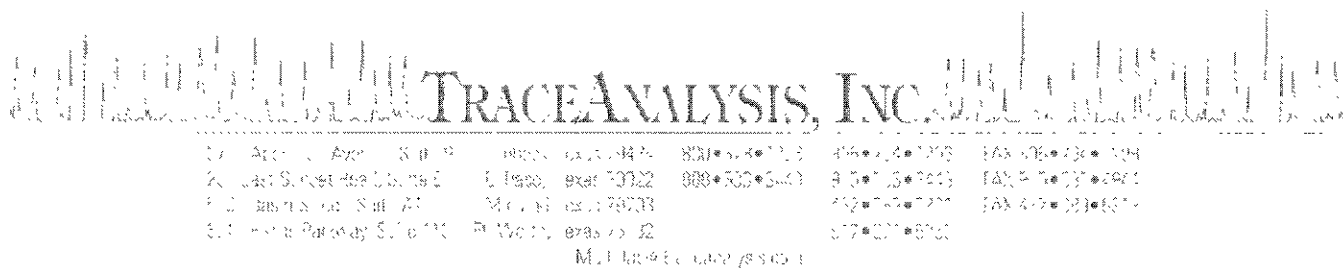


AP - __13__

**STAGE 1 & 2
REPORTS
(Lab. Results)**

DATE:

August 2010



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: March 30, 2010

Work Order: 10032621



Project Location: Eunice, NM
 Project Name: 9718
 Project Number: TNM 97-18

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
226738	S. Exc. E Wall-1, 10'	soil	2010-03-25	14:15	2010-03-26
226739	S. Exc. E Wall-2, 10'	soil	2010-03-25	14:17	2010-03-26
226740	S. Exc. NE Wall, 10'	soil	2010-03-25	14:20	2010-03-26
226741	S. Exc. N Cent. Wall, 10'	soil	2010-03-25	14:24	2010-03-26

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

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



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 9718 were received by TraceAnalysis, Inc. on 2010-03-26 and assigned to work order 10032621. Samples for work order 10032621 were received intact at a temperature of 3.4 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	58719	2010-03-26 at 09:00	68652	2010-03-26 at 10:36
TPH DRO - NEW	Mod. 8015B	58777	2010-03-29 at 11:56	68675	2010-03-29 at 11:56
TPH GRO	S 8015B	58719	2010-03-26 at 09:00	68653	2010-03-26 at 11:07

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 10032621 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: 226738 - S. Exc. E Wall-1, 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 68652

Prep Batch: 58719

Analytical Method: S 8021B

Date Analyzed: 2010-03-26

Sample Preparation: 2010-03-26

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)		2.36	mg/Kg	1	2.00	118	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.32	mg/Kg	1	2.00	116	43.1 - 158.4

Sample: 226738 - S. Exc. E Wall-1, 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 68675

Prep Batch: 58777

Analytical Method: Mod. 8015B

Date Analyzed: 2010-03-29

Sample Preparation: 2010-03-29

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		114	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	162	mg/Kg	1	100	162	70 - 130

Sample: 226738 - S. Exc. E Wall-1, 10'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 68653

Prep Batch: 58719

Analytical Method: S 8015B

Date Analyzed: 2010-03-26

Sample Preparation: 2010-03-26

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

¹High surrogate recovery due to peak interference.

sample 226738 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)		2.24	mg/Kg	1	2.00	112	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.22	mg/Kg	1	2.00	111	51.7 - 131.1

Sample: 226739 - S. Exc. E Wall-2, 10'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 68652 Date Analyzed: 2010-03-26 Analyzed By: AG
 Prep Batch: 58719 Sample Preparation: 2010-03-26 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)		2.22	mg/Kg	1	2.00	111	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.24	mg/Kg	1	2.00	112	43.1 - 158.4

Sample: 226739 - S. Exc. E Wall-2, 10'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 68675 Date Analyzed: 2010-03-29 Analyzed By: kg
 Prep Batch: 58777 Sample Preparation: 2010-03-29 Prepared By: kg

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

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032621
9718

Page Number: 6 of 14
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		125	mg/Kg	1	100	125	70 - 130

Sample: 226739 - S. Exc. E Wall-2, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 68653 Date Analyzed: 2010-03-26 Analyzed By: AG
Prep Batch: 58719 Sample Preparation: 2010-03-26 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)		2.12	mg/Kg	1	2.00	106	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.14	mg/Kg	1	2.00	107	51.7 - 131.1

Sample: 226740 - S. Exc. NE Wall, 10'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 68652 Date Analyzed: 2010-03-26 Analyzed By: AG
Prep Batch: 58719 Sample Preparation: 2010-03-26 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)		1.98	mg/Kg	1	2.00	99	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.00	mg/Kg	1	2.00	100	43.1 - 158.4

Sample: 226740 - S. Exc. NE Wall, 10'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-03-29	Analyzed By:	kg
QC Batch:	68675	Sample Preparation:	2010-03-29	Prepared By:	kg
Prep Batch:	58777				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		124	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	²	148	mg/Kg	1	100	148	70 - 130

Sample: 226740 - S. Exc. NE Wall, 10'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-03-26	Analyzed By:	AG
QC Batch:	68653	Sample Preparation:	2010-03-26	Prepared By:	AG
Prep Batch:	58719				

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)		1.88	mg/Kg	1	2.00	94	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	51.7 - 131.1

Sample: 226741 - S. Exc. N Cent. Wall, 10'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-03-26	Analyzed By:	AG
QC Batch:	68652	Sample Preparation:	2010-03-26	Prepared By:	AG
Prep Batch:	58719				

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

²High surrogate recovery due to peak interference.

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032621
9718

Page Number: 8 of 14
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.52	mg/Kg	1	2.00	76	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.51	mg/Kg	1	2.00	76	43.1 - 158.4

Sample: 226741 - S. Exc. N Cent. Wall, 10'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 68675 Date Analyzed: 2010-03-29 Analyzed By: kg
Prep Batch: 58777 Sample Preparation: 2010-03-29 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		62.2	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		112	mg/Kg	1	100	112	70 - 130

Sample: 226741 - S. Exc. N Cent. Wall, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 68653 Date Analyzed: 2010-03-26 Analyzed By: AG
Prep Batch: 58719 Sample Preparation: 2010-03-26 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)		1.45	mg/Kg	1	2.00	73	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.45	mg/Kg	1	2.00	73	51.7 - 131.1

Method Blank (1) QC Batch: 68652

QC Batch: 68652 Date Analyzed: 2010-03-26 Analyzed By: AG
Prep Batch: 58719 QC Preparation: 2010-03-26 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01

continued ...

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
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)		1.98	mg/Kg	1	2.00	99	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.53	mg/Kg	1	2.00	76	43.9 - 141.9

Method Blank (1) QC Batch: 68653

QC Batch: 68653 Date Analyzed: 2010-03-26 Analyzed By: AG
Prep Batch: 58719 QC Preparation: 2010-03-26 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	62 - 120.5

Method Blank (1) QC Batch: 68675

QC Batch: 68675 Date Analyzed: 2010-03-29 Analyzed By: kg
Prep Batch: 58777 QC Preparation: 2010-03-29 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		81.2	mg/Kg	1	100	81	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 68652 Date Analyzed: 2010-03-26 Analyzed By: AG
Prep Batch: 58719 QC Preparation: 2010-03-26 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.87	mg/Kg	1	2.00	<0.00410	94	75.4 - 115.7
Toluene	1.85	mg/Kg	1	2.00	<0.00310	92	78.4 - 113.6
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.00240	92	76 - 114.2
Xylene	5.59	mg/Kg	1	6.00	<0.00650	93	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	1.87	mg/Kg	1	2.00	<0.00410	94	75.4 - 115.7	0	20
Toluene	1.87	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6	1	20
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.00240	92	76 - 114.2	0	20
Xylene	5.61	mg/Kg	1	6.00	<0.00650	94	76.9 - 113.6	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.01	1.79	mg/Kg	1	2.00	100	90	65 - 142.9
4-Bromofluorobenzene (4-BFB)	2.10	1.87	mg/Kg	1	2.00	105	94	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 68653
Prep Batch: 58719

Date Analyzed: 2010-03-26
QC Preparation: 2010-03-26

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.2	mg/Kg	1	20.0	<0.396	81	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.4	mg/Kg	1	20.0	<0.396	82	52.5 - 114.3	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.47	1.79	mg/Kg	1	2.00	74	90	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.46	1.78	mg/Kg	1	2.00	73	89	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 68675
Prep Batch: 58777

Date Analyzed: 2010-03-29
QC Preparation: 2010-03-29

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	283	mg/Kg	1	250	<5.86	113	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	276	mg/Kg	1	250	<5.86	110	57.4 - 133.4	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	84.1	82.2	mg/Kg	1	100	84	82	70 - 130

Matrix Spike (MS-1) Spiked Sample: 226457

QC Batch: 68652
Prep Batch: 58719

Date Analyzed: 2010-03-26
QC Preparation: 2010-03-26

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.97	mg/Kg	1	2.00	<0.00410	98	57.7 - 140.7
Toluene	1.99	mg/Kg	1	2.00	<0.00310	100	53.4 - 146.6
Ethylbenzene	2.01	mg/Kg	1	2.00	<0.00240	100	62.1 - 141.6
Xylene	6.05	mg/Kg	1	6.00	<0.00650	101	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	1.90	mg/Kg	1	2.00	<0.00410	95	57.7 - 140.7	4	20
Toluene	1.93	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6	3	20
Ethylbenzene	1.99	mg/Kg	1	2.00	<0.00240	100	62.1 - 141.6	1	20
Xylene	5.96	mg/Kg	1	6.00	<0.00650	99	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)	1.17	2.37	mg/Kg	1	2	58	118	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.24	2.45	mg/Kg	1	2	62	122	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 226457

QC Batch: 68653
Prep Batch: 58719

Date Analyzed: 2010-03-26
QC Preparation: 2010-03-26

Analyzed By: AG
Prepared By: AG

³Surrogate out due to peak interference.

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032621
9718

Page Number: 12 of 14
Eunice, NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.5	mg/Kg	1	20.0	<0.396	88	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	20.0	mg/Kg	1	20.0	<0.396	100	10 - 198.3	13	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.92	1.70	mg/Kg	1	2	96	85	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.11	1.89	mg/Kg	1	2	106	94	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 226805

QC Batch: 68675
Prep Batch: 58777

Date Analyzed: 2010-03-29
QC Preparation: 2010-03-29

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	266	mg/Kg	1	250	<5.86	106	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	280	mg/Kg	1	250	<5.86	112	35.2 - 167.1	5	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	101	100	mg/Kg	1	100	101	100	70 - 130

Standard (CCV-1)

QC Batch: 68652

Date Analyzed: 2010-03-26

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0975	98	80 - 120	2010-03-26
Toluene		mg/Kg	0.100	0.0966	97	80 - 120	2010-03-26
Ethylbenzene		mg/Kg	0.100	0.0966	97	80 - 120	2010-03-26
Xylene		mg/Kg	0.300	0.291	97	80 - 120	2010-03-26

Standard (CCV-2)

QC Batch: 68652

Date Analyzed: 2010-03-26

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0998	100	80 - 120	2010-03-26
Toluene		mg/Kg	0.100	0.0983	98	80 - 120	2010-03-26
Ethylbenzene		mg/Kg	0.100	0.0976	98	80 - 120	2010-03-26
Xylene		mg/Kg	0.300	0.292	97	80 - 120	2010-03-26

Standard (CCV-1)

QC Batch: 68653

Date Analyzed: 2010-03-26

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.890	89	80 - 120	2010-03-26

Standard (CCV-2)

QC Batch: 68653

Date Analyzed: 2010-03-26

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.948	95	80 - 120	2010-03-26

Standard (CCV-2)

QC Batch: 68675

Date Analyzed: 2010-03-29

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	266	106	80 - 120	2010-03-29

Standard (CCV-3)

QC Batch: 68675

Date Analyzed: 2010-03-29

Analyzed By: kg

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032621
9718

Page Number: 14 of 14
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	80 - 120	2010-03-29

TraceAnalysis, Inc.

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Lubbock, Texas 79424
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2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:	NOVA	Phone #:	
Address:	(Street, City, Zip)	Fax #:	
Contact Person:	Ron Rounsaville	E-mail:	
Invoice to:	RAINS		
(if different from above)			
Project #:	TMM-97-18	Project Name:	97-18
Project Location (including state):	LEA Co. NMEX	Sampler Signature:	

Sampler Signature:

[illegible]

Relinquished by: 	Date: 3/24/0	Time: 1134	Received by: 	Company: Trace	Date: 3/26/0	Time:	INST OBS 34°C COR
Relinquished by: 	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS °C COR °C
Relinquished by:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS °C COR °C

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Heartspace Y / N ☒

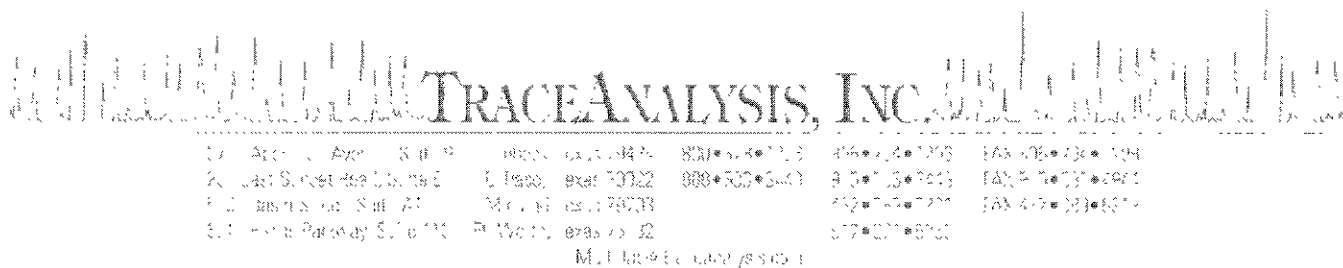
Log-in-Review _____

☐	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.

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Carrier #



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: March 30, 2010

Work Order: 10032918



Project Location: Eunice, NM
 Project Name: 9718
 Project Number: TNM 97-18

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
226909	S. Exc. S Cent. Wall, 10'	soil	2010-03-26	12:15	2010-03-29
226910	S. Exc. W NW, 10'	soil	2010-03-26	11:45	2010-03-29
226911	S. Exc. W Cent. Wall, 10'	soil	2010-03-26	12:00	2010-03-29
226912	S. Exc. W SW, 10'	soil	2010-03-26	12:30	2010-03-29

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



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-03-29 and assigned to work order 10032918. Samples for work order 10032918 were received intact at a temperature of 3.7 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	58780	2010-03-29 at 14:00	68677	2010-03-29 at 15:11
TPH DRO - NEW	Mod. 8015B	58777	2010-03-29 at 11:56	68675	2010-03-29 at 11:56
TPH GRO	S 8015B	58780	2010-03-29 at 14:00	68678	2010-03-29 at 15:39

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 10032918 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: 226909 - S. Exc. S Cent. Wall, 10'

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2010-03-29	Analyzed By: AG
QC Batch: 68677	Sample Preparation: 2010-03-29	Prepared By: AG
Prep Batch: 58780		

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.08	mg/Kg	1	2.00	104	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.05	mg/Kg	1	2.00	102	43.1 - 158.4

Sample: 226909 - S. Exc. S Cent. Wall, 10'

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO - NEW	Date Analyzed: 2010-03-29	Analyzed By: kg
QC Batch: 68675	Sample Preparation: 2010-03-29	Prepared By: kg
Prep Batch: 58777		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		280	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	191	mg/Kg	1	100	191	70 - 130

Sample: 226909 - S. Exc. S Cent. Wall, 10'

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2010-03-29	Analyzed By: AG
QC Batch: 68678	Sample Preparation: 2010-03-29	Prepared By: AG
Prep Batch: 58780		

continued ...

¹High surrogate recovery due to peak interference.

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032918
9718

Page Number: 5 of 14
Eunice, NM

sample 226909 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)		2.01	mg/Kg	1	2.00	100	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.01	mg/Kg	1	2.00	100	51.7 - 131.1

Sample: 226910 - S. Exc. W NW, 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 68677

Prep Batch: 58780

Analytical Method: S 8021B

Date Analyzed: 2010-03-29

Sample Preparation: 2010-03-29

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)		1.65	mg/Kg	1	2.00	82	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.66	mg/Kg	1	2.00	83	43.1 - 158.4

Sample: 226910 - S. Exc. W NW, 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 68675

Prep Batch: 58777

Analytical Method: Mod. 8015B

Date Analyzed: 2010-03-29

Sample Preparation: 2010-03-29

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

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032918
9718

Page Number: 6 of 14
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		109	mg/Kg	1	100	109	70 - 130

Sample: 226910 - S. Exc. W NW, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 68678 Date Analyzed: 2010-03-29 Analyzed By: AG
Prep Batch: 58780 Sample Preparation: 2010-03-29 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)		1.61	mg/Kg	1	2.00	80	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	51.7 - 131.1

Sample: 226911 - S. Exc. W Cent. Wall, 10'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 68677 Date Analyzed: 2010-03-29 Analyzed By: AG
Prep Batch: 58780 Sample Preparation: 2010-03-29 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.05	mg/Kg	1	2.00	102	43.1 - 158.4

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032918
9718

Page Number: 7 of 14
Eunice, NM

Sample: 226911 - S. Exc. W Cent. Wall, 10'

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	68675	Date Analyzed:	2010-03-29
Prep Batch:	58777	Sample Preparation:	2010-03-29
		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		107	mg/Kg	1	100	107	70 - 130

Sample: 226911 - S. Exc. W Cent. Wall, 10'

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	68678	Date Analyzed:	2010-03-29
Prep Batch:	58780	Sample Preparation:	2010-03-29
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.98	mg/Kg	1	2.00	99	51.7 - 131.1

Sample: 226912 - S. Exc. W SW, 10'

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	68677	Date Analyzed:	2010-03-29
Prep Batch:	58780	Sample Preparation:	2010-03-29
		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

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032918
9718

Page Number: 8 of 14
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.37	mg/Kg	1	2.00	68	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.36	mg/Kg	1	2.00	68	43.1 - 158.4

Sample: 226912 - S. Exc. W SW, 10'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 68675 Date Analyzed: 2010-03-29 Analyzed By: kg
Prep Batch: 58777 Sample Preparation: 2010-03-29 Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		110	mg/Kg	1	100	110	70 - 130

Sample: 226912 - S. Exc. W SW, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 68678 Date Analyzed: 2010-03-29 Analyzed By: AG
Prep Batch: 58780 Sample Preparation: 2010-03-29 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)		1.34	mg/Kg	1	2.00	67	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.34	mg/Kg	1	2.00	67	51.7 - 131.1

Method Blank (1) QC Batch: 68675

QC Batch: 68675 Date Analyzed: 2010-03-29 Analyzed By: kg
Prep Batch: 58777 QC Preparation: 2010-03-29 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		81.2	mg/Kg	1	100	81	70 - 130

Method Blank (1) QC Batch: 68677

QC Batch: 68677 Date Analyzed: 2010-03-29 Analyzed By: AG
Prep Batch: 58780 QC Preparation: 2010-03-29 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)		1.96	mg/Kg	1	2.00	98	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.59	mg/Kg	1	2.00	80	43.9 - 141.9

Method Blank (1) QC Batch: 68678

QC Batch: 68678 Date Analyzed: 2010-03-29 Analyzed By: AG
Prep Batch: 58780 QC Preparation: 2010-03-29 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.54	mg/Kg	1	2.00	77	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 68675 Date Analyzed: 2010-03-29 Analyzed By: kg
Prep Batch: 58777 QC Preparation: 2010-03-29 Prepared By: kg

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	283	mg/Kg	1	250	<5.86	113	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	276	mg/Kg	1	250	<5.86	110	57.4 - 133.4	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	84.1	82.2	mg/Kg	1	100	84	82	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 68677
Prep Batch: 58780

Date Analyzed: 2010-03-29
QC Preparation: 2010-03-29

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.95	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7
Toluene	1.94	mg/Kg	1	2.00	<0.00310	97	78.4 - 113.6
Ethylbenzene	1.95	mg/Kg	1	2.00	<0.00240	98	76 - 114.2
Xylene	5.85	mg/Kg	1	6.00	<0.00650	98	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	1.95	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7	0	20
Toluene	1.94	mg/Kg	1	2.00	<0.00310	97	78.4 - 113.6	0	20
Ethylbenzene	1.91	mg/Kg	1	2.00	<0.00240	96	76 - 114.2	2	20
Xylene	5.79	mg/Kg	1	6.00	<0.00650	96	76.9 - 113.6	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.83	1.76	mg/Kg	1	2.00	92	88	65 - 142.9
4-Bromofluorobenzene (4-BFB)	2.00	1.85	mg/Kg	1	2.00	100	92	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 68678
Prep Batch: 58780

Date Analyzed: 2010-03-29
QC Preparation: 2010-03-29

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.7	mg/Kg	1	20.0	<0.396	84	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.6	mg/Kg	1	20.0	<0.396	83	52.5 - 114.3	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.90	1.76	mg/Kg	1	2.00	95	88	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.90	1.78	mg/Kg	1	2.00	95	89	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 226805

QC Batch: 68675
Prep Batch: 58777

Date Analyzed: 2010-03-29
QC Preparation: 2010-03-29

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	266	mg/Kg	1	250	<5.86	106	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	280	mg/Kg	1	250	<5.86	112	35.2 - 167.1	5	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	101	100	mg/Kg	1	100	101	100	70 - 130

Matrix Spike (MS-1) Spiked Sample: 226912

QC Batch: 68677
Prep Batch: 58780

Date Analyzed: 2010-03-29
QC Preparation: 2010-03-29

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.00	mg/Kg	1	2.00	<0.00410	100	57.7 - 140.7
Toluene	2.02	mg/Kg	1	2.00	<0.00310	101	53.4 - 146.6
Ethylbenzene	2.06	mg/Kg	1	2.00	<0.00240	103	62.1 - 141.6
Xylene	6.18	mg/Kg	1	6.00	<0.00650	103	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	1.90	mg/Kg	1	2.00	<0.00410	95	57.7 - 140.7	5	20
Toluene	1.91	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6	6	20
Ethylbenzene	1.95	mg/Kg	1	2.00	<0.00240	98	62.1 - 141.6	6	20
Xylene	5.87	mg/Kg	1	6.00	<0.00650	98	61.2 - 142.7	5	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)	2.17	1.79	mg/Kg	1	2	108	90	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	2.23	1.86	mg/Kg	1	2	112	93	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 226912

QC Batch: 68678
Prep Batch: 58780

Date Analyzed: 2010-03-29
QC Preparation: 2010-03-29

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.2	mg/Kg	1	20.0	<0.396	71	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	16.9	mg/Kg	1	20.0	<0.396	84	10 - 198.3	17	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)	1.81	1.61	mg/Kg	1	2	90	80	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.91	1.72	mg/Kg	1	2	96	86	58.6 - 140

Standard (CCV-3)

QC Batch: 68675

Date Analyzed: 2010-03-29

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	80 - 120	2010-03-29

Standard (CCV-4)

QC Batch: 68675 Date Analyzed: 2010-03-29 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	282	113	80 - 120	2010-03-29

Standard (CCV-2)

QC Batch: 68677 Date Analyzed: 2010-03-29 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0971	97	80 - 120	2010-03-29
Toluene		mg/Kg	0.100	0.0966	97	80 - 120	2010-03-29
Ethylbenzene		mg/Kg	0.100	0.0953	95	80 - 120	2010-03-29
Xylene		mg/Kg	0.300	0.288	96	80 - 120	2010-03-29

Standard (CCV-3)

QC Batch: 68677 Date Analyzed: 2010-03-29 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0956	96	80 - 120	2010-03-29
Toluene		mg/Kg	0.100	0.0942	94	80 - 120	2010-03-29
Ethylbenzene		mg/Kg	0.100	0.0935	94	80 - 120	2010-03-29
Xylene		mg/Kg	0.300	0.281	94	80 - 120	2010-03-29

Standard (CCV-2)

QC Batch: 68678 Date Analyzed: 2010-03-29 Analyzed By: AG

Report Date: March 30, 2010
TNM 97-18

Work Order: 10032918
9718

Page Number: 14 of 14
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.944	94	80 - 120	2010-03-29

Standard (CCV-3)

QC Batch: 68678

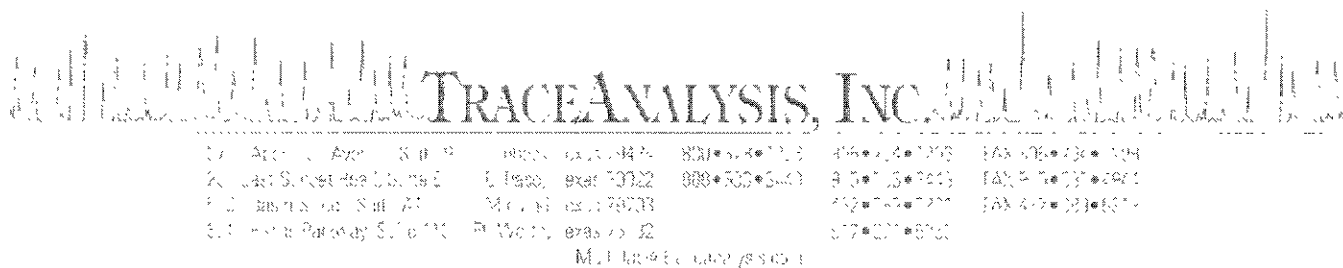
Date Analyzed: 2010-03-29

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.947	95	80 - 120	2010-03-29

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
 LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: March 31, 2010

Work Order: 10033011



Project Location: Eunice, NM
 Project Name: 9718
 Project Number: TNM 97-18

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
227058	BH-1 NC 12'	soil	2010-03-29	13:15	2010-03-30
227059	BH-2 SE COR 12'	soil	2010-03-29	13:20	2010-03-30
227060	BH-3 SC 12'	soil	2010-03-29	13:30	2010-03-30
227061	BH-4 SW 12'	soil	2010-03-29	13:30	2010-03-30
227062	BH-5 NW COR 12'	soil	2010-03-29	13:30	2010-03-30
227063	BH-6 NC 12'	soil	2010-03-29	13:30	2010-03-30
227064	BH-7 NE COR 12'	soil	2010-03-29	13:45	2010-03-30

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

This report consists of a total of 18 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-03-30 and assigned to work order 10033011. Samples for work order 10033011 were received intact at a temperature of 3.7 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	58820	2010-03-30 at 14:00	68717	2010-03-30 at 19:22
TPH DRO - NEW	Mod. 8015B	58812	2010-03-30 at 11:00	68711	2010-03-30 at 11:00
TPH GRO	S 8015B	58820	2010-03-30 at 14:00	68718	2010-03-30 at 19:50

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 10033011 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: 227058 - BH-1 NC 12'

Laboratory: Midland
Analysis: BTEX
QC Batch: 68717
Prep Batch: 58820

Analytical Method: S 8021B
Date Analyzed: 2010-03-30
Sample Preparation: 2010-03-30

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)		1.89	mg/Kg	1	2.00	94	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.94	mg/Kg	1	2.00	97	43.1 - 158.4

Sample: 227058 - BH-1 NC 12'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 68711
Prep Batch: 58812

Analytical Method: Mod. 8015B
Date Analyzed: 2010-03-30
Sample Preparation: 2010-03-30

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		65.1	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: 227058 - BH-1 NC 12'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 68718
Prep Batch: 58820

Analytical Method: S 8015B
Date Analyzed: 2010-03-30
Sample Preparation: 2010-03-30

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

continued ...

sample 227058 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.54	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.92	mg/Kg	1	2.00	96	51.7 - 131.1

Sample: 227059 - BH-2 SE COR 12'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 68717 Date Analyzed: 2010-03-30 Analyzed By: AG
 Prep Batch: 58820 Sample Preparation: 2010-03-30 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)		1.70	mg/Kg	1	2.00	85	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.70	mg/Kg	1	2.00	85	43.1 - 158.4

Sample: 227059 - BH-2 SE COR 12'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg
 Prep Batch: 58812 Sample Preparation: 2010-03-30 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		98.9	mg/Kg	1	50.0

Report Date: March 31, 2010
TNM 97-18

Work Order: 10033011
9718

Page Number: 6 of 18
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		107	mg/Kg	1	100	107	70 - 130

Sample: 227059 - BH-2 SE COR 12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 68718 Date Analyzed: 2010-03-30 Analyzed By: AG
Prep Batch: 58820 Sample Preparation: 2010-03-30 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)		1.69	mg/Kg	1	2.00	84	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.69	mg/Kg	1	2.00	84	51.7 - 131.1

Sample: 227060 - BH-3 SC 12'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 68717 Date Analyzed: 2010-03-30 Analyzed By: AG
Prep Batch: 58820 Sample Preparation: 2010-03-30 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.07	mg/Kg	1	2.00	104	43.1 - 158.4

Sample: 227060 - BH-3 SC 12'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-03-30	Analyzed By:	kg
QC Batch:	68711	Sample Preparation:	2010-03-30	Prepared By:	kg
Prep Batch:	58812				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		246	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	1	152	mg/Kg	1	100	152	70 - 130

Sample: 227060 - BH-3 SC 12'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-03-30	Analyzed By:	AG
QC Batch:	68718	Sample Preparation:	2010-03-30	Prepared By:	AG
Prep Batch:	58820				

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)		2.04	mg/Kg	1	2.00	102	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	51.7 - 131.1

Sample: 227061 - BH-4 SW 12'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-03-30	Analyzed By:	AG
QC Batch:	68717	Sample Preparation:	2010-03-30	Prepared By:	AG
Prep Batch:	58820				

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

¹High surrogate recovery due to peak interference.

Report Date: March 31, 2010
TNM 97-18

Work Order: 10033011
9718

Page Number: 8 of 18
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.11	mg/Kg	1	2.00	106	43.1 - 158.4

Sample: 227061 - BH-4 SW 12'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg
Prep Batch: 58812 Sample Preparation: 2010-03-30 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		93.2	mg/Kg	1	100	93	70 - 130

Sample: 227061 - BH-4 SW 12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 68718 Date Analyzed: 2010-03-30 Analyzed By: AG
Prep Batch: 58820 Sample Preparation: 2010-03-30 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.08	mg/Kg	1	2.00	104	51.7 - 131.1

Sample: 227062 - BH-5 NW COR 12'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 68717 Date Analyzed: 2010-03-30 Analyzed By: AG
Prep Batch: 58820 Sample Preparation: 2010-03-30 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)		1.49	mg/Kg	1	2.00	74	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.50	mg/Kg	1	2.00	75	43.1 - 158.4

Sample: 227062 - BH-5 NW COR 12'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg
 Prep Batch: 58812 Sample Preparation: 2010-03-30 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		50.4	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: 227062 - BH-5 NW COR 12'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 68718 Date Analyzed: 2010-03-30 Analyzed By: AG
 Prep Batch: 58820 Sample Preparation: 2010-03-30 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)		1.48	mg/Kg	1	2.00	74	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.49	mg/Kg	1	2.00	74	51.7 - 131.1

Sample: 227063 - BH-6 NC 12'

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2010-03-30	Analyzed By: AG
QC Batch: 68717	Sample Preparation: 2010-03-30	Prepared By: AG
Prep Batch: 58820		

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		1.24	mg/Kg	1	0.0100
Xylene		0.406	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.85	mg/Kg	1	2.00	142	43.1 - 158.4

Sample: 227063 - BH-6 NC 12'

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO - NEW	Date Analyzed: 2010-03-30	Analyzed By: kg
QC Batch: 68711	Sample Preparation: 2010-03-30	Prepared By: kg
Prep Batch: 58812		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		212	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	²	131	mg/Kg	1	100	131	70 - 130

Sample: 227063 - BH-6 NC 12'

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2010-03-30	Analyzed By: AG
QC Batch: 68718	Sample Preparation: 2010-03-30	Prepared By: AG
Prep Batch: 58820		

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		106	mg/Kg	1	1.00

²High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.20	mg/Kg	1	2.00	110	50.3 - 155
4-Bromofluorobenzene (4-BFB)	³	4.29	mg/Kg	1	2.00	214	51.7 - 131.1

Sample: 227064 - BH-7 NE COR 12'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 68717 Date Analyzed: 2010-03-30 Analyzed By: AG
 Prep Batch: 58820 Sample Preparation: 2010-03-30 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)		1.59	mg/Kg	1	2.00	80	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.66	mg/Kg	1	2.00	83	43.1 - 158.4

Sample: 227064 - BH-7 NE COR 12'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg
 Prep Batch: 58812 Sample Preparation: 2010-03-30 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		97.8	mg/Kg	1	100	98	70 - 130

Sample: 227064 - BH-7 NE COR 12'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 68718 Date Analyzed: 2010-03-30 Analyzed By: AG
 Prep Batch: 58820 Sample Preparation: 2010-03-30 Prepared By: AG

³High surrogate recovery due to peak interference.

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)		1.57	mg/Kg	1	2.00	78	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	51.7 - 131.1

Method Blank (1) QC Batch: 68711

QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg
Prep Batch: 58812 QC Preparation: 2010-03-30 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		78.8	mg/Kg	1	100	79	70 - 130

Method Blank (1) QC Batch: 68717

QC Batch: 68717 Date Analyzed: 2010-03-30 Analyzed By: AG
Prep Batch: 58820 QC Preparation: 2010-03-30 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)		1.89	mg/Kg	1	2.00	94	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.45	mg/Kg	1	2.00	72	43.9 - 141.9

Method Blank (1) QC Batch: 68718

QC Batch: 68718 Date Analyzed: 2010-03-30 Analyzed By: AG
Prep Batch: 58820 QC Preparation: 2010-03-30 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.91	mg/Kg	1	2.00	96	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.46	mg/Kg	1	2.00	73	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg
Prep Batch: 58812 QC Preparation: 2010-03-30 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	256	mg/Kg	1	250	<5.86	102	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	227	mg/Kg	1	250	<5.86	91	57.4 - 133.4	12	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	82.5	82.9	mg/Kg	1	100	82	83	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 68717 Date Analyzed: 2010-03-30 Analyzed By: AG
Prep Batch: 58820 QC Preparation: 2010-03-30 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.96	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7
Toluene	1.94	mg/Kg	1	2.00	<0.00310	97	78.4 - 113.6
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	76 - 114.2
Xylene	5.84	mg/Kg	1	6.00	<0.00650	97	76.9 - 113.6

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

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.94	mg/Kg	1	2.00	<0.00410	97	75.4 - 115.7	1	20
Toluene	1.93	mg/Kg	1	2.00	<0.00310	96	78.4 - 113.6	0	20
Ethylbenzene	1.93	mg/Kg	1	2.00	<0.00240	96	76 - 114.2	0	20
Xylene	5.79	mg/Kg	1	6.00	<0.00650	96	76.9 - 113.6	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.01	1.96	mg/Kg	1	2.00	100	98	65 - 142.9
4-Bromofluorobenzene (4-BFB)	2.16	2.09	mg/Kg	1	2.00	108	104	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 68718
Prep Batch: 58820

Date Analyzed: 2010-03-30
QC Preparation: 2010-03-30

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.8	mg/Kg	1	20.0	<0.396	79	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.2	mg/Kg	1	20.0	<0.396	81	52.5 - 114.3	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.89	1.83	mg/Kg	1	2.00	94	92	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.85	1.83	mg/Kg	1	2.00	92	92	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 227068

QC Batch: 68711
Prep Batch: 58812

Date Analyzed: 2010-03-30
QC Preparation: 2010-03-30

Analyzed By: kg
Prepared By: kg

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	215	mg/Kg	1	250	<5.86	86	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	228	mg/Kg	1	250	<5.86	91	35.2 - 167.1	6	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	87.6	89.0	mg/Kg	1	100	88	89	70 - 130

Matrix Spike (MS-1) Spiked Sample: 227068

QC Batch: 68717
Prep Batch: 58820

Date Analyzed: 2010-03-30
QC Preparation: 2010-03-30

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.80	mg/Kg	1	2.00	<0.00410	90	57.7 - 140.7
Toluene	1.82	mg/Kg	1	2.00	<0.00310	91	53.4 - 146.6
Ethylbenzene	1.85	mg/Kg	1	2.00	<0.00240	92	62.1 - 141.6
Xylene	5.58	mg/Kg	1	6.00	<0.00650	93	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	1.78	mg/Kg	1	2.00	<0.00410	89	57.7 - 140.7	1	20
Toluene	1.80	mg/Kg	1	2.00	<0.00310	90	53.4 - 146.6	1	20
Ethylbenzene	1.86	mg/Kg	1	2.00	<0.00240	93	62.1 - 141.6	0	20
Xylene	5.57	mg/Kg	1	6.00	<0.00650	93	61.2 - 142.7	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.46	1.65	mg/Kg	1	2	73	82	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.53	1.74	mg/Kg	1	2	76	87	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 227068

QC Batch: 68718 Date Analyzed: 2010-03-30 Analyzed By: AG
Prep Batch: 58820 QC Preparation: 2010-03-30 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.1	mg/Kg	1	20.0	<0.396	90	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	15.8	mg/Kg	1	20.0	<0.396	79	10 - 198.3	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)	1.47	1.69	mg/Kg	1	2	74	84	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.52	1.84	mg/Kg	1	2	76	92	58.6 - 140

Standard (CCV-1)

QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	225	90	80 - 120	2010-03-30

Standard (CCV-2)

QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	264	106	80 - 120	2010-03-30

Standard (CCV-3)

QC Batch: 68711 Date Analyzed: 2010-03-30 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	244	98	80 - 120	2010-03-30

Standard (CCV-1)

QC Batch: 68717

Date Analyzed: 2010-03-30

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0926	93	80 - 120	2010-03-30
Toluene		mg/Kg	0.100	0.0925	92	80 - 120	2010-03-30
Ethylbenzene		mg/Kg	0.100	0.0914	91	80 - 120	2010-03-30
Xylene		mg/Kg	0.300	0.278	93	80 - 120	2010-03-30

Standard (CCV-2)

QC Batch: 68717

Date Analyzed: 2010-03-30

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0945	94	80 - 120	2010-03-30
Toluene		mg/Kg	0.100	0.0932	93	80 - 120	2010-03-30
Ethylbenzene		mg/Kg	0.100	0.0920	92	80 - 120	2010-03-30
Xylene		mg/Kg	0.300	0.276	92	80 - 120	2010-03-30

Standard (CCV-1)

QC Batch: 68718

Date Analyzed: 2010-03-30

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.979	98	80 - 120	2010-03-30

Standard (CCV-2)

QC Batch: 68718

Date Analyzed: 2010-03-30

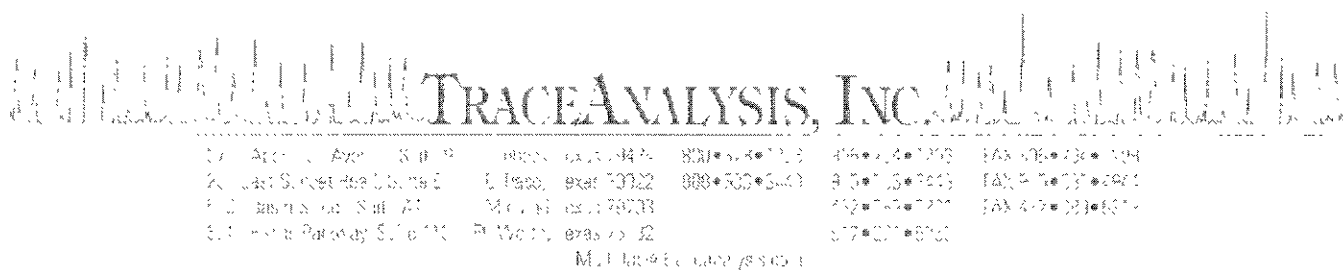
Analyzed By: AG

Report Date: March 31, 2010
TNM 97-18

Work Order: 10033011
9718

Page Number: 18 of 18
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.969	97	80 - 120	2010-03-30



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: April 7, 2010

Work Order: 10033120



Project Location: Eunice, NM
 Project Name: 9718
 Project Number: TNM 97-18

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
227176	S. Exc. E Wall-1 B 10'	soil	2010-03-31	12:30	2010-03-31
227177	S. Exc. NE Wall-2, 10'	soil	2010-03-31	12:36	2010-03-31
227178	S. Exc. S Cent. Wall-2 10'	soil	2010-03-31	12:42	2010-03-31

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



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-03-31 and assigned to work order 10033120. Samples for work order 10033120 were received intact at a temperature of 30.0 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	58841	2010-03-31 at 12:00	68748	2010-03-31 at 13:12
TPH DRO - NEW	Mod. 8015B	58892	2010-04-04 at 14:17	68810	2010-04-04 at 14:17
TPH GRO	S 8015B	58841	2010-03-31 at 12:00	68749	2010-03-31 at 13:40

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 10033120 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: 227176 - S. Exc. E Wall-1 B 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 68748

Prep Batch: 58841

Analytical Method: S 8021B

Date Analyzed: 2010-03-31

Sample Preparation: 2010-03-31

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.31	mg/Kg	1	2.00	116	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.37	mg/Kg	1	2.00	118	43.1 - 158.4

Sample: 227176 - S. Exc. E Wall-1 B 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 68810

Prep Batch: 58892

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-04

Sample Preparation: 2010-04-04

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		67.5	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		94.4	mg/Kg	1	100	94	70 - 130

Sample: 227176 - S. Exc. E Wall-1 B 10'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 68749

Prep Batch: 58841

Analytical Method: S 8015B

Date Analyzed: 2010-03-31

Sample Preparation: 2010-03-31

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

Report Date: April 7, 2010
TNM 97-18

Work Order: 10033120
9718

Page Number: 5 of 13
Eunice, NM

sample 227176 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)		2.28	mg/Kg	1	2.00	114	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.34	mg/Kg	1	2.00	117	51.7 - 131.1

Sample: 227177 - S. Exc. NE Wall-2, 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 68748

Prep Batch: 58841

Analytical Method: S 8021B

Date Analyzed: 2010-03-31

Sample Preparation: 2010-03-31

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

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

Sample: 227177 - S. Exc. NE Wall-2, 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 68810

Prep Batch: 58892

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-04

Sample Preparation: 2010-04-04

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

Report Date: April 7, 2010
TNM 97-18

Work Order: 10033120
9718

Page Number: 6 of 13
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		107	mg/Kg	1	100	107	70 - 130

Sample: 227177 - S. Exc. NE Wall-2, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 68749 Date Analyzed: 2010-03-31 Analyzed By: AG
Prep Batch: 58841 Sample Preparation: 2010-03-31 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.08	mg/Kg	1	2.00	104	51.7 - 131.1

Sample: 227178 - S. Exc. S Cent. Wall-2 10'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 68748 Date Analyzed: 2010-03-31 Analyzed By: AG
Prep Batch: 58841 Sample Preparation: 2010-03-31 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.21	mg/Kg	1	2.00	110	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.24	mg/Kg	1	2.00	112	43.1 - 158.4

Report Date: April 7, 2010
TNM 97-18

Work Order: 10033120
9718

Page Number: 7 of 13
Eunice, NM

Sample: 227178 - S. Exc. S Cent. Wall-2 10'

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	68810	Date Analyzed:	2010-04-04
Prep Batch:	58892	Sample Preparation:	2010-04-04
		Prep Method:	N/A
		Analyzed By:	kg
		Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		74.7	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		122	mg/Kg	1	100	122	70 - 130

Sample: 227178 - S. Exc. S Cent. Wall-2 10'

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	68749	Date Analyzed:	2010-03-31
Prep Batch:	58841	Sample Preparation:	2010-03-31
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.16	mg/Kg	1	2.00	108	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.20	mg/Kg	1	2.00	110	51.7 - 131.1

Method Blank (1) QC Batch: 68748

QC Batch:	68748	Date Analyzed:	2010-03-31	Analyzed By:	AG
Prep Batch:	58841	QC Preparation:	2010-03-31	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

Report Date: April 7, 2010
TNM 97-18

Work Order: 10033120
9718

Page Number: 8 of 13
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.01	mg/Kg	1	2.00	100	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.68	mg/Kg	1	2.00	84	43.9 - 141.9

Method Blank (1) QC Batch: 68749

QC Batch: 68749 Date Analyzed: 2010-03-31 Analyzed By: AG
Prep Batch: 58841 QC Preparation: 2010-03-31 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)		2.00	mg/Kg	1	2.00	100	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.67	mg/Kg	1	2.00	84	62 - 120.5

Method Blank (1) QC Batch: 68810

QC Batch: 68810 Date Analyzed: 2010-04-04 Analyzed By: kg
Prep Batch: 58892 QC Preparation: 2010-04-04 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		70.8	mg/Kg	1	100	71	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 68748 Date Analyzed: 2010-03-31 Analyzed By: AG
Prep Batch: 58841 QC Preparation: 2010-03-31 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.90	mg/Kg	1	2.00	<0.00410	95	75.4 - 115.7
Toluene	1.88	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.00240	92	76 - 114.2

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	5.57	mg/Kg	1	6.00	<0.00650	93	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	1.94	mg/Kg	1	2.00	<0.00410	97	75.4 - 115.7	2	20
Toluene	1.91	mg/Kg	1	2.00	<0.00310	96	78.4 - 113.6	2	20
Ethylbenzene	1.89	mg/Kg	1	2.00	<0.00240	94	76 - 114.2	3	20
Xylene	5.73	mg/Kg	1	6.00	<0.00650	96	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)	1.85	1.90	mg/Kg	1	2.00	92	95	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.96	2.03	mg/Kg	1	2.00	98	102	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 68749
Prep Batch: 58841

Date Analyzed: 2010-03-31
QC Preparation: 2010-03-31

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<0.396	84	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.9	mg/Kg	1	20.0	<0.396	84	52.5 - 114.3	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.92	2.00	mg/Kg	1	2.00	96	100	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.95	2.03	mg/Kg	1	2.00	98	102	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 68810
Prep Batch: 58892

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

Analyzed By: kg
Prepared By: kg

Report Date: April 7, 2010
TNM 97-18

Work Order: 10033120
9718

Page Number: 10 of 13
Eunice, NM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	256	mg/Kg	1	250	<5.86	102	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	257	mg/Kg	1	250	<5.86	103	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	80.6	80.7	mg/Kg	1	100	81	81	70 - 130

Matrix Spike (MS-1) Spiked Sample: 227120

QC Batch: 68748
Prep Batch: 58841

Date Analyzed: 2010-03-31
QC Preparation: 2010-03-31

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	57.7 - 140.7
Toluene	1.91	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6
Ethylbenzene	1.95	mg/Kg	1	2.00	<0.00240	98	62.1 - 141.6
Xylene	5.86	mg/Kg	1	6.00	<0.00650	98	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	1.92	mg/Kg	1	2.00	<0.00410	96	57.7 - 140.7	2	20
Toluene	1.96	mg/Kg	1	2.00	<0.00310	98	53.4 - 146.6	3	20
Ethylbenzene	2.02	mg/Kg	1	2.00	<0.00240	101	62.1 - 141.6	4	20
Xylene	6.04	mg/Kg	1	6.00	<0.00650	101	61.2 - 142.7	3	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)	1.88	1.94	mg/Kg	1	2	94	97	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	2.00	2.05	mg/Kg	1	2	100	102	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 227120

QC Batch: 68749
Prep Batch: 58841

Date Analyzed: 2010-03-31
QC Preparation: 2010-03-31

Analyzed By: AG
Prepared By: AG

Report Date: April 7, 2010
TNM 97-18

Work Order: 10033120
9718

Page Number: 11 of 13
Eunice, NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	20.3	mg/Kg	1	20.0	<0.396	102	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.6	mg/Kg	1	20.0	<0.396	98	10 - 198.3	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)	1.92	1.84	mg/Kg	1	2	96	92	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.11	2.06	mg/Kg	1	2	106	103	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 227110

QC Batch: 68810
Prep Batch: 58892

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

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	254	mg/Kg	1	250	16.6	95	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	261	mg/Kg	1	250	16.6	98	35.2 - 167.1	3	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	87.8	90.8	mg/Kg	1	100	88	91	70 - 130

Standard (CCV-1)

QC Batch: 68748

Date Analyzed: 2010-03-31

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0891	89	80 - 120	2010-03-31
Toluene		mg/Kg	0.100	0.0875	88	80 - 120	2010-03-31
Ethylbenzene		mg/Kg	0.100	0.0830	83	80 - 120	2010-03-31
Xylene		mg/Kg	0.300	0.252	84	80 - 120	2010-03-31

Standard (CCV-2)

QC Batch: 68748

Date Analyzed: 2010-03-31

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0953	95	80 - 120	2010-03-31
Toluene		mg/Kg	0.100	0.0941	94	80 - 120	2010-03-31
Ethylbenzene		mg/Kg	0.100	0.0923	92	80 - 120	2010-03-31
Xylene		mg/Kg	0.300	0.277	92	80 - 120	2010-03-31

Standard (CCV-1)

QC Batch: 68749

Date Analyzed: 2010-03-31

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	80 - 120	2010-03-31

Standard (CCV-2)

QC Batch: 68749

Date Analyzed: 2010-03-31

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.937	94	80 - 120	2010-03-31

Standard (CCV-1)

QC Batch: 68810

Date Analyzed: 2010-04-04

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	216	86	80 - 120	2010-04-04

Standard (CCV-2)

QC Batch: 68810

Date Analyzed: 2010-04-04

Analyzed By: kg

Report Date: April 7, 2010
TNM 97-18

Work Order: 10033120
9718

Page Number: 13 of 13
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	269	108	80 - 120	2010-04-04

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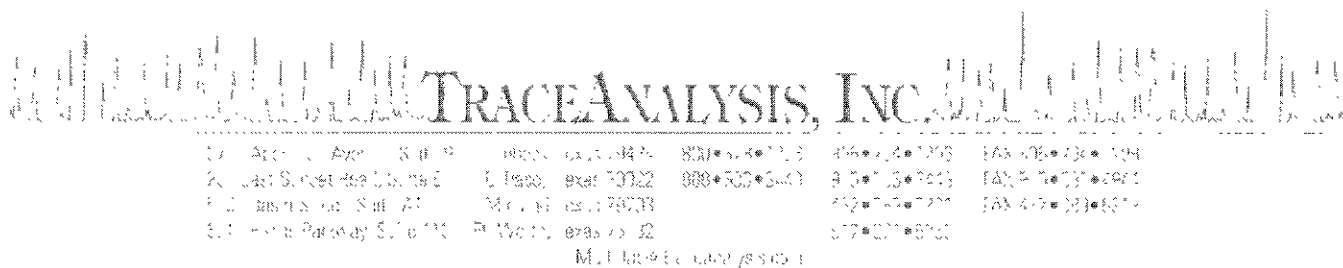
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Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: April 9, 2010

Work Order: 10040516



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
227544	S. Exc. BH-2B, SE. Cor. 12'	soil	2010-04-01	10:36	2010-04-05
227545	S. Exc. BH-3B, S. Cent 12'	soil	2010-04-01	10:42	2010-04-05
227546	S. Exc. BH-6B, N. Cent. 12'	soil	2010-04-01	10:50	2010-04-05

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



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-05 and assigned to work order 10040516. Samples for work order 10040516 were received intact at a temperature of 3.4 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	59009	2010-04-07 at 14:00	68946	2010-04-07 at 14:53
TPH DRO - NEW	Mod. 8015B	59000	2010-04-07 at 11:22	68936	2010-04-07 at 11:22
TPH GRO	S 8015B	59009	2010-04-07 at 14:00	68947	2010-04-07 at 15:21

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 10040516 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: 227544 - S. Exc. BH-2B, SE. Cor. 12'

Laboratory: Midland

Analysis: BTEX

QC Batch: 68946

Prep Batch: 59009

Analytical Method: S 8021B

Date Analyzed: 2010-04-07

Sample Preparation: 2010-04-07

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)		1.76	mg/Kg	1	2.00	88	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	43.1 - 158.4

Sample: 227544 - S. Exc. BH-2B, SE. Cor. 12'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 68936

Prep Batch: 59000

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-07

Sample Preparation: 2010-04-07

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		131	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		117	mg/Kg	1	100	117	70 - 130

Sample: 227544 - S. Exc. BH-2B, SE. Cor. 12'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 68947

Prep Batch: 59009

Analytical Method: S 8015B

Date Analyzed: 2010-04-07

Sample Preparation: 2010-04-07

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

Report Date: April 9, 2010
TNM 97-18

Work Order: 10040516
9718

Page Number: 5 of 12
Eunice, NM

sample 227544 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.72	mg/Kg	1	2.00	86	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	51.7 - 131.1

Sample: 227545 - S. Exc. BH-3B, S. Cent 12'

Laboratory: Midland

Analysis: BTEX

QC Batch: 68946

Prep Batch: 59009

Analytical Method: S 8021B

Date Analyzed: 2010-04-07

Sample Preparation: 2010-04-07

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)		1.32	mg/Kg	1	2.00	66	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.33	mg/Kg	1	2.00	66	43.1 - 158.4

Sample: 227545 - S. Exc. BH-3B, S. Cent 12'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 68936

Prep Batch: 59000

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-07

Sample Preparation: 2010-04-07

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

Report Date: April 9, 2010
TNM 97-18

Work Order: 10040516
9718

Page Number: 6 of 12
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		95.8	mg/Kg	1	100	96	70 - 130

Sample: 227545 - S. Exc. BH-3B, S. Cent 12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 68947 Date Analyzed: 2010-04-07 Analyzed By: AG
Prep Batch: 59009 Sample Preparation: 2010-04-07 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)		1.30	mg/Kg	1	2.00	65	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	1	2.00	66	51.7 - 131.1

Sample: 227546 - S. Exc. BH-6B, N. Cent. 12'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 68946 Date Analyzed: 2010-04-07 Analyzed By: AG
Prep Batch: 59009 Sample Preparation: 2010-04-07 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.06	mg/Kg	1	2.00	103	43.1 - 158.4

Report Date: April 9, 2010
TNM 97-18

Work Order: 10040516
9718

Page Number: 7 of 12
Eunice, NM

Sample: 227546 - S. Exc. BH-6B, N. Cent. 12'

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	68936	Date Analyzed:	2010-04-07
Prep Batch:	59000	Sample Preparation:	2010-04-07
		Prep Method:	N/A
		Analyzed By:	kg
		Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		61.3	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		108	mg/Kg	1	100	108	70 - 130

Sample: 227546 - S. Exc. BH-6B, N. Cent. 12'

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	68947	Date Analyzed:	2010-04-07
Prep Batch:	59009	Sample Preparation:	2010-04-07
		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)		1.98	mg/Kg	1	2.00	99	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.01	mg/Kg	1	2.00	100	51.7 - 131.1

Method Blank (1) QC Batch: 68936

QC Batch:	68936	Date Analyzed:	2010-04-07	Analyzed By:	kg
Prep Batch:	59000	QC Preparation:	2010-04-07	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		73.6	mg/Kg	1	100	74	70 - 130

Report Date: April 9, 2010
TNM 97-18

Work Order: 10040516
9718

Page Number: 8 of 12
Eunice, NM

Method Blank (1) QC Batch: 68946

QC Batch: 68946 Date Analyzed: 2010-04-07 Analyzed By: AG
Prep Batch: 59009 QC Preparation: 2010-04-07 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)		1.97	mg/Kg	1	2.00	98	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.53	mg/Kg	1	2.00	76	43.9 - 141.9

Method Blank (1) QC Batch: 68947

QC Batch: 68947 Date Analyzed: 2010-04-07 Analyzed By: AG
Prep Batch: 59009 QC Preparation: 2010-04-07 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 68936 Date Analyzed: 2010-04-07 Analyzed By: kg
Prep Batch: 59000 QC Preparation: 2010-04-07 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	224	mg/Kg	1	250	<5.86	90	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	239	mg/Kg	1	250	<5.86	96	57.4 - 133.4	6	20

Report Date: April 9, 2010
TNM 97-18

Work Order: 10040516
9718

Page Number: 9 of 12
Eunice, NM

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	79.3	78.1	mg/Kg	1	100	79	78	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 68946
Prep Batch: 59009

Date Analyzed: 2010-04-07
QC Preparation: 2010-04-07

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.92	mg/Kg	1	2.00	<0.00410	96	75.4 - 115.7
Toluene	1.92	mg/Kg	1	2.00	<0.00310	96	78.4 - 113.6
Ethylbenzene	1.92	mg/Kg	1	2.00	<0.00240	96	76 - 114.2
Xylene	5.78	mg/Kg	1	6.00	<0.00650	96	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	1.86	mg/Kg	1	2.00	<0.00410	93	75.4 - 115.7	3	20
Toluene	1.87	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6	3	20
Ethylbenzene	1.88	mg/Kg	1	2.00	<0.00240	94	76 - 114.2	2	20
Xylene	5.66	mg/Kg	1	6.00	<0.00650	94	76.9 - 113.6	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.78	1.88	mg/Kg	1	2.00	89	94	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.90	2.02	mg/Kg	1	2.00	95	101	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 68947
Prep Batch: 59009

Date Analyzed: 2010-04-07
QC Preparation: 2010-04-07

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.3	mg/Kg	1	20.0	<0.396	82	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.6	mg/Kg	1	20.0	<0.396	78	52.5 - 114.3	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.92	1.92	mg/Kg	1	2.00	96	96	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.94	1.94	mg/Kg	1	2.00	97	97	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 227622

QC Batch: 68936 Date Analyzed: 2010-04-07 Analyzed By: kg
Prep Batch: 59000 QC Preparation: 2010-04-07 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	254	mg/Kg	1	250	<5.86	102	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	262	mg/Kg	1	250	<5.86	105	35.2 - 167.1	3	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	90.1	97.8	mg/Kg	1	100	90	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 227544

QC Batch: 68946 Date Analyzed: 2010-04-07 Analyzed By: AG
Prep Batch: 59009 QC Preparation: 2010-04-07 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.90	mg/Kg	1	2.00	<0.00410	95	57.7 - 140.7
Toluene	1.95	mg/Kg	1	2.00	<0.00310	98	53.4 - 146.6
Ethylbenzene	2.00	mg/Kg	1	2.00	<0.00240	100	62.1 - 141.6
Xylene	6.02	mg/Kg	1	6.00	<0.00650	100	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	1.66	mg/Kg	1	2.00	<0.00410	83	57.7 - 140.7	14	20
Toluene	1.70	mg/Kg	1	2.00	<0.00310	85	53.4 - 146.6	14	20
Ethylbenzene	1.74	mg/Kg	1	2.00	<0.00240	87	62.1 - 141.6	14	20
Xylene	5.24	mg/Kg	1	6.00	<0.00650	87	61.2 - 142.7	14	20

Report Date: April 9, 2010
TNM 97-18

Work Order: 10040516
9718

Page Number: 11 of 12
Eunice, NM

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)	1.55	1.59	mg/Kg	1	2	78	80	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.66	1.66	mg/Kg	1	2	83	83	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 227622

QC Batch: 68947 Date Analyzed: 2010-04-07 Analyzed By: AG
Prep Batch: 59009 QC Preparation: 2010-04-07 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<0.396	84	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	14.8	mg/Kg	1	20.0	<0.396	74	10 - 198.3	13	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.80	1.78	mg/Kg	1	2	90	89	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.88	1.91	mg/Kg	1	2	94	96	58.6 - 140

Standard (CCV-2)

QC Batch: 68936 Date Analyzed: 2010-04-07 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	250	100	80 - 120	2010-04-07

Standard (CCV-3)

QC Batch: 68936 Date Analyzed: 2010-04-07 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	244	98	80 - 120	2010-04-07

Standard (CCV-1)

QC Batch: 68946

Date Analyzed: 2010-04-07

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0919	92	80 - 120	2010-04-07
Toluene		mg/Kg	0.100	0.0898	90	80 - 120	2010-04-07
Ethylbenzene		mg/Kg	0.100	0.0882	88	80 - 120	2010-04-07
Xylene		mg/Kg	0.300	0.265	88	80 - 120	2010-04-07

Standard (CCV-2)

QC Batch: 68946

Date Analyzed: 2010-04-07

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0960	96	80 - 120	2010-04-07
Toluene		mg/Kg	0.100	0.0962	96	80 - 120	2010-04-07
Ethylbenzene		mg/Kg	0.100	0.0941	94	80 - 120	2010-04-07
Xylene		mg/Kg	0.300	0.284	95	80 - 120	2010-04-07

Standard (CCV-1)

QC Batch: 68947

Date Analyzed: 2010-04-07

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.972	97	80 - 120	2010-04-07

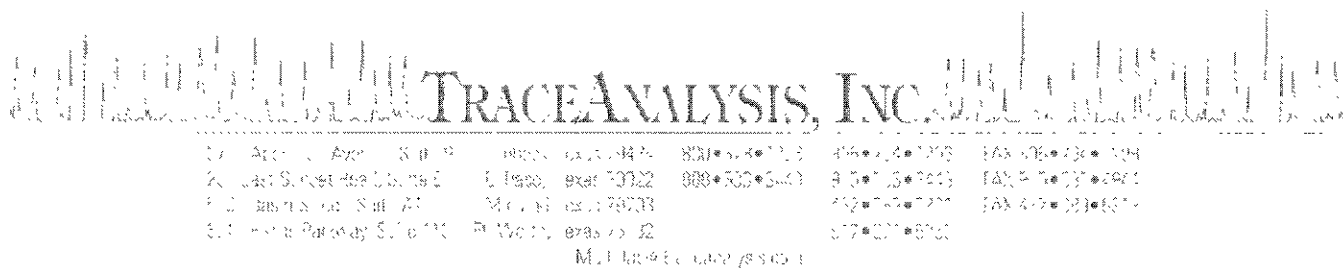
Standard (CCV-2)

QC Batch: 68947

Date Analyzed: 2010-04-07

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	80 - 120	2010-04-07



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: April 20, 2010

Work Order: 10041540



Project Location: Eunice, NM
 Project Name: 9718
 Project Number: TNM 97-18

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
228753	S Exc. BH-2C, SE Cor. Flr. 12'	soil	2010-04-14	09:10	2010-04-15

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

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-15 and assigned to work order 10041540. Samples for work order 10041540 were received intact at a temperature of 4.0 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	59223	2010-04-16 at 10:50	69189	2010-04-17 at 05:03
TPH DRO - NEW	Mod. 8015B	59263	2010-04-19 at 14:16	69232	2010-04-19 at 14:16
TPH GRO	S 8015B	59223	2010-04-16 at 10:50	69190	2010-04-17 at 05:30

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 10041540 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: 228753 - S Exc. BH-2C, SE Cor. Flr. 12'

Laboratory: Midland

Analysis: BTEX

QC Batch: 69189

Prep Batch: 59223

Analytical Method: S 8021B

Date Analyzed: 2010-04-17

Sample Preparation: 2010-04-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

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

Sample: 228753 - S Exc. BH-2C, SE Cor. Flr. 12'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 69232

Prep Batch: 59263

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-19

Sample Preparation: 2010-04-19

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		130	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		106	mg/Kg	1	100	106	70 - 130

Sample: 228753 - S Exc. BH-2C, SE Cor. Flr. 12'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 69190

Prep Batch: 59223

Analytical Method: S 8015B

Date Analyzed: 2010-04-17

Sample Preparation: 2010-04-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041540
9718

Page Number: 5 of 10
Eunice, NM

sample 228753 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)		2.05	mg/Kg	1	2.00	102	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.05	mg/Kg	1	2.00	102	51.7 - 131.1

Method Blank (1) QC Batch: 69189

QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 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)		1.79	mg/Kg	1	2.00	90	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.43	mg/Kg	1	2.00	72	43.9 - 141.9

Method Blank (1) QC Batch: 69190

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.49	mg/Kg	1	2.00	74	62 - 120.5

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041540
9718

Page Number: 6 of 10
Eunice, NM

Method Blank (1) QC Batch: 69232

QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg
Prep Batch: 59263 QC Preparation: 2010-04-19 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		78.6	mg/Kg	1	100	79	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.03	mg/Kg	1	2.00	<0.00410	102	75.4 - 115.7
Toluene	2.01	mg/Kg	1	2.00	<0.00310	100	78.4 - 113.6
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	76 - 114.2
Xylene	5.87	mg/Kg	1	6.00	<0.00650	98	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	2.05	mg/Kg	1	2.00	<0.00410	102	75.4 - 115.7	1	20
Toluene	2.03	mg/Kg	1	2.00	<0.00310	102	78.4 - 113.6	1	20
Ethylbenzene	1.97	mg/Kg	1	2.00	<0.00240	98	76 - 114.2	2	20
Xylene	5.96	mg/Kg	1	6.00	<0.00650	99	76.9 - 113.6	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.84	1.79	mg/Kg	1	2.00	92	90	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.96	1.91	mg/Kg	1	2.00	98	96	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.7	mg/Kg	1	20.0	<0.396	78	52.5 - 114.3	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.72	1.76	mg/Kg	1	2.00	86	88	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.73	1.77	mg/Kg	1	2.00	86	88	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 69232
Prep Batch: 59263

Date Analyzed: 2010-04-19
QC Preparation: 2010-04-19

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	212	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	222	mg/Kg	1	250	<5.86	89	57.4 - 133.4	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	78.4	80.4	mg/Kg	1	100	78	80	70 - 130

Matrix Spike (MS-1) Spiked Sample: 228753

QC Batch: 69189
Prep Batch: 59223

Date Analyzed: 2010-04-17
QC Preparation: 2010-04-16

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.02	mg/Kg	1	2.00	<0.00410	101	57.7 - 140.7
Toluene	2.05	mg/Kg	1	2.00	<0.00310	102	53.4 - 146.6
Ethylbenzene	2.07	mg/Kg	1	2.00	<0.00240	104	62.1 - 141.6

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	6.22	mg/Kg	1	6.00	<0.00650	104	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.06	mg/Kg	1	2.00	<0.00410	103	57.7 - 140.7	2	20
Toluene	2.08	mg/Kg	1	2.00	<0.00310	104	53.4 - 146.6	1	20
Ethylbenzene	2.12	mg/Kg	1	2.00	<0.00240	106	62.1 - 141.6	2	20
Xylene	6.38	mg/Kg	1	6.00	<0.00650	106	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)	1.61	1.82	mg/Kg	1	2	80	91	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.70	1.87	mg/Kg	1	2	85	94	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 228738

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.3	mg/Kg	1	20.0	<0.396	82	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.5	mg/Kg	1	20.0	<0.396	88	10 - 198.3	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	¹ 1.29	1.40	mg/Kg	1	2	64	70	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.42	1.53	mg/Kg	1	2	71	76	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 228753

QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg
Prep Batch: 59263 QC Preparation: 2010-04-19 Prepared By: kg

¹Surrogate out due to peak interference.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	320	mg/Kg	1	250	130	76	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	297	mg/Kg	1	250	130	67	35.2 - 167.1	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	110	108	mg/Kg	1	100	110	108	70 - 130

Standard (CCV-2)

QC Batch: 69189

Date Analyzed: 2010-04-17

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0954	95	80 - 120	2010-04-17
Toluene		mg/Kg	0.100	0.0945	94	80 - 120	2010-04-17
Ethylbenzene		mg/Kg	0.100	0.0929	93	80 - 120	2010-04-17
Xylene		mg/Kg	0.300	0.278	93	80 - 120	2010-04-17

Standard (CCV-3)

QC Batch: 69189

Date Analyzed: 2010-04-17

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2010-04-17
Toluene		mg/Kg	0.100	0.0993	99	80 - 120	2010-04-17
Ethylbenzene		mg/Kg	0.100	0.0965	96	80 - 120	2010-04-17
Xylene		mg/Kg	0.300	0.291	97	80 - 120	2010-04-17

Standard (CCV-2)

QC Batch: 69190

Date Analyzed: 2010-04-17

Analyzed By: AG

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041540
9718

Page Number: 10 of 10
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.01	101	80 - 120	2010-04-17

Standard (CCV-3)

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.953	95	80 - 120	2010-04-17

Standard (CCV-1)

QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	219	88	80 - 120	2010-04-19

Standard (CCV-2)

QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	231	92	80 - 120	2010-04-19

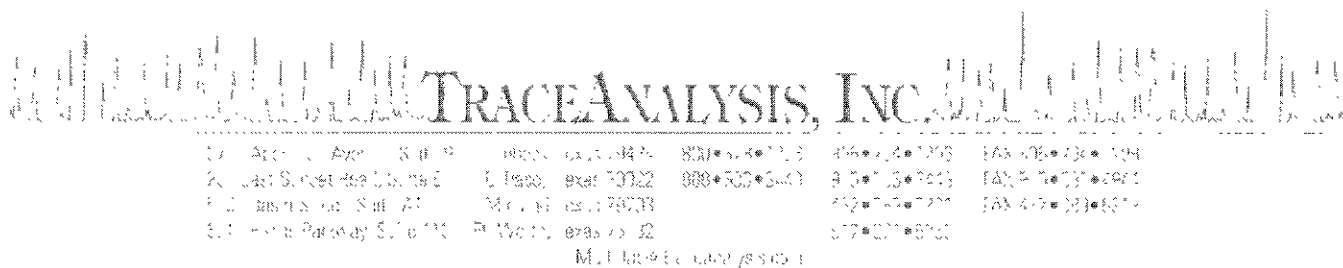
8808 Camp Bowie Blvd. West, Suite 180
Ft. Worth, Texas 76116
Tel (817) 201-5260
Fax (817) 560-4336

0304-0001 / 11191 YP-I

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

Carrier # Carrigan

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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: April 23, 2010

Work Order: 10042132



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
229226	S. Exc. BH-2D, SE Cor. Flr. 12'	soil	2010-04-21	08:40	2010-04-21

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

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-21 and assigned to work order 10042132. Samples for work order 10042132 were received intact at a temperature of 4.0 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	59362	2010-04-22 at 11:00	69354	2010-04-22 at 12:52
TPH DRO - NEW	Mod. 8015B	59364	2010-04-22 at 15:21	69357	2010-04-22 at 15:21
TPH GRO	S 8015B	59362	2010-04-22 at 11:00	69355	2010-04-22 at 13:20

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 10042132 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: 229226 - S. Exc. BH-2D, SE Cor. Flr. 12'

Laboratory: Midland

Analysis: BTEX

QC Batch: 69354

Prep Batch: 59362

Analytical Method: S 8021B

Date Analyzed: 2010-04-22

Sample Preparation: 2010-04-22

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)		1.28	mg/Kg	1	2.00	64	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.18	mg/Kg	1	2.00	59	43.1 - 158.4

Sample: 229226 - S. Exc. BH-2D, SE Cor. Flr. 12'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 69357

Prep Batch: 59364

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-22

Sample Preparation: 2010-04-22

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		105	mg/Kg	1	100	105	70 - 130

Sample: 229226 - S. Exc. BH-2D, SE Cor. Flr. 12'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 69355

Prep Batch: 59362

Analytical Method: S 8015B

Date Analyzed: 2010-04-22

Sample Preparation: 2010-04-22

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042132
9718

Page Number: 5 of 10
Eunice, NM

sample 229226 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)		1.24	mg/Kg	1	2.00	62	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.28	mg/Kg	1	2.00	64	51.7 - 131.1

Method Blank (1) QC Batch: 69354

QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 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)		2.16	mg/Kg	1	2.00	108	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	43.9 - 141.9

Method Blank (1) QC Batch: 69355

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 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)		2.06	mg/Kg	1	2.00	103	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	62 - 120.5

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042132
9718

Page Number: 6 of 10
Eunice, NM

Method Blank (1) QC Batch: 69357

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
Prep Batch: 59364 QC Preparation: 2010-04-22 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		92.4	mg/Kg	1	100	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	75.4 - 115.7
Toluene	1.88	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6
Ethylbenzene	1.85	mg/Kg	1	2.00	<0.00240	92	76 - 114.2
Xylene	5.58	mg/Kg	1	6.00	<0.00650	93	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	1.86	mg/Kg	1	2.00	<0.00410	93	75.4 - 115.7	2	20
Toluene	1.86	mg/Kg	1	2.00	<0.00310	93	78.4 - 113.6	1	20
Ethylbenzene	1.81	mg/Kg	1	2.00	<0.00240	90	76 - 114.2	2	20
Xylene	5.52	mg/Kg	1	6.00	<0.00650	92	76.9 - 113.6	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.66	1.96	mg/Kg	1	2.00	83	98	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.60	1.88	mg/Kg	1	2.00	80	94	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<0.396	84	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.0	mg/Kg	1	20.0	<0.396	80	52.5 - 114.3	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)	1.98	1.98	mg/Kg	1	2.00	99	99	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.03	2.02	mg/Kg	1	2.00	102	101	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 69357
Prep Batch: 59364

Date Analyzed: 2010-04-22
QC Preparation: 2010-04-22

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	310	mg/Kg	1	250	<5.86	124	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	297	mg/Kg	1	250	<5.86	119	57.4 - 133.4	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	99.5	98.6	mg/Kg	1	100	100	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69354
Prep Batch: 59362

Date Analyzed: 2010-04-22
QC Preparation: 2010-04-22

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.93	mg/Kg	1	2.00	<0.00410	96	57.7 - 140.7
Toluene	1.95	mg/Kg	1	2.00	<0.00310	98	53.4 - 146.6
Ethylbenzene	1.98	mg/Kg	1	2.00	<0.00240	99	62.1 - 141.6

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	5.94	mg/Kg	1	6.00	<0.00650	99	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	57.7 - 140.7	2	20
Toluene	1.91	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6	2	20
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	62.1 - 141.6	2	20
Xylene	5.86	mg/Kg	1	6.00	<0.00650	98	61.2 - 142.7	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	¹ 1.15	1.84	mg/Kg	1	2	58	92	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.09	1.74	mg/Kg	1	2	54	87	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.9	mg/Kg	1	20.0	<0.396	90	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.6	mg/Kg	1	20.0	<0.396	88	10 - 198.3	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)	1.32	1.98	mg/Kg	1	2	66	99	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.42	2.07	mg/Kg	1	2	71	104	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
Prep Batch: 59364 QC Preparation: 2010-04-22 Prepared By: kg

¹SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB is within control limits and shows the method to be in control. •

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	288	mg/Kg	1	250	20.7	107	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	310	mg/Kg	1	250	20.7	116	35.2 - 167.1	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	113	119	mg/Kg	1	100	113	119	70 - 130

Standard (CCV-1)

QC Batch: 69354

Date Analyzed: 2010-04-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.105	105	80 - 120	2010-04-22
Toluene		mg/Kg	0.100	0.103	103	80 - 120	2010-04-22
Ethylbenzene		mg/Kg	0.100	0.0960	96	80 - 120	2010-04-22
Xylene		mg/Kg	0.300	0.290	97	80 - 120	2010-04-22

Standard (CCV-2)

QC Batch: 69354

Date Analyzed: 2010-04-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0974	97	80 - 120	2010-04-22
Toluene		mg/Kg	0.100	0.0968	97	80 - 120	2010-04-22
Ethylbenzene		mg/Kg	0.100	0.0957	96	80 - 120	2010-04-22
Xylene		mg/Kg	0.300	0.287	96	80 - 120	2010-04-22

Standard (CCV-1)

QC Batch: 69355

Date Analyzed: 2010-04-22

Analyzed By: AG

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042132
9718

Page Number: 10 of 10
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.05	105	80 - 120	2010-04-22

Standard (CCV-2)

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.938	94	80 - 120	2010-04-22

Standard (CCV-1)

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	280	112	80 - 120	2010-04-22

Standard (CCV-2)

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	280	112	80 - 120	2010-04-22

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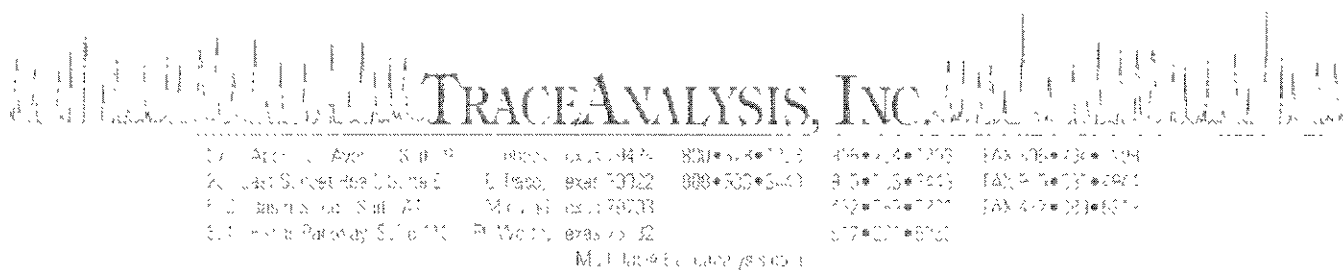
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Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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Certifications

WBENC: 237019

HUB: 1752439743100-86536
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: April 20, 2010

Work Order: 10041536



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
228720	N Exc. NW Cor. Wall, 10'	soil	2010-04-14	08:00	2010-04-15
228721	N Exc. W Cent. Wall, 10'	soil	2010-04-14	08:05	2010-04-15
228722	N Exc. N Cent. Wall, 10'	soil	2010-04-14	08:10	2010-04-15
228723	N Exc. SW Wall, 10'	soil	2010-04-14	08:15	2010-04-15
228724	N Exc. S Cent. Wall, 10'	soil	2010-04-14	08:20	2010-04-15
228725	N Exc. SE Cent. Wall, 10'	soil	2010-04-14	08:25	2010-04-15
228726	N Exc. N Cor. Flr., 12'	soil	2010-04-14	08:30	2010-04-15
228727	N Exc. NW Cor. Flr., 12'	soil	2010-04-14	08:35	2010-04-15
228728	N Exc. W Cent. Flr., 12'	soil	2010-04-14	08:40	2010-04-15
228729	N Exc. SW Flr., 12'	soil	2010-04-14	08:45	2010-04-15

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
228730	N Exc. S Cent. Flr., 12'	soil	2010-04-14	08:50	2010-04-15
228731	N Exc. SE Cor. Flr., 12'	soil	2010-04-14	08:55	2010-04-15

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

This report consists of a total of 25 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-15 and assigned to work order 10041536. Samples for work order 10041536 were received intact at a temperature of 4.0 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	59223	2010-04-16 at 10:50	69187	2010-04-16 at 11:12
TPH DRO - NEW	Mod. 8015B	59200	2010-04-15 at 15:00	69155	2010-04-15 at 15:00
TPH DRO - NEW	Mod. 8015B	59228	2010-04-16 at 16:16	69191	2010-04-16 at 16:16
TPH GRO	S 8015B	59223	2010-04-16 at 10:50	69188	2010-04-16 at 11:39

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 10041536 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: 228720 - N Exc. NW Cor. Wall, 10'

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	69187	Date Analyzed:	2010-04-16
Prep Batch:	59223	Sample Preparation:	2010-04-16
		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)		1.65	mg/Kg	1	2.00	82	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.68	mg/Kg	1	2.00	84	43.1 - 158.4

Sample: 228720 - N Exc. NW Cor. Wall, 10'

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	69155	Date Analyzed:	2010-04-15
Prep Batch:	59200	Sample Preparation:	2010-04-15
		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		106	mg/Kg	1	100	106	70 - 130

Sample: 228720 - N Exc. NW Cor. Wall, 10'

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	69188	Date Analyzed:	2010-04-16
Prep Batch:	59223	Sample Preparation:	2010-04-16
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

continued ...

sample 228720 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.75	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.68	mg/Kg	1	2.00	84	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.85	mg/Kg	1	2.00	92	51.7 - 131.1

Sample: 228721 - N Exc. W Cent. Wall, 10'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.22	mg/Kg	1	2.00	61	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.28	mg/Kg	1	2.00	64	43.1 - 158.4

Sample: 228721 - N Exc. W Cent. Wall, 10'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
 Prep Batch: 59200 Sample Preparation: 2010-04-15 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		382	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	166	mg/Kg	1	100	166	70 - 130

Sample: 228721 - N Exc. W Cent. Wall, 10'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		16.7	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.26	mg/Kg	1	2.00	63	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.44	mg/Kg	1	2.00	72	51.7 - 131.1

Sample: 228722 - N Exc. N Cent. Wall, 10'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.01	mg/Kg	1	2.00	100	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	43.1 - 158.4

Sample: 228722 - N Exc. N Cent. Wall, 10'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
 Prep Batch: 59200 Sample Preparation: 2010-04-15 Prepared By: kg

¹High surrogate recovery due to peak interference.

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		90.2	mg/Kg	1	100	90	70 - 130

Sample: 228722 - N Exc. N Cent. Wall, 10'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.02	mg/Kg	1	2.00	101	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.07	mg/Kg	1	2.00	104	51.7 - 131.1

Sample: 228723 - N Exc. SW Wall, 10'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.66	mg/Kg	1	2.00	83	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.70	mg/Kg	1	2.00	85	43.1 - 158.4

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 8 of 25
Eunice, NM

Sample: 228723 - N Exc. SW Wall, 10'

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	69155	Date Analyzed:	2010-04-15
Prep Batch:	59200	Sample Preparation:	2010-04-15
		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		88.0	mg/Kg	1	100	88	70 - 130

Sample: 228723 - N Exc. SW Wall, 10'

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	69188	Date Analyzed:	2010-04-16
Prep Batch:	59223	Sample Preparation:	2010-04-16
		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)		1.71	mg/Kg	1	2.00	86	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.89	mg/Kg	1	2.00	94	51.7 - 131.1

Sample: 228724 - N Exc. S Cent. Wall, 10'

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	69187	Date Analyzed:	2010-04-16
Prep Batch:	59223	Sample Preparation:	2010-04-16
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	²	1.18	mg/Kg	1	2.00	59	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.15	mg/Kg	1	2.00	58	43.1 - 158.4

Sample: 228724 - N Exc. S Cent. Wall, 10'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
 Prep Batch: 59200 Sample Preparation: 2010-04-15 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		88.7	mg/Kg	1	100	89	70 - 130

Sample: 228724 - N Exc. S Cent. Wall, 10'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.22	mg/Kg	1	2.00	61	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.23	mg/Kg	1	2.00	62	51.7 - 131.1

Sample: 228725 - N Exc. SE Cent. Wall, 10'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

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

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

Sample: 228725 - N Exc. SE Cent. Wall, 10'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
 Prep Batch: 59200 Sample Preparation: 2010-04-15 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		696	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	³	276	mg/Kg	5	100	276	70 - 130

Sample: 228725 - N Exc. SE Cent. Wall, 10'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.39	mg/Kg	1	2.00	70	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.40	mg/Kg	1	2.00	70	51.7 - 131.1

³High surrogate recovery due to peak interference.

Sample: 228726 - N Exc. N Cor. Flr., 12'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.86	mg/Kg	1	2.00	93	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.85	mg/Kg	1	2.00	92	43.1 - 158.4

Sample: 228726 - N Exc. N Cor. Flr., 12'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
Prep Batch: 59200 Sample Preparation: 2010-04-15 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		91.3	mg/Kg	1	100	91	70 - 130

Sample: 228726 - N Exc. N Cor. Flr., 12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.88	mg/Kg	1	2.00	94	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	51.7 - 131.1

Sample: 228727 - N Exc. NW Cor. Flr., 12'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 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)	4	0.975	mg/Kg	1	2.00	49	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		0.993	mg/Kg	1	2.00	50	43.1 - 158.4

Sample: 228727 - N Exc. NW Cor. Flr., 12'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
 Prep Batch: 59200 Sample Preparation: 2010-04-15 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		88.6	mg/Kg	1	100	89	70 - 130

Sample: 228727 - N Exc. NW Cor. Flr., 12'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

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)		1.01	mg/Kg	1	2.00	50	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.04	mg/Kg	1	2.00	52	51.7 - 131.1

Sample: 228728 - N Exc. W Cent. Flr., 12'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.94	mg/Kg	1	2.00	97	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.96	mg/Kg	1	2.00	98	43.1 - 158.4

Sample: 228728 - N Exc. W Cent. Flr., 12'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
 Prep Batch: 59200 Sample Preparation: 2010-04-15 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		462	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁵	208	mg/Kg	5	100	208	70 - 130

⁵High surrogate recovery due to peak interference.

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 14 of 25
Eunice, NM

Sample: 228728 - N Exc. W Cent. Flr., 12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		10.6	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.15	mg/Kg	1	2.00	108	51.7 - 131.1

Sample: 228729 - N Exc. SW Flr., 12'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.96	mg/Kg	1	2.00	98	43.1 - 158.4

Sample: 228729 - N Exc. SW Flr., 12'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
Prep Batch: 59200 Sample Preparation: 2010-04-15 Prepared By: kg

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

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 15 of 25
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		88.6	mg/Kg	1	100	89	70 - 130

Sample: 228729 - N Exc. SW Flr., 12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.02	mg/Kg	1	2.00	101	51.7 - 131.1

Sample: 228730 - N Exc. S Cent. Flr., 12'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.99	mg/Kg	1	2.00	100	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.00	mg/Kg	1	2.00	100	43.1 - 158.4

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 16 of 25
Eunice, NM

Sample: 228730 - N Exc. S Cent. Flr., 12'

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	69191	Date Analyzed:	2010-04-16
Prep Batch:	59228	Sample Preparation:	2010-04-16
		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		86.5	mg/Kg	1	100	86	70 - 130

Sample: 228730 - N Exc. S Cent. Flr., 12'

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	69188	Date Analyzed:	2010-04-16
Prep Batch:	59223	Sample Preparation:	2010-04-16
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.02	mg/Kg	1	2.00	101	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.04	mg/Kg	1	2.00	102	51.7 - 131.1

Sample: 228731 - N Exc. SE Cor. Flr., 12'

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	69187	Date Analyzed:	2010-04-16
Prep Batch:	59223	Sample Preparation:	2010-04-16
		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

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 17 of 25
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.74	mg/Kg	1	2.00	87	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	43.1 - 158.4

Sample: 228731 - N Exc. SE Cor. Flr., 12'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg
Prep Batch: 59228 Sample Preparation: 2010-04-16 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		89.4	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		112	mg/Kg	1	100	112	70 - 130

Sample: 228731 - N Exc. SE Cor. Flr., 12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.77	mg/Kg	1	2.00	88	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	51.7 - 131.1

Method Blank (1) QC Batch: 69155

QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
Prep Batch: 59200 QC Preparation: 2010-04-15 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		6.39	mg/Kg	50

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 18 of 25
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		93.3	mg/Kg	1	100	93	70 - 130

Method Blank (1) QC Batch: 69187

QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 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)		1.88	mg/Kg	1	2.00	94	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.70	mg/Kg	1	2.00	85	43.9 - 141.9

Method Blank (1) QC Batch: 69188

QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	62 - 120.5

Method Blank (1) QC Batch: 69191

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg
Prep Batch: 59228 QC Preparation: 2010-04-16 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		10.0	mg/Kg	50

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 19 of 25
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		81.1	mg/Kg	1	100	81	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
Prep Batch: 59200 QC Preparation: 2010-04-15 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	194	mg/Kg	1	250	<5.86	78	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	198	mg/Kg	1	250	<5.86	79	57.4 - 133.4	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	78.6	79.8	mg/Kg	1	100	79	80	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.82	mg/Kg	1	2.00	<0.00410	91	75.4 - 115.7
Toluene	1.80	mg/Kg	1	2.00	<0.00310	90	78.4 - 113.6
Ethylbenzene	1.75	mg/Kg	1	2.00	<0.00240	88	76 - 114.2
Xylene	5.31	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	1.79	mg/Kg	1	2.00	<0.00410	90	75.4 - 115.7	2	20
Toluene	1.77	mg/Kg	1	2.00	<0.00310	88	78.4 - 113.6	2	20
Ethylbenzene	1.74	mg/Kg	1	2.00	<0.00240	87	76 - 114.2	1	20
Xylene	5.26	mg/Kg	1	6.00	<0.00650	88	76.9 - 113.6	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.88	1.74	mg/Kg	1	2.00	94	87	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.99	1.82	mg/Kg	1	2.00	100	91	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69188
Prep Batch: 59223

Date Analyzed: 2010-04-16
QC Preparation: 2010-04-16

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.2	mg/Kg	1	20.0	<0.396	86	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.6	mg/Kg	1	20.0	<0.396	83	52.5 - 114.3	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.96	1.87	mg/Kg	1	2.00	98	94	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.03	1.89	mg/Kg	1	2.00	102	94	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 69191
Prep Batch: 59228

Date Analyzed: 2010-04-16
QC Preparation: 2010-04-16

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	204	mg/Kg	1	250	<5.86	82	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	200	mg/Kg	1	250	<5.86	80	57.4 - 133.4	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	80.4	79.5	mg/Kg	1	100	80	80	70 - 130

Matrix Spike (MS-1) Spiked Sample: 228729

QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg
Prep Batch: 59200 QC Preparation: 2010-04-15 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	141	mg/Kg	1	250	7.36	53	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	142	mg/Kg	1	250	7.36	54	35.2 - 167.1	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	83.2	84.7	mg/Kg	1	100	83	85	70 - 130

Matrix Spike (MS-1) Spiked Sample: 228723

QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.83	mg/Kg	1	2.00	<0.00410	92	57.7 - 140.7
Toluene	1.85	mg/Kg	1	2.00	<0.00310	92	53.4 - 146.6
Ethylbenzene	1.86	mg/Kg	1	2.00	<0.00240	93	62.1 - 141.6
Xylene	5.61	mg/Kg	1	6.00	<0.00650	94	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.88	mg/Kg	1	2.00	<0.00410	94	57.7 - 140.7	3	20
Toluene	1.92	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6	4	20
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	62.1 - 141.6	4	20
Xylene	5.86	mg/Kg	1	6.00	<0.00650	98	61.2 - 142.7	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)	1.43	1.95	mg/Kg	1	2	72	98	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.52	2.06	mg/Kg	1	2	76	103	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 228723

QC Batch: 69188 Date Analyzed: 2010-04-16 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.5	mg/Kg	1	20.0	<0.396	88	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.4	mg/Kg	1	20.0	<0.396	97	10 - 198.3	10	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)	⁶ 1.03	1.53	mg/Kg	1	2	52	76	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.18	1.75	mg/Kg	1	2	59	88	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 228733

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg
Prep Batch: 59228 QC Preparation: 2010-04-16 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	177	mg/Kg	1	250	10.3	67	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	180	mg/Kg	1	250	10.3	68	35.2 - 167.1	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	78.8	79.5	mg/Kg	1	100	79	80	70 - 130

Standard (CCV-1)

QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg

⁶Surrogate out due to peak interference.

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 23 of 25
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	200	80	80 - 120	2010-04-15

Standard (CCV-2)

QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	209	84	80 - 120	2010-04-15

Standard (CCV-3)

QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	205	82	80 - 120	2010-04-15

Standard (CCV-4)

QC Batch: 69155 Date Analyzed: 2010-04-15 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	251	100	80 - 120	2010-04-15

Standard (CCV-1)

QC Batch: 69187 Date Analyzed: 2010-04-16 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0926	93	80 - 120	2010-04-16
Toluene		mg/Kg	0.100	0.0887	89	80 - 120	2010-04-16
Ethylbenzene		mg/Kg	0.100	0.0815	82	80 - 120	2010-04-16
Xylene		mg/Kg	0.300	0.249	83	80 - 120	2010-04-16

Standard (CCV-2)

QC Batch: 69187

Date Analyzed: 2010-04-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0937	94	80 - 120	2010-04-16
Toluene		mg/Kg	0.100	0.0922	92	80 - 120	2010-04-16
Ethylbenzene		mg/Kg	0.100	0.0899	90	80 - 120	2010-04-16
Xylene		mg/Kg	0.300	0.272	91	80 - 120	2010-04-16

Standard (CCV-3)

QC Batch: 69187

Date Analyzed: 2010-04-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0933	93	80 - 120	2010-04-16
Toluene		mg/Kg	0.100	0.0918	92	80 - 120	2010-04-16
Ethylbenzene		mg/Kg	0.100	0.0887	89	80 - 120	2010-04-16
Xylene		mg/Kg	0.300	0.268	89	80 - 120	2010-04-16

Standard (CCV-1)

QC Batch: 69188

Date Analyzed: 2010-04-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.06	106	80 - 120	2010-04-16

Standard (CCV-2)

QC Batch: 69188

Date Analyzed: 2010-04-16

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.983	98	80 - 120	2010-04-16

Standard (CCV-3)

QC Batch: 69188

Date Analyzed: 2010-04-16

Analyzed By: AG

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041536
9718

Page Number: 25 of 25
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2010-04-16

Standard (CCV-1)

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	200	80	80 - 120	2010-04-16

Standard (CCV-2)

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	210	84	80 - 120	2010-04-16

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NOVA

Phone #:

Address:

(Street, City, Zip)

Fax #:

Contact Person:

Ron Rounsaville

E-mail:

Invoice to:

PLAINS

(If different from above)

Project #:

TNM 97-18

Project Name:

97-18

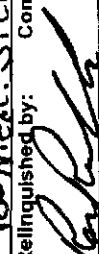
Project Location (including state):

Lea Co. NM

Sampler Signature:



LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING	
				WATER	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	DATE	TIME
720	N.E.C. NW COR WALL, 10'	1	402	X							X	4/14/10	0800
721	N.E.C. W. CENT. WALL, 10'	1		X							X		0805
722	N.E.C. N. CENT. WALL, 10'	1		X							X		0810
723	N.E.C. SW. WALL, 10'	1		X							X		0815
724	N.E.C. S. CENT. WALL, 10'	1		X							X		0820
725	N.E.C. SE. CENT. WALL, 10'	1		X							X		0825
726	N.E.C. N. COR FLR, 12'	1		X							X		0830
727	N.E.C. NW COR, FLR, 12'	1		X							X		0835
728	N.E.C. W. CENT. FLR, 12'	1		X							X		0840
729	N.E.C. SW. FLR, 12'	1		X							X		0845
730	N.E.C. S. CENT. FLR, 12'	1		X							X		4/14/10 0850

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
		4/15/10	1435		Trace	4/15/10	11:35		4.0	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR

LAB USE ONLY

REMARKS:

all tests - Midland

Interact Y/N

Headspace Y/N/NA

Log-in-Review

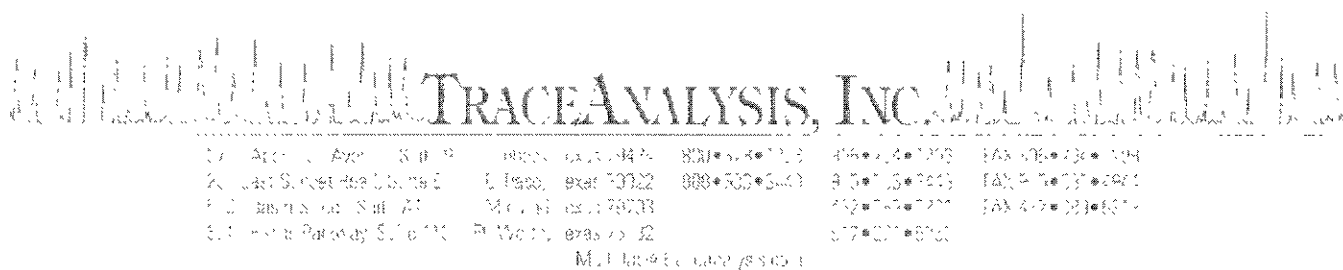
☐ Dry Weight Basis Required
☐ TRRP Report Required
☐ Check if Special Reporting Limits Are Needed

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

NOVA LABS

Carrier #

Carrigan



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: April 23, 2010

Work Order: 10042133



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
229227	N. Exc. W Cent. Wall- B,10'	soil	2010-04-21	08:50	2010-04-21
229228	N. Exc. SE Cent. Wall-B,10'	soil	2010-04-21	08:55	2010-04-21
229229	N. Exc. W Cent. Floor-B,12'	soil	2010-04-21	09:00	2010-04-21

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

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-21 and assigned to work order 10042133. Samples for work order 10042133 were received intact at a temperature of 4.0 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	59362	2010-04-22 at 11:00	69354	2010-04-22 at 12:52
TPH DRO - NEW	Mod. 8015B	59364	2010-04-22 at 15:21	69357	2010-04-22 at 15:21
TPH GRO	S 8015B	59362	2010-04-22 at 11:00	69355	2010-04-22 at 13:20

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 10042133 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: 229227 - N. Exc. W Cent. Wall- B,10'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-04-22	Analyzed By:	AG
QC Batch:	69354	Sample Preparation:	2010-04-22	Prepared By:	AG
Prep Batch:	59362				

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)		1.76	mg/Kg	1	2.00	88	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	43.1 - 158.4

Sample: 229227 - N. Exc. W Cent. Wall- B,10'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-04-22	Analyzed By:	kg
QC Batch:	69357	Sample Preparation:	2010-04-22	Prepared By:	kg
Prep Batch:	59364				

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		102	mg/Kg	1	100	102	70 - 130

Sample: 229227 - N. Exc. W Cent. Wall- B,10'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-04-22	Analyzed By:	AG
QC Batch:	69355	Sample Preparation:	2010-04-22	Prepared By:	AG
Prep Batch:	59362				

continued ...

sample 229227 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)		1.72	mg/Kg	1	2.00	86	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	51.7 - 131.1

Sample: 229228 - N. Exc. SE Cent. Wall-B,10'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
 Prep Batch: 59362 Sample Preparation: 2010-04-22 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)		1.76	mg/Kg	1	2.00	88	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	43.1 - 158.4

Sample: 229228 - N. Exc. SE Cent. Wall-B,10'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
 Prep Batch: 59364 Sample Preparation: 2010-04-22 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		99.2	mg/Kg	1	100	99	70 - 130

Sample: 229228 - N. Exc. SE Cent. Wall-B,10'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
 Prep Batch: 59362 Sample Preparation: 2010-04-22 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)		1.70	mg/Kg	1	2.00	85	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.71	mg/Kg	1	2.00	86	51.7 - 131.1

Sample: 229229 - N. Exc. W Cent. Floor-B,12'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
 Prep Batch: 59362 Sample Preparation: 2010-04-22 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)		1.82	mg/Kg	1	2.00	91	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.67	mg/Kg	1	2.00	84	43.1 - 158.4

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042133
9718

Page Number: 7 of 13
Eunice, NM

Sample: 229229 - N. Exc. W Cent. Floor-B,12'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
Prep Batch: 59364 Sample Preparation: 2010-04-22 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		100	mg/Kg	1	100	100	70 - 130

Sample: 229229 - N. Exc. W Cent. Floor-B,12'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 Sample Preparation: 2010-04-22 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)		1.77	mg/Kg	1	2.00	88	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	51.7 - 131.1

Method Blank (1) QC Batch: 69354

QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 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

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042133
9718

Page Number: 8 of 13
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.16	mg/Kg	1	2.00	108	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	43.9 - 141.9

Method Blank (1) QC Batch: 69355

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 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)		2.06	mg/Kg	1	2.00	103	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	62 - 120.5

Method Blank (1) QC Batch: 69357

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
Prep Batch: 59364 QC Preparation: 2010-04-22 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		92.4	mg/Kg	1	100	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	75.4 - 115.7
Toluene	1.88	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6
Ethylbenzene	1.85	mg/Kg	1	2.00	<0.00240	92	76 - 114.2

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	5.58	mg/Kg	1	6.00	<0.00650	93	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	1.86	mg/Kg	1	2.00	<0.00410	93	75.4 - 115.7	2	20
Toluene	1.86	mg/Kg	1	2.00	<0.00310	93	78.4 - 113.6	1	20
Ethylbenzene	1.81	mg/Kg	1	2.00	<0.00240	90	76 - 114.2	2	20
Xylene	5.52	mg/Kg	1	6.00	<0.00650	92	76.9 - 113.6	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.66	1.96	mg/Kg	1	2.00	83	98	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.60	1.88	mg/Kg	1	2.00	80	94	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69355
Prep Batch: 59362

Date Analyzed: 2010-04-22
QC Preparation: 2010-04-22

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<0.396	84	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.0	mg/Kg	1	20.0	<0.396	80	52.5 - 114.3	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)	1.98	1.98	mg/Kg	1	2.00	99	99	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.03	2.02	mg/Kg	1	2.00	102	101	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 69357
Prep Batch: 59364

Date Analyzed: 2010-04-22
QC Preparation: 2010-04-22

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	310	mg/Kg	1	250	<5.86	124	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	297	mg/Kg	1	250	<5.86	119	57.4 - 133.4	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	99.5	98.6	mg/Kg	1	100	100	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69354
Prep Batch: 59362

Date Analyzed: 2010-04-22
QC Preparation: 2010-04-22

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.93	mg/Kg	1	2.00	<0.00410	96	57.7 - 140.7
Toluene	1.95	mg/Kg	1	2.00	<0.00310	98	53.4 - 146.6
Ethylbenzene	1.98	mg/Kg	1	2.00	<0.00240	99	62.1 - 141.6
Xylene	5.94	mg/Kg	1	6.00	<0.00650	99	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	57.7 - 140.7	2	20
Toluene	1.91	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6	2	20
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	62.1 - 141.6	2	20
Xylene	5.86	mg/Kg	1	6.00	<0.00650	98	61.2 - 142.7	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.15	1.84	mg/Kg	1	2	58	92	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.09	1.74	mg/Kg	1	2	54	87	49.6 - 146.7

¹SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB is within control limits and shows the method to be in control. •

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.9	mg/Kg	1	20.0	<0.396	90	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.6	mg/Kg	1	20.0	<0.396	88	10 - 198.3	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)	1.32	1.98	mg/Kg	1	2	66	99	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.42	2.07	mg/Kg	1	2	71	104	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
Prep Batch: 59364 QC Preparation: 2010-04-22 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	288	mg/Kg	1	250	20.7	107	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	310	mg/Kg	1	250	20.7	116	35.2 - 167.1	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	113	119	mg/Kg	1	100	113	119	70 - 130

Standard (CCV-1)

QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.105	105	80 - 120	2010-04-22
Toluene		mg/Kg	0.100	0.103	103	80 - 120	2010-04-22
Ethylbenzene		mg/Kg	0.100	0.0960	96	80 - 120	2010-04-22
Xylene		mg/Kg	0.300	0.290	97	80 - 120	2010-04-22

Standard (CCV-2)

QC Batch: 69354

Date Analyzed: 2010-04-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0974	97	80 - 120	2010-04-22
Toluene		mg/Kg	0.100	0.0968	97	80 - 120	2010-04-22
Ethylbenzene		mg/Kg	0.100	0.0957	96	80 - 120	2010-04-22
Xylene		mg/Kg	0.300	0.287	96	80 - 120	2010-04-22

Standard (CCV-1)

QC Batch: 69355

Date Analyzed: 2010-04-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.05	105	80 - 120	2010-04-22

Standard (CCV-2)

QC Batch: 69355

Date Analyzed: 2010-04-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.938	94	80 - 120	2010-04-22

Standard (CCV-1)

QC Batch: 69357

Date Analyzed: 2010-04-22

Analyzed By: kg

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042133
9718

Page Number: 13 of 13
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	280	112	80 - 120	2010-04-22

Standard (CCV-2)

QC Batch: 69357

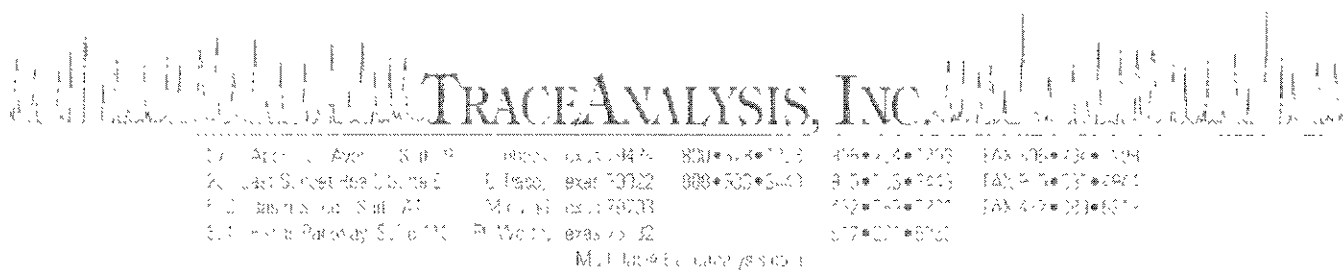
Date Analyzed: 2010-04-22

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	280	112	80 - 120	2010-04-22

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

[illegible]



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: April 23, 2010

Work Order: 10042206



Project Location: Eunice, NM
 Project Name: 9718
 Project Number: TNM 97-18

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
229270	N. Exc. NE Cor. Wall, 10'	soil	2010-04-21	09:05	2010-04-21
229271	N. Exc. E Cent. Wall, 10'	soil	2010-04-21	09:10	2010-04-21
229272	N. Exc. SE Cor. Wall, 10'	soil	2010-04-21	09:15	2010-04-21
229273	N. Exc. NE C. Flr., 12'	soil	2010-04-21	10:00	2010-04-21
229274	N. Exc. E Cent. Flr., 12'	soil	2010-04-21	10:05	2010-04-21
229275	N. Exc. SE Cor. Flr., 12'	soil	2010-04-21	10:10	2010-04-21

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

This report consists of a total of 16 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-21 and assigned to work order 10042206. Samples for work order 10042206 were received intact at a temperature of 4.0 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	59362	2010-04-22 at 11:00	69354	2010-04-22 at 12:52
TPH DRO - NEW	Mod. 8015B	59364	2010-04-22 at 15:21	69357	2010-04-22 at 15:21
TPH GRO	S 8015B	59362	2010-04-22 at 11:00	69355	2010-04-22 at 13:20

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 10042206 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: 229270 - N. Exc. NE Cor. Wall, 10'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-04-22	Analyzed By:	AG
QC Batch:	69354	Sample Preparation:	2010-04-22	Prepared By:	AG
Prep Batch:	59362				

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	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.66	mg/Kg	1	2.00	83	43.1 - 158.4

Sample: 229270 - N. Exc. NE Cor. Wall, 10'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-04-22	Analyzed By:	kg
QC Batch:	69357	Sample Preparation:	2010-04-22	Prepared By:	kg
Prep Batch:	59364				

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: 229270 - N. Exc. NE Cor. Wall, 10'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-04-22	Analyzed By:	AG
QC Batch:	69355	Sample Preparation:	2010-04-22	Prepared By:	AG
Prep Batch:	59362				

continued ...

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042206
9718

Page Number: 5 of 16
Eunice, NM

sample 229270 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)		1.81	mg/Kg	1	2.00	90	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	51.7 - 131.1

Sample: 229271 - N. Exc. E Cent. Wall, 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 69354

Prep Batch: 59362

Analytical Method: S 8021B

Date Analyzed: 2010-04-22

Sample Preparation: 2010-04-22

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.01	mg/Kg	1	2.00	100	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.81	mg/Kg	1	2.00	90	43.1 - 158.4

Sample: 229271 - N. Exc. E Cent. Wall, 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 69357

Prep Batch: 59364

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-22

Sample Preparation: 2010-04-22

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

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042206
9718

Page Number: 6 of 16
Eunice, NM

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

Sample: 229271 - N. Exc. E Cent. Wall, 10'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 Sample Preparation: 2010-04-22 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)		1.93	mg/Kg	1	2.00	96	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.91	mg/Kg	1	2.00	96	51.7 - 131.1

Sample: 229272 - N. Exc. SE Cor. Wall, 10'

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 Sample Preparation: 2010-04-22 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	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.65	mg/Kg	1	2.00	82	43.1 - 158.4

Sample: 229272 - N. Exc. SE Cor. Wall, 10'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-04-22	Analyzed By:	kg
QC Batch:	69357	Sample Preparation:	2010-04-22	Prepared By:	kg
Prep Batch:	59364				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1380	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	1	351	mg/Kg	1	100	351	70 - 130

Sample: 229272 - N. Exc. SE Cor. Wall, 10'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-04-22	Analyzed By:	AG
QC Batch:	69355	Sample Preparation:	2010-04-22	Prepared By:	AG
Prep Batch:	59362				

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)		1.81	mg/Kg	1	2.00	90	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.76	mg/Kg	1	2.00	88	51.7 - 131.1

Sample: 229273 - N. Exc. NE C. Flr., 12'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-04-22	Analyzed By:	AG
QC Batch:	69354	Sample Preparation:	2010-04-22	Prepared By:	AG
Prep Batch:	59362				

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

¹High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.48	mg/Kg	1	2.00	74	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.36	mg/Kg	1	2.00	68	43.1 - 158.4

Sample: 229273 - N. Exc. NE C. Flr., 12'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
 Prep Batch: 59364 Sample Preparation: 2010-04-22 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		103	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	²	137	mg/Kg	1	100	137	70 - 130

Sample: 229273 - N. Exc. NE C. Flr., 12'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
 Prep Batch: 59362 Sample Preparation: 2010-04-22 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)		1.44	mg/Kg	1	2.00	72	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.46	mg/Kg	1	2.00	73	51.7 - 131.1

Sample: 229274 - N. Exc. E Cent. Flr., 12'

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
 Prep Batch: 59362 Sample Preparation: 2010-04-22 Prepared By: AG

²High surrogate recovery due to peak interference.

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	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.69	mg/Kg	1	2.00	84	43.1 - 158.4

Sample: 229274 - N. Exc. E Cent. Flr., 12'

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
 Prep Batch: 59364 Sample Preparation: 2010-04-22 Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		109	mg/Kg	1	100	109	70 - 130

Sample: 229274 - N. Exc. E Cent. Flr., 12'

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
 Prep Batch: 59362 Sample Preparation: 2010-04-22 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)		1.81	mg/Kg	1	2.00	90	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.80	mg/Kg	1	2.00	90	51.7 - 131.1

Sample: 229275 - N. Exc. SE Cor. Flr., 12'

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2010-04-22	Analyzed By: AG
QC Batch: 69354	Sample Preparation: 2010-04-22	Prepared By: AG
Prep Batch: 59362		

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)	³	1.19	mg/Kg	1	2.00	60	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	2.00	54	43.1 - 158.4

Sample: 229275 - N. Exc. SE Cor. Flr., 12'

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO - NEW	Date Analyzed: 2010-04-22	Analyzed By: kg
QC Batch: 69357	Sample Preparation: 2010-04-22	Prepared By: kg
Prep Batch: 59364		

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		116	mg/Kg	1	100	116	70 - 130

Sample: 229275 - N. Exc. SE Cor. Flr., 12'

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2010-04-22	Analyzed By: AG
QC Batch: 69355	Sample Preparation: 2010-04-22	Prepared By: AG
Prep Batch: 59362		

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

³SPECIAL - TFT is out of control limits due to an unknown anomaly. However, 4-BFB is within control limits and shows the method to be in control. •

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042206
9718

Page Number: 11 of 16
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.14	mg/Kg	1	2.00	57	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.17	mg/Kg	1	2.00	58	51.7 - 131.1

Method Blank (1) QC Batch: 69354

QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 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)		2.16	mg/Kg	1	2.00	108	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	43.9 - 141.9

Method Blank (1) QC Batch: 69355

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 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)		2.06	mg/Kg	1	2.00	103	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	62 - 120.5

Method Blank (1) QC Batch: 69357

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
Prep Batch: 59364 QC Preparation: 2010-04-22 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		92.4	mg/Kg	1	100	92	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69354 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	75.4 - 115.7
Toluene	1.88	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6
Ethylbenzene	1.85	mg/Kg	1	2.00	<0.00240	92	76 - 114.2
Xylene	5.58	mg/Kg	1	6.00	<0.00650	93	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	1.86	mg/Kg	1	2.00	<0.00410	93	75.4 - 115.7	2	20
Toluene	1.86	mg/Kg	1	2.00	<0.00310	93	78.4 - 113.6	1	20
Ethylbenzene	1.81	mg/Kg	1	2.00	<0.00240	90	76 - 114.2	2	20
Xylene	5.52	mg/Kg	1	6.00	<0.00650	92	76.9 - 113.6	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.66	1.96	mg/Kg	1	2.00	83	98	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.60	1.88	mg/Kg	1	2.00	80	94	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<0.396	84	52.5 - 114.3

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.0	mg/Kg	1	20.0	<0.396	80	52.5 - 114.3	5	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.98	1.98	mg/Kg	1	2.00	99	99	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.03	2.02	mg/Kg	1	2.00	102	101	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 69357
Prep Batch: 59364

Date Analyzed: 2010-04-22
QC Preparation: 2010-04-22

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	310	mg/Kg	1	250	<5.86	124	57.4 - 133.4

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	297	mg/Kg	1	250	<5.86	119	57.4 - 133.4	4	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
n-Tricosane	99.5	98.6	mg/Kg	1	100	100	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69354
Prep Batch: 59362

Date Analyzed: 2010-04-22
QC Preparation: 2010-04-22

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.93	mg/Kg	1	2.00	<0.00410	96	57.7 - 140.7
Toluene	1.95	mg/Kg	1	2.00	<0.00310	98	53.4 - 146.6
Ethylbenzene	1.98	mg/Kg	1	2.00	<0.00240	99	62.1 - 141.6
Xylene	5.94	mg/Kg	1	6.00	<0.00650	99	61.2 - 142.7

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

continued ...

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	57.7 - 140.7	2	20
Toluene	1.91	mg/Kg	1	2.00	<0.00310	96	53.4 - 146.6	2	20
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	62.1 - 141.6	2	20
Xylene	5.86	mg/Kg	1	6.00	<0.00650	98	61.2 - 142.7	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.15	1.84	mg/Kg	1	2	58	92	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.09	1.74	mg/Kg	1	2	54	87	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG
Prep Batch: 59362 QC Preparation: 2010-04-22 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.9	mg/Kg	1	20.0	<0.396	90	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.6	mg/Kg	1	20.0	<0.396	88	10 - 198.3	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)	1.32	1.98	mg/Kg	1	2	66	99	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.42	2.07	mg/Kg	1	2	71	104	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 229275

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg
Prep Batch: 59364 QC Preparation: 2010-04-22 Prepared By: kg

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

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	288	mg/Kg	1	250	20.7	107	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	310	mg/Kg	1	250	20.7	116	35.2 - 167.1	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	113	119	mg/Kg	1	100	113	119	70 - 130

Standard (CCV-2)

QC Batch: 69354

Date Analyzed: 2010-04-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0974	97	80 - 120	2010-04-22
Toluene		mg/Kg	0.100	0.0968	97	80 - 120	2010-04-22
Ethylbenzene		mg/Kg	0.100	0.0957	96	80 - 120	2010-04-22
Xylene		mg/Kg	0.300	0.287	96	80 - 120	2010-04-22

Standard (CCV-3)

QC Batch: 69354

Date Analyzed: 2010-04-22

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0953	95	80 - 120	2010-04-22
Toluene		mg/Kg	0.100	0.0940	94	80 - 120	2010-04-22
Ethylbenzene		mg/Kg	0.100	0.0910	91	80 - 120	2010-04-22
Xylene		mg/Kg	0.300	0.276	92	80 - 120	2010-04-22

Standard (CCV-2)

QC Batch: 69355

Date Analyzed: 2010-04-22

Analyzed By: AG

Report Date: April 23, 2010
TNM 97-18

Work Order: 10042206
9718

Page Number: 16 of 16
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.938	94	80 - 120	2010-04-22

Standard (CCV-3)

QC Batch: 69355 Date Analyzed: 2010-04-22 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.969	97	80 - 120	2010-04-22

Standard (CCV-1)

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	280	112	80 - 120	2010-04-22

Standard (CCV-2)

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	280	112	80 - 120	2010-04-22

Standard (CCV-3)

QC Batch: 69357 Date Analyzed: 2010-04-22 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	287	115	80 - 120	2010-04-22

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Invoice to: (If different from above)		Project Name: 97-18												
Project #: TNM-97-18		Project Location (including state): Lea Co. NM												
Project Location (including state): Lea Co. NM		Sample Signature: [Signature]												
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE
229270-EXC.	N. EAST COR. WALL, 10'	1	402	X									4/24/10	0905
271 N. EXC.	E. CENT. WALL, 10'	1		X									0910	
272 N. EXC.	S. EAST COR. WALL, 10'	1		X									0915	
273 N. EXC.	N. EAST COR. FUR, 12'	1		X									1000	
274 N. EXC.	E. CENT. FUR, 12'	1		X									1005	
275 N. EXC.	S. EAST COR. FUR, 12'	1		X									1010	

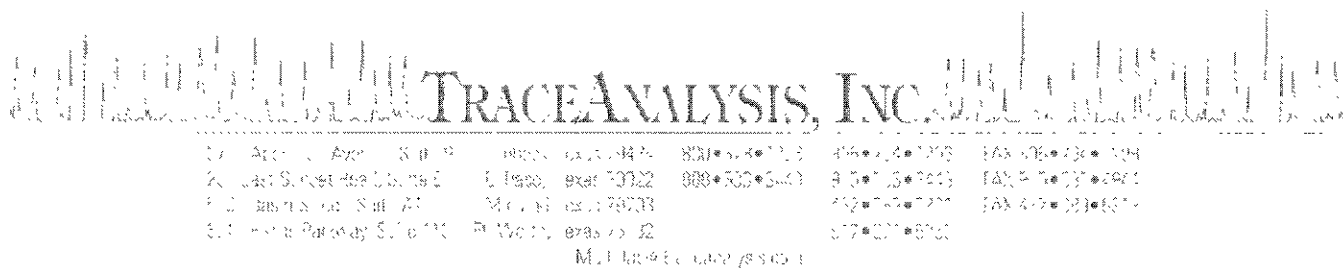
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	Time:	INST
[Signature]		4/24/10	3:35	[Signature]	Trace	4/24/10	15:35	OBS 470		
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	OBS		
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	COR		

LAB USE ONLY		REMARKS:	
Intact	Y/N	* All tests - Midland	
Headspace	Y/N		
Log-in-Review			

ANALYSIS REQUEST	
(Circle or Specify Method No.)	
Turn Around Time if different from standard	
Na, Ca, Mg, K, TDS, EC	
Cl, F, S04, NO3, NO2, Alkalinity	
Moisture Content	
BOD, TSS, pH	
Pesticides 8081 / 608	
PCB's 8082 / 608	
GC/MS Semi. Vol. 8270 / 625	
GC/MS Vol. 8260 / 624	
RCI	
TCLP Pesticides	
TCLP Semi Volatiles	
TCLP Volatiles	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
PAH 8270 / 625	
TPH 8015 GRC / DRO	
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
BTEX 8021 / 802 / 8260 / 624	
MTBE 8021 / 602 / 8260 / 624	

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

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Certifications

WBENC: 237019

HUB: 1752439743100-86536
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: April 30, 2010

Work Order: 10042815



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
229724	N Exc. SE Cor. Wall-B, 10'	soil	2010-04-27	16:00	2010-04-28

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

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-28 and assigned to work order 10042815. Samples for work order 10042815 were received intact at a temperature of 4.0 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	59478	2010-04-28 at 13:40	69512	2010-04-28 at 18:20
TPH DRO - NEW	Mod. 8015B	59480	2010-04-28 at 10:08	69489	2010-04-28 at 10:08
TPH GRO	S 8015B	59478	2010-04-28 at 13:40	69513	2010-04-28 at 18:48

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 10042815 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: 229724 - N Exc. SE Cor. Wall-B, 10'

Laboratory: Midland

Analysis: BTEX

QC Batch: 69512

Prep Batch: 59478

Analytical Method: S 8021B

Date Analyzed: 2010-04-28

Sample Preparation: 2010-04-28

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0496	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)		1.22	mg/Kg	1	2.00	61	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	2.00	55	43.1 - 158.4

Sample: 229724 - N Exc. SE Cor. Wall-B, 10'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 69489

Prep Batch: 59480

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-28

Sample Preparation: 2010-04-28

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		110	mg/Kg	1	100	110	70 - 130

Sample: 229724 - N Exc. SE Cor. Wall-B, 10'

Laboratory: Midland

Analysis: TPH GRO

QC Batch: 69513

Prep Batch: 59478

Analytical Method: S 8015B

Date Analyzed: 2010-04-28

Sample Preparation: 2010-04-28

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

continued ...

Report Date: April 30, 2010
TNM 97-18

Work Order: 10042815
9718

Page Number: 5 of 10
Eunice, NM

sample 229724 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)		1.20	mg/Kg	1	2.00	60	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.21	mg/Kg	1	2.00	60	51.7 - 131.1

Method Blank (1) QC Batch: 69489

QC Batch: 69489 Date Analyzed: 2010-04-28 Analyzed By: kg
Prep Batch: 59480 QC Preparation: 2010-04-28 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		9.30	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		90.2	mg/Kg	1	100	90	70 - 130

Method Blank (1) QC Batch: 69512

QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
Prep Batch: 59478 QC Preparation: 2010-04-28 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)		1.92	mg/Kg	1	2.00	96	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.48	mg/Kg	1	2.00	74	43.9 - 141.9

Method Blank (1) QC Batch: 69513

QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
Prep Batch: 59478 QC Preparation: 2010-04-28 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.88	mg/Kg	1	2.00	94	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 69489 Date Analyzed: 2010-04-28 Analyzed By: kg
Prep Batch: 59480 QC Preparation: 2010-04-28 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	277	mg/Kg	1	250	<5.86	111	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	292	mg/Kg	1	250	<5.86	117	57.4 - 133.4	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	99.0	101	mg/Kg	1	100	99	101	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
Prep Batch: 59478 QC Preparation: 2010-04-28 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.97	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7
Toluene	1.96	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	76 - 114.2
Xylene	5.84	mg/Kg	1	6.00	<0.00650	97	76.9 - 113.6

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.00	mg/Kg	1	2.00	<0.00410	100	75.4 - 115.7	2	20
Toluene	1.99	mg/Kg	1	2.00	<0.00310	100	78.4 - 113.6	2	20
Ethylbenzene	1.98	mg/Kg	1	2.00	<0.00240	99	76 - 114.2	2	20
Xylene	5.96	mg/Kg	1	6.00	<0.00650	99	76.9 - 113.6	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	2.03	mg/Kg	1	2.00	97	102	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.86	1.96	mg/Kg	1	2.00	93	98	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
Prep Batch: 59478 QC Preparation: 2010-04-28 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.3	mg/Kg	1	20.0	<0.396	86	52.5 - 114.3

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.1	mg/Kg	1	20.0	<0.396	80	52.5 - 114.3	7	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.82	1.53	mg/Kg	1	2.00	91	76	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.86	1.56	mg/Kg	1	2.00	93	78	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 229724

QC Batch: 69489 Date Analyzed: 2010-04-28 Analyzed By: kg
Prep Batch: 59480 QC Preparation: 2010-04-28 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	278	mg/Kg	1	250	<5.86	111	35.2 - 167.1

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

Report Date: April 30, 2010
TNM 97-18

Work Order: 10042815
9718

Page Number: 8 of 10
Eunice, NM

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	266	mg/Kg	1	250	<5.86	106	35.2 - 167.1	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
n-Tricosane	116	115	mg/Kg	1	100	116	115	70 - 130

Matrix Spike (MS-1) Spiked Sample: 229724

QC Batch: 69512
Prep Batch: 59478

Date Analyzed: 2010-04-28
QC Preparation: 2010-04-28

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.73	mg/Kg	1	2.00	<0.00410	86	57.7 - 140.7
Toluene	1.79	mg/Kg	1	2.00	0.0496	87	53.4 - 146.6
Ethylbenzene	1.78	mg/Kg	1	2.00	<0.00240	89	62.1 - 141.6
Xylene	5.36	mg/Kg	1	6.00	<0.00650	89	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	1.81	mg/Kg	1	2.00	<0.00410	90	57.7 - 140.7	4	20
Toluene	1.88	mg/Kg	1	2.00	0.0496	92	53.4 - 146.6	5	20
Ethylbenzene	1.87	mg/Kg	1	2.00	<0.00240	94	62.1 - 141.6	5	20
Xylene	5.66	mg/Kg	1	6.00	<0.00650	94	61.2 - 142.7	5	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)	1.39	1.26	mg/Kg	1	2	70	63	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.31	1.19	mg/Kg	1	2	66	60	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 229749

QC Batch: 69513
Prep Batch: 59478

Date Analyzed: 2010-04-28
QC Preparation: 2010-04-28

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	29.5	mg/Kg	1	20.0	13.3	81	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	33.3	mg/Kg	1	20.0	13.3	100	10 - 198.3	12	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.70	1.48	mg/Kg	1	2	85	74	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.05	1.64	mg/Kg	1	2	102	82	58.6 - 140

Standard (CCV-2)

QC Batch: 69489

Date Analyzed: 2010-04-28

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	280	112	80 - 120	2010-04-28

Standard (CCV-3)

QC Batch: 69489

Date Analyzed: 2010-04-28

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	2010-04-28

Standard (CCV-1)

QC Batch: 69512

Date Analyzed: 2010-04-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0975	98	80 - 120	2010-04-28
Toluene		mg/Kg	0.100	0.0976	98	80 - 120	2010-04-28
Ethylbenzene		mg/Kg	0.100	0.0972	97	80 - 120	2010-04-28
Xylene		mg/Kg	0.300	0.292	97	80 - 120	2010-04-28

Standard (CCV-2)

QC Batch: 69512

Date Analyzed: 2010-04-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0990	99	80 - 120	2010-04-28
Toluene		mg/Kg	0.100	0.0992	99	80 - 120	2010-04-28
Ethylbenzene		mg/Kg	0.100	0.0960	96	80 - 120	2010-04-28
Xylene		mg/Kg	0.300	0.289	96	80 - 120	2010-04-28

Standard (CCV-1)

QC Batch: 69513

Date Analyzed: 2010-04-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.975	98	80 - 120	2010-04-28

Standard (CCV-2)

QC Batch: 69513

Date Analyzed: 2010-04-28

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2010-04-28

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
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1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:	NOVA	Phone #:	
Address:	(Street, City, Zip)	Fax #:	
Contact Person:	Ron Rounsaville	E-mail:	
Invoice to:			
(If different from above)	Plains		
Project #:	TNM 97-18	Project Name:	97-18
Project Location (including state):	Lea Co NM	Sampler Signature:	

[illegible][illegible]

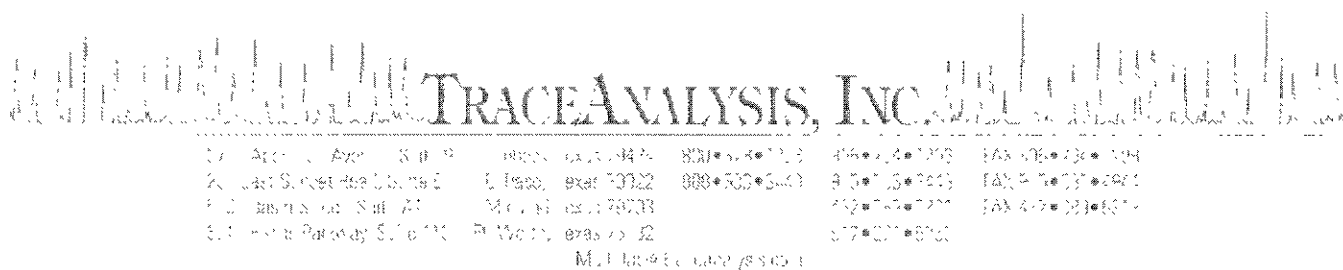
ANALYSIS REQUEST (Circle or Specify Method No.)	
MTBE 8021 / 602 / 8260 / 624	X
BTEx 8021 / 602 / 8260 / 624	X
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	X
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCBs 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, FI, SO4, NO3, NO2, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	
Hold	

LAB USE ONLY	Initial ☒ Y ☐ N	REMARKS: X All test3-Midland
	Headspace, Y/N/NA ☐ Y ☐ N ☐ NA	
Log-In/Review _____	☐ 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.

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Carrier #



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: April 20, 2010

Work Order: 10041539



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
228742	South Stockpile, SS-1	soil	2010-04-14	09:15	2010-04-15
228743	South Stockpile, SS-2	soil	2010-04-14	09:20	2010-04-15
228744	South Stockpile, SS-3	soil	2010-04-14	09:25	2010-04-15
228745	South Stockpile, SS-4	soil	2010-04-14	09:30	2010-04-15
228746	South Stockpile, SS-5	soil	2010-04-14	09:35	2010-04-15
228747	South Stockpile, SS-6	soil	2010-04-14	09:40	2010-04-15
228748	South Stockpile, SS-7	soil	2010-04-14	09:45	2010-04-15
228749	South Stockpile, SS-8	soil	2010-04-14	09:50	2010-04-15
228750	South Stockpile, SS-9	soil	2010-04-14	09:55	2010-04-15
228751	South Stockpile, SS-10	soil	2010-04-14	10:00	2010-04-15
228752	South Stockpile, SS-11	soil	2010-04-14	10:05	2010-04-15

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

This report consists of a total of 24 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-15 and assigned to work order 10041539. Samples for work order 10041539 were received intact at a temperature of 4.0 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	59223	2010-04-16 at 10:50	69189	2010-04-17 at 05:03
TPH DRO - NEW	Mod. 8015B	59228	2010-04-16 at 16:16	69191	2010-04-16 at 16:16
TPH DRO - NEW	Mod. 8015B	59263	2010-04-19 at 14:16	69232	2010-04-19 at 14:16
TPH GRO	S 8015B	59223	2010-04-16 at 10:50	69190	2010-04-17 at 05:30

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 10041539 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: 228742 - South Stockpile, SS-1

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	69189	Date Analyzed:	2010-04-17
Prep Batch:	59223	Sample Preparation:	2010-04-16
		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)		1.29	mg/Kg	1	2.00	64	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.30	mg/Kg	1	2.00	65	43.1 - 158.4

Sample: 228742 - South Stockpile, SS-1

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	69191	Date Analyzed:	2010-04-16
Prep Batch:	59228	Sample Preparation:	2010-04-16
		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		97.9	mg/Kg	1	100	98	70 - 130

Sample: 228742 - South Stockpile, SS-1

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	69190	Date Analyzed:	2010-04-17
Prep Batch:	59223	Sample Preparation:	2010-04-16
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

continued ...

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 5 of 24
Eunice, NM

sample 228742 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)		1.34	mg/Kg	1	2.00	67	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.36	mg/Kg	1	2.00	68	51.7 - 131.1

Sample: 228743 - South Stockpile, SS-2

Laboratory: Midland

Analysis: BTEX

QC Batch: 69189

Prep Batch: 59223

Analytical Method: S 8021B

Date Analyzed: 2010-04-17

Sample Preparation: 2010-04-16

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)		1.94	mg/Kg	1	2.00	97	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.94	mg/Kg	1	2.00	97	43.1 - 158.4

Sample: 228743 - South Stockpile, SS-2

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 69191

Prep Batch: 59228

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-16

Sample Preparation: 2010-04-16

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		51.2	mg/Kg	1	50.0

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 6 of 24
Eunice, NM

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

Sample: 228743 - South Stockpile, SS-2

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

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

Sample: 228744 - South Stockpile, SS-3

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.07	mg/Kg	1	2.00	104	43.1 - 158.4

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 7 of 24
Eunice, NM

Sample: 228744 - South Stockpile, SS-3

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	69191	Date Analyzed:	2010-04-16
Prep Batch:	59228	Sample Preparation:	2010-04-16
		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		92.2	mg/Kg	1	100	92	70 - 130

Sample: 228744 - South Stockpile, SS-3

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	69190	Date Analyzed:	2010-04-17
Prep Batch:	59223	Sample Preparation:	2010-04-16
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.12	mg/Kg	1	2.00	106	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.12	mg/Kg	1	2.00	106	51.7 - 131.1

Sample: 228745 - South Stockpile, SS-4

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	69189	Date Analyzed:	2010-04-17
Prep Batch:	59223	Sample Preparation:	2010-04-16
		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	1.18	mg/Kg	1	2.00	59	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.16	mg/Kg	1	2.00	58	43.1 - 158.4

Sample: 228745 - South Stockpile, SS-4

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg
 Prep Batch: 59228 Sample Preparation: 2010-04-16 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		54.7	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		98.5	mg/Kg	1	100	98	70 - 130

Sample: 228745 - South Stockpile, SS-4

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.23	mg/Kg	1	2.00	62	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.22	mg/Kg	1	2.00	61	51.7 - 131.1

Sample: 228746 - South Stockpile, SS-5

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

¹SPECIAL - TFT is out of control limits due to an unknown anomaly, but 4-BFB is within control limits and shows the method to be in control.

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)		1.89	mg/Kg	1	2.00	94	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.88	mg/Kg	1	2.00	94	43.1 - 158.4

Sample: 228746 - South Stockpile, SS-5

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg
 Prep Batch: 59228 Sample Preparation: 2010-04-16 Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		101	mg/Kg	1	100	101	70 - 130

Sample: 228746 - South Stockpile, SS-5

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.32	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.95	mg/Kg	1	2.00	98	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.01	mg/Kg	1	2.00	100	51.7 - 131.1

Sample: 228747 - South Stockpile, SS-6

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2010-04-17	Analyzed By: AG
QC Batch: 69189	Sample Preparation: 2010-04-16	Prepared By: AG
Prep Batch: 59223		

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)		1.76	mg/Kg	1	2.00	88	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	43.1 - 158.4

Sample: 228747 - South Stockpile, SS-6

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO - NEW	Date Analyzed: 2010-04-16	Analyzed By: kg
QC Batch: 69191	Sample Preparation: 2010-04-16	Prepared By: kg
Prep Batch: 59228		

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		96.3	mg/Kg	1	100	96	70 - 130

Sample: 228747 - South Stockpile, SS-6

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2010-04-17	Analyzed By: AG
QC Batch: 69190	Sample Preparation: 2010-04-16	Prepared By: AG
Prep Batch: 59223		

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

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 11 of 24
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.80	mg/Kg	1	2.00	90	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	51.7 - 131.1

Sample: 228748 - South Stockpile, SS-7

Laboratory: Midland

Analysis: BTEX

QC Batch: 69189

Prep Batch: 59223

Analytical Method: S 8021B

Date Analyzed: 2010-04-17

Sample Preparation: 2010-04-16

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.88	mg/Kg	1	2.00	94	43.1 - 158.4

Sample: 228748 - South Stockpile, SS-7

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 69191

Prep Batch: 59228

Analytical Method: Mod. 8015B

Date Analyzed: 2010-04-16

Sample Preparation: 2010-04-16

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL	Units	Dilution	RL
		Result			
DRO		159	mg/Kg	1	50.0

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

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 12 of 24
Eunice, NM

Sample: 228748 - South Stockpile, SS-7

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 69190
Prep Batch: 59223

Analytical Method: S 8015B
Date Analyzed: 2010-04-17
Sample Preparation: 2010-04-16

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		3.32	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.91	mg/Kg	1	2.00	96	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.05	mg/Kg	1	2.00	102	51.7 - 131.1

Sample: 228749 - South Stockpile, SS-8

Laboratory: Midland
Analysis: BTEX
QC Batch: 69189
Prep Batch: 59223

Analytical Method: S 8021B
Date Analyzed: 2010-04-17
Sample Preparation: 2010-04-16

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.18	mg/Kg	1	2.00	109	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.20	mg/Kg	1	2.00	110	43.1 - 158.4

Sample: 228749 - South Stockpile, SS-8

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 69191
Prep Batch: 59228

Analytical Method: Mod. 8015B
Date Analyzed: 2010-04-16
Sample Preparation: 2010-04-16

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		70.5	mg/Kg	1	50.0

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 13 of 24
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		95.3	mg/Kg	1	100	95	70 - 130

Sample: 228749 - South Stockpile, SS-8

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.41	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.31	mg/Kg	1	2.00	116	51.7 - 131.1

Sample: 228750 - South Stockpile, SS-9

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.66	mg/Kg	1	2.00	83	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.67	mg/Kg	1	2.00	84	43.1 - 158.4

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 14 of 24
Eunice, NM

Sample: 228750 - South Stockpile, SS-9

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	69191	Date Analyzed:	2010-04-16
Prep Batch:	59228	Sample Preparation:	2010-04-16
		Prep Method:	N/A
		Analyzed By:	kg
		Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		75.5	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		98.3	mg/Kg	1	100	98	70 - 130

Sample: 228750 - South Stockpile, SS-9

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	69190	Date Analyzed:	2010-04-17
Prep Batch:	59223	Sample Preparation:	2010-04-16
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.20	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.71	mg/Kg	1	2.00	86	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.75	mg/Kg	1	2.00	88	51.7 - 131.1

Sample: 228751 - South Stockpile, SS-10

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	69189	Date Analyzed:	2010-04-17
Prep Batch:	59223	Sample Preparation:	2010-04-16
		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

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 15 of 24
Eunice, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.79	mg/Kg	1	2.00	90	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	43.1 - 158.4

Sample: 228751 - South Stockpile, SS-10

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg
Prep Batch: 59263 Sample Preparation: 2010-04-19 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		98.3	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		115	mg/Kg	1	100	115	70 - 130

Sample: 228751 - South Stockpile, SS-10

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.84	mg/Kg	1	2.00	92	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.88	mg/Kg	1	2.00	94	51.7 - 131.1

Sample: 228752 - South Stockpile, SS-11

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 Sample Preparation: 2010-04-16 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)		1.73	mg/Kg	1	2.00	86	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	43.1 - 158.4

Sample: 228752 - South Stockpile, SS-11

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg
 Prep Batch: 59263 Sample Preparation: 2010-04-19 Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		95.6	mg/Kg	1	100	96	70 - 130

Sample: 228752 - South Stockpile, SS-11

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
 Prep Batch: 59223 Sample Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.78	mg/Kg	1	2.00	89	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.85	mg/Kg	1	2.00	92	51.7 - 131.1

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 17 of 24
Eunice, NM

Method Blank (1) QC Batch: 69189

QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 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)		1.79	mg/Kg	1	2.00	90	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.43	mg/Kg	1	2.00	72	43.9 - 141.9

Method Blank (1) QC Batch: 69190

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.86	mg/Kg	1	2.00	93	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.49	mg/Kg	1	2.00	74	62 - 120.5

Method Blank (1) QC Batch: 69191

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg
Prep Batch: 59228 QC Preparation: 2010-04-16 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		10.0	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		81.1	mg/Kg	1	100	81	70 - 130

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 18 of 24
Eunice, NM

Method Blank (1) QC Batch: 69232

QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg
Prep Batch: 59263 QC Preparation: 2010-04-19 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		78.6	mg/Kg	1	100	79	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.03	mg/Kg	1	2.00	<0.00410	102	75.4 - 115.7
Toluene	2.01	mg/Kg	1	2.00	<0.00310	100	78.4 - 113.6
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	76 - 114.2
Xylene	5.87	mg/Kg	1	6.00	<0.00650	98	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	2.05	mg/Kg	1	2.00	<0.00410	102	75.4 - 115.7	1	20
Toluene	2.03	mg/Kg	1	2.00	<0.00310	102	78.4 - 113.6	1	20
Ethylbenzene	1.97	mg/Kg	1	2.00	<0.00240	98	76 - 114.2	2	20
Xylene	5.96	mg/Kg	1	6.00	<0.00650	99	76.9 - 113.6	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.84	1.79	mg/Kg	1	2.00	92	90	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.96	1.91	mg/Kg	1	2.00	98	96	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG
Prep Batch: 59223 QC Preparation: 2010-04-16 Prepared By: AG

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.7	mg/Kg	1	20.0	<0.396	78	52.5 - 114.3	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.72	1.76	mg/Kg	1	2.00	86	88	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.73	1.77	mg/Kg	1	2.00	86	88	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 69191
Prep Batch: 59228

Date Analyzed: 2010-04-16
QC Preparation: 2010-04-16

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	204	mg/Kg	1	250	<5.86	82	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	200	mg/Kg	1	250	<5.86	80	57.4 - 133.4	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	80.4	79.5	mg/Kg	1	100	80	80	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69232
Prep Batch: 59263

Date Analyzed: 2010-04-19
QC Preparation: 2010-04-19

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	212	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	222	mg/Kg	1	250	<5.86	89	57.4 - 133.4	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	78.4	80.4	mg/Kg	1	100	78	80	70 - 130

Matrix Spike (MS-1) Spiked Sample: 228753

QC Batch: 69189
Prep Batch: 59223

Date Analyzed: 2010-04-17
QC Preparation: 2010-04-16

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.02	mg/Kg	1	2.00	<0.00410	101	57.7 - 140.7
Toluene	2.05	mg/Kg	1	2.00	<0.00310	102	53.4 - 146.6
Ethylbenzene	2.07	mg/Kg	1	2.00	<0.00240	104	62.1 - 141.6
Xylene	6.22	mg/Kg	1	6.00	<0.00650	104	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.06	mg/Kg	1	2.00	<0.00410	103	57.7 - 140.7	2	20
Toluene	2.08	mg/Kg	1	2.00	<0.00310	104	53.4 - 146.6	1	20
Ethylbenzene	2.12	mg/Kg	1	2.00	<0.00240	106	62.1 - 141.6	2	20
Xylene	6.38	mg/Kg	1	6.00	<0.00650	106	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)	1.61	1.82	mg/Kg	1	2	80	91	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.70	1.87	mg/Kg	1	2	85	94	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 228738

QC Batch: 69190
Prep Batch: 59223

Date Analyzed: 2010-04-17
QC Preparation: 2010-04-16

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.3	mg/Kg	1	20.0	<0.396	82	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.5	mg/Kg	1	20.0	<0.396	88	10 - 198.3	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	² 1.29	1.40	mg/Kg	1	2	64	70	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.42	1.53	mg/Kg	1	2	71	76	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 228733

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg
Prep Batch: 59228 QC Preparation: 2010-04-16 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	177	mg/Kg	1	250	10.3	67	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	180	mg/Kg	1	250	10.3	68	35.2 - 167.1	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	78.8	79.5	mg/Kg	1	100	79	80	70 - 130

Matrix Spike (MS-1) Spiked Sample: 228753

QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg
Prep Batch: 59263 QC Preparation: 2010-04-19 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	320	mg/Kg	1	250	130	76	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	297	mg/Kg	1	250	130	67	35.2 - 167.1	7	20

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

²Surrogate out due to peak interference.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	110	108	mg/Kg	1	100	110	108	70 - 130

Standard (CCV-1)

QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.102	102	80 - 120	2010-04-17
Toluene		mg/Kg	0.100	0.100	100	80 - 120	2010-04-17
Ethylbenzene		mg/Kg	0.100	0.0969	97	80 - 120	2010-04-17
Xylene		mg/Kg	0.300	0.293	98	80 - 120	2010-04-17

Standard (CCV-2)

QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0954	95	80 - 120	2010-04-17
Toluene		mg/Kg	0.100	0.0945	94	80 - 120	2010-04-17
Ethylbenzene		mg/Kg	0.100	0.0929	93	80 - 120	2010-04-17
Xylene		mg/Kg	0.300	0.278	93	80 - 120	2010-04-17

Standard (CCV-3)

QC Batch: 69189 Date Analyzed: 2010-04-17 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2010-04-17
Toluene		mg/Kg	0.100	0.0993	99	80 - 120	2010-04-17
Ethylbenzene		mg/Kg	0.100	0.0965	96	80 - 120	2010-04-17
Xylene		mg/Kg	0.300	0.291	97	80 - 120	2010-04-17

Standard (CCV-1)

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 23 of 24
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.957	96	80 - 120	2010-04-17

Standard (CCV-2)

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.01	101	80 - 120	2010-04-17

Standard (CCV-3)

QC Batch: 69190 Date Analyzed: 2010-04-17 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.953	95	80 - 120	2010-04-17

Standard (CCV-2)

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	210	84	80 - 120	2010-04-16

Standard (CCV-3)

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	232	93	80 - 120	2010-04-16

Standard (CCV-4)

QC Batch: 69191 Date Analyzed: 2010-04-16 Analyzed By: kg

Report Date: April 20, 2010
TNM 97-18

Work Order: 10041539
9718

Page Number: 24 of 24
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	221	88	80 - 120	2010-04-16

Standard (CCV-1)

QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	219	88	80 - 120	2010-04-19

Standard (CCV-2)

QC Batch: 69232 Date Analyzed: 2010-04-19 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	231	92	80 - 120	2010-04-19

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Contact Person: Ron Rounsaville		E-mail:	
Invoice to: (if different from above)			
Project #: TNM 97-18		Project Name: 97-18	
Project Location (including state): Let Co. NM		Sampler Signature: <i>[Signature]</i>	

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		TIME	DATE	Moisture Content	Turn Around Time if different from standard
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE				
740	South Stockpile, SS-1	1	402	X										4/14/00 0915		
743	S. Stockpile, SS-2	1		X										0920		
744	" , SS-3	1		X										0925		
745	" , SS-4	1		X										0930		
746	" , SS-5	1		X										0935		
747	" , SS-6	1		X										0940		
748	" , SS-7	1		X										0945		
749	" , SS-8	1		X										0950		
750	" , SS-9	1		X										0955		
751	" , SS-10	1		X										1000		
752	" , SS-11	1		X										4/14/00 1005		

LAB USE ONLY		REMARKS:	
Relinquished by: <i>[Signature]</i>	Company: NOVA Date: 4/15/00	Received by: <i>[Signature]</i>	Company: Trace Date: 4/15/00
Relinquished by: <i>[Signature]</i>	Company: NOVA Date: 4/15/00	Received by: <i>[Signature]</i>	Company: Trace Date: 4/15/00
Relinquished by: <i>[Signature]</i>	Company: NOVA Date: 4/15/00	Received by: <i>[Signature]</i>	Company: Trace Date: 4/15/00

Carrier # **Camryn**

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

ORIGINAL COPY

all tests - Midland

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

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



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-04-28 and assigned to work order 10042830. Samples for work order 10042830 were received intact at a temperature of 4.0 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	59478	2010-04-28 at 13:40	69512	2010-04-28 at 18:20
TPH DRO - NEW	Mod. 8015B	59537	2010-04-29 at 15:07	69560	2010-04-29 at 15:07
TPH GRO	S 8015B	59478	2010-04-28 at 13:40	69513	2010-04-28 at 18:48

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 10042830 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: 229745 - N Stockpile A, NS-1

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-04-28	Analyzed By:	AG
QC Batch:	69512	Sample Preparation:	2010-04-28	Prepared By:	AG
Prep Batch:	59478				

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0478	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	1.19	mg/Kg	1	2.00	60	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.12	mg/Kg	1	2.00	56	43.1 - 158.4

Sample: 229745 - N Stockpile A, NS-1

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-04-29	Analyzed By:	kg
QC Batch:	69560	Sample Preparation:	2010-04-29	Prepared By:	kg
Prep Batch:	59537				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		654	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	²	209	mg/Kg	1	100	209	70 - 130

Sample: 229745 - N Stockpile A, NS-1

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-04-28	Analyzed By:	AG
QC Batch:	69513	Sample Preparation:	2010-04-28	Prepared By:	AG
Prep Batch:	59478				

continued ...

¹Surrogate out due to peak interference.

²High surrogate recovery due to peak interference.

sample 229745 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		8.39	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.18	mg/Kg	1	2.00	59	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.38	mg/Kg	1	2.00	69	51.7 - 131.1

Sample: 229746 - N Stockpile A, NS-2

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0521	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)		1.55	mg/Kg	1	2.00	78	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.43	mg/Kg	1	2.00	72	43.1 - 158.4

Sample: 229746 - N Stockpile A, NS-2

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
 Prep Batch: 59537 Sample Preparation: 2010-04-29 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		613	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	³	192	mg/Kg	1	100	192	70 - 130

Sample: 229746 - N Stockpile A, NS-2

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		7.05	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.52	mg/Kg	1	2.00	76	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.76	mg/Kg	1	2.00	88	51.7 - 131.1

Sample: 229747 - N Stockpile A, NS-3

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0518	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)		1.81	mg/Kg	1	2.00	90	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.67	mg/Kg	1	2.00	84	43.1 - 158.4

Sample: 229747 - N Stockpile A, NS-3

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
 Prep Batch: 59537 Sample Preparation: 2010-04-29 Prepared By: kg

³High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		543	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁴	179	mg/Kg	1	100	179	70 - 130

Sample: 229747 - N Stockpile A, NS-3

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		29.6	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.77	mg/Kg	1	2.00	88	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.44	mg/Kg	1	2.00	122	51.7 - 131.1

Sample: 229748 - N Stockpile A, NS-4

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0515	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)	⁵	0.984	mg/Kg	1	2.00	49	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		0.970	mg/Kg	1	2.00	48	43.1 - 158.4

⁴High surrogate recovery due to peak interference.

⁵Surrogate out due to peak interference.

Report Date: April 30, 2010
TNM 97-18

Work Order: 10042830
9718

Page Number: 8 of 21
Eunice, NM

Sample: 229748 - N Stockpile A, NS-4

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	69560	Date Analyzed:	2010-04-29
Prep Batch:	59537	Sample Preparation:	2010-04-29
		Prep Method:	N/A
		Analyzed By:	kg
		Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		462	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁶	160	mg/Kg	1	100	160	70 - 130

Sample: 229748 - N Stockpile A, NS-4

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	69513	Date Analyzed:	2010-04-28
Prep Batch:	59478	Sample Preparation:	2010-04-28
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		21.8	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	⁷	0.971	mg/Kg	1	2.00	48	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.08	mg/Kg	1	2.00	54	51.7 - 131.1

Sample: 229749 - N Stockpile A, NS-5

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	69512	Date Analyzed:	2010-04-28
Prep Batch:	59478	Sample Preparation:	2010-04-28
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0504	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

⁶High surrogate recovery due to peak interference.

⁷Surrogate out due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.59	mg/Kg	1	2.00	80	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.45	mg/Kg	1	2.00	72	43.1 - 158.4

Sample: 229749 - N Stockpile A, NS-5

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
 Prep Batch: 59537 Sample Preparation: 2010-04-29 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		464	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁸	163	mg/Kg	1	100	163	70 - 130

Sample: 229749 - N Stockpile A, NS-5

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		13.3	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.56	mg/Kg	1	2.00	78	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.75	mg/Kg	1	2.00	88	51.7 - 131.1

Sample: 229750 - N Stockpile A, NS-6

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

⁸High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0572	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.117	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.07	mg/Kg	1	2.00	104	43.1 - 158.4

Sample: 229750 - N Stockpile A, NS-6

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
 Prep Batch: 59537 Sample Preparation: 2010-04-29 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		919	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁹	241	mg/Kg	1	100	241	70 - 130

Sample: 229750 - N Stockpile A, NS-6

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		68.6	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	50.3 - 155
4-Bromofluorobenzene (4-BFB)	¹⁰	2.95	mg/Kg	1	2.00	148	51.7 - 131.1

⁹High surrogate recovery due to peak interference.

¹⁰High surrogate recovery due to peak interference.

Sample: 229751 - N Stockpile A, NS-7

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0449	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.154	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	¹¹	0.912	mg/Kg	1	2.00	46	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		0.940	mg/Kg	1	2.00	47	43.1 - 158.4

Sample: 229751 - N Stockpile A, NS-7

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
Prep Batch: 59537 Sample Preparation: 2010-04-29 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		868	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹²	241	mg/Kg	1	100	241	70 - 130

Sample: 229751 - N Stockpile A, NS-7

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		51.1	mg/Kg	1	1.00

¹¹Surrogate out due to peak interference.

¹²High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	¹³	0.901	mg/Kg	1	2.00	45	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.42	mg/Kg	1	2.00	71	51.7 - 131.1

Sample: 229752 - N Stockpile A, NS-8

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0549	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)		1.86	mg/Kg	1	2.00	93	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.73	mg/Kg	1	2.00	86	43.1 - 158.4

Sample: 229752 - N Stockpile A, NS-8

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
 Prep Batch: 59537 Sample Preparation: 2010-04-29 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		593	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹⁴	192	mg/Kg	1	100	192	70 - 130

Sample: 229752 - N Stockpile A, NS-8

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

¹³Surrogate out due to peak interference.

¹⁴High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		38.4	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.82	mg/Kg	1	2.00	91	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.12	mg/Kg	1	2.00	106	51.7 - 131.1

Sample: 229753 - N Stockpile A, NS-9

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0535	mg/Kg	1	0.0100
Ethylbenzene		0.298	mg/Kg	1	0.0100
Xylene		0.566	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.83	mg/Kg	1	2.00	92	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.04	mg/Kg	1	2.00	102	43.1 - 158.4

Sample: 229753 - N Stockpile A, NS-9

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
 QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
 Prep Batch: 59537 Sample Preparation: 2010-04-29 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1800	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹⁵	310	mg/Kg	1	100	310	70 - 130

¹⁵High surrogate recovery due to peak interference.

Report Date: April 30, 2010
TNM 97-18

Work Order: 10042830
9718

Page Number: 14 of 21
Eunice, NM

Sample: 229753 - N Stockpile A, NS-9

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 69513
Prep Batch: 59478

Analytical Method: S 8015B
Date Analyzed: 2010-04-28
Sample Preparation: 2010-04-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		149	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.79	mg/Kg	1	2.00	90	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.48	mg/Kg	1	2.00	124	51.7 - 131.1

Sample: 229754 - N Stockpile A, NS-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 69512
Prep Batch: 59478

Analytical Method: S 8021B
Date Analyzed: 2010-04-28
Sample Preparation: 2010-04-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0500	mg/Kg	5	0.0100
Toluene		<0.0500	mg/Kg	5	0.0100
Ethylbenzene		0.240	mg/Kg	5	0.0100
Xylene		0.512	mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.97	mg/Kg	5	5.00	99	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		5.07	mg/Kg	5	5.00	101	43.1 - 158.4

Sample: 229754 - N Stockpile A, NS-10

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 69560
Prep Batch: 59537

Analytical Method: Mod. 8015B
Date Analyzed: 2010-04-29
Sample Preparation: 2010-04-29

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		2280	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹⁶	394	mg/Kg	1	100	394	70 - 130

Sample: 229754 - N Stockpile A, NS-10

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 Sample Preparation: 2010-04-28 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		119	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.84	mg/Kg	5	5.00	97	50.3 - 155
4-Bromofluorobenzene (4-BFB)	¹⁷	7.05	mg/Kg	5	5.00	141	51.7 - 131.1

Method Blank (1) QC Batch: 69512

QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 QC Preparation: 2010-04-28 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)		1.92	mg/Kg	1	2.00	96	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.48	mg/Kg	1	2.00	74	43.9 - 141.9

Method Blank (1) QC Batch: 69513

QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG
 Prep Batch: 59478 QC Preparation: 2010-04-28 Prepared By: AG

¹⁶High surrogate recovery due to peak interference.

¹⁷High surrogate recovery due to peak interference.

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.88	mg/Kg	1	2.00	94	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	62 - 120.5

Method Blank (1) QC Batch: 69560

QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
Prep Batch: 59537 QC Preparation: 2010-04-29 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		7.58	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		75.6	mg/Kg	1	100	76	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG
Prep Batch: 59478 QC Preparation: 2010-04-28 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.97	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7
Toluene	1.96	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6
Ethylbenzene	1.94	mg/Kg	1	2.00	<0.00240	97	76 - 114.2
Xylene	5.84	mg/Kg	1	6.00	<0.00650	97	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	2.00	mg/Kg	1	2.00	<0.00410	100	75.4 - 115.7	2	20
Toluene	1.99	mg/Kg	1	2.00	<0.00310	100	78.4 - 113.6	2	20
Ethylbenzene	1.98	mg/Kg	1	2.00	<0.00240	99	76 - 114.2	2	20
Xylene	5.96	mg/Kg	1	6.00	<0.00650	99	76.9 - 113.6	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	2.03	mg/Kg	1	2.00	97	102	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.86	1.96	mg/Kg	1	2.00	93	98	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69513
Prep Batch: 59478

Date Analyzed: 2010-04-28
QC Preparation: 2010-04-28

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.3	mg/Kg	1	20.0	<0.396	86	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	16.1	mg/Kg	1	20.0	<0.396	80	52.5 - 114.3	7	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)	1.82	1.53	mg/Kg	1	2.00	91	76	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.86	1.56	mg/Kg	1	2.00	93	78	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 69560
Prep Batch: 59537

Date Analyzed: 2010-04-29
QC Preparation: 2010-04-29

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	267	mg/Kg	1	250	<5.86	107	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	250	mg/Kg	1	250	<5.86	100	57.4 - 133.4	7	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	90.4	89.6	mg/Kg	1	100	90	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 229724

QC Batch: 69512
Prep Batch: 59478

Date Analyzed: 2010-04-28
QC Preparation: 2010-04-28

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.73	mg/Kg	1	2.00	<0.00410	86	57.7 - 140.7
Toluene	1.79	mg/Kg	1	2.00	0.0496	87	53.4 - 146.6
Ethylbenzene	1.78	mg/Kg	1	2.00	<0.00240	89	62.1 - 141.6
Xylene	5.36	mg/Kg	1	6.00	<0.00650	89	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	1.81	mg/Kg	1	2.00	<0.00410	90	57.7 - 140.7	4	20
Toluene	1.88	mg/Kg	1	2.00	0.0496	92	53.4 - 146.6	5	20
Ethylbenzene	1.87	mg/Kg	1	2.00	<0.00240	94	62.1 - 141.6	5	20
Xylene	5.66	mg/Kg	1	6.00	<0.00650	94	61.2 - 142.7	5	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)	1.39	1.26	mg/Kg	1	2	70	63	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.31	1.19	mg/Kg	1	2	66	60	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 229749

QC Batch: 69513
Prep Batch: 59478

Date Analyzed: 2010-04-28
QC Preparation: 2010-04-28

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	29.5	mg/Kg	1	20.0	13.3	81	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	33.3	mg/Kg	1	20.0	13.3	100	10 - 198.3	12	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.70	1.48	mg/Kg	1	2	85	74	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.05	1.64	mg/Kg	1	2	102	82	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 229865

QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg
Prep Batch: 59537 QC Preparation: 2010-04-29 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	284	mg/Kg	1	250	150	54	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	340	mg/Kg	1	250	150	76	35.2 - 167.1	18	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	121	117	mg/Kg	1	100	121	117	70 - 130

Standard (CCV-1)

QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0975	98	80 - 120	2010-04-28
Toluene		mg/Kg	0.100	0.0976	98	80 - 120	2010-04-28
Ethylbenzene		mg/Kg	0.100	0.0972	97	80 - 120	2010-04-28
Xylene		mg/Kg	0.300	0.292	97	80 - 120	2010-04-28

Standard (CCV-2)

QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0990	99	80 - 120	2010-04-28
Toluene		mg/Kg	0.100	0.0992	99	80 - 120	2010-04-28
Ethylbenzene		mg/Kg	0.100	0.0960	96	80 - 120	2010-04-28
Xylene		mg/Kg	0.300	0.289	96	80 - 120	2010-04-28

Standard (CCV-3)

QC Batch: 69512 Date Analyzed: 2010-04-28 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0964	96	80 - 120	2010-04-28
Toluene		mg/Kg	0.100	0.0955	96	80 - 120	2010-04-28
Ethylbenzene		mg/Kg	0.100	0.0922	92	80 - 120	2010-04-28
Xylene		mg/Kg	0.300	0.279	93	80 - 120	2010-04-28

Standard (CCV-1)

QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.975	98	80 - 120	2010-04-28

Standard (CCV-2)

QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2010-04-28

Standard (CCV-3)

QC Batch: 69513 Date Analyzed: 2010-04-28 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.03	103	80 - 120	2010-04-28

Standard (CCV-2)

QC Batch: 69560 Date Analyzed: 2010-04-29 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	254	102	80 - 120	2010-04-29

Report Date: April 30, 2010
TNM 97-18

Work Order: 10042830
9718

Page Number: 21 of 21
Eunice, NM

Standard (CCV-3)

QC Batch: 69560

Date Analyzed: 2010-04-29

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	276	110	80 - 120	2010-04-29

Standard (CCV-4)

QC Batch: 69560

Date Analyzed: 2010-04-29

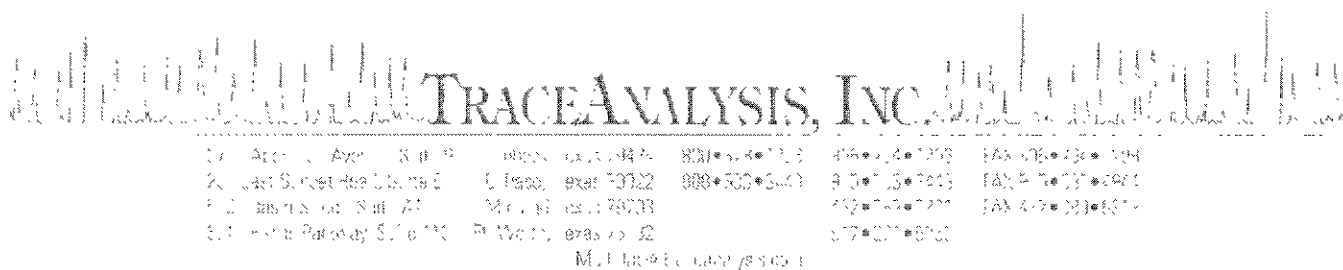
Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	224	90	80 - 120	2010-04-29

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

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Carrier # Langzi



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: May 7, 2010

Work Order: 10050307



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
230311	N Stockpile 2, SS2-1	soil	2010-04-30	09:00	2010-04-30
230312	N Stockpile 2, SS2-2	soil	2010-04-30	09:05	2010-04-30
230313	N Stockpile 2, SS2-3	soil	2010-04-30	09:10	2010-04-30
230314	N Stockpile 2, SS2-4	soil	2010-04-30	09:15	2010-04-30
230315	N Stockpile 2, SS2-5	soil	2010-04-30	09:20	2010-04-30
230316	N Stockpile 2, SS2-6	soil	2010-04-30	09:25	2010-04-30
230317	N Stockpile 2, SS2-7	soil	2010-04-30	09:30	2010-04-30
230318	N Stockpile 2, SS2-8	soil	2010-04-30	09:35	2010-04-30
230319	N Stockpile 2, SS2-9	soil	2010-04-30	09:40	2010-04-30

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.



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 9718 were received by TraceAnalysis, Inc. on 2010-04-30 and assigned to work order 10050307. Samples for work order 10050307 were received intact at a temperature of 4.0 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	59666	2010-05-04 at 12:20	69719	2010-05-04 at 16:47
BTEX	S 8021B	59700	2010-05-05 at 16:00	69742	2010-05-06 at 01:02
TPH DRO - NEW	S 8015 D	59615	2010-05-03 at 16:01	69649	2010-05-03 at 16:01
TPH GRO	S 8015 D	59666	2010-05-04 at 12:20	69720	2010-05-04 at 17:14
TPH GRO	S 8015 D	59700	2010-05-05 at 16:00	69743	2010-05-06 at 01:30

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 10050307 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: 230311 - N Stockpile 2, SS2-1

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-05-04	Analyzed By:	AG
QC Batch:	69719	Sample Preparation:	2010-05-04	Prepared By:	AG
Prep Batch:	59666				

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0441	mg/Kg	1	0.0100
Ethylbenzene		0.0147	mg/Kg	1	0.0100
Xylene		0.297	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.72	mg/Kg	1	2.00	86	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.89	mg/Kg	1	2.00	94	43.1 - 158.4

Sample: 230311 - N Stockpile 2, SS2-1

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-05-03	Analyzed By:	kg
QC Batch:	69649	Sample Preparation:	2010-05-03	Prepared By:	kg
Prep Batch:	59615				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		868	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	206	mg/Kg	1	100	206	70 - 130

Sample: 230311 - N Stockpile 2, SS2-1

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-05-04	Analyzed By:	AG
QC Batch:	69720	Sample Preparation:	2010-05-04	Prepared By:	AG
Prep Batch:	59666				

continued ...

¹High surrogate recovery due to peak interference.

sample 230311 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		91.5	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.75	mg/Kg	1	2.00	88	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	51.7 - 131.1

Sample: 230312 - N Stockpile 2, SS2-2

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 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		0.0155	mg/Kg	1	0.0100
Xylene		0.162	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.71	mg/Kg	1	2.00	86	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	43.1 - 158.4

Sample: 230312 - N Stockpile 2, SS2-2

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg
 Prep Batch: 59615 Sample Preparation: 2010-05-03 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		839	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	²	209	mg/Kg	1	100	209	70 - 130

Sample: 230312 - N Stockpile 2, SS2-2

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 69720 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		111	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.70	mg/Kg	1	2.00	85	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.15	mg/Kg	1	2.00	108	51.7 - 131.1

Sample: 230313 - N Stockpile 2, SS2-3

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 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		0.0996	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.34	mg/Kg	1	2.00	67	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.43	mg/Kg	1	2.00	72	43.1 - 158.4

Sample: 230313 - N Stockpile 2, SS2-3

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg
 Prep Batch: 59615 Sample Preparation: 2010-05-03 Prepared By: kg

²High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		566	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	³	161	mg/Kg	1	100	161	70 - 130

Sample: 230313 - N Stockpile 2, SS2-3

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 69720 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		66.6	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.34	mg/Kg	1	2.00	67	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.46	mg/Kg	1	2.00	73	51.7 - 131.1

Sample: 230314 - N Stockpile 2, SS2-4

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 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		0.0499	mg/Kg	1	0.0100
Xylene		0.193	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.23	mg/Kg	1	2.00	62	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	43.1 - 158.4

³High surrogate recovery due to peak interference.

Sample: 230314 - N Stockpile 2, SS2-4

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-05-03	Analyzed By:	kg
QC Batch:	69649	Sample Preparation:	2010-05-03	Prepared By:	kg
Prep Batch:	59615				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		616	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁴	165	mg/Kg	1	100	165	70 - 130

Sample: 230314 - N Stockpile 2, SS2-4

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-05-04	Analyzed By:	AG
QC Batch:	69720	Sample Preparation:	2010-05-04	Prepared By:	AG
Prep Batch:	59666				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		132	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.22	mg/Kg	1	2.00	61	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	51.7 - 131.1

Sample: 230315 - N Stockpile 2, SS2-5

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-05-04	Analyzed By:	AG
QC Batch:	69719	Sample Preparation:	2010-05-04	Prepared By:	AG
Prep Batch:	59666				

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0470	mg/Kg	1	0.0100
Ethylbenzene		0.0499	mg/Kg	1	0.0100
Xylene		0.194	mg/Kg	1	0.0100

⁴High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.35	mg/Kg	1	2.00	68	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	43.1 - 158.4

Sample: 230315 - N Stockpile 2, SS2-5

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg
 Prep Batch: 59615 Sample Preparation: 2010-05-03 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		604	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁵	174	mg/Kg	1	100	174	70 - 130

Sample: 230315 - N Stockpile 2, SS2-5

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 69720 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		79.0	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.33	mg/Kg	1	2.00	66	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.65	mg/Kg	1	2.00	82	51.7 - 131.1

Sample: 230316 - N Stockpile 2, SS2-6

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 Prepared By: AG

⁵High surrogate recovery due to peak interference.

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		0.165	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	⁶	1.11	mg/Kg	1	2.00	56	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.29	mg/Kg	1	2.00	64	43.1 - 158.4

Sample: 230316 - N Stockpile 2, SS2-6

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg
 Prep Batch: 59615 Sample Preparation: 2010-05-03 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		990	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁷	242	mg/Kg	1	100	242	70 - 130

Sample: 230316 - N Stockpile 2, SS2-6

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 69720 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		92.2	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.10	mg/Kg	1	2.00	55	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.51	mg/Kg	1	2.00	76	51.7 - 131.1

⁶Surrogate out due to peak interference.

⁷High surrogate recovery due to peak interference.

Sample: 230317 - N Stockpile 2, SS2-7

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2010-05-04	Analyzed By: AG
QC Batch: 69719	Sample Preparation: 2010-05-04	Prepared By: AG
Prep Batch: 59666		

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0447	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.105	mg/Kg	1	0.0100

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

Sample: 230317 - N Stockpile 2, SS2-7

Laboratory: Midland	Analytical Method: S 8015 D	Prep Method: N/A
Analysis: TPH DRO - NEW	Date Analyzed: 2010-05-03	Analyzed By: kg
QC Batch: 69649	Sample Preparation: 2010-05-03	Prepared By: kg
Prep Batch: 59615		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1140	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁸	289	mg/Kg	1	100	289	70 - 130

Sample: 230317 - N Stockpile 2, SS2-7

Laboratory: Midland	Analytical Method: S 8015 D	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2010-05-04	Analyzed By: AG
QC Batch: 69720	Sample Preparation: 2010-05-04	Prepared By: AG
Prep Batch: 59666		

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		45.4	mg/Kg	1	1.00

⁸High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.46	mg/Kg	1	2.00	73	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	51.7 - 131.1

Sample: 230318 - N Stockpile 2, SS2-8

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69742 Date Analyzed: 2010-05-06 Analyzed By: AG
 Prep Batch: 59700 Sample Preparation: 2010-05-05 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		0.152	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.82	mg/Kg	1	2.00	91	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.73	mg/Kg	1	2.00	86	43.1 - 158.4

Sample: 230318 - N Stockpile 2, SS2-8

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg
 Prep Batch: 59615 Sample Preparation: 2010-05-03 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		557	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	⁹	164	mg/Kg	1	100	164	70 - 130

Sample: 230318 - N Stockpile 2, SS2-8

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 69743 Date Analyzed: 2010-05-06 Analyzed By: AG
 Prep Batch: 59700 Sample Preparation: 2010-05-05 Prepared By: AG

⁹High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		41.6	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.82	mg/Kg	1	2.00	91	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.99	mg/Kg	1	2.00	100	51.7 - 131.1

Sample: 230319 - N Stockpile 2, SS2-9

Laboratory: Midland
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG
 Prep Batch: 59666 Sample Preparation: 2010-05-04 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0445	mg/Kg	1	0.0100
Ethylbenzene		0.0148	mg/Kg	1	0.0100
Xylene		0.118	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.58	mg/Kg	1	2.00	79	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	43.1 - 158.4

Sample: 230319 - N Stockpile 2, SS2-9

Laboratory: Midland
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg
 Prep Batch: 59615 Sample Preparation: 2010-05-03 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		920	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹⁰	236	mg/Kg	1	100	236	70 - 130

¹⁰High surrogate recovery due to peak interference.

Report Date: May 7, 2010
TNM 97-18

Work Order: 10050307
9718

Page Number: 14 of 23
Eunice, NM

Sample: 230319 - N Stockpile 2, SS2-9

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 69720
Prep Batch: 59666

Analytical Method: S 8015 D
Date Analyzed: 2010-05-04
Sample Preparation: 2010-05-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		29.0	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.56	mg/Kg	1	2.00	78	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.70	mg/Kg	1	2.00	85	51.7 - 131.1

Method Blank (1) QC Batch: 69649

QC Batch: 69649
Prep Batch: 59615

Date Analyzed: 2010-05-03
QC Preparation: 2010-05-03

Analyzed By: kg
Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		72.6	mg/Kg	1	100	73	70 - 130

Method Blank (1) QC Batch: 69719

QC Batch: 69719
Prep Batch: 59666

Date Analyzed: 2010-05-04
QC Preparation: 2010-05-04

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)		2.01	mg/Kg	1	2.00	100	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	43.9 - 141.9

Report Date: May 7, 2010
TNM 97-18

Work Order: 10050307
9718

Page Number: 15 of 23
Eunice, NM

Method Blank (1) QC Batch: 69720

QC Batch: 69720 Date Analyzed: 2010-05-04 Analyzed By: AG
Prep Batch: 59666 QC Preparation: 2010-05-04 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)		2.03	mg/Kg	1	2.00	102	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	62 - 120.5

Method Blank (1) QC Batch: 69742

QC Batch: 69742 Date Analyzed: 2010-05-06 Analyzed By: AG
Prep Batch: 59700 QC Preparation: 2010-05-05 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)		1.84	mg/Kg	1	2.00	92	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.40	mg/Kg	1	2.00	70	43.9 - 141.9

Method Blank (1) QC Batch: 69743

QC Batch: 69743 Date Analyzed: 2010-05-06 Analyzed By: AG
Prep Batch: 59700 QC Preparation: 2010-05-05 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.84	mg/Kg	1	2.00	92	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.55	mg/Kg	1	2.00	78	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg
Prep Batch: 59615 QC Preparation: 2010-05-03 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	244	mg/Kg	1	250	<5.86	98	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	251	mg/Kg	1	250	<5.86	100	57.4 - 133.4	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	87.8	87.1	mg/Kg	1	100	88	87	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG
Prep Batch: 59666 QC Preparation: 2010-05-04 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.94	mg/Kg	1	2.00	<0.00410	97	75.4 - 115.7
Toluene	1.94	mg/Kg	1	2.00	<0.00310	97	78.4 - 113.6
Ethylbenzene	1.93	mg/Kg	1	2.00	<0.00240	96	76 - 114.2
Xylene	5.81	mg/Kg	1	6.00	<0.00650	97	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	1.98	mg/Kg	1	2.00	<0.00410	99	75.4 - 115.7	2	20
Toluene	1.97	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6	2	20
Ethylbenzene	1.97	mg/Kg	1	2.00	<0.00240	98	76 - 114.2	2	20
Xylene	5.92	mg/Kg	1	6.00	<0.00650	99	76.9 - 113.6	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.96	1.90	mg/Kg	1	2.00	98	95	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.88	1.82	mg/Kg	1	2.00	94	91	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69720 Date Analyzed: 2010-05-04 Analyzed By: AG
Prep Batch: 59666 QC Preparation: 2010-05-04 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.6	mg/Kg	1	20.0	<0.396	88	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	17.1	mg/Kg	1	20.0	<0.396	86	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)	1.97	2.01	mg/Kg	1	2.00	98	100	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.99	2.05	mg/Kg	1	2.00	100	102	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 69742 Date Analyzed: 2010-05-06 Analyzed By: AG
Prep Batch: 59700 QC Preparation: 2010-05-05 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.98	mg/Kg	1	2.00	<0.00410	99	75.4 - 115.7
Toluene	1.96	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6
Ethylbenzene	1.89	mg/Kg	1	2.00	<0.00240	94	76 - 114.2
Xylene	5.72	mg/Kg	1	6.00	<0.00650	95	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	1.96	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7	1	20
Toluene	1.93	mg/Kg	1	2.00	<0.00310	96	78.4 - 113.6	2	20
Ethylbenzene	1.90	mg/Kg	1	2.00	<0.00240	95	76 - 114.2	0	20
Xylene	5.71	mg/Kg	1	6.00	<0.00650	95	76.9 - 113.6	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.77	1.89	mg/Kg	1	2.00	88	94	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.71	1.80	mg/Kg	1	2.00	86	90	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69743 Date Analyzed: 2010-05-06 Analyzed By: AG
Prep Batch: 59700 QC Preparation: 2010-05-05 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.6	mg/Kg	1	20.0	<0.396	73	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	15.1	mg/Kg	1	20.0	<0.396	76	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)	1.77	1.90	mg/Kg	1	2.00	88	95	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.76	1.87	mg/Kg	1	2.00	88	94	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 230319

QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg
Prep Batch: 59615 QC Preparation: 2010-05-03 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	1160	mg/Kg	1	250	920	96	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	1150	mg/Kg	1	250	920	92	35.2 - 167.1	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane ^{11 12}	269	248	mg/Kg	1	100	269	248	70 - 130

Matrix Spike (MS-1) Spiked Sample: 230419

QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG
Prep Batch: 59666 QC Preparation: 2010-05-04 Prepared By: AG

¹¹High surrogate recovery due to peak interference.

¹²High surrogate recovery due to peak interference.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.23	mg/Kg	1	2.00	<0.00410	112	57.7 - 140.7
Toluene	2.26	mg/Kg	1	2.00	<0.00310	113	53.4 - 146.6
Ethylbenzene	2.23	mg/Kg	1	2.00	<0.00240	112	62.1 - 141.6
Xylene	6.72	mg/Kg	1	6.00	<0.00650	112	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.00	mg/Kg	1	2.00	<0.00410	100	57.7 - 140.7	11	20
Toluene	2.04	mg/Kg	1	2.00	<0.00310	102	53.4 - 146.6	10	20
Ethylbenzene	2.03	mg/Kg	1	2.00	<0.00240	102	62.1 - 141.6	9	20
Xylene	6.11	mg/Kg	1	6.00	<0.00650	102	61.2 - 142.7	10	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.48	1.65	mg/Kg	1	2	74	82	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.37	1.51	mg/Kg	1	2	68	76	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 230414

QC Batch: 69720
Prep Batch: 59666

Date Analyzed: 2010-05-04
QC Preparation: 2010-05-04

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	19.5	mg/Kg	1	20.0	7.141	62	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.1	mg/Kg	1	20.0	7.141	60	10 - 198.3	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)	1.67	1.33	mg/Kg	1	2	84	66	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.79	1.46	mg/Kg	1	2	90	73	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 230657

QC Batch: 69742
Prep Batch: 59700

Date Analyzed: 2010-05-06
QC Preparation: 2010-05-05

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.01	mg/Kg	1	2.00	<0.00410	100	57.7 - 140.7
Toluene	2.20	mg/Kg	1	2.00	0.1688	102	53.4 - 146.6
Ethylbenzene	2.17	mg/Kg	1	2.00	0.1365	102	62.1 - 141.6
Xylene	6.63	mg/Kg	1	6.00	0.5222	102	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	1.96	mg/Kg	1	2.00	<0.00410	98	57.7 - 140.7	2	20
Toluene	2.13	mg/Kg	1	2.00	0.1688	98	53.4 - 146.6	3	20
Ethylbenzene	2.14	mg/Kg	1	2.00	0.1365	100	62.1 - 141.6	1	20
Xylene	6.48	mg/Kg	1	6.00	0.5222	99	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)	1.85	1.95	mg/Kg	1	2	92	98	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.93	2.04	mg/Kg	1	2	96	102	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 230654

QC Batch: 69743
Prep Batch: 59700

Date Analyzed: 2010-05-06
QC Preparation: 2010-05-05

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	208	mg/Kg	5	50.0	158	100	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	214	mg/Kg	5	50.0	158	112	10 - 198.3	3	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)	5.02	4.92	mg/Kg	5	5	100	98	65.5 - 143
4-Bromofluorobenzene (4-BFB)	6.26	6.44	mg/Kg	5	5	125	129	58.6 - 140

Standard (CCV-1)

QC Batch: 69649

Date Analyzed: 2010-05-03

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	250	100	80 - 120	2010-05-03

Standard (CCV-2)

QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	245	98	80 - 120	2010-05-03

Standard (CCV-3)

QC Batch: 69649 Date Analyzed: 2010-05-03 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	246	98	80 - 120	2010-05-03

Standard (CCV-1)

QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0966	97	80 - 120	2010-05-04
Toluene		mg/Kg	0.100	0.0951	95	80 - 120	2010-05-04
Ethylbenzene		mg/Kg	0.100	0.0908	91	80 - 120	2010-05-04
Xylene		mg/Kg	0.300	0.276	92	80 - 120	2010-05-04

Standard (CCV-2)

QC Batch: 69719 Date Analyzed: 2010-05-04 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0976	98	80 - 120	2010-05-04
Toluene		mg/Kg	0.100	0.0965	96	80 - 120	2010-05-04
Ethylbenzene		mg/Kg	0.100	0.0915	92	80 - 120	2010-05-04

continued . . .

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/Kg	0.300	0.276	92	80 - 120	2010-05-04

Standard (CCV-1)

QC Batch: 69720 Date Analyzed: 2010-05-04 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	80 - 120	2010-05-04

Standard (CCV-2)

QC Batch: 69720 Date Analyzed: 2010-05-04 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.06	106	80 - 120	2010-05-04

Standard (CCV-1)

QC Batch: 69742 Date Analyzed: 2010-05-06 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0990	99	80 - 120	2010-05-06
Toluene		mg/Kg	0.100	0.0978	98	80 - 120	2010-05-06
Ethylbenzene		mg/Kg	0.100	0.0946	95	80 - 120	2010-05-06
Xylene		mg/Kg	0.300	0.287	96	80 - 120	2010-05-06

Standard (CCV-2)

QC Batch: 69742 Date Analyzed: 2010-05-06 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0959	96	80 - 120	2010-05-06
Toluene		mg/Kg	0.100	0.0942	94	80 - 120	2010-05-06

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ethylbenzene		mg/Kg	0.100	0.0901	90	80 - 120	2010-05-06
Xylene		mg/Kg	0.300	0.270	90	80 - 120	2010-05-06

Standard (CCV-1)

QC Batch: 69743

Date Analyzed: 2010-05-06

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.894	89	80 - 120	2010-05-06

Standard (CCV-2)

QC Batch: 69743

Date Analyzed: 2010-05-06

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.994	99	80 - 120	2010-05-06

LAB Order ID #

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

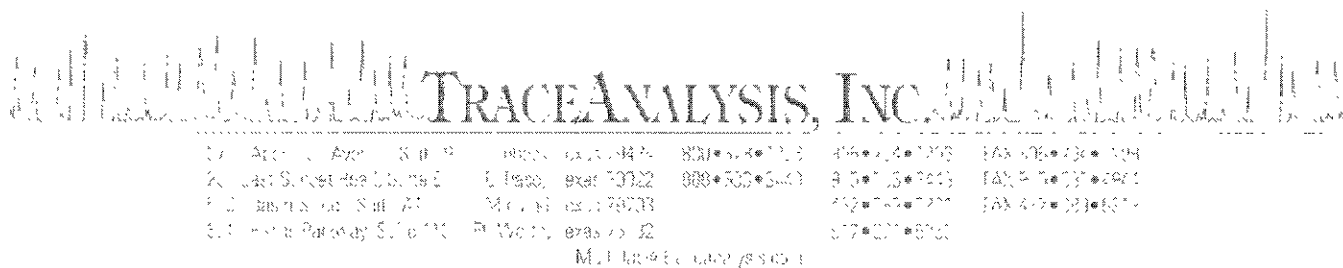
200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

Camp Bowie Blvd. West, Suite 180
Ft. Worth, Texas 76116
Tel (817) 201-5260
Fax (817) 560-4336

Company Name: NOVA						Phone #:	
Address: (Street, City, Zip)						Fax #:	
Contact Person: Ron Rounsaville						E-mail:	
Invoice to: (If different from above) PLAINS							
Project #: TNM 97-18						Project Name: 97-18	
Project Location (including state): Lea Co.-NM						Sample Signature: [Signature]	
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING DATE	TIME
				WATER SOIL AIR SLUDGE	HCl HNO ₃ H ₂ SO ₄ NaOH ICE NONE		
280311	N STOCKPILE Z, SSZ-1	1	4oz	X		9/30/0	0900
312	" , SSZ-2	1		X	X	}	0905
313	" , SSZ-3	1		X	X	}	0910
314	" , SSZ-4	1		X	X	}	0915
315	" , SSZ-5	1		X	X	}	0920
316	" , SSZ-6	1		X	X	}	0925
317	" , SSZ-7	1		X	X	}	0930
318	" , SSZ-8	1		X	X	}	0935
319	" , SSZ-9	1		X	X	}	0940
ANALYSIS REQUEST (Circle or Specify Method No.)							
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7							
TCLP Metals Ag As Ba Cd Cr Pb Se Hg							
TCLP Volatiles							
TCLP Semi Volatiles							
TCLP Pesticides							
RCI							
GC/MS Vol. 8260 / 624							
GC/MS Semi. Vol. 8270 / 625							
PCBs 8082 / 608							
Pesticides 8081 / 608							
BOD, TSS, pH							
Moisture Content							
Turn Around Time if different from standard							
Hold							
REMARKS: All tests-Midland							
LAB USE ONLY							
Infectious? ☒ N							
Headspace? ☒ N/A							
Log-In Review?							
Dry Weight Basis Required ☐							
TRRP Report Required ☐							
Check If Special Reporting Limits Are Needed ☐							
Relinquished by: [Signature]		Company: Trace Analysis		Date: 4-30-10		Time: 1410	
Received by: [Signature]		Company: [Signature]		Date: 4-30-10		Time: 1600	
INST _____		OBS _____		COR _____		INST _____	
OBS _____		COR _____		INST _____		OBS _____	
COR _____		INST _____		OBS _____		COR _____	

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

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Certifications

WBENC: 237019

HUB: 1752439743100-86536
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: May 7, 2010

Work Order: 10050516



Project Location: Eunice, NM
Project Name: 9718
Project Number: TNM 97-18

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
230652	N Stockpile A, NS-9B	soil	2010-05-04	12:40	2010-05-05
230653	N Stockpile A, NS-10B	soil	2010-05-04	12:45	2010-05-05

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.



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 9718 were received by TraceAnalysis, Inc. on 2010-05-05 and assigned to work order 10050516. Samples for work order 10050516 were received intact at a temperature of 2.3 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	59700	2010-05-05 at 16:00	69742	2010-05-06 at 01:02
TPH DRO - NEW	S 8015 D	59691	2010-05-05 at 11:18	69733	2010-05-05 at 11:18
TPH GRO	S 8015 D	59700	2010-05-05 at 16:00	69743	2010-05-06 at 01:30

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 10050516 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: 230652 - N Stockpile A, NS-9B

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-05-06	Analyzed By:	AG
QC Batch:	69742	Sample Preparation:	2010-05-05	Prepared By:	AG
Prep Batch:	59700				

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		0.112	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.12	mg/Kg	1	2.00	106	43.1 - 158.4

Sample: 230652 - N Stockpile A, NS-9B

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-05-05	Analyzed By:	kg
QC Batch:	69733	Sample Preparation:	2010-05-05	Prepared By:	kg
Prep Batch:	59691				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		588	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	194	mg/Kg	1	100	194	70 - 130

Sample: 230652 - N Stockpile A, NS-9B

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-05-06	Analyzed By:	AG
QC Batch:	69743	Sample Preparation:	2010-05-05	Prepared By:	AG
Prep Batch:	59700				

continued ...

¹High surrogate recovery due to peak interference.

Report Date: May 7, 2010
TNM 97-18

Work Order: 10050516
9718

Page Number: 5 of 11
Eunice, NM

sample 230652 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		26.4	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.32	mg/Kg	1	2.00	116	51.7 - 131.1

Sample: 230653 - N Stockpile A, NS-10B

Laboratory: Midland

Analysis: BTEX

QC Batch: 69742

Prep Batch: 59700

Analytical Method: S 8021B

Date Analyzed: 2010-05-06

Sample Preparation: 2010-05-05

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		0.0394	mg/Kg	1	0.0100
Xylene		0.295	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.84	mg/Kg	1	2.00	92	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	43.1 - 158.4

Sample: 230653 - N Stockpile A, NS-10B

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 69733

Prep Batch: 59691

Analytical Method: S 8015 D

Date Analyzed: 2010-05-05

Sample Preparation: 2010-05-05

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		623	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	²	185	mg/Kg	1	100	185	70 - 130

Sample: 230653 - N Stockpile A, NS-10B

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 69743 Date Analyzed: 2010-05-06 Analyzed By: AG
 Prep Batch: 59700 Sample Preparation: 2010-05-05 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		54.7	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.82	mg/Kg	1	2.00	91	50.3 - 155
4-Bromofluorobenzene (4-BFB)		2.02	mg/Kg	1	2.00	101	51.7 - 131.1

Method Blank (1) QC Batch: 69733

QC Batch: 69733 Date Analyzed: 2010-05-05 Analyzed By: kg
 Prep Batch: 59691 QC Preparation: 2010-05-05 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		81.9	mg/Kg	1	100	82	70 - 130

Method Blank (1) QC Batch: 69742

QC Batch: 69742 Date Analyzed: 2010-05-06 Analyzed By: AG
 Prep Batch: 59700 QC Preparation: 2010-05-05 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01

continued ...

²High surrogate recovery due to peak interference.

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
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)		1.84	mg/Kg	1	2.00	92	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.40	mg/Kg	1	2.00	70	43.9 - 141.9

Method Blank (1) QC Batch: 69743

QC Batch: 69743 Date Analyzed: 2010-05-06 Analyzed By: AG
Prep Batch: 59700 QC Preparation: 2010-05-05 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.84	mg/Kg	1	2.00	92	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.55	mg/Kg	1	2.00	78	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 69733 Date Analyzed: 2010-05-05 Analyzed By: kg
Prep Batch: 59691 QC Preparation: 2010-05-05 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	248	mg/Kg	1	250	<5.86	99	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	258	mg/Kg	1	250	<5.86	103	57.4 - 133.4	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	84.0	86.9	mg/Kg	1	100	84	87	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69742
Prep Batch: 59700

Date Analyzed: 2010-05-06
QC Preparation: 2010-05-05

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.98	mg/Kg	1	2.00	<0.00410	99	75.4 - 115.7
Toluene	1.96	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6
Ethylbenzene	1.89	mg/Kg	1	2.00	<0.00240	94	76 - 114.2
Xylene	5.72	mg/Kg	1	6.00	<0.00650	95	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	1.96	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7	1	20
Toluene	1.93	mg/Kg	1	2.00	<0.00310	96	78.4 - 113.6	2	20
Ethylbenzene	1.90	mg/Kg	1	2.00	<0.00240	95	76 - 114.2	0	20
Xylene	5.71	mg/Kg	1	6.00	<0.00650	95	76.9 - 113.6	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.77	1.89	mg/Kg	1	2.00	88	94	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.71	1.80	mg/Kg	1	2.00	86	90	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 69743
Prep Batch: 59700

Date Analyzed: 2010-05-06
QC Preparation: 2010-05-05

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.6	mg/Kg	1	20.0	<0.396	73	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	15.1	mg/Kg	1	20.0	<0.396	76	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)	1.77	1.90	mg/Kg	1	2.00	88	95	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.76	1.87	mg/Kg	1	2.00	88	94	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 230652

QC Batch: 69733 Date Analyzed: 2010-05-05 Analyzed By: kg
Prep Batch: 59691 QC Preparation: 2010-05-05 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	806	mg/Kg	1	250	588	87	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	798	mg/Kg	1	250	588	84	35.2 - 167.1	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane ^{3 4}	185	190	mg/Kg	1	100	185	190	70 - 130

Matrix Spike (MS-1) Spiked Sample: 230657

QC Batch: 69742 Date Analyzed: 2010-05-06 Analyzed By: AG
Prep Batch: 59700 QC Preparation: 2010-05-05 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.01	mg/Kg	1	2.00	<0.00410	100	57.7 - 140.7
Toluene	2.20	mg/Kg	1	2.00	0.1688	102	53.4 - 146.6
Ethylbenzene	2.17	mg/Kg	1	2.00	0.1365	102	62.1 - 141.6
Xylene	6.63	mg/Kg	1	6.00	0.5222	102	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	1.96	mg/Kg	1	2.00	<0.00410	98	57.7 - 140.7	2	20
Toluene	2.13	mg/Kg	1	2.00	0.1688	98	53.4 - 146.6	3	20
Ethylbenzene	2.14	mg/Kg	1	2.00	0.1365	100	62.1 - 141.6	1	20
Xylene	6.48	mg/Kg	1	6.00	0.5222	99	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)	1.85	1.95	mg/Kg	1	2	92	98	61.7 - 139.6

continued ...

³High surrogate recovery due to peak interference.

⁴High surrogate recovery due to peak interference.

Report Date: May 7, 2010
TNM 97-18

Work Order: 10050516
9718

Page Number: 10 of 11
Eunice, NM

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	1.93	2.04	mg/Kg	1	2	96	102	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 230654

QC Batch: 69743
Prep Batch: 59700

Date Analyzed: 2010-05-06
QC Preparation: 2010-05-05

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	208	mg/Kg	5	50.0	158	100	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	214	mg/Kg	5	50.0	158	112	10 - 198.3	3	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)	5.02	4.92	mg/Kg	5	5	100	98	65.5 - 143
4-Bromofluorobenzene (4-BFB)	6.26	6.44	mg/Kg	5	5	125	129	58.6 - 140

Standard (CCV-2)

QC Batch: 69733

Date Analyzed: 2010-05-05

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	297	119	80 - 120	2010-05-05

Standard (CCV-3)

QC Batch: 69733

Date Analyzed: 2010-05-05

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	284	114	80 - 120	2010-05-05

Standard (CCV-1)

QC Batch: 69742

Date Analyzed: 2010-05-06

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0990	99	80 - 120	2010-05-06
Toluene		mg/Kg	0.100	0.0978	98	80 - 120	2010-05-06
Ethylbenzene		mg/Kg	0.100	0.0946	95	80 - 120	2010-05-06
Xylene		mg/Kg	0.300	0.287	96	80 - 120	2010-05-06

Standard (CCV-2)

QC Batch: 69742

Date Analyzed: 2010-05-06

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0959	96	80 - 120	2010-05-06
Toluene		mg/Kg	0.100	0.0942	94	80 - 120	2010-05-06
Ethylbenzene		mg/Kg	0.100	0.0901	90	80 - 120	2010-05-06
Xylene		mg/Kg	0.300	0.270	90	80 - 120	2010-05-06

Standard (CCV-1)

QC Batch: 69743

Date Analyzed: 2010-05-06

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.894	89	80 - 120	2010-05-06

Standard (CCV-2)

QC Batch: 69743

Date Analyzed: 2010-05-06

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.994	99	80 - 120	2010-05-06

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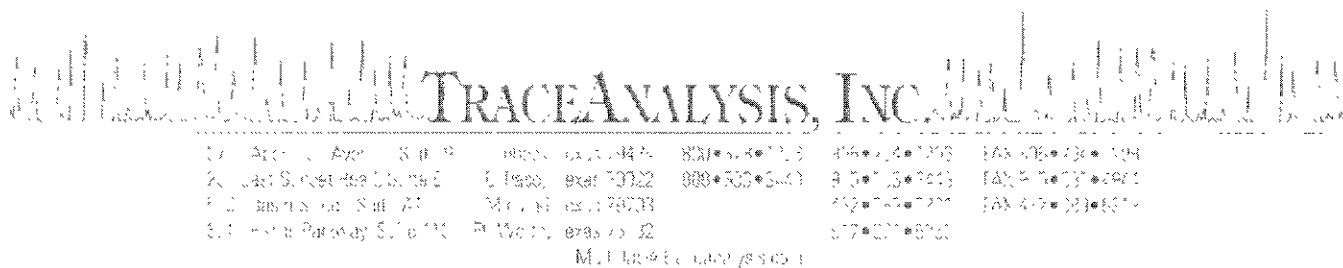
Company Name:	NOVA	Phone #:	
Address:	(Street, City, Zip)	Fax #:	
Contact Person:	Ron Rounsaville	E-mail:	
Invoice to:			
(If different from above)	PLAINS		
Project #:	TNM 97-18	Project Name:	97-18
Project Location (including state):	Lea Co. NM	Sampler Signature:	

[illegible][illegible][illegible]

LAB USE ONLY	REMARKS:
Intact ☒ N Headspace ☒ Y ☒ N ☒ NA	* All test-B-Midland 24-hr TAT ☐ Dry Weight Basis Required ☐ TRRP Report Required ☐ Check If Special Reporting Limits Are Needed
Log-in/Review	

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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: May 13, 2010

Work Order: 10051003



Project Location: Eunice, NM
 Project Name: 9718
 Project Number: TNM 97-18

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
230971	N Stockpile 2, SS2-6B	soil	2010-05-07	11:15	2010-05-07
230972	N Stockpile 2, SS2-7B	soil	2010-05-07	11:20	2010-05-07

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



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

Standard Flags

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

Case Narrative

Samples for project 9718 were received by TraceAnalysis, Inc. on 2010-05-07 and assigned to work order 10051003. Samples for work order 10051003 were received intact at a temperature of 4.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
TPH DRO - NEW	S 8015 D	59792	2010-05-10 at 10:33	69860	2010-05-10 at 10:33
TPH GRO	S 8015 D	59862	2010-05-11 at 09:20	69936	2010-05-11 at 12:36

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 10051003 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: 230971 - N Stockpile 2, SS2-6B

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-05-10	Analyzed By:	kg
QC Batch:	69860	Sample Preparation:	2010-05-10	Prepared By:	kg
Prep Batch:	59792				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		181	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		123	mg/Kg	1	100	123	70 - 130

Sample: 230971 - N Stockpile 2, SS2-6B

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-05-11	Analyzed By:	AG
QC Batch:	69936	Sample Preparation:	2010-05-11	Prepared By:	AG
Prep Batch:	59862				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		5.40	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	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.85	mg/Kg	1	2.00	92	51.7 - 131.1

Sample: 230972 - N Stockpile 2, SS2-7B

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-05-10	Analyzed By:	kg
QC Batch:	69860	Sample Preparation:	2010-05-10	Prepared By:	kg
Prep Batch:	59792				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		273	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	139	mg/Kg	1	100	139	70 - 130

Sample: 230972 - N Stockpile 2, SS2-7B

Laboratory: Midland
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 69936 Date Analyzed: 2010-05-11 Analyzed By: AG
 Prep Batch: 59862 Sample Preparation: 2010-05-11 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		8.37	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.98	mg/Kg	1	2.00	99	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.99	mg/Kg	1	2.00	100	51.7 - 131.1

Method Blank (1) QC Batch: 69860

QC Batch: 69860 Date Analyzed: 2010-05-10 Analyzed By: kg
 Prep Batch: 59792 QC Preparation: 2010-05-10 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		79.2	mg/Kg	1	100	79	70 - 130

Method Blank (1) QC Batch: 69936

QC Batch: 69936 Date Analyzed: 2010-05-11 Analyzed By: AG
 Prep Batch: 59862 QC Preparation: 2010-05-11 Prepared By: AG

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

¹High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.74	mg/Kg	1	2.00	87	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 69860 Date Analyzed: 2010-05-10 Analyzed By: kg
Prep Batch: 59792 QC Preparation: 2010-05-10 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	265	mg/Kg	1	250	<5.86	106	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	263	mg/Kg	1	250	<5.86	105	57.4 - 133.4	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	90.4	88.4	mg/Kg	1	100	90	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 69936 Date Analyzed: 2010-05-11 Analyzed By: AG
Prep Batch: 59862 QC Preparation: 2010-05-11 Prepared By: AG

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.8	mg/Kg	1	20.0	<0.396	79	52.5 - 114.3	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.03	1.80	mg/Kg	1	2.00	102	90	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.00	1.78	mg/Kg	1	2.00	100	89	64.1 - 127.4

Matrix Spike (MS-1) Spiked Sample: 230972

QC Batch: 69860 Date Analyzed: 2010-05-10 Analyzed By: kg
Prep Batch: 59792 QC Preparation: 2010-05-10 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	495	mg/Kg	1	250	273	89	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	553	mg/Kg	1	250	273	112	35.2 - 167.1	11	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 ^{2 3}	140	144	mg/Kg	1	100	140	144	70 - 130

Matrix Spike (MS-1) Spiked Sample: 230972

QC Batch: 69936 Date Analyzed: 2010-05-11 Analyzed By: AG
Prep Batch: 59862 QC Preparation: 2010-05-11 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	28.6	mg/Kg	1	20.0	8.37	101	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 ⁴	22.9	mg/Kg	1	20.0	8.37	114	10 - 198.3	22	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.87	1.56	mg/Kg	1	2	94	78	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.18	1.68	mg/Kg	1	2	109	84	58.6 - 140

Standard (CCV-1)

QC Batch: 69860 Date Analyzed: 2010-05-10 Analyzed By: kg

²High surrogate recovery due to peak interference.

³High surrogate recovery due to peak interference.

⁴MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: May 13, 2010
TNM 97-18

Work Order: 10051003
9718

Page Number: 8 of 8
Eunice, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	232	93	80 - 120	2010-05-10

Standard (CCV-2)

QC Batch: 69860

Date Analyzed: 2010-05-10

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	230	92	80 - 120	2010-05-10

Standard (CCV-1)

QC Batch: 69936

Date Analyzed: 2010-05-11

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.03	103	80 - 120	2010-05-11

Standard (CCV-2)

QC Batch: 69936

Date Analyzed: 2010-05-11

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.922	92	80 - 120	2010-05-11

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Address:	(Street, City, Zip)	Fax #:	
Contact Person:	RON Rounsaville	E-mail:	
Invoice to:			
(If different from above)	PLAINS		
Project #:	TNM 97-18	Project Name:	97-18
Project Location, (including state):		Sampler Signature:	

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