

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70609

Prep Batch: 60469

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

¹High surrogate recovery due to peak interference.

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Parameter	Flag	RL Result	Units	Dilution	RL
DRO		52.4	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		121	mg/Kg	1	100	121	70 - 130

Sample: 233458 - Soil Stockpile SS-9

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70619
Prep Batch: 60485

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		94.3	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.91	mg/Kg	1	2.00	96	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.01	mg/Kg	1	2.00	100	51.7 - 131.1

Sample: 233459 - Soil Stockpile SS-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 70618
Prep Batch: 60485

Analytical Method: S 8021B
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		0.0577	mg/Kg	1	0.0100
Xylene		0.137	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	²	1.12	mg/Kg	1	2.00	56	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	43.1 - 158.4

²SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB is within control limits and shows the method to be in control. •

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Sample: 233459 - Soil Stockpile SS-10

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 70609 Date Analyzed: 2010-06-03 Analyzed By: kg
Prep Batch: 60469 Sample Preparation: 2010-06-03 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		149	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	³	138	mg/Kg	1	100	138	70 - 130

Sample: 233459 - Soil Stockpile SS-10

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70619 Date Analyzed: 2010-06-03 Analyzed By: AG
Prep Batch: 60485 Sample Preparation: 2010-06-03 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		202	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.18	mg/Kg	1	2.00	59	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	51.7 - 131.1

Sample: 233460 - Soil Stockpile SS-11

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 70618 Date Analyzed: 2010-06-03 Analyzed By: AG
Prep Batch: 60485 Sample Preparation: 2010-06-03 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0966	mg/Kg	1	0.0100
Ethylbenzene		0.0777	mg/Kg	1	0.0100
Xylene		0.308	mg/Kg	1	0.0100

³High surrogate recovery due to peak interference.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.72	mg/Kg	1	2.00	86	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.64	mg/Kg	1	2.00	132	43.1 - 158.4

Sample: 233460 - Soil Stockpile SS-11

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 70609 Date Analyzed: 2010-06-03 Analyzed By: kg
Prep Batch: 60469 Sample Preparation: 2010-06-03 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		200	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁴	146	mg/Kg	1	100	146	70 - 130

Sample: 233460 - Soil Stockpile SS-11

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70619 Date Analyzed: 2010-06-03 Analyzed By: AG
Prep Batch: 60485 Sample Preparation: 2010-06-03 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		262	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.82	mg/Kg	1	2.00	91	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.60	mg/Kg	1	2.00	130	51.7 - 131.1

Sample: 233461 - Soil Stockpile SS-12

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 70618 Date Analyzed: 2010-06-03 Analyzed By: AG
Prep Batch: 60485 Sample Preparation: 2010-06-03 Prepared By: AG

⁴High surrogate recovery due to peak interference.

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		0.0419	mg/Kg	1	0.0100
Xylene		0.138	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.46	mg/Kg	1	2.00	73	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.95	mg/Kg	1	2.00	98	43.1 - 158.4

Sample: 233461 - Soil Stockpile SS-12

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70609

Prep Batch: 60469

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		193	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁵	153	mg/Kg	1	100	153	70 - 130

Sample: 233461 - Soil Stockpile SS-12

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70619

Prep Batch: 60485

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		178	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.52	mg/Kg	1	2.00	76	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	51.7 - 131.1

⁵High surrogate recovery due to peak interference.

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Sample: 233462 - Soil Stockpile SS-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 70618
Prep Batch: 60485

Analytical Method: S 8021B
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.102	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.32	mg/Kg	1	2.00	116	43.1 - 158.4

Sample: 233462 - Soil Stockpile SS-13

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70609
Prep Batch: 60469

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		132	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁶	142	mg/Kg	1	100	142	70 - 130

Sample: 233462 - Soil Stockpile SS-13

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70619
Prep Batch: 60485

Analytical Method: S 8015 D
Date Analyzed: 2010-06-03
Sample Preparation: 2010-06-03

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		164	mg/Kg	1	1.00

⁶High surrogate recovery due to peak interference.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.42	mg/Kg	1	2.00	121	51.7 - 131.1

Sample: 233463 - Soil Stockpile SS-14

Laboratory: Midland

Analysis: BTEX

QC Batch: 70618

Prep Batch: 60485

Analytical Method: S 8021B

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.34	mg/Kg	1	2.00	67	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.31	mg/Kg	1	2.00	66	43.1 - 158.4

Sample: 233463 - Soil Stockpile SS-14

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 70609

Prep Batch: 60469

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		52.5	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	7	141	mg/Kg	1	100	141	70 - 130

Sample: 233463 - Soil Stockpile SS-14

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70619

Prep Batch: 60485

Analytical Method: S 8015 D

Date Analyzed: 2010-06-03

Sample Preparation: 2010-06-03

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

⁷High surrogate recovery due to peak interference.

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Parameter	Flag	RL Result	Units	Dilution	RL
GRO		15.3	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.43	mg/Kg	1	2.00	72	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.22	mg/Kg	1	2.00	61	51.7 - 131.1

Method Blank (1) QC Batch: 70609

QC Batch: 70609
Prep Batch: 60469

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: kg
Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		95.4	mg/Kg	1	100	95	70 - 130

Method Blank (1) QC Batch: 70618

QC Batch: 70618
Prep Batch: 60485

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	43.9 - 141.9

Method Blank (1) QC Batch: 70619

QC Batch: 70619
Prep Batch: 60485

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: AG
Prepared By: AG

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Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.14	mg/Kg	1	2.00	107	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.85	mg/Kg	1	2.00	92	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 70609
Prep Batch: 60469

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	271	mg/Kg	1	250	<5.86	108	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	270	mg/Kg	1	250	<5.86	108	57.4 - 133.4	0	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-Tricosane	125	106	mg/Kg	1	100	125	106	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 70618
Prep Batch: 60485

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.82	mg/Kg	1	2.00	<0.00410	91	75.4 - 115.7
Toluene	1.82	mg/Kg	1	2.00	<0.00310	91	78.4 - 113.6
Ethylbenzene	1.77	mg/Kg	1	2.00	<0.00240	88	76 - 114.2
Xylene	5.32	mg/Kg	1	6.00	<0.00650	89	76.9 - 113.6

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

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control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.82	mg/Kg	1	2.00	<0.00410	91	75.4 - 115.7	0	20
Toluene	1.83	mg/Kg	1	2.00	<0.00310	92	78.4 - 113.6	0	20
Ethylbenzene	1.78	mg/Kg	1	2.00	<0.00240	89	76 - 114.2	1	20
Xylene	5.34	mg/Kg	1	6.00	<0.00650	89	76.9 - 113.6	0	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)	1.72	1.66	mg/Kg	1	2.00	86	83	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.69	1.60	mg/Kg	1	2.00	84	80	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 70619
Prep Batch: 60485

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.0	mg/Kg	1	20.0	<0.396	80	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.2	mg/Kg	1	20.0	<0.396	81	52.5 - 114.3	1	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)	1.80	1.99	mg/Kg	1	2.00	90	100	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.62	1.79	mg/Kg	1	2.00	81	90	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 233456

QC Batch: 70609
Prep Batch: 60469

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: kg
Prepared By: kg

continued ...

Report Date: June 7, 2010
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Work Order: 10060308
Bob Durham

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matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	300	mg/Kg	1	250	54	98	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	317	mg/Kg	1	250	54	105	35.2 - 167.1	6	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-Tricosane	109	120	mg/Kg	1	100	109	120	70 - 130

Matrix Spike (MS-1) Spiked Sample: 233463

QC Batch: 70618
Prep Batch: 60485

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.93	mg/Kg	1	2.00	<0.00410	96	57.7 - 140.7
Toluene	1.98	mg/Kg	1	2.00	<0.00310	99	53.4 - 146.6
Ethylbenzene	1.97	mg/Kg	1	2.00	<0.00240	98	62.1 - 141.6
Xylene	5.94	mg/Kg	1	6.00	<0.00650	99	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.82	mg/Kg	1	2.00	<0.00410	91	57.7 - 140.7	6	20
Toluene	1.86	mg/Kg	1	2.00	<0.00310	93	53.4 - 146.6	6	20
Ethylbenzene	1.86	mg/Kg	1	2.00	<0.00240	93	62.1 - 141.6	6	20
Xylene	5.60	mg/Kg	1	6.00	<0.00650	93	61.2 - 142.7	6	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)	1.78	1.42	mg/Kg	1	2	89	71	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.72	1.42	mg/Kg	1	2	86	71	49.6 - 146.7

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Work Order: 10060308
Bob Durham

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Matrix Spike (MS-1) Spiked Sample: 233169

QC Batch: 70619
Prep Batch: 60485

Date Analyzed: 2010-06-03
QC Preparation: 2010-06-03

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.3	mg/Kg	1	20.0	<0.396	86	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.5	mg/Kg	1	20.0	<0.396	98	10 - 198.3	12	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)	1.61	1.31	mg/Kg	1	2	80	66	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.59	1.32	mg/Kg	1	2	80	66	58.6 - 140

Standard (CCV-1)

QC Batch: 70609

Date Analyzed: 2010-06-03

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	296	118	80 - 120	2010-06-03

Standard (CCV-2)

QC Batch: 70609

Date Analyzed: 2010-06-03

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	292	117	80 - 120	2010-06-03

Standard (CCV-3)

QC Batch: 70609

Date Analyzed: 2010-06-03

Analyzed By: kg

Report Date: June 7, 2010
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Bob Durham

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	80 - 120	2010-06-03

Standard (CCV-1)

QC Batch: 70618

Date Analyzed: 2010-06-03

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0858	86	80 - 120	2010-06-03
Toluene		mg/Kg	0.100	0.0867	87	80 - 120	2010-06-03
Ethylbenzene		mg/Kg	0.100	0.0834	83	80 - 120	2010-06-03
Xylene		mg/Kg	0.300	0.250	83	80 - 120	2010-06-03

Standard (CCV-2)

QC Batch: 70618

Date Analyzed: 2010-06-03

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0891	89	80 - 120	2010-06-03
Toluene		mg/Kg	0.100	0.0896	90	80 - 120	2010-06-03
Ethylbenzene		mg/Kg	0.100	0.0866	87	80 - 120	2010-06-03
Xylene		mg/Kg	0.300	0.259	86	80 - 120	2010-06-03

Standard (CCV-3)

QC Batch: 70618

Date Analyzed: 2010-06-03

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0893	89	80 - 120	2010-06-03
Toluene		mg/Kg	0.100	0.0893	89	80 - 120	2010-06-03
Ethylbenzene		mg/Kg	0.100	0.0853	85	80 - 120	2010-06-03
Xylene		mg/Kg	0.300	0.255	85	80 - 120	2010-06-03

Standard (CCV-1)

QC Batch: 70619

Date Analyzed: 2010-06-03

Analyzed By: AG

Report Date: June 7, 2010
TNM-LF-2000-07

Work Order: 10060308
Bob Durham

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.03	103	80 - 120	2010-06-03

Standard (CCV-2)

QC Batch: 70619

Date Analyzed: 2010-06-03

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.856	86	80 - 120	2010-06-03

Standard (CCV-3)

QC Batch: 70619

Date Analyzed: 2010-06-03

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.980	98	80 - 120	2010-06-03



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NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 15, 2010

Work Order: 10061102



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

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
234252	N Exc. SE Wall-2, 8'	soil	2010-06-10	14:45	2010-06-10

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.

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
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2010-06-10 and assigned to work order 10061102. Samples for work order 10061102 were received intact at a temperature of 2.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
TPH DRO - NEW	S 8015 D	60682	2010-06-11 at 10:21	70850	2010-06-11 at 10:21
TPH GRO	S 8015 D	60727	2010-06-14 at 10:00	70886	2010-06-14 at 10:33

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10061102 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: June 15, 2010
TNM-LF-2000-07

Work Order: 10061102
Bob Durham

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Analytical Report

Sample: 234252 - N Exc. SE Wall-2, 8'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 70850
Prep Batch: 60682

Analytical Method: S 8015 D
Date Analyzed: 2010-06-11
Sample Preparation: 2010-06-11

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

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-Tricosane		98.8	mg/Kg	1	100	99	70 - 130

Sample: 234252 - N Exc. SE Wall-2, 8'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70886
Prep Batch: 60727

Analytical Method: S 8015 D
Date Analyzed: 2010-06-14
Sample Preparation: 2010-06-14

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.20	mg/Kg	1	2.00	110	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.89	mg/Kg	1	2.00	94	42 - 159

Method Blank (1) QC Batch: 70850

QC Batch: 70850
Prep Batch: 60682

Date Analyzed: 2010-06-11
QC Preparation: 2010-06-11

Analyzed By: kg
Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.5	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		92.9	mg/Kg	1	100	93	70 - 130

Report Date: June 15, 2010
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Work Order: 10061102
Bob Durham

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Method Blank (1) QC Batch: 70886

QC Batch: 70886
Prep Batch: 60727

Date Analyzed: 2010-06-14
QC Preparation: 2010-06-14

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.31	mg/Kg	1	2.00	116	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.68	mg/Kg	1	2.00	84	52.4 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 70850
Prep Batch: 60682

Date Analyzed: 2010-06-11
QC Preparation: 2010-06-11

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	220	mg/Kg	1	250	<14.5	88	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	215	mg/Kg	1	250	<14.5	86	57.4 - 133.4	2	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-Tricosane	100	99.8	mg/Kg	1	100	100	100	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 70886
Prep Batch: 60727

Date Analyzed: 2010-06-14
QC Preparation: 2010-06-14

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.2	mg/Kg	1	20.0	<1.65	71	69.9 - 95.4

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

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Bob Durham

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Monument, Lea County, NM

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	14.5	mg/Kg	1	20.0	<1.65	72	69.9 - 95.4	2	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)	1.93	1.73	mg/Kg	1	2.00	96	86	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.59	1.44	mg/Kg	1	2.00	80	72	68.2 - 132

Matrix Spike (MS-1) Spiked Sample: 234252

QC Batch: 70850
Prep Batch: 60682

Date Analyzed: 2010-06-11
QC Preparation: 2010-06-11

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	192	mg/Kg	1	250	15.6	70	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	205	mg/Kg	1	250	15.6	76	35.2 - 167.1	6	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-Tricosane	94.0	96.3	mg/Kg	1	100	94	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 234389

QC Batch: 70886
Prep Batch: 60727

Date Analyzed: 2010-06-14
QC Preparation: 2010-06-14

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.3	mg/Kg	1	20.0	<1.65	76	61.8 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.5	mg/Kg	1	20.0	<1.65	78	61.8 - 114	1	20

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

Report Date: June 15, 2010
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Work Order: 10061102
Bob Durham

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Monument, Lea County, NM

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.19	1.59	mg/Kg	1	2	110	80	50 - 162
4-Bromofluorobenzene (4-BFB)	1.95	1.47	mg/Kg	1	2	98	74	50 - 162

Standard (CCV-1)

QC Batch: 70850

Date Analyzed: 2010-06-11

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	260	104	80 - 120	2010-06-11

Standard (CCV-2)

QC Batch: 70850

Date Analyzed: 2010-06-11

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	204	82	80 - 120	2010-06-11

Standard (CCV-1)

QC Batch: 70886

Date Analyzed: 2010-06-14

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.912	91	80 - 120	2010-06-14

Standard (CCV-2)

QC Batch: 70886

Date Analyzed: 2010-06-14

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.946	95	80 - 120	2010-06-14



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Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX **El Paso:** T104704221-08-TX **Midland:** T104704392-08-TX
LELAP-02003 LELAP-02002
Kansas E-10317

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 17, 2010

Work Order: 10061527



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

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
234657	S Exc. N Cent. Wall, 12'	soil	2010-06-14	17:00	2010-06-15
234658	S Exc. W Cent. Wall, 12'	soil	2010-06-14	17:05	2010-06-15
234659	S Exc. NW Cor. Wall, 12'	soil	2010-06-14	17:10	2010-06-15
234660	S Exc. SW Wall, 12'	soil	2010-06-14	17:15	2010-06-15
234661	S Exc. SE Wall, 12'	soil	2010-06-14	17:20	2010-06-15

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 15 pages and shall not be reproduced except in its entirety, without written approval of

TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive, flowing style.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2010-06-15 and assigned to work order 10061527. Samples for work order 10061527 were received intact at a temperature of 2.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	60780	2010-06-16 at 09:30	70950	2010-06-16 at 11:33
TPH DRO - NEW	S 8015 D	60799	2010-06-17 at 15:00	70973	2010-06-17 at 13:00
TPH GRO	S 8015 D	60780	2010-06-16 at 09:30	70952	2010-06-16 at 12:01

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10061527 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: June 17, 2010
TNM-LF-2000-07

Work Order: 10061527
Bob Durham

Page Number: 4 of 15
Monument, Lea County, NM

Analytical Report

Sample: 234657 - S Exc. N Cent. Wall, 12'

Laboratory: Midland

Analysis: BTEX

QC Batch: 70950

Prep Batch: 60780

Analytical Method: S 8021B

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.71	mg/Kg	1	2.00	86	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	38.4 - 157

Sample: 234657 - S Exc. N Cent. Wall, 12'

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 70973

Prep Batch: 60799

Analytical Method: S 8015 D

Date Analyzed: 2010-06-17

Sample Preparation: 2010-06-17

Prep Method: N/A

Analyzed By: AW

Prepared By: AW

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-Tricosane		95.7	mg/Kg	1	100	96	55.5 - 151

Sample: 234657 - S Exc. N Cent. Wall, 12'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70952

Prep Batch: 60780

Analytical Method: S 8015 D

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

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sample 234657 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.99	mg/Kg	1	2.00	100	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.69	mg/Kg	1	2.00	84	42 - 159

Sample: 234658 - S Exc. W Cent. Wall, 12'

Laboratory: Midland

Analysis: BTEX

QC Batch: 70950

Prep Batch: 60780

Analytical Method: S 8021B

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	38.4 - 157

Sample: 234658 - S Exc. W Cent. Wall, 12'

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 70973

Prep Batch: 60799

Analytical Method: S 8015 D

Date Analyzed: 2010-06-17

Sample Preparation: 2010-06-17

Prep Method: N/A

Analyzed By: AW

Prepared By: AW

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		167	mg/Kg	1	50.0

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		132	mg/Kg	1	100	132	55.5 - 151

Sample: 234658 - S Exc. W Cent. Wall, 12'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70952
Prep Batch: 60780

Analytical Method: S 8015 D
Date Analyzed: 2010-06-16
Sample Preparation: 2010-06-16

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

		RL			
Parameter	Flag	Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.37	mg/Kg	1	2.00	118	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.02	mg/Kg	1	2.00	101	42 - 159

Sample: 234659 - S Exc. NW Cor. Wall, 12'

Laboratory: Midland
Analysis: BTEX
QC Batch: 70950
Prep Batch: 60780

Analytical Method: S 8021B
Date Analyzed: 2010-06-16
Sample Preparation: 2010-06-16

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

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.84	mg/Kg	1	2.00	92	38.4 - 157

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Sample: 234659 - S Exc. NW Cor. Wall, 12'

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 70973

Prep Batch: 60799

Analytical Method: S 8015 D

Date Analyzed: 2010-06-17

Sample Preparation: 2010-06-17

Prep Method: N/A

Analyzed By: AW

Prepared By: AW

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-Tricosane		94.5	mg/Kg	1	100	94	55.5 - 151

Sample: 234659 - S Exc. NW Cor. Wall, 12'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70952

Prep Batch: 60780

Analytical Method: S 8015 D

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.34	mg/Kg	1	2.00	117	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.01	mg/Kg	1	2.00	100	42 - 159

Sample: 234660 - S Exc. SW Wall, 12'

Laboratory: Midland

Analysis: BTEX

QC Batch: 70950

Prep Batch: 60780

Analytical Method: S 8021B

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.35	mg/Kg	1	2.00	118	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.18	mg/Kg	1	2.00	109	38.4 - 157

Sample: 234660 - S Exc. SW Wall, 12'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 70973 Date Analyzed: 2010-06-17 Analyzed By: AW
Prep Batch: 60799 Sample Preparation: 2010-06-17 Prepared By: AW

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-Tricosane		96.4	mg/Kg	1	100	96	55.5 - 151

Sample: 234660 - S Exc. SW Wall, 12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70952 Date Analyzed: 2010-06-16 Analyzed By: AG
Prep Batch: 60780 Sample Preparation: 2010-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.72	mg/Kg	1	2.00	136	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.32	mg/Kg	1	2.00	116	42 - 159

Sample: 234661 - S Exc. SE Wall, 12'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 70950 Date Analyzed: 2010-06-16 Analyzed By: AG
Prep Batch: 60780 Sample Preparation: 2010-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.12	mg/Kg	1	2.00	106	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.97	mg/Kg	1	2.00	98	38.4 - 157

Sample: 234661 - S Exc. SE Wall, 12'

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 70973

Prep Batch: 60799

Analytical Method: S 8015 D

Date Analyzed: 2010-06-17

Sample Preparation: 2010-06-17

Prep Method: N/A

Analyzed By: AW

Prepared By: AW

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-Tricosane		104	mg/Kg	1	100	104	55.5 - 151

Sample: 234661 - S Exc. SE Wall, 12'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70952

Prep Batch: 60780

Analytical Method: S 8015 D

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.42	mg/Kg	1	2.00	121	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	42 - 159

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Method Blank (1) QC Batch: 70950

QC Batch: 70950
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	55.4 - 104

Method Blank (1) QC Batch: 70952

QC Batch: 70952
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.45	mg/Kg	1	2.00	122	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.97	mg/Kg	1	2.00	98	52.4 - 130

Method Blank (1) QC Batch: 70973

QC Batch: 70973
Prep Batch: 60799

Date Analyzed: 2010-06-17
QC Preparation: 2010-06-17

Analyzed By: AW
Prepared By: AW

Parameter	Flag	MDL Result	Units	RL
DRO		<7.46	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		96.0	mg/Kg	1	100	96	55.5 - 151

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Laboratory Control Spike (LCS-1)

QC Batch: 70950
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.88	mg/Kg	1	2.00	<0.0150	94	81.9 - 108
Toluene	1.88	mg/Kg	1	2.00	<0.00950	94	81.9 - 107
Ethylbenzene	1.82	mg/Kg	1	2.00	<0.0106	91	78.4 - 107
Xylene	5.50	mg/Kg	1	6.00	<0.00930	92	79.1 - 107

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.87	mg/Kg	1	2.00	<0.0150	94	81.9 - 108	0	20
Toluene	1.86	mg/Kg	1	2.00	<0.00950	93	81.9 - 107	1	20
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.0106	92	78.4 - 107	1	20
Xylene	5.54	mg/Kg	1	6.00	<0.00930	92	79.1 - 107	1	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)	1.92	1.83	mg/Kg	1	2.00	96	92	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.83	1.74	mg/Kg	1	2.00	92	87	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 70952
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.0	mg/Kg	1	20.0	<1.65	80	69.9 - 95.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.1	mg/Kg	1	20.0	<1.65	80	69.9 - 95.4	1	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)	2.39	2.13	mg/Kg	1	2.00	120	106	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.05	1.82	mg/Kg	1	2.00	102	91	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 70973
Prep Batch: 60799

Date Analyzed: 2010-06-17
QC Preparation: 2010-06-17

Analyzed By: AW
Prepared By: AW

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	251	mg/Kg	1	250	<7.46	100	76 - 157

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	258	mg/Kg	1	250	<7.46	103	76 - 157	3	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-Tricosane	97.8	100	mg/Kg	1	100	98	100	55.5 - 151

Matrix Spike (MS-1) Spiked Sample: 234661

QC Batch: 70950
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.98	mg/Kg	1	2.00	<0.0150	99	80.5 - 112
Toluene	2.00	mg/Kg	1	2.00	<0.00950	100	82.4 - 113
Ethylbenzene	2.02	mg/Kg	1	2.00	<0.0106	101	83.9 - 114
Xylene	6.07	mg/Kg	1	6.00	<0.00930	101	84 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.85	mg/Kg	1	2.00	<0.0150	92	80.5 - 112	7	20
Toluene	1.91	mg/Kg	1	2.00	<0.00950	96	82.4 - 113	5	20
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.0106	97	83.9 - 114	4	20
Xylene	5.84	mg/Kg	1	6.00	<0.00930	97	84 - 114	4	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)	1.59	1.71	mg/Kg	1	2	80	86	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.53	1.64	mg/Kg	1	2	76	82	35.5 - 129

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Matrix Spike (MS-1) Spiked Sample: 234661

QC Batch: 70952
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<1.65	84	61.8 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.8	mg/Kg	1	20.0	<1.65	84	61.8 - 114	0	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)	2.00	2.69	mg/Kg	1	2	100	134	50 - 162
4-Bromofluorobenzene (4-BFB)	1.84	2.44	mg/Kg	1	2	92	122	50 - 162

Matrix Spike (MS-1) Spiked Sample: 234657

QC Batch: 70973
Prep Batch: 60799

Date Analyzed: 2010-06-17
QC Preparation: 2010-06-17

Analyzed By: AW
Prepared By: AW

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	254	mg/Kg	1	250	<7.46	102	76 - 157

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	258	mg/Kg	1	250	<7.46	103	76 - 157	2	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-Tricosane	91.2	93.6	mg/Kg	1	100	91	94	55.1 - 151

Standard (CCV-1)

QC Batch: 70950

Date Analyzed: 2010-06-16

Analyzed By: AG

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0926	93	80 - 120	2010-06-16
Toluene		mg/Kg	0.100	0.0922	92	80 - 120	2010-06-16
Ethylbenzene		mg/Kg	0.100	0.0894	89	80 - 120	2010-06-16
Xylene		mg/Kg	0.300	0.268	89	80 - 120	2010-06-16

Standard (CCV-2)

QC Batch: 70950

Date Analyzed: 2010-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0920	92	80 - 120	2010-06-16
Toluene		mg/Kg	0.100	0.0925	92	80 - 120	2010-06-16
Ethylbenzene		mg/Kg	0.100	0.0879	88	80 - 120	2010-06-16
Xylene		mg/Kg	0.300	0.265	88	80 - 120	2010-06-16

Standard (CCV-1)

QC Batch: 70952

Date Analyzed: 2010-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.920	92	80 - 120	2010-06-16

Standard (CCV-2)

QC Batch: 70952

Date Analyzed: 2010-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.981	98	80 - 120	2010-06-16

Standard (CCV-1)

QC Batch: 70973

Date Analyzed: 2010-06-17

Analyzed By: AW

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	254	102	80 - 120	2010-06-17

Standard (CCV-2)

QC Batch: 70973

Date Analyzed: 2010-06-17

Analyzed By: AW

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	256	102	80 - 120	2010-06-17

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Invoice to: (if different from above)												
Project #: TNM LF-2000-7		Project Name: Plains										
Project Location (including state): Monument, NM		Sampler Signature: <i>Bob Ducham</i>										
		Sampler Signature: <i>Ron Rounsaville</i>										
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING	
				WATER	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE
234657	S. EXC. N. CENT. Wall, 12'	1	4oz	X					X		4/14/00	1700
658	S. EXC. W. CENT. Wall, 12'	1		X					X		1705	
659	S. EXC. N.W. COR. Wall, 12'	1		X					X		1710	
660	S. EXC. S.W. Wall, 12'	1		X					X		1715	
661	S. EXC. S.E. Wall, 12'	1		X					X		1720	
Turn Around Time if different from standard												
Hold												
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7												
TCLP Metals Ag As Ba Cd Cr Pb Se Hg												
TCLP Volatiles												
TCLP Semi Volatiles												
RCI												
GC/MS Vol. 8260 / 624												
GC/MS Semi. Vol. 8270 / 625												
PCBs 8082 / 608												
Pesticides 8081 / 608												
BOD, TSS, pH												
Moisture Content												
Cl, F, SO ₄ , NO ₃ , NO ₂ , Alkalinity												
Na, Ca, Mg, K, TDS, EC												

LAB USE ONLY		REMARKS:	
INST: 24°C OBS: 24°C COR: 0°C		X All tests Midland	
INST: 1351 OBS: 1351 COR: 0°C			
INST: 1351 OBS: 1351 COR: 0°C			

Relinquished by: <i>[Signature]</i>	Company: Trace	Date: 4/15/00	Time: 1351	Received by: <i>[Signature]</i>	Company: Trace	Date: 4/15/00	Time: 1351
Relinquished by: <i>[Signature]</i>	Company: Trace	Date: 4/15/00	Time: 1351	Received by: <i>[Signature]</i>	Company: Trace	Date: 4/15/00	Time: 1351
Relinquished by: <i>[Signature]</i>	Company: Trace	Date: 4/15/00	Time: 1351	Received by: <i>[Signature]</i>	Company: Trace	Date: 4/15/00	Time: 1351

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

Carrier # *Conway*



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 889•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX **El Paso:** T104704221-08-TX **Midland:** T104704392-08-TX
LELAP-02003 LELAP-02002
Kansas E-10317

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 22, 2010

Work Order: 10061523



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

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
234644	Soil Stockpile SS-15 TS	soil	2010-06-15	09:45	2010-06-15
234645	Soil Stockpile SS-16 TS	soil	2010-06-15	09:48	2010-06-15
234646	Soil Stockpile SS-17	soil	2010-06-15	09:53	2010-06-15
234647	Soil Stockpile SS-18	soil	2010-06-15	09:58	2010-06-15
234648	Soil Stockpile SS-19	soil	2010-06-15	10:03	2010-06-15
234649	Soil Stockpile SS-20	soil	2010-06-15	10:08	2010-06-15
234650	Soil Stockpile SS-21	soil	2010-06-15	10:12	2010-06-15

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 18 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive, flowing style.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2010-06-15 and assigned to work order 10061523. Samples for work order 10061523 were received intact at a temperature of 2.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	60780	2010-06-16 at 09:30	70950	2010-06-16 at 11:33
TPH DRO - NEW	S 8015 D	60875	2010-06-22 at 15:00	71067	2010-06-22 at 10:00
TPH GRO	S 8015 D	60780	2010-06-16 at 09:30	70952	2010-06-16 at 12:01

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10061523 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

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Analytical Report

Sample: 234644 - Soil Stockpile SS-15 TS

Laboratory: Midland
Analysis: BTEX
QC Batch: 70950
Prep Batch: 60780

Analytical Method: S 8021B
Date Analyzed: 2010-06-16
Sample Preparation: 2010-06-16

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		0.0311	mg/Kg	1	0.0200
Xylene		0.262	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.38	mg/Kg	1	2.00	119	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.56	mg/Kg	1	2.00	128	38.4 - 157

Sample: 234644 - Soil Stockpile SS-15 TS

Laboratory: Lubbock
Analysis: TPH DRO - NEW
QC Batch: 71067
Prep Batch: 60875

Analytical Method: S 8015 D
Date Analyzed: 2010-06-22
Sample Preparation: 2010-06-22

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		596	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	178	mg/Kg	1	100	178	55.5 - 151

Sample: 234644 - Soil Stockpile SS-15 TS

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70952
Prep Batch: 60780

Analytical Method: S 8015 D
Date Analyzed: 2010-06-16
Sample Preparation: 2010-06-16

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

continued ...

¹ High surrogate recovery due to peak interference.

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sample 234644 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		85.4	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.68	mg/Kg	1	2.00	134	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.68	mg/Kg	1	2.00	134	42 - 159

Sample: 234645 - Soil Stockpile SS-16 TS

Laboratory: Midland

Analysis: BTEX

QC Batch: 70950

Prep Batch: 60780

Analytical Method: S 8021B

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		0.0847	mg/Kg	1	0.0200
Ethylbenzene		0.0680	mg/Kg	1	0.0200
Xylene		0.192	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.43	mg/Kg	1	2.00	122	38.4 - 157

Sample: 234645 - Soil Stockpile SS-16 TS

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 71067

Prep Batch: 60875

Analytical Method: S 8015 D

Date Analyzed: 2010-06-22

Sample Preparation: 2010-06-22

Prep Method: N/A

Analyzed By: AW

Prepared By: AW

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		456	mg/Kg	1	50.0

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		148	mg/Kg	1	100	148	55.5 - 151

Sample: 234645 - Soil Stockpile SS-16 TS

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70952

Prep Batch: 60780

Analytical Method: S 8015 D

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		197	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.27	mg/Kg	1	2.00	114	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.68	mg/Kg	1	2.00	134	42 - 159

Sample: 234646 - Soil Stockpile SS-17

Laboratory: Midland

Analysis: BTEX

QC Batch: 70950

Prep Batch: 60780

Analytical Method: S 8021B

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		0.0546	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.96	mg/Kg	1	2.00	98	38.4 - 157

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Sample: 234646 - Soil Stockpile SS-17

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 71067 Date Analyzed: 2010-06-22 Analyzed By: AW
Prep Batch: 60875 Sample Preparation: 2010-06-22 Prepared By: AW

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1070	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	2	235	mg/Kg	1	100	235	55.5 - 151

Sample: 234646 - Soil Stockpile SS-17

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70952 Date Analyzed: 2010-06-16 Analyzed By: AG
Prep Batch: 60780 Sample Preparation: 2010-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		60.1	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.22	mg/Kg	1	2.00	111	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.15	mg/Kg	1	2.00	108	42 - 159

Sample: 234647 - Soil Stockpile SS-18

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 70950 Date Analyzed: 2010-06-16 Analyzed By: AG
Prep Batch: 60780 Sample Preparation: 2010-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		0.133	mg/Kg	1	0.0200

²High surrogate recovery due to peak interference.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.38	mg/Kg	1	2.00	119	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.36	mg/Kg	1	2.00	118	38.4 - 157

Sample: 234647 - Soil Stockpile SS-18

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 71067 Date Analyzed: 2010-06-22 Analyzed By: AW
Prep Batch: 60875 Sample Preparation: 2010-06-22 Prepared By: AW

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1020	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	³	248	mg/Kg	1	100	248	55.5 - 151

Sample: 234647 - Soil Stockpile SS-18

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 70952 Date Analyzed: 2010-06-16 Analyzed By: AG
Prep Batch: 60780 Sample Preparation: 2010-06-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		55.2	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.71	mg/Kg	1	2.00	136	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.57	mg/Kg	1	2.00	128	42 - 159

Sample: 234648 - Soil Stockpile SS-19

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 70950 Date Analyzed: 2010-06-16 Analyzed By: AG
Prep Batch: 60780 Sample Preparation: 2010-06-16 Prepared By: AG

³High surrogate recovery due to peak interference.

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		0.0650	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.06	mg/Kg	1	2.00	103	38.4 - 157

Sample: 234648 - Soil Stockpile SS-19

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 71067

Prep Batch: 60875

Analytical Method: S 8015 D

Date Analyzed: 2010-06-22

Sample Preparation: 2010-06-22

Prep Method: N/A

Analyzed By: AW

Prepared By: AW

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		486	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁴	156	mg/Kg	1	100	156	55.5 - 151

Sample: 234648 - Soil Stockpile SS-19

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70952

Prep Batch: 60780

Analytical Method: S 8015 D

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		46.6	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.38	mg/Kg	1	2.00	119	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.22	mg/Kg	1	2.00	111	42 - 159

⁴High surrogate recovery due to peak interference.

Sample: 234649 - Soil Stockpile SS-20

Laboratory: Midland
Analysis: BTEX
QC Batch: 70950
Prep Batch: 60780

Analytical Method: S 8021B
Date Analyzed: 2010-06-16
Sample Preparation: 2010-06-16

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		0.0249	mg/Kg	1	0.0200
Xylene		0.0711	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.22	mg/Kg	1	2.00	61	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.27	mg/Kg	1	2.00	64	38.4 - 157

Sample: 234649 - Soil Stockpile SS-20

Laboratory: Lubbock
Analysis: TPH DRO - NEW
QC Batch: 71067
Prep Batch: 60875

Analytical Method: S 8015 D
Date Analyzed: 2010-06-22
Sample Preparation: 2010-06-22

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		633	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁵	182	mg/Kg	1	100	182	55.5 - 151

Sample: 234649 - Soil Stockpile SS-20

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 70952
Prep Batch: 60780

Analytical Method: S 8015 D
Date Analyzed: 2010-06-16
Sample Preparation: 2010-06-16

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		49.6	mg/Kg	1	2.00

⁵High surrogate recovery due to peak interference.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.41	mg/Kg	1	2.00	70	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.39	mg/Kg	1	2.00	70	42 - 159

Sample: 234650 - Soil Stockpile SS-21

Laboratory: Midland

Analysis: BTEX

QC Batch: 70950

Prep Batch: 60780

Analytical Method: S 8021B

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		0.0457	mg/Kg	1	0.0200
Ethylbenzene		0.0427	mg/Kg	1	0.0200
Xylene		0.104	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.52	mg/Kg	1	2.00	126	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.51	mg/Kg	1	2.00	126	38.4 - 157

Sample: 234650 - Soil Stockpile SS-21

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 71067

Prep Batch: 60875

Analytical Method: S 8015 D

Date Analyzed: 2010-06-22

Sample Preparation: 2010-06-22

Prep Method: N/A

Analyzed By: AW

Prepared By: AW

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		473	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁶	159	mg/Kg	1	100	159	55.5 - 151

Sample: 234650 - Soil Stockpile SS-21

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 70952

Prep Batch: 60780

Analytical Method: S 8015 D

Date Analyzed: 2010-06-16

Sample Preparation: 2010-06-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

⁶High surrogate recovery due to peak interference.

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Parameter	Flag	RL Result	Units	Dilution	RL
GRO		75.5	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.92	mg/Kg	1	2.00	146	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.81	mg/Kg	1	2.00	140	42 - 159

Method Blank (1) QC Batch: 70950

QC Batch: 70950
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	55.4 - 104

Method Blank (1) QC Batch: 70952

QC Batch: 70952
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.45	mg/Kg	1	2.00	122	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.97	mg/Kg	1	2.00	98	52.4 - 130

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Method Blank (1) QC Batch: 71067

QC Batch: 71067
Prep Batch: 60875

Date Analyzed: 2010-06-22
QC Preparation: 2010-06-22

Analyzed By: AW
Prepared By: AW

Parameter	Flag	MDL Result	Units	RL
DRO		<7.46	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		104	mg/Kg	1	100	104	55.5 - 151

Laboratory Control Spike (LCS-1)

QC Batch: 70950
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.88	mg/Kg	1	2.00	<0.0150	94	81.9 - 108
Toluene	1.88	mg/Kg	1	2.00	<0.00950	94	81.9 - 107
Ethylbenzene	1.82	mg/Kg	1	2.00	<0.0106	91	78.4 - 107
Xylene	5.50	mg/Kg	1	6.00	<0.00930	92	79.1 - 107

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.87	mg/Kg	1	2.00	<0.0150	94	81.9 - 108	0	20
Toluene	1.86	mg/Kg	1	2.00	<0.00950	93	81.9 - 107	1	20
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.0106	92	78.4 - 107	1	20
Xylene	5.54	mg/Kg	1	6.00	<0.00930	92	79.1 - 107	1	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)	1.92	1.83	mg/Kg	1	2.00	96	92	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.83	1.74	mg/Kg	1	2.00	92	87	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 70952
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Report Date: June 22, 2010
TNM-LF-2000-07

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Bob Durham

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.0	mg/Kg	1	20.0	<1.65	80	69.9 - 95.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.1	mg/Kg	1	20.0	<1.65	80	69.9 - 95.4	1	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)	2.39	2.13	mg/Kg	1	2.00	120	106	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.05	1.82	mg/Kg	1	2.00	102	91	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 71067
Prep Batch: 60875

Date Analyzed: 2010-06-22
QC Preparation: 2010-06-22

Analyzed By: AW
Prepared By: AW

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	248	mg/Kg	1	250	<7.46	99	76 - 157

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	249	mg/Kg	1	250	<7.46	100	76 - 157	0	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-Tricosane	96.6	97.2	mg/Kg	1	100	97	97	55.5 - 151

Matrix Spike (MS-1) Spiked Sample: 234661

QC Batch: 70950
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.98	mg/Kg	1	2.00	<0.0150	99	80.5 - 112
Toluene	2.00	mg/Kg	1	2.00	<0.00950	100	82.4 - 113
Ethylbenzene	2.02	mg/Kg	1	2.00	<0.0106	101	83.9 - 114

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	6.07	mg/Kg	1	6.00	<0.00930	101	84 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.85	mg/Kg	1	2.00	<0.0150	92	80.5 - 112	7	20
Toluene	1.91	mg/Kg	1	2.00	<0.00950	96	82.4 - 113	5	20
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.0106	97	83.9 - 114	4	20
Xylene	5.84	mg/Kg	1	6.00	<0.00930	97	84 - 114	4	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)	1.59	1.71	mg/Kg	1	2	80	86	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.53	1.64	mg/Kg	1	2	76	82	35.5 - 129

Matrix Spike (MS-1) Spiked Sample: 234661

QC Batch: 70952
Prep Batch: 60780

Date Analyzed: 2010-06-16
QC Preparation: 2010-06-16

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<1.65	84	61.8 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.8	mg/Kg	1	20.0	<1.65	84	61.8 - 114	0	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)	2.00	2.69	mg/Kg	1	2	100	134	50 - 162
4-Bromofluorobenzene (4-BFB)	1.84	2.44	mg/Kg	1	2	92	122	50 - 162

Matrix Spike (MS-1) Spiked Sample: 234645

QC Batch: 71067
Prep Batch: 60875

Date Analyzed: 2010-06-22
QC Preparation: 2010-06-22

Analyzed By: AW
Prepared By: AW

Report Date: June 22, 2010
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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	746	mg/Kg	1	250	456	116	76 - 157

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	745	mg/Kg	1	250	456	116	76 - 157	0	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-Tricosane	140	148	mg/Kg	1	100	140	148	55.1 - 151

Standard (CCV-1)

QC Batch: 70950

Date Analyzed: 2010-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0926	93	80 - 120	2010-06-16
Toluene		mg/Kg	0.100	0.0922	92	80 - 120	2010-06-16
Ethylbenzene		mg/Kg	0.100	0.0894	89	80 - 120	2010-06-16
Xylene		mg/Kg	0.300	0.268	89	80 - 120	2010-06-16

Standard (CCV-2)

QC Batch: 70950

Date Analyzed: 2010-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0920	92	80 - 120	2010-06-16
Toluene		mg/Kg	0.100	0.0925	92	80 - 120	2010-06-16
Ethylbenzene		mg/Kg	0.100	0.0879	88	80 - 120	2010-06-16
Xylene		mg/Kg	0.300	0.265	88	80 - 120	2010-06-16

Standard (CCV-3)

QC Batch: 70950

Date Analyzed: 2010-06-16

Analyzed By: AG

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0923	92	80 - 120	2010-06-16
Toluene		mg/Kg	0.100	0.0914	91	80 - 120	2010-06-16
Ethylbenzene		mg/Kg	0.100	0.0878	88	80 - 120	2010-06-16
Xylene		mg/Kg	0.300	0.264	88	80 - 120	2010-06-16

Standard (CCV-1)

QC Batch: 70952

Date Analyzed: 2010-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.920	92	80 - 120	2010-06-16

Standard (CCV-2)

QC Batch: 70952

Date Analyzed: 2010-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.981	98	80 - 120	2010-06-16

Standard (CCV-3)

QC Batch: 70952

Date Analyzed: 2010-06-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2010-06-16

Standard (CCV-1)

QC Batch: 71067

Date Analyzed: 2010-06-22

Analyzed By: AW

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	80 - 120	2010-06-22

Report Date: June 22, 2010
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Standard (CCV-2)

QC Batch: 71067

Date Analyzed: 2010-06-22

Analyzed By: AW

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	242	97	80 - 120	2010-06-22

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Company Name:	NOVA	Phone #:	
Address:	(Street, City, Zip)	Fax #:	
Contact Person:	Ken Rounsaville	E-mail:	
Invoice to:			
(If different from above)	PLTINS		
Project #:	TNM LF-2000-7	Project Name:	Bob Durham
Project Location (including state):	Monument, NM	Sampler Signature:	

[illegible]

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Company:
[Signature]	6/15/10	1351	[Signature]	6/16/10	13:51	TGA
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Company:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Company:

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LAB USE ONLY	Intact ☒ Y ☐ N	REMARKS: All test 3-Midland
	Headspace ☐ Y ☒ N ☐ NA ☐ Dry Weight Basis Required ☐ TRRP Report Required ☐ Check If Special Reporting Limits Are Needed	
Log-in-Review		

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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Certifications

WBENC: 237019 HUB: 1752439743100-86536 DBE: VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX El Paso: T104704221-08-TX Midland: T104704392-08-TX
LELAP-02003 LELAP-02002
Kansas E-10317

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 25, 2010

Work Order: 10061827



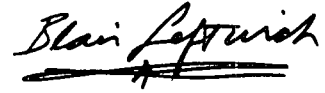
Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

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
235156	S Exc., W Cent. Wall-2, 12'	soil	2010-06-17	19:00	2010-06-18

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
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2010-06-18 and assigned to work order 10061827. Samples for work order 10061827 were received intact at a temperature of 2.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
TPH DRO - NEW	S 8015 D	60841	2010-06-21 at 09:00	71022	2010-06-21 at 10:00
TPH GRO	S 8015 D	60862	2010-06-19 at 17:15	71051	2010-06-19 at 19:28

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10061827 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: June 25, 2010
TNM-LF-2000-07

Work Order: 10061827
Bob Durham

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Monument, Lea County, NM

Analytical Report

Sample: 235156 - S Exc., W Cent. Wall-2, 12'

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-06-21	Analyzed By:	AW
QC Batch:	71022	Sample Preparation:	2010-06-21	Prepared By:	AW
Prep Batch:	60841				

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-Tricosane		109	mg/Kg	1	100	109	55.5 - 151

Sample: 235156 - S Exc., W Cent. Wall-2, 12'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-06-19	Analyzed By:	AG
QC Batch:	71051	Sample Preparation:	2010-06-19	Prepared By:	AG
Prep Batch:	60862				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.45	mg/Kg	1	2.00	72	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.42	mg/Kg	1	2.00	71	42 - 159

Method Blank (1) QC Batch: 71022

QC Batch:	71022	Date Analyzed:	2010-06-21	Analyzed By:	AW
Prep Batch:	60841	QC Preparation:	2010-06-21	Prepared By:	AW

Parameter	Flag	MDL Result	Units	RL
DRO		<7.46	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		116	mg/Kg	1	100	116	55.5 - 151

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Bob Durham

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Method Blank (1) QC Batch: 71051

QC Batch: 71051
Prep Batch: 60862

Date Analyzed: 2010-06-19
QC Preparation: 2010-06-19

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.57	mg/Kg	1	2.00	128	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	52.4 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 71022
Prep Batch: 60841

Date Analyzed: 2010-06-21
QC Preparation: 2010-06-21

Analyzed By: AW
Prepared By: AW

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	272	mg/Kg	1	250	<7.46	109	76 - 157

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	272	mg/Kg	1	250	<7.46	109	76 - 157	0	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-Tricosane	104	104	mg/Kg	1	100	104	104	55.5 - 151

Laboratory Control Spike (LCS-1)

QC Batch: 71051
Prep Batch: 60862

Date Analyzed: 2010-06-19
QC Preparation: 2010-06-19

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.8	mg/Kg	1	20.0	<1.65	74	69.9 - 95.4

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

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	14.9	mg/Kg	1	20.0	<1.65	74	69.9 - 95.4	1	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)	2.57	2.54	mg/Kg	1	2.00	128	127	61.9 - 142
4-Bromofluorobenzene (4-BFB)	2.14	2.09	mg/Kg	1	2.00	107	104	68.2 - 132

Matrix Spike (MS-1) Spiked Sample: 235156

QC Batch: 71022
Prep Batch: 60841

Date Analyzed: 2010-06-21
QC Preparation: 2010-06-21

Analyzed By: AW
Prepared By: AW

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	282	mg/Kg	1	250	<7.46	113	76 - 157

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	285	mg/Kg	1	250	<7.46	114	76 - 157	1	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-Tricosane	106	105	mg/Kg	1	100	106	105	55.1 - 151

Matrix Spike (MS-1) Spiked Sample: 234897

QC Batch: 71051
Prep Batch: 60862

Date Analyzed: 2010-06-19
QC Preparation: 2010-06-19

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.8	mg/Kg	1	20.0	<1.65	89	61.8 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	18.5	mg/Kg	1	20.0	<1.65	92	61.8 - 114	4	20

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

Report Date: June 25, 2010
TNM-LF-2000-07

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.35	2.42	mg/Kg	1	2	118	121	50 - 162
4-Bromofluorobenzene (4-BFB)	2.16	2.24	mg/Kg	1	2	108	112	50 - 162

Standard (CCV-1)

QC Batch: 71022

Date Analyzed: 2010-06-21

Analyzed By: AW

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	109	80 - 120	2010-06-21

Standard (CCV-2)

QC Batch: 71022

Date Analyzed: 2010-06-21

Analyzed By: AW

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	109	80 - 120	2010-06-21

Standard (CCV-2)

QC Batch: 71051

Date Analyzed: 2010-06-19

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.19	119	80 - 120	2010-06-19

Standard (CCV-3)

QC Batch: 71051

Date Analyzed: 2010-06-19

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	80 - 120	2010-06-19

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Analytical Report 378425

for

PLAINS ALL AMERICAN EH&S

Project Manager: Jason Henry

Plains Bob Durham

TNMLF-2000-07

24-JUN-10



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Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida (E86240), South Carolina (96031001), Louisiana (04154), Georgia (917)
North Carolina (444), Texas (T104704468-TX), Illinois (002295), Florida (E86349)



24-JUN-10

Project Manager: **Jason Henry**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No: **378425**
Plains Bob Durham
Project Address: Monument, NM

Jason Henry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 378425. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 378425 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 378425



PLAINS ALL AMERICAN EH&S, Midland, TX
Plains Bob Durham

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS-15B TS	S	Jun-23-10 07:00		378425-001
SS-16B TS	S	Jun-23-10 07:05		378425-002
SS-17B	S	Jun-23-10 07:10		378425-003
SS-18B	S	Jun-23-10 07:15		378425-004



CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S

Project Name: Plains Bob Durham



Project ID: TNMLF-2000-07

Work Order Number: 378425

Report Date: 24-JUN-10

Date Received: 06/23/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-811945 Percent Moisture

None

Batch: LBA-811977 TPH by SW8015 Mod

None



Certificate of Analysis Summary 378425

PLAINS ALL AMERICAN EH&S, Midland, TX



Project Id: TNMLF-2000-07

Contact: Jason Henry

Project Location: Monument, NM

Project Name: Plains Bob Durham

Date Received in Lab: Wed Jun-23-10 12:07 pm

Report Date: 24-JUN-10

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	378425-001	378425-002	378425-003	378425-004	
	Field Id:	SS-15B TS	SS-16B TS	SS-17B	SS-18B	
	Depth:					
	Matrix:	SOIL	SOIL	SOIL	SOIL	
Percent Moisture	Sampled:	Jun-23-10 07:00	Jun-23-10 07:05	Jun-23-10 07:10	Jun-23-10 07:15	
	Extracted:					
	Analyzed:	Jun-24-10 08:29	Jun-24-10 08:29	Jun-24-10 08:29	Jun-24-10 08:29	
	Units/RL:	% 5.50 1.00	% 4.79 1.00	% 3.23 1.00	% 3.47 1.00	
TPH by SW8015 Mod	Extracted:	Jun-23-10 12:30	Jun-23-10 12:30	Jun-23-10 12:30	Jun-23-10 12:30	
	Analyzed:	Jun-23-10 19:26	Jun-24-10 10:51	Jun-24-10 08:00	Jun-24-10 08:27	
	Units/RL:	mg/kg ND 15.8	mg/kg ND 15.7	mg/kg 31.7 15.5	mg/kg 28.8 15.6	
	C6-C12 Gasoline Range Hydrocarbons	48.2	60.3	443	422	
C12-C28 Diesel Range Hydrocarbons		ND	34.2	54.7	63.7	
		15.8	15.7	15.5	15.6	
	C28-C35 Oil Range Hydrocarbons	48.2	94.5	529	515	
	Total TPH	15.8	15.7	15.5	15.6	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
 - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
 - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
 - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
 - F** RPD exceeded lab control limits.
 - J** The target analyte was positively identified below the MQL and above the SQL.
 - U** Analyte was not detected.
 - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
 - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
 - K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- MDL** Method Detection Limit
- PQL** Practical Quantitation Limit
- * Outside XENCO's scope of NELAC Accreditation.

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Plains Bob Durham

Work Orders : 378425,

Project ID: TNMLF-2000-07

Lab Batch #: 811977

Sample: 566514-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/10 12:39

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.7	123	70-135	
o-Terphenyl	48.9	49.9	98	70-135	

Lab Batch #: 811977

Sample: 566514-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/10 13:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	99.5	123	70-135	
o-Terphenyl	47.6	49.8	96	70-135	

Lab Batch #: 811977

Sample: 566514-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 06/23/10 13:33

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.7	108	70-135	
o-Terphenyl	51.4	49.9	103	70-135	

Lab Batch #: 811977

Sample: 378425-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/23/10 19:26

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.7	112	70-135	
o-Terphenyl	54.3	49.9	109	70-135	

Lab Batch #: 811977

Sample: 378425-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/24/10 08:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	50.3	50.2	100	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 \times A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: Plains Bob Durham

Work Orders : 378425,

Project ID: TNMLF-2000-07

Lab Batch #: 811977

Sample: 378425-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/24/10 08:27

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	53.2	50.1	106	70-135	

Lab Batch #: 811977

Sample: 378303-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/24/10 08:54

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.6	115	70-135	
o-Terphenyl	53.1	49.8	107	70-135	

Lab Batch #: 811977

Sample: 378303-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/24/10 09:20

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	99.9	127	70-135	
o-Terphenyl	50.0	50.0	100	70-135	

Lab Batch #: 811977

Sample: 378425-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 06/24/10 10:51

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.9	115	70-135	
o-Terphenyl	54.8	50.0	110	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Project Name: Plains Bob Durham

Work Order #: 378425

Analyst: BEV

Lab Batch ID: 811977

Sample: 566514-1-BKS

Project ID: TNMLF-2000-07

Date Analyzed: 06/23/2010

Matrix: Solid

Date Prepared: 06/23/2010

Batch #: 1

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
Units: mg/kg													
Analytes	TPH by SW8015 Mod		Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons		ND	997	1140	114	995	1150	116	1	70-135	35	
	C12-C28 Diesel Range Hydrocarbons		ND	997	910	91	995	825	83	10	70-135	35	

Analytes

Relative Percent Difference RPD = $200 \cdot [(C-F)/(C+F)]$
Blank Spike Recovery [D] = $100 \cdot (C/[B])$
Blank Spike Duplicate Recovery [G] = $100 \cdot (F/[E])$
All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Plains Bob Durham

Work Order #: 378425

Lab Batch ID: 811977

Date Analyzed: 06/24/2010

Reporting Units: mg/kg

Project ID: TNMLF-2000-07

QC-Sample ID: 378303-002 S

Batch #: 1

Matrix: Soil

Analyst: BEV

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
CG-C12 Gasoline Range Hydrocarbons	ND	1140	1390	122	1140	1310	115	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1140	978	86	1140	1050	92	7	70-135	35	

Matrix Spike Percent Recovery $[D] = 100 \cdot (C-A)/B$
Relative Percent Difference $RPD = 200 \cdot |(C-F)/(C+F)|$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit

Matrix Spike Duplicate Percent Recovery $[G] = 100 \cdot (F-A)/E$



Sample Duplicate Recovery



Project Name: Plains Bob Durham

Work Order #: 378425

Lab Batch #: 811945

Project ID: TNMLF-2000-07

Date Analyzed: 06/24/2010

Date Prepared: 06/24/2010

Analyst: JLG

QC- Sample ID: 378412-003 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	59.6	55.6	7	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

**XENCO Laboratories**

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 8/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: NOVA / Plains
Date/Time: 6.23.10 12:07
Lab ID #: 378412AL378425
Initials: AL

Sample Receipt Checklist

1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	N/A	
4. Chain of Custody present?	Yes	No		
5. Sample instructions complete on chain of custody?	Yes	No		
6. Any missing / extra samples?	Yes	No		
7. Chain of custody signed when relinquished / received?	Yes	No		
8. Chain of custody agrees with sample label(s)?	Yes	No		
9. Container labels legible and intact?	Yes	No		
10. Sample matrix / properties agree with chain of custody?	Yes	No		
11. Samples in proper container / bottle?	Yes	No		
12. Samples properly preserved?	Yes	No	N/A	
13. Sample container intact?	Yes	No		
14. Sufficient sample amount for indicated test(s)?	Yes	No		
15. All samples received within sufficient hold time?	Yes	No		
16. Subcontract of sample(s)?	Yes	No	N/A	
17. VOC sample have zero head space?	Yes	No	N/A	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 1.4 °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
☐ Initial and Backup Temperature confirm out of temperature conditions
☐ Client understands and would like to proceed with analysis