

1R - 454

# REPORTS

DATE:

Sept. 2008



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# SITE CLOSURE REQUEST

**DENTON GATHERING**  
SECTION 11, TOWNSHIP 15 SOUTH, RANGE 37 EAST  
NORTHEAST OF LOVINGTON  
LEA COUNTY, NEW MEXICO

NMOCD Reference No. 1R-454

Prepared for:

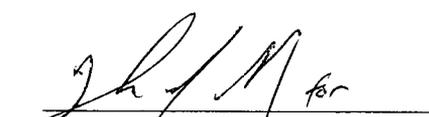
**Centurion Pipeline L.P.**  
6 Desta Drive, Suite 5050  
Midland, Texas 79705



Prepared by:

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

September 2008

  
\_\_\_\_\_  
Ronald K. Rounsaville  
Project Manager

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

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## 1.0 INTRODUCTION AND SITE BACKGROUND

On behalf of Centurion Pipeline L.P. (Centurion), NOVA Safety and Environmental (NOVA) has prepared this Site Closure Request for the site known as Denton Gathering. The Denton Gathering pipeline is an inactive 6-inch crude oil pipeline operated by Centurion Pipeline. The release site is located in Section 11, Township 15 South, Range 37 East, Lea County, New Mexico. A site location map is provided as Figure 1.

On March 7, 2003, BP (former owner of the line) reported a release of crude oil from a 6-inch gathering pipeline located approximately 15 miles northeast of Lovington, New Mexico on property owned by Mr. Darr Angell. Following line repairs, the initial excavation activities removed visibly affected soil. From April 1 through August 20, 2003, several episodes of over-excavation and confirmation soil sampling were conducted. Final soil sample results indicated all crude oil affected soils above NMOCD cleanup standards were removed from the excavation and stockpiled on-site for remediation.

On September 30, 2003, a Soil Assessment Report and Remedial Work Plan was submitted to the NMOCD for review. On February 25, 2004, a Workplan for monitor well installation was submitted to the NMOCD and subsequently approved on April 13, 2004. In June 2004, four monitor wells were installed at the site and groundwater samples collected. Laboratory analytical results on groundwater samples collected indicated the groundwater beneath the site was not impacted by the release. In August 2004, a Site Investigation Report was submitted to the NMOCD documenting the assessment and remediation activities conducted at the site. On November 15, 2004, Delta Environmental submitted a Request for Closure Workplan to the NMOCD summarizing the soil excavation, sampling activities and groundwater monitoring activities and requested NMOCD approval to close the groundwater investigation. The Closure Workplan requested a resolution the issue of the 5,000 cubic yards of impacted soil stockpiled at the site based on three scenerios: Off-site disposal of impacted soils, installation of a poly-liner, or mixing and blending of impacted soils to below 100 mg/Kg. In a letter dated November 22, 2005 from the NMOCD, approval was granted for the plugging and abandonment of the four existing monitor wells along with the soil blending option for soil remediation.

## 2.0 NMOCD SITE CLASSIFICATION

The groundwater investigation activities conducted at the site indicated that groundwater is approximately 60 feet below ground surface (bgs). This depth to groundwater results in a score of 20 being assigned to this site based on the NMOCD ranking criteria. The distance to the nearest water source exceeds 1,000 feet, resulting in zero points being assigned to the site on this ranking criterion. There is no surface water body located with 1,000 feet of the site, resulting in no points being assigned on this ranking criterion.

The NMOCD's *Guidelines for Remediation of Leaks, Spills and Releases* (NMOCD, 1993), indicates the Denton Gathering site has a ranking score of 20 points. The soil cleanup levels for a site with a ranking of 20 require benzene concentrations below 10 mg/Kg, total benzene, toluene, ethylbenzene and xylene (BTEX) concentrations below 50 mg/Kg and total petroleum

hydrocarbons gasoline range organics / diesel range organics (TPH-GRO/DRO) concentrations below 100 mg/Kg.

On February 26, 2008, Centurion was granted approval, in an e-mail correspondence with Mr. Wayne Price of the NMOCD, to backfill the existing excavation area upon receipt of laboratory analytical results confirming that the blended soil stockpiles were below the NMOCD regulatory guideline of 100 mg/Kg requirement.

### **3.0 SUMMARY OF FIELD ACTIVITIES**

On May 19, 2008, soil blending activities began on the three existing soil stockpiles totaling approximately 5,000 cubic yards (cy) of hydrocarbon impacted soil previously excavated from the site. The excavated soil was staged on site pending final disposition. A Site Details Map indicating sample locations and other site details is provided as Figure 2.

The southeast and southwest soil stockpiles, each consisting of approximately 1,500 cy, along with the north soil stockpile, approximately 2,000 cy, were separated into several piles, tilled and spread in lifts of approximately 2 feet thick and allowed to aerate. Non-impacted soil surrounding the excavation area was used to blend with the impacted soil. From May 27 through June 24, 2008, as blending and mixing activities continued, NOVA personnel collected composite soil samples from each of the separately blended soil stockpiles and submitted the soil samples for laboratory analysis for TPH-GRO/DRO by EPA Method 8015M.

Based on results of laboratory analyzed confirmation soil samples obtained from the remediated soil piles, the NMOCD approved the backfilling of the excavation area with remediated soil. Backfilling of the excavation commenced on June 26, 2008. The blended soil stockpile was placed in the excavation in twelve-inch lifts and compacted. A water truck was used to supply moisture to the soil to provide adequate moisture required for proper compaction.

On July 1, 2008, backfilling activities were completed and the disturbed area was contoured to fit the surrounding topography. On July 23, 2008, the disturbed area was reseeded with a grass seed mixture as requested by the property owner.

### **4.0 SITE CLOSURE REQUEST**

In summary, the analytical results of final confirmation soil samples collected from the remediated soil stockpiles indicate TPH concentrations are below the required NMOCD regulatory levels of 100 mg/Kg. Based on the analytical results of confirmation soil samples NOVA recommends that Centurion provide the NMOCD a copy of this *Site Closure Request* and request the NMOCD grant closure to the Denton Gathering release site of March 7, 2003.

## 5.0 LIMITATIONS

NOVA has prepared this *Site 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 *Site Closure Request* has been prepared for the benefit of Centurion. 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 Centurion.

**6.0 DISTRIBUTION**

Copy 1: Ed Hansen  
New Mexico Energy, Minerals and Natural Resources Department  
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Oil Conservation Division (District 1)  
1625 French Drive  
Hobbs, NM 88240

Copy 3: Darrel Lester  
Centurion Pipeline L.P.  
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2057 Commerce Drive  
Midland, Texas 79703  
rrounsaville@novatraining.cc



**FIGURES**

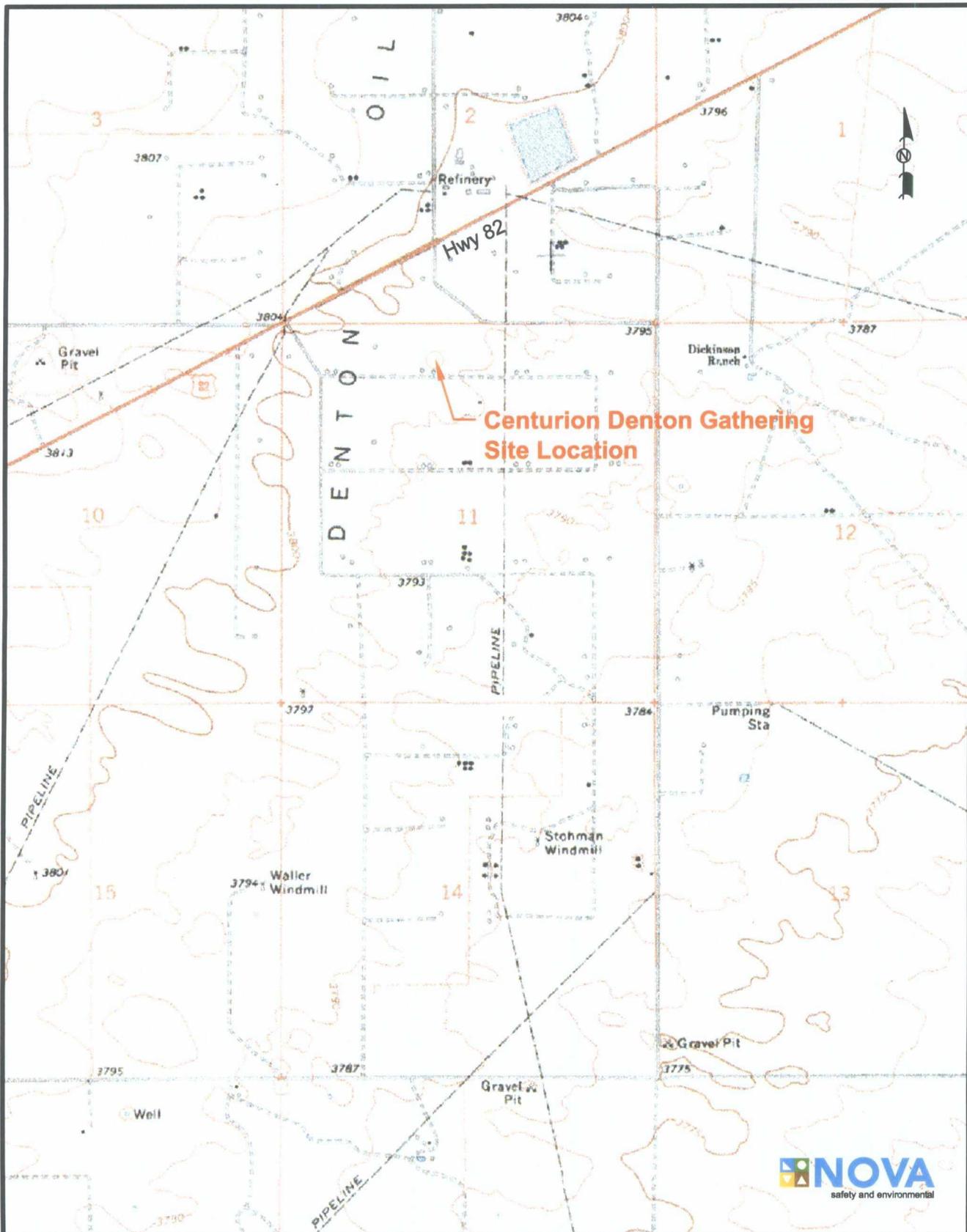
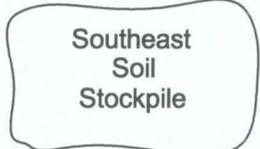
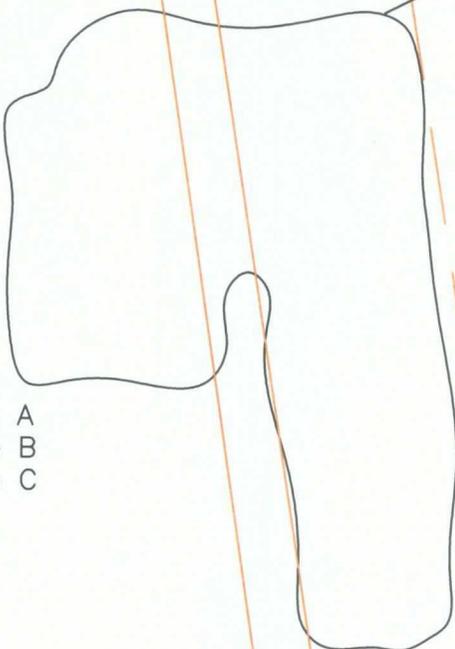
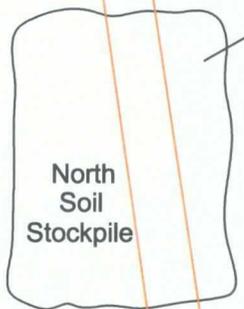


Figure 1  
 Site Location Map  
 Denton Gathering  
 Centurion Pipeline, L.P.  
 Lea County, NM

NOVA Safety and Environmental

Scale: 1"=2000'	CAD By: DGC	Checked By: RKR
August 26, 2008		

- North Stockpile Sample I.D.'s
- 1-N Stockpile A
  - 2-N Stockpile B
  - 3-N Stockpile C
  - 4-N SP A2-2
  - 5-N SP B2-2
  - 6-N SP C2-2
  - 7-N Stockpile A-3
  - 8-N Stockpile B-3
  - 9-N Stockpile C-3
  - 10-North SP-4A
  - 11-North SP-4B
  - 12-North SP-4C
  - 13-NW-SP-5
  - 14-NC-SP-5
  - 15-NE-SP-5



- Southwest Stockpile Sample I.D.'s
- 1-Southwest Stockpile A
  - 2-Southwest Stockpile B
  - 3-Southwest Stockpile C

- Southeast Stockpile Sample I.D.'s
- 1-SE Stockpile A
  - 2-SE Stockpile B
  - 3-SE SP A2-2
  - 4-SE Stockpile A-3

Lease Road

Centurion 6" Pipeline  
 Centurion 10" Pipeline  
 Plains Pipeline



Legend

- Pipeline
- Sample Location

**Figure 2**  
 Site Details Map with Confirmation Soil Sample Locations  
 Denton Gathering  
 Centurion Pipeline, L.P.  
 Lea County, NM

NOVA Safety and Environmental



Scale: 1" = 50'	Prep By: DGC	Checked By: RKR
August 26, 2008		



## TABLES

**TABLE 1**  
**Analytical Results - Confirmation Soil Samples**  
**Centurion, Denton Gathering**  
**Lovington, Lea Country, New Mexico**  
**Centurion Pipeline, LP**

SAMPLE DATE	SAMPLE IDENTIFICATION	SAMPLE DEPTH	SOIL STATUS	TPH Analyzed By Method 8015B		
				GRO C6-C12 mg/Kg	DRO >C12-C35 mg/Kg	Total TPH C6-C35 mg/Kg
<b>NMOC D REGULATORY STANDARDS</b>						<b>100</b>
05/27/08	SW Stockpile A	Stockpile	Backfill	<1.00	58.2	58.2
05/27/08	SW Stockpile B	Stockpile	Backfill	<1.00	<50.0	<50.0
05/27/08	SW Stockpile C	Stockpile	Backfill	<1.00	<50.0	<50.0
05/27/08	SE Stockpile A	Stockpile	Backfill	<1.00	<b>101</b>	<b>101</b>
05/27/08	SE Stockpile B	Stockpile	Backfill	<1.00	72.8	72.8
05/29/08	N. Stockpile A	Stockpile	Backfill	<b>7.38</b>	<b>243</b>	<b>250.4</b>
05/29/08	N. Stockpile B	Stockpile	Backfill	<b>60.7</b>	<b>250</b>	<b>311</b>
05/29/08	N. Stockpile C	Stockpile	Backfill	<b>39.9</b>	<b>377</b>	<b>417</b>
06/05/08	SE-SP A2-2	Stockpile	Backfill	<1.00	<b>126</b>	<b>126</b>
06/05/08	N-SP A2-2	Stockpile	Backfill	<b>13.6</b>	<b>244</b>	<b>257.6</b>
06/05/08	N-SP B2-2	Stockpile	Backfill	<b>22.6</b>	<b>323</b>	<b>345.6</b>
06/05/08	N-SP C2-2	Stockpile	Backfill	<b>8.9</b>	<b>224</b>	<b>233</b>
06/11/08	N. Stockpile A-3	Stockpile	Backfill	<1.00	<b>287</b>	<b>287</b>
06/11/08	N. Stockpile B-3	Stockpile	Backfill	<b>3.94</b>	<b>189</b>	<b>193</b>
06/11/08	N. Stockpile C-3	Stockpile	Backfill	<b>1.48</b>	<b>145</b>	<b>146.5</b>
06/11/08	SE. Stockpile A-3	Stockpile	Backfill	<1.00	89.3	89.3
06/19/08	North SP -4A	Stockpile	Backfill	<1.00	<b>206</b>	<b>206</b>
06/19/08	North SP -4B	Stockpile	Backfill	<1.00	<b>121</b>	<b>121</b>
06/19/08	North SP -4C	Stockpile	Backfill	<1.00	<b>141</b>	<b>141</b>
06/24/08	NW-SP-5	Stockpile	Backfill	<1.00	51.3	51.3
06/24/08	NC-SP-5	Stockpile	Backfill	<1.00	<50.0	<50.0
06/24/08	NE-SP-5	Stockpile	Backfill	<1.00	<50.0	<50.0

**Bold:** Indicates TPH concentration above regulatory guidelines



## **APPENDICES**

**APPENDIX A**



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 200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944  
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 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260  
 E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

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

Report Date: June 2, 2008

Work Order: 8052742



Project Location: Lea County, NM  
 Project Name: Denton Gathering Line  
 Project Number: Denton Gathering Line

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
161350	SW Stockpile A	soil	2008-05-27	12:10	2008-05-27
161351	SW Stockpile B	soil	2008-05-27	12:15	2008-05-27
161352	SW Stockpile C	soil	2008-05-27	12:20	2008-05-27
161353	SE Stockpile A	soil	2008-05-27	12:00	2008-05-27
161354	SE Stockpile B	soil	2008-05-27	12:05	2008-05-27

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

Dr. Blair Leftwich, Director

**Certifications**

Lubbock - NELAP T104704219-08-TX

El Paso - NELAP T104704221-08-TX

**Standard Flags**

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

## Case Narrative

Samples for project Denton Gathering Line were received by TraceAnalysis, Inc. on 2008-05-27 and assigned to work order 8052742. Samples for work order 8052742 were received intact at a temperature of 3.5 deg C.

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

<u>Test</u>	<u>Method</u>
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8052742 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: 161350 - SW Stockpile A**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-05-30	Analyzed By: LD
QC Batch: 48921	Sample Preparation: 2008-05-30	Prepared By: LD
Prep Batch: 42039		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO	B	58.2	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		161	mg/Kg	1	100	161	10 - 250.4

**Sample: 161350 - SW Stockpile A**

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2008-05-31	Analyzed By: DC
QC Batch: 48934	Sample Preparation: 2008-05-30	Prepared By: DC
Prep Batch: 42034		

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)		1.03	mg/Kg	1	1.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	70 - 130

**Sample: 161351 - SW Stockpile B**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-05-30	Analyzed By: LD
QC Batch: 48921	Sample Preparation: 2008-05-30	Prepared By: LD
Prep Batch: 42039		

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		95.9	mg/Kg	1	100	96	10 - 250.4

**Sample: 161351 - SW Stockpile B**

Laboratory: Midland  
 Analysis: TPH GRO  
 QC Batch: 48934  
 Prep Batch: 42034

Analytical Method: S 8015B  
 Date Analyzed: 2008-05-31  
 Sample Preparation: 2008-05-30

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

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)		1.03	mg/Kg	1	1.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	70 - 130

**Sample: 161352 - SW Stockpile C**

Laboratory: Midland  
 Analysis: TPH DRO  
 QC Batch: 48921  
 Prep Batch: 42039

Analytical Method: Mod. 8015B  
 Date Analyzed: 2008-05-30  
 Sample Preparation: 2008-05-30

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

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		111	mg/Kg	1	100	111	10 - 250.4

**Sample: 161352 - SW Stockpile C**

Laboratory: Midland  
 Analysis: TPH GRO  
 QC Batch: 48934  
 Prep Batch: 42034

Analytical Method: S 8015B  
 Date Analyzed: 2008-05-31  
 Sample Preparation: 2008-05-30

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

*continued ...*

sample 161352 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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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)		1.02	mg/Kg	1	1.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	70 - 130

**Sample: 161353 - SE Stockpile A**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-05-30	Analyzed By: LD
QC Batch: 48921	Sample Preparation: 2008-05-30	Prepared By: LD
Prep Batch: 42039		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO	B	101	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		106	mg/Kg	1	100	106	10 - 250.4

**Sample: 161353 - SE Stockpile A**

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2008-05-31	Analyzed By: DC
QC Batch: 48934	Sample Preparation: 2008-05-30	Prepared By: DC
Prep Batch: 42034		

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)		1.03	mg/Kg	1	1.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	1	1.00	104	70 - 130

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 Lea County, NM

**Sample: 161354 - SE Stockpile B**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-05-30	Analyzed By: LD
QC Batch: 48921	Sample Preparation: 2008-05-30	Prepared By: LD
Prep Batch: 42039		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO	B	72.8	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		102	mg/Kg	1	100	102	10 - 250.4

**Sample: 161354 - SE Stockpile B**

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2008-05-31	Analyzed By: DC
QC Batch: 48934	Sample Preparation: 2008-05-30	Prepared By: DC
Prep Batch: 42034		

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)		0.985	mg/Kg	1	1.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)		0.980	mg/Kg	1	1.00	98	70 - 130

**Method Blank (1) QC Batch: 48921**

QC Batch: 48921	Date Analyzed: 2008-05-30	Analyzed By: LD
Prep Batch: 42039	QC Preparation: 2008-05-30	Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		19.0	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		104	mg/Kg	1	100	104	30.9 - 146.4

**Method Blank (1)      QC Batch: 48934**

QC Batch: 48934      Date Analyzed: 2008-05-31      Analyzed By: DC  
 Prep Batch: 42034      QC Preparation: 2008-05-30      Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)		0.970	mg/Kg	1	1.00	97	70 - 130

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

QC Batch: 48921      Date Analyzed: 2008-05-30      Analyzed By: LD  
 Prep Batch: 42039      QC Preparation: 2008-05-30      Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	234	mg/Kg	1	250	19	86	27.8 - 152.1

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	232	mg/Kg	1	250	19	85	27.8 - 152.1	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
n-Triacontane	75.4	75.4	mg/Kg	1	100	75	75	38 - 130.4

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

QC Batch: 48934      Date Analyzed: 2008-05-31      Analyzed By: DC  
 Prep Batch: 42034      QC Preparation: 2008-05-30      Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.97	mg/Kg	1	10.0	<0.739	80	70 - 130

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





Report Date: June 2, 2008  
Denton Gathering Line

Work Order: 8052742  
Denton Gathering Line

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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	0.941	94	85 - 115	2008-05-31

---

# TraceAnalysis, Inc.

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Midland, Texas 79703  
Tel (432) 689-6301  
Fax (432) 689-6313

200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
Tel (915) 585-3443  
Fax (915) 585-4944  
1 (888) 588-3443

email: lab@traceanalysis.com

Company Name: NOVA Phone #: 820-7770  
 Address: (Street, City, Zip) Fax #:  
 Contact Person: Ron Rounsaville E-mail: rrounsaville@novatraining.cc  
 Invoice to: (if different from above)  
 Project #: Centurian

Project Name: Denton GATHERING Line  
 Project Location (including state): LEA County NM  
 Sample Signatures: Ron Rounsaville

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
101350	Southwest STEK 'A'	1	4oz	X						X			5/27	1210
351	SW STEKPLE 'B'	1	"	X						X			1215	1215
352	SW STEKPLE 'C'	1	"	X						X			1220	1220
353	SE STEKPLE 'A'	1	"	X						X			1200	1200
354	SE STEKPLE 'B'	1	"	X						X			1205	1205

Relinquished by: Ron Rounsaville Date: 5/27/08 Time: 1655  
 Received by: Deland Helton Date: 5/27/08 Time: 1655  
 Relinquished by: Date: Time:  
 Received by: Date: Time:  
 Relinquished by: Date: Time:  
 Received by: Date: Time:

## ANALYSIS REQUEST (Circle or Specify Method No.)

<input checked="" type="checkbox"/>	TPH 418.1 / TX1005 / TX1005 Ext.(C35)
<input checked="" type="checkbox"/>	BTEX 8021B / 602 / 8260B / 624
<input checked="" type="checkbox"/>	TPH 8015 GRO / DRO / TVHC
<input checked="" type="checkbox"/>	PAH 8270C / 625
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 8010B/200.7
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	TCLP Pesticides
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C / 625
<input type="checkbox"/>	PCB's 8082 / 608
<input type="checkbox"/>	Pesticides 8081A / 608
<input type="checkbox"/>	BOD, TSS, pH
<input type="checkbox"/>	Moisture Content

REMARKS: all tests - Midland

LAB USE ONLY

Intact:  Y  N

Headspace:  Y  N  NM

Temp: 3.5

Log-in-Review:

Carrier # Comp

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



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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260  
E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

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

Report Date: June 2, 2008

Work Order: 8052943



Project Location: Lea County, NM  
Project Name: Denton Gathering Line  
Project Number: Denton Gathering Line

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
161563	N. Stockpile A	soil	2008-05-29	12:35	2008-05-29
161564	N. Stockpile B	soil	2008-05-29	12:40	2008-05-29
161565	N. Stockpile C	soil	2008-05-29	12:45	2008-05-29

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

Dr. Blair Leftwich, Director

Certifications

Lubbock - NELAP T104704219-08-TX  
El Paso - NELAP T104704221-08-TX

**Standard Flags**

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

## Case Narrative

Samples for project Denton Gathering Line were received by TraceAnalysis, Inc. on 2008-05-29 and assigned to work order 8052943. Samples for work order 8052943 were received intact at a temperature of 4.0 deg C.

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

<u>Test</u>	<u>Method</u>
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8052943 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: 161563 - N. Stockpile A

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 48921  
Prep Batch: 42039  
Analytical Method: Mod. 8015B  
Date Analyzed: 2008-05-30  
Sample Preparation: 2008-05-30  
Prep Method: N/A  
Analyzed By: LD  
Prepared By: LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		243	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		133	mg/Kg	1	100	133	10 - 250.4

### Sample: 161563 - N. Stockpile A

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 48934  
Prep Batch: 42034  
Analytical Method: S 8015B  
Date Analyzed: 2008-05-31  
Sample Preparation: 2008-05-30  
Prep Method: S 5035  
Analyzed By: DC  
Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		7.38	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.991	mg/Kg	1	1.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)		1.14	mg/Kg	1	1.00	114	70 - 130

### Sample: 161564 - N. Stockpile B

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 48921  
Prep Batch: 42039  
Analytical Method: Mod. 8015B  
Date Analyzed: 2008-05-30  
Sample Preparation: 2008-05-30  
Prep Method: N/A  
Analyzed By: LD  
Prepared By: LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		250	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		127	mg/Kg	1	100	127	10 - 250.4

**Sample: 161564 - N. Stockpile B**

Laboratory: Midland  
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035  
 QC Batch: 48934 Date Analyzed: 2008-05-31 Analyzed By: DC  
 Prep Batch: 42034 Sample Preparation: 2008-05-30 Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		60.7	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.919	mg/Kg	1	1.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)		1.05	mg/Kg	1	1.00	105	70 - 130

**Sample: 161565 - N. Stockpile C**

Laboratory: Midland  
 Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A  
 QC Batch: 48921 Date Analyzed: 2008-05-30 Analyzed By: LD  
 Prep Batch: 42039 Sample Preparation: 2008-05-30 Prepared By: LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		377	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		165	mg/Kg	1	100	165	10 - 250.4

**Sample: 161565 - N. Stockpile C**

Laboratory: Midland  
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035  
 QC Batch: 48934 Date Analyzed: 2008-05-31 Analyzed By: DC  
 Prep Batch: 42034 Sample Preparation: 2008-05-30 Prepared By: DC

*continued ...*

Report Date: June 2, 2008  
Denton Gathering Line

Work Order: 8052943  
Denton Gathering Line

Page Number: 6 of 9  
Lea County, NM

sample 161565 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		39.9	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.955	mg/Kg	1	1.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)		0.964	mg/Kg	1	1.00	96	70 - 130

Method Blank (1) QC Batch: 48921

QC Batch: 48921  
Prep Batch: 42039

Date Analyzed: 2008-05-30  
QC Preparation: 2008-05-30

Analyzed By: LD  
Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		19.0	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		104	mg/Kg	1	100	104	30.9 - 146.4

Method Blank (1) QC Batch: 48934

QC Batch: 48934  
Prep Batch: 42034

Date Analyzed: 2008-05-31  
QC Preparation: 2008-05-30

Analyzed By: DC  
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)		0.970	mg/Kg	1	1.00	97	70 - 130









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 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260  
 E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

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

Report Date: June 12, 2008

Work Order: 8060602



Project Location: Lea County, NM  
 Project Name: Denton Gathering  
 Project Number: Denton Gathering

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
162074	SE-SP A2-2	soil	2008-06-05	11:20	2008-06-05
162075	N-SP A2-2	soil	2008-06-05	11:50	2008-06-05
162076	N-SP B2-2	soil	2008-06-05	11:30	2008-06-05
162077	N-SP C2-2	soil	2008-06-05	11:40	2008-06-05

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

*Blair Leftwich*

\_\_\_\_\_  
 Dr. Blair Leftwich, Director

**Certifications**

Lubbock - NELAP T104704219-08-TX

El Paso - NELAP T104704221-08-TX

**Standard Flags**

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

## Case Narrative

Samples for project Denton Gathering were received by TraceAnalysis, Inc. on 2008-06-05 and assigned to work order 8060602. Samples for work order 8060602 were received intact at a temperature of 3.0 deg C.

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

Test	Method
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8060602 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 12, 2008  
Denton Gathering

Work Order: 8060602  
Denton Gathering

Page Number: 4 of 11  
Lea County, NM

## Analytical Report

### Sample: 162074 - SE-SP A2-2

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 49132  
Prep Batch: 42187

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-06-06  
Sample Preparation: 2008-06-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		126	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		122	mg/Kg	1	100	122	10 - 250.4

### Sample: 162074 - SE-SP A2-2

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 49181  
Prep Batch: 42245

Analytical Method: S 8015B  
Date Analyzed: 2008-06-09  
Sample Preparation: 2008-06-09

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

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)		0.928	mg/Kg	1	1.00	93	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.00	mg/Kg	1	1.00	100	63.8 - 141

### Sample: 162075 - N-SP A2-2

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 49132  
Prep Batch: 42187

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-06-06  
Sample Preparation: 2008-06-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		244	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		164	mg/Kg	1	100	164	10 - 250.4

**Sample: 162075 - N-SP A2-2**

Laboratory: Midland  
 Analysis: TPH GRO  
 QC Batch: 49181  
 Prep Batch: 42245

Analytical Method: S 8015B  
 Date Analyzed: 2008-06-09  
 Sample Preparation: 2008-06-09

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		13.6	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.945	mg/Kg	1	1.00	94	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.11	mg/Kg	1	1.00	111	63.8 - 141

**Sample: 162076 - N-SP B2-2**

Laboratory: Midland  
 Analysis: TPH DRO  
 QC Batch: 49132  
 Prep Batch: 42187

Analytical Method: Mod. 8015B  
 Date Analyzed: 2008-06-06  
 Sample Preparation: 2008-06-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		323	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		148	mg/Kg	1	100	148	10 - 250.4

**Sample: 162076 - N-SP B2-2**

Laboratory: Midland  
 Analysis: TPH GRO  
 QC Batch: 49181  
 Prep Batch: 42245

Analytical Method: S 8015B  
 Date Analyzed: 2008-06-09  
 Sample Preparation: 2008-06-09

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

*continued ...*

sample 162076 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<b>22.6</b>	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.952	mg/Kg	1	1.00	95	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.18	mg/Kg	1	1.00	118	63.8 - 141

**Sample: 162077 - N-SP C2-2**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 49132      Date Analyzed: 2008-06-06      Analyzed By: LD  
 Prep Batch: 42187      Sample Preparation: 2008-06-06      Prepared By: LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<b>224</b>	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		148	mg/Kg	1	100	148	10 - 250.4

**Sample: 162077 - N-SP C2-2**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 49233      Date Analyzed: 2008-06-10      Analyzed By: DC  
 Prep Batch: 42289      Sample Preparation: 2008-06-10      Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<b>8.90</b>	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.923	mg/Kg	1	1.00	92	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	63.8 - 141

Report Date: June 12, 2008  
Denton Gathering

Work Order: 8060602  
Denton Gathering

Page Number: 7 of 11  
Lea County, NM

Method Blank (1)      QC Batch: 49132

QC Batch: 49132  
Prep Batch: 42187

Date Analyzed: 2008-06-06  
QC Preparation: 2008-06-06

Analyzed By: LD  
Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		81.1	mg/Kg	1	100	81	30.9 - 146.4

Method Blank (1)      QC Batch: 49181

QC Batch: 49181  
Prep Batch: 42245

Date Analyzed: 2008-06-09  
QC Preparation: 2008-06-09

Analyzed By: DC  
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.988	mg/Kg	1	1.00	99	16.8 - 138.1

Method Blank (1)      QC Batch: 49233

QC Batch: 49233  
Prep Batch: 42289

Date Analyzed: 2008-06-10  
QC Preparation: 2008-06-10

Analyzed By: DC  
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.959	mg/Kg	1	1.00	96	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.933	mg/Kg	1	1.00	93	16.8 - 138.1









# TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Tel (915) 585-3443  
Fax (915) 585-4944  
T (888) 588-3443

LAB Order ID # 8060602

Company Name: NOVA Environmental Phone #: 520-7720

Address: (Street, City, Zip)

Contact Person: Ron Rounsville E-mail: rrounsville@novatrainiq.cc

Invoice to: (If different from above)

Project #: Centurion

Project Location (including state): WPA County, NM

Project Name: Denton Gutting

Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE
152074	SE-SP A2-2	1	4oz.	X	X			X				6-5	11:20
075	N-SP A2-2	1	{	X	X			X				6-5	11:50
076	N-SP B2-2	1	{	X	X			X				6-5	11:30
077	N-SP C2-2	1	{	X	X			X				6-5	11:40

## ANALYSIS REQUEST (Circle or Specify Method No.)

<input type="checkbox"/>	MTBE 8021B / 602 / 8260B / 624
<input type="checkbox"/>	BTEX 8021B / 602 / 8260B / 624
<input type="checkbox"/>	TPH 418.1 / TX1005 / TX1005 Ext(C35)
<input checked="" type="checkbox"/>	TPH 8015 GRO / DRO / TVHC
<input type="checkbox"/>	PAH 8270C / 625
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	TCLP Pesticides
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C / 625
<input type="checkbox"/>	PCB's 8082 / 608
<input type="checkbox"/>	Pesticides 8081A / 608
<input type="checkbox"/>	BOD, TSS, pH
<input type="checkbox"/>	Moisture Content
<input type="checkbox"/>	Turn Around Time if different from standard

REMARKS: All 7 cols - Midland

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

LAB USE ONLY

Received by: [Signature] Company: Trace Date: 6/5/04 Time: 11:00 Temp: 3.4°C

Relinquished by: [Signature] Company: Trace Date: 6/5/04 Time: 17:00

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

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 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5250  
 E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

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

Report Date: June 19, 2008

Work Order: 8061238



Project Location: Lea County, NM  
 Project Name: Denton Gathering  
 Project Number: Denton Gathering

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
162999	N. Stockpile A-3	soil	2008-06-11	12:05	2008-06-12
163000	N. Stockpile B-3	soil	2008-06-11	12:10	2008-06-12
163001	N. Stockpile C-3	soil	2008-06-11	12:15	2008-06-12
163002	SE Stockpile A-3	soil	2008-06-11	12:00	2008-06-12

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

**Certifications**

Lubbock - NELAP T104704219-08-TX

El Paso - NELAP T104704221-08-TX

**Standard Flags**

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

## Case Narrative

Samples for project Denton Gathering were received by TraceAnalysis, Inc. on 2008-06-12 and assigned to work order 8061238. Samples for work order 8061238 were received intact at a temperature of 3.4 deg C.

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

<u>Test</u>	<u>Method</u>
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8061238 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: 162999 - N. Stockpile A-3**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-06-12	Analyzed By: LD
QC Batch: 49287	Sample Preparation: 2008-06-12	Prepared By: LD
Prep Batch: 42344		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		287	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	1	270	mg/Kg	1	100	270	10 - 250.4

**Sample: 162999 - N. Stockpile A-3**

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2008-06-17	Analyzed By: DC
QC Batch: 49451	Sample Preparation: 2008-06-16	Prepared By: DC
Prep Batch: 42420		

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)		0.900	mg/Kg	1	1.00	90	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.899	mg/Kg	1	1.00	90	63.8 - 141

**Sample: 163000 - N. Stockpile B-3**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-06-12	Analyzed By: LD
QC Batch: 49287	Sample Preparation: 2008-06-12	Prepared By: LD
Prep Batch: 42344		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		189	mg/Kg	1	50.0

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

Report Date: June 19, 2008  
Denton Gathering

Work Order: 8061238  
Denton Gathering

Page Number: 5 of 10  
Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		219	mg/Kg	1	100	219	10 - 250.4

**Sample: 163000 - N. Stockpile B-3**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 49451  
Prep Batch: 42420

Analytical Method: S 8015B  
Date Analyzed: 2008-06-17  
Sample Preparation: 2008-06-16

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3.94	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.902	mg/Kg	1	1.00	90	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.946	mg/Kg	1	1.00	95	63.8 - 141

**Sample: 163001 - N. Stockpile C-3**

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 49287  
Prep Batch: 42344

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-06-12  
Sample Preparation: 2008-06-12

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		145	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		162	mg/Kg	1	100	162	10 - 250.4

**Sample: 163001 - N. Stockpile C-3**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 49451  
Prep Batch: 42420

Analytical Method: S 8015B  
Date Analyzed: 2008-06-17  
Sample Preparation: 2008-06-16

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

*continued ...*

sample 163001 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.48	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.960	mg/Kg	1	1.00	96	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	63.8 - 141

**Sample: 163002 - SE Stockpile A-3**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 49287      Date Analyzed: 2008-06-12      Analyzed By: LD  
 Prep Batch: 42344      Sample Preparation: 2008-06-12      Prepared By: LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		89.3	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		128	mg/Kg	1	100	128	10 - 250.4

**Sample: 163002 - SE Stockpile A-3**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 49451      Date Analyzed: 2008-06-17      Analyzed By: DC  
 Prep Batch: 42420      Sample Preparation: 2008-06-16      Prepared By: DC

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)		0.903	mg/Kg	1	1.00	90	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.947	mg/Kg	1	1.00	95	63.8 - 141

Report Date: June 19, 2008  
Denton Gathering

Work Order: 8061238  
Denton Gathering

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Lea County, NM

Method Blank (1) QC Batch: 49287

QC Batch: 49287  
Prep Batch: 42344

Date Analyzed: 2008-06-12  
QC Preparation: 2008-06-12

Analyzed By: LD  
Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		135	mg/Kg	1	100	135	30.9 - 146.4

Method Blank (1) QC Batch: 49451

QC Batch: 49451  
Prep Batch: 42420

Date Analyzed: 2008-06-17  
QC Preparation: 2008-06-16

Analyzed By: DC  
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.891	mg/Kg	1	1.00	89	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.883	mg/Kg	1	1.00	88	16.8 - 138.1

Laboratory Control Spike (LCS-1)

QC Batch: 49287  
Prep Batch: 42344

Date Analyzed: 2008-06-12  
QC Preparation: 2008-06-12

Analyzed By: LD  
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	235	mg/Kg	1	250	<15.8	94	27.8 - 152.1

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	232	mg/Kg	1	250	<15.8	93	27.8 - 152.1	1	20

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

continued ...



Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane <sup>2 3</sup>	362	530	mg/Kg	1	100	362	530	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 162999

QC Batch: 49451 Date Analyzed: 2008-06-17 Analyzed By: DC  
Prep Batch: 42420 QC Preparation: 2008-06-16 Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	12.6	mg/Kg	1	10.0	<0.739	126	10 - 139.3

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	13.8	mg/Kg	1	10.0	<0.739	138	10 - 139.3	9	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)	0.879	0.886	mg/Kg	1	1	88	89	21.3 - 119
4-Bromofluorobenzene (4-BFB)	0.917	0.881	mg/Kg	1	1	92	88	52.5 - 154

Standard (ICV-1)

QC Batch: 49287 Date Analyzed: 2008-06-12 Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	234	94	85 - 115	2008-06-12

Standard (CCV-1)

QC Batch: 49287 Date Analyzed: 2008-06-12 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	233	93	85 - 115	2008-06-12

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

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

Report Date: June 19, 2008  
Denton Gathering

Work Order: 8061238  
Denton Gathering

Page Number: 10 of 10  
Lea County, NM

Standard (ICV-1)

QC Batch: 49451                      Date Analyzed: 2008-06-17                      Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.970	97	85 - 115	2008-06-17

Standard (CCV-1)

QC Batch: 49451                      Date Analyzed: 2008-06-17                      Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.960	96	85 - 115	2008-06-17

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LAB Order ID # 8061239

Page 1 of 1

Company Name: <u>NOVA Environmental</u>		Phone #: <u>520-7724</u>													
Address: <u>(Street, City, Zip)</u>		Fax #:													
Contact Person: <u>Ken Rowanville</u>	E-mail: <u>rowanville@novatraining.cc</u>														
Invoice to: <u>Rowanville Centurian</u>															
(If different from above)															
Project #:															
Project Location (including state): <u>DENTON GATHERINGS</u>															
Project Location (including state): <u>LEA County, N.M.</u>															
Sampler Signature: <u>[Signature]</u>															
LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING			
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> O <sub>2</sub>	NaOH	ICE	NONE	DATE	TIME
	N. Stockpile A-3	1	4oz	X							X			6/11/08	1205
	N. Stockpile B-3	1	{	X							X			"	1210
	N. Stockpile C-3	1	{	X							X			"	1215
	SE Stockpile A-3	1	{	X							X			"	1200
<p>REQUISITIONED BY: <u>[Signature]</u> Company: <u>Dawn Calal</u> Date: <u>6/2/08</u> Time: <u>1325</u> Temp °C: <u>34</u></p> <p>REQUISITIONED BY: <u>[Signature]</u> Company: <u>Dawn Calal</u> Date: <u>6/2/08</u> Time: <u>1325</u> Temp °C: <u>34</u></p> <p>REQUISITIONED BY: <u>[Signature]</u> Company: <u>Dawn Calal</u> Date: <u>6/2/08</u> Time: <u>1325</u> Temp °C: <u>34</u></p>															

## ANALYSIS REQUEST (Circle or Specify Method No.)

<input type="checkbox"/>	MTBE 8021B / 602 / 8260B / 624
<input type="checkbox"/>	BTEX 8021B / 602 / 8260B / 624
<input type="checkbox"/>	TPH 418.1 / TX1005 / TX1005 Ex(C35)
<input checked="" type="checkbox"/>	TPH 8015 GRO / DRO / TMC
<input type="checkbox"/>	PAH 8270C / 625
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	TCLP Pesticides
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C / 625
<input type="checkbox"/>	PCB's 8082 / 608
<input type="checkbox"/>	Pesticides 8081A / 608
<input type="checkbox"/>	BOD, TSS, pH
<input type="checkbox"/>	Moisture Content
<input type="checkbox"/>	Turn Around Time if different from standard

REMARKS: All tests - Midland

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

Carrier # CARRY IN

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

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 E-Mail: lab@traceanalysis.com

## Analytical and Quality Control Report

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

Report Date: June 24, 2008

Work Order: 8062031



Project Location: Lea County, NM  
 Project Name: Denton Gathering  
 Project Number: Denton Gathering

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
164280	North SP-4A	soil	2008-06-19	11:35	2008-06-20
164281	North SP-4B	soil	2008-06-19	11:30	2008-06-20
164282	North SP-4C	soil	2008-06-19	11:40	2008-06-20

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

Dr. Blair Leftwich, Director

Certifications

Lubbock - NELAP T104704219-08-TX  
El Paso - NELAP T104704221-08-TX

**Standard Flags**

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

## Case Narrative

Samples for project Denton Gathering were received by TraceAnalysis, Inc. on 2008-06-20 and assigned to work order 8062031. Samples for work order 8062031 were received intact at a temperature of 3.8 deg C.

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

Test	Method
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8062031 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: 164280 - North SP-4A

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 49614  
Prep Batch: 42583

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-06-20  
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO	B	206	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		138	mg/Kg	1	100	138	10 - 250.4

## Sample: 164280 - North SP-4A

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 49664  
Prep Batch: 42653

Analytical Method: S 8015B  
Date Analyzed: 2008-06-24  
Sample Preparation: 2008-06-23

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

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)		0.967	mg/Kg	1	1.00	97	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.980	mg/Kg	1	1.00	98	63.8 - 141

## Sample: 164281 - North SP-4B

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 49614  
Prep Batch: 42583

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-06-20  
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO	B	121	mg/Kg	1	50.0

Report Date: June 24, 2008  
Denton Gathering

Work Order: 8062031  
Denton Gathering

Page Number: 5 of 9  
Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		120	mg/Kg	1	100	120	10 - 250.4

**Sample: 164281 - North SP-4B**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 49664  
Prep Batch: 42653

Analytical Method: S 8015B  
Date Analyzed: 2008-06-24  
Sample Preparation: 2008-06-23

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

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)		0.970	mg/Kg	1	1.00	97	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	1	1.00	101	63.8 - 141

**Sample: 164282 - North SP-4C**

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 49614  
Prep Batch: 42583

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-06-20  
Sample Preparation: 2008-06-20

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO	B	141	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		127	mg/Kg	1	100	127	10 - 250.4

**Sample: 164282 - North SP-4C**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 49664  
Prep Batch: 42653

Analytical Method: S 8015B  
Date Analyzed: 2008-06-24  
Sample Preparation: 2008-06-23

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

continued ...

sample 164282 continued ...

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)		0.925	mg/Kg	1	1.00	92	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.939	mg/Kg	1	1.00	94	63.8 - 141

**Method Blank (1)**      QC Batch: 49614

QC Batch: 49614      Date Analyzed: 2008-06-20      Analyzed By: LD  
 Prep Batch: 42583      QC Preparation: 2008-06-20      Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		44.9	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		121	mg/Kg	1	100	121	30.9 - 146.4

**Method Blank (1)**      QC Batch: 49664

QC Batch: 49664      Date Analyzed: 2008-06-24      Analyzed By: DC  
 Prep Batch: 42653      QC Preparation: 2008-06-23      Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.978	mg/Kg	1	1.00	98	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.957	mg/Kg	1	1.00	96	16.8 - 138.1







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LAB Order ID # 8062031

Page 1 of 1

Company Name: NOVA Phone #: 520-7720  
Address: (Street, City, Zip) \_\_\_\_\_ Fax #: \_\_\_\_\_

Contact Person: Ron Rounsaville E-mail: mfelix@novatraining.com  
Invoice to: (If different from above) \_\_\_\_\_

Project #: Centurion

Project Location (including state): Lat County, NM  
Project Name: Denton GATHERING  
Sampler/Signatures: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE	TIME
201	NORTH SP - 4A	1	4oz	X							X			6/19/08	1135
202	NORTH SP - 4B	1	"	X							X			"	1130
202	NORTH SP - 4C	1	"	X							X			"	1140

## ANALYSIS REQUEST (Circle or Specify Method No.)

<input type="checkbox"/>	TPH 418.1 / TX1005 / TX1005 EX(C)35
<input type="checkbox"/>	BTEX 8021B / 602 / 8260B / 624
<input checked="" type="checkbox"/>	TPH 8015 GRO / DRO / TVHC
<input type="checkbox"/>	PAH 8270C / 625
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	TCLP Pesticides
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C / 625
<input type="checkbox"/>	PCB's 8082 / 608
<input type="checkbox"/>	Pesticides 8081A / 608
<input type="checkbox"/>	BOD, TSS, pH
<input type="checkbox"/>	Moisture Content
<input type="checkbox"/>	Turn Around Time (if different from standard)

Relinquished by: [Signature] Company: NOVA Date: 6/20/08 Time: 12:10 Temp: 3.8  
 Relinquished by: [Signature] Company: NOVA Date: 6/20/08 Time: 12:10 Temp: 3.8  
 Relinquished by: \_\_\_\_\_ Company: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Temp: \_\_\_\_\_

REMARKS: All tests Midland

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

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

Carrier # 5203

ORIGINAL COPY



# TRACE ANALYSIS, INC.

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 6015 Harris Parkway, Suite 110    Ft. Worth, Texas 76132    817•201•5260  
 E-Mail: lab@traceanalysis.com

## NELAP Certifications

Lubbock T104704219-08-TX    El Paso T104704221-08-TX    Midland T104704392-08-TX

## Analytical and Quality Control Report

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

Report Date: June 26, 2008

Work Order: 8062505



Project Location: East of Lovington, NM  
 Project Name: Centurion Denton Gathering  
 Project Number: Centurion Denton Gathering

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
164533	NW-SP-5	soil	2008-06-24	15:10	2008-06-25
164534	NC-SP-5	soil	2008-06-24	15:05	2008-06-25
164535	NE-SP-5	soil	2008-06-24	15:00	2008-06-25

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

*Michael Abel*

---

Dr. Blair Leftwich, Director

**Standard Flags**

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

## Case Narrative

Samples for project Centurion Denton Gathering were received by TraceAnalysis, Inc. on 2008-06-25 and assigned to work order 8062505. Samples for work order 8062505 were received intact at a temperature of 3.5 deg C.

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

Test	Method
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8062505 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: 164533 - NW-SP-5

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-06-25	Analyzed By: LD
QC Batch: 49716	Sample Preparation: 2008-06-25	Prepared By: LD
Prep Batch: 42683		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO	B	51.3	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		97.4	mg/Kg	1	100	97	10 - 250.4

### Sample: 164533 - NW-SP-5

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2008-06-25	Analyzed By: DC
QC Batch: 49738	Sample Preparation: 2008-06-25	Prepared By: DC
Prep Batch: 42695		

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)		0.930	mg/Kg	1	1.00	93	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.939	mg/Kg	1	1.00	94	63.8 - 141

### Sample: 164534 - NC-SP-5

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-06-25	Analyzed By: LD
QC Batch: 49716	Sample Preparation: 2008-06-25	Prepared By: LD
Prep Batch: 42683		

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

Report Date: June 26, 2008  
Centurion Denton Gathering

Work Order: 8062505  
Centurion Denton Gathering

Page Number: 5 of 9  
East of Lovington, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		85.2	mg/Kg	1	100	85	10 - 250.4

Sample: 164534 - NC-SP-5

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 49738  
Prep Batch: 42695

Analytical Method: S 8015B  
Date Analyzed: 2008-06-25  
Sample Preparation: 2008-06-25

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

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)		0.968	mg/Kg	1	1.00	97	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.931	mg/Kg	1	1.00	93	63.8 - 141

Sample: 164535 - NE-SP-5

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 49716  
Prep Batch: 42683

Analytical Method: Mod. 8015B  
Date Analyzed: 2008-06-25  
Sample Preparation: 2008-06-25

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

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		109	mg/Kg	1	100	109	10 - 250.4

Sample: 164535 - NE-SP-5

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 49738  
Prep Batch: 42695

Analytical Method: S 8015B  
Date Analyzed: 2008-06-25  
Sample Preparation: 2008-06-25

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

continued ...

sample 164535 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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)		0.982	mg/Kg	1	1.00	98	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.951	mg/Kg	1	1.00	95	63.8 - 141

**Method Blank (1)**      QC Batch: 49716

QC Batch: 49716      Date Analyzed: 2008-06-25      Analyzed By: LD  
 Prep Batch: 42683      QC Preparation: 2008-06-25      Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		20.7	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		132	mg/Kg	1	100	132	30.9 - 146.4

**Method Blank (1)**      QC Batch: 49738

QC Batch: 49738      Date Analyzed: 2008-06-25      Analyzed By: DC  
 Prep Batch: 42695      QC Preparation: 2008-06-25      Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.980	mg/Kg	1	1.00	98	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.949	mg/Kg	1	1.00	95	16.8 - 138.1







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Ft. Worth, Texas 76132  
Tel (817) 201-5280

Company Name: **NOVA Safety Environmental** Phone #: **432-520-7720**  
 Address: (Street, City, Zip) **2057 Commerce Dr. Pecos, TX 79771** Fax #: **432-520-7701**  
 Contact Person: **Betsy Haskell** E-mail: \_\_\_\_\_  
 Invoice to: (If different from above) **Centurion**  
 Project #: \_\_\_\_\_

Project Name: **Centurion Denton Gathering**  
 Sampler Signature: \_\_\_\_\_

LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				DATE	SAMPLING TIME	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH			ICE
	NW.SP.-5	1	4oz	✓						✓			6/24/08 3:10p	
	NC.SP.-5	1	4oz	✓						✓			6/24/08 3:05p	
	NE.SP.-5	1	4oz	✓						✓			6/24/08 3:09p	

Relinquished by: \_\_\_\_\_ Date: **6/25/08** Time: **8:26am**  
 Received by: **Kelley Haskell** Date: **6/25/08** Time: **8:16**  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received by: **Kelley Haskell** Date: **6/25/08** Time: **9:07**  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

## ANALYSIS REQUEST (Circle or Specify Method No.)

<input type="checkbox"/>	MTBE 8021B / 602 / 8260B / 624
<input type="checkbox"/>	BTEX 8021B / 602 / 8260B / 624
<input type="checkbox"/>	TPH 418.1 / TX1005 / TX1005 Ext(C35)
<input type="checkbox"/>	TPH 8015 GPO / DRO / TVHC
<input type="checkbox"/>	PAH 8270C / 625
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
<input type="checkbox"/>	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCLP Semi Volatiles
<input type="checkbox"/>	TCLP Volatiles
<input type="checkbox"/>	TCLP Pesticides
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C / 625
<input type="checkbox"/>	PCBs 8082 / 608
<input type="checkbox"/>	Pesticides 8081A / 608
<input type="checkbox"/>	BOD, TSS, pH
<input type="checkbox"/>	Moisture Content

Turn Around Time if different from standard	
Hold	

REMARKS: **all tests - Midland**

LAB USE ONLY

Project: **DN**  
 Requester: **V.M.**  
 Date: **6/25/08**  
 Log # Review: \_\_\_\_\_

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

Need by **6/26/08**  
 if possible

**APPENDIX B**

**Client:** Centurion Pipeline, L.P.  
**Site Location:** Lea County, New Mexico  
**Photograph Date:** As Noted

**Prepared by:** NOVA  
**Photographer:** Ron Rounsaville  
**Project Name:** Denton Gathering

**Photograph No. 1**

**Date:** 05/25/08

**Direction:** Northeast

**Description:** View of impacted soil stockpiles being spread out for aeration.



**Photograph No. 2**

**Date:** 05/25/08

**Direction:** North

**Description:** View of impacted soil stockpiles being spread out for aeration.



**Client:** Centurion Pipeline, L.P.  
**Site Location:** Lea County, New Mexico  
**Photograph Date:** As Noted

**Prepared by:** NOVA  
**Photographer:** Ron Rounsaville  
**Project Name:** Denton Gathering

**Photograph No. 3**

**Date:** 06/25/08

**Direction:** Northeast

**Description:** View of excavation area following backfilling activities.



**Photograph No. 4**

**Date:** 06/25/08

**Direction:** Southeast.

**Description:** View of excavation area following backfilling activities.



**Client:** Centurion Pipeline, L.P.  
**Site Location:** Lea County, New Mexico  
**Photograph Date:** As Noted

**Prepared by:** NOVA  
**Photographer:** Ron Rounsaville  
**Project Name:** Denton Gathering

**Photograph No. 5**

**Date:** 07/23/08

**Direction:** Northeast

**Description:** View of backfilled excavation area following reseeding activities.



**Photograph No. 6**

**Date:** 07/23/08

**Direction:** East.

**Description:** View of backfilled excavation area following reseeding.

