

# SITE CLOSURE REPORT

**SUNOCO DENTON STATION**  
UNIT P, SECTION 9, TOWNSHIP 15 SOUTH, RANGE 35 EAST  
EAST OF LOVINGTON  
LEA COUNTY, NEW MEXICO

Prepared for:

**Sunoco Logistics L.P.**  
401 Cypress, Ste 610  
Abilene, Texas 79601

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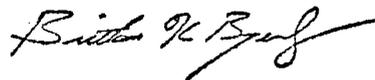


Prepared by:

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

April 2010

  
Ronald K. Rounsaville  
Senior Project Manager

  
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President

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## **1.0 INTRODUCTION**

NOVA Safety and Environmental (NOVA), is pleased to submit to Sunoco Logistics (Sunoco) this Site Closure Report (SCR) for the crude oil release site known as Sunoco Logistics Denton Station. The Sunoco Denton Station site is an active crude oil tank battery operated by Sunoco Logistics. The release site is located in Unit P, Section 9, Township 15 South, Range 37 East, Lea County, New Mexico. A Site Location Map is provided as Figure 1.

## **2.0 NMOCD SITE CLASSIFICATION**

On June 30, 2009, NOVA contacted the NMOCD regarding the depth the groundwater in the vicinity of the release site. The depth to groundwater at this site is approximately 70-75 feet below ground surface (bgs). This depth to groundwater results in a score of 10 being assigned to this site based on the NMOCD ranking criteria. The distance to the nearest water source is less than 1,000 feet, resulting in 20 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 Sunoco Denton Station site has a ranking score of >19 points. The soil cleanup levels for a site with a ranking score of >19 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.

## **3.0 SUMMARY OF FIELD ACTIVITIES**

### **3.1 Impacted Soil Removal**

Upon completing emergency abatement activities by Sunoco, NOVA mobilized equipment to the site on June 15, 2009. Inspection of the release site indicated the release had been contained within the tank battery secondary containment area and was limited to the western half of the tank battery. On June 15, 2009, hydrocarbon impacted soil was excavated from the western half of the tank battery. Impacted soil removal activities began by excavating a limited area located beneath the release source to determine vertical extent and continued until the upper five feet of soil within the secondary containment area was removed.

Based on visual and olfactory observations, excavation activities were suspended pending the analytical results of confirmation soil samples collected at locations within the excavation area. The final leak source excavation measured approximately 100 feet in length by 30 feet in width and averaged approximately five feet in depth. An estimated 400 cubic yards of affected soil was brought to the surface and stockpiled on site pending final disposition of the excavated soil. Figure 2 is a Site Details and Sample Location Map displaying the tank battery, excavation areas and other site details.

### **3.2 Excavated Soil Remediation**

Excavated soil was staged in a cleared area adjacent to the excavation. The excavated impacted soil stockpiled on site was transported to an alternate Sunoco location and staged for blending and remediation.

### **3.3 Confirmation Soil Sampling and Analytical Results**

On June 17, 2009, five excavation sidewall and two floor samples were collected from the tank battery excavation area. All samples were collected utilizing standard soil sampling protocol as stated in NMOCD guidelines. Laboratory submitted samples were placed in a new sterile glass containers, equipped with a Teflon-lined lid furnished by the laboratory. The samples were labeled, placed on ice, chilled to a temperature of approximately 4°C and transported to Trace Analysis, Inc in Midland, Texas for analysis of Benzene, Toluene, Ethyl-benzene and Xylenes (BTEX) by EPA method 8021B and Total Petroleum Hydrocarbons (TPH) by EPA method 8015. Appropriate chain-of-custody documentation and shipping protocols were followed. The laboratory analytical reports are provided in Appendix A. For reference, Figure 2 displays the locations of the confirmation soil samples and Table 1 presents the analytical results for the laboratory analyzed soil samples.

Laboratory analytical results confirmed that five of the seven soil samples obtained from the excavation floor and sidewalls exhibited BTEX and TPH concentrations below the regulatory clean up level of 50 mg/Kg and 100 mg/Kg.

Analytical results indicated soil samples EWS and Sbh-5', located to the west and immediately adjacent to the southernmost tank exhibited TPH concentrations of 702 mg/Kg and 103.2 mg/Kg, respectively.

Based on the proximity of the excavated sidewalls to the battery storage tanks, it would not be prudent to undermine the structural integrity of the active tanks by continuing to excavate impacted soils within two feet of the tanks.

### **3.4 Backfilling and Surface Restoration**

The excavated impacted soil stockpiled on site was transported to an alternate Sunoco location and staged for blending and remediation. In August 2009, the entire excavation was backfilled with clean backfill material transported from a nearby source and the site was restored to original grade.

## **4.0 SUMMARY AND REQUEST FOR CLOSURE**

Sunoco believes that continued excavation of impacted soils along the walls immediately adjacent to the southern tank would potentially weaken the structural foundation of the tank. Therefore, upon termination of the use of the battery, Sunoco will remove the existing tanks

from the site and over-excavate any remaining impacted soils, which will be properly disposed and restore the site to original condition.

Based on the analytical results of laboratory analyzed confirmation soil samples obtained from the remedial excavation, impacted soil was brought to surface and remediated to below applicable NMOCD clean up levels. Consequently, no further action is recommended or planned for the site at this time. NOVA on behalf on Sunoco Logistics respectfully requests that the NMOCD grant closure to the Sunoco Denton Station crude oil release incident of June 15, 2009. Upon abandonment of the Denton Station site by Sunoco, residual hydrocarbon impact will be removed and the site permanently closed at that time.

## **5.0 LIMITATIONS**

NOVA has prepared this Site Closure Report 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 on oral statements made by certain individuals. NOVA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. NOVA has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. NOVA also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Sunoco Logistics. 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 Sunoco Logistics.

## 6.0 DISTRIBUTION

Sunoco Logistics  
Denton Station, Crude Oil Tank Battery  
Site Closure Report

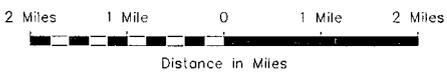
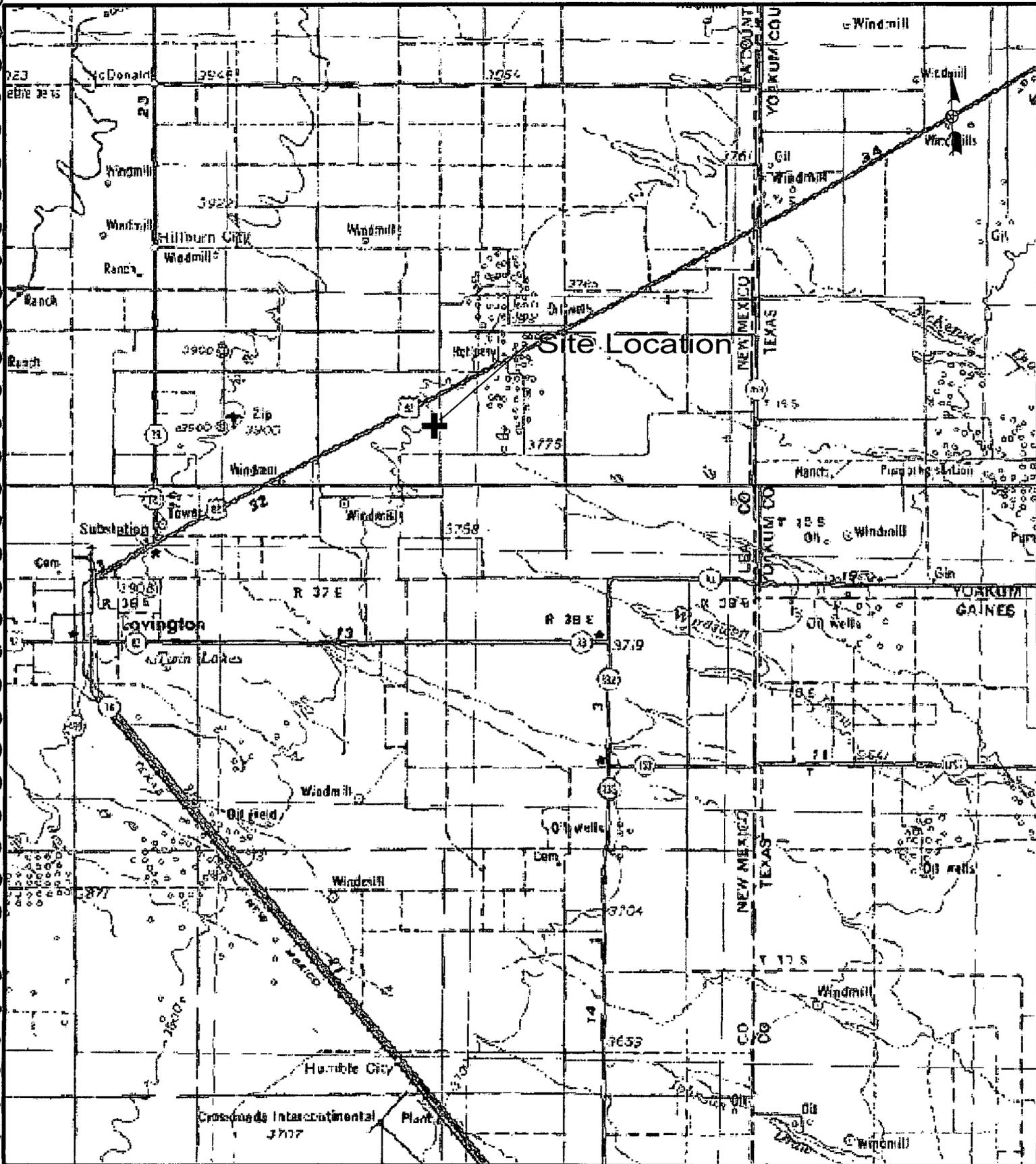
Copy 1, 2 & 3:        Craig Rutland  
                             Sunoco Logistics  
                             401 Cypress, Suite 610  
                             Abilene, Texas 79601

Copy 4:                Larry Johnson  
                             New Mexico Energy, Minerals and Natural Resources Department  
                             Oil Conservation Division, District 1  
                             1625 French Drive  
                             Hobbs, NM 88240

Copy 5:                NOVA Safety and Environmental  
                             2057 Commerce Street  
                             Midland, TX 79703  
                             rrounsaville@novatraining.cc

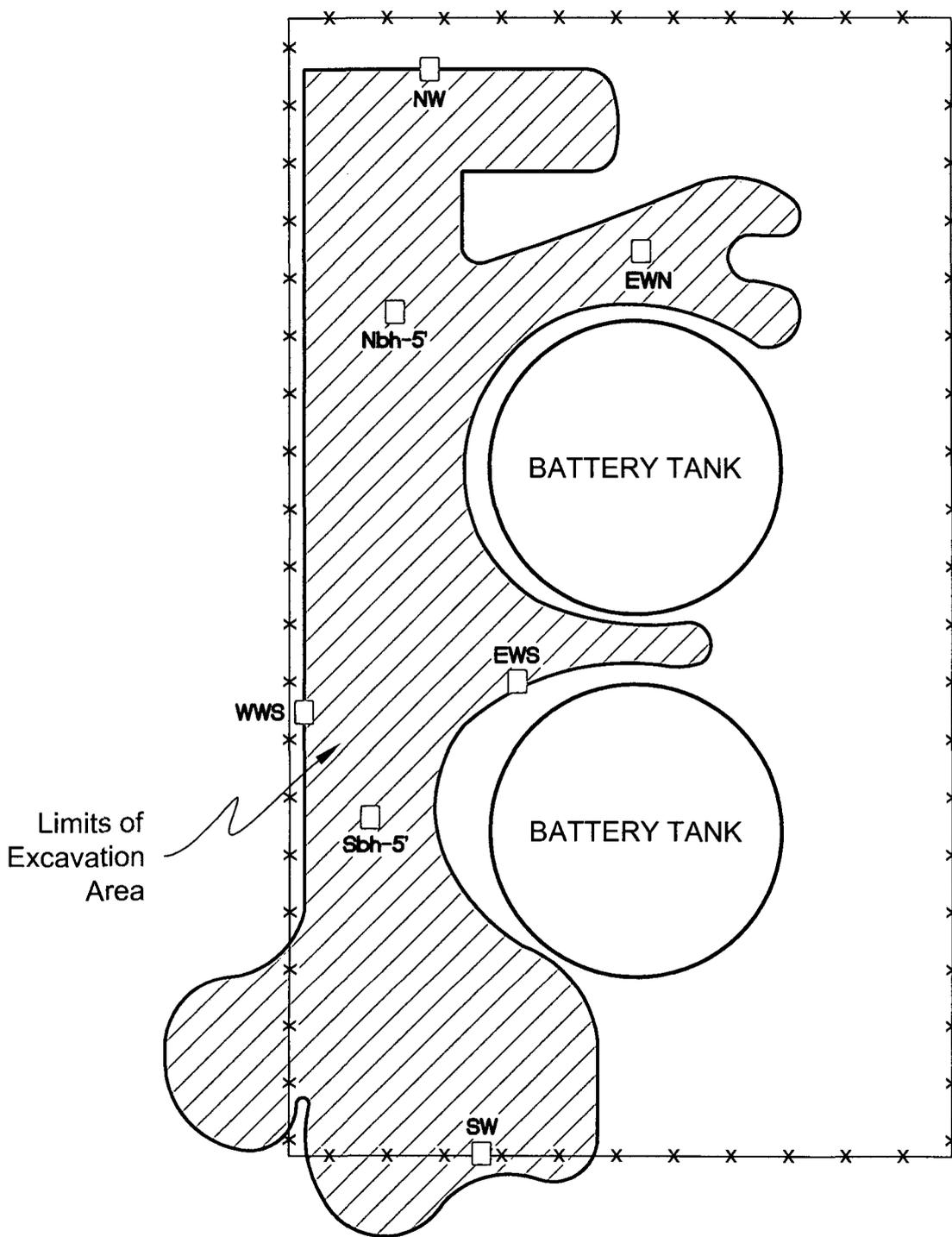


**FIGURES**



**Figure 1**  
**Site Location Map**  
**Denton Station**  
**Sunoco Logistics, L.P.**  
**Lea County, New Mexico**

		2057 Commerce Drive Midland, Texas 79703 432.520.7720 <a href="http://www.novasafetyandenvironmental.com">www.novasafetyandenvironmental.com</a>
Scale: 1" = 10560'	Drawn By: SAT	Checked By: RKR
April 6, 2010	N 32.468°	W 102.273°



Legend:

	Confirmation Soil Sample Locations
	Fenceline
	Excavation Area

**Figure 2**  
**Site Details and**  
**Sample Location Map**  
**Denton Station**  
**Sunoco Logistics, L.P.**  
**Lea County, New Mexico**

			2057 Commerce Drive Midland, Texas 79703 432.520.7720 <a href="http://www.novasafetyandenvironmental.com">www.novasafetyandenvironmental.com</a>	
Scale: NTS	Drawn By: SAT	Checked By: RKR		
July 21, 2009	N 32.468°	W 102.273°		



## TABLES

**TABLE 1**  
**Analytical Results - Confirmation Soil Samples**  
**Sunoco Denton Station**  
**Lea County, New Mexico**  
**Sunoco Logistics**

SAMPLE DATE	SAMPLE IDENTIFICATION	Laboratory Analyzed By Method 8015B			SW 846-8021B, 5030				
		TPH (GRO) C <sub>6</sub> -C <sub>12</sub>	TPH (DRO) >C <sub>12</sub> -C <sub>35</sub>	TOTAL TPH C <sub>6</sub> -C <sub>35</sub>	Benzene	Toluene	Ethyl- Benzene	Xylene	Total BTEX
06/17/09	NW (North Wall)	<1.00	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
06/17/09	Nbh-5 ft. (North Bottom Hole)	9.97	<50.0	9.97	<0.010	<0.010	<0.010	<0.010	<0.010
06/17/09	EWN (East Wall North)	8.47	<50.0	8.47	<0.010	<0.010	<0.010	<0.010	<0.010
06/17/09	EWS (East Wall South)	<b>298</b>	<b>404</b>	<b>702</b>	1.31	11.2	10.4	16.0	38.91
06/17/09	Sbh-5' (South Bottom Hole)	<b>15.1</b>	<b>88.1</b>	<b>103.2</b>	<0.010	<0.010	0.106	0.144	0.25
06/17/09	SW (South Wall)	9.86	<50.0	9.86	<0.010	<0.010	<0.010	<0.010	<0.010
06/17/09	WWS (West Wall South)	<1.00	<50.0	<50.0	<0.010	<0.010	<0.010	<0.010	<0.010
06/18/09	NSP (North Stockpile)	<b>430</b>	<b>1,690</b>	<b>2,120</b>	<0.050	6.00	9.91	17.6	33.51
06/18/09	SSP (South Stockpile)	<b>694</b>	<b>3,200</b>	<b>3,894</b>	0.47	10.4	16.7	29.8	<b>57.37</b>
06/30/09	NSS--1A	<b>22.3</b>	<b>884</b>	<b>906</b>	<0.010	<0.010	<0.010	<0.010	<0.010
06/30/09	SSS-2A	<b>5.14</b>	<b>801</b>	<b>806</b>	<0.010	<0.010	<0.010	0.283	0.283
02/24/10	NSS-1B	5.2	<50.0	5	<0.010	<0.010	<0.010	<0.010	<0.010
02/24/10	SSS-2B	<1.00	<50.0	<50.0	<0.010	<0.10	<0.010	<0.010	<0.010

**APPENDICES**

**APPENDIX A**  
**Laboratory Analytical Report**



# TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296  
200 East Sunset Road, Suite E El Paso, Texas 79922 888•586•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•6260  
E-Mail: lab@traceanalysis.com

## Certifications

WBENC: 237019

HUB: 1752439743100-86536

DBE: VN 20657

NCTRCA WFVB38444Y0909

## NELAP Certifications

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

El Paso: T104704221-08-TX  
LELAP-02002

Midland: T104704392-08-TX

## Analytical and Quality Control Report

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

Report Date: July 6, 2009

Work Order: 9061721



Project Location: Lovington, NM  
Project Name: Sunoco Denton Station  
Project Number: Sunoco Denton Station

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
199195	NW	soil	2009-06-17	14:00	2009-06-17
199197	Nbh-5'	soil	2009-06-17	14:00	2009-06-17
199199	EWN	soil	2009-06-17	14:00	2009-06-17
199200	EWS	soil	2009-06-17	14:00	2009-06-17
199201	Sbh-5'	soil	2009-06-17	14:00	2009-06-17
199202	WWS	soil	2009-06-17	14:00	2009-06-17
199203	SW	soil	2009-06-17	14:00	2009-06-17

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



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

**Standard Flags**

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

## Case Narrative

Samples for project Sunoco Denton Station were received by TraceAnalysis, Inc. on 2009-06-17 and assigned to work order 9061721. Samples for work order 9061721 were received intact without headspace and at a temperature of 23.3 deg. C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	51692	2009-06-18 at 15:32	60595	2009-06-18 at 15:32
BTEX	S 8021B	52140	2009-07-02 at 11:23	61139	2009-07-02 at 11:23
TPH DRO	Mod. 8015B	51690	2009-06-18 at 09:30	60591	2009-06-18 at 14:44
TPH DRO	Mod. 8015B	52057	2009-07-01 at 11:00	61062	2009-07-01 at 13:46
TPH GRO	S 8015B	51692	2009-06-18 at 15:32	60596	2009-06-18 at 15:32
TPH GRO	S 8015B	52140	2009-07-02 at 11:23	61140	2009-07-02 at 11:23

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 9061721 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: 199195 - NW**

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2009-06-18	Analyzed By: ME
QC Batch: 60595	Sample Preparation: 2009-06-18	Prepared By: ME
Prep Batch: 51692		

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.99	mg/Kg	1	2.00	100	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	45.2 - 144.3

**Sample: 199195 - NW**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2009-06-18	Analyzed By: AG
QC Batch: 60591	Sample Preparation: 2009-06-18	Prepared By: AG
Prep Batch: 51690		

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		95.1	mg/Kg	1	100	95	13.2 - 219.3

**Sample: 199195 - NW**

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2009-06-18	Analyzed By: ME
QC Batch: 60596	Sample Preparation: 2009-06-18	Prepared By: ME
Prep Batch: 51692		

*continued ...*

sample 199195 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)		2.14	mg/Kg	1	2.00	107	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.41	mg/Kg	1	2.00	70	52 - 117

**Sample: 199197 - Nbh-5'**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 60595  
Prep Batch: 51692

Analytical Method: S 8021B  
Date Analyzed: 2009-06-18  
Sample Preparation: 2009-06-18

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.98	mg/Kg	1	2.00	99	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.83	mg/Kg	1	2.00	92	45.2 - 144.3

**Sample: 199197 - Nbh-5'**

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 60591  
Prep Batch: 51690

Analytical Method: Mod. 8015B  
Date Analyzed: 2009-06-18  
Sample Preparation: 2009-06-18

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

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		81.8	mg/Kg	1	100	82	13.2 - 219.3

**Sample: 199197 - Nbh-5'**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 60596  
Prep Batch: 51692

Analytical Method: S 8015B  
Date Analyzed: 2009-06-18  
Sample Preparation: 2009-06-18

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		9.97	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.42	mg/Kg	1	2.00	71	52 - 117

**Sample: 199199 - EWN**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 60595  
Prep Batch: 51692

Analytical Method: S 8021B  
Date Analyzed: 2009-06-18  
Sample Preparation: 2009-06-18

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.01	mg/Kg	1	2.00	100	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	45.2 - 144.3

Report Date: July 6, 2009  
Sunoco Denton Station

Work Order: 9061721  
Sunoco Denton Station

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**Sample: 199199 - EWN**

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 60591  
Prep Batch: 51690  
Analytical Method: Mod. 8015B  
Date Analyzed: 2009-06-18  
Sample Preparation: 2009-06-18  
Prep Method: N/A  
Analyzed By: AG  
Prepared By: AG

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		91.8	mg/Kg	1	100	92	13.2 - 219.3

**Sample: 199199 - EWN**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 60596  
Prep Batch: 51692  
Analytical Method: S 8015B  
Date Analyzed: 2009-06-18  
Sample Preparation: 2009-06-18  
Prep Method: S 5035  
Analyzed By: ME  
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		8.47	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.30	mg/Kg	1	2.00	65	52 - 117

**Sample: 199200 - EWS**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 60595  
Prep Batch: 51692  
Analytical Method: S 8021B  
Date Analyzed: 2009-06-18  
Sample Preparation: 2009-06-18  
Prep Method: S 5035  
Analyzed By: ME  
Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		1.31	mg/Kg	1	0.0100
Toluene		11.2	mg/Kg	1	0.0100
Ethylbenzene		10.4	mg/Kg	1	0.0100
Xylene		16.0	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.93	mg/Kg	1	2.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)	1	3.40	mg/Kg	1	2.00	170	45.2 - 144.3

**Sample: 199200 - EWS**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 60591      Date Analyzed: 2009-06-18      Analyzed By: AG  
 Prep Batch: 51690      Sample Preparation: 2009-06-18      Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		404	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		95.4	mg/Kg	1	100	95	13.2 - 219.3

**Sample: 199200 - EWS**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 60596      Date Analyzed: 2009-06-18      Analyzed By: ME  
 Prep Batch: 51692      Sample Preparation: 2009-06-18      Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		298	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.31	mg/Kg	1	2.00	116	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	2	3.52	mg/Kg	1	2.00	176	52 - 117

**Sample: 199201 - Sbh-5'**

Laboratory: Midland  
 Analysis: BTEX      Analytical Method: S 8021B      Prep Method: S 5035  
 QC Batch: 60595      Date Analyzed: 2009-06-18      Analyzed By: ME  
 Prep Batch: 51692      Sample Preparation: 2009-06-18      Prepared By: ME

<sup>1</sup>High surrogate recovery due to peak interference.  
<sup>2</sup>High surrogate recovery due to peak interference.

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Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<b>0.106</b>	mg/Kg	1	0.0100
Xylene		<b>0.144</b>	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	45.2 - 144.3

**Sample: 199201 - Sbh-5'**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 60591      Date Analyzed: 2009-06-18      Analyzed By: AG  
 Prep Batch: 51690      Sample Preparation: 2009-06-18      Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<b>88.1</b>	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		105	mg/Kg	1	100	105	13.2 - 219.3

**Sample: 199201 - Sbh-5'**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 60596      Date Analyzed: 2009-06-18      Analyzed By: ME  
 Prep Batch: 51692      Sample Preparation: 2009-06-18      Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.55	mg/Kg	1	2.00	78	52 - 117

**Sample: 199202 - WWS**

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2009-07-02	Analyzed By: ME
QC Batch: 61139	Sample Preparation: 2009-07-02	Prepared By: ME
Prep Batch: 52140		

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.99	mg/Kg	1	2.00	100	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.42	mg/Kg	1	2.00	71	45.2 - 144.3

**Sample: 199202 - WWS**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2009-07-01	Analyzed By: AG
QC Batch: 61062	Sample Preparation: 2009-07-01	Prepared By: AG
Prep Batch: 52057		

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		68.3	mg/Kg	1	100	68	13.2 - 219.3

**Sample: 199202 - WWS**

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2009-07-02	Analyzed By: ME
QC Batch: 61140	Sample Preparation: 2009-07-02	Prepared By: ME
Prep Batch: 52140		

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)		1.91	mg/Kg	1	2.00	96	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.46	mg/Kg	1	2.00	73	52 - 117

**Sample: 199203 - SW**

Laboratory: Midland  
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035  
 QC Batch: 60595 Date Analyzed: 2009-06-18 Analyzed By: ME  
 Prep Batch: 51692 Sample Preparation: 2009-06-18 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.87	mg/Kg	1	2.00	94	45.2 - 144.3

**Sample: 199203 - SW**

Laboratory: Midland  
 Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A  
 QC Batch: 60591 Date Analyzed: 2009-06-18 Analyzed By: AG  
 Prep Batch: 51690 Sample Preparation: 2009-06-18 Prepared By: AG

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		95.0	mg/Kg	1	100	95	13.2 - 219.3

**Sample: 199203 - SW**

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2009-06-18	Analyzed By: ME
QC Batch: 60596	Sample Preparation: 2009-06-18	Prepared By: ME
Prep Batch: 51692		

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		9.86	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.44	mg/Kg	1	2.00	72	52 - 117

**Method Blank (1) QC Batch: 60591**

QC Batch: 60591	Date Analyzed: 2009-06-18	Analyzed By: AG
Prep Batch: 51690	QC Preparation: 2009-06-18	Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		121	mg/Kg	1	100	121	13 - 178.5

**Method Blank (1) QC Batch: 60595**

QC Batch: 60595	Date Analyzed: 2009-06-18	Analyzed By: ME
Prep Batch: 51692	QC Preparation: 2009-06-18	Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00100	mg/Kg	0.01
Toluene		<0.00100	mg/Kg	0.01
Ethylbenzene		<0.00110	mg/Kg	0.01
Xylene		<0.00360	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.98	mg/Kg	1	2.00	99	51.9 - 128.1

Method Blank (1) QC Batch: 60596

QC Batch: 60596 Date Analyzed: 2009-06-18 Analyzed By: ME  
Prep Batch: 51692 QC Preparation: 2009-06-18 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<0.482	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.08	mg/Kg	1	2.00	104	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	45.7 - 118.9

Method Blank (1) QC Batch: 61062

QC Batch: 61062 Date Analyzed: 2009-07-01 Analyzed By: AG  
Prep Batch: 52057 QC Preparation: 2009-07-01 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		83.8	mg/Kg	1	100	84	13 - 178.5

Method Blank (1) QC Batch: 61139

QC Batch: 61139 Date Analyzed: 2009-07-02 Analyzed By: ME  
Prep Batch: 52140 QC Preparation: 2009-07-02 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00100	mg/Kg	0.01
Toluene		<0.00100	mg/Kg	0.01
Ethylbenzene		<0.00110	mg/Kg	0.01
Xylene		<0.00360	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	51.9 - 128.1

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**Method Blank (1)**      QC Batch: 61140

QC Batch: 61140      Date Analyzed: 2009-07-02      Analyzed By: ME  
Prep Batch: 52140      QC Preparation: 2009-07-02      Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<0.482	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.95	mg/Kg	1	2.00	98	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	45.7 - 118.9

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

QC Batch: 60591      Date Analyzed: 2009-06-18      Analyzed By: AG  
Prep Batch: 51690      QC Preparation: 2009-06-18      Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	241	mg/Kg	1	250	<5.86	96	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	241	mg/Kg	1	250	<5.86	96	57.4 - 133.4	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	97.2	99.6	mg/Kg	1	100	97	100	48.5 - 146.7

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

QC Batch: 60595      Date Analyzed: 2009-06-18      Analyzed By: ME  
Prep Batch: 51692      QC Preparation: 2009-06-18      Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.10	mg/Kg	1	2.00	<0.00100	105	72.7 - 129.8
Toluene	2.09	mg/Kg	1	2.00	<0.00100	104	71.6 - 129.6
Ethylbenzene	2.04	mg/Kg	1	2.00	<0.00110	102	70.8 - 129.7
Xylene	6.20	mg/Kg	1	6.00	<0.00360	103	70.9 - 129.4



Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	235	mg/Kg	1	250	<5.86	94	57.4 - 133.4	10	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	89.0	81.5	mg/Kg	1	100	89	82	48.5 - 146.7

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

QC Batch: 61139  
Prep Batch: 52140

Date Analyzed: 2009-07-02  
QC Preparation: 2009-07-02

Analyzed By: ME  
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.86	mg/Kg	1	2.00	<0.00100	93	72.7 - 129.8
Toluene	1.84	mg/Kg	1	2.00	<0.00100	92	71.6 - 129.6
Ethylbenzene	1.83	mg/Kg	1	2.00	<0.00110	92	70.8 - 129.7
Xylene	5.44	mg/Kg	1	6.00	<0.00360	91	70.9 - 129.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.88	mg/Kg	1	2.00	<0.00100	94	72.7 - 129.8	1	20
Toluene	1.87	mg/Kg	1	2.00	<0.00100	94	71.6 - 129.6	2	20
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00110	96	70.8 - 129.7	5	20
Xylene	5.73	mg/Kg	1	6.00	<0.00360	96	70.9 - 129.4	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.01	1.99	mg/Kg	1	2.00	100	100	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.78	1.78	mg/Kg	1	2.00	89	89	55.2 - 128.9

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

QC Batch: 61140  
Prep Batch: 52140

Date Analyzed: 2009-07-02  
QC Preparation: 2009-07-02

Analyzed By: ME  
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.0	mg/Kg	1	20.0	<0.482	70	60.5 - 100.1

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





Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	192	mg/Kg	1	250	<5.86	77	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	193	mg/Kg	1	250	<5.86	77	35.2 - 167.1	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	64.7	64.5	mg/Kg	1	100	65	64	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 200840

QC Batch: 61139  
Prep Batch: 52140

Date Analyzed: 2009-07-02  
QC Preparation: 2009-07-02

Analyzed By: ME  
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.76	mg/Kg	1	2.00	<0.00100	88	58.6 - 165.2
Toluene	1.71	mg/Kg	1	2.00	<0.00100	86	64.2 - 153.8
Ethylbenzene	1.71	mg/Kg	1	2.00	<0.00110	86	61.6 - 159.4
Xylene	4.92	mg/Kg	1	6.00	0.283	77	64.4 - 155.3

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
Benzene	1.73	mg/Kg	1	2.00	<0.00100	86	58.6 - 165.2	2	20
Toluene	1.71	mg/Kg	1	2.00	<0.00100	86	64.2 - 153.8	0	20
Ethylbenzene	1.78	mg/Kg	1	2.00	<0.00110	89	61.6 - 159.4	4	20
Xylene	5.10	mg/Kg	1	6.00	0.283	80	64.4 - 155.3	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.96	1.91	mg/Kg	1	2	98	96	76 - 127.9
4-Bromofluorobenzene (4-BFB)	<sup>4</sup> 1.38	1.40	mg/Kg	1	2	69	70	72 - 127.8

<sup>4</sup>Surrogate out due to peak interference.

<sup>5</sup>Surrogate out due to peak interference.

**Matrix Spike (MS-1) Spiked Sample: 200839**

QC Batch: 61140 Date Analyzed: 2009-07-02 Analyzed By: ME  
Prep Batch: 52140 QC Preparation: 2009-07-02 Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	41.3	mg/Kg	1	20.0	22.3002	95	12.8 - 175.2

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	35.9	mg/Kg	1	20.0	22.3002	68	12.8 - 175.2	14	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.10	2.08	mg/Kg	1	2	105	104	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.54	1.44	mg/Kg	1	2	77	72	31.3 - 161.7

**Standard (CCV-1)**

QC Batch: 60591 Date Analyzed: 2009-06-18 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	211	84	80 - 120	2009-06-18

**Standard (CCV-2)**

QC Batch: 60591 Date Analyzed: 2009-06-18 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	258	103	80 - 120	2009-06-18

**Standard (CCV-2)**

QC Batch: 60595 Date Analyzed: 2009-06-18 Analyzed By: ME





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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	0.997	100	80 - 120	2009-07-02

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**Standard (CCV-2)**

QC Batch: 61140

Date Analyzed: 2009-07-02

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.09	109	80 - 120	2009-07-02





# TRACE ANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

## Certifications

WBENC: 237019

HUB: 1752439743100-86536  
NCTRCA WFWB38444Y0909

DBE: VN 20657

## NELAP Certifications

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

El Paso: T104704221-08-TX  
LELAP-02002

Midland: T104704392-08-TX

## Analytical and Quality Control Report

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

Report Date: July 6, 2009

Work Order: 9070124



Project Location: Lovington, NM  
Project Name: Sunoco Denton Station  
Project Number: Sunoco Denton Station

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
200839	NSS-1A	soil	2009-06-30	13:49	2009-07-01
200840	SSS-2A	soil	2009-06-30	13:56	2009-07-01

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.



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

**Standard Flags**

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

## Case Narrative

Samples for project Sunoco Denton Station were received by TraceAnalysis, Inc. on 2009-07-01 and assigned to work order 9070124. Samples for work order 9070124 were received intact without headspace and at a temperature of -5.6 deg. C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	52140	2009-07-02 at 11:23	61139	2009-07-02 at 11:23
TPH DRO	Mod. 8015B	52057	2009-07-01 at 11:00	61062	2009-07-01 at 13:46
TPH GRO	S 8015B	52140	2009-07-02 at 11:23	61140	2009-07-02 at 11:23

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 9070124 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: 200839 - NSS-1A**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 61139  
Prep Batch: 52140  
Analytical Method: S 8021B  
Date Analyzed: 2009-07-02  
Sample Preparation: 2009-07-02  
Prep Method: S 5035  
Analyzed By: ME  
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.40	mg/Kg	1	2.00	70	45.2 - 144.3

**Sample: 200839 - NSS-1A**

Laboratory: Midland  
Analysis: TPH DRO  
QC Batch: 61062  
Prep Batch: 52057  
Analytical Method: Mod. 8015B  
Date Analyzed: 2009-07-01  
Sample Preparation: 2009-07-01  
Prep Method: N/A  
Analyzed By: AG  
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		884	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		181	mg/Kg	1	100	181	13.2 - 219.3

**Sample: 200839 - NSS-1A**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 61140  
Prep Batch: 52140  
Analytical Method: S 8015B  
Date Analyzed: 2009-07-02  
Sample Preparation: 2009-07-02  
Prep Method: S 5035  
Analyzed By: ME  
Prepared By: ME

*continued ...*

sample 200839 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<b>22.3</b>	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.59	mg/Kg	1	2.00	80	52 - 117

**Sample: 200840 - SSS-2A**

Laboratory: Midland  
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035  
 QC Batch: 61139 Date Analyzed: 2009-07-02 Analyzed By: ME  
 Prep Batch: 52140 Sample Preparation: 2009-07-02 Prepared By: ME

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>0.283</b>	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.89	mg/Kg	1	2.00	94	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	1	2.00	66	45.2 - 144.3

**Sample: 200840 - SSS-2A**

Laboratory: Midland  
 Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A  
 QC Batch: 61062 Date Analyzed: 2009-07-01 Analyzed By: AG  
 Prep Batch: 52057 Sample Preparation: 2009-07-01 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<b>801</b>	mg/Kg	1	50.0

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		185	mg/Kg	1	100	185	13.2 - 219.3

**Sample: 200840 - SSS-2A**

Laboratory: Midland  
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035  
 QC Batch: 61140 Date Analyzed: 2009-07-02 Analyzed By: ME  
 Prep Batch: 52140 Sample Preparation: 2009-07-02 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		5.14	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.84	mg/Kg	1	2.00	92	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.38	mg/Kg	1	2.00	69	52 - 117

**Method Blank (1) QC Batch: 61062**

QC Batch: 61062 Date Analyzed: 2009-07-01 Analyzed By: AG  
 Prep Batch: 52057 QC Preparation: 2009-07-01 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		83.8	mg/Kg	1	100	84	13 - 178.5

**Method Blank (1) QC Batch: 61139**

QC Batch: 61139 Date Analyzed: 2009-07-02 Analyzed By: ME  
 Prep Batch: 52140 QC Preparation: 2009-07-02 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00100	mg/Kg	0.01
Toluene		<0.00100	mg/Kg	0.01
Ethylbenzene		<0.00110	mg/Kg	0.01

*continued ...*

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Xylene		<0.00360	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	51.9 - 128.1

**Method Blank (1)**      QC Batch: 61140

QC Batch: 61140      Date Analyzed: 2009-07-02      Analyzed By: ME  
Prep Batch: 52140      QC Preparation: 2009-07-02      Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<0.482	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.95	mg/Kg	1	2.00	98	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	45.7 - 118.9

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

QC Batch: 61062      Date Analyzed: 2009-07-01      Analyzed By: AG  
Prep Batch: 52057      QC Preparation: 2009-07-01      Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	213	mg/Kg	1	250	<5.86	85	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	235	mg/Kg	1	250	<5.86	94	57.4 - 133.4	10	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	89.0	81.5	mg/Kg	1	100	89	82	48.5 - 146.7

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

QC Batch: 61139  
Prep Batch: 52140

Date Analyzed: 2009-07-02  
QC Preparation: 2009-07-02

Analyzed By: ME  
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.86	mg/Kg	1	2.00	<0.00100	93	72.7 - 129.8
Toluene	1.84	mg/Kg	1	2.00	<0.00100	92	71.6 - 129.6
Ethylbenzene	1.83	mg/Kg	1	2.00	<0.00110	92	70.8 - 129.7
Xylene	5.44	mg/Kg	1	6.00	<0.00360	91	70.9 - 129.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.88	mg/Kg	1	2.00	<0.00100	94	72.7 - 129.8	1	20
Toluene	1.87	mg/Kg	1	2.00	<0.00100	94	71.6 - 129.6	2	20
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00110	96	70.8 - 129.7	5	20
Xylene	5.73	mg/Kg	1	6.00	<0.00360	96	70.9 - 129.4	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.01	1.99	mg/Kg	1	2.00	100	100	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.78	1.78	mg/Kg	1	2.00	89	89	55.2 - 128.9

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

QC Batch: 61140  
Prep Batch: 52140

Date Analyzed: 2009-07-02  
QC Preparation: 2009-07-02

Analyzed By: ME  
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.0	mg/Kg	1	20.0	<0.482	70	60.5 - 100.1

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
GRO	15.9	mg/Kg	1	20.0	<0.482	80	60.5 - 100.1	13	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)	1.96	1.96	mg/Kg	1	2.00	98	98	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	1.86	1.95	mg/Kg	1	2.00	93	98	66.1 - 108.3

**Matrix Spike (MS-1) Spiked Sample: 199202**

QC Batch: 61062  
Prep Batch: 52057

Date Analyzed: 2009-07-01  
QC Preparation: 2009-07-01

Analyzed By: AG  
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	192	mg/Kg	1	250	<5.86	77	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	193	mg/Kg	1	250	<5.86	77	35.2 - 167.1	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	64.7	64.5	mg/Kg	1	100	65	64	34.5 - 178.4

**Matrix Spike (MS-1) Spiked Sample: 200840**

QC Batch: 61139  
Prep Batch: 52140

Date Analyzed: 2009-07-02  
QC Preparation: 2009-07-02

Analyzed By: ME  
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.76	mg/Kg	1	2.00	<0.00100	88	58.6 - 165.2
Toluene	1.71	mg/Kg	1	2.00	<0.00100	86	64.2 - 153.8
Ethylbenzene	1.71	mg/Kg	1	2.00	<0.00110	86	61.6 - 159.4
Xylene	4.92	mg/Kg	1	6.00	0.283	77	64.4 - 155.3

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
Benzene	1.73	mg/Kg	1	2.00	<0.00100	86	58.6 - 165.2	2	20
Toluene	1.71	mg/Kg	1	2.00	<0.00100	86	64.2 - 153.8	0	20
Ethylbenzene	1.78	mg/Kg	1	2.00	<0.00110	89	61.6 - 159.4	4	20
Xylene	5.10	mg/Kg	1	6.00	0.283	80	64.4 - 155.3	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.96	1.91	mg/Kg	1	2	98	96	76 - 127.9

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	1.38	1.40	mg/Kg	1	2	69	70	72 - 127.8

**Matrix Spike (MS-1)** Spiked Sample: 200839

QC Batch: 61140 Date Analyzed: 2009-07-02 Analyzed By: ME  
Prep Batch: 52140 QC Preparation: 2009-07-02 Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	41.3	mg/Kg	1	20.0	22.3002	95	12.8 - 175.2

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	35.9	mg/Kg	1	20.0	22.3002	68	12.8 - 175.2	14	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.10	2.08	mg/Kg	1	2	105	104	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.54	1.44	mg/Kg	1	2	77	72	31.3 - 161.7

**Standard (CCV-3)**

QC Batch: 61062 Date Analyzed: 2009-07-01 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	238	95	80 - 120	2009-07-01

**Standard (CCV-4)**

QC Batch: 61062 Date Analyzed: 2009-07-01 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	214	86	80 - 120	2009-07-01

<sup>1</sup>Surrogate out due to peak interference.  
<sup>2</sup>Surrogate out due to peak interference.







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**Certifications**

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

**NELAP Certifications**

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

**Analytical and Quality Control Report**

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

Report Date: March 1, 2010

Work Order: 10022524



Project Location: Lovington, NM  
 Project Name: Sunoco Denton Station  
 Project Number: Sunoco Denton Station

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
223680	NSS-1B	soil	2010-02-24	13:26	2010-02-25
223681	SSS-2B	soil	2010-02-24	13:00	2010-02-25

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

*Michael Abel*

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

**Standard Flags**

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

## Case Narrative

Samples for project Sunoco Denton Station were received by TraceAnalysis, Inc. on 2010-02-25 and assigned to work order 10022524. Samples for work order 10022524 were received intact at a temperature of 2.1 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	58062	2010-02-26 at 11:00	67879	2010-02-27 at 14:44
TPH DRO - NEW	Mod. 8015B	58044	2010-02-25 at 10:56	67849	2010-02-25 at 10:56
TPH GRO	S 8015B	58062	2010-02-26 at 11:00	67877	2010-02-27 at 15:12

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 10022524 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: 223680 - NSS-1B**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 67879  
Prep Batch: 58062  
Analytical Method: S 8021B  
Date Analyzed: 2010-02-27  
Sample Preparation: 2010-02-26  
Prep Method: S 5035  
Analyzed By: AG  
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.88	mg/Kg	1	2.00	94	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	43.1 - 158.4

**Sample: 223680 - NSS-1B**

Laboratory: Midland  
Analysis: TPH DRO - NEW  
QC Batch: 67849  
Prep Batch: 58044  
Analytical Method: Mod. 8015B  
Date Analyzed: 2010-02-25  
Sample Preparation: 2010-02-25  
Prep Method: N/A  
Analyzed By: kg  
Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		103	mg/Kg	1	100	103	70 - 130

**Sample: 223680 - NSS-1B**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 67877  
Prep Batch: 58062  
Analytical Method: S 8015B  
Date Analyzed: 2010-02-27  
Sample Preparation: 2010-02-26  
Prep Method: S 5035  
Analyzed By: AG  
Prepared By: AG

*continued ...*

sample 223680 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		5.20	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.35	mg/Kg	1	2.00	118	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.24	mg/Kg	1	2.00	112	61.7 - 131.1

**Sample: 223681 - SSS-2B**

Laboratory: Midland  
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035  
 QC Batch: 67879 Date Analyzed: 2010-02-27 Analyzed By: AG  
 Prep Batch: 58062 Sample Preparation: 2010-02-26 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.45	mg/Kg	1	2.00	72	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	43.1 - 158.4

**Sample: 223681 - SSS-2B**

Laboratory: Midland  
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A  
 QC Batch: 67849 Date Analyzed: 2010-02-25 Analyzed By: kg  
 Prep Batch: 58044 Sample Preparation: 2010-02-25 Prepared By: kg

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

Report Date: March 1, 2010  
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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		104	mg/Kg	1	100	104	70 - 130

**Sample: 223681 - SSS-2B**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 67877  
Prep Batch: 58062

Analytical Method: S 8015B  
Date Analyzed: 2010-02-27  
Sample Preparation: 2010-02-26

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.82	mg/Kg	1	2.00	91	65.3 - 145
4-Bromofluorobenzene (4-BFB)		1.75	mg/Kg	1	2.00	88	61.7 - 131.1

**Method Blank (1) QC Batch: 67849**

QC Batch: 67849  
Prep Batch: 58044

Date Analyzed: 2010-02-25  
QC Preparation: 2010-02-25

Analyzed By: kg  
Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		104	mg/Kg	1	100	104	70 - 130

**Method Blank (1) QC Batch: 67877**

QC Batch: 67877  
Prep Batch: 58062

Date Analyzed: 2010-02-27  
QC Preparation: 2010-02-26

Analyzed By: AG  
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.18	mg/Kg	1	2.00	109	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.59	mg/Kg	1	2.00	80	62 - 120.5

**Method Blank (1)**      QC Batch: 67879

QC Batch: 67879      Date Analyzed: 2010-02-27      Analyzed By: AG  
Prep Batch: 58062      QC Preparation: 2010-02-26      Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.71	mg/Kg	1	2.00	86	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.45	mg/Kg	1	2.00	72	43.9 - 141.9

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

QC Batch: 67849      Date Analyzed: 2010-02-25      Analyzed By: kg  
Prep Batch: 58044      QC Preparation: 2010-02-25      Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	304	mg/Kg	1	250	<5.86	122	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	305	mg/Kg	1	250	<5.86	122	57.4 - 133.4	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	86.8	88.6	mg/Kg	1	100	87	89	70 - 130



**Matrix Spike (MS-1) Spiked Sample: 223538**

QC Batch: 67849 Date Analyzed: 2010-02-25 Analyzed By: kg  
 Prep Batch: 58044 QC Preparation: 2010-02-25 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	<sup>1</sup> 2380	mg/Kg	1	250	1040	536	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	<sup>2</sup> 1840	mg/Kg	1	250	1040	320	35.2 - 167.1	26	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	<sup>3 4</sup> 186	144	mg/Kg	1	100	186	144	70 - 130

**Matrix Spike (MS-1) Spiked Sample: 223681**

QC Batch: 67877 Date Analyzed: 2010-02-27 Analyzed By: AG  
 Prep Batch: 58062 QC Preparation: 2010-02-26 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	22.4	mg/Kg	1	20.0	<0.396	112	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	23.9	mg/Kg	1	20.0	<0.396	120	10 - 198.3	6	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.73	2.34	mg/Kg	1	2	86	117	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.70	2.29	mg/Kg	1	2	85	114	58.6 - 140

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

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

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

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

**Matrix Spike (MS-1) Spiked Sample: 223681**

QC Batch: 67879  
Prep Batch: 58062

Date Analyzed: 2010-02-27  
QC Preparation: 2010-02-26

Analyzed By: AG  
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.86	mg/Kg	1	2.00	<0.00410	93	57.7 - 140.7
Toluene	1.90	mg/Kg	1	2.00	<0.00310	95	53.4 - 146.6
Ethylbenzene	1.95	mg/Kg	1	2.00	<0.00240	98	62.1 - 141.6
Xylene	5.84	mg/Kg	1	6.00	<0.00650	97	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.82	mg/Kg	1	2.00	<0.00410	91	57.7 - 140.7	2	20
Toluene	1.85	mg/Kg	1	2.00	<0.00310	92	53.4 - 146.6	3	20
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00240	96	62.1 - 141.6	2	20
Xylene	5.75	mg/Kg	1	6.00	<0.00650	96	61.2 - 142.7	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.36	1.87	mg/Kg	1	2	68	94	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.57	2.14	mg/Kg	1	2	78	107	49.6 - 146.7

**Standard (CCV-2)**

QC Batch: 67849

Date Analyzed: 2010-02-25

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	275	110	80 - 120	2010-02-25

**Standard (CCV-3)**

QC Batch: 67849

Date Analyzed: 2010-02-25

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	109	80 - 120	2010-02-25







6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 806•376•1296 806•794•1296 FAX:806•794•1296  
 209 East Sunset Road, Suite E El Paso, Texas 79922 806•688•3443 915•385•3443 FAX:915•595•4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX:432•689•6313  
 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260  
 E-Mail: lab@traceanalysis.com

### Certifications

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

### NELAP Certifications

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

## Analytical and Quality Control Report

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

Report Date: March 1, 2010

Work Order: 10022524



Project Location: Lovington, NM  
 Project Name: Sunoco Denton Station  
 Project Number: Sunoco Denton Station

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
223680	NSS-1B	soil	2010-02-24	13:26	2010-02-25
223681	SSS-2B	soil	2010-02-24	13:00	2010-02-25

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

*Michael Abel*

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

**Standard Flags**

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

## Case Narrative

Samples for project Sunoco Denton Station were received by TraceAnalysis, Inc. on 2010-02-25 and assigned to work order 10022524. Samples for work order 10022524 were received intact at a temperature of 2.1 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	58062	2010-02-26 at 11:00	67879	2010-02-27 at 14:44
TPH DRO - NEW	Mod. 8015B	58044	2010-02-25 at 10:56	67849	2010-02-25 at 10:56
TPH GRO	S 8015B	58062	2010-02-26 at 11:00	67877	2010-02-27 at 15:12

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 10022524 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: 223680 - NSS-1B**

Laboratory: Midland  
Analysis: BTEX  
QC Batch: 67879  
Prep Batch: 58062

Analytical Method: S 8021B  
Date Analyzed: 2010-02-27  
Sample Preparation: 2010-02-26

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.88	mg/Kg	1	2.00	94	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	43.1 - 158.4

**Sample: 223680 - NSS-1B**

Laboratory: Midland  
Analysis: TPH DRO - NEW  
QC Batch: 67849  
Prep Batch: 58044

Analytical Method: Mod. 8015B  
Date Analyzed: 2010-02-25  
Sample Preparation: 2010-02-25

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		103	mg/Kg	1	100	103	70 - 130

**Sample: 223680 - NSS-1B**

Laboratory: Midland  
Analysis: TPH GRO  
QC Batch: 67877  
Prep Batch: 58062

Analytical Method: S 8015B  
Date Analyzed: 2010-02-27  
Sample Preparation: 2010-02-26

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

*continued ...*

sample 223680 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
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Parameter	Flag	RL Result	Units	Dilution	RL
GRO		5.20	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.35	mg/Kg	1	2.00	118	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.24	mg/Kg	1	2.00	112	61.7 - 131.1

**Sample: 223681 - SSS-2B**

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2010-02-27	Analyzed By: AG
QC Batch: 67879	Sample Preparation: 2010-02-26	Prepared By: AG
Prep Batch: 58062		

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.45	mg/Kg	1	2.00	72	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	43.1 - 158.4

**Sample: 223681 - SSS-2B**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO - NEW	Date Analyzed: 2010-02-25	Analyzed By: kg
QC Batch: 67849	Sample Preparation: 2010-02-25	Prepared By: kg
Prep Batch: 58044		

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		104	mg/Kg	1	100	104	70 - 130

**Sample: 223681 - SSS-2B**

Laboratory: Midland  
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035  
 QC Batch: 67877 Date Analyzed: 2010-02-27 Analyzed By: AG  
 Prep Batch: 58062 Sample Preparation: 2010-02-26 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.82	mg/Kg	1	2.00	91	65.3 - 145
4-Bromofluorobenzene (4-BFB)		1.75	mg/Kg	1	2.00	88	61.7 - 131.1

**Method Blank (1) QC Batch: 67849**

QC Batch: 67849 Date Analyzed: 2010-02-25 Analyzed By: kg  
 Prep Batch: 58044 QC Preparation: 2010-02-25 Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		104	mg/Kg	1	100	104	70 - 130

**Method Blank (1) QC Batch: 67877**

QC Batch: 67877 Date Analyzed: 2010-02-27 Analyzed By: AG  
 Prep Batch: 58062 QC Preparation: 2010-02-26 Prepared By: AG

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

Report Date: March 1, 2010  
Sunoco Denton Station

Work Order: 10022524  
Sunoco Denton Station

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Lovington, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.18	mg/Kg	1	2.00	109	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.59	mg/Kg	1	2.00	80	62 - 120.5

**Method Blank (1)**      QC Batch: 67879

QC Batch: 67879  
Prep Batch: 58062

Date Analyzed: 2010-02-27  
QC Preparation: 2010-02-26

Analyzed By: AG  
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.71	mg/Kg	1	2.00	86	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.45	mg/Kg	1	2.00	72	43.9 - 141.9

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

QC Batch: 67849  
Prep Batch: 58044

Date Analyzed: 2010-02-25  
QC Preparation: 2010-02-25

Analyzed By: kg  
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	304	mg/Kg	1	250	<5.86	122	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	305	mg/Kg	1	250	<5.86	122	57.4 - 133.4	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	86.8	88.6	mg/Kg	1	100	87	89	70 - 130

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

QC Batch: 67877  
Prep Batch: 58062

Date Analyzed: 2010-02-27  
QC Preparation: 2010-02-26

Analyzed By: AG  
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.5	mg/Kg	1	20.0	<0.396	72	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.0	mg/Kg	1	20.0	<0.396	75	52.5 - 114.3	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	2.22	mg/Kg	1	2.00	96	111	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.86	2.12	mg/Kg	1	2.00	93	106	64.1 - 127.4

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

QC Batch: 67879  
Prep Batch: 58062

Date Analyzed: 2010-02-27  
QC Preparation: 2010-02-26

Analyzed By: AG  
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.78	mg/Kg	1	2.00	<0.00410	89	75.4 - 115.7
Toluene	1.78	mg/Kg	1	2.00	<0.00310	89	78.4 - 113.6
Ethylbenzene	1.76	mg/Kg	1	2.00	<0.00240	88	76 - 114.2
Xylene	5.30	mg/Kg	1	6.00	<0.00650	88	76.9 - 113.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.80	mg/Kg	1	2.00	<0.00410	90	75.4 - 115.7	1	20
Toluene	1.81	mg/Kg	1	2.00	<0.00310	90	78.4 - 113.6	2	20
Ethylbenzene	1.81	mg/Kg	1	2.00	<0.00240	90	76 - 114.2	3	20
Xylene	5.44	mg/Kg	1	6.00	<0.00650	91	76.9 - 113.6	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.63	1.68	mg/Kg	1	2.00	82	84	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.96	2.02	mg/Kg	1	2.00	98	101	43.8 - 144.9

**Matrix Spike (MS-1) Spiked Sample: 223538**

QC Batch: 67849  
Prep Batch: 58044

Date Analyzed: 2010-02-25  
QC Preparation: 2010-02-25

Analyzed By: kg  
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	<sup>1</sup> 2380	mg/Kg	1	250	1040	536	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	<sup>2</sup> 1840	mg/Kg	1	250	1040	320	35.2 - 167.1	26	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	<sup>3 4</sup> 186	144	mg/Kg	1	100	186	144	70 - 130

**Matrix Spike (MS-1) Spiked Sample: 223681**

QC Batch: 67877  
Prep Batch: 58062

Date Analyzed: 2010-02-27  
QC Preparation: 2010-02-26

Analyzed By: AG  
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	22.4	mg/Kg	1	20.0	<0.396	112	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	23.9	mg/Kg	1	20.0	<0.396	120	10 - 198.3	6	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.73	2.34	mg/Kg	1	2	86	117	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.70	2.29	mg/Kg	1	2	85	114	58.6 - 140

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

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

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

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

**Matrix Spike (MS-1)** Spiked Sample: 223681

QC Batch: 67879  
 Prep Batch: 58062

Date Analyzed: 2010-02-27  
 QC Preparation: 2010-02-26

Analyzed By: AG  
 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.86	mg/Kg	1	2.00	<0.00410	93	57.7 - 140.7
Toluene	1.90	mg/Kg	1	2.00	<0.00310	95	53.4 - 146.6
Ethylbenzene	1.95	mg/Kg	1	2.00	<0.00240	98	62.1 - 141.6
Xylene	5.84	mg/Kg	1	6.00	<0.00650	97	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.82	mg/Kg	1	2.00	<0.00410	91	57.7 - 140.7	2	20
Toluene	1.85	mg/Kg	1	2.00	<0.00310	92	53.4 - 146.6	3	20
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00240	96	62.1 - 141.6	2	20
Xylene	5.75	mg/Kg	1	6.00	<0.00650	96	61.2 - 142.7	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.36	1.87	mg/Kg	1	2	68	94	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.57	2.14	mg/Kg	1	2	78	107	49.6 - 146.7

**Standard (CCV-2)**

QC Batch: 67849

Date Analyzed: 2010-02-25

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	275	110	80 - 120	2010-02-25

**Standard (CCV-3)**

QC Batch: 67849

Date Analyzed: 2010-02-25

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	109	80 - 120	2010-02-25







**APPENDIX B**  
**Release Notification and Corrective Action**  
**(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 88201  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

**RECEIVED**

AUG 27 2010

**HOBBSOCD**

State of New Mexico  
Energy Minerals and Natural Resources

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

**RECEIVED**

JUL 27 2009

**HOBBSOCD**

Form C-141  
Revised October 10, 2003

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 Sunoco Logistics	Contact Jeff Green
Address 401 Cypress Avenue, Abilene, Texas 79601	Telephone No. 325 665 0021
Facility Name Sunoco Denton Station	Facility Type

Surface Owner	Mineral Owner	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
P	9	15 S	37 E					Lea

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

**NATURE OF RELEASE**

Type of Release	Volume of Release 4 bbls	Volume Recovered 1 bbls
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery 06/14/09
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
One of two tanks within the tank battery developed a leak and released approximately 4 barrels of crude oil.

Describe Area Affected and Cleanup Action Taken.\*  
Cleanup activities included excavation and stockpiling of impacted soil on plastic at the tank battery. Seven confirmation soil samples were collected from within the excavation floor and sidewalls for laboratory analysis. Impacted soils immediately below the two tanks were left in place to not compromise the tanks stability. The excavation area is approximately 100 feet in length X 30 feet wide. Stockpiled soils will be relocated to another facility for staging and blending.

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.

Signature: <i>Jeff Green</i>	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: <i>Jeff Green</i>	Approved by District Supervisor:	
Title: <i>South Regional Manager</i>	Approval Date:	Expiration Date:
E-mail Address:	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <i>07/27/09</i>	Phone: <i>325-671-8050</i>	

\* Attach Additional Sheets If Necessary