

January 17, 2008

VIA: EMAIL ([chris.williams@state.nm.us](mailto:chris.williams@state.nm.us))  
CERTIFIED MAIL

Mr. Chris Williams  
District Supervisor  
New Mexico Oil Conservation Division  
1625 North French Drive  
Hobbs, New Mexico 88240

Re: **1RP-1160 – Spill Delineation Report and Remediation Plan  
NW Eumont Unit Well #104, Unit C (NE/4, NW/4)  
Section 14, Township 19 South, Range 36 East  
Lea County, New Mexico**

Dear Mr. Williams:

This letter is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Chevron North America Exploration & Production Company (Chevron) by Larson & Associates, Inc. (LAI), its consultant, to present delineation results and remediation plan for a crude oil and produced water spill that occurred near the NW Eumont Unit Well #104 (Site). The Site is located in unit C (NE/4, NW/4), Section 14, Township 19 South, Range 36 East, in Lea County, New Mexico. The latitude and longitude is 32° 39' 57.6" north and 103° 19' 37.4" west. Figure 1 presents a location and topographic map. Contact information for Chevron is as follows:

Name: Rodney Bailey  
Address: 15 Smith Road  
Midland, Texas 79705  
Telephone: (432) 687-7123  
Cell: (432) 894-3519  
Email: [bailerg@chevron.com](mailto:bailerg@chevron.com)

### Chronology

On December 16, 2006, Rhombus Operating Co., Ltd. (Rhombus) reported the spill to the OCD and submitted a C-141. On December 20, 2006, the OCD issued a notice to Rhombus that required vertical and horizontal delineation of the spill due to shallow groundwater. Rhombus scraped about twenty-five (25) cubic yards of soil from the affected area, which was piled on the location. On January 3, 2008, the New Mexico State Land Office (SLO) contacted Chevron, as lessee of record, requested it to enforce corrective action within sixty (60) days. Appendix A presents the regulatory correspondence.

### Remediation Action Levels

The OCD guidelines ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993") provide recommend remediation action levels for benzene, BTEX (sum of benzene, toluene, ethylbenzene and xylene) and total petroleum hydrocarbons (TPH) based on the following criteria:

**RECEIVED**

JAN 18 2008

**HOBBS OCD**

*Remediation plan  
approved 1/17/08.  
Project must be  
completed by 4/18/08  
Chris Williams*

<b>Ranking Criteria</b>	<b>Result</b>	<b>Ranking Score</b>
Depth to Groundwater	<50 feet	20
Wellhead Protection Area	No	0
Distance to Surface Water Body	200-1000 Horizontal Feet	10
	<b>Total Score:</b>	<b>30</b>

The following recommended remediation action levels are assigned to Site based on the ranking score:

**Benzene:** 10 mg/Kg  
**BTEX:** 50 mg/Kg  
**TPH:** 100 mg/Kg

The OCD does not have a recommended remediation action level for chloride, but has required Rhombus to delineate the chloride concentration in soil.

**Delineation**

On March 2, 2007, at the request of Rhombus, LAI contracted with Scarborough Drilling, Inc. (Scarborough) to collect soil samples at six (6) locations (SB-1 through SB-6) using an air rotary rig equipped with split-spoon and jam tube samplers. The samples were collected from ground surface to approximately 1 foot below ground surface (bgs), 5 to 6 feet bgs, 15 to 16 feet bgs and 20 to 21 feet bgs and placed in clean glass containers. The containers were sealed, labeled and delivered under chain of custody control to Trace Analysis, Inc. (Trace) located in Lubbock, Texas, which analyzed the samples for BTEX using method SW-846-8021B, TPH using method SW-846-8015 modified for gasoline range organics (GRO) and diesel range organics (DRO) and chloride. The split-spoon and jam tube samplers were thoroughly cleaned between events with a solution of potable water and laboratory-grade detergent and rinsed with distilled water. The drill cuttings were placed on the ground adjacent to the borings, which were plugged according to the New Mexico State Engineer rules. Figure 2 presents a Site drawing and boring locations. Table 1 presents a summary of the laboratory analysis. Appendix B presents the boring logs. Appendix C presents the laboratory reports. Appendix D presents photographs.

Referring to Table 1, benzene and BTEX were not reported at concentrations above the recommended remediation action levels of 10 milligrams per kilogram (mg/Kg) and 50 mg/Kg, respectively. The recommended remediation action level for TPH (100 mg/Kg) was exceeded in the following samples:

<b>Location</b>	<b>Sample (Feet BGS)</b>	<b>TPH (mg/Kg)</b>
SB-1	0 – 1	812
SB-2	0 – 1	3,482
SB-4	0 – 1	198.4
SB-5	0 – 1	9,940
SB-6	0 – 1	5,095

Mr. Chris Williams  
January 17, 2008  
Page 3

Chloride decreases below 250 mg/Kg at approximately 3 feet BGS at all locations except SB-6, which decreased below 250 mg/Kg at approximately 12 feet BGS.

**Remediation Plan**

A right of entry permit will be secured from the SLO to facilitate work at the Site. Soil will be excavated to achieve the recommended remediation action level for TPH (100 mg/Kg) and reduce the chloride concentration. Soil samples will be collected from the excavation sides and bottom to confirm the final in-situ concentrations for TPH and chloride. The contaminated soil will be hauled to an OCD permitted disposal facility. The final laboratory results will be reviewed with the OCD before filling the excavation with clean soil. The surface will be seeded to restore vegetation to SLO satisfaction. LAI will provide 48-hours notice to the OCD prior to commencing work and will submit a final report upon completion of the project. Appendix E presents the C-141. Chevron requests OCD approval to proceed with the soil remediation. Should you have questions please contact Rodney Bailey with Chevron at (432) (432) 687-7123 or myself at (432) 687-0901. We may also be reached by emailing [bailerg@chevron.com](mailto:bailerg@chevron.com) or [mark@laenvironmental.com](mailto:mark@laenvironmental.com).

Sincerely,  
*Larson & Associates, Inc.*



Mark J. Larson, P.G., C.P.G., C.G.W.P.  
Sr. Project Manager / President

Encl.

cc: Rodney Bailey - Chevron  
Jami Bailey - NMSLO  
Thaddeus Kostrubala - NMSLO

**TABLES**

Table 1  
**Summary of Laboratory Analysis of Soil Investigation Samples**  
**Rhombus Operating Company, NW Eumont Unit Well #104**  
**Section 14, Township 19 South, Range 36 East**  
**Lea County, New Mexico**

Sample Identification	Sample Depth Feet	Sample Date	Benzene	Total BTEX	DRO	GRO	Total TPH	Chloride
<b>EPA/NMED Regulatory Level:</b>			<b>10</b>	<b>50</b>			<b>100</b>	<b>500</b>
<b>SB-1</b>	<b>0 - 1</b>	3/2/2007	<0.00110	2.590	481	331	812	1,420
	<b>5 - 6</b>	3/2/2007	<0.00110	0.108	<9.07	10.8	10.8	127
	<b>20 - 21</b>	3/2/2007	<0.00110	0.0376	<9.07	2.24*	2.24	19.3*
<b>SB-2</b>	<b>0 - 1</b>	3/2/2007	<0.00110	0.9837	3,140	342	3,482	1080*
	<b>5 - 6</b>	3/2/2007	<0.00110	<0.0083	20.5	10.2*	30.7	78.3
	<b>20 - 21</b>	3/2/2007	<0.00110	0.0421	<9.07	1.44*	1.44	28.4*
<b>SB-3</b>	<b>0 - 1</b>	3/2/2007	<0.00110	0.0330	19.4	2.81*	22.21	1,470
	<b>7 - 8</b>	3/2/2007	<0.00110	<0.0083	<9.07	1.18*	1.18	27.1*
	<b>15 - 16</b>	3/2/2007	<0.00110	<0.0082	<9.07	0.887*	0.887	29.1*
<b>SB-4</b>	<b>0 - 1</b>	3/2/2007	<0.00110	0.0134	169	29.4	198.4	3,560
	<b>5 - 6</b>	3/2/2007	<0.00110	<0.0083	<9.07	3.84*	3.84	45.9*
	<b>15 - 16</b>	3/2/2007	<0.00110	<0.0083	<9.07	2.15*	2.15	7.3*
<b>SB-5</b>	<b>0 - 1</b>	3/2/2007	0.0338	23.29 <sup>E</sup>	8,760	1,180	9,940	2,580
	<b>7 - 8</b>	3/2/2007	<0.00110	0.386	25.7	30.3	56	33.9*
	<b>15 - 16</b>	3/2/2007	<0.00110	0.0941	<9.07	10.9*	10.9	18.6*
<b>SB-6</b>	<b>0 - 1</b>	3/2/2007	<0.00550	4.16	4,700	395	5,095	1,610
	<b>7 - 8</b>	3/2/2007	<0.00110	<0.0083	13.1	9.6*	22.7	2,350
	<b>15 - 16</b>	3/2/2007	<0.00110	<0.0083	9.35	4.53*	13.88	6.61*

Notes: Analysis performed by Trace Analysis, Inc., Lubbock, Texas

All results reported in milligrams per Kilogram (mg/Kg)

1. --: Sample was not analyzed
2. <: Below method detection limit

Flagging:

- \* - Sample contains less than ten (10) times the concentration present in the blank
- E - Estimated concentration value greater than standard range

**FIGURES**

T-19-S

SITE LOCATION

GPS COORDINATE

N 32° 39' 57.6"

W 103° 19' 37.4"

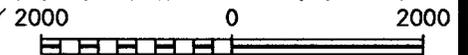
R  
36  
E

Monument  
Springs

Indian Hill

LEGEND

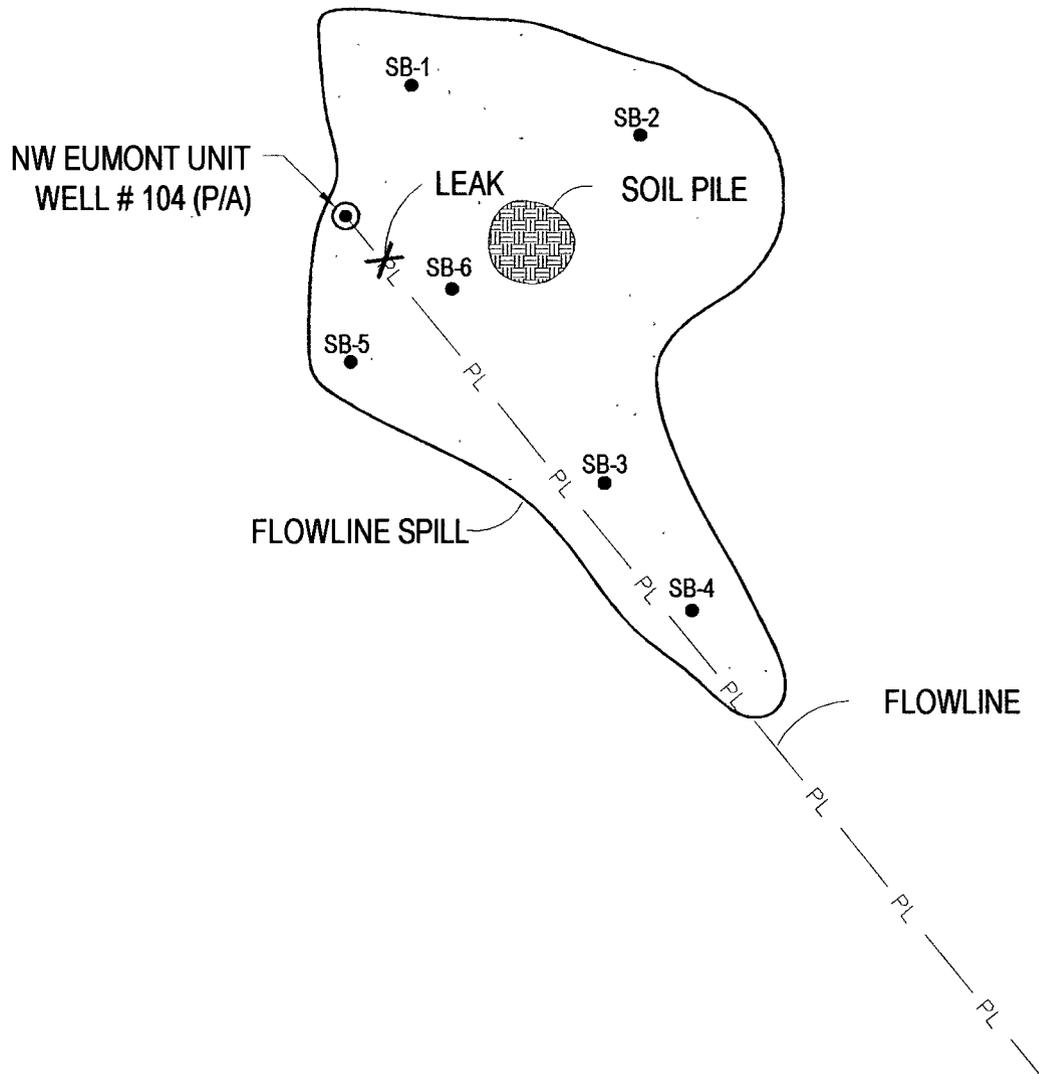
31.68 ○ - WELL LOCATION (APPROXIMATE) AND  
DEPTH TO GROUNDWATER, FEET BGS



Graphic Scale in Feet

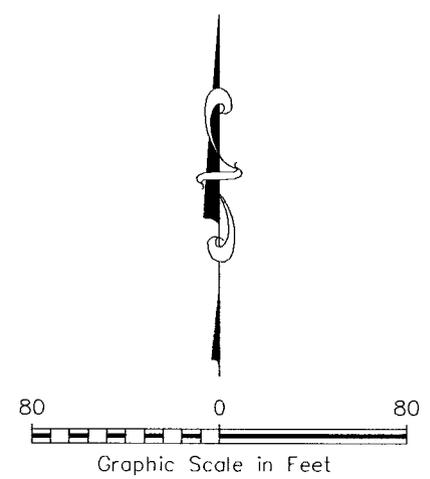
CHEVRON NORTH AMERICA  
EXPLORATION AND PRODUCTION COMPANY

Laarson &  
Associates, Inc.



**LEGEND**

SB-1 SOIL BORING LOCATION, MARCH 2, 2007.



CHEVRON NORTH AMERICA  
EXPLORATION AND PRODUCTION COMPANY

Larson & Associates, Inc.  
Environmental Consultants

FIGURE 2 - SITE DRAWING

**APPENDIX A**  
**Regulatory Communications**



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**HILL RICHARDSON**  
Governor  
**Joanna Prukop**  
Cabinet Secretary

**Mark E. Fesmire, P.E.**  
Director  
Oil Conservation Division

MEMO

DATE: 12-20-06

TO: MABRY

FROM: LARRY JOHNSON

- For Your Files
- For Your Review and Return
- For Your Handling
- As Per Your Request
- Please Advise
- Prepare a Reply for My Signature
- For Your Information
- For Your Approval
- For Your Signature
- For Your Attention

DUE TO SHALLOW WATER DEPTH THIS SITE WILL REQUIRE A FULL HORIZONTAL & VERTICAL DELINEATION. CONTINUE WITH EMERGENCY RESPONSE REMOVAL & DISPOSAL AT AN APPROVED DISPOSAL FACILITY. DO NOT REPLACE ANY SOIL UNTIL OCD APPROVAL IS OBTAINED. WHAT ARE THE CHLORIDE CONTENT OF THE SALTED WATER? THANKS. LARRY JOHNSON

EMAIL INFO TO larry.johnson@state.nm.us

USE ITRP # 1160 ON ALL CORRESPONDENCE FOR THIS SITE. THIS IS OCD TRACKING NUMBER



PATRICK H. LYONS  
COMMISSIONER

*State of New Mexico*  
*Commissioner of Public Lands*

310 OLD SANTA FE TRAIL  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

January 3, 2008

**CERTIFIED MAIL**

**RETURN RECEIPT REQUESTED**

Denise Beckham  
Chevron USA  
11111 S. Wilcrest  
Houston, TX 77099

Re: **LEASE No. E-7419-0, ROE-1490**  
**CONTAMINATED MATERIALS AT PLUGGED AND ABANDONED WELL SITE,**  
**NM EUMONT UNIT WELL # 104**  
OPERATOR: Rhombus Operating  
UL C, Sec 14, TWP 19S, RNG 36E  
LEA County, NM

Dear Ms. Beckham:

It has come to our attention that certain unacceptable damages to the surface exist on the above described oil and gas lease. A recent inspection by the State District Resource Manager has indicated stained soils exist in the location where a March 2, 2007 soil borings investigation delineated chloride and TPH contamination (as defined by the NMOCD) to a minimum depth of 7 feet bgs (see enclosed). The surface staining is an indication that the contaminated soils were not removed and appropriately disposed of as required.

This problem is in violation of OCD rules and regulations and State Land Office Rules 19.2.100.66.A.(4) Spills governing surface operations on a state oil and gas lease. These rules outline requirements for handling spills and remediation on State Trust Lands.

Several telephone discussions with the Operator, Rhombus Operating have not resulted in the appropriate corrective actions at the site. As lessee of record, you have incurred certain obligations which include operating in a prudent manner.

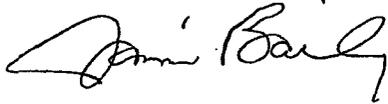
**-State Land Office Beneficiaries -**

Carrie Tingley Hospital • Charitable Penal & Reform • Common Schools • Eastern NM University • Rio Grande Improvement • Miners' Hospital of NM • NM Boys School • NM Highlands University • NM Institute of Mining & Technology • New Mexico Military Institute • NM School for the Deaf • NM School for the Visually Handicapped • NM State Hospital • New Mexico State University • Northern NM Community College • Penitentiary of New Mexico • Public Buildings at Capital • State Park Commission • University of New Mexico • UNM Saline Lands • Water Reservoirs • Western New Mexico University

You are requested to inspect your lease and to enforce corrective action within sixty days from the date of this letter. Failure to comply with the appropriate corrective action request within the time allowed will indicate that the well site has not been satisfactorily remediated and reclaimed. If these items are not addressed, lease E-7419-0 may be subject to review for expiration. Please coordinate your plans and an inspection date with our District Resource Manger, Leon Anderson, whose phone number is (505) 392-8736. If you have any questions, please feel free to contact Scott Dawson at (505) 827-6628.

Sincerely,

**PATRICK H. LYONS,**  
**COMMISSIONER OF PUBLIC LANDS**



By: Jami Bailey, Director  
Oil, Gas, and Minerals Division  
(505) 827-5745

pc: Gregory Cielinski, Rhombus Operating  
Larry Johnson, NMOCD  
Thaddeus Kostrubala, NMOCD  
Erica Padilla, NMSLO  
Leon Anderson, NMSLO

**Table 1**  
**Summary of Laboratory Analysis of Soil Investigation Samples**  
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**Section 14, Township 19 South, Range 36 East**  
**Lea County, New Mexico**

Sample Identification	Sample Depth Feet	Sample Date	Benzene	Total BTEX	DRO	GRO	Total TPH	Chloride
<b>EPA/NMED Regulatory Level:</b>			<b>10</b>	<b>50</b>			<b>100</b>	<b>500</b>
SB-1	0 - 1	3/2/2007	<0.00110	2.590	481	331	8.2	420
	5 - 6	3/2/2007	<0.00110	0.108	<9.07	10.8	10.8	127
	20 - 21	3/2/2007	<0.00110	0.0376	<9.07	2.24*	2.24	19.3*
SB-2	0 - 1	3/2/2007	<0.00110	0.9837	3,140	342	3,482	1,080
	5 - 6	3/2/2007	<0.00110	<0.0083	20.5	10.2*	30.7	78.3
	20 - 21	3/2/2007	<0.00110	0.0421	<9.07	1.44*	1.44	28.4*
SB-3	0 - 1	3/2/2007	<0.00110	0.0330	19.4	2.81*	22.21	1,470
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	15 - 16	3/2/2007	<0.00110	<0.0082	<9.07	0.887*	0.887	29.1*
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	15 - 16	3/2/2007	<0.00110	<0.0083	<9.07	2.15*	2.15	7.3*
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	7 - 8	3/2/2007	<0.00110	<0.0083	13.1	9.6*	22.7	2,350
	15 - 16	3/2/2007	<0.00110	<0.0083	9.35	4.53*	13.88	6.61*

Notes: Analysis performed by Trace Analysis, Inc., Lubbock, Texas

All results reported in milligrams per Kilogram (mg/Kg)

- 1. --: Sample was not analyzed
- 2. <: Below method detection limit

Flagging:

\* - Sample contains less than ten (10) times the concentration present in the blank

E - Estimated concentration value greater than standard range

**APPENDIX B**

**Boring Logs**

**Client:** Rhombus Operating Company

**Log: SB-1**

**Project:** NW Eumont Unit # 104

**Project No:** 6-0145

**Page:** 1 of 1

**Location:** Lea County, New Mexico

**Geologist:** W.D. Green

SUBSURFACE PROFILE			SAMPLE			PID ppm 100 300	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
		<b>Caliche</b> 7.5 YR 6/3, Light brown limestone gravel with fine grained quartz sand	1				
		<b>Sand</b> 7.5 YR 8/1, White, medium to fine sand, subround with high sporicity	2			5.4	
5		7.5 YR 8/3, Pink, medium fine sand and caliche	3			4.1	
		7.5 YR 7/2, Pinkish gray fine grained quartz sand, subround to rounded with high sporicity	4			1.6	
10		7.5 YR 7/3, Pink, fine grained quartz sand, caliche	5			2.6	
15			6			1.5	
20		<b>Sand</b> 7.5 YR 6/2, Pinkish gray, fine grained quartz sand, induration with chert, angular fractures	7			1.5	
25		<b>TD: 25.00'</b>					
30							

**Drill Method:** Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

**Elevation:** N/A

**Drill Date:** 03-02-07

**Checked by:** MJL

**Hole Size:** 4"

**Drilled by:** Scarbrough

**Client:** Rhombus Operating Company

**Log: SB-2**

**Project:** NW Eumont Unit # 104

**Page:** 1 of 1

**Project No:** 6-0145

**Geologist:** W.D. Green

**Location:** Lea County, New Mexico

SUBSURFACE PROFILE			SAMPLE			PID ppm 100 300	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
		<b>Sand</b> 2.5 YR 4/2, Dark grayish brown medium grained quartz sand	1	█		73.0	
		<b>Sand</b> 7.5 YR 8/2, Pinkish white, medium to fine grained quartz sand	2	█		13.8	
5		7.5 YR 8/2, Pinkish white, medium to fine grained quartz sand	3	█		9.1	
		7.5 YR 8/2, Pinkish white, medium to fine grained quartz sand	4	█			
10			5	█		4.9	
			6	█		4.9	
20		<b>Sand</b> 7.5 YR 7/2, Pinkish gray, fine grained quartz sand, sandstone	7	█		5.6	
		<b>TD: 21.00'</b>					
25							

**Drill Method:** Air Rotery

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

**Elevation:** N/A

**Drill Date:** 03-02-07

**Checked by:** MJL

**Hole Size:** 4"

**Drilled by:** Scarbrough



Client: Rhombus Operating Company

Log: SB-4

Project: NW Eumont Unit # 104

Page: 1 of 1

Project No: 6-0145

Geologist: W.D. Green

Location: Lea County, New Mexico

SUBSURFACE PROFILE			SAMPLE			PID ppm 50 100 150	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
		<b>Clayey sand</b> 7.5 YR 3/2, Dark brown, clayey, fine grained quartz sand, inbedded caliche.	1			71.3	
		<b>Sand</b> 7.5 YR 8/2, Pinkish, medium to fine grained quartz sand	2			1.8	
5		7.5 YR 8/2, Pinkish white, fine grained quartz sand	3			4.6	
		7.5 YR 8/2, Pinkish white, fine grained quartz sand	4			3.5	
10		7.5 YR 8/2, Pinkish white, fine grained quartz sand	5			3.4	
15		7.5 YR 8/2, Pinkish gray, medium to fine grained quartz sand, sandstone	6			3.7	
20		<b>Sand</b> 7.5 YR 6/4, Light brown, fine grained quartz sand, sandstone	7			4.1	
		<b>TD: 21.00'</b>					
25							

Drill Method: Air Rotery

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 03-02-07

Checked by: MJL

Hole Size: 4"

Drilled by: Scarbrough

Client: Rhombus Operating Company

Log: SB-5

Project: NW Eumont Unit # 104

Page: 1 of 1

Project No: 6-0145

Location: Lea County, New Mexico

Geologist: W.D. Green

SUBSURFACE PROFILE			SAMPLE			PID ppm 100 300	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
		<b>Sandy silt</b> 7.5 YR 3/2, Dark brown, clayey, fine grained quartz sand, inbedded caliche.	1	III		371.0	
		<b>Sand</b> 7.5 YR 8/2, Pink, medium to fine grained quartz sand, caliche					
		7.5 YR 8/2, Pinkish white, fine grained quartz sand	2	III		25.8	
5		7.5 YR 8/2, Pinkish white, fine grained quartz sand	3	III		6.8	
		7.5 YR 8/2, Pinkish white, fine grained quartz sand	4	III		22.6	
10		7.5 YR 8/2, Pinkish white, fine grained quartz sand	5	III		2.5	
		7.5 YR 8/2, Pinkish gray, medium to fine grained quartz sand, sandstone					
15		<b>Sand</b> 7.5 YR 6/4, Pinkish gray, fine grained quartz sand, sandstone	6	III		2.4	
		<b>TD: 16.00'</b>					
20							

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 03-02-07

Checked by: MJL

Hole Size: 4"

Drilled by: Scarbrough

Client: Rhombus Operating Company

Log: SB-6

Project: NW Eumont Unit # 104

Project No: 6-0145

Page: 1 of 1

Location: Lea County, New Mexico

Geologist: W.D. Green

SUBSURFACE PROFILE			SAMPLE			PID ppm 100 300	Notes
Depth	Symbol	Description	Number	Type	Recovery		
0		Ground Surface					
		<b>Sandy clay</b> 7.5 YR 5/2, Brown, Clayey, fine grained quartz sand, inbedded caliche.	1	III		132.9	
		<b>Sand</b> 7.5 YR 8/3, Pink, medium to fine grained quartz sand	2	III		7.8	
5		7.5 YR 8/3, Pink, medium to fine grained quartz sand	3	III		7.0	
		7.5 YR 8/3, Pink, medium to fine grained quartz sand	4	III		4.6	
10		7.5 YR 8/3, Pink, medium to fine grained quartz sand	5	III		3.0	
15		7.5 YR 8/3, Pink, fine grained quartz sand	6	III		3.3	
20		TD: 20.00'					
25							

Drill Method: Air Rotary

Larson and Associates, Inc  
507 N. Marienfeld, Suite 202  
Midland, Texas 79701  
(432) 687-0901

Elevation: N/A

Drill Date: 03-02-07

Checked by: MJL

Hole Size: 4"

Drilled by: Scarbrough

**APPENDIX C**

**Laboratory Report**



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298  
200 East Sunset Road, Suite E El Paso, Texas 79922 888•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

## Analytical and Quality Control Report

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Report Date: March 12, 2007

Work Order: 7030522



Project Location:  
Project Name: NW Eumont Unit Well #104  
Project Number: 6-0145

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
118075	SB-1 0-1	soil	2007-03-02	10:32	2007-03-05
118076	SB-1 5-6	soil	2007-03-02	10:42	2007-03-05
118077	SB-1 20-2	soil	2007-03-02	11:15	2007-03-05
118078	SB-2 0-1	soil	2007-03-02	13:25	2007-03-05
118079	SB-2 5-6	soil	2007-03-02	13:39	2007-03-05
118080	SB-2 20-2	soil	2007-03-02	13:55	2007-03-05
118081	SB-3 0-1	soil	2007-03-02	14:20	2007-03-05
118082	SB-3 7-8	soil	2007-03-02	14:38	2007-03-05
118083	SB-3 15-16	soil	2007-03-02	14:52	2007-03-05
118084	SB-4 0-1	soil	2007-03-02	15:18	2007-03-05
118085	SB-4 5-6	soil	2007-03-02	15:28	2007-03-05
118086	SB-4 15-16	soil	2007-03-02	15:44	2007-03-05
118087	SB-5 0-1	soil	2007-03-02	16:10	2007-03-05
118088	SB-5 7-8	soil	2007-03-02	16:25	2007-03-05
118089	SB-5 15-16	soil	2007-03-02	16:36	2007-03-05
118090	SB-6 0-1	soil	2007-03-02	16:48	2007-03-05
118091	SB-6 7-8	soil	2007-03-02	16:59	2007-03-05
118092	SB-6 15-16	soil	2007-03-02	17:13	2007-03-05

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

TraceAnalysis, Inc.



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Dr. Blair Leftwich, Director

**Standard Flags**

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

## Analytical Report

**Sample: 118075 - SB-1 0-1**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35249	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30597	Sample Preparation: 2007-03-05	Prepared By: ss

Parameter	Flag	RL		Dilution	RL
		Result	Units		
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<b>0.191</b>	mg/Kg	1	0.0100
Ethylbenzene		<b>0.127</b>	mg/Kg	1	0.0100
Xylene		<b>2.27</b>	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.650	mg/Kg	1	1.00	65	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.767	mg/Kg	1	1.00	77	51.1 - 119.1

**Sample: 118075 - SB-1 0-1**

Analysis: Chloride (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 35363	Date Analyzed: 2007-03-07	Analyzed By: AR
Prep Batch: 30693	Sample Preparation: 2007-03-06	Prepared By: AR

Parameter	Flag	RL		Dilution	RL
		Result	Units		
Chloride		<b>1420</b>	mg/Kg	100	1.00

**Sample: 118075 - SB-1 0-1**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

Parameter	Flag	RL		Dilution	RL
		Result	Units		
DRO		<b>481</b>	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		177	mg/Kg	1	150	118	32.9 - 167

**Sample: 118075 - SB-1 0-1**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35291	Date Analyzed: 2007-03-06	Analyzed By: ss
Prep Batch: 30630	Sample Preparation: 2007-03-06	Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<b>331</b>	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		8.44	mg/Kg	10	10.0	84	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)	<sup>1</sup>	19.9	mg/Kg	10	10.0	199	67.5 - 140.3

**Sample: 118076 - SB-1 5-6**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35249	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30597	Sample Preparation: 2007-03-05	Prepared By: ss

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		<b>0.108</b>	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.929	mg/Kg	1	1.00	93	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.978	mg/Kg	1	1.00	98	51.1 - 119.1

**Sample: 118076 - SB-1 5-6**

Analysis: Chloride (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 35363	Date Analyzed: 2007-03-07	Analyzed By: AR
Prep Batch: 30693	Sample Preparation: 2007-03-06	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>127</b>	mg/Kg	5	1.00

**Sample: 118076 - SB-1 5-6**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

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

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



**Sample: 118077 - SB-1 20-2**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		174	mg/Kg	1	150	116	32.9 - 167

**Sample: 118077 - SB-1 20-2**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35248	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30595	Sample Preparation: 2007-03-05	Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	2.24	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.820	mg/Kg	1	1.00	82	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.14	mg/Kg	1	1.00	114	67.5 - 140.3

**Sample: 118078 - SB-2 0-1**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35249	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30597	Sample Preparation: 2007-03-05	Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0627	mg/Kg	1	0.0100
Ethylbenzene		0.144	mg/Kg	1	0.0100
Xylene		0.777	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.993	mg/Kg	1	1.00	99	26 - 117.8
4-Bromofluorobenzene (4-BFB)	2	1.78	mg/Kg	1	1.00	178	51.1 - 119.1

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

**Sample: 118078 - SB-2 0-1**

Analysis: Chloride (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 35363	Date Analyzed: 2007-03-07	Analyzed By: AR
Prep Batch: 30693	Sample Preparation: 2007-03-06	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1080	mg/Kg	100	1.00

**Sample: 118078 - SB-2 0-1**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		3140	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	3	398	mg/Kg	1	150	265	32.9 - 167

**Sample: 118078 - SB-2 0-1**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35291	Date Analyzed: 2007-03-06	Analyzed By: ss
Prep Batch: 30630	Sample Preparation: 2007-03-06	Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		342	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		8.82	mg/Kg	10	10.0	88	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)	4	20.9	mg/Kg	10	10.0	209	67.5 - 140.3

**Sample: 118079 - SB-2 5-6**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35249	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30597	Sample Preparation: 2007-03-05	Prepared By: ss

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

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

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

*continued ...*

sample 118079 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.935	mg/Kg	1	1.00	94	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.958	mg/Kg	1	1.00	96	51.1 - 119.1

**Sample: 118079 - SB-2 5-6**

Analysis: Chloride (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 35363	Date Analyzed: 2007-03-07	Analyzed By: AR
Prep Batch: 30693	Sample Preparation: 2007-03-06	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		78.3	mg/Kg	5	1.00

**Sample: 118079 - SB-2 5-6**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		174	mg/Kg	1	150	116	32.9 - 167

**Sample: 118079 - SB-2 5-6**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35248	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30595	Sample Preparation: 2007-03-05	Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	10.2	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.827	mg/Kg	1	1.00	83	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.03	mg/Kg	1	1.00	103	67.5 - 140.3

**Sample: 118080 - SB-2 20-2**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35250	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30596	Sample Preparation: 2007-03-07	Prepared By: ss

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		<b>0.0421</b>	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.938	mg/Kg	1	1.00	94	26 - 117.8
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	51.1 - 119.1

**Sample: 118080 - SB-2 20-2**

Analysis: Chloride (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 35363	Date Analyzed: 2007-03-07	Analyzed By: AR
Prep Batch: 30693	Sample Preparation: 2007-03-06	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>28.4</b>	mg/Kg	5	1.00

**Sample: 118080 - SB-2 20-2**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		176	mg/Kg	1	150	117	32.9 - 167

**Sample: 118080 - SB-2 20-2**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35251	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30598	Sample Preparation: 2007-03-05	Prepared By: ss

*continued ...*



sample 118081 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		182	mg/Kg	1	150	121	32.9 - 167

**Sample: 118081 - SB-3 0-1**

Analysis: TPH GRO                      Analytical Method: S 8015B                      Prep Method: S 5035  
 QC Batch: 35251                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30598                      Sample Preparation: 2007-03-05                      Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	2.81	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.810	mg/Kg	1	1.00	81	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	67.5 - 140.3

**Sample: 118082 - SB-3 7-8**

Analysis: BTEX                      Analytical Method: S 8021B                      Prep Method: S 5035  
 QC Batch: 35250                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30596                      Sample Preparation: 2007-03-07                      Prepared By: ss

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)		0.934	mg/Kg	1	1.00	93	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.978	mg/Kg	1	1.00	98	51.1 - 119.1

**Sample: 118082 - SB-3 7-8**

Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 35364                      Date Analyzed: 2007-03-08                      Analyzed By: AR  
 Prep Batch: 30694                      Sample Preparation: 2007-03-07                      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		27.1	mg/Kg	5	1.00

**Sample: 118082 - SB-3 7-8**

Analysis: TPH DRO                      Analytical Method: Mod. 8015B                      Prep Method: N/A  
 QC Batch: 35275                      Date Analyzed: 2007-03-06                      Analyzed By: WR  
 Prep Batch: 30615                      Sample Preparation: 2007-03-05                      Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		173	mg/Kg	1	150	115	32.9 - 167

**Sample: 118082 - SB-3 7-8**

Analysis: TPH GRO                      Analytical Method: S 8015B                      Prep Method: S 5035  
 QC Batch: 35251                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30598                      Sample Preparation: 2007-03-05                      Prepared By: ss

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.821	mg/Kg	1	1.00	82	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	67.5 - 140.3

**Sample: 118083 - SB-3 15-16**

Analysis: BTEX                      Analytical Method: S 8021B                      Prep Method: S 5035  
 QC Batch: 35250                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30596                      Sample Preparation: 2007-03-07                      Prepared By: ss

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)		0.932	mg/Kg	1	1.00	93	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.978	mg/Kg	1	1.00	98	51.1 - 119.1

**Sample: 118083 - SB-3 15-16**

Analysis: Chloride (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 35364	Date Analyzed: 2007-03-08	Analyzed By: AR
Prep Batch: 30694	Sample Preparation: 2007-03-07	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		29.1	mg/Kg	5	1.00

**Sample: 118083 - SB-3 15-16**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		172	mg/Kg	1	150	115	32.9 - 167

**Sample: 118083 - SB-3 15-16**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35251	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30598	Sample Preparation: 2007-03-05	Prepared By: ss

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)		0.828	mg/Kg	1	1.00	83	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	67.5 - 140.3

**Sample: 118084 - SB-4 0-1**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35250	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30596	Sample Preparation: 2007-03-07	Prepared By: ss

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

continued ...

sample 118084 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene		<b>0.0134</b>	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.937	mg/Kg	1	1.00	94	26 - 117.8
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	51.1 - 119.1

**Sample: 118084 - SB-4 0-1**

Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 35364                              Date Analyzed: 2007-03-08                      Analyzed By: AR  
 Prep Batch: 30694                              Sample Preparation: 2007-03-07                      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>3560</b>	mg/Kg	100	1.00

**Sample: 118084 - SB-4 0-1**

Analysis: TPH DRO                              Analytical Method: Mod. 8015B                      Prep Method: N/A  
 QC Batch: 35275                              Date Analyzed: 2007-03-06                      Analyzed By: WR  
 Prep Batch: 30615                              Sample Preparation: 2007-03-05                      Prepared By: WR

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<b>169</b>	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		181	mg/Kg	1	150	121	32.9 - 167

**Sample: 118084 - SB-4 0-1**

Analysis: TPH GRO                              Analytical Method: S 8015B                      Prep Method: S 5035  
 QC Batch: 35251                              Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30598                              Sample Preparation: 2007-03-05                      Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<b>29.4</b>	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.818	mg/Kg	1	1.00	82	52.4 - 123.7

continued ...

**Sample: 118085 - SB-4 5-6**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35251	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30598	Sample Preparation: 2007-03-05	Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	3.84	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.814	mg/Kg	1	1.00	81	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	67.5 - 140.3

**Sample: 118086 - SB-4 15-16**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35250	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30596	Sample Preparation: 2007-03-07	Prepared By: ss

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)		0.923	mg/Kg	1	1.00	92	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.965	mg/Kg	1	1.00	96	51.1 - 119.1

**Sample: 118086 - SB-4 15-16**

Analysis: Chloride (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 35364	Date Analyzed: 2007-03-08	Analyzed By: AR
Prep Batch: 30694	Sample Preparation: 2007-03-07	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride	B	7.30	mg/Kg	5	1.00

**Sample: 118086 - SB-4 15-16**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		207	mg/Kg	1	150	138	32.9 - 167

**Sample: 118086 - SB-4 15-16**

Analysis: TPH GRO                      Analytical Method: S 8015B                      Prep Method: S 5035  
 QC Batch: 35251                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30598                      Sample Preparation: 2007-03-05                      Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	2.15	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.822	mg/Kg	1	1.00	82	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.14	mg/Kg	1	1.00	114	67.5 - 140.3

**Sample: 118087 - SB-5 0-1**

Analysis: BTEX                      Analytical Method: S 8021B                      Prep Method: S 5035  
 QC Batch: 35250                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30596                      Sample Preparation: 2007-03-07                      Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.0338	mg/Kg	1	0.0100
Toluene		0.337	mg/Kg	1	0.0100
Ethylbenzene		1.15	mg/Kg	1	0.0100
Xylene	6	21.8	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.714	mg/Kg	1	1.00	71	26 - 117.8
4-Bromofluorobenzene (4-BFB)	7	1.40	mg/Kg	1	1.00	140	51.1 - 119.1

**Sample: 118087 - SB-5 0-1**

Analysis: Chloride (IC)                      Analytical Method: E 300.0                      Prep Method: N/A  
 QC Batch: 35365                      Date Analyzed: 2007-03-08                      Analyzed By: AR  
 Prep Batch: 30695                      Sample Preparation: 2007-03-07                      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2580	mg/Kg	100	1.00

<sup>6</sup> Estimated concentration value greater than standard range.

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

**Sample: 118087 - SB-5 0-1**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<b>8760</b>	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	<sup>8</sup>	875	mg/Kg	5	150	583	32.9 - 167

**Sample: 118087 - SB-5 0-1**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35291	Date Analyzed: 2007-03-06	Analyzed By: ss
Prep Batch: 30598	Sample Preparation: 2007-03-05	Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<b>1180</b>	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		43.0	mg/Kg	50	50.0	86	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		67.0	mg/Kg	50	50.0	134	67.5 - 140.3

**Sample: 118088 - SB-5 7-8**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35250	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30596	Sample Preparation: 2007-03-07	Prepared By: ss

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		<b>0.386</b>	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.976	mg/Kg	1	1.00	98	26 - 117.8
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	51.1 - 119.1

<sup>8</sup>High surrogate recovery due to peak interference.

**Sample: 118088 - SB-5 7-8**

Analysis: Chloride (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 35365	Date Analyzed: 2007-03-08	Analyzed By: AR
Prep Batch: 30695	Sample Preparation: 2007-03-07	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		33.9	mg/Kg	5	1.00

**Sample: 118088 - SB-5 7-8**

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 35275	Date Analyzed: 2007-03-06	Analyzed By: WR
Prep Batch: 30615	Sample Preparation: 2007-03-05	Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		188	mg/Kg	1	150	125	32.9 - 167

**Sample: 118088 - SB-5 7-8**

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 35251	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30598	Sample Preparation: 2007-03-05	Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		30.3	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.878	mg/Kg	1	1.00	88	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)	<sup>9</sup>	1.51	mg/Kg	1	1.00	151	67.5 - 140.3

**Sample: 118089 - SB-5 15-16**

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 35250	Date Analyzed: 2007-03-05	Analyzed By: ss
Prep Batch: 30596	Sample Preparation: 2007-03-07	Prepared By: ss

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

<sup>9</sup>High surrogate recovery due to peak interference.

*continued ...*

sample 118089 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene		0.0941	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.929	mg/Kg	1	1.00	93	26 - 117.8
4-Bromofluorobenzene (4-BFB)		0.994	mg/Kg	1	1.00	99	51.1 - 119.1

**Sample: 118089 - SB-5 15-16**

Analysis: Chloride (IC)      Analytical Method: E 300.0      Prep Method: N/A  
 QC Batch: 35365      Date Analyzed: 2007-03-08      Analyzed By: AR  
 Prep Batch: 30695      Sample Preparation: 2007-03-07      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		18.6	mg/Kg	5	1.00

**Sample: 118089 - SB-5 15-16**

Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 35275      Date Analyzed: 2007-03-06      Analyzed By: WR  
 Prep Batch: 30615      Sample Preparation: 2007-03-05      Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		234	mg/Kg	1	150	156	32.9 - 167

**Sample: 118089 - SB-5 15-16**

Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 35251      Date Analyzed: 2007-03-05      Analyzed By: ss  
 Prep Batch: 30598      Sample Preparation: 2007-03-05      Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	10.9	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.835	mg/Kg	1	1.00	84	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.14	mg/Kg	1	1.00	114	67.5 - 140.3

**Sample: 118090 - SB-6 0-1**

Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035  
QC Batch: 35250 Date Analyzed: 2007-03-05 Analyzed By: ss  
Prep Batch: 30596 Sample Preparation: 2007-03-07 Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0500	mg/Kg	5	0.0100
Toluene		<0.0500	mg/Kg	5	0.0100
Ethylbenzene		<b>1.10</b>	mg/Kg	5	0.0100
Xylene		<b>3.06</b>	mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5.04	mg/Kg	5	5.00	101	26 - 117.8
4-Bromofluorobenzene (4-BFB)	<sup>10</sup>	6.63	mg/Kg	5	5.00	133	51.1 - 119.1

**Sample: 118090 - SB-6 0-1**

Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/A  
QC Batch: 35365 Date Analyzed: 2007-03-08 Analyzed By: AR  
Prep Batch: 30695 Sample Preparation: 2007-03-07 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>1610</b>	mg/Kg	100	1.00

**Sample: 118090 - SB-6 0-1**

Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A  
QC Batch: 35275 Date Analyzed: 2007-03-06 Analyzed By: WR  
Prep Batch: 30615 Sample Preparation: 2007-03-05 Prepared By: WR

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<b>4700</b>	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	<sup>11</sup>	1100	mg/Kg	1	150	733	32.9 - 167

**Sample: 118090 - SB-6 0-1**

Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035  
QC Batch: 35291 Date Analyzed: 2007-03-06 Analyzed By: ss  
Prep Batch: 30598 Sample Preparation: 2007-03-05 Prepared By: ss

*continued ...*

<sup>10</sup>High surrogate recovery due to peak interference.

<sup>11</sup>High surrogate recovery due to peak interference.





Parameter	Flag	RL Result	Units	Dilution	RL
Chloride	B	6.61	mg/Kg	5	1.00

**Sample: 118092 - SB-6 15-16**

Analysis: TPH DRO                      Analytical Method: Mod. 8015B                      Prep Method: N/A  
 QC Batch: 35275                      Date Analyzed: 2007-03-06                      Analyzed By: WR  
 Prep Batch: 30615                      Sample Preparation: 2007-03-05                      Prepared By: WR

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		209	mg/Kg	1	150	139	32.9 - 167

**Sample: 118092 - SB-6 15-16**

Analysis: TPH GRO                      Analytical Method: S 8015B                      Prep Method: S 5035  
 QC Batch: 35251                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30598                      Sample Preparation: 2007-03-05                      Prepared By: ss

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	B	4.53	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.796	mg/Kg	1	1.00	80	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.23	mg/Kg	1	1.00	123	67.5 - 140.3

**Method Blank (1)      QC Batch: 35248**

QC Batch: 35248                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30595                      QC Preparation: 2007-03-05                      Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
GRO		1.04	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.929	mg/Kg	1	1.00	93	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		0.999	mg/Kg	1	1.00	100	67.5 - 140.3

Method Blank (1) QC Batch: 35249

QC Batch: 35249  
Prep Batch: 30597

Date Analyzed: 2007-03-05  
QC Preparation: 2007-03-05

Analyzed By: ss  
Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.947	mg/Kg	1	1.00	95	62.6 - 117.6
4-Bromofluorobenzene (4-BFB)		0.899	mg/Kg	1	1.00	90	53.9 - 125.1

Method Blank (1) QC Batch: 35250

QC Batch: 35250  
Prep Batch: 30596

Date Analyzed: 2007-03-05  
QC Preparation: 2007-03-05

Analyzed By: ss  
Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.943	mg/Kg	1	1.00	94	62.6 - 117.6
4-Bromofluorobenzene (4-BFB)		0.865	mg/Kg	1	1.00	86	53.9 - 125.1

Method Blank (1) QC Batch: 35251

QC Batch: 35251  
Prep Batch: 30598

Date Analyzed: 2007-03-05  
QC Preparation: 2007-03-05

Analyzed By: ss  
Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
GRO		1.24	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.935	mg/Kg	1	1.00	94	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	67.5 - 140.3

**Method Blank (1)**      QC Batch: 35275

QC Batch: 35275      Date Analyzed: 2007-03-06      Analyzed By: WR  
Prep Batch: 30615      QC Preparation: 2007-03-05      Prepared By: WR

Parameter	Flag	MDL Result	Units	RL
DRO		<9.07	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		152	mg/Kg	1	150	101	44.7 - 133.6

**Method Blank (1)**      QC Batch: 35291

QC Batch: 35291      Date Analyzed: 2007-03-06      Analyzed By: ss  
Prep Batch: 30598      QC Preparation: 2007-03-05      Prepared By: ss

Parameter	Flag	MDL Result	Units	RL
GRO		2.56	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.897	mg/Kg	1	1.00	90	52.4 - 123.7
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	67.5 - 140.3

**Matrix Blank (1)**      QC Batch: 35363

QC Batch: 35363      Date Analyzed: 2007-03-07      Analyzed By: AR  
Prep Batch: 30693      QC Preparation: 2007-03-06      Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.38	mg/Kg	1

**Matrix Blank (1)**      QC Batch: 35364

QC Batch: 35364      Date Analyzed: 2007-03-08      Analyzed By: AR  
Prep Batch: 30694      QC Preparation: 2007-03-07      Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.32	mg/Kg	1

**Matrix Blank (1)**      QC Batch: 35365

QC Batch: 35365      Date Analyzed: 2007-03-08      Analyzed By: AR  
Prep Batch: 30695      QC Preparation: 2007-03-07      Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		2.30	mg/Kg	1

**Laboratory Control Spike (LCS-1)**

QC Batch: 35248                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30595                      QC Preparation: 2007-03-05                      Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.76	mg/Kg	1	10.0	1.04	67	57.7 - 102.5

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	7.08	mg/Kg	1	10.0	1.04	60	57.7 - 102.5	9	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)	1.17	0.839	mg/Kg	1	1.00	117	84	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	1.05	1.07	mg/Kg	1	1.00	105	107	70 - 130

**Laboratory Control Spike (LCS-1)**

QC Batch: 35249                      Date Analyzed: 2007-03-05                      Analyzed By: ss  
 Prep Batch: 30597                      QC Preparation: 2007-03-05                      Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.952	mg/Kg	1	1.00	<0.00110	95	68.6 - 123.4
Toluene	0.968	mg/Kg	1	1.00	<0.00150	97	74.6 - 119.3
Ethylbenzene	0.972	mg/Kg	1	1.00	<0.00160	97	72.3 - 126.2
Xylene	2.95	mg/Kg	1	3.00	<0.00410	98	76.5 - 121.6

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	0.981	mg/Kg	1	1.00	<0.00110	98	68.6 - 123.4	3	20
Toluene	0.998	mg/Kg	1	1.00	<0.00150	100	74.6 - 119.3	3	20
Ethylbenzene	1.01	mg/Kg	1	1.00	<0.00160	101	72.3 - 126.2	4	20
Xylene	3.08	mg/Kg	1	3.00	<0.00410	103	76.5 - 121.6	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)	0.900	0.900	mg/Kg	1	1.00	90	90	64.1 - 118.2
4-Bromofluorobenzene (4-BFB)	0.945	0.963	mg/Kg	1	1.00	94	96	68.7 - 125.8

**Laboratory Control Spike (LCS-1)**

QC Batch: 35250  
Prep Batch: 30596

Date Analyzed: 2007-03-05  
QC Preparation: 2007-03-05

Analyzed By: ss  
Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.938	mg/Kg	1	1.00	<0.00110	94	68.6 - 123.4
Toluene	0.956	mg/Kg	1	1.00	<0.00150	96	74.6 - 119.3
Ethylbenzene	0.946	mg/Kg	1	1.00	<0.00160	95	72.3 - 126.2
Xylene	2.87	mg/Kg	1	3.00	<0.00410	96	76.5 - 121.6

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.980	mg/Kg	1	1.00	<0.00110	98	68.6 - 123.4	4	20
Toluene	0.988	mg/Kg	1	1.00	<0.00150	99	74.6 - 119.3	3	20
Ethylbenzene	0.985	mg/Kg	1	1.00	<0.00160	98	72.3 - 126.2	4	20
Xylene	2.99	mg/Kg	1	3.00	<0.00410	100	76.5 - 121.6	4	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.892	0.907	mg/Kg	1	1.00	89	91	64.1 - 118.2
4-Bromofluorobenzene (4-BFB)	0.929	0.922	mg/Kg	1	1.00	93	92	68.7 - 125.8

**Laboratory Control Spike (LCS-1)**

QC Batch: 35251  
Prep Batch: 30598

Date Analyzed: 2007-03-05  
QC Preparation: 2007-03-05

Analyzed By: ss  
Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.81	mg/Kg	1	10.0	1.24	66	57.7 - 102.5

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.18	mg/Kg	1	10.0	1.24	59	57.7 - 102.5	8	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.18	1.09	mg/Kg	1	1.00	118	109	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	1.07	1.04	mg/Kg	1	1.00	107	104	70 - 130

**Laboratory Control Spike (LCS-1)**

QC Batch: 35275  
Prep Batch: 30615

Date Analyzed: 2007-03-06  
QC Preparation: 2007-03-05

Analyzed By: WR  
Prepared By: WR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	193	mg/Kg	1	250	<9.07	77	47.5 - 144.1

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	188	mg/Kg	1	250	<9.07	75	47.5 - 144.1	3	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
n-Triacontane	163	160	mg/Kg	1	150	109	107	57.3 - 131.6

**Laboratory Control Spike (LCS-1)**

QC Batch: 35291  
Prep Batch: 30598

Date Analyzed: 2007-03-06  
QC Preparation: 2007-03-05

Analyzed By: ss  
Prepared By: ss

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.39	mg/Kg	1	10.0	2.56	68	57.7 - 102.5

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.17	mg/Kg	1	10.0	2.56	66	57.7 - 102.5	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.26	1.09	mg/Kg	1	1.00	126	109	36.8 - 152.5
4-Bromofluorobenzene (4-BFB)	1.14	1.10	mg/Kg	1	1.00	114	110	70 - 130

**Laboratory Control Spike (LCS-1)**

QC Batch: 35363  
Prep Batch: 30693

Date Analyzed: 2007-03-07  
QC Preparation: 2007-03-06

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	14.0	mg/Kg	1	12.5	1.3726	101	90 - 110

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	14.2	mg/Kg	1	12.5	1.3726	103	90 - 110	1	

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 35364  
Prep Batch: 30694

Date Analyzed: 2007-03-08  
QC Preparation: 2007-03-07

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13.7	mg/Kg	1	12.5	1.3521	99	90 - 110

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
Chloride	14.3	mg/Kg	1	12.5	1.3521	104	90 - 110	4	

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 35365  
Prep Batch: 30695

Date Analyzed: 2007-03-08  
QC Preparation: 2007-03-07

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13.9	mg/Kg	1	12.5	1.3792	100	90 - 110

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
Chloride	13.2	mg/Kg	1	12.5	1.3792	94	90 - 110	5	

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

**Matrix Spike (MS-1) Spiked Sample: 118076**

QC Batch: 35248  
Prep Batch: 30595

Date Analyzed: 2007-03-05  
QC Preparation: 2007-03-05

Analyzed By: ss  
Prepared By: ss

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	<sup>14</sup> 7.58	mg/Kg	1	10.0	7.58	0	10 - 141.5

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	<sup>15</sup> 7.64	mg/Kg	1	10.0	7.58	0	10 - 141.5	1	20

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

*continued ...*

<sup>14</sup> Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>15</sup> Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.696	0.688	mg/Kg	1	1	70	69	40 - 125.3
4-Bromofluorobenzene (4-BFB)	1.24	1.20	mg/Kg	1	1	124	120	86.7 - 144.5

**Matrix Spike (MS-1) Spiked Sample: 118076**

QC Batch: 35249 Date Analyzed: 2007-03-05 Analyzed By: ss  
Prep Batch: 30597 QC Preparation: 2007-03-05 Prepared By: ss

Param	MS Result	MSD Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	<sup>16</sup> 1.17	mg/Kg	1	1.00	<0.00110	117	64.4 - 115.7
Toluene	1.21	mg/Kg	1	1.00	<0.00150	121	57.8 - 124.4
Ethylbenzene	1.24	mg/Kg	1	1.00	<0.00160	124	64.8 - 125.8
Xylene	<sup>17</sup> 3.81	mg/Kg	1	3.00	0.1083	123	65.2 - 121.8

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	1.01	mg/Kg	1	1.00	<0.00110	101	64.4 - 115.7	15	20
Toluene	1.07	mg/Kg	1	1.00	<0.00150	107	57.8 - 124.4	12	20
Ethylbenzene	1.10	mg/Kg	1	1.00	<0.00160	110	64.8 - 125.8	12	20
Xylene	3.36	mg/Kg	1	3.00	0.1083	108	65.2 - 121.8	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)	0.888	0.883	mg/Kg	1	1	89	88	52.8 - 121.7
4-Bromofluorobenzene (4-BFB)	0.970	0.939	mg/Kg	1	1	97	94	66.7 - 131.9

**Matrix Spike (MS-1) Spiked Sample: 118080**

QC Batch: 35250 Date Analyzed: 2007-03-05 Analyzed By: ss  
Prep Batch: 30596 QC Preparation: 2007-03-05 Prepared By: ss

Param	MS Result	MSD Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	<sup>18</sup> 1.17	mg/Kg	1	1.00	<0.00110	117	64.4 - 115.7
Toluene	1.22	mg/Kg	1	1.00	<0.00150	122	57.8 - 124.4
Ethylbenzene	<sup>19</sup> 1.26	mg/Kg	1	1.00	<0.00160	126	64.8 - 125.8
Xylene	<sup>20</sup> 3.82	mg/Kg	1	3.00	0.0421	126	65.2 - 121.8

<sup>16</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>17</sup> Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>18</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>19</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>20</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

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	<sup>21</sup> 1.18	mg/Kg	1	1.00	<0.00110	118	64.4 - 115.7	1	20
Toluene	1.23	mg/Kg	1	1.00	<0.00150	123	57.8 - 124.4	1	20
Ethylbenzene	<sup>22</sup> 1.28	mg/Kg	1	1.00	<0.00160	128	64.8 - 125.8	2	20
Xylene	<sup>23</sup> 3.89	mg/Kg	1	3.00	0.0421	128	65.2 - 121.8	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)	0.863	0.873	mg/Kg	1	1	86	87	52.8 - 121.7
4-Bromofluorobenzene (4-BFB)	0.985	0.982	mg/Kg	1	1	98	98	66.7 - 131.9

**Matrix Spike (MS-1)** Spiked Sample: 118080

QC Batch: 35251 Date Analyzed: 2007-03-05 Analyzed By: ss  
Prep Batch: 30598 QC Preparation: 2007-03-05 Prepared By: ss

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.56	mg/Kg	1	10.0	1.441	61	10 - 141.5

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	8.90	mg/Kg	1	10.0	1.441	74	10 - 141.5	16	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)	0.652	0.672	mg/Kg	1	1	65	67	40 - 125.3
4-Bromofluorobenzene (4-BFB)	1.18	1.15	mg/Kg	1	1	118	115	86.7 - 144.5

**Matrix Spike (MS-1)** Spiked Sample: 118076

QC Batch: 35275 Date Analyzed: 2007-03-06 Analyzed By: WR  
Prep Batch: 30615 QC Preparation: 2007-03-05 Prepared By: WR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	269	mg/Kg	1	250	<9.07	108	11.7 - 152.3

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
DRO	260	mg/Kg	1	250	<9.07	104	11.7 - 152.3	3	20

<sup>21</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>22</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>23</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	198	176	mg/Kg	1	150	132	117	17 - 163.1

**Matrix Spike (MS-1)** Spiked Sample: 118078

QC Batch: 35291 Date Analyzed: 2007-03-06 Analyzed By: ss  
Prep Batch: 30598 QC Preparation: 2007-03-05 Prepared By: ss

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	<sup>24</sup> 258	mg/Kg	10	100	258	0	10 - 141.5

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	<sup>25</sup> 322	mg/Kg	10	100	258	0	10 - 141.5	22	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)	8.08	7.61	mg/Kg	10	10	81	76	40 - 125.3
4-Bromofluorobenzene (4-BFB)	<sup>26</sup> 12.2	16.9	mg/Kg	10	10	122	169	86.7 - 144.5

**Matrix Spike (MS-1)** Spiked Sample: 118080

QC Batch: 35364 Date Analyzed: 2007-03-07 Analyzed By: AR  
Prep Batch: 30693 QC Preparation: 2007-03-06 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	90.2	mg/Kg	5	62.5	28.452	99	90 - 110

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
Chloride	90.5	mg/Kg	5	62.5	28.452	99	90 - 110	0	

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

**Matrix Spike (MS-1)** Spiked Sample: 118083

QC Batch: 35364 Date Analyzed: 2007-03-08 Analyzed By: AR  
Prep Batch: 30694 QC Preparation: 2007-03-07 Prepared By: AR

<sup>24</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>25</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

<sup>26</sup>High surrogate recovery due to peak interference.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	<sup>27</sup> 182	mg/Kg	5	62.5	29.0917	245	90 - 110

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
Chloride	<sup>28</sup> 81.0	mg/Kg	5	62.5	29.0917	83	90 - 110	77	

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

**Matrix Spike (MS-1)** Spiked Sample: 118088

QC Batch: 35365 Date Analyzed: 2007-03-08 Analyzed By: AR  
Prep Batch: 30695 QC Preparation: 2007-03-07 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	92.6	mg/Kg	5	62.5	33.8897	94	90 - 110

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
Chloride	94.3	mg/Kg	5	62.5	33.8897	97	90 - 110	2	

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

**Standard (ICV-1)**

QC Batch: 35248 Date Analyzed: 2007-03-05 Analyzed By: ss

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.01	101	85 - 115	2007-03-05

**Standard (CCV-1)**

QC Batch: 35248 Date Analyzed: 2007-03-05 Analyzed By: ss

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.00	100	85 - 115	2007-03-05

**Standard (ICV-1)**

QC Batch: 35249 Date Analyzed: 2007-03-05 Analyzed By: ss

<sup>27</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.  
<sup>28</sup> Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0961	96	85 - 115	2007-03-05
Toluene		mg/Kg	0.100	0.0978	98	85 - 115	2007-03-05
Ethylbenzene		mg/Kg	0.100	0.0980	98	85 - 115	2007-03-05
Xylene		mg/Kg	0.300	0.298	99	85 - 115	2007-03-05

**Standard (CCV-1)**

QC Batch: 35249

Date Analyzed: 2007-03-05

Analyzed By: ss

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0954	95	85 - 115	2007-03-05
Toluene		mg/Kg	0.100	0.0979	98	85 - 115	2007-03-05
Ethylbenzene		mg/Kg	0.100	0.0965	96	85 - 115	2007-03-05
Xylene		mg/Kg	0.300	0.293	98	85 - 115	2007-03-05

**Standard (ICV-1)**

QC Batch: 35250

Date Analyzed: 2007-03-05

Analyzed By: ss

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0971	97	85 - 115	2007-03-05
Toluene		mg/Kg	0.100	0.0987	99	85 - 115	2007-03-05
Ethylbenzene		mg/Kg	0.100	0.0979	98	85 - 115	2007-03-05
Xylene		mg/Kg	0.300	0.296	99	85 - 115	2007-03-05

**Standard (CCV-1)**

QC Batch: 35250

Date Analyzed: 2007-03-05

Analyzed By: ss

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0932	93	85 - 115	2007-03-05
Toluene		mg/Kg	0.100	0.0954	95	85 - 115	2007-03-05
Ethylbenzene		mg/Kg	0.100	0.0909	91	85 - 115	2007-03-05
Xylene		mg/Kg	0.300	0.279	93	85 - 115	2007-03-05

**Standard (ICV-1)**

QC Batch: 35251

Date Analyzed: 2007-03-05

Analyzed By: ss





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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.4	92	90 - 110	2007-03-08

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**Standard (CCV-1)**

QC Batch: 35365

Date Analyzed: 2007-03-08

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.4	91	90 - 110	2007-03-08

CLIENT NAME: <b>Rhombus Operating</b>		SITE MANAGER: <b>William Green</b>		PARAMETERS/METHOD NUMBER				CHAIN—OF—CUSTODY RECORD				
PROJECT NO.: <b>6-0145</b>		PROJECT NAME: <b>NW Eumont Unit Well #104</b>		NUMBER OF CONTAINERS	BTEX 8021	TPH 8015M	Chloride	 Larson & Associates, Inc. Fax: 432-687-0456 Environmental Consultants 432-687-0901 507 N. Marienfeld, Ste. 202 • Midland, TX 79701				
PAGE <b>1</b> OF <b>1</b>		LAB. PO # <b>7030522</b>										LAB. I.D. NUMBER (LAB USE ONLY)
DATE	TIME	WATER	SOIL					OTHER	SAMPLE IDENTIFICATION			
3/2	1032		X		SB-1 @ 0-1'	1	X	X	X		118075	
3/2	1042		X		SB-1 @ 5-6'	1	X	X	X		076	
3/2	1115		X		SB-1 @ 20-21'	1	X	X	X		077	
3/2	125		X		SB-2 @ 0-1'	1	X	X	X		078	
3/2	139		X		SB-2 @ 5-6'	1	X	X	X		079	
3/2	153		X		SB-2 @ 20-21'	1	X	X	X		080	
3/2	220		X		SB-3 @ 0-1'	1	X	X	X		081	
3/2	238		X		SB-3 @ 7-8'	1	X	X	X		082	
3/2	252		X		SB-3 @ 15-16'	1	X	X	X		083	
3/2	318		X		SB-4 @ 0-1'	1	X	X	X		084	
3/2	328		X		SB-4 @ 5-6'	1	X	X	X		085	
3/2	344		X		SB-4 @ 15-16'	1	X	X	X		086	Report TRRP-NO
3/2	410		X		SB-5 @ 0-1'	1	X	X	X		087	checklist include
3/2	425		X		SB-5 @ 7-8'	1	X	X	X		088	case narrative.
3/2	436		X		SB-5 @ 15-16'	1	X	X	X		089	and
3/2	448		X		SB-6 @ 0-1'	1	X	X	X		090	
3/2	459		X		SB-6 @ 7-8'	1	X	X	X		091	
3/2	513		X		SB-6 @ 15-16'	1	X	X	X		092	
SAMPLED BY: (Signature) <i>[Signature]</i>		DATE: <b>3/2/07</b>		RELINQUISHED BY: (Signature) <i>[Signature]</i>		DATE: <b>2/5/06</b>		RECEIVED BY: (Signature) <i>[Signature]</i>		DATE: <b>3/5/07</b>		
RELINQUISHED BY: (Signature) <i>[Signature]</i>		DATE: <b>3/5/07</b>		RECEIVED BY: (Signature) <i>[Signature]</i>		DATE: _____		SAMPLE SHIPPED BY: (Circle)		DATE: <b>3/5/07</b>		
COMMENTS:		TURNAROUND TIME NEEDED <b>Std</b>		FEDEX		BUS		AIRBILL #:		TIME: <b>8:32</b>		
RECEIVING LABORATORY: <b>TRACE ANALYSIS</b>		RECEIVED BY: (Signature) <i>[Signature]</i>		HAND DELIVERED		UPS		OTHER:		TIME: <b>8:32</b>		
ADDRESS: _____		CITY: <b>MIDLAND</b>		STATE: <b>TX</b>		ZIP: _____		PINK - PROJECT MANAGER		GOLD - QA/QC COORDINATOR		
CONTACT: _____		PHONE: _____		DATE: <b>3-5-07</b>		TIME: <b>9:40</b>		SAMPLE TYPE: <b>Soil</b>		all tests - Midland		
SAMPLE CONDITION WHEN RECEIVED: <b>1.4°C, good, intact on ice</b>				LA CONTACT PERSON: <b>Michelle Green</b>				SAMPLE TYPE: <b>Soil</b>				



**APPENDIX D**

**Photographs**

CHEVRON NORTH AMERICA EXPLORATION AND PRODUCTION COMPANY  
NW EUMONT UNIT WELL #104

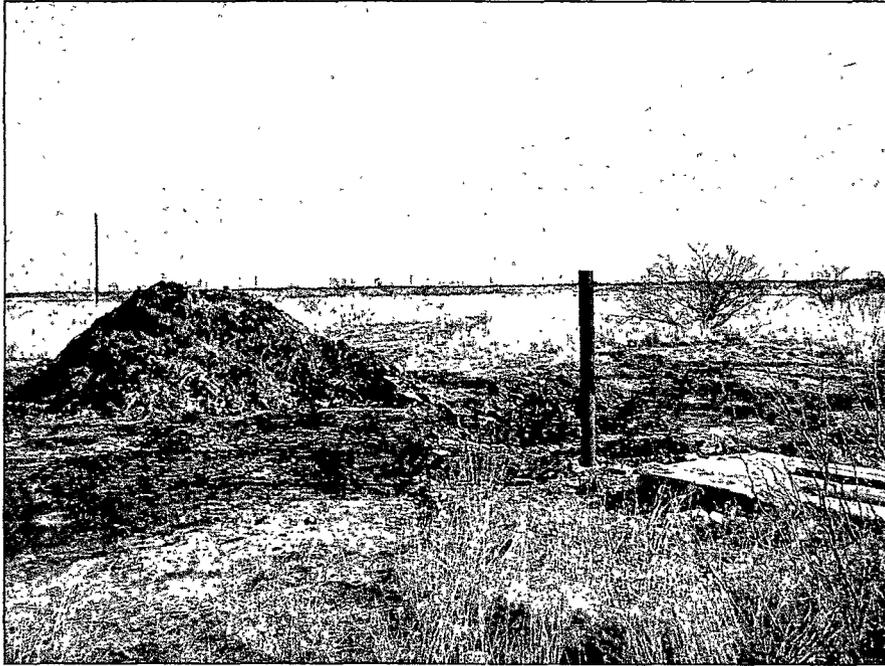


**1. NW Eumont Unit Well #104 Spill Area Looking South.**



**2. NW Eumont Unit Well #104 Spill Area Looking East.**

CHEVRON NORTH AMERICA EXPLORATION AND PRODUCTION COMPANY  
NW EUMONT UNIT WELL #104



**3. NW Eumont Unit Well #104 Spill Area Looking Southeast.**



**4. NW Eumont Unit Well #104 Spill Area Looking South.**

CHEVRON NORTH AMERICA EXPLORATION AND PRODUCTION COMPANY  
NW EUMONT UNIT WELL #104



**5. NW Eumont Unit Well #104 Spill Area Looking South.**

**APPENDIX E**

**Form C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised October 10, 2003

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**  Initial Report  Final Report

Name of Company – RHOMBUS OPERATING CO LTD	Contact – MABRY KNIFFEN-WINGO
Address – PO BOX 8316, MIDLAND, TX 79708	Telephone No. – 432-683-8873
Facility Name – NORTHWEST EUMONT UNIT #104	Facility Type – INJECTION WELL

Surface Owner: State	Mineral Owner: State	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	14	19-S	36-E	660	NORTH	1980	WEST	LEA

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release – SALT WATER	Volume of Release - Unknown	Volume Recovered - < 1 BBL
Source of Release – INJECTION LINE	Date and Hour of Occurrence – Unknown	Date and Hour of Discovery- 12/16/06 9:00 am
Was Immediate Notice Given? x Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Gary Wink	
By Whom? Don Harmon	Date and Hour 12/16/06 3:00 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes x No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
HOLE IN INJECTION LINE. DUG UP AND REPAIRED INJECTION LINE.

Describe Area Affected and Cleanup Action Taken.\*  
20' X 30' AROUND WELLHEAD, RUNOFF 50 YARDS INTO CATTLE TRAIL. NO ACTION TAKEN YET – WAITING ON STATE APPROVAL. PLAN ON DIGGING OUT NEWLY CONTAMINATED DIRT, HAULING IT TO AN APPROVED DISPOSAL SITE, AND REPLACING IT WITH FRESH DIRT.

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

		<b>OIL CONSERVATION DIVISION</b>	
Signature:	Approved by District Supervisor: <i>Chris Williams</i>		
Printed Name:	Approval Date: 1/17/08	Expiration Date: 4/18/08	
Title:	Conditions of Approval: <i>Please sign for operator!</i>		Attached <input type="checkbox"/>
E-mail Address:			
Date:	Phone:		

\* Attach Additional Sheets If Necessary