State of New Mexico Energy Minerals and Natural Resources

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

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

Revised October 10, 2003

Form C-141

Release Notification and Corrective Action

X Final Report **OPERATOR** Initial Report Name of Company Plains Pipeline, LP Contact Jason Henry 2530 Hwy 214 - Denver City, Tx 79323 Telephone No. (575) 441-1099 Address Facility Name E.K. Queen 6 Inch BLM Facility Type 6 Inch Steel Pipeline

Surface Owner BLM	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter N	Section 19	Township 18S	Range 34E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea

Latitude N 32°43' 44.1" Longitude W 103 ° 36' 01.3"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 55 bbls	Volume Recovered 40 bbls
Source of Release 6" steel pipeline	Date and Hour of Occurrence	Date and Hour of Discovery
	03/27/2008 @ 11:00	03/27/2008 @ 12:46
Was Immediate Notice Given?	If YES, To Whom?	
Yes 🗌 No 🗌 Not Required	Larry Johnson	
By Whom? Camille Bryant	Date and Hour 03/27//2008 @ 1	5:56
Was a Watercourse Reached?	If YES, Volume Impacting the Wat	ercourse.
🗌 Yes 🖾 No	•	
If a Watercourse was Impacted Describe Fully *		
in a watercourse was impacted, Describer runy.		
Describe Cause of Problem and Remedial Action Taken.*		
Internal corrosion of the 6 inch steel pipeline resulted in release of sweet	crude oil The line is a 6-inch steel gai	thering line that produces approximately
300 bbls of oil per day. The pressure on the line is approximately 90 psi	and the gravity of the sweet crude is 4.	2. The sweet crude has an H_2S
concentration of <10 ppm The line is approximately 3 feet ogs at the re-	lease point.	
Describe Area Affected and Cleanup Action Taken.*	•	
Please see the attached Talon/LPE Soils Closure Report for details of rer	nedial activities conducted for site close	ure
I hereby certify that the information given above is true and complete to	the best of my knowledge and understa	nd that pursuant to NMOCD rules and
regulations all operators are required to report and/or file certain release in which health on the environment. The eccentration of a C 141 second health and the environment of a C 141 second health a	notifications and perform corrective act	tions for releases which may endanger
should their operations have failed to adequately investigate and remedia	te contamination that pass a threat to g	noes not relieve the operator of hability
or the environment. In addition NMOCD acceptance of a C-141 report.	loes not relieve the operator of response	ibility for compliance with any other
federal, state, or local laws and/or regulations	does not reneve the operator of respons	former for compliance with any other
	OIL CONSERV	
	<u>OIL CONSERV</u>	
Signature: Jason Centy		- Ohuson
	Approved by District Supervisor (1)	
Printed Name. Jason Henry	ENVIRUNN	ENTAL ENGINEER
	1 20 20	
Title Remediation Coordinator	Approval Date 79.04	Expiration Date.
E-mail Address: Jhenry@paalp.com	Conditions of Approval:	Attached
Date: 01/2 1/2009 Phone: (575) 111 1000		
Attach Additional Sheets If Necessary		1PP-1821
reaction reactional phone in recessary		(IRF-1031 /

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

		OPERATOR	Initial Report X Final Report
Name of Company	Plains Pipeline, LP	Contact Jason Henry	
Address	2530 Hwy 214 - Denver City, Tx 79323	Telephone No. (575) 441-1099	
Facility Name	E.K. Queen 6 Inch BLM	Facility Type 6 Inch Steel Pipeline	

Surface Owner BLM	Mineral Owner	Lease No.

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Describe Cause of Problem and Remedial Action Taken *									
Internal corrosion of the 6 inch steel pipeline resulted in release of sweet	crude oil. The line is a 6-inch steel g	The sweet stude has an U.S.							
500 bols of on per day. The pressure on the line is approximately 50 ps a	300 bbls of oil per day. The pressure on the line is approximately 50 bs and the gravity of the sweet crude is 42 . The sweet crude has all H_2S								
Concentration of <10 ppm. The fine is approximately 5 feet bgs at the feet	ease point								
Describe Area Affected and Cleanup Action Taken.*									
Please see the attached Talon/LPE Soils Closure Report for details of rem	nedial activities conducted for site clo	sure							
I hereby certify that the information given above is true and complete to t	he best of my knowledge and underst	tand that pursuant to NMOCD rules and							
regulations all operators are required to report and/or file certain release r	notifications and perform corrective a	ctions for releases which may endanger							
build their operations have failed to adequately investigate and remedies	te contamination that nose a threat to	around water, surface water, human health							
or the environment. In addition, NMOCD acceptance of a C-1/41 report of	the containmation that pose a time to	ground water, surface water, numan nearm							
federal, state, or local laws and/or regulations.	lots not reneve the operator of respon	istority for compliance with any other							
	OIL CONSER	VATION DIVISION							
Signature. Jason Centy	and the second s	- Oluson							
	Approved by District Supervision, the								
Printed Name Jason Henry	ENVIRUM	VENTAL ENGINEET							
		and the second se							
Title: Remediation Coordinator	Approval Date 1.29.01	Expiration Date							
E mail Addresse shanry@naaln.com	Conditions of Approval								
E-man Address: jnemy@paap.com	Conditions of Approval Attached								
	conditions of Approval.	Attached							
Date <i>N</i> / 2 9 / 2009 Phone (575) 441-1000		Attached							



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HOUSTON 3233 West 11th Street Suite 400 Houston, Texas 77008 Phone 713.861.0081 Fax 713.868.3208

ENVIRONMENTAL CONSULTING ENGINEERING DRILLING CONSTRUCTION EMERGENCY RESPONSE SOILS CLOSURE REPORT E.K. QUEEN 6" BLM SITE LEA COUNTY, NEW MEXICO NMOCD REF. # 1RP-1831 SRS# 2008-078

Prepared for:

PLAINS PIPELINE, L.P.

333 Clay Street Suite 1600 Houston, Texas 77002

Prepared by:

Talon/LPE 2901 State Highway 349 Midland, Texas 79706

December 5, 2008

Distribution: Copy 1 – Plains Lovington Copy 2 – Plains Houston Copy 3 – NMOCD Hobbs Copy 4 – BLM Carlsbad Copy 5 – Talon/LPE

RECEIVED

JAN 2 9 2009 HOBBSOCD Soils Closure Report E.K. Queen 6" BLM

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Plains Pipeline, L.P. Houston, Texas

Talon/LPE PROJECT NO. PLAINS071SPL

Prepared by:

23

Eb Taylor Project Manager

Reviewed by:

Kyle Waggoner, P. G.

Regional Manager

Talon/LPE 2901 State Highway 349 Midland, Texas 79706

December 2008

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Jim Amos	Lead Petroleum Engineering Tech	BLM	620 E. Greene Street Carlsbad, NM 88260	Jim_Amos@nm.blm.gov		
Jason Henry	Remediation Coordinator	Plains Pipeline	2530 State Highway 214 Denver City, TX 79323	jhenry@paalp.com		
Jeff Dann	Senior Environmental Specialist	Plains Pipeline	P. O. Box 4648 Houston, TX 77210-4648	jpdann@paalp.com		
File		Talon/LPE	2901 State Highway 349 Midland, TX 79706	etaylor@talonlpe.com		

NMOCD - New Mexico Oil Conservation Division BLM – New Mexico Bureau of Land Management

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TABLE OF CONTENTS

1.0	Introduction										
	1.1	Purpose and Background	1								
	1.2	Regulatory Framework	1								
	1.3	Archeological Survey	2								
2.0	Field Activities										
	2.1	Soil Assessment Activities	3								
	2.2	Soil Sampling Activities	3								
	2.3	Over-Excavation Activities	3								
	2.4	Site Restoration	4								
	-		_								
3.0	Con	clusions	5								

Appendices

Appendix A Drawings

Figure 1 – Topographic Map Figure 2 – Site Plan with Confirmation Sample Location Map

Appendix B Tables

Table 1 – Summary of Soil Analytical Data

Appendix C Laboratory Analytical Data Sheets and Chain of Custody Documentation

- Appendix D Photograph Documentation
- Appendix E BLM Undesirable Event Form
- Appendix F Archeological Survey
- Appendix G NMOCD C-141 Reports

Initial C-141 Report Final C-141 Report

1.0 INTRODUCTION

1.1 Purpose and Background

Talon/LPE was retained by Plains Pipeline, L.P. (Plains) to conduct a soils investigation at the E.K. Queen 6" BLM crude oil pipeline release site in Lea County, New Mexico. The purpose of this report is to summarize the assessment and remediation activities conducted at this site and to document the conditions supporting closure of this site.

The E.K. Queen BLM release site is located approximately 25 miles east of Loco Hills in Lea County, New Mexico in Section 19, Township 18 South, Range 34 East. The GPS coordinates for the site are 32°43'44.1"N latitude and 103°36'01.3"W longitude. The release occurred on property owned by the United States Department of Interior Bureau of Land Management (BLM) and is utilized as pasture land. The site is located in a rural area with no residences or surface water within a 1,000 foot radius of the facility. A topographic map is provided as Figure 1 in Appendix A.

Previously, in January 2007, a release of approximately 90 barrels of crude oil occurred at this location (NMOCD Ref. #RP-1167). During the remediation activities, a total of 2,800 cubic yards of soil was excavated and transported to an NMOCD approved landfarm. A soils closure report dated December 6, 2007 was submitted to the NMOCD documenting the investigation and remediation activities.

In March 2008, a release of approximately 55 barrels of crude oil occurred at the site due to internal corrosion of the pipeline, of which approximately 40 barrels were recovered. Approximately 9,000 square feet of surface area was impacted by the release. Based on excavation and over-excavation activities, approximately 2,000 cubic yards of soil were excavated and placed on a plastic liner.

1.2 Regulatory Framework

The NMOCD has developed guidance for all federal, state, and fee lands in New Mexico for remediating contaminants resulting from leaks, spills, and releases of oilfield wastes or products. This guidance assigns ranking scores to sites based on depth to groundwater, distance from water supply sources, and distance to surface water bodies, and provides remediation/clean-up targets for benzene, Total BTEX (benzene, toluene, ethylbenzene, and xylenes), and total petroleum hydrocarbons (TPH). Based on site visits, the E.K. Queen BLM site is located in a rural area with no permanent residence or surface water within a 1,000 foot radius of the release point. According to information available from the New Mexico Office of the State Engineer, the nearest water well is not within 1,000 feet of the site. Based on this groundwater elevation data, the approximate depth from land surface to groundwater at the site is greater than 100 feet below ground surface (bgs). However, because the final excavation exhibited a total depth of eighteen (18) feet bgs, a more conservative depth to groundwater value of 50-99 feet was utilized for ranking purposes.

According to NMOCD guidance, and based on depth to groundwater, distance from water supply sources, and distance to surface water bodies the site ranking for this site is ten (10). The ranking process is summarized below:

<u>Criteria:</u>	Site Condition:	Ranking Score:
Depth to Groundwater	50-99 Feet	10
<1,000 Feet to Water Source?	No	0
<200 Feet to Private Domestic Water Source?	No	0
Distance to Surface Water Body	>1,000 feet	0
Total Ranking:		10

Based on the calculated rating, the applicable remediation guidelines for this site are as follows:

Benzene	10 ppm
Total BTEX	50 ppm
TPH	1000 ppm

1.3 Archeological Survey

An archeological survey was performed by Mr. Danny Boone on August 21, 2007, as part of the initial site investigation activities at this location. The survey was intended to identify and inventory archeological evidence in the immediate area (3.77 acres centered at the release). The location, footage and acres are estimates based on a hand held global positioning satellite (GPS) unit. A 100 foot buffer was surveyed around the impacted area and marked with a combination of pink and orange tape. This study did not identify/document any archeological evidence in the surveyed area. The archeological survey is provided as Appendix F of this report.

2.0 FIELD ACTIVITIES

2.1 Soil Assessment Activities

Talon/LPE commenced excavation activities at the site in March 2008 in order to remove soil impacted above the NMOCD remedial threshold limits. Approximately 2,000 cubic yards of soil were excavated and placed on a plastic liner. The excavated area was approximately 150 feet long, 60 feet wide, and six feet in depth on average, and approximately eighteen feet in depth at the deepest excavation location (reference Figure 2).

2.2 Soil Sampling Activities

Confirmation soil samples were collected from the excavation. Each soil sample was collected utilizing new, disposable nitrile gloves, eliminating the need for decontamination between sample points. The soil samples were collected and placed in laboratory prepared glassware appropriate for the analyses requested. The soil samples were maintained on ice in the custody of Talon/LPE until delivery to TraceAnalysis in Midland, Texas for analysis. The soils were analyzed for BTEX using EPA method 8021B and TPH by EPA method 8015. The chain-of-custody forms and laboratory data sheets are provided in Appendix C.

Upon the completion of excavation activities, grab samples were collected from the sidewalls (SW-1, SW-2, SW-3, SW-4, SW-5, SW-6, SW-7, and SW-8) to document the successful removal of soil impacted above NMOCD remedial thresholds (reference Figure 2). In addition, grab samples were also collected from the bottom of the excavation (BH-1, BH-2, BH-3, BH-4, BH-5, and BH-6) and from the stockpile (SP-1, SP-2, SP-3, SP-4) as referenced in Figure 2. Laboratory analyses of the samples collected on April 8, 2008 indicated stockpile samples SP-1 and SP-3, to be above the NMOCD remedial thresholds for concentrations of BTEX and TPH, while soil samples BH-5, SP-4 and SW-7 were above NMOCD remedial thresholds for concentrations of TPH (reference Figure 2 and Table 1).

2.3 Over-Excavation Activities

On April 17, 2008, upon completion of the over-excavation activities, grab samples were collected from the over-excavation locations of SW-7, BH-2, BH-4, BH-5, and BH-6 as referenced in Figure 2. The samples were collected upon over-excavating an additional three feet in depth bringing the excavation depth to eighteen feet at the deepest point. Analytical data for the soil samples collected from the over-excavated areas indicated that BTEX and TPH concentrations were below the NMOCD remedial thresholds (reference Table 1).

The excavated soil was blended with surrounding clean material beginning on August 6, 2008. Blended backfill confirmation samples were collected at the rate of one sample per 500 cubic yards. Backfilling commenced once backfill material analytical was received verifying constituent concentrations of BTEX and TPH were below NMOCD remedial threshold values. The sample results for BF-8 and BF-9 (collected September 08, 2008) were elevated above NMOCD remedial threshold limits for Total TPH only. Larry Johnson with the NMOCD subsequently approved these values as acceptable to complete backfilling at the

site. Blending, backfilling, and contouring to original grade activities were completed on September 10, 2008. The site was then reseeded with a BLM approved seed mixture.

2.4 Site Restoration Activities

The over-excavation confirmation soil samples indicated that TPH and Total BTEX concentrations were below NMOCD guidelines. Approval to backfill the site was granted by NMOCD based on sample results for the excavated and blended soil.

Subsequent to soil remediation activities and verbal approval from the NMOCD and BLM, the excavated area was backfilled with remediated soil. A bull dozer was utilized to restore the site to natural grade. The entire site was then seeded with a seed mix recommended by the BLM.

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3.0 CONCLUSIONS

Based upon the findings of this investigation, Talon/LPE makes no further recommendations for future actions related to this release. Talon/LPE proposes that this report be the final action in regards to the soil investigation and remediation activities at the site and recommends that Plains submit a copy of this report to the NMOCD. Furthermore, Talon/LPE requests that this report be the final document in regard to soil activities related to this release and that the NMOCD issue a no further action letter to Plains.

Appendix A

Drawings

Figure 1 – Topographic Map Figure 2 – Site Plan with Confirmation Sample Location Map

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APPENDIX B

Tables

Table 1 – Summary of Soil Analytical Data

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Table 1 Summary of Soil Analytical Data PLAINS PIPELINE, L.P. E.K. QUEEN 6" BLM NMOCD Ref.# 1R-1831 LEA COUNTY, NEW MEXICO SRS# 2008-078 Talon/LPE Project Number PLAINS071SPL

All concentrations are in mg/Kg

												ล
Sample Designation	Date Sampled	Depth (feet bgs)	Status	DRO	GRO	Total TPH	Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX	
BH-1	04/07/08	18		<50.0	<1.00	<51 0	<0.0100	<0 0100	<0.0100	<0 0100	<0.0100	1
BH-2	04/08/08	2	Excavated	160	<1.00	160	< 0.0100	<0 0100	< 0.0100	<0 0100	< 0.0100	
BH-3	04/08/08	5		<50 0	2.50	2 50	< 0.0100	<0 0100	< 0.0100	<0 0100	< 0.0100	
BH-4	04/08/08	2	Excavated	905	80.2	985.2	< 0.0200	0 182	0.244	0 436	0,862	
BH-5	04/08/08	5	Excavated	3,590	234	3,824	<0 100	<0 100	<0.100	<0 100	<0 100	d.
BH-6	04/08/08	8	Excavated	598	12 2	610.20	< 0.0200	< 0.0200	< 0.0200	<0 0200	<0.0200	lí –
SP-1	04/08/08			11,000	1,840	12,840	2 50	51.4	66 8	110	230,70	
SP-2	04/08/08			830	138	968	0 199	3.04	3.18	4 86	11.279	DICNER
SP-3	04/08/08			10.000	900	10.900	3.38	35.4	29.5	45.9	114.18	N
SP-4	04/08/08			1.330	148	1.478	0.112	2.94	3 20	4.93	11 182	
SW-1	04/08/08	3		<50.0	6 68	6.68	< 0.0100	<0 0100	< 0.0100	< 0.0100	< 0.0100	1
SW-2	04/08/08	2.5		<50.0	10 1	10.1	< 0.0100	< 0.0100	<0.0100	<0.0100	< 0.0100	
SW-3	04/08/08	1		60.8	3.59	64 39	<0.0100	0.0380	0.0246	0.0414	0 1040	
SW-4	04/08/08	1		<50.0	2 07	2.07	<0.0100	< 0.0100	<0.0100	<0.0100	<0.0100	1
SW-5	04/08/08	2.5		<50.0	1.00	1.00	<0.0100	<0.0100	<0.0100	< 0.0100	<0.0100	1
SW-6	04/08/08	2.5		<50.0	<1.00	<51.0	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	1
SW-7	04/08/08	2.5	Excavated	2 460	119	2.579	<0.0200	0.0412	0.312	0.974	1 3272	1
SW-8	04/08/08	25		<50.0	2.27	2.27	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	1
	01/00/00				Over-Excava	tion Results	.0 0100		.0.0100		-0.0100	
SW-7	04/17/08	4	l .	94.9	45.5	140.4	<0.0100	<0.0100	<0.0100	0.0361	0.0361	1
BH_2	04/17/08	5	· · · · · · · · · · · · · · · · · · ·	<50.0	1.43	1 43	<0.0100	<0.0100	<0.0100	<0.0301	<0.0100	
BH-2	04/17/08	5		<50 0	1.15	1 76	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	1
	04/17/08		· · · · ·	<50.0	170	45.10	<0.0100	<0.0100	0.0100	0.171	0.2270	1
BH-5	04/17/08	12		<50.0	4 37	43 10	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	1
DII-0	04/17/00	12		-50 0	Soil Riendi	na Results	<0.0100	-0.0100		<0,0100	<00100	1
DE 1	08/11/08		1 ·····	784	1.65	785.65	<0.0100	<0.0100	<0.0100	0.0195	0.0195	1
BF-1	08/11/08			877	2.06	870.05	<0.0100	<0.0100			<0.0193	
BF-2 BF-3	08/15/08			879	162	1041	<0.0100	<0.0500	<0.0100	1.51	1.51	
BF-5	08/15/08			305	162	467	<0.0500	0.0876	0.0500	2 10	2 3628	1
BF-4 BE-5	08/15/08			107	9 14	206.14	<0.0300	<0.0100	<0.0852	0.0113	0.0113	1
BF-6	08/20/08			158	393	1973	<00100	<0.0100	<00100	00113	0.0115	
BF-0	08/20/08			171	62.3	233.3						
BF-9	08/26/08			1100	17.0	11170						
BF-0	08/26/08		· · · ·	1530	36.9	1566.0				- <i>-</i>		
BF-10	08/26/08			897	18.0	910.0	<0.0200	<0.0200	0.0887	0.266	0.3547	
BF-10	09/08/08			2420	188	2608	<0.0200	0.0312		0.200	0 3347	
BF-0	09/08/08			1100	27.2	1127.2	<0.0200	<0.0312	<0.0200	0.0478	0.0478	
DI-7		· · · · · · · · · · · · · · · · · · ·		1100	<u> </u>	114/.4	~0.0100	~0.0100	~00100	0.0478	0.0478	
NMOCD Remedi	ation Guildeline	8			l.	1,000	10				50	1

¹ Bolded values are in excess of the NMOCD Remediation Thresholds 2BGS = Below Ground Surface

APPENDIX C

Laboratory Analytical Data Sheets and Chain of Custody Documentation



6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Súite E 5002 Basin Street, Suite A1 6015 Harris Parkway Suite 110 Ft. Worth. Texas 76132

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FAX 806 • 794 • 1298 FAX 915+585+4944 FAX 432+689+6313

Analytical and Quality Control Report

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Project Location: Lea County, NM Project Name: EK Queen BLM Project Number: Plains071SPL

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

		, • • •	Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
156033	BH-1	soil	2008-04-07	11:00	2008-04-08
156034	BH-2	soil	2008-04-08	11:04	2008-04-08
156035	BH-3	soil	2008-04-08	11:06	2008-04-08
156036	BH-4	soil	2008-04-08	11:10	2008-04-08
156037	BH-5	soil	2008-04-08	11:13	2008-04-08
156038	BH-6	soil	2008-04-08	11:20	2008-04-08
156039	SP-1	soil	2008-04-08	11:56	2008-04-08
156040	SP-2	· soil	2008-04-08	12:00	2008-04-08
156041	SP-3	soil	2008-04-08	12:04	2008-04-08
156042	SP-4	soil	2008-04-08	12:10	2008-04-08
156043	SW-1	soil	2008-04-08	11:24	2008-04-08
156044	SW-2	soil	2008-04-08	11:30	2008-04-08
156045	SW-3	soil	2008-04-08	11:33	2008-04-08
156046	SW-4	soil	2008-04-08	11:37	2008-04-08
156047	SW-5	soil	2008-04-08	11:39	2008-04-08
156048	SW-6	soil	2008-04-08	11:44	2008-04-08
156049	SW-7	soil	2008-04-08	11:48	2008-04-08
156050	SW-8	soil	2008-04-08	11:50	2008-04-08

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

Report Date: April 11, 2008

Work Order: 8040821

TraceAnalysis, Inc.

1

Blain Left rich 1

Dr. Blair Leftwich, Director

,

.

Analytical Report

Sample: 156033 - BH-1

Analysis: QC Batch: Prep Batch:	BTEX 47265 40652		Analytical 1 Date Analy Sample Pre	Method: zed: paration:	S 8021B 2008-04-09 2008-04-09		Prep Me Analyze Prepare	ethod: S5 dBy: DC dBy: DC	035))
			RI	Ĺ					
Parameter	ł	Flag	Resul	t	Units		Dilution		\mathbf{RL}
Benzene			< 0.010	0	mg/Kg		1	0.0	100
Toluene			< 0.010	0	mg/Kg		1	0.0	0100
Ethylbenzene	e		< 0.010	0	mg/Kg		. 1	0.0	100
Xylene			< 0.010	0	mg/Kg		1	0.0)100
						Spike	Percent	Recove	ery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limit	s
Trifluorotolu	ene (TFT)	1	1.10	mg/Kg	1	1.00	110	89 - 10	7.2
4-Bromofluor	obenzene (4-BF	B)	0.792	mg/Kg	1	1.00	79	66.7 - 1	53.3
Sample: 15	6033 - BH-1								
Analysis			Analytics	Method:	Mod 801	5 B	Prop	Method: N	J / A
OC Batch	47979		Date Ana	alvzed.	2008-04-0	9D	Analy	zed Rv• I	
Prep Batch:	40655		Sample F	reparation	1: 2008-04-0	9	Prepa	red By: L	D
			BL						
Parameter	Fl	ag	Result		Units		Dilution		\mathbf{RL}
DRO		-0	<50.0		mg/Kg		1	Ę	50.0
						Spike	Percent	Becov	/erv
Surrogate	Flag	Result	Units	D	ilution	Amount	Recovery	Limi	its .
n-Triacontan	e0	135	mg/K	5	1	100	135	10 - 2	50.4
								· · · · · ·	

Sample: 156033 - BH-1

Analysis: QC Batch: Prep Batch:	TPH GRO 47266 40652		Analytica Date Ana Sample Pi	l Method: lyzed: reparation:	S 8015B 2008-04-09 2008-04-09		Prep Me Analyzec Preparec	thod: S 5035 d By: DC d By: DC
Demomentar	Flor		RL Bogult		II		Dilution	DI
GRO	Flag		<1.00		mg/Kg		1	
Surrogate		Flag	Result	Units	Dilution	. Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)	2	1.05	mg/Kg	1	1.00	105	84.4 - 101.7
4-Bromofluor	obenzene (4-BFB)		1.08	mg/Kg	1	1.00	108	74.9 - 140.5

 $^1\mathrm{High}$ surrogate recovery. Sample non-detect, result bias high. $^2\mathrm{High}$ surrogate recovery. Sample non-detect, result bias high.

Sample: 156034 - BH-2

Analysis: OC Batch:	BTEX 47265			Analytical I Date Analy	Method: zed:	S 8021B 2008-04-09		Prep Me Analyze	ethod: d By:	S 5035 DC
Prep Batch: 40652				Sample Preparation:		2008-04-09		Prepare	d By:	DC
				RI						
Parameter		Flag		\mathbf{Resul}	t	\mathbf{Units}		Dilution		\mathbf{RL}
Benzene				< 0.010	0 0	mg/Kg		1		0.0100
Toluene				< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene				< 0.010	0	mg/Kg		1		0.0100
Xylene				< 0.010	0	mg/Kg		1		0.0100
							Spike	Percent	Re	covery
Surrogate		•	Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ne (TFT)		3	1.10	mg/Kg	1	1.00	110	89	- 107.2
4-Bromofluor	obenzene (4-BI	FB)		0.789	mg/Kg	1	1.00	79	66.7	7 - 153.3

Sample: 156034 - BH-2

Analysis: QC Batch: Prep Batch:	TPH DRO 47272 40655			Analytical Me Date Analyze Sample Prepa	ethod: d: tration:	Mod. 80 2008-04 2008-04	015B -09 -09	Prep M Analyz Prepa	Method: zed By: red By:	N/A LD LD
Deservator		Flor		RL Bogult		TT:4	-	Dilution		DI
Parameter		Flag		Result		Unit	.s	Dilution		RL
DRO				160		mg/K	g	1		50.0
Surrogate	Flag	R	esult	Units	Dilu	tion	Spike Amount	Percent Recovery	Rec Li	overy mits
n-Triacontane	9		85.2	mg/Kg	1	l	100	85	10 -	250.4

Sample: 156034 - BH-2

Analysis: QC Batch: Prep Batch:	TPH GRO 47266 40652		Analytica Date Ana Sample Pr	l Method: lyzed: reparation:	S 8015B 2008-04-09 2008-04-09		Prep Me Analyzeo Prepareo	thod: S 5035 d By: DC d By: DC
			\mathbf{RL}					
Parameter	\mathbf{Flag}		\mathbf{Result}		\mathbf{Units}		Dilution	\mathbf{RL}
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)	4	1.08	mg/Kg	1	1.00	108	84.4 - 101.7
4-Bromofluor	obenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	74.9 - 140.5

³High surrogate recovery. Sample non-detect, result bias high. ⁴High surrogate recovery. Sample non-detect, result bias high.

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Sample: 156035 - BH-3

Analysis: QC Batch: Prep Batch:	BTEX 47265 40652			Analytical l Date Analy Sample Pre	Method: zed: paration: ,	S 8021B 2008-04-09 2008-04-09		Prep Me Analyze Prepare	ethod: d By: d By:	S 5035 DC DC
				RI	L					
Parameter		Flag		\mathbf{Resul}	t	Units		Dilution		\mathbf{RL}
Benzene				< 0.010	0	mg/Kg		1		0.0100
Toluene				< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene	!			< 0.010	0	mg/Kg		1		0.0100
Xylene				< 0.010	0	mg/Kg		1		0.0100
							Spike	Percent	Re	covery
Surrogate			Flag	\mathbf{Result}	\mathbf{Units}	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ene (TFT)		5	1.10	mg/Kg	1	1.00	110	89	- 107.2
4-Bromofluor	obenzene (4-BI	FB)		0.792	mg/Kg	1	1.00	79	66.7	7 - 153.3

Sample: 156035 - BH-3

Analysis: QC Batch: Prep Batch:	TPH DRO 47272 40655		Analytica Date Ana Sample P	l Method: Mo lyzed: 200 reparation: 200	d. 8015B 8-04-09 8-04-09	Prep Analy Prepa	Method: N/A vzed By: LD ared By: LD
Domomotor		Flog	RL		Unito	Dilution	DI
Parameter		riag	Result	,	Units	Dilution	RL
DRO			<50.0	m	lg/Kg	1	50.0
Surrogate	Flag	Resu	lt Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	9	91.	9 mg/Kg	1	100	92	10 - 250.4

Sample: 156035 - BH-3

Analysis:	nalysis: TPH GRO C Batch: 47266		Analytica Data Ana	l Method:	S 8015B		Prep Method:		
Prep Batch:	40652		Sample P	reparation:	2008-04-09 2008-04-09		Preparec	l By: l By:	DC DC
			\mathbf{RL}						
Parameter	\mathbf{Flag}		\mathbf{Result}		Units		Dilution		\mathbf{RL}
GRO	В		2.50		mg/Kg		1		1.00
_						Spike	Percent	\mathbf{Re}	covery
Surrogate		Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ene (TFT)	6	1.05	mg/Kg	1	1.00	105	84.4	- 101.7
4-Bromofluor	obenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	74.9	- 140.5

⁵High surrogate recovery. Sample non-detect, result bias high. ⁶High surrogate recovery due to peak interference.

Sample: 156036 - BH-4

Analysis: BTEX OC Batch: 47265		Analytical Method:			S 8021B		Prep Method:		S 5035	
QC Batch:	47265		Date Analyzed:			2008-04-09 Analyzed			d By:	DC
Prep Batch:	40652			Sample Pre	paration:	2008-04-09		Prepare	d By:	DC
				RI	L					
Parameter		Flag		\mathbf{Resul}	t	\mathbf{Units}		Dilution		\mathbf{RL}
Benzene				< 0.020	0	mg/Kg		2		0.0100
Toluene				0.18	2	mg/Kg		2		0.0100
Ethylbenzene	:			0.24	4	mg/Kg		2		0.0100
Xylene	<u>-</u>			0.43	6	mg/Kg		2		0.0100
							Spike	Percent	Re	ecovery
Surrogate			Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ene (TFT)			2.15	mg/Kg	2	2.00	108	89	- 107.2
4-Bromofluor	obenzene (4-B	FB)		1.74	mg/Kg	2	2.00	87	66.7	' - 153.3

Sample: 156036 - BH-4

Analysis: QC Batch: Prep Batch:	TPH DRO 47272 40655		Analytical Date Anal Sample Pr	l Method: Mo lyzed: 200 reparation: 200	d. 8015B 18-04-09 18-04-09	Prep Analy Prepa	Method: N/A vzed By: LD ared By: LD
Parameter		Flag	${f RL}$ Result		Units	Dilution	\mathbf{RL}
DRO			905	n	ıg/Kg	1	50.0
Surrogate	Flag	Resul	t Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	9	150) mg/Kg	1	100	150	10 - 250.4

Sample: 156036 - BH-4

Analysis: QC Batch: Prep Batch:	TPH GRO 47266 40652		Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8015B 2008-04-09 2008-04-09	Prep Method: Analyzed By: Prepared By:		ethod: S 5035 d By: DC d By: DC
t			\mathbf{RL}					
Parameter	\mathbf{Flag}		Result		\mathbf{Units}		Dilution	\mathbf{RL}
GRO			80.2		mg/Kg		2	1.00
Surrogata		Flog	Popult	Unita	Dilution	Spike	Percent	Recovery
Surrogate		r lag	nesuit	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TF [*] 1')	,	2.14	mg/Kg	2	2.00	107	84.4 - 101.7
4-Bromofluor	obenzene (4-BFB)		2.54	mg/Kg	2	2.00	127	74.9 - 140.5

⁷High surrogate recovery due to peak interference.

Sample: 156037 - BH-5

Analysis: I	BTEX 47265		Analytical M Date Analyz	Aethod: zed•	S 8021B 2008-04-09		Prep Me Analyze	ethod: d Bv:	S 5035 DC
Prep Batch:	40652		Sample Preparation:		2008-04-09		Prepare	DC	
			RL						
Parameter	Flag		Result		Units		Dilution		\mathbf{RL}
Benzene			< 0.100		mg/Kg		10		0.0100
Toluene			< 0.100		mg/Kg		10		0.0100
Ethylbenzene			< 0.100		mg/Kg		10		0.0100
Xylene			< 0.100		mg/Kg		10		0.0100
						Spike	Percent	Re	ecovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	I	imits
Trifluorotoluen	ne (TFT)	8	11.0	mg/Kg	10	10.0	110	89	- 107.2
4-Bromofluoro	benzene (4-BFB)		8.01	mg/Kg	10	10.0	80	66.7	7 - 153.3

Sample: 156037 - BH-5

Analysis: QC Batch: Prep Batch:	TPH DROAnalytical Method:47272Date Analyzed:: 40655Sample Preparation:		Mod. 80 2008-04- 2008-04-	015B -09 -09	Prep Method: Analyzed By: Prepared By:		/A D D		
			\mathbf{RL}						
Parameter	Flag		Result		Unit	s	Dilution	I	\mathbf{RL}
DRO			3590		mg/K	g	1	50	0.0
Surrogate	Flag	\mathbf{Result}	\mathbf{Units}	Dilut	ion	Spike Amount	Percent Recovery	Recove Limit	ery S
n-Triacontane	9	444	mg/Kg	1		100	444	10 - 25	0.4

Sample: 156037 - BH-5

Analysis: QC Batch: Prep Batch:	TPH GRO 47266 40652		Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8015B 2008-04-09 2008-04-09		Prep Met Analyzed Prepared	
			\mathbf{RL}					
Parameter	Flag		\mathbf{Result}		Units		Dilution	\mathbf{RL}
GRO			234		mg/Kg		10	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)	10	10.8	mg/Kg	10	10.0	108	84.4 - 101.7
4-Bromofluor	obenzene (4-BFB)		11.0	mg/Kg	10	10.0	110	74.9 - 140.5

⁸High surrogate recovery. Sample non-detect, result bias high.
⁹High surrogate recovery due to peak interference.
¹⁰High surrogate recovery due to peak interference.

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Sample: 156038 - BH-6

Analysis: BTE	$\mathbf{E}\mathbf{X}$		Analytical 1	Method:	S 8021B		Prep Me	ethod:	S 5035
QC Batch: 4726	65		Date Analy	zed:	2008-04-09		Analyze	d By:	\mathbf{DC}
Prep Batch: 4065	52		Sample Pre	paration:	2008-04-09		Prepareo	d By:	DC
			RI	L					
Parameter	Flag		Resul	t	\mathbf{Units}		Dilution		\mathbf{RL}
Benzene			< 0.020	0	mg/Kg		2		0.0100
Toluene			< 0.020	0	mg/Kg		2		0.0100
Ethylbenzene			< 0.020	0	mg/Kg		2		0.0100
Xylene			< 0.020	0	mg/Kg		2		0.0100
						Spike	Percent	Re	ecovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Ι	imits
Trifluorotoluene (]	(FT)		2.13	mg/Kg	2	2.00	106	89	- 107.2
4-Bromofluorobenz	zene (4-BFB)		1.58	mg/Kg	2	2.00	79	66.7	7 - 153.3

Sample: 156038 - BH-6

Analysis:TPH DROQC Batch:47272Prep Batch:40655		Analytic Date An Sample I	al Method: Mc alyzed: 200 Preparation: 200	od. 8015B)8-04-09)8-04-09	Prep Anal Prep	Method: N/A yzed By: LD ared By: LD	
Parameter		Flag	${f RL}$		Units	Dilution	RL
DRO			598	n	ng/Kg	1	50.0
Surrogate	Flag	Res	ultUnits	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e	1	<u>81 mg/K</u>	g 1	100	181	10 - 250.4

Sample: 156038 - BH-6

Analysis:TPH GROQC Batch:47266Prep Batch:40652			Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8015B 2008-04-09 2008-04-09		Prep Method: Analyzed By: Prepared By:		
Parameter	Flag		RL Besult		Units		Dilution		RI.
GRO			12.2		mg/Kg		2	1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recove Limits	ry s
Trifluorotolue 4-Bromofluor	ene (TFT) robenzene (4-BFB)	11	$\begin{array}{c} 2.10 \\ 2.10 \end{array}$	mg/Kg mg/Kg	2 2	2.00 2.00	105 105	84.4 - 10 74.9 - 14)1.7 10.5

¹¹High surrogate recovery due to peak interference.

Report Date: April 11, 2008	· Wo	ork Order: 8040821	Page Number: 9 of 29
Plains071SPL		EK Queen BLM	Lea County, NM

Sample: 156039 - SP-1

Analysis: QC Batch: Prep Batch:	BTEX 47265 40652		Analytical M Date Analyz Sample Prep	Aethod: zed: paration:	S 8021B 2008-04-09 2008-04-09		Prep Method: Analyzed By: Prepared By:		
			\mathbf{RL}						
Parameter	Flag		\mathbf{Result}		\mathbf{Units}		Dilution	\mathbf{RL}	
Benzene			2.50		mg/Kg		20	0.0100	-
Toluene			51.4		mg/Kg		20	0.0100	
Ethylbenzene			66.8		mg/Kg		20	0.0100	
Xylene			110		mg/Kg		20	0.0100	
						Spike	Percent	Recovery	
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolue	ne (TFT)	12	21.6	mg/Kg	20	20.0	108	89 - 107.2	-
4-Bromofluor	obenzene (4-BFB)		26.4	mg/Kg	20	20.0	132	66.7 - 153.3	

Sample: 156039 - SP-1

Analysis: QC Batch: Prep Batch:	s: TPH DRO ch: 47272 atch: 40655		Analytical Mo Date Analyze Sample Prepa	Analytical Method:Mod. 8Date Analyzed:2008-0Sample Preparation:2008-0		Prep M Analyz Prepar	Iethod:N/Aed By:LDed By:LD
Parameter	F	lag	RL Result	Un	its	Dilution	BL
DRO		~~8	11000	mg/l	Kg	10	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e 13	838	mg/Kg	10	100	838	10 - 250.4

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Sample: 156039 - SP-1

Analysis: QC Batch: Prep Batch:	TPH GRO 47266 40652		Analytica Date Ana Sample Pi	l Method: lyzed: reparation:	S 8015B 2008-04-09 2008-04-09	Prep Method: Analyzed By: Prepared By:		S 5035 DC DC	
			\mathbf{RL}						
Parameter	\mathbf{Flag}		\mathbf{Result}		\mathbf{Units}		Dilution		\mathbf{RL}
GRO			1840		mg/Kg	·	20		1.00
						Spike	Percent	\mathbf{Re}	covery
Surrogate		Flag	\mathbf{Result}	\mathbf{Units}	Dilution	\mathbf{Amount}	Recovery	\mathbf{L}	\mathbf{imits}
Trifluorotolue	ene (TFT)		20.1	mg/Kg	20	20.0	100	84.4	- 101.7
4-Bromofluor	obenzene (4-BFB)	14	58.9	mg/Kg	20	20.0	294	74.9	- 140.5

¹²High surrogate recovery due to peak interference.
¹³High surrogate recovery due to peak interference.
¹⁴High surrogate recovery due to peak interference.

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Sample: 156040 - SP-2

Analysis: BTEX		Analytical	Method:	S 8021B		Prep Me	ethod:	S 5035
QC Batch: 47265		Date Analy	zed:	2008-04-09		Analyze	d By:	DC
Prep Batch: 40652		Sample Pre	eparation:	2008-04-09		Prepare	d By:	DC
		RL						
Parameter I	Flag	Result		\mathbf{Units}		Dilution		\mathbf{RL}
Benzene		0.199)	mg/Kg		2		0.0100
Toluene		3.04	Į	mg/Kg		2		0.0100
Ethylbenzene		3.18	i	mg/Kg		2		0.0100
Xylene		4.86	1	mg/Kg		2		0.0100
					Spike	Percent	$\mathbf{R} \boldsymbol{\epsilon}$	covery
Surrogate	Flag	g Result	Units	Dilution	Amount	Recovery	L	imits
Trifluorotoluene (TFT)	15	2.17	mg/Kg	2	2.00	108	89	- 107.2
4-Bromofluorobenzene (4-BF)	B)	2.05	mg/Kg	2	2.00	102	66.7	- 153.3

Sample: 156040 - SP-2

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Analysis: QC Batch: Prep Batch:	TPH DRO 47272 40655		⁻ Analytical M Date Analyze Sample Prepa	ethod: Mod. 8 ed: 2008-04 aration: 2008-04	6015B 4-09 4-09	Prep M Analyz Prepar	Method:N/Aacd By:LDacd By:LD
Parameter	F	lag	RL Result	Uni	ts	Dilution	RL
DRO			830	mg/K	g	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	e 16	267	mg/Kg	1	100	267	10 - 250.4

Sample: 156040 - SP-2

Analysis:TPH GROQC Batch:47266Prep Batch:40652			Analytica Date Ana Sample P	l Method: lyzed: reparation:	S 8015B 2008-04-09 2008-04-09		Prep Me Analyzec Preparec	thod: S 5035 d By: DC d By: DC
			\mathbf{RL}					
Parameter	\mathbf{Flag}		\mathbf{Result}		\mathbf{Units}		Dilution	\mathbf{RL}
GRO			138		mg/Kg		2	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)		1.94	mg/Kg	2	2.00	97	84.4 - 101.7
4-Bromofluor	obenzene (4-BFB)	17	3.85	mg/Kg	2	2.00	192	74.9 - 140.5

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¹⁵High surrogate recovery due to peak interference.
¹⁶High surrogate recovery due to peak interference.
¹⁷High surrogate recovery due to peak interference.

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Sample: 156041 - SP-3

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Analysis: QC Batch: Prep Batch:	BTEX 47350 40717		Analytical M Date Analyz Sample Pren	Aethod: ed: paration:	S 8021B 2008-04-10 2008-04-09		Prep M Analyze Prepare	S 5035 DC DC	
•			RL				I	5	-
Parameter	Fl	ag	Result		Units		Dilution		\mathbf{RL}
Benzene			3.38	i.	mg/Kg		10		0.0100
Toluene			35.4		mg/Kg		10		0.0100
Ethylbenzene	1		29.5		mg/Kg		10		0.0100
Xylene			45.9		mg/Kg		10		0.0100
						Spike	Percent	\mathbf{Re}	covery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	\mathbf{L}	imits
Trifluorotolue	ene (TFT)		11.0	mg/Kg	10	10.0	110	82.9	- 125.1
4-Bromofluor	obenzene (4-BFB))	12.2	mg/Kg	10	10.0	122	48.9	- 160.4

Sample: 156041 - SP-3

Analysis: QC Batch: Prep Batch:	TPH DRO 47272 40655		Analytical Date Anal Sample Pr	Method: 1 yzed: 2 eparation: 2	Mod. 8015E 2008-04-09 2008-04-09	8	Pre Ana Pre	p Method: dyzed By: pared By:	N/A ⁺ LD LD
D (RL		TT •/				DI
Parameter		Flag	Result		Units		Dilution		KL
DRO			10000		mg/Kg		1		50.0
Surrogate	Flag	Resu	lt Units	Diluti	ion A	Spike mount	Percent Recovery	Rec Lii	overy mits
n-Triacontane	9 18	88	4 mg/Kg	1		100	884	10 -	250.4

Sample: 156041 - SP-3

Analysis:TPH GROQC Batch:47351Prep Batch:40717			Analytical Date Anal Sample Pr	l Method: lyzed: reparation:	S 8015B 2008-04-10 2008-04-09		Prep Meth Analyzed Prepared 1	nod: S 5035 By: DC By: DC
			\mathbf{RL}					
Parameter	Flag		\mathbf{Result}		Units	D	ilution	\mathbf{RL}
GRO			900		mg/Kg		10	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)		10.3	mg/Kg	10	10.0	103	75 - 117.2
4-Bromofluor	obenzene (4-BFB)	19	25.4	mg/Kg	10	10.0	254	66 - 142.8

¹⁸High surrogate recovery due to peak interference.
 ¹⁹High surrogate recovery due to peak interference.

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Sample: 156042 - SP-4

Analysis:BTEXQC Batch:47350Prep Batch:40717		Analytical M Date Analyz Sample Prep	Aethod: zed: paration:	S 8021B 2008-04-10 2008-04-09		Prep Me Analyze Prepared	ethod: d By: d By:	S 5035 DC DC
		\mathbf{RL}						
Parameter Flag		\mathbf{Result}		Units		Dilution		\mathbf{RL}
Benzene		0.112		mg/Kg		2		0.0100
Toluene		2.94		mg/Kg		2		0.0100
Ethylbenzene		3.20		mg/Kg		2		0.0100
Xylene		4.93		mg/Kg	,	2		0.0100
					Spike	Percent	Re	covery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	\mathbf{L}	imits
Trifluorotoluene (TFT)		2.24	mg/Kg	2	2.00	112	82.9	- 125.1
4-Bromofluorobenzene (4-BFB)		2.13	mg/Kg	2	2.00	106	48.9	- 160.4

J

Sample: 156042 - SP-4

Analysis:TPH DROQC Batch:47272Prep Batch:40655				Analytical Me Date Analyze Sample Prepa	ethod: `` d: ration:	Mod. 8 2008-04 2008-04	015B I-09 I-09	Prep Method: Analyzed By: Prepared By:		N/A · · LD LD
Parameter		Flag		RL Result		Uni	ts	Dilution		RL
DRO	· · · · · · · · · · · · · · · · · · ·			1330		mg/K	g	1		50.0
Surrogate	Flag	Ι	Result	Units	Dilut	ion	Spike Amount	Percent Recovery	Reco Lir	overy nits
n-Triacontane	e 20		278	mg/Kg	1		100	278	10 -	250.4

Sample: 156042 - SP-4

Analysis: QC Batch:		Analytical Date Anal	Method: lyzed:	S 8015B 2008-04-10	Prep Meth Analyzed	nod: S 5035 By: DC		
Prep Batch:	40717		Sample Pi	reparation:	2008-04-09		Prepared	By: DC
			\mathbf{RL}					
Parameter	Flag		Result		\mathbf{Units}	D	ilution	\mathbf{RL}
GRO			148		mg/Kg		2	1.00
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	\mathbf{Units}	Dilution	\mathbf{Amount}	Recovery	Limits
Trifluorotolue	ene (TFT)		2.07	mg/Kg	2	2.00	104	75 - 117.2
4-Bromofluor	obenzene (4-BFB)	21	3.68	mg/Kg	2	2.00	184	66 - 142.8

²⁰High surrogate recovery due to peak interference.
²¹High surrogate recovery due to peak interference.

Sample: 156043 - SW-1

Analysis: BTEX		Analytical	Method:	S 8021B		Prep Me	ethod: S 503	5
QC Batch: 47350		Date Analy	zed:	2008-04-10		Analyze	d By: DC	
Prep Batch: 40717		Sample Pre	eparation:	2008-04-09		Prepare	d By: DC	
		R	L					
Parameter Flag	5	\mathbf{Resu}	lt	\mathbf{Units}		Dilution	RI	_
Benzene		< 0.010	10	mg/Kg		1	0.0100	5
Toluene		< 0.010	10	mg/Kg		1	0.0100	0
Ethylbenzene		< 0.010	10	mg/Kg		1	0.0100	0
Xylene		< 0.010	0	mg/Kg		1	0.0100	<u>)</u>
					Spike	Percent	Recovery	
Surrogate	Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)		1.16	mg/Kg	1	1.00	116	82.9 - 125.1	I
4-Bromofluorobenzene (4-BFB)		0.849	mg/Kg	1	1.00	85	48.9 - 16 0.4	1

Sample: 156043 - SW-1

Analysis: QC Batch: Prep Batch:	TPH DRO 47272 a: 40655			Analytical Date Analy Sample Pre	Method: vzed: eparation:	Mod. 80 2008-04- 2008-04-)15B -09 -09	Prep Analy Prepa	Prep Method: Analyzed By: Prepared By:	
				\mathbf{RL}						
Parameter		Flag		\mathbf{Result}		\mathbf{Unit}	s	Dilution		\mathbf{RL}
DRO				<50.0		mg/K	r S	1		50.0
Surrogate	Flag	Re	sult	Units	Dilu	tion	Spike A mount	Percent	Rec	overy
n-Triacontane	e I lag	100	104	mg/Kg		l	100	104	10 -	250.4

Sample: 156043 - SW-1

Analysis:TPH GROQC Batch:47351Prep Batch:40717			Analytical Method: Date Analyzed: Sample Preparation:		S 8015B 2008-04-10 2008-04-09		Prep Meth Analyzed Prepared 1	nod: S 5035 By: DC By: DC
			\mathbf{RL}			*		
Parameter	Flag		\mathbf{Result}		Units	Ι	Dilution	\mathbf{RL}
GRO	В		6.68		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.06	mg/Kg	1	1.00	106	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		1.12	mg/Kg	1	1.00	112	66 - 142.8

.

Sample: 156044 - SW-2

Analysis: QC Batch: Prep Batch:	BTEX 47350 40717		Analytical I Date Analy Sample Pre	Method: zed: paration:	S 8021B 2008-04-10 2008-04-09	8021BPrep Method008-04-10Analyzed By008-04-09Prepared By		ethod: d By: d By:	S 5035 DC DC
			RI	J					
Parameter	Flag		Resul	t.	Units		Dilution		\mathbf{RL}
Benzene			< 0.010	0	mg/Kg		1		0.0100
Toluene			< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene	1		< 0.010	0	mg/Kg		1		0.0100
Xylene			< 0.010	0	mg/Kg		1		0.0100
						Spike	Percent	Re	ecovery
Surrogate		Flag	\mathbf{Result}	\mathbf{Units}	Dilution	Amount	Recovery	I	Jimits
Trifluorotolue	ene (TFT)		1.14	mg/Kg	1	1.00	114	82.9	9 - 125.1
4-Bromofluor	obenzene (4-BFB)		0.834	mg/Kg	1	1.00	83	48.9	9 - 160.4

Sample: 156044 - SW-2

Analysis: QC Batch: Prep Batch:	alysis: TPH DRO Batch: 47272 p Batch: 40655		Analytical Method: Date Analyzed: Sample Preparation:		Mod. 80 2008-04- 2008-04-)15B -09 -09	·]	Prep Method: Analyzed By: Prepared By:		
				\mathbf{RL}						
Parameter		Flag		Result		Unit	s	Dilution		\mathbf{RL}
DRO				<50.0		mg/K_{i}	g	1		50.0
Surrogate	Flag		Result	\mathbf{Units}	Dilu	tion	Spike Amount	Perces Recove	nt Rec ery Li	overy mits
n-Triacontane	9		85.7	mg/Kg			100	86	10 -	250.4

Sample: 156044 - SW-2

Analysis:TPH GROQC Batch:47351Prep Batch:40717			Analytical Method: Date Analyzed: Sample Preparation:		S 8015B 2008-04-10 2008-04-09		Prep Meth Analyzed Prepared 1	nod: S 5035 By: DC By: DC
			\mathbf{RL}					
Parameter	\mathbf{Flag}		\mathbf{Result}		\mathbf{Units}	D	vilution	\mathbf{RL}
GRO			10.1		mg/Kg		1	1.00
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)	0	1.05	mg/Kg	1	1.00	105	75 - 117.2
4-Bromofluor	cobenzene (4-BFB)		1.15	mg/Kg	1	1.00	115	66 - 142.8

,

Sample: 156045 - SW-3

Analysis:	BTEX		Analytical N	Aethod:	S 8021B		Prep Me	ethod:	S 5035
QC Batch:	47350		Date Analyz	zed:	2008-04-10		Analyze	d By:	DC
Prep Batch:	40717		Sample Prep	paration:	2008-04-09		Prepare	d By:	DC
			RL						
Parameter	Flag		Result		\mathbf{Units}		Dilution		\mathbf{RL}
Benzene			< 0.0100)	mg/Kg		1		0.0100
Toluene			0.0380)	mg/Kg		1		0.0100
Ethylbenzene	e		0.0246	5	mg/Kg		1		0.0100
Xylene			0.0414	l	mg/Kg		1		0.0100
						Spike	Percent	Re	covery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolu	ene (TFT)		1.14	mg/Kg	1	1.00	114	82.9) - 125.1
4-Bromofluor	robenzene (4-BFB)		0.833	mg/Kg	1	1.00	83	48.9	- 160.4

Sample: 156045 - SW-3

Analysis: QC Batch: Prep Batch:	TPH DRO 47272 40655		Analytica Date Ana Sample P	l Method: Mod Alyzed: 200 Preparation: 200	d. 8015B 8-04-09 8-04-09	Prep Anal Prep	Method: N/A yzed By: LD ared By: LD
Parameter		Flag	RL Result		Units	Dilution	\mathbf{RL}
DRO			60.8	m	g/Kg	1	50.0
Surrogate	Flag	Resu	lt Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	e	1(02 mg/Kg	g <u>1</u>	100	102	10 - 250.4

Sample: 156045 - SW-3

.

Analysis: TPH GRO			Analytical	Method:	S 8015B		nod: S 5035	
QC Batch:	47351		Date Anal	yzed:	2008-04-10		By: DC	
Prep Batch:	40717		Sample Pr	reparation:	2008-04-09		Prepared 1	By: DC
			\mathbf{RL}					
Parameter	\mathbf{Flag}		Result		Units	D	ilution	\mathbf{RL}
GRO	B		3.59		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.06	mg/Kg	1	1.00	106	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		1.13	mg/Kg	1	1.00	113	66 - 142.8

Sample: 156046 - SW-4

Analysis:BTEXQC Batch:47350Prep Batch:40717			Analytical Method: Date Analyzed: Sample Preparation:			S 8021B 2008-04-10 2008-04-09		Prep Method: Analyzed By: Prepared By:		S 5035 DC DC
				RJ	- -		•			
Parameter	F	lag	•	Resul	t	Units		Dilution		\mathbf{RL}
Benzene				< 0.010	0	mg/Kg		1		0.0100
Toluene				< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene				< 0.010	D	mg/Kg		1		0.0100
Xylene				< 0.010	0	mg/Kg		1		0.0100
							Spike	Percent	$\mathbf{R}\epsilon$	ecovery
Surrogate			Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ene (TFT)			1.13	mg/Kg	1	1.00	113	82.9) - 125.1
4-Bromofluor	obenzene (4-BFE	B)		0.823	mg/Kg	1	1.00	82	48.9	9 - 160.4

Sample: 156046 - SW-4

Analysis: QC Batch: Prep Batch:	lysis: TPH DRO Batch: 47272 9 Batch: 40655		Analytical Method: Date Analyzed: Sample Preparation:		Mod. 8015B 2008-04-09 : 2008-04-09		Prep Method: Analyzed By: Prepared By:		N/A LD LD	
				\mathbf{RL}						
Parameter		Flag		Result		Unit	S	Dilution		\mathbf{RL}
DRO				<50.0		mg/K	g	1		50.0
Surrogate	Flag		Result	Units	Dilu	tion	Spike Amount	Percent Recovery	Rec Li	overy mits
n-Triacontane	9		108	mg/Kg		1	100	108	10 -	250.4

Sample: 156046 - SW-4

Analysis:TPH GROQC Batch:47351Prep Batch:40717			Analytical Method: Date Analyzed: Sample Preparation:		S 8015B 2008-04-10 2008-04-09		Prep Meth Analyzed Prepared 1	nod: S 5035 By: DC By: DC
			\mathbf{RL}					
Parameter	Flag		\mathbf{Result}		\mathbf{Units}	Ľ	Dilution	\mathbf{RL}
GRO	В		2.07		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		1.05	mg/Kg	1	· 1.00	105	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	66 - 142.8

Sample: 156047 - SW-5

Analysis: BTEX QC Batch: 47350			Analytical Date Analy	Method: zed:	S 8021B 2008-04-10		Prep Method: Analyzed By:		S 5035 DC	
Prep Batch:	40717		Sample Pre	paration:	2008-04-09		Prepare	d By:	By: DC	
			R	Ĺ						
Parameter	Flag		Resul	t	\mathbf{Units}		Dilution		\mathbf{RL}	
Benzene			< 0.010	0	mg/Kg		1		0.0100	
Toluene			< 0.010	0	mg/Kg		1		0.0100	
Ethylbenzene			< 0.010	0	mg/Kg		1		0.0100	
Xylene			< 0.010	0	mg/Kg		1		0.0100	
						Spike	Percent	Re	covery	
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	I	limits	
Trifluorotolue	ene (TFT)	_	1.14	mg/Kg	1	1.00	114	82.9	9 - 125.1	
4-Bromofluor	obenzene (4-BFB)		0.825	mg/Kg	1	1.00	82	48.9	9 - 160.4	

Sample: 156047 - SW-5

Analysis: QC Batch: Prep Batch:	sis: TPH DRO atch: 47272 Batch: 40655		Analytical Method: Date Analyzed: Sample Preparation:		Mod. 8015B 2008-04-09 2008-04-09		Prep Method: Analyzed By: Prepared By:		N/A LD LD	
Parameter		Flag		RL Result		Unit	S	Dilution		\mathbf{RL}
DRO				<50.0		mg/K	g	1		50.0
Surrogate	Flag		Result	Units	Dilu	tion	Spike Amount	Percent Recovery	Rec Li	overy mits
n-Triacontane	e		81.6	mg/Kg			100	82	10 -	250.4

Sample: 156047 - SW-5

Analysis: QC Batch: Prep Batch:	TPH GRO 47351 40717		Analytical Date Anal Sample Pr	Method: yzed: reparation:	S 8015B 2008-04-10 2008-04-09		Prep Metl Analyzed Prepared	hod: S 5035 By: DC By: DC
			\mathbf{RL}					
Parameter	\mathbf{Flag}		Result		Units	D	ilution	\mathbf{RL}
GRO	В		1.00		mg/Kg	·	1	1.00
					•	Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.05	mg/Kg	1	1.00	105	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	66 - 142.8

Sample: 156048 - SW-6

Analysis: BTEX QC Batch: 47350			Analytical I Date Analy	Method: zed:	S 8021B 2008-04-10		Prep Method: Analyzed By:		
Prep Batch:	40717		Sample Pre	paration:	2008-04-09		Prepared By:		DC
			RI	L					÷
Parameter	\mathbf{Flag}		\mathbf{Resul}	t	Units		Dilution		\mathbf{RL}
Benzene			< 0.010	0	mg/Kg		1		0.0100
Toluene			< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene			< 0.010	0	mg/Kg		1		0.0100
Xylene			< 0.010	0	mg/Kg		1		0.0100
						Spike	Percent	Re	covery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolue	me (TFT)		1.13	mg/Kg	1	1.00	113	82.9	9 - 125.1
4-Bromofluor	obenzene (4-BFB)		0.822	mg/Kg	1 _	1.00	82	48.9	9 - 160.4

Sample: 156048 - SW-6

Analysis: QC Batch: Prep Batch:	TPH DRO 47272 1: 40655		Analytical Method: Date Analyzed: Sample Preparation:		Mod. 801 2008-04-0 2008-04-0	5B 9 9	Prep Method: Analyzed By: Prepared By:		N/A LD LD
			RL						
Parameter	1	Flag	\mathbf{Result}		Units		Dilution		\mathbf{RL}
DRO			<50.0		mg/Kg		1		50.0
Surrogate	Flag	Result	\mathbf{Units}	Dilut	ion	Spike Amount	Percent Recovery	Reco Lin	overy nits
n-Triacontane	e	108	mg/Kg	1		100	108	10 - 1	250.4

Sample: 156048 - SW-6

Analysis: TPH GRO QC Batch: 47351 Prep Batch: 40717		Analytical Method: Date Analyzed: Sample Preparation:		S 8015B 2008-04-10 2008-04-09		Prep Method: Analyzed By: Prepared By:		
			RL	1				
Parameter	Flag		\mathbf{Result}		\mathbf{Units}	D	ilution	\mathbf{RL}
GRO			<1.00		mg/Kg		· 1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		1.06	mg/Kg	1	1.00	106	75 - 117.2
4-Bromofluorobenzene (4-BFB)			1.08	mg/Kg	1	1.00	108	66 - 142.8

.

Sample: 156049 - SW-7

Analysis: BTEX QC Batch: 47350			Analytical Method: Date Analyzed:		S 8021B		Prep Method:		S 5035
					2008-04-10		Analyzed By:		DC
Prep Batch: 40717			Sample Pre	paration:	2008-04-09		Prepared By:		DC
			RI	L					
Parameter	Flag		\mathbf{Resul}	t	\mathbf{Units}		Dilution		\mathbf{RL}
Benzene			< 0.020	0	mg/Kg		2		0.0100
Toluene			0.041	2	mg/Kg		2		0.0100
Ethylbenzene			0.31	2	mg/Kg		2		0.0100
Xylene			0.974		mg/Kg		2		0.0100
						Spike	Percent	Re	covery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ne (TFT)		2.28	mg/Kg	2	2.00	114	82.9) - 125.1
4-Bromofluoro	obenzene (4-BFB)		1.94	mg/Kg	2	2.00	97	48.9	- 160.4

Sample: 156049 - SW-7

Analysis: QC Batch: Prep Batch:	TPH DRO 47272 40655		Analytica Date Ana Sample P	l Method: Mo lyzed: 200 reparation: 200	d. 8015B 08-04-09 08-04-09	015B Prep -09 Anal -09 Prep	
Parameter		Flag	RL Besult		Units	Dilution	RI.
DRO		1005	2460	n	ng/Kg	1	50.0
Surrogate	Flag	Resul	t Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	e 42	29	8 mg/Kg	1	100	298	10 - 250.4

Sample: 156049 - SW-7

Analysis:TPH GROQC Batch:47351Prep Batch:40717			Analytical Method: Date Analyzed: Sample Preparation:		S 8015B 2008-04-10 2008-04-09		Prep Meth Analyzed Prepared 1	nod: S 5035 By: DC By: DC
Parameter	Flag		RL Result		Units	D	ilution	\mathbf{RL}
GRO			119		mg/Kg		2	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu 4-Bromofluor	ene (TFT) cobenzene (4-BFB)	23	2.13 3.10	mg/Kg mg/Kg	2 2	$\begin{array}{c} 2.00\\ 2.00\end{array}$	106 155	75 - 117.2 66 - 142.8

²²High surrogate recovery due to peak interference.
 ²³High surrogate recovery due to peak interference.
Sample: 156050 - SW-8

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Analysis: BTEX QC Batch: 47350		Analytical Method:		S 8021B		Prep Method: Analyzed By:		S 5035	
			Date Analyzed:		2008-04-10			DC	
Prep Batch: 40717			Sample Pre	paration:	2008-04-09		Prepare	d By:	DC
			RI						
Parameter	Flag		Resul	t	Units		Dilution		\mathbf{RL}
Benzene			< 0.010	0	mg/Kg		1		0.0100
Toluene			< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene			< 0.010	0	mg/Kg		1		0.0100
Xylene			< 0.010	0	mg/Kg		1		0.0100
						Spike	Percent	Re	ecovery
Surrogate	F	lag	Result	Units	Dilution	Amount	Recovery	I	imits
Trifluorotoluene (TFT)			1.11	mg/Kg	1	1.00	111	82.9) - 125.1
4-Bromofluorobenzene (4-B	FB)		0.806	mg/Kg	1	1.00	81	48.9) - 160.4
· · · · · · · · · · · · · · · · · · ·									

Sample: 156050 - SW-8

Analysis:TPH DROQC Batch:47272Prep Batch:40655		Analytical Method: Date Analyzed: Sample Preparation:		Mod. 80 2008-04- 2008-04-)15B -09 -09	Prep M Analyz Prepar	Method:N/Awed By:LDwed By:LD	
Devementer	т	log	RL		TT:4	-	Dilution	זס
Parameter	1	lag			Unit	s	Dilution	RL
DRO			<50.0		mg/Kg	g	1	50.0
Surrogate	Flag	Result	Units	Dilut	ion	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	e	81.5	mg/Kg	1		100	82	10 - 250.4

Sample: 156050 - SW-8

Analysis: QC Batch:	TPH GRO 47351		Analytical Date Anal	Method: yzed:	S 8015B 2008-04-10		Prep Meth Analyzed	nod: S 5035 By: DC
Prep Batch: 40717			Sample Preparation:		2008-04-09		Prepared 1	By: DC
			\mathbf{RL}				*	
Parameter	\mathbf{Flag}		\mathbf{Result}		Units	D	ilution	\mathbf{RL}
GRO	В		2.27		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		1.07	mg/Kg	1	1.00	107	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		1.07	mg/Kg	1	1.00	107	66 - 142.8

Method Blank (1) QC Batch: 47265

QC Batch:	47265	Date Analyzed:	2008-04-09	Analyzed By:	DC
Prep Batch:	40652	QC Preparation:	2008-04-09	Prepared By:	DC

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Report Date: April 11, 2008	Work Order: 8040821	Page Number: 21 of 29
Plains071SPL	EK Queen BLM	Lea County, NM

			MD	L			
Parameter	Flag		\mathbf{Result}		\mathbf{Un}	\mathbf{RL}	
Benzene		<0.0110			mg/	0.01	
Toluene		< 0.0109			mg/Kg		0.01
Ethylbenzene		< 0.0109			mg/Kg		0.01
Xylene		<0.0331		mg/Kg		0.01	
					Spike	Percent	Recovery
Surrogate	Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	82.3 - 121.6
4-Bromofluorobenzene (4-BFB)		0.721	mg/Kg	1	1.00	72	72 - 123

Method Blank (1)	QC Batch: 47266						
QC Batch: 47266 Prep Batch: 40652		Date Ana QC Prepa	alyzed: 2 aration: 2	008-04-09 008-04-09		Analyze Prepare	ed By: DC ed By: DC
			MDL				
Parameter	Flag		Result		\mathbf{Units}		\mathbf{RL}
GRO			0.753		mg/K	g	1
			TT •,		Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		1.09	mg/Kg	1	1.00	109	70 - 130
4-Bromofluorobenzene (4-	BFB)	0.991	mg/Kg	1	1.00	99	70 - 130

Method Blank (1) QC Batch: 47272

QC Batch: Prep Batch:	47272 40655		Date Analyzed: QC Preparation	2008-04-09 : 2008-04-09		:	Analyzed By: Prepared By:	LD LD
			Ν	IDL				
Parameter		Flag	Re	sult		Units		\mathbf{RL}
DRO		. <	15.8 .	mg/Kg			50	
					Spike	Percent	Reco	very
Surrogate	\mathbf{Flag}	\mathbf{Result}	Units	Dilution	Amount	Recovery	- Lim	its
n-Triacontan	e	93.4	mg/Kg	1	100	93	30.9 -	146.4

Method Blank (1) QC Batch: 47350

QC Batch:	47350		Date Analyzed:	2008-04-10		Analyzed By:	\mathbf{DC}
Prep Batch:	40717		QC Preparation:	2008-04-09		Prepared By:	DC
			n	MDL			
Parameter		Flag	R	esult	Units		\mathbf{RL}
Benzene			<0.	0110	mg/Kg		0.01
Toluene			<0.	0109	mg/Kg		0.01
Ethylbenzene	:		<0.	0109	mg/Kg		0.01
				······································		continue	e d

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method blank continued ...

			100	.				
			, MD	L				
Parameter	Flag	Result			Un	\mathbf{RL}		
Xylene		<0.0331			mg/Kg		0.01	
					Spike	Percent	Recovery	
Surrogate	Flag	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits	
Trifluorotoluene (TFT)		1.09	mg/Kg	1	1.00	109	82.3 - 121.6	
4-Bromofluorobenzene (4-BFB)		0.779	mg/Kg	1	1.00	78	72 - 123	

Method Blank (1) QC Batch: 47351

QC Batch: 47351 Prep Batch: 40717		Date Ana QC Prepa	alyzed: 24 aration: 24	008-04-10 008-04-09		Analyze Prepare	d By: DC d By: DC
			MDL				
Parameter	\mathbf{Flag}		Result		Units		\mathbf{RL}
GRO			0.798		mg/Kg	g	1
					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	\mathbf{Amount}	Recovery	Limits
Trifluorotoluene (TFT))	1.09	mg/Kg	1	1.00	109	70 - 130
4-Bromofluorobenzene	(4-BFB)	1.07	mg/Kg	1	1.00	107	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch:	47265	Date Analyzed:	2008-04-09	Analyzed By:	DC
Prep Batch:	40652	QC Preparation:	2008-04-09	^ Prepared By:	DC

	LCS			Spike	Matrix		Rec.
Param	Result	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	Rec.	Limit
Benzene	1.02	mg/Kg	1	1.00	< 0.0110	102	72.7 - 129.8
Toluene	1.01	mg/Kg	1	1.00	< 0.0109	101	71.6 - 129.6
Ethylbenzene	1.00	mg/Kg	1	1.00	< 0.0109	100	70.8 - 129.7
Xylene	2.98	mg/Kg	1	3.00	< 0.0331	99	70.9 - 129.4

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{Result}	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
Benzene	1.02	mg/Kg	1	1.00	< 0.0110	102	72.7 - 129.8	0	20
Toluene	1.02	mg/Kg	1	1.00	< 0.0109	102	71.6 - 129.6	1	20
Ethylbenzene	1.01	mg/Kg	1	1.00	< 0.0109	101	70.8 - 129.7	1	20
Xylene	3.00	mg/Kg	1	3.00	< 0.0331	100	70.9 - 129.4	1	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	Result	\mathbf{Units}	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	1.09	1.08	mg/Kg	1	1.00	109	108	82.9 - 122.8
4-Bromofluorobenzene (4-BFB)	0.742	0.738	mg/Kg	1	1.00	74	74	73.8 - 122.4

Laboratory Control Spike (LCS-1)

QC Batch:	47266	Date Analyzed:	2008-04-09		Analyzed By: DC
Prep Batch:	40652	QC Preparation:	2008-04-09		Prepared By: DC
		LCS	Spile	Motriy	Pag

	105			Spine	MIGUILA		1000.
Param	Result	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
GRO	8.90	mg/Kg	1	10.0	0.753	81	69.6 - 97.3

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{Result}	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	\mathbf{Limit}
GRO	9.09	mg/Kg	1	10.0	0.753	83	69.6 - 97.3	2	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	Result	\mathbf{Units}	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	1.16	1.17	mg/Kg	1	1.00	116	117	70 - 130
4-Bromofluorobenzene (4-BFB)	1.02	1.04	mg/Kg	1	1.00	102	104	70 - 13 0

Laboratory Control Spike (LCS-1)

QC Batch:	47272	Date A	nalyzed:	2008-0)4-09		Analyz	ed By:	LD
Prep Batch:	40655	QC Pro	eparation:	2008-0)4-09		Prepar	ed By:	LD
Param	¢.,	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Re Lin	c. iit

DRO	275	mg/Kg	, 1	250	$<\!15.8$	110	27.8 - 152.1

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
DRO	284	mg/Kg	1	250	<15.8	114	27.8 - 152.1	3	20

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

0.996

2.97

		LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	•	\mathbf{Result}	Result	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
n-Triacontane		98.0	102	mg/Kg	1	100	98	102	38 - 130.4

Laboratory Control Spike (LCS-1)

Ethylbenzene

Xylene

QC Batch: Prep Batch:	47350 40717		Date Analyzed: QC Preparation:		8-04-10 8-04-09		Anal Prepa	yzed By: DC ared By: DC
_		LCS			Spike	Matrix		Rec.
Param		Resul	t Units	Dil.	\mathbf{Amount}	\mathbf{Result}	Rec.	\mathbf{Limit}
Benzene		1.03	mg/Kg	1	1.00	< 0.0110	103	72.7 - 129.8
Toluene		1.02	mg/Kg	1	1.00	< 0.0109	102	71.6 - 129.6

1

1

1.00

 $\mathbf{3.00}$

< 0.0109

< 0.0331

100

99

70.8 - 129.7

70.9 - 129.4

mg/Kg

mg/Kg

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{Result}	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	\mathbf{Limit}
Benzene	1.02	mg/Kg	1	1.00	< 0.0110	102	72.7 - 129.8	1	20
Toluene	1.02	mg/Kg	1	1.00	< 0.0109	102	71.6 - 129.6	0	20
Ethylbenzene	0.996	mg/Kg	1	1.00	< 0.0109	100	70.8 - 129.7	0	20
Xylene	2.97	mg/Kg	1	3.00	< 0.0331	99	70.9 - 129.4	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate ·	\mathbf{Result}	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.10	1.08	mg/Kg	1	1.00	110	108	82.9 - 122.8
4-Bromofluorobenzene (4-BFB)	0.786	0.783	mg/Kg	1	1.00	79	78	73.8 - 122.4

Laboratory Control Spike (LCS-1)

QC Batch:	47351	Date Analyzed:	2008-04-10	Analyzed By:	DC
Prep Batch:	40717	QC Preparation:	2008-04-09	Prepared By:	DC

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
GRO	9.19	mg/Kg	· 1	10.0	0.798	84	69.6 - 97.3

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{Result}	Units	Dil.	\mathbf{Amount}	Result	Rec.	\mathbf{Limit}	RPD	Limit
GRO	9.16	mg/Kg	1	10.0	0.798	84	69.6 - 97.3	0	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	Result	\mathbf{Units}	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	1.13	1.18	mg/Kg	1	1.00	113	118	70 - 130
4-Bromofluorobenzene (4-BFB)	1.10	1.10	mg/Kg	1	1.00	110	110	70 - 130

Matrix Spike (MS-1) Spiked Sample: 155933

QC Batch:	47265	Date Analyzed:	2008-04-09	Analyzed By:	DC
Prep Batch:	40652	QC Preparation:	2008-04-09	Prepared By:	DC

	MS			Spike	Matrix		Rec.
Param	\mathbf{Result}	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
Benzene	2.16	mg/Kg	2	2.00	·0.0307	106	58.6 - 165.2
Toluene	2.18	mg/Kg	2	2.00	0.0869	105	64.2 - 153.8
Ethylbenzene	3.05	mg/Kg	2	2.00	1.2016	92	61.6 - 159.4
Xylene	10.1	mg/Kg	2	6.00	4.0781	100	64.4 - 155.3

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

matrix spikes continued

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Benzene	2.11	mg/Kg	2	2.00	0.0307	104	58.6 - 165.2	2	20
Toluene	2.18	mg/Kg	2	2.00	0.0869	105	64.2 - 153.8	0	20
Ethylbenzene	3.35	mg/Kg	2	2.00	1.2016	107	61.6 - 159.4	9	20
Xylene	11.3	mg/Kg	2	6.00	4.0781	120	64.4 - 155.3	12	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	\mathbf{Result}	Result	Units	Dil.	\mathbf{Amount}	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	2.16	2.16	mg/Kg	2	2	108	108	76.5 - 127.9
4-Bromofluorobenzene (4-BFB)	1.87	2.00	mg/Kg	2	2	94	100	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 156123

QC Batch:	47266	Date Analyzed:	2008-04-09	Analyzed By:	DC
Prep Batch:	40652	QC Preparation:	2008-04-09	Prepared By:	DC

		MS '			Spike	Matrix	•	[•] Rec.
Param		Result	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
GRO	24	19.7	mg/Kg	1	10.0	< 0.171	197	22.3 - 134.6

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

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	\mathbf{Limit}
GRO	25	14.8	mg/Kg	1	10.0	< 0.171	148	22.3 - 134.6	28	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	\mathbf{Result}	\mathbf{Result}	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	1.05	1.03	mg/Kg	1	1	105	103	68.4 - 113.1
4-Bromofluorobenzene (4-BFB)	1.14	1.11	mg/Kg	1	1	114	111	66.7 - 134.3

Matrix Spike (MS-1) Spiked Sample: 156036

QC Batch: 47272 Prep Batch: 40655		Da QC	te Analyzed: Preparation:	2008-04 2008-04	1-09 1-09		Analyzed By: LI Prepared By: LI		
		MS			Spike	Matrix		Rec.	
Param		Result	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	Rec.	Limit	
DRO		1180	mg/Kg	1	250	904.64	110	18 - 179.5	

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

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

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

Report Date: April 11, 20 Plains071SPL	008		Work Order: 8040821 EK Queen BLM						Page Number: 26 of 29 Lea County, NM			26 of 29 nty, NM
Param		MSD Result	Units	Dil.	Spike Amount	Matr Resu	ix lt R	ec.	Ree Lim	c. iit	RPD	RPD Limit
DRO		1130	mg/Kg	1	250	904.6	54 9	90	18 - 1	79.5	4	20
Percent recovery is based	on the spil	e result. l	RPD is b	ased o	n the spike	and spik	e dupli	cate re	esult.			
	MS	MSD				Snik	e	MS		MSD		Rec.
Surrogate	Result	Result	U	nits	Dil.	Amou	int	Rec.		Rec.		Limit
n-Triacontane	131	142	m	g/Kg	1	100)	131		142	34	.1 - 158
Matrix Spike (MS-1)	Spiked S	ample: 15	6050		2000.0	4.10						
QC Batch: 47350			Date An	alyzed:	2008-04	1-10 1 00				Anal	yzed By	C DC
Prep Batch: 40717		MS	QC Prep	aratio	n: 2008-04	-09 Spike	•	Matrix	r	Prep	ared By	: DC
Param		Resul	lt U	Inits	Dil.	Amoun	t	Result	;	Rec.	L	imit
Benzene	26	1.77	m	g/Kg	1	1.00	<	< 0.011	0	177	58.6	- 165.2
Toluene	27	1.80	m	g/Kg	1	1.00	<	<0.010	9	180	64.2	- 153.8
Ethylbenzene	28	1.81	m	g/Kg	1	1.00	<	< 0.010	9	181	61.6	- 159.4
Xylene	29	5.47	m m	g/Kg	1	3.00	<	< 0.033	1	182	64.4	- 155.3
Percent recovery is based	on the spik	e result. I	RPD is b	ased o	n the spike	and spik	e dupli	cate re	esult.			
		MSD		,	Spike	Matri	x		Re	с.		RPD
Param		Result	Units	Dil.	Amount	Resul	t Re	ec.	Lim	nit	RPD	Limit
Benzene	30	1.71	mg/Kg	1	1.00	< 0.01	10 17	71 5	8.6 - 1	165.2	3	- 20
Toluene	31	1.74	mg/Kg	1	1.00	< 0.010	09 17	74 6	64.2 - 3	153.8	3	20
Ethylbenzene	32	1.78	mg/Kg	1	1.00	< 0.010	09 17	78 6	51.6 -	159.4	2	20
Xylene		5.37	mg/Kg	<u> </u>	3.00	<0.03	51 17	9 6	94.4 -	155.3	2	20
Percent recovery is based	on the spik	te result. I	RPD is b	ased o	n the spike	and spik	e dupli	cate re	esuit.			
		MS	MS	D			Spike	Ν	1S	MSD]	Rec.
Surrogate		Result	t Res	ult	Units	Dil. A	Amount	R	ec.	Rec.	I	imit
Trifluorotoluene (TFT)		1.12	1.1	2	mg/Kg	1	1	1	12	112	76.5	- 127.9
4-Bromofluorobenzene (4-	BFB)	0.805	0.80	J4	mg/Kg	1	1	5	50	80	(2)	- 127.8
Matrix Spike (MS-1)	Spiked S	ample: 15	6048									
QC Batch: 47351			Date An	alyzed:	2008-04	4-10				Anal	yzed By	r: DC
Prep Batch: 40717			QC Prep	aratio	n: 2008-04	4-09				Prep	ared By	: DC
D		MS		• •,	וית	Spike		Matrix	C	D]	Rec.
Param CPO		Result 12.2	t U	$\frac{\text{nits}}{r/V_{\text{cr}}}$		Amour	it	$\frac{\text{Result}}{<0.171}$;	Rec.	L	1246
		13.2		3/ n g		10.0	. 1 . 1	<0.171	L 	152	22.3	- 134.0
Percent recovery is based	on the spir	e result.	RPD is b	ased o	n the spike	and spik	e dupli	cate re	esult.		,	
²⁶ Matrix spike recovery out ²⁷ Matrix spike recovery out ²⁸ Matrix spike recovery out ²⁹ Matrix spike recovery out ³⁰ Matrix spike recovery out ³¹ Matrix spike recovery out ³² Matrix spike recovery out ³³ Matrix spike recovery out	of control lin of control lin	nits due to p nits due to p	matrix inte matrix inte matrix inte matrix inte matrix inte matrix inte matrix inte matrix inte	erference erference erference erference erference erference erference erference	e. Use LCS/I e. Use LCS/I	LCSD to d LCSD to d	emonstra emonstra emonstra emonstra emonstra emonstra emonstra	ate anal ate anal ate anal ate anal ate anal ate anal ate anal ate anal	ysis is ysis is ysis is ysis is ysis is ysis is ysis is ysis is	under co under co under co under co under co under co under co under co	ontrol. ontrol. ontrol. ontrol. ontrol. ontrol. ontrol. ontrol.	

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Report Date: April 11, 2008	Work Order: 8040821	Page Number: 27 of 29
Plains071SPL	EK Queen BLM	Lea County, NM

Param	${f MSD}$	Units	Dil.	Spike Amount	Matrix Result	Rec.	${f Rec.}\ {f Limit}$	RPD	RPD Limit
GRO	13.1	mg/Kg	1	10.0	< 0.171	131	22.3 - 134.6	6 1	20
Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.									
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	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	\mathbf{Result}	Result	Units	Dil.	\mathbf{Amount}	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	1.04	1.04	mg/Kg	1	1	104	104	68.4 - 113.1
4-Bromofluorobenzene (4-BFB)	1.11	1.11	mg/Kg	1	1	111	111	66.7 - 134.3

Standard (ICV-1)

QC Batch: 47	265		Date Analyz	ed: 2008-04-0	Analyzed By: DC		
			ICVs	ICVs	ICVs	Percent	
	,		True	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.102	102	85 - 115	2008-04-09
Toluene		mg/Kg	0.100	0.102	102	85 - 115	2008-04-09
Ethylbenzene		mg/Kg	0.100	0.102	102	85 - 115	2008-04-09
Xylene		mg/Kg	0.300	0.301	100	85 - 115	2008-04-09

Standard (CCV-1)

QC Batch:	47265	17265		Date Analyzed: 2008-04-09			Analyzed By: DC		
				\mathbf{CCVs}	CCVs	CCVs	Percent		
				True	Found	Percent	Recovery	Date	
Param		Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed	
Benzene			mg/Kg	0.100	0.109	109	85 - 115	2008-04-09	
Toluene			mg/Kg	0.100	0.108	108	85 - 115	2008-04-09	
Ethylbenzen	ie.		mg/Kg	0.100	0.104	104	85 - 115	2008-04-09	
Xylene			mg/Kg	0.300	0.311	104	85 - 115	2008-04-09	

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Standard (ICV-1)

QC Batch:	47266		Date Ana	alyzed: 2008-0	Analyzed By: DC		
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.07	107	85 - 115	2008-04-09

Standard (CCV-1)

QC Batch:	47266		Date Ana	alyzed: 2008-0	4-09	Anal	yzed By: DC
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	\mathbf{Date}
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.11	111	85 - 115	2008-04-09

Report Date: April 11, 2008 Plains071SPL			Wo	ork Order: 8040 EK Queen BLM	821 I	Page Number: 28 of 29 Lea County, NM		
Standard	(ICV-1)							
QC Batch:	47272		Date Ana	lyzed: 2008-04	-09	Analyzed By: LD		
Param	Flag	Unite	ICVs True Conc	ICVs Found Conc	ICVs Percent Becovery	Percent Recovery	Date Analyzed	
DRO	T lag	mg/Kg	250	260	104	85 - 115	2008-04-09	
Standard	(CCV-1)							
QC Batch:	47272		Date Anal	lyzed: 2008-04	-09	Ana	lyzed By: LD	
Danam	171	TI-:4a	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	
DRO	Flag	mg/Kg	<u>250</u>	271	108	85 - 115	2008-04-09	
Standard (CCV-2) QC Batch: 47272 Date				lyzed: 2008-04	-09	Analyzed By: LD		
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	
Param DRO	Flag	Units mg/Kg	Conc. 250	<u>Conc.</u> 252	Recovery 101	Limits 85 - 115	Analyzed 2008-04-09	
Standard OC Batch:	(CCV-3)		Date Ana	vzed: 2008-04	-09	Ana	vzed By: LD	
ų o Latom				.,	0.00		.j_0aj:	
Param	Flag	Units	True Conc.	Found Conc.	Percent Recovery	Percent Recovery Limits	Date Analyzed	
DRO		mg/Kg	250	278	111	85 - 115	2008-04-09	
Standard	(ICV-1)							
QC Batch:	47350		Date Anal	yzed: 2008-04	-10	Anal	yzed By: DC	
Param	Floo	Unite	ICVs True	ICVs Found Conc	ICVs Percent Bocovory	Percent Recovery	Date	
Benzene	riag		0.100	0.102	102	85 - 115	2008-04-10	
Toluene Ethylbenzer	ne	mg/Kg mg/Kg	0.100 0.100	0.102 0.0993	102 99	85 - 115 85 - 115	2008-04-10 2008-04-10	
Xylene		mg/Kg	0.300	0.298	99	85 - 115	2008-04-10	

Standard (CCV-1)

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QC Batch: 47350

Date Analyzed: 2008-04-10

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Analyzed By: DC

Report Date: April 11, 2008	Work Order: 8040821	Page Number: 29 of 29
Plains071SPL	EK Queen BLM	Lea County, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.100	100	85 - 115	2008-04-10
Toluene		mg/Kg	0.100	0.0991	99	85 - 115	2008-04-10
Ethylbenzene		mg/Kg	0.100	0.0963	96	85 - 115	2008-04-10
Xylene		mg/Kg	0.300	0.287	96	85 - 115	2008-04-10

Standard (ICV-1)

QC Batch:	47351		Date Ana	alyzed: 2008-0	Analyzed By: DC		
			ICVs	ICVs	ICVs	Percent	
			\mathbf{True}	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.12	112	85 - 115	2008-04-10

Standard (CCV-1)

QC Batch:	47351		Date Ana	alyzed: 2008-04	Analyzed By: DC		
			CCVs True	CCVs Found	$\begin{array}{c} \mathbf{CCVs} \\ \mathbf{Percent} \end{array}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.12	112	85 - 115	2008-04-10

TraceAnalysis, Inc. 6701 Aberdeen Avenue, Suite 9 Lubbock, Traces 78703 Fax (800) 784-1298 6002 Basin Street, Suite 1 Middand, Traces 78703 Fax (822) 889-6313 200 East: Suite 1 Rd, Suite E EF Res, Traces 78703 Fax (822) 889-6313 800 Camp Bo EF Res, 1920 25-9442 Company Name: Phone #: TMION_LPE Phone #: Say 3-4264 Phone #: Say 3-4264 Say 3-4264 Say 3-4264 Say 3-4264 Fax (822) 889-6313	
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TraceAnalysis email: lab@traceanalysis	s, Inc.	6701 Aberdeen Avenue, Suite 9 50 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296	22 Basin Street, Suite A1 200 Eas Aldiand, Texas 79703 El Pas Tel (432) 689-6301 Tel Fax (432) 689-6313 Fax 1 1	t Sunset Rd., Suite E 8808 Camp Bowie Blvd. West, Suite 180 aso, Texas 79922 Ft. Worth, Texas 76116 (915) 585-3443 Tel (817) 201-5260 (915) 585-4944 Fax (817) 560-4336 (888) 588-3443
Company Name:	Pho	ne #:		ANALYSIS REQUEST
Address: (Street, City, Zip)	<u></u>	<u>3913-9261</u>	(Circle	or Specify Method No.)
318 E Taylor	<u> </u>	5 393-4658		
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MULTURAL MARTINE TRACEANALYSIS, INC. MARTINE MARTINE

6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 6015 Harris Parkway Suite 110 F

Lubbock, Texas 79424 800•378•1296 El Paso, Texas 79522 888•588•3443 Midland, Texas 79703 Ft Worth Texas 76132 E-Mail Tab@traceanalysis.com

800•378•1296 800•794•1296 888•588•3443 915•585•3443 422•689•6301 817•201•5260

1296 FAX 806 • 794 • 1298 3443 FAX 915 • 585 • 4944 6301 FAX 432 • 689 • 6313 5260

Analytical and Quality Control Report

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Project Location:Lea County, NMProject Name:EK Queen BLMProject Number:Plains071SPL

Report Date: April 22, 2008

Work Order: 8042108

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
157423	SW-7	soil	2008-04-17	12:15	2008-04-21
157424	BH-2	soil	2008-04-17	12:24	2008-04-21
157425	BH-4	soil	2008-04-17	12:35	2008-04-21
157426	BH-5	soil	2008-04-17	12:48	2008-04-21
157427	BH-6	soil	2008-04-17	12:57	2008-04-21

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

Dr. Blair Leftwich, Director

Standard Flags

 ${\bf B}\,$ - The sample contains less than ten times the concentration found in the method blank.

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Analytical Report

Sample: 157423 - SW-7

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Analysis: QC Batch: Prep Batch:	BTEX 47663 40980		Analytical Method: Date Analyzed: Sample Preparation:		S 8021B 2008-04-21 2008-04-21	S 8021B 2008-04-21 2008-04-21		ethod: S ed By: A d By: A	S 5035 AG AG
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				RI	L					
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Parameter	F	lag	\mathbf{Resul}	t	Units		Dilution		\mathbf{RL}
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Benzene			< 0.010	0	mg/Kg		1		0.0100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Toluene			< 0.010	0	mg/Kg		1		0.0100
Xylene0.0361mg/Kg10.0100SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT) 1.08 mg/Kg1 1.00 108 $82.9 - 125.1$ 4-Bromofluorobenzene (4-BFB) 1.12 mg/Kg1 1.00 112 $48.9 - 160.4$ Sample: 157423 - SW-7Analysis: TPH DRO QC Batch: 47649Analytical Method:Mod. 8015B 2008-04-21Prep Method:N/A Analyzed By:RE Prep Batch: 40940Sample Preparation:2008-04-21Prep Method:N/A Prep Batch:RL Prep Batch: 40940Sample Preparation:2008-04-21Prep Method:N/A Prep Batch:Prep Method:N/A Prep Method:N/A OBOB OB OB OB $Method:$ Mod. 8015B Prep Prepared By:LD Prep Prepared By:Prep Method:N/A OBPrep Method:N/A Prepared By:LDPrep Method:N/A OBOB OBPrep Method:N/A OBPrep Method:N/A OBPrep Method:N/A DROPrep Method:N/A DROPrep Method:Method:	Ethylbenzene	:		< 0.010	0	mg/Kg		1		0.0100
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Xylene			0.036	1	mg/Kg		1		0.0100
SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsTrifluorotoluene (TFT)1.08 mg/Kg 11.0010882.9 - 125.14-Bromofluorobenzene (4-BFB)1.12 mg/Kg 11.0011248.9 - 160.4Sample: 157423 - SW-7Analysis:TPH DROAnalytical Method:Mod. 8015BPrep Method:N/AQC Batch:47649Date Analyzed:2008-04-21Analyzed By:LDPrep Batch:40940Sample Preparation:2008-04-21Prepared By:LDRLParameterFlagResultUnitsDilutionRLDROB94.9mg/Kg150.0SpikePercentRecoveryLimitsDilutionAmountRecoveryLimitsDilutionAmountRecoveryLimitsn-Triacontane131mg/Kg110013110 - 250.4	~						Spike	Percent	Reco	overy
Trifluorotoluene (TFT)1.08mg/Kg11.0010882.9 - 125.14-Bromofluorobenzene (4-BFB)1.12mg/Kg11.0011248.9 - 160.4Sample: 157423 - SW-7Analysis:TPH DROAnalytical Method:Mod. 8015BPrep Method:N/AQC Batch:47649Date Analyzed:2008-04-21Analyzed By:LDPrep Batch:40940Sample Preparation:2008-04-21Prepared By:LDRLParameterFlagResultUnitsDilutionRLDROB94.9mg/Kg150.0SpikePercentRecoverySurrogateFlagResultUnitsDilutionAmountn-Triacontane131mg/Kg110013110 - 250.4	Surrogate	(22.2.2.)	Flag	Result	Units	Dilution	Amount	Recovery	Lin	nits
4-Bromofluorobenzene (4-BFB) 1.12 mg/Kg 1 1.00 112 $48.9 - 160.4$ Sample:157423 - SW-7Analysis:TPH DROAnalytical Method:Mod. 8015BPrep Method:N/AQC Batch:47649Date Analyzed:2008-04-21Analyzed By:LDPrep Batch:40940Sample Preparation:2008-04-21Prepared By:LDRLRLParameterFlagResultUnitsDilutionRLDROB94.9mg/Kg150.0SurrogateFlagResultUnitsDilutionRecoveryLimits131mg/Kg110013110 - 250.4	Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	82.9 -	125.1	
Sample: 157423 - SW-7Analysis:TPH DROAnalytical Method:Mod. 8015BPrep Method:N/AQC Batch:47649Date Analyzed:2008-04-21Analyzed By:LDPrep Batch:40940Sample Preparation:2008-04-21Prepared By:LDRLParameterFlagResultUnitsDilutionRLDROB94.9mg/Kg150.0SurrogateFlagResultUnitsDilutionRecoverySurrogateFlagResultUnitsDilutionAmountn-Triacontane131mg/Kg110013110 - 250.4	4-Bromofluor	obenzene (4-BFI	3)	1.12	mg/Kg	1	1.00	112	48.9 -	160.4
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sample: 15'	7423 - SW-7								
QC Batch:47649Date Analyzed:2008-04-21Analyzed By:LDPrep Batch:40940Sample Preparation:2008-04-21Prepared By:LDRLRLDilutionRLDROB94.9mg/Kg150.0SurrogateFlagResultUnitsDilutionRLn-Triacontane131mg/Kg110013110 - 250.4	Analysis:	TPH DRO		Analytica	al Method:	Mod. 801	5B	Prep 1	Method:	N/A
Prep Batch: 40940Sample Preparation: 2008-04-21Prepared By: LDRL ParameterRL FlagResultUnitsDilutionRLDROB94.9mg/Kg150.0SurrogateFlagResultUnitsDilutionAmountRecoverySurrogateFlagResultUnitsDilutionAmountRecoveryLimitsn-Triacontane131mg/Kg110013110 - 250.4	QC Batch:	47649		Date Ana	alvzed:	2008-04-2	 l	Analy	zed By:	LD
RL ParameterRL FlagResultUnitsDilutionRLDROB94.9mg/Kg150.0SurrogateFlagResultUnitsDilutionAmountRecoverySurrogateFlagResultUnitsDilutionAmountRecoveryLimitsn-Triacontane131mg/Kg110013110 - 250.4	Prep Batch:	40940		Sample P	reparation	: 2008-04-2	l	Prepa	red By:	LD
ParameterFlagResultUnitsDilutionRLDROB94.9mg/Kg150.0SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsn-Triacontane131mg/Kg110013110 - 250.4				\mathbf{RL}					•	
DROB94.9mg/Kg150.0SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsn-Triacontane131mg/Kg110013110 - 250.4	Parameter	Fla	ıg	\mathbf{Result}		Units		Dilution		\mathbf{RL}
SurrogateFlagResultUnitsDilutionAmountPercentRecoveryn-Triacontane131mg/Kg110013110 - 250.4	DRO	В		94.9		mg/Kg		1		50.0
SurrogateFlagResultUnitsDilutionAmountRecoveryLimitsn-Triacontane131mg/Kg110013110 - 250.4	2		. .	.	_		Spike	Percent	Rec	covery
n-Triacontane 131 mg/Kg 1 100 131 10 - 250.4	Surrogate	Flag	Result	Units	D	ilution	Amount	Recovery	Li	mits
	n-Triacontane	e	131	mg/Kg	5	1	100	131	10 -	250.4

Sample: 157423 - SW-7

Analysis: TPH GRO			Analytical	l Method:	S 8015B		nod: S 5035	
QC Batch:	47664	7664 Date Analyzed:		2008-04-21		By: AG		
Prep Batch:	Batch: 40980 Sample Preparation:		2008-04-21	Prepared By: AC				
			\mathbf{RL}					
Parameter	\mathbf{Flag}		\mathbf{Result}		Units	D	vilution	\mathbf{RL}
GRO			45.5		m mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate	1	Flag	\mathbf{Result}	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.15	mg/Kg	1	1.00	115	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		1.24	mg/Kg	1	1.00	124	66 - 142.8

,

Sample: 157424 - BH-2

Analysis: BTEX QC Batch: 47663			Analytical Method: Date Analyzed:		S 8021B 2008-04-21		Prep Method: Analyzed By:		S 5035 AG	
Prep Batch: 40980				Sample Preparation:		2008-04-21		Prepared By:		AG
				RI	L					
Parameter		Flag		Resul	t	\mathbf{Units}		Dilution		\mathbf{RL}
Benzene				< 0.010	0	mg/Kg		1		0.0100
Toluene				< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene				< 0.010	0	mg/Kg		1		0.0100
Xylene	ne <0.0100		0	mg/Kg		1				
							Spike	Percent	Re	ecovery
Surrogate			Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	I	imits
Trifluorotolue	ne (TFT)			1.08	mg/Kg	1	1.00	108	82.9	9 - 125.1
4-Bromofluor	obenzene (4-Bl	FB)		1.10	mg/Kg	1	1.00	110	48.9	9 - 160.4

Sample: 157424 - BH-2

Analysis: TPH DRO		Analytical M	Aethod: Me	od. 8015B	Prep	Method: N/A	
QC Batch:	QC Batch: 47649 Date		Date Analyz	Date Analyzed: 2008-04-21		Analy	zed By: LD
Prep Batch:	40940		Sample Prep	paration: 2008-04-21		Prepa	ared By: LD
			\mathbf{RL}				
Parameter Flag		Result		Units	Dilution	\mathbf{RL}	
DRO		······		I	ng/Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	\mathbf{Result}	Units	Dilution	n Amount	Recovery	Limits
n-Triacontane	e	125	mg/Kg	1	100	125	10 - 250.4

Sample: 157424 - BH-2

Analysis:TPH GROQC Batch:47664Prep Batch:40980			Analytical Method: Date Analyzed: Sample Preparation:			Prep Method: Analyzed By: Prepared By:		nod: S 5035 By: AG By: AG
Parameter	Flag		RL Result	-1	Units	מ	vilution	RL
GRO B		1.43		mg/Kg	1		1.00	
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)		1.16	mg/Kg	1	1.00	116	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		1.20	mg/Kg	1	1.00	120	66 - 142.8

Sample: 157425 - BH-4

,

DRO			<50.0		mg/Kg		1		50.0
Parameter	Flag		Result		Units		Dilution		RL
			\mathbf{RL}						
Prep Batch:	40940		Sample Pi	reparation	2008-04-21		Prepar	ed By:	LD
QC Batch:	47649		Date Ana	lyzed:	2008-04-21		Analyz	ed By:	
Analysis:	TPH DRO		Analytica	l Method:	Mod. 8015B		Prep M	lethod:	N/A
Sample: 15	7425 - BH-4								
4-Bromofluor	obenzene (4-BFB)		1.11	mg/Kg	1	1.00	111	48.9	- 160.4
Trifluorotolue	ene (TFT)		1.08	mg/Kg	1	1.00	108	82.9	- 125.1
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Li	mits
						Spike	Percent	Rec	overy
Xylene			< 0.0100)	mg/Kg		1		0.0100
Ethylbenzene			< 0.0100)	mg/Kg		1		0.0100
Toluene			< 0.0100)	mg/Kg		1		0.0100
Benzene			< 0.0100)	mg/Kg		1		0.0100
Parameter	\mathbf{Flag}		Result	5	Units		Dilution		\mathbf{RL}
			RL	ı					
Prep Batch:	40980		Sample Prep	paration:	2008-04-21		Prepared	By:	AG
QC Batch:	47663		Date Analyz	zed:	2008-04-21		Analyzed	l By:	AG
Analysis:	BTEX		Analytical N	lethod:	S 8021B		Prep Me	thod:	S 5035

Surrogate	Flag	\mathbf{Result}	Units	Dilution	Spike Amount	${f Percent} {f Recovery}$	Recovery Limits
n-Triacontane		135	mg/Kg	1	100	135	10 - 250.4

Sample: 157425 - BH-4

Analysis:TPH GROQC Batch:47664Prep Batch:40980			Analytical Method: Date Analyzed: Sample Preparation:		S 8015B Prep M 2008-04-21 Analyz 2008-04-21 Prepar			nod: S 5035 By: AG By: AG
Parameter	Flag		- RL Result	-	Units	E	- Vilution	RL
GRO	B		1.76		mg/Kg		1	1.00
Surrogate		Flag	Result	\mathbf{Units}	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)		1.17	mg/Kg	1	1.00	117	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		1.21	mg/Kg	1	1.00	121	66 - 142.8

Sample: 157426 - BH-5

Analysis:BTEXQC Batch:47663Prep Batch:40980		Analytical Method: Date Analyzed: Sample Preparation:			S 8021B 2008-04-21 2008-04-21		Prep Method: Analyzed By: Prepared By:		S 5035 AG AG	
				BI	Γ,					
Parameter		Flag		Resul	t	Units		Dilution		\mathbf{RL}
Benzene				< 0.010	0	mg/Kg		1		0.0100
Toluene				< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene				0.066	0	mg/Kg		1		0.0100
Xylene				0.17	1	mg/Kg		1		0.0100
						1	Spike	Percent	Re	ecovery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	I	imits
Trifluorotolue	ene (TFT)			1.08	mg/Kg	1	1.00	108	82.9) - 125.1
4-Bromofluor	obenzene (4-E	BFB)		1.23	mg/Kg	1	1.00	123	48.9	9 - 160.4

Sample: 157426 - BH-5

Analysis: QC Batch: Prep Batch:	TPH DRO n: 47649 ch: 40940		Analytical M Date Analyze Sample Prepa	Analytical Method: Date Analyzed: Sample Preparation:		6015B 4-21 4-21	Prep Method: Analyzed By: Prepared By:		N/A LD LD	
Parameter		Flag		RL Result		Uni	ts	Dilution		RL
DRO				<50.0		mg/k	g	1		50.0
Surrogate	Flag	R	lesult	Units	Dilu	tion	Spike Amount	Percent Recovery	Rec Lit	overy mits
n-Triacontane	е		115	mg/Kg			100	115	.10 -	250.4

Sample: 157426 - BH-5

Analysis:TPH GROQC Batch:47664Prep Batch:40980			Analytical Date Anal Sample Pr	l Method: lyzed: reparation:	S 8015B 2008-04-21 2008-04-21		nod: S 5035 By: AG By: AG	
Parameter	Flag		RL Result		Units	D	vilution	\mathbf{RL}
GRO			45.1		mg/Kg	·····	1	1.00
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)		1.16	mg/Kg	1	1.00	116	75 - 117.2
4-Bromofluor	obenzene (4-BFB)	1	1.46	mg/Kg	1	1.00	146	66 - 142.8

¹High surrogate recovery due to peak interference.

Sample: 157427 - BH-6

Analysis: BTEX QC Batch: 47663		Analytical Method: Date Analyzed:			S 8021B 2008-04-21		Prep Method: Analyzed By:		S 5035 AG	
Prep Batch: 40980				Sample Pre	paration:	2008-04-21		Prepared By:		AG
				RI	Ĺ					
Parameter		Flag		\mathbf{Resul}	t	\mathbf{Units}		Dilution		\mathbf{RL}
Benzene				< 0.010	0	mg/Kg		1		0.0100
Toluene				< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene				< 0.010	0	mg/Kg		1		0.0100
Xylene				<0.010	0	mg/Kg		1		0.0100
							Spike	Percent	Re	ecovery
Surrogate			Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ene (TFT)			1.08	mg/Kg	1	1.00	108	82.9	9 - 125.1
4-Bromofluor	obenzene (4-E	BFB)		1.11	mg/Kg	1	1.00	111	48.9	9 - 160.4

Sample: 157427 - BH-6

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Analysis:	TPH DRO			Analytical Me	thod:	Mod. 80)15B	Prep l	Method:	N/A
QC Batch:	47649			Date Analyzed	1:	2008-04-	-21	Analy	zed By:	LD
Prep Batch:	40940		Sample Preparation:		2008-04-21		Prepared By:		LD	
				RL				•		
Parameter		Flag		Result		Unit	s	Dilution		\mathbf{RL}
DRO				<50.0		mg/K	g	1		50.0
						Υ.	Spike	Percent	Rec	overy
Surrogate	\mathbf{Flag}	F	Result	\mathbf{Units}	Dilu	tion	Amount	Recovery	Li	\mathbf{mits}
n-Triacontane	e		112	mg/Kg			100	112	10 -	250.4

Sample: 157427 - BH-6

Analysis: QC Batch: Prep Batch:	TPH GRO 47664 40980		Analytical Date Anal Sample Pr	Method: yzed: eparation:	S 8015B 2008-04-21 2008-04-21	Prep Meth Analyzed F Prepared E		iod: S 5035 By: AG By: AG
			\mathbf{RL}					
Parameter	\mathbf{Flag}		\mathbf{Result}		\mathbf{Units}	D	ilution	\mathbf{RL}
GRO	B		4.37		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		1.16	mg/Kg	1	1.00	116	75 - 117.2
4-Bromofluorobenzene (4-BFB)			1.23	mg/Kg	1	1.00	123	66 - 142.8

Method Blank (1) QC Batch: 47649

QC Batch:	47649	Date Analyzed:	2008-04-21	Analyzed By:	LD
Prep Batch:	40940	QC Preparation:	2008-04-21	Prepared By:	LD

Report Date: April 22, 2008 Plains071SPL			Wor E	rk Order: 804210 EK Queen BLM	08	Page Number: 7 of 11 Lea County, NM			
				MDL					
Parameter		Flag		\mathbf{Result}		Units	\mathbf{RL}		
DRO				21.6		mg/Kg	50		
					Spike	Percent	Recovery		
Surrogate	\mathbf{Flag}	Result	\mathbf{Units}	Dilution	Amount	Recovery	Limits		
n-Triacontane		94.8	mg/Kg	1	100	95	30.9 - 146.4		

Method Blank (1) QC Batch: 47663

QC Batch: 47663	Date An	alyzed: 2	008-04-21		Ana	lyzed By:	\mathbf{AG}	
Prep Batch: 40980		QC Prep	paration: 2	008-04-21		Prep	oared By:	AG
			ME)L				
Parameter	\mathbf{Flag}	Result			\mathbf{Units}			\mathbf{RL}
Benzene		< 0.01	10	mg/		0.01		
Toluene		< 0.0109			mg/		0.01	
Ethylbenzene			< 0.0109			′Kg		0.01
Xylene ,			· <0.03	31	mg/		0.01	
					Spike	Percent	Reco	very
Surrogate	Flag	\mathbf{Result}	\mathbf{Units}	Dilution	Amount	Recovery	Lim	its
Trifluorotoluene (TFT)		1.08	mg/Kg	1	1.00	108	82.3 -	121.6
4-Bromofluorobenzene (4-BFB)		1.09	mg/Kg	1	1.00	109	72 -	123

Method Blank (1) QC Batch: 47664

QC Batch: 47664 Prep Batch: 40980			Date Ana QC Prepa	lyzed: tration:	2008-04-21 2008-04-21		Analyzed By: Prepared By:		
				MI	DL [,]				
Parameter		Flag		Resu	ılt	Unit	s	\mathbf{RL}	
GRO			0.872			mg/F	m mg/Kg		
-						Spike	Percent	Recovery	
Surrogate		Flag	Result	Units	s Dilution	Amount	Recovery	\mathbf{Limits}	
Trifluorotolue	ene (TFT)		1.22	mg/K	.g 1	1.00	122	70 - 130	
4-Bromofluor	obenzene (4-BFB)		1.22	mg/K	g 1	1.00	122	70 - 130	

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	47649 40940	Da QC	te Analyzed: Preparation:	2008-0 2008-0)4-21)4-21	Anal Prepa	yzed By: LD ared By: LD	
Param		LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		274	mg/Kg	1	250	21.6	101	27.8 - 152.1

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

Report Date: April 22, 2003 Plains071SPL	8	EK Queen BLM								Page Number: 8 of 11 Lea County, NM			
Param	LO		Unite	БIJ	Spike A mount	M	atrix	Roc	R	lec.	BDD	RPD Limit	
			omts ng/Kg	<u> </u>	250	 ,	$\frac{1}{21.6}$	05	27.8	159.1	5	20	
	41				200	، د			21.0	- 102.1		20	
Percent recovery is based on	the spike	result. I	(PD is t	based (on the spike	and	spike di	iplicate	result	G.			
	LCS	LCSD				S	Spike	LC	S	LCSD		Rec.	
Surrogate F	lesult	\mathbf{Result}	U	\mathbf{nits}	Dil.	A	mount	Re	c.	Rec.		Limit	
n-Triacontane	115	111	mg	g/Kg	1		100	11	5	111	38	- 130.4	
Laboratory Control Spik QC Batch: 47663 Prep Batch: 40980	æ (LCS-1))]	Date An QC Prep	alyzed	.: . 2008-04 n: 2008-04	4-21 4-21				Ana Prep	lyzed By pared By	: AG : AG	
		LCS				S	oike	Mat	rix]	Rec.	
Param		Result	U	nits	Dil.	Am	ount	Resu	ılt	Rec.	L	imit	
Benzene		1.09	mg	g/Kg	1	1	.00	< 0.0	110	109	72.7	- 129.8	
Toluene		1.09	mg	g/Kg	1	1	.00	<0.0	109	109	71.6	- 129.6	
Ethylbenzene		1.10	mą	g/Kg	1	1	.00	< 0.0	109	110	70.8	- 129.7	
Xylene		3.35	mą	g/Kg	1	3	.00	< 0.0	331	112	70.9	- 129.4	
Percent recovery is based on	the spike	result. I CSD	RPD is t	based o	on the spike Spike	and M	spike dı atrix	ıplicate	result F	t. Rec		RPD	
Param	Re	sult	Units	Dil.	Amount	R	esult	Rec.	Ĺ	imit	RPD	Limit	
Benzene	1	.04 r	ng/Kg	1	1.00	<0	0.0110	104	72.7	- 129.8	5	20	
Toluene	1	.04 n	ng/Kg	1	1.00	<0	0.0109	104	71.6	- 129.6	5	20	
Ethylbenzene	1	.06 n	ng/Kg	1	1.00	<0	0.0109	106	70.8	- 129.7	4	20	
Xylene	3	.21 п	ng/Kg	1	3.00	<0	0.0331	107	70.9	- 129.4	4	20	
Percent recovery is based on	the spike	result. I	RPD is b	based o	on the spike	and	spike dı	iplicate	result	t.			
		LCS	LCS	SD			Spil	ce 1	LCS	LCSD]	Rec.	
Surrogate		Result	Rest	ult	Units	Dil.	Amo	unt I	Rec.	Rec.	L	imit	
Trifluorotoluene (TFT)		1.09	1.0	8	mg/Kg	1	1.0	0	109	108	82.9	- 122.8	
4-Bromofluorobenzene (4-Bl	FB)	1.09	1.0	9	mg/Kg	1	1.0	0	109	109	73.8	- 122.4	
Laboratory Control Spik QC Batch: 47664 Prep Batch: 40980	æ (LCS-1)) [Date An QC Prep	alyzed paratio	: 2008-04 n: 2008-04	1-21 1-21				Ana Prep	lyzed By bared By	: AG : AG	
		LCS	1				Spike	M	latrix			Rec.	
Param		Resu	lt	Units	Dil.		Amount	R	lesult	Re	с.	Limit	
GRO		9.44	r	ng/Kg	1		10.0	().872	80	3 7	70 - 130	
Percent recovery is based on	the spike	result. F	RPD is b	based o	on the spike	and	spike du	plicate	result	t.			
	\mathbf{L}	CSD			Spike		Matrix			Rec.		RPD	
Param	R	\mathbf{esult}	Units	Dil	. Amour	ıt	Result	Rec.	Ι	Limit	RPD	Limit	

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Report Date: April 22, 2008 Plains071SPL	008 Work Order: 8042108 EK Queen BLM								Page Number: 9 of 11 Lea County, NM			
	L	CS	L	CSD				Spike	LCS	5 LC	SD	Rec.
Surrogate	Re	esult	R	esult	Units	D	il. A	mount	Rec	. Re	c.	Limit
Trifluorotoluene (TFT)	1	.22	1	22	mg/Kg	1	1	1.00	122	12	2 3	70 - 130
4-Bromofluorobenzene (4-BFB) 1	.24	1	.25	mg/Kg]	1	1.00	124	. 12	5	70 - 130
Matrix Spike (MS-1) Spi	iked Sample:	1574:	26									
QC Batch: 47649		Da	ate A	nalyzed	d: 2008-0	4-21				Anal	yzed By	: LD
Prep Batch: 40940		Q	C Pre	eparatio	on: 2008-0	4-21				Prep	ared By	: LD
	,	MS					Spike	м	atriv			Rec
Param	B	v1.5 seult		Units	Dil		Amount	R	esult	Rec		Limit
DBO		251		mg/Kg	1		250	4	8 38	<u>1000</u>	18	- 179 5
))] DD					200		0.00	121	10	- 175.0
Percent recovery is based on th	ie spike resul	t. RP	D is	based	on the spike	e and	d spike o	luplicat	e result	•		
D	MSD	т.	τ.,	וית	Spike		Matrix	D	F	lec.	חחח	RPD
Param	Result	ι	nits		. Amoun	t	Result		10	imit	RPD 1	Limit
DRU	353	m	g/Kg	1	250		48.38	122	18 -	179.5	1	20
Percent recovery is based on th	ne spike resul	t. RP	'D is	based	on the spike	e and	d spike o	luplicat	e result	•		
Μ	S MS	SD					Spike	1	MS	MSD		Rec.
Surrogate Res	ult Res	ult	1	Units	Dil.		Amount	F	lec.	Rec.		Limit
n-Triacontane 11	15 12	27	n	ng/Kg	1		100	1	15	127	34	.1 - 158
QC Batch: 47663 Prep Batch: 40980		Da Q(ate An C Pre	nalyzec eparatic	l: 2008-0 on: 2008-0	4-21 4-21				Anal Prep	yzed By ared By	: AG : AG
	Ν	IS				S	Spike	Mat	trix]	Rec.
Param	Re	sult	J	Jnits	Dil.	Aı	nount	Res	ult	Rec.	L	imit
Benzene	1.	09	\mathbf{m}	ıg/Kg	1		1.00	<0.0	0110	109	58.6	- 165.2
Toluene	1.	10	m	ıg/Kg	1		1.00	<0.0	0109	110	64.2	- 153.8
Ethylbenzene	1.	13	\mathbf{m}	ig/Kg	1		1.00	<0.0	0109	113	61.6	- 159.4
Xylene	3.	44	m	ig/Kg	1		3.00	<0.0)331	115	64.4	- 155.3
Percent recovery is based on th	ne spike resul	t. RP	D is	based	on the spike	e and	d spike o	luplicat	e result	-		
	MSD				Spike	Ν	Matrix		R	ec.		RPD
Param	Result	Uı	$_{ m nits}$	Dil.	Amount	I	Result	Rec.	Li	mit	RPD	\mathbf{Limit}
Benzene	1.08	\mathbf{mg}	/Kg	1	1.00	<	0.0110	108	58.6	- 165.2	1	20
Toluene	1.10	\mathbf{mg}	/Kg	1	1.00	<	0.0109	110	64.2	- 153.8	0	20
Ethylbenzene	1.13	\mathbf{mg}	/Kg	1	1.00	<	0.0109	113	61.6	- 159.4	0	20
Xylene	3.43	mg	/Kg	1	3.00		0.0331	114	64.4	- 155.3	0	20
Percent recovery is based on th	ne spike resul	t. RP	D is	based	on the spike	e and	d spike o	luplicat	e result			
	Ν	ſS	Μ	SD			$\mathbf{S}_{\mathbf{I}}$	oike	MS	MSD]	Rec.
Surrogate	Re	sult	Re	sult	Units	Dil	. Am	ount	Rec.	Rec.	L	imit
Trifluorotoluene (TFT)	1.	09	1.	08	mg/Kg	1		1	109	108	76.5	- 127.9
4-Bromofluorobenzene (4-BFB))1.	13	1.	11	mg/Kg	1		1	113	111	72 -	- 127.8

Matrix Spike (MS-1) Spiked Sample: 157505

QC Batch:	47664	Date Analyzed:	2008-04-21	Analyzed By:	AG
Prep Batch:	40980	QC Preparation:	2008-04-21	Prepared By:	AG

	MS			Spike	Matrix		Rec.
Param	\mathbf{Result}	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
GRO	11.1	mg/Kg	1	10.0	1.56	95	22.3 - 134.6

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

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	\mathbf{Limit}
GRO	11.0	mg/Kg	1	10.0	1.56	94	22.3 - 134.6	1	20

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

C		MS	MSD	TT •4	D ''	Spike	MS	MSD	Rec.
Surrogate		Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	2 3	1.15	1.14	mg/Kg	1	1	115	114	68.4 - 113.1
4-Bromofluorobenzene (4-BFB)		1.26	1.25	mg/Kg	1	1	126	125	66.7 - 134.3

Standard (ICV-1)

QC Batch:	47649		Date Ana	alyzed: 2008-0	Analyzed By: LD		
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	265	106	85 - 115	2008-04-21

Standard (CCV-1)

QC Batch:	47649		Analyzed By: LD				
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	286	114	85 - 115	2008-04-21

Standard (ICV-1)

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QC Batch: 47	663		Date Analyz	Analyzed By: AG			
			ICVs	ICVs	ICVs	Percent	
			\mathbf{True}	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.107	107	85 - 115	2008-04-21
Toluene		mg/Kg	0.100	0.108	108	85 - 115	2008-04-21
Ethylbenzene		mg/Kg	0.100	0.109	109	85 - 115	2008-04-21
Xylene		mg/Kg	0.300	0.332	111	85 - 115	2008-04-21

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

³Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

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Standard (CCV-1)

QC Batch:	47663		Date Analyz	Analyzed By: AG			
			\mathbf{CCVs}	\mathbf{CCVs}	\mathbf{CCVs}	Percent	
			True	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.110	110	85 - 115	2008-04-21
Toluene		mg/Kg	0.100	0.111	111	85 - 115	2008-04-21
Ethylbenzen	e	mg/Kg	0.100	0.111	111	85 - 115	2008-04-21
Xylene		mg/Kg	0.300	0.337	112	85 - 115	2008-04-21

Standard (ICV-1)

QC Batch:	47664		4-21	Analyzed By: AG			
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.04	104	85 - 115	2008-04-21

Standard (CCV-1)

QC Batch:	47664		Date Ana	alyzed: 2008-0	Analyzed By: AG		
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.08	108	85 - 115	2008-04-21

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			LAB Orde	er ID #80	42108	Page	of
TraceAnal email: lab@trace	YSIS , analysis.com	Inc.	6701 Aberdeen Avenue Lubbock, Texas 78 Tei (806) 794-126 Fax (806) 794-12 1 (800) 378-129	, Suite 9 5002 Ba 9424 Midla 96 Tel 98 Fax 6	Asin Street, Suite A1 200 East S Ind, Texas 79703 El Pase (432) 689-6301 Tel (9 (432) 689-6313 Fax (6 1 (86	unset Rd., Suite E 8808 Camp Bowie E 5, Texas 79922 Ft. Worth, 15) 585-3443 Tel (817) 15) 585-4944 Fax (817) 18) 588-3443	Blvd. West, Suite 180 Texas 76116 201-5260) 560-4336
Company Name: TAIDN LPE Address: (Street, City, Zlp)		Pho <u>473</u> Fax	ne #: 	/	(Circle d	NALYSIS REQUEST or Specify Method No)
Contact Person: <u> ER</u> <u> TIANIDY</u> Invoice to:		<u>08040</u> E-m	all:		4 ((C35) 60108/200.7 Se Hg		standard
(If different from above) 7/17,725 7) Project #: <u>1/17:2507/SPL</u> Project Location (Including state):	PELINE	Pro EK P San	lect Name: DEEN BLM Ipler Signature:	· · · · · · · · · · · · · · · · · · ·	82608 / 62 2260B / 624 7 TVHC V TVHC Cr Pb Se Hg	24 0C / 625 3	fferent from
LEA COUNTY NM	NERS	MATRIX	PRESERVATIVE METHOD	SAMPLING	21B / 602 / 75 / 602 / 8 / TX1005 / 75 / 625 6RO DRO 6RO DRO 6RO AB 8 Ag As Ba 60 As Ba 16 Ag As Ba 18 Ag As Ba 18 Ag As Ba 18 Ag As Ba	icides 1. 82608 / 6. mi. Vol. 827 2 / 608 8081A / 606 pH ontent	d Time if di
LAB# FIELD CODE (LAB USE) ONLY	# CONTAI	WATER SOIL AIR SLUDGE	HCI HNO ₃ NaOH ICE NONE	DATE TIME	MTBE 80 TPH 418.1 TPH 8015 PAH 82700 PAH 82700 Total Metals. TCLP Metals TCLP Vola	TCLP Pest RCI GC/MS Vo GC/MS Se GC/MS Se GC/MS Vo CC/MS Vo GC/MS Vo CC/MS V	Tum Aroun Hold
157423 SW-7		X	X	4/17 12:15	X X		
HA BA-D		X X		4/17 42:24 4/17 42:24			
BH-G BH-S		×		4/17 12:48			
177 BH-4		У	X	4/17 12:5	7 × ×		<u></u>
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Relinquished by: Company: Date:	Time:	Received by:	Company: Date:	Time: Te	emp°c:	Check If Special Reporting Limits Are Needed	
Submittal of samples constitutes agreement to	Terms and Con	ditions listed on re	verse side of C. O. C.		Carrier # Carry	sh	
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6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street Suite A1 6015 Harris Parkway, Suite 110

Lubbock, Texas 79424 800-378-1296 El Paso, Texas 79922 888-588-3443 Midland Texas 79703 Ft Worth, Texas 76132 E-Mail, Tab@traceanalvsis.com 806-794-1296 FA 915-585-3443 FA 432-689-6301 FA 817-201-5260

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 FAX 915 • 585 • 4944
 FAX 432 • 689 • 6313

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

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Report Date: August 13, 2008

Work Order: 8081204

Project Location:Lea County, NMProject Name:EK Queen BLMProject Number:Plains075SPL

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date	
Sample	Description	Matrix	Taken	Taken	Received	
170234	BF-1	soil	2008-08-11	11:30	2008-08-12	
170235	BF-2	soil	2008-08-11	11:35	2008-08-12	

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

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blain fi rich

Dr. Blair Leftwich, Director

Standard Flags

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 ${\bf B}$ - The sample contains less than ten times the concentration found in the method blank.

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Case Narrative

Samples for project EK Queen BLM were received by TraceAnalysis, Inc. on 2008-08-12 and assigned to work order 8081204. Samples for work order 8081204 were received intact at a temperature of 3.3 deg. C.

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

Test	Method
BTEX	S 8021B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8081204 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: 170234 - BF-1

Laboratory:	Midland					
Analysis:	BTEX		Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	51389		Date Analyzed:	2008-08-12	Analyzed By:	DC
Prep Batch:	44052		Sample Preparation:	2008-08-12	Prepared By:	DC
			\mathbf{RL}			
Parameter		Flag	Result	\mathbf{Units}	Dilution	\mathbf{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		0.0195		mg/Kg		1	0.0100
			•		Spike	Percent	Recovery
Surrogate	Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)		0.754	mg/Kg	1	1.00	75	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.810	mg/Kg	1	1.00	81	48.2 - 155

Sample: 170234 - BF-1

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 51363 44047		Analytical Me Date Analyze Sample Prepa	Analytical Method: Date Analyzed: Sample Preparation:		15B 12 12	Prep Method: Analyzed By: Prepared By:		N/A LD LD	
_				RL						
Parameter		Flag		\mathbf{Result}		Units	5	Dilution		RL
DRO				784		mg/Kg	5	1		50.0
							Spike	Percent	Rec	overy
Surrogate	\mathbf{F} lag		\mathbf{Result}	\mathbf{Units}	Dilu	tion	Amount	Recovery	Li	mits
n-Triacontane	e 1		296	mg/Kg]	<u> </u>	100	296	10 -	250.4

Sample: 170234 - BF-1

Prep Batch:	44052	Sample Preparation:	2008-08-12	Prepared By:	DC
QC Batch:	51390	Date Analyzed:	2008-08-12	Analyzed By:	DC
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
Laboratory:	Midland				

continued ...

¹High surrogate recovery due to peak interference.

Report Date: August 13, 2008	Work Order: 8081204	Page Number: 5 of 11
Plains075SPL	EK Queen BLM	Lea County, NM

sample 170234 continued ...

				\mathbf{RL}						
Parameter		Flag		Result		Units		Dilution		RL
				\mathbf{RL}						
Parameter		Flag		\mathbf{Result}		Units		Dilution		\mathbf{RL}
GRO		В		1.65		mg/Kg		1		1.00
							Spike	Percent	\mathbf{Re}	covery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolu	ene (TFT)		<u>~</u>	0.871	mg/Kg	1	1.00	1.00 87 6'		6 - 135.2
4-Bromofluor	obenzene (4-E	BFB)		0.879	mg/Kg	1	1.00	1.00 88 63		8 - 141
Sample: 17	0235 - BF-2									
Laboratory:	Midland									
Analysis:	BTEX			Analytical	Method:	S 8021B		Prep Me	thod:	S 5035
QC Batch:	51389			Date Analy	yzed:	2008-08-12		Analyze	d By:	DC
Prep Batch:	44052			Sample Pro	eparation:	2008-08-12		Prepare	1 By:	DC
				RI	J					
Parameter		Flag		Result	t	Units]	Dilution		\mathbf{RL}

1 Grannovor	0		•	0			2023
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
Sumorata	Flag	Popult	Unito	Dilution	Spike	Percent	Recovery
Surrogate	riag	nesuit	Units	Dilution	Amount	necovery	Linnes
Trifluorotoluene (TFT)		0.792	mg/Kg	1	1.00	79	68 - 136.9
4-Bromofluorobenzene (4-B)	FB)	0.826	mg/Kg	1	1.00	83	48.2 - 155

Sample: 170235 - BF-2

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 51363 44047	Analytical Method: Date Analyzed: Sample Preparation:	Mod. 8015B 2008-08-12 2008-08-12	Prep Method: Analyzed By: Prepared By:	N/A LD LD
		\mathbf{RL}			
Parameter	\mathbf{Flag}	\mathbf{Result}	Units	Dilution	\mathbf{RL}
DRO		827	mg/Kg	1	50.0

Report Date: Plains075SPI	: August 13, 200 L)8		Work Order EK Quee	r: 8081204 en BLM		Page Number: 6 of Lea County, 1		
Surrogate	Flag	Result 336	Units mg/Kg	Dil	ution	Spike Amount	Percent Recovery 336	Recovery Limits	
	<u> </u>				*	100		10 200.1	
Sample: 17()235 - BF-2								
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 51390 44052		Analytical Date Anal Sample Pr	l Method: lyzed: ceparation:	S 8015B 2008-08-12 2008-08-12	2 2	Prep Me Analyze Prepare	ethod: S 5035 d By: DC d By: DC	
Parameter	Fl	ት.ም	RL Result		Units		Dilution	RL	
GRO	E	~ <u>0</u>	2.06		mg/Kg		1	1.00	
Surrogate		Flag	Result	Units	Dilution	Spike A mount	Percent	Recovery	
Trifluorotolue	ene (TFT)	1 148	0.920	mg/Kg	1	1.00	<u>92</u>	67.5 - 135.2	
4-Bromofluor	obenzene (4-BF	B)	0.891	mg/Kg	1	1.00	89	63.8 - 141	
Method Bla QC Batch: Prep Batch:	a nk (1) QC 51363 44047	Batch: 51363	Date Ana QC Prep	alyzed: 2 aration: 2	008-08-12 008-08-12		Anal Prepa	yzed By: LD ared By: LD	
Donomotor		Flor		MDL Bogult		T.	-:+	זמ	
DRO		Flag		<15.8		mg	/Kg	<u></u>	
						Spike	Percent	Recovery	
Surrogate	Flag	Result	Units	Dilu	tion .	Amount	Recovery	Limits	
Surrogate n-Triacontane	Flag	Result 85.3	Units mg/Kg	Dilu 1	tion .	Amount 100	Recovery 85	Limits 30.9 - 146.4	
Surrogate n-Triacontane Method Bla QC Batch: Prep Batch:	Flag mk (1) QC 51389 44052	Result 85.3 Batch: 51389	Units mg/Kg Date Ana QC Prepa	Dilu 1 lyzed: 2 aration: 2	tion .	Amount 100	Recovery 85 Analy Prepa	Limits 30.9 - 146.4 yzed By: DC ared By: DC	
Surrogate n-Triacontane Method Bla QC Batch: Prep Batch:	Flag mk (1) QC 51389 44052	Result 85.3 Batch: 51389	Units mg/Kg Date Ana QC Prepa	Dilu 1 lyzed: 2 aration: 2 MI	tion	Amount 100	Recovery 85 Analy Prepa	Limits 30.9 - 146.4 yzed By: DC ared By: DC	
Surrogate n-Triacontane Method Bla QC Batch: Prep Batch: Parameter	Flag ank (1) QC 51389 44052	Result 85.3 Batch: 51389 Flag	Units mg/Kg Date Ana QC Prepa	Dilu 1 lyzed: 2 aration: 2 MI Resu	tion .	Amount 100 U	Recovery 85 Analy Prepa	Limits 30.9 - 146.4 yzed By: DC ared By: DC RL	
Surrogate n-Triacontane Method Bla QC Batch: Prep Batch: Parameter Benzene	Flag ank (1) QC 51389 44052	Result 85.3 Batch: 51389 Flag	Units mg/Kg Date Ana QC Prepa	Dilu 1 lyzed: 2 aration: 2 MI Rest <0.005	tion	Amount 100 U mę	Recovery 85 Analy Prepa nits g/Kg	Limits 30.9 - 146.4 yzed By: DC ared By: DC RL 0.01	

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²High surrogate recovery due to peak interference.

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Report Date: August 13, 2008 Plains075SPL			Work Order EK Quee	:: 8081204 m BLM	Page Nur Lea			7 of 11 ity, NM
method blank continued			N					
Parameter	Flag		MI	JL ult	11	nite		RI.
Ethylbenzene	Tag		1005	30		/Kø		$\frac{100}{0.01}$
Xylene			< 0.01	36	mg	;/Kg		0.01
					Spike	Percent	Rec	overy
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Li	mits
Trifluorotoluene (TFT)		0.724	mg/Kg	1	1.00	72	48.3	- 132.5
4-Bromofluorobenzene (4-BFB)		0.723	mg/Kg		1.00	72	31.7	- 128.9
Method Blank (1) QC Ba	atch: 51390							
QC Batch: 51390		Date An	alyzed: 2	008-08-12		Anal	yzed By	: DC
Prep Batch: 44052		QC Prep	paration: 2	008-08-12		Prep	ared By:	DC
D	ורד		MDL			•,		DI
Parameter	Flag		Result		Un	lts		$\frac{\text{RL}}{1}$
GRO			0.872		mg,	'Kg		1
				•	Spike	Percent	Rec	overv
Surrogate	Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Li	mits
Trifluorotoluene (TFT)		0.866	mg/Kg	1	1.00	87	39.2	- 135.2
4-Bromofluorobenzene (4-BFB)		0.809	mg/Kg	1	1.00	81	16.8	- 138.1
	CR 1)							
Laboratory Control Spike (I	.05-1)							
Laboratory Control Spike (I	.05-1)	Date An	alvzed 9	008-08-12		Anal	vzed By	· LD
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047	.05-1)	Date An OC Pres	alyzed: 2	008-08-12 008-08-12		Anal Prep	yzed By ared By	: LD
LaboratoryControl Spike (IQC Batch:51363Prep Batch:44047	.05-1)	Date An QC Prep	alyzed: 2 paration: 2	008-08-12 008-08-12		Anal Prep	yzed By ared By	: LD : LD
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047	105-1)	Date An QC Prep	alyzed: 2 paration: 2	008-08-12 008-08-12 Spiko	Mat	Anal Prep	yzed By ared By	: LD : LD
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param	LCS-1) LC Res	Date An QC Prep CS	alyzed: 2 paration: 2 Units I	008-08-12 008-08-12 Spike Vil. Amoun	Matı t. Resi	Anal Prep tx It Bec.	lyzed By ared By F	: LD : LD tec.
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param DRO	LCS-1) LC Res 26	Date An QC Prep CS sult L	alyzed: 2 paration: 2 Units I g/Kg	008-08-12 008-08-12 Dil. Amoun 1 250	Matz t Resu <15	Anal Prep rix <u>ilt Rec.</u> .8 104	yzed By ared By <u>F</u> 27.8	: LD : LD lec. imit - 152.1
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param DRO Percent recovery is based on the	LCS-1) LC Res 26 spike result	Date An QC Prep CS sult U 51 m . RPD is t	alyzed: 2 paration: 2 Units I g/Kg pased on the	008-08-12 008-08-12 Dil. Amoun 1 250 spike and spike	Matz t Resu <15 e duplicate	Anal Prep rix <u>1t Rec.</u> .8 104 result.	lyzed By bared By <u>F</u> <u>27.8</u>	: LD : LD tec. imit - 152.1
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param DRO Percent recovery is based on the	LCS-1) LC Res 26 spike result	Date An QC Prep CS sult U 51 m . RPD is b	alyzed: 2 paration: 2 Units I g/Kg pased on the	008-08-12 008-08-12 Dil. Amoun 1 250 spike and spike	Matz t Resu <15 e duplicate	Anal Prep rix <u>alt Rec.</u> .8 104 result.	lyzed By ared By F 27.8	: LD : LD lec. imit - 152.1
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param DRO Percent recovery is based on the Param	LCS-1) LCS-1) Res 26 spike result LCSD Result	Date An QC Prep CS Sult U 1 m . RPD is t	alyzed: 2 paration: 2 Units I g/Kg pased on the S Dil Ar	008-08-12 008-08-12 Dil. Amoun 1 250 spike and spike pike Matrix	Mata t Resu <15 e duplicate	Anal Prep rix <u>1lt Rec.</u> .8 104 result. Rec. Limit	lyzed By Franced By 27.8	: LD : LD tec. <u>imit</u> - 152.1 RPD Limit
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param DRO Percent recovery is based on the Param DRO	LCS-1) LC Res 26 spike result LCSD Result 267	Date An QC Prep CS sult U 51 m . RPD is t Units mg/Kg	alyzed: 2 paration: 2 Units I g/Kg pased on the S Dil. Ar 1	008-08-12 008-08-12 Dil. Amoun <u>1 250</u> spike and spike pike Matrix nount Result 250 <15.8	Matz t Resu <15 e duplicate c Rec. 107	Anal Prep rix <u>1lt Rec.</u> .8 104 result. Rec. Limit 27.8 - 152.1	lyzed By bared By F Li 27.8 RPD 2	: LD : LD tec. - 152.1 RPD Limit 20
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param DRO Percent recovery is based on the Param DRO Param	LCS-1) LC Res 26 spike result LCSD Result 267 spike result	Date An QC Prep CS sult U 51 m . RPD is t Units mg/Kg RPD is t	Units I g/Kg based on the Dil. Ar 1	008-08-12 008-08-12 Dil. Amoun 1 250 spike and spike pike Matrix count Result 250 <15.8	Matz t Resu <15 e duplicate Rec. 107	Anal Prep rix alt Rec. .8 104 result. Rec. Limit 27.8 - 152.1 result	lyzed By pared By F 27.8 RPD 2	: LD : LD tec. - 152.1 RPD Limit 20
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param DRO Percent recovery is based on the Param DRO Percent recovery is based on the Percent recovery is based on the	LCS-1) LCS-26 spike result LCSD Result 267 spike result	Date An QC Prep CS sult U il m . RPD is t Units mg/Kg . RPD is t	alyzed: 2 paration: 2 Units I g/Kg pased on the S Dil. Ar 1 2 pased on the	008-08-12 008-08-12 Dil. Amoun 1 250 spike and spike pike Matrix nount Result 250 <15.8 spike and spike	Mat: t Resu <15 e duplicate Rec. 107 e duplicate	Anal Prep cix <u>alt Rec.</u> .8 104 result. <u>Rec.</u> Limit 27.8 - 152.1 result.	lyzed By bared By F L 27.8 RPD 2	: LD : LD tec. <u>imit</u> - 152.1 RPD Limit 20
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param	LCS-1) LCS-1) Result LCSD Result 267 spike result LCS	Date An QC Prep CS Sult U NRPD is t Units mg/Kg . RPD is t	$\begin{array}{c} \text{alyzed:} & 2\\ \text{paration:} & 2\\ \text{paration:} & 2\\ \text{Jnits} & 1\\ \frac{\text{g/Kg}}{\text{pased on the}}\\ & \\ & \\ & \\ \hline & \\ & \\ \hline & \\ & \\ \hline & \\ & \\$	008-08-12 008-08-12 Dil. Amoun 1 250 spike and spike pike Matrix nount Result 250 <15.8 spike and spike Spike	Mat: t Resu <15 e duplicate c Rec. 107 e duplicate t LC	Anal Prep rix <u>ilt Rec.</u> .8 104 result. <u>Rec.</u> Limit 27.8 - 152.1 result. S LCSD	lyzed By bared By F L 27.8 RPD 2	: LD : LD tec. <u>imit</u> - 152.1 RPD Limit 20 Rec.
Laboratory Control Spike (I QC Batch: 51363 Prep Batch: 44047 Param DRO Percent recovery is based on the PARO Percent recovery is based on the DRO Percent recovery is based on the LCS Surrogate Result	LCS-1) LCS-1) Result LCSD Result 267 spike result LCS: t Resu	Date An QC Prep CS sult U 51 m . RPD is t Units mg/Kg . RPD is t D lt U	alyzed: 2 paration: 2 Units I g/Kg	008-08-12 008-08-12 Dil. Amoun <u>1 250</u> spike and spike pike Matrix nount Result 250 <15.8 spike and spike Spike bil. Amour	Matz t Ress <15 e duplicate Rec. 107 e duplicate t LC at Rec	Anal Prep rix <u>alt Rec.</u> .8 104 result. <u>Rec.</u> <u>Limit</u> 27.8 - 152.1 result. S LCSD 2. Rec.	lyzed By bared By F L 27.8 RPD 2	: LD : LD tec. imit - 152.1 RPD Limit 20 Rec. imit

Laboratory Control Spike (LCS-1)

QC Batch:	51389]	Date Analyze	d: 2008	8-08-12		Anal	yzed By: DC
Prep Batch:	44052	(QC Preparati	on: 2008	8-08-12		Prepa	ared By: DC
		LCS			Spike	Matrix		Rec.
Param		, Result	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
Benzene		0.790	mg/Kg	1	1.00	< 0.00580	79	73.3 - 116.6
Toluene		0.801	mg/Kg	1	1.00	< 0.00470	80	78.6 - 115.1
Ethylbenzene	•	0.788	mg/Kg	1	1.00	< 0.00530	79	77.4 - 114.9
Xylene		2.37	mg/Kg	1	3.00	< 0.0136	79	78.2 - 114.7

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}	RPD	Limit
Benzene	0.804	mg/Kg	1	1.00	< 0.00580	80	73.3 - 116.6	2	20
Toluene	0.822	mg/Kg	, 1	1.00	< 0.00470	82	78.6 - 115.1	3	20
Ethylbenzene	0.810	mg/Kg	1	1.00	< 0.00530	81	77.4 - 114.9	3	20
Xylene	2.43	mg/Kg	1	3.00	< 0.0136	81	78.2 - 114.7	2	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	\mathbf{Result}	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.769	0.774	mg/Kg	1	1.00	77	77	45 - 124.2
4-Bromofluorobenzene (4-BFB)	0.775	0.776	mg/Kg	1	1.00	78	78	47.2 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch:	51 39 0	Dat	e Analyzed:	2008-08	8-12		Analy	zed By: DC
Prep Batch:	44052	\mathbf{QC}	Preparation:	2008-08	8-12		Prepa	ared By: DC
		LCS			Spike	Matrix		Rec.
Param		\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	Limit
GRO		8.11	mg/Kg	1	10.0	0.872	72	57.5 - 106.4

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	\mathbf{Limit}
GRO	8.64	mg/Kg	1	10.0	0.872	78	57.5 - 106.4	6	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	Result	\mathbf{Units}	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	0.885	0.867	mg/Kg	1	1.00	88	87	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.851	0.833	mg/Kg	1	1.00	85	83	53.3 - 123.6

Report Date: August 13, 2008 Plains075SPL				Work Order: 8081204 EK Queen BLM					Page Number: 9 of 11 Lea County, NM		
Matrix Spike (MS-1)	Spiked Sa	ample: 17	0234								
QC Batch: 51363 Prep Batch: 44047			Date A QC Pre	nalyzed: eparation	: 2008-0 n: 2008-0	8-12 8-12			Anal Prep	yzed By ared By	: LD : LD
Param		MS	1+	Unite	انر	Spike A mount	Ma	atrix	Roc	I	Rec.
	3	nesu 613	10	mg/Kg	1	250	6	13	$\frac{\text{nec.}}{0}$	18	170 5
		013		$\frac{mg}{Ng}$		200		1.5	0	10	- 179.0
Percent recovery is based of	on the spik	e result.	RPD is	based of	n the spike	e and spike di	iplicate	result.			
		MSD			Spike	Matrix		\mathbf{R}	ec.		RPD
Param		Result	Units	Dil.	Amoun	t Result	Rec.	Liı	\mathbf{nit}	RPD	Limit
DRO	4	600	mg/Kg	1	250	613	0	18 -	179.5	2	20
Percent recovery is based of	on the spik	e result.	RPD is	based of	n the spike	e and spike d	ıplicate	result.			
	MS	MSI)			Spike	Ν	4S	MSD		Rec.
Surrogate	Result	Resu	lt	Units	Dil.	Amount	R	ec.	Rec.]	Limit
n-Triacontane ⁵⁶	188	166		mg/Kg	1	100	1	88	166	34.	1 - 158
Matrix Spike (MS-1) QC Batch: 51389 Prep Batch: 44052	Spiked Sa	mple: 17	0117 Date Ar QC Pre	nalyzed: paration	: 2008-0 n: 2008-0	8-12 8-12			Anal Prep	yzed By ared By:	: DC : DC
		MS				Spike	Matr	rix		F	lec.
Param		Result	: U	Inits	Dil.	Amount	Resu	ılt	Rec.	\mathbf{L}	imit
Benzene		1.21	m	g/Kg	1	1.00	< 0.00	580	121	62.2	- 134.3
Toluene		1.26	\mathbf{m}_{i}	g/Kg	1	1.00	< 0.00	470	126	62.6	- 145.4
Ethylbenzene		1.27	$\mathbf{m}_{\mathbf{i}}$	g/Kg	1	1.00	0.05	17	122	64.6	- 146.4
Xylene		3.82	m	g/Kg		3.00	0.074	43	125	64.3	- 148.8
Percent recovery is based of	n the spik	e result. I	RPD is	based of	n the spike	e and spike du	iplicate	result.			
	r	MSD			Spike	Matrix		Re	ec.		RPD
Param	R	esult	Units	Dil.	Amount	Result	Rec.	Lin	nit	RPD	Limit
Benzene		1.31 n	ng/Kg	1	1.00	< 0.00580	131	62.2 -	134.3	8	20
Toluene		1.36 n	ng/Kg	1	1.00	< 0.00470	136	62.6 -	145.4	8	20
Ethylbenzene		1.37 n	ng/Kg	1	1.00	0.0517	132	64.6 -	146.4	8	20
Xylene		4.14 n	ng/Kg	1	3.00	0.0743	136	64.3 -	148.8	8	20
Percent recovery is based o	n the spik	e result.]	RPD is	based of	n the spike	e and spike di	plicate	result.			

³Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
⁴Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
⁵High surrogate recovery due to peak interference.
⁶High surrogate recovery due to peak interference.

Report Date: August 13, 2008 Plains075SPL		Work C EK	Page Number: 10 of 11 Lea County, NM						
Surrogate	MS Result	$egin{array}{c} { m MSD} \\ { m Result} \end{array}$	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	R Li	ec. mit
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-BFB)	0.756 0.784	0.762 0.780	mg/Kg mg/Kg	1 1	1 1	76 78	76 78	38.8 · 49.3 ·	· 127.5 · 142.4
Matrix Spike (MS-1) Spiked Sa	ample: 170110	I							
QC Batch: 51390 Prep Batch: 44052	${f Date} {f QC}$	e Analyzed Preparatic	: 2008-08 m: 2008-08	-12 -12			Analy Prepa	zed By: red By:	DC DC
Param	MS Besult	Units	Dil	Spil Amor	xe M	atrix	Rec	I	Rec. imit
GRO	10.6	mg/Kg	1	10.	$\frac{110}{0}$ 1.	9169	87	10 -	139.3
Percent recovery is based on the spik	e result. RPD	is based o	on the spike	and spil	e duplicat	e result.			
Demons	MSD Basselt Um	:4a D:1	Spike	Mat	rix de Dee	Ree	C.	חחמ	RPD
CRO 7	$\frac{\text{Result}}{7.50}$ mg/	$\frac{11S}{K_{\rm ff}}$ $\frac{D11}{1}$	Amount 10.0	1 01	$\frac{11t}{60} \frac{60}{56}$	10 - 1	11t . 20.2	34	20
Persont recovery is based on the spile	no mogult DDD	ic based of	n the entire	and anil	ro duplicat	10 - 1	00.0		20
Tercent recovery is based on the spin		is based (ni the spike	anu spii	te uupneas	e resuit.			
_	MS	MSD			Spike	MS	MSD	F	lec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	L	imit
Triffuorotoluene (TFT)	0.868	0.917	mg/Kg mg/Kg	1	1	87 80	92 02	21.3	8 - 119 5 - 154
4-Bromondorobenzene (4-BFB)	0.891	0.921	mg/ K g	1	1	09	93	02.0) - 104
Standard (ICV-1)									
OC Batch 51362	Date	Analyzed	· 2008-08-	19			Analy	zed By:	LD
чо патен. этэээ	Date		2000-00-	12					
чо нани. 91909	ICVs		2000-00-1	ICV	's	Percen	it		
	ICVs True	I I I I I I I I I I I I I I I I I I I	ICVs Jound	ICV Perce	's ent	Percen Recover	it ry	D	ate
Param Flag Units	ICVs True Conc.	. (ICVs Found Conc.	ICV Perce Recov	's ent yery	Percen Recover Limits	t ry 5	D Ana	ate llyzed
Param Flag Units DRO mg/Kg	ICVs True Conc. 250	. (ICVs Found Conc. 269	ICV Perce Recov	7s ent very 3	Percen Recover Limits 85 - 11	nt ry 5	D Ana 2008	ate lyzed -08-12
Param Flag Units DRO mg/Kg Standard (CCV-1)	ICVs True Conc. 250	. (ICVs Found Conc. 269	ICV Perco Recov 108	7s ent rery 3	Percen Recover Limits 85 - 11	t ry 5 5	D Ana 2008	ate Ilyzed -08-12
Param Flag Units DRO mg/Kg Standard (CCV-1) QC Batch: 51363	ICVs True Conc. 250	e Analyzed	: 2008-08-1	ICV Perco Recov 108	7s ent rery 3	Percen Recover Limits 85 - 11	t ry 5 5 Analy	D Ana 2008 vzed By:	ate ilyzed -08-12 LD
Param Flag Units DRO mg/Kg Standard (CCV-1) QC Batch: 51363	ICVs True Conc. 250 Date CCVs	e Analyzed	2000-00- ICVs Yound Conc. 269 : 2008-08- CCVs	ICV Perco Recov 108	Vs ent rery 3	Percen Recove Limits 85 - 11	t ry 5 5 Analy	D Ana 2008 vzed By:	ate lyzed -08-12 LD
Param Flag Units DRO mg/Kg Standard (CCV-1) QC Batch: 51363	ICVs True Conc. 250 Date CCVs True	e Analyzed	2000-00- ICVs Pound Conc. 269 : 2008-08- CCVs Found	ICV Perco Recov 108 12 CCV Perco	Vs ent ery <u>3</u> Vs ent	Percen Recover Limits 85 - 11 Percen Recover	t ry <u>5</u> Analy t ry	D Ana 2008 rzed By: D	ate lyzed -08-12 LD ate
Param Flag Units DRO mg/Kg Standard (CCV-1) QC Batch: 51363 Param Flag Units	ICVs True Conc. 250 Date CCVs True Conc.	e Analyzed	ICVs Found Conc. 269 : 2008-08- CCVs Found Conc.	ICV Perco Recov 108 12 12 CCV Perco Recov	Vs ent 3 Vs ent very	Percen Recover Limits 85 - 11 Percen Recover Limits	t ry <u>5</u> Analy t ry	D Ana 2008 vzed By: D Ana	ate .lyzed -08-12 LD ate .lyzed

⁷MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: Plains075SPL	August 13, 2	2008	W	ork Order: 808 EK Queen BLM	1204 M	Page N I	umber: 11 of 11 Lea County, NM
Standard (IC	CV-1)						
QC Batch: 5	1389		Date Anal	yzed: 2008-08-	-12	Anal	yzed By: DC
			ICVs	ICVs	ICVs	Percent	
			\mathbf{True}	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0914	91	85 - 115	2008-08-12
Toluene		m mg/Kg	0.100	0.0934	93	85 - 115	2008-08-12
Ethylbenzene		mg/Kg	0.100	0.0919	92	85 - 115	2008-08-12
Xylene		mg/Kg	0.300	0.276	92	85 - 115	2008-08-12
Standard (C	CV-1)						
QC Batch: 5	1389		Date Anal	yzed: 2008-08-	-12	Anal	yzed By: DC
			CCVs	CCVs	\mathbf{CCVs}	Percent	
			True	Found	Percent	Recovery	Date
Param	$\mathbf{F}\mathbf{lag}$	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	· 0.100	0.0960	96	85 - 115	2008-08-12
Toluene		mg/Kg	0.100	0.0968	97	85 - 115	2008-08-12
Ethylbenzene		mg/Kg	0.100	0.0942	94	85 - 115	2008-08-12
Xylene		mg/Kg	0.300	0.280	93	85 - 115	2008-08-12
Standard (IC	CV-1)						
QC Batch: 5	1390		Date Anal	yzed: 2008-08-	-12	Anal	yzed By: DC
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.03	103	85 - 115	2008-08-12
Standard (C	CV-1)						
QC Batch: 5	1390		Date Anal	yzed: 2008-08-	-12	Anal	yzed By: DC
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recoverv	Date
Param	Flag	Units	Conc.	Conc.	Recoverv	Limits	Analyzed
GRO	<u>v</u>	mg/Kg	1.00	1.10	110	85 - 115	2008-08-12

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Trace Analysis, Inc. Operation of the stress fraction of the stress				LAB Order I	d# <u>808</u>	1204		Page of
Company Name: Phone 8: Phone 8: ANALYSIS REQUEST Address: (Einer, Circle or Specify Method No.) (Circle or Specify Method No.) Address: (Einer, Circle or Specify Method No.) Project Asian: (Einer, Circle or Specify Method No.)	TraceAnalysis email: lab@traceanalysis	s, Ir	ac.	6701 Aberdeen Avenue, S Lubbock, Texas 7942 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1296	uite 9 5002 Ba 24 Midla Tel (Fax	isin Street, Suite A1 nd, Texas 79703 (432) 689-6301 (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	8808 Camp Bowie Blvd. West, Suite 180 Ft. Worth, Texas 76116 Tel (817) 201-5260 Fax (817) 560-4336
Address: (Bitel, G2, 26) 1402 Min. HobBS. NM 852-56 Construction Finalit (Signature) Construction Finalit Construction (Signature) Construction (S	Company Name: THIOW ILPE		Phor 4/3.	e#: 2 238-6388	/		ANALYSIS RI	EQUEST
Ex. 7/17/W/ register regis	Address: (Street, City, Zip) <u>318 E TAylor HoBBS</u> Contact Person	HAX #: AMING HOBBS NIM 88040 E-mail:						
If affiniture if form above PLA 1025 Project Name: Proje	EB TIANUT Invoice to:					(C35)		stands
Image: Project coation (including status): Image: Project coation (including status):<	(If different from above) PAiNS Project #:		Proje	ct Name:		B / 62 / 624 05 Ext	255 Pb 5	L Low
LAR FIELD CODE Winter The Count of	Project Location (including state):	<u> </u>	K QUEE Sam	N <u>BLM</u> pler Signature:		7X10	24 Cd C	tteren (80
LAB # FIELD CODE WE HOD WE HOD <td>LEA COUNTY NM</td> <td></td> <td colspan="3">MATRIX PRESERVATIVE SAMPLING</td> <td>1 602 / 8 602 / 8 5 0 RC</td> <td>As Ba Cd As Ba Cd As Ba attles s attles 06 008 / 6 01 827 08</td> <td>A/60</td>	LEA COUNTY NM		MATRIX PRESERVATIVE SAMPLING			1 602 / 8 602 / 8 5 0 RC	As Ba Cd As Ba Cd As Ba attles s attles 06 008 / 6 01 827 08	A/60
CAR us Constant FIELD CODE Fiel		Amoui		METHOD		218/1/1X	atiles Ag As at talk Ag As at talk Ag As at talk Ag As at talk Ag at talk at t	So BH BOD Table 10 Contents
1 1	(AB# FIELD CODE 2 (AB:USE) (ONLY) *	Volume / WATER	Soil Air Sludge	HCI HNO ₃ H ₂ SO ₄ NaOH ICE NONE	DATE TIME	MTBE 80 BTEX 80 TPH 418. TPH 8015 PAH 8270	fotal Metal TCLP Well TCLP Sei TCLP Sei TCLP Pee RCI GC/MS V GC/MS V	Pesticide BOD, TS; Moisture Turn Arou Hold
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Submittal of samples constitutes agreement to lerms and Conditions listed on reverse side of C. O. C.	Submittal of samples constitutes agreement to Terms and	d Conditio	ns listed on rev	erse side of C. O. C.		Log-miRav	arru - ,	Special Reporting 9 Needed

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 6701 Aberdeen Avenue, Suite 9
 Lubbock, Texas 79424

 200 East Sunset Road, Suite E
 El Paso, Texas 79922

 5002 Basin Street, Suite A1
 Midiand Texas 79703

 6015 Harris Parkway Suite 110
 Ft Worth, Texas 76132

Lubbock, Texas 79424 800 • 378 • 1296 El Paso, Texas 79922 888 • 588 • 3443 Midiand Texas 79703 t Worth, Texas 76132 E-Mail, lab@traceanalvsis.com 806 • 794 • 1296 F/ 915 • 585 • 3443 F/ 432 • 689 • 6301 F/ 817 • 201 • 5260

FAX 806 • 794 • 1298
 FAX 915 • 585 • 4944
 FAX 432 • 689 • 6313

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

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Report Date: August 19, 2008

Work Order: 8081502

Project Location:Lea County, NMProject Name:EK Queen BLMProject Number:Plains071SPL

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	\mathbf{Time}	Date	
Sample	Description	Matrix	Taken	Taken	Received	
170732	BF-3	soil	2008-08-15	12:00	2008-08-15	
170733	BF-4	soil	2008-08-15	12:10	2008-08-15	
170734	BF-5	soil	2008-08-15	12:15	2008-08-15	

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

Blair Leptinich

Dr. Blair Leftwich, Director

Standard Flags

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

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Case Narrative

Samples for project EK Queen BLM were received by TraceAnalysis, Inc. on 2008-08-15 and assigned to work order 8081502. Samples for work order 8081502 were received intact at a temperature of 3.0 deg. C.

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

Test	Method
BTEX	S 8021B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8081502 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: 170732 - BF-3

Laboratory:	Lubbock				26.1.1	G 0001D			1 1 0 5005	
Analysis:	BTEX			Analytical	Method:	S 8021B		Prep Method: S 5035		
QC Batch:	51537			Date Analy	yzed:	2008-08-18		Analyze	d By: ER	
Prep Batch:	44194			Sample Pro	eparation:	2008-08-18	18 Prepare		d By: ER	
				RI	J					,
Parameter	·	Flag		Result	t	Units]	Dilution	RL	
Benzene		1		< 0.0500)	mg/Kg		5	0.0100	
Toluene				< 0.0500)	mg/Kg		5	0.0100	
Ethylbenzene				< 0.0500)	mg/Kg		5	0.0100	
Xylene	<u></u>			1.51	L	mg/Kg		5	0.0100	
							Spike	Percent	Recovery	
Surrogate			Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits	
Trifluorotolue	ne (TFT)			1.22	mg/Kg	5	1.00	122	59 - 136.1	
4-Bromofluor	obenzene (4-B	FB)		1.12	mg/Kg	5	1.00	112	54.4 - 176.2	

Sample: 170732 - BF-3

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 51484 44133		An Da Sar	Analytical Method: Date Analyzed: Sample Preparation:		Mod. 8015B 2008-08-15 2008-08-15		Prep Method: Analyzed By: Prepared By:		N/A LD LD	
				\mathbf{RL}							
Parameter		Flag	R	\mathbf{tesult}		Uni	its		Dilution		\mathbf{RL}
DRO				879		mg/ł	Kg		1		50.0
							ç	Spike	Percen	t Rec	overy
Surrogate	\mathbf{Flag}	Res	ult	Units	\mathbf{Dilu}	tion	A	mount	Recover	ry Li	mits
n-Triacontane	2	2	263 1	mg/Kg]	L		100	263	10 -	250.4

Sample: 170732 - BF-3

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	51538	Date Analyzed:	2008-08-18	Analyzed By:	\mathbf{ER}
Prep Batch:	44194	Sample Preparation:	2008-08-18	Prepared By:	\mathbf{ER}

continued ...

 $^1 Sample ran at dilution due to hydrocarbons with a retention time greater than xylene. <math display="inline">^2 High$ surrogate recovery due to peak interference.

Report Date: August 19, 2008	Work Order: 8081502	Page Number: 5 of 12
Plains071SPL	EK Queen BLM	Lea County, NM

sample 170732 continued ...

			\mathbf{RL}					
Parameter	Flag		\mathbf{Result}		Units		Dilution	RL
			BL					
Parameter	Flag		Result		Units		Dilution	\mathbf{RL}
GRO			162		mg/Kg		5	1.00
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		1.36	mg/Kg	5	1.00	136	55.3 - 161.9
4-Bromofluor	robenzene (4-BFB)	3	5.91	mg/Kg	5	1.00	591	45.6 - 214.7
Sample: 17	0733 - BF-4							
Laboratory:	Lubbock BTEX		Applytical	Mathadi	S 9091B		Prop. Mc	sthads \$ 5025

Analysis	DIEA		Anarymean	meenou.	D 0021D		i tep me	unou.	0,0000
QC Batch:	51537		Date Anal	yzed:	2008-08-18		Analyze	d By:	\mathbf{ER}
Prep Batch:	44194		Sample Preparation:		2008-08-18		Prepared By:		\mathbf{ER}
			RI	L					
Parameter	\mathbf{Flag}		Resul	t	Units		Dilution		\mathbf{RL}
Benzene	4		< 0.050	0	mg/Kg		5		0.0100
Toluene			0.087	6	mg/Kg		5		0.0100
Ethylbenzene			0.085	2	mg/Kg		5		0.0100
Xylene			2.1	9	mg/Kg		5		0.0100
						Spike	Percent	Rec	covery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	${ m Li}$	mits
Trifluorotoluen	ne (TFT)		1.01	mg/Kg	5	1.00	101	59 -	136.1
4-Bromofluoro	benzene (4-BFB)		1.08	mg/Kg	5	1.00	108	54.4	- 176.2

Sample: 170733 - BF-4

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Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 51484 44133	Analytical Method: Date Analyzed: Sample Preparation:	Mod. 8015B 2008-08-15 2008-08-15	Prep Method: Analyzed By: Prepared By:	N/A LD LD
		RL			
Parameter	Flag	\mathbf{Result}	Units	Dilution	\mathbf{RL}
DRO		305	mg/Kg	1	50.0

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³High surrogate recovery due to peak interference. ⁴Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.

Report Date Plains071SP	e: August 19, 2008 PL			Work Orde EK Que	Page Number: 6 of 12 Lea County, NM			
Surrogate	Flag	Result	Units	Di	lution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan	le	97.2	mg/K	g	1	100	97	10 - 250.4
Sample: 17	70733 - BF-4							
Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock TPH GRO 51538 44194		Analytica Date Ana Sample F	al Method: alyzed: Preparation	S 8015B 2008-08-18 : 2008-08-18	5	Prep Me Analyze Prepare	ethod: S 5035 d By: ER d By: ER
Parameter	Flag		${ m RL} { m Result}$		Units		Dilution	\mathbf{RL}
GRO			162		mg/Kg		5	1.00
Surrogate		Flag	\mathbf{Result}	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolu	ene (TFT)		0.966	mg/Kg	5	1.00	97	55.3 - 161.9
4-Bromofluor	robenzene (4-BFB)	5	5.13	mg/Kg	5	1.00	513	45.6 - 214.7
Sample: 17	0734 - BF-5							
Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock BTEX 51537 44194		Analytical Date Anal Sample Pr	Method: yzed: ceparation:	S 8021B 2008-08-18 2008-08-18		Prep Me Analyze Prepare	ethod: S 5035 d By: ER d By: ER
			R	L				

Parameter	Flag		Resul	t	Units		Dilution	\mathbf{RL}
Benzene			< 0.010	0	mg/Kg		1	0.0100
Toluene			< 0.010	0	mg/Kg		1	0.0100
Ethylbenzene			< 0.010	0	mg/Kg		1	0.0100
Xylene			0.011	3	mg/Kg		1	0.0100
Surrogato	רס	0.0	Popult	Unita	Dilution	Spike A mount	Percent	Recovery
Surrogate	1.1	ag	nesuit	Units	Dilution	Amount	necovery	Limits
Triffuorotoluene (TFT)			1.11	mg/Kg	1	1.00	111	59 - 136.1
4-Bromofluorobenzene (4-BF	B)		1.29	mg/Kg	1	1.00	129	54.4 - 176.2

Sample: 170734 - BF-5

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	51484	Date Analyzed:	2008-08-15	Analyzed By:	ĹĎ
Prep Batch:	44133	Sample Preparation:	2008-08-15	Prepared By:	LD

⁵High surrogate recovery due to peak interference.

Report Date: A Plains071SPL	ugust 19, 2008		T.	Work Orde EK Quee	er: 8081502 en BLM		Page N L	umber: 7 of 12 ea County, NM
D			RL		T			5.
Parameter	Flag		Result		Units		Dilution	<u> </u>
DRO			197		mg/Kg		1	50.0
Surrogate	Flag	Result	Units	Dil	lution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	8	89.3	mg/Kg		1	100	89	10 - 250.4
Sample: 1707:	34 - BF-5							
Laboratory: La	ubbock							
Analysis: T	PH GRO		Analytical	Method:	S 8015B		Prep Me	ethod: S 5035
QC Batch: 51	1538		Date Anal	yzed:	2008-08-18	8 .	Analyze	d By: ER
Prep Batch: 44	1194		Sample Pr	reparation:	2008-08-18	8	Prepare	d By: ER
			RL					
Parameter	Flag		Result		Units		Dilution	RL.
GRO	* ****8		9.14		mg/Kg		1	1.00
					0/0			
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene	(TFT)		1.27	mg/Kg	1	1.00	127	55.3 - 161.9
4-Bromofluorobe	enzene (4-BFB)		1.97	mg/Kg	1	1.00	197	45.6 - 214.7
Method Blank QC Batch: 51 Prep Batch: 44	a (1) QC Ba 484 1133	atch: 51484	Date Ana QC Prepa	llyzed: 2 aration: 2	2008-08-15 2008-08-15		Analy Prepa	vzed By: LD ared By: LD
D				MDL	J			
Parameter		Flag		Result	5	U		
				<10.0	<u> </u>	mg	/ Kg	
Surrogate	Flag	Result	Units	Dilu	ition	Spike Amount	Percent Recovery	$f Recovery \ Limits$
n-Triacontane		141	mg/Kg	-	1	100	141	30.9 - 146.4
Method Blank QC Batch: 51	: (1) QC Ba	atch: 51537	Date Ana	lvzed: 2	2008-08-18		Analy	zed By: EB

QC Batch:	51537	Date Analyzed:	2008-08-18	Analyzed By:	\mathbf{ER}
Prep Batch:	44194	QC Preparation:	2008-08-18	Prepared By:	\mathbf{ER}

Report Date: August 19 Plains071SPL	, 2008		Work Order: EK Queer	8081502 BLM	•	Page M I	Number: 8 of 12 Lea County, NM
			М	ar .			
Parameter	Flag		ML Resu	בני 1+	11-	nite	RI.
Benzene	Tiag			17		/Ka	0.01
Toluene			<0.005	25	mø	/Kg /Kg	0.01
Ethylbenzene	,		< 0.0060	-0)7	me	:/Kg	0.01
Xylene			< 0.0072	24	mg	;/Kg	0.01
						_	
0	T 1	Dendu	TT '4 -		Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
A Promofuorobongono (A	BEB)	0.920	mg/Kg	1	1.00	92	09.3 - 110.2 94.4 - 114.6
	212)						
Method Blank (1)	QC Batch: 5153	8					
QC Batch: 51538		Date An	alyzed: 20	008-08-18		Anal	yzed By: ER
Prep Batch: 44194		QC Prep	paration: 20	008-08-18		Prep	ared By: ER
-	-		MDL			•	D.T.
Parameter	Flag		Result		Un		
GRO			<0.144		mg	/Kg	I
					Spike	Percent	Recovery
Surrogate	\mathbf{Flag}	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)	······································	1.03	mg/Kg	1	1.00	103	83.3 - 108.5
4-Bromofluorobenzene (4	-BFB)	0.836	mg/Kg	1	1.00	84	34.5 - 105.8
Laboratory Control S	pike (LCS-1)						
Laboratory Control Sp QC Batch: 51484	pike (LCS-1)	Date An	alyzed: 20	008-08-15		Anal	yzed By: LD
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133	pike (LCS-1)	Date An QC Prep	alyzed: 20 paration: 20	008-08-15 108-08-15		Anal Prep	yzed By: LD ared By: LD
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133	pike (LCS-1)	Date An QC Prep LCS	alyzed: 20 paration: 20	008-08-15 008-08-15 Spike	Matı	Anal Prep rix	yzed By: LD ared By: LD Rec.
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param	pike (LCS-1) I R	Date An QC Prep LCS esult U	alyzed: 20 paration: 20 Juits D	008-08-15 108-08-15 Spike il. Amour	Matu 1t Resu	Anal Prep rix ılt Rec.	yzed By: LD bared By: LD Rec. Limit
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param DRO	pike (LCS-1)	Date An QC Prep LCS esult U 260 m	alyzed: 20 baration: 20 Units D g/Kg 1	008-08-15 008-08-15 Spike il. Amour 250	Matı ıt Resu <15	Anal Prep rix ilt Rec. .8 104	yzed By: LD ared By: LD Rec. Limit 27.8 - 152.1
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param	pike (LCS-1)	Date An QC Prep LCS esult U 260 m lt. RPD is b	alyzed: 20 baration: 20 Units D g/Kg 1 based on the	008-08-15 008-08-15 il. Amour 1 250 spike and spik	Matu nt Resu <15 e duplicate	Anal Prep rix alt Rec. .8 104 result.	yzed By: LD ared By: LD Rec. Limit 27.8 - 152.1
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param DRO Percent recovery is based	pike (LCS-1)	Date An QC Prep CCS esult U 260 m lt. RPD is b	alyzed: 20 baration: 20 Units D g/Kg 1 based on the Sp	008-08-15 008-08-15 il. Amour 1 250 spike and spik bike Matri:	Matu ut Resu <15 e duplicate x	Anal Prep rix <u>alt Rec.</u> .8 104 result. Rec.	yzed By: LD ared By: LD Rec. Limit 27.8 - 152.1 RPD
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param DRO Percent recovery is based Param	pike (LCS-1)	Date An QC Prep LCS esult U 260 m lt. RPD is b Units	alyzed: 20 baration: 20 Units D g/Kg 1 based on the Sp Dil. Am	008-08-15 008-08-15 il. Amour t 250 spike and spik bike Matriz ount Result	Mata nt Resu <15 e duplicate x t Rec.	Anal Prep tix <u>ilt Rec.</u> .8 104 result. Rec. Limit	yzed By: LD ared By: LD Rec. Limit 27.8 - 152.1 RPD RPD Limit
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param	pike (LCS-1)	Date An QC Prep esult U 260 m lt. RPD is t Units mg/Kg	alyzed: 20 paration: 20 <u>Juits D</u> <u>g/Kg 1</u> pased on the Sp <u>Dil. Am</u> <u>1 2</u>	008-08-15 008-08-15 il. Amour 1 250 spike and spik sike Matriz ount Result 50 <15.8	Mata nt Resu <15 e duplicate k t Rec. 5 99	Anal Prep rix alt Rec. .8 104 result. Rec. Limit 27.8 - 152.1	yzed By: LD ared By: LD Rec. Limit 27.8 - 152.1 RPD RPD Limit 5 20
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param	pike (LCS-1)	Date An QC Prep LCS esult U 260 m lt. RPD is b Units mg/Kg lt. RPD is b	$\begin{array}{rrrr} \text{alyzed:} & 20\\ \text{paration:} & 20\\ \hline \\ \text{paration:} & 20\\ \hline \\ \text{g/Kg} & 1\\ \hline \\ \text{pased on the}\\ \hline \\ \hline \\ \hline \\ \text{Dil.} & \text{Am}\\ \hline \\ 1 & 2\\ \hline \\ \hline \\ \text{pased on the}\\ \hline \end{array}$	008-08-15 008-08-15 il. Amour 250 spike and spik spike Matriz ount Result 50 <15.8 spike and spik	Mata nt Resu <15 e duplicate c t Rec. 99 e duplicate	Anal Prep rix alt Rec. .8 104 result. Rec. Limit 27.8 - 152.1 result.	yzed By: LD ared By: LD Rec. Limit 27.8 - 152.1 RPD RPD Limit 5 20
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param	pike (LCS-1)	Date An QC Prep esult U 260 m lt. RPD is b Units mg/Kg lt. RPD is b SD	alyzed: 20 paration: 20 <u>Units D</u> <u>g/Kg 1</u> pased on the <u>Sp</u> <u>Dil. Am</u> <u>1 2</u> pased on the	008-08-15 008-08-15 il. Amour 1 250 spike and spik oike Matriz ount Result 50 <15.8 spike and spik Spike	Mata t Resu <15 e duplicate k t Rec. 99 e duplicate e LC	Anal Prep rix alt Rec. .8 104 result. Rec. Limit 27.8 - 152.1 result. S LCSD	yzed By: LD ared By: LD Rec. Limit 27.8 - 152.1 RPD Limit 5 20 Rec.
Laboratory Control Sp QC Batch: 51484 Prep Batch: 44133 Param	pike (LCS-1)	Date An QC Prep LCS esult U 260 m lt. RPD is b Units mg/Kg lt. RPD is b SD sult U	alyzed:20paration:20UnitsD g/Kg 1pased on theSpDil.Am12pased on the1pased on the1pased on the1	008-08-15 008-08-15 il. Amour 1 250 spike and spik oike Matrix ount Result 50 <15.8 spike and spik spike and spik Spike	Matu t Resu <15 e duplicate x t Rec. 99 e duplicate e duplicate e LC nt Rec	Anal Prep rix <u>alt Rec.</u> .8 104 result. <u>Rec.</u> Limit 27.8 - 152.1 result. S LCSD c. Rec.	yzed By: LD ared By: LD Rec. Limit 27.8 - 152.1 RPD RPD Limit 5 20 Rec. Limit

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Report Date: August 19, 2008	Work Order: 8081502	Page Number: 9 of 12
Plains071SPL	EK Queen BLM	Lea County, NM

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch:	51537 44194	Da QC	te Analyzed C Preparatio	: 2008- n: 2008-	-08-18 -08-18		Analy Prepa	yzed By: ER ared By: ER
Param		LCS Besult	Units	Dil	Spike Amount	Matrix Besult	Rec	Rec. Limit
Benzene		0.897	mg/Kg	1	1.00	< 0.00347	90	80.5 - 115.5
Toluene		0.922	mg/Kg	1	1.00	< 0.00525	92	80 - 114.7
Ethylbenzen	e	0.914	mg/Kg	1	1.00	< 0.00607	91	77.1 - 114.2
Xvlene		2.74	mg/Kg	1	3.00	< 0.00724	91	77.6 - 114.5

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

	LCSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}	RPD	Limit
Benzene	0.871	mg/Kg	1	1.00	< 0.00347	87	80.5 - 115.5	3	20
Toluene	0.896	mg/Kg	1	1.00	< 0.00525	90	80 - 114.7	3	20
Ethylbenzene	0.891	mg/Kg	1	1.00	< 0.00607	89	77.1 - 114.2	2	20
Xylene	2.67	mg/Kg	1	3.00	< 0.00724	89	77.6 - 114.5	3	20

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

	LCS	LCSD			\mathbf{Spike}	LCS	LCSD	Rec.
Surrogate .	\mathbf{Result}	\mathbf{Result}	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	0.904	0.901	mg/Kg	1	1.00	90	90	74.2 - 114.7
4-Bromofluorobenzene (4-BFB)	0.902	0.887	mg/Kg	1	1.00	9 0	89	69.7 - 118.7

Laboratory Control Spike (LCS-1)

QC Batch:	51538	Date	Analyzed:	2008-0	18-18	·	Analyze	ed By:	ER
Prep Batch:	44194	QC I	Preparation:	2008-0	18-18		Prepare	ed By:	ER
Param		LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Re Lin	c. nit

 GRO
 9.14
 mg/Kg
 1
 10.0
 <0.144</th>
 91
 73.1 - 114.7

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

	LCSD			\mathbf{Spike}	Matrix		Rec.		RPD
Param	\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}	RPD	Limit
GRO	10.0	mg/Kg	1	10.0	< 0.144	100	73.1 - 114.7	10	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	0.954	0.978	mg/Kg	1	1.00	95	98	77.4 - 111.4
4-Bromofluorobenzene (4-BFB)	0.970	0.987	mg/Kg	1	1.00	97	99	70.3 - 116.1

Report Date: August 19, 2 Plains071SPL	2008			Work (EK	Order: 808 Queen BL	1502 M				Page Nu L	ımber: ea Cour	10 of 12 hty, NM
Matrix Spike (MS-1)	Spiked S	Sample: 1	170732									
QC Batch: 51484			Date	Analyzed	: 2008-0	8-15				Anal	yzed By	r: LD
Prep Batch: 44133			QC F	Preparatio	n: 2008-0	8-15				Prep	ared By	: LD
		M	ıs			S	Spike	М	atrix			Rec.
Param		\mathbf{Res}	sult	Units	Dil.	A	mount	R	\mathbf{esult}	Rec.]	Limit
DRO		10	20	mg/Kg	1		250	8	379	56	18	- 179.5
Percent recovery is based of	on the spi	ke result	. RPD	is based o	n the spik	e and	spike d	uplicate	e resul	t.		
		MSD			Spike	N	I atrix		•	Rec.		RPD
Param		Result	Unit	ts Dil.	Amour	it F	Result	Rec.	Ι	Limit	RPD	Limit
DRO		1000	mg/I	Kg 1	250		879	48	18	- 179.5	2	20
Percent recovery is based of	on the spi	ke result	. RPD	is based c	on the spik	e and	spike d	uplicate	e resul	t.		
,	MS	M	SD				Spike]	MS	MSD		Rec.
Surrogate	Result	Re	sult	Units	Dil.	A	Amount	F	lec.	Rec.	J	Limit
n-Triacontane 67	261	2	34.	mg/Kg	1		100	6	261	234	34	.1 - 158
		M	5			Sni	ke	Mat	rix			Rec.
Param		Resi	ult	Units	Dil.	Amo	ount	Res	ult	Rec.	L	imit
Benzene		1.0	1	mg/Kg	1	1.0	00	< 0.00)347	101	42.9	- 130.7
Toluene		1.0	7	mg/Kg	1	1.0	00	<0.00)525	107	46.9	- 135.4
Ethylbenzene		1.1	2	mg/Kg	1	1.0	00	< 0.00	0607	112	48.3	- 149.3
Xylene		3.3	9	mg/Kg	1	3.0	00	< 0.00)724	113	48.8	- 150.9
Percent recovery is based of	on the spi	ke result	. RPD	is based o	on the spik	e and	spike d	uplicate	e resul	.t.		
		MSD			Spike	Ma	atrix			Rec.		RPD
Param		Result	Units	Dil.	Amount	Re	esult	Rec.	I	Jimit	RPD	Limit
Benzene		1.02	mg/K_{i}	g 1	1.00	<0.	00347	102	42.9	- 130.7	1	20
Toluene		1.09	mg/K	g l	1.00	<0.	00525	109	46.9	- 135.4	2	20
Ltnylbenzene		1.15	mg/K	g 1 ~ 1	1.00	<0.	00007	115	48.3	150.0	3	20
		<u> </u>	mg/K	<u>g 1</u>	3.00	<0.		110	40.0	- 130.9	3	
Percent recovery is based of	on the spi	ke result	. RPD	is based o	on the spik	e and	spike di	uplicate	e resul	t.		
Curro not o		M	S	MSD	TT:/	D'1	Spi	ke	MS	MSD	I	Rec.
Surrogate					Units	<u>1</u>	Amo	ount	110	Kec.	L	imit
Innuorotoluene (IFI)		1.1	.0	1.12	mg/Kg	1			110	112	03.2	- 128.3 ued
⁶ High surrogate recovery du	e to peak i	nterference	e.								00100010	wour i i i

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⁷High surrogate recovery due to peak interference.

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Plains071SPL	2008		Work EK	Queen BL	1502 M			L	lea Count	y, NM
matrix spikes continued										•
		MS	MSD			Spike	MS	MSD	\mathbf{R}	ec.
Surrogate		Result	Result	Units	Dil.	Amount	Rec.	Rec.	Liı	mit
4-Bromofluorobenzene (4-B	BFB)	1.13	1.15	mg/Kg	1	1	113	115	61.5 -	161.2
Matrix Spike (MS-1)	Spiked Sar	mple: 17082	25							
QC Batch: 51538		Da	te Analyze	ed: 2008-0	8-18			Anal	yzed By:	\mathbf{ER}
Prep Batch: 44194		QC	C Preparati	ion: 2008-0	8-18			Prep	ared By:	\mathbf{ER}
		MS			\mathbf{Sp}	ike Ma	atrix		Re	ec.
Param		Result	Units	Dil.	Amo	ount Re	esult	Rec.	Liı	nit
GRO		13.4	mg/Kg	1	10	.0 1	.05	124	48.9 -	155.8
Percent recovery is based o	n the spike	result. RP	D is based	on the spik	e and s	pike duplica	te result.			
	٦	/SD		Snike	Ma	trix	R	26		RPD
Param	R	esult Ur	nits Dil	. Amount	Res	sult Rec	Lir	nit.	RPD	Limit
CPO	1	13.0 mg	$\frac{1}{K\sigma}$ 1	10.0	1	05 120	48.9 -	155.8	3	20
GNU		10.0 1115	1116 1	10.0					~	
Percent recovery is based of	n the snike	result RP	D is based	on the snik	a and s	nike dunlice:	to result	100.0		
Percent recovery is based of	n the spike	result. RP	D is based	on the spik	e and s	pike duplica	te result.			
Percent recovery is based o	on the spike	result. RP MS	D is based MSD	on the spik	e and s	pike duplica Spike	te result. MS	MSD	Re	ec.
Percent recovery is based of Surrogate	on the spike	result. RP MS Result	D is based MSD Result	on the spik	e and sp Dil.	pike duplica Spike Amount	te result. MS Rec.	MSD Rec.	Re Lir	ec. nit
Percent recovery is based o Surrogate Trifluorotoluene (TFT)	on the spike	result. RP MS Result 1.16	D is based MSD Result 1.03	on the spik	e and sp Dil. 1	pike duplica Spike Amount 1	te result. MS Rec. 116	MSD Rec. 103	Re Lir 41.8 -	ec. nit 145.4
Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B	n the spike BFB)	result. RP MS Result 1.16 1.44	D is based MSD Result 1.03 1.34	on the spik Units mg/Kg mg/Kg	e and sp Dil. 1 1	pike duplica Spike Amount 1 1	te result. MS Rec. 116 144	MSD Rec. 103 134	Re Lir 41.8 - 50.3 -	ec. nit 145.4 197.8
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B	n the spike BFB)	result. RP MS Result 1.16 1.44	D is based MSD Result 1.03 1.34	on the spik	e and s Dil. 1 1	pike duplica Spike Amount 1 1	te result. MS Rec. 116 144	MSD Rec. 103 134	Re Lir 41.8 - 50.3 -	ec. nit 145.4 197.8
Percent recovery is based o Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1)	n the spike BFB)	result. RP MS Result 1.16 1.44	D is based MSD Result 1.03 1.34	on the spik	e and sp Dil. 1 1	pike duplica Spike Amount 1 1	te result. MS Rec. 116 144	MSD Rec. 103 134	Re Lir 41.8 - 50.3 -	ec. nit 145.4 197.8
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1)	n the spike BFB)	result. RP MS Result 1.16 1.44	D is based MSD Result 1.03 1.34	on the spik	e and sp Dil. 1 1	pike duplica Spike Amount 1 1	te result. MS Rec. 116 144	MSD Rec. 103 134	Re Lir 41.8 - 50.3 -	ec. nit 145.4 197.8
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484	n the spike	result. RP MS Result 1.16 1.44 Da	D is based MSD Result 1.03 1.34 te Analyze	on the spik Units mg/Kg mg/Kg d: 2008-08	Dil. 1 1 -15	pike duplica Spike Amount 1 1	te result. MS Rec. 116 144	MSD Rec. 103 134	Re Lir 41.8 - 50.3 - yzed By:	ec. nit 145.4 197.8 LD
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484	n the spike BFB)	result. RP MS Result 1.16 1.44 Da ICV	D is based MSD Result 1.03 1.34 te Analyze	on the spike Units mg/Kg mg/Kg d: 2008-08 ICVs	e and sp Dil. 1 1 -15	pike duplica Spike Amount 1 1	te result. MS Rec. 116 144	MSD Rec. 103 134 Anal	Re Lir 41.8 - 50.3 - yzed By:	ec. nit 145.4 197.8 LD
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484	n the spike	result. RP MS Result 1.16 1.44 Da ICV Tru	D is based MSD Result 1.03 1.34 te Analyze 7s e	on the spike Units mg/Kg mg/Kg d: 2008-08 ICVs Found	Dil. 1 -15 IC Pe	pike duplica Spike Amount 1 1	te result. MS Rec. 116 144 Perce Recov	MSD Rec. 103 134 Analy	Re Lir 41.8 - 50.3 - yzed By:	ec. nit 145.4 197.8 LD ate
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag	n the spike BFB) Units	result. RP MS Result 1.16 1.44 Da ICV Tru Con	The formula for the second sec	on the spik Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc.	Dil. 1 1 -15 IC Pe Rec	pike duplica Spike Amount 1 1 CVs rcent covery	te result. MS Rec. 116 144 Perce Recov Limi	MSD Rec. 103 134 Anal ent rery	Re Lin 41.8 - 50.3 - yzed By: Da Ana	ec. nit 145.4 197.8 LD ate lyzed
Percent recovery is based or Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag DRO	Units	result. RP MS Result 1.16 1.44 Da ICV Tru Con 250	The formula for the second sec	on the spik Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc. 256	Dil. 1 1 -15 IC Pec Rec	pike duplica Spike Amount 1 1 CVs rcent covery 102	te result. MS Rec. 116 144 Perce Recov Limi 85 - 1	MSD Rec. 103 134 Anal ent erry ts 115	Re Lir 41.8 - 50.3 - yzed By: D. Ana 2008	ec. nit 145.4 197.8 LD ate lyzed -08-15
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag DRO	Units mg/Kg	result. RP MS Result 1.16 1.44 Da ICV Tru Con 250	D is based MSD Result 1.03 1.34 te Analyze 7s e c.)	on the spike Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc. 256	e and sp Dil. 1 1 -15 IC Pe Rec	pike duplica Spike Amount 1 1 CVs rcent covery 02	te result. MS Rec. 116 144 Perce Recov Limi 85 - 1	MSD Rec. 103 134 Anal ent rery tts 115	Re Lir 41.8 - 50.3 - yzed By: D. Ana 2008	ec. nit 145.4 197.8 LD ate lyzed -08-15
Percent recovery is based or Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag DRO Standard (CCV-1)	Units mg/Kg	result. RP MS Result 1.16 1.44 Da ICV Tru Con 250	D is based MSD Result 1.03 1.34 te Analyze Vs e c. D	on the spik Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc. 256	e and sp Dil. 1 1 -15 IC Pec Rec 1	pike duplica Spike Amount 1 1 2 CVs rcent covery 102	te result. MS Rec. 116 144 Perce Recov Limi 85 - 1	MSD Rec. 103 134 Analy ent ery its 115	Re Lir 41.8 - 50.3 - yzed By: D. Ana 2008	ec. nit 145.4 197.8 LD ate lyzed -08-15
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag DRO Standard (CCV-1) OC Batch: 51484	n the spike BFB) Units mg/Kg	result. RP MS Result 1.16 1.44 Da ICV Tru Con 250	D is based MSD Result 1.03 1.34 te Analyze 7s e c.)	on the spike Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc. 256	e and sp Dil. 1 1 -15 I(Pe Rec 1	pike duplica Spike Amount 1 1 2 CVs rcent covery 02	te result. MS Rec. 116 144 Perce Recov Limi 85 - 1	MSD Rec. 103 134 Analy ent rery its 115	Re Lir 41.8 - 50.3 - yzed By: D Ana 2008	ec. nit 145.4 197.8 LD ate lyzed -08-15
Percent recovery is based or Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag DRO Standard (CCV-1) QC Batch: 51484	Units mg/Kg	result. RP MS Result 1.16 1.44 Da ICV Tru Con 250 Da	te Analyze	on the spik Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc. 256 d: 2008-08	e and s Dil. 1 1 -15 IC Pe Rec 1 -15	pike duplica Spike Amount 1 1 CVs rcent covery 102	te result. MS Rec. 116 144 Perce Recov Limi 85 - 1	MSD Rec. 103 134 Anal ent ery its 115 Anal	Ra Lir 41.8 - 50.3 - yzed By: Da Ana 2008- yzed By:	ec. nit 145.4 197.8 LD ate lyzed -08-15 LD
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag DRO Standard (CCV-1) QC Batch: 51484 ,	Units mg/Kg	result. RP MS Result 1.16 1.44 Da ICV Tru Con 250 Da Da	The formula of the second seco	on the spik Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc. 256 d: 2008-08 CCVs	e and sp Dil. 1 -15 IC Pec Reco 1 -15	pike duplica Spike Amount 1 1 CVs rcent covery 102	te result. MS Rec. 116 144 Perce Recov Limi 85 - 1	MSD Rec. 103 134 Anal ent rery its 115 Anal	Re Lir 41.8 - 50.3 - yzed By: D. Ana 2008- yzed By:	ec. nit 145.4 197.8 LD ate lyzed -08-15 LD
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag DRO Standard (CCV-1) QC Batch: 51484 ,	Units mg/Kg	result. RP MS Result 1.16 1.44 Da ICV Tru Con 250 Da CCV Tru	The Analyze Vs e	on the spike Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc. 256 d: 2008-08 CCVs Found	e and sp Dil. 1 1 -15 IC Pe Rec 1 -15 C Pe	pike duplica Spike Amount 1 1 CVs rcent covery 02 CVs rcent	Perce Recov Limi 85 - 1	MSD Rec. 103 134 Anal ent rery ts 115 Anal ent rery	Re Lir 41.8 - 50.3 - yzed By: D Ana 2008- yzed By: D	ec. nit 145.4 197.8 LD ate lyzed -08-15 LD ate
Percent recovery is based of Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-B Standard (ICV-1) QC Batch: 51484 Param Flag DRO Standard (CCV-1) QC Batch: 51484 Param Flag	n the spike BFB) Units mg/Kg	result. RP MS Result 1.16 1.44 Da ICV Tru Con 250 Da CCV Tru Con	The Analyze Vs e c.	on the spike Units mg/Kg mg/Kg d: 2008-08 ICVs Found Conc. 256 d: 2008-08 CCVs Found CCVs Found Conc.	e and sp Dil. 1 1 -15 I(Pe Rec 1 -15 C Pe Rec	CVs CVs cvvery 02 CVs rcent covery	Perce Recov Limi 85 - 1	MSD Rec. 103 134 Anal ent rery its Mnal ent rery its	Re Lir 41.8 - 50.3 - yzed By: D Ana 2008 yzed By: D Ana	ec. nit 145.4 197.8 LD ate lyzed -08-15 LD ate lyzed

Report Date: August 19, 2008 Plains071SPL			W	ork Order: 808 EK Queen BLM	1502 M	Page Number: 12 of 12 Lea County, NM			
Standard (IC	CV-1)								
QC Batch: 5	51537		Date Anal	yzed: 2008-08	Anal	lyzed By: ER			
			ICVs	ICVs	ICVs	Percent			
			\mathbf{True}	Found	Percent	Recovery	Date		
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
Benzene		mg/Kg	0.100	0.0873	87	85 - 115	2008-08-18		
Toluene		mg/Kg	0.100	0.0891	89	85 - 115	2008-08-18		
Ethylbenzene		mg/Kg	0.100	0.0886	89	85 - 115	2008-08-18		
Xylene		mg/Kg	0.300	0.268	89	85 - 115	2008-08-18		
Standard (C	CCV-1)								
QC Batch: 5	51537		Date Anal	yzed: 2008-08	-18	Anal	yzed By: ER		
			CCVs	CCVs	$\rm CCVs$	Percent			
			True	Found	Percent	Recovery	Date		
Param	$\mathbf{F}\mathbf{lag}$	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
Benzene		mg/Kg	0.100	0.0855	86	85 - 115	2008-08-18		
Toluene		mg/Kg	0.100	0.0866	87	85 - 115	2008-08-18		
Ethylbenzene		mg/Kg	0.100	0.0851	85	85 - 115	2008-08-18		
Xylene		mg/Kg	0.300	0.258	86	85 - 115	2008-08-18		
Standard (IC	CV-1)								
QC Batch: 5	51538		Date Anal	yzed: 2008-08	-18	Anal	yzed By: ER		
			ICVs	ICVs	ICVs	Percent			
			True	Found	Percent	Recovery	Date		
Param	Flag	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed		
GRO		mg/Kg	1.00	0.906	90	85 - 115	2008-08-18		
Standard (C	CV-1)								
QC Batch: 5	1538		Date Anal	yzed: 2008-08	-18	Anal	yzed By: ER		
			CCVs	CCVs	CCVs	Percent			
			True	Found	Percent	Recovery	Date		
Param	Flag	Units	Conc	Conc	Recovery	Limits	Analyzed		
GRO		mg/Kg	1.00	1.03	103	85 - 115	2008-08-18		
		0/0		1.00	100	00 110	=		

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LAB# FIELD CODE LAB USE ONLY	# CONTAINE Volume / Amc	WATER	AIR	SLUDGE	HCI	HNO ₃	H ₂ SO ₄		NONE		DATE	TIME	MTBE 8021	BTEX 8021B	TPH 8015 GR	PAH 8270C / (Total Metals Ag /	TCLP Volatiles	TCLP Semi Vo	TCLP Pesticid	GCMS VAL 8	GC/MS Semi.	PCB's 8082 / 1	Pesticides 806	BOD, TSS, pł	Moisture Cont					Turn Around T
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6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 6015 Harris Parkway Suite 110

Lubbock, Texas 79424 800 • 378 • 1296 El Paso, Texas 79922 888 • 588 • 3443 Midiand, Texas 79703 Ft Worth, Texas 76132 E-Mail lab@traceanalysis.com 806•794•1296 F/ 915•585•3443 F/ 432•689•6301 F/ 817•201•5260

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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

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Report Date: August 25, 2008

Work Order: 8082204

Project Location:Lea County, NMProject Name:EK Queen BLMProject Number:Plains071SPL

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
171420	BF-6	soil	2008-08-20	17:00	2008-08-22
171421	BF-7	\mathbf{soil}	2008-08-20	17:05	2008-08-22

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.

Michael april

Dr. Blair Leftwich, Director

r.

Standard Flags

 ${\bf B}\,$ - The sample contains less than ten times the concentration found in the method blank.

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Case Narrative

Samples for project EK Queen BLM were received by TraceAnalysis, Inc. on 2008-08-22 and assigned to work order 8082204. Samples for work order 8082204 were received intact at a temperature of 2.6 deg. C.

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

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

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8082204 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: 171420 - BF-6

Laboratory:	Midland						
Analysis:	TPH DRO		Analytical M	ethod: Mod.	8015B	Prep M	Iethod: N/A
QC Batch:	51699		Date Analyze	ed: 2008-0	8-22	Analyz	ed By: LD
Prep Batch:	44325		Sample Prepa	aration: 2008-0	8-22	Prepar	ed By: LD
			\mathbf{RL}				
Parameter	Fla	g	Result	Un	its	Dilution	\mathbf{RL}
DRO			158	mg/l	Kg	1	50.0
					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
n-Triacontane	e	137	mg/Kg	1	100	137	10 - 250.4

Sample: 171420 - BF-6

Laboratory:	Midland							
Analysis:	TPH GRO		Analytica	l Method:	S 8015B		Prep Me	thod: S 5035
QC Batch:	51763	·	Date Ana	lyzed:	2008-08-25		Analyzed	d By: DC
Prep Batch:	44347		Sample Pa	reparation:	2008-08-25		Preparec	d By: DC
			\mathbf{RL}					
Parameter	\mathbf{Flag}		\mathbf{Result}		Units		Dilution	RL
GRO	and a second		39.3		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	\mathbf{Units}	Dilution	$\mathbf{A}\mathbf{m}\mathbf{o}\mathbf{u}\mathbf{n}\mathbf{t}$	Recovery	Limits
Trifluorotolue	ene (TFT)		1.06	mg/Kg	1	1.00	106	67.5 - 135.2
4-Bromofluor	obenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	63.8 - 141

Sample: 171421 - BF-7

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 51699 44325	Analytical Method: Date Analyzed: Sample Preparation:	Mod. 8015B 2008-08-22 2008-08-22	Prep Method: Analyzed By: Prepared By:	N/A LD LD
		RL			
Parameter	\mathbf{Flag}	\mathbf{Result}	\mathbf{Units}	Dilution	\mathbf{RL}
DRO		171	mg/Kg	1	50.0

Report Date: Plains071SPI	August 25, 20			Work Orde EK Que	er: 8082204 en BLM	Page Number: 5 of 8 Lea County, NM			
Surrogate	Flag	Result	Units	Dilı	ution	Spike Amount	Percent Recovery	Recovery Limits	
n-1riacontane	9	120	mg/Kg		1	100	120	10 - 250.4	
Sample: 171	1421 - BF-7								
Laboratory:	Midland								
Analysis:	TPH GRO		Analytical	Method:	S 8015B		Prep M	ethod: S 5035	
QC Batch:	51763		Date Anal	yzed:	2008-08-2	5	Analyze	d By: DC	
Prep Batch:	44347		Sample Pr	eparation:	2008-08-2	5	Prepare	d By: DC	
			\mathbf{RL}						
Parameter	F	lag	Result		Units		Dilution	\mathbf{RL}	
GRO			62.3		mg/Kg		1	1.00	
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits	
T : A	ne (TFT)	8	1.03	mg/Kg	1	1.00	103	67.5 - 135.2	
Infiniorotolue									
4-Bromofluoro	obenzene (4-Bl	FB)	0.988	mg/Kg	1	1.00	99	63.8 - 141	
Method Bla QC Batch: Prep Batch:	obenzene (4-B) mk (1) Q 51699 44325	FB) C Batch: 51699	0.988 Date Ana QC Prepa	mg/Kg lyzed: 2 aration: 2	1 008-08-22 008-08-22	1.00	99 Anal Prep	63.8 - 141 yzed By: LD ared By: LD	
Method Bla QC Batch: Prep Batch:	obenzene (4-B) nk (1) Q 51699 44325	FB) C Batch: 51699	0.988 Date Ana QC Prepa	mg/Kg lyzed: 24 pration: 25 MDL	1 008-08-22 008-08-22	1.00	99 Anal Prep	63.8 - 141 yzed By: LD ared By: LD	
4-Bromofluoro Method Bla QC Batch: Prep Batch: Parameter	obenzene (4-B) ank (1) Q 51699 44325	FB) C Batch: 51699 Flag	0.988 Date Ana QC Prepa	mg/Kg lyzed: 2 aration: 2 MDL Result	1 008-08-22 008-08-22	1.00 Ur	99 Anal Prep nits	63.8 - 141 yzed By: LD ared By: LD RL	
Arinuorotolue 4-Bromofluoro Method Bla QC Batch: Prep Batch: Parameter DRO	obenzene (4-B) ank (1) Q 51699 44325	FB) C Batch: 51699 Flag	0.988 Date Ana QC Prepa	mg/Kg lyzed: 2 aration: 2 MDL Result <15.8	1 008-08-22 008-08-22	U U mg	99 Anal Prep nits /Kg	63.8 - 141 yzed By: LD ared By: LD RL 50	
Armonotolue 4-Bromofluoro Method Bla QC Batch: Prep Batch: Parameter DRO Surrogate	benzene (4-B) ank (1) Q 51699 44325 Flag	FB) C Batch: 51699 Flag Result	0.988 Date Ana QC Prepa	mg/Kg lyzed: 2 uration: 2 MDL Result <15.8 Dilu	1 008-08-22 008-08-22 tion	1.00 Un mg Spike Amount	99 Anal Prep hits /Kg Percent Recovery	63.8 - 141 yzed By: LD ared By: LD RL 50 Recovery Limits	
Armorotolue 4-Bromofluoro Method Bla QC Batch: Prep Batch: Parameter DRO Surrogate n-Triacontane	benzene (4-B) mk (1) Q 51699 44325 Flag	FB) C Batch: 51699 Flag Result 64.3	0.988 Date Ana QC Prepa Units mg/Kg	mg/Kg lyzed: 24 aration: 24 MDL Result <15.8 Dilu 1	1 008-08-22 008-08-22 tion	1.00 Ur mg Spike Amount 100	99 Anal Prep hits /Kg Percent Recovery 64	63.8 - 141 yzed By: LD ared By: LD RL 50 Recovery Limits 30.9 - 146.4	
Method Bla QC Batch: Prep Batch: Prep Batch: DRO Surrogate n-Triacontane Method Bla QC Batch: Parameter	mk (1) Q 51699 44325 Flag mk (1) Q 51763 44247	FB) C Batch: 51699 Flag Result 64.3 C Batch: 51763	0.988 Date Ana QC Prepa Units mg/Kg Date Ana	mg/Kg lyzed: 2/ aration: 2/ MDL Result <15.8 Dilu 1	1 008-08-22 008-08-22	1.00 Ur mg Spike Amount 100	99 Anal Prep hits /Kg Percent Recovery 64 Anal	63.8 - 141 yzed By: LD ared By: LD RL 50 Recovery Limits 30.9 - 146.4 yzed By: DC	
Method Bla QC Batch: Prep Batch: Prep Batch: <u>Parameter</u> <u>DRO</u> <u>Surrogate</u> <u>n-Triacontane</u> Method Bla QC Batch: Prep Batch:	mk (1) Q 51699 44325 Flag nk (1) Q 51763 44347	FB) C Batch: 51699 Flag Result 64.3 C Batch: 51763	0.988 Date Ana QC Prepa Units mg/Kg Date Ana QC Prepa	mg/Kg lyzed: 2 aration: 2 MDL Result <15.8 Dilu 1 lyzed: 2 aration: 2 MDL	1 008-08-22 008-08-22 tion 008-08-25 008-08-25	1.00 Un mg Spike Amount 100	99 Anal Prep hits /Kg Percent Recovery 64 Anal Prep	63.8 - 141 yzed By: LD ared By: LD RL 50 Recovery Limits 30.9 - 146.4 yzed By: DC ared By: DC	
Method Bla QC Batch: Prep Batch: Prep Batch: <u>Parameter</u> <u>DRO</u> <u>Surrogate</u> n-Triacontane Method Bla QC Batch: Prep Batch: Prep Batch:	mk (1) Q 51699 44325 Flag mk (1) Q 51763 44347	FB) C Batch: 51699 Flag Result 64.3 C Batch: 51763 Flag	0.988 Date Ana QC Prepa Units mg/Kg Date Ana QC Prepa	mg/Kg mg/Kg lyzed: 2 MDL Result <15.8 Dilu 1 lyzed: 26 uration: 20 MDL Result	1 008-08-22 008-08-22 tion 008-08-25 008-08-25	Un mg Spike Amount 100	99 Anal Prep hits /Kg Percent Recovery 64 Anal Prep	63.8 - 141 yzed By: LD ared By: LD RL 50 Recovery Limits 30.9 - 146.4 yzed By: DC ared By: DC RL	

Plains071SPL				Work C EK (Order: 808 Queen BL	32204 M			Page L	Number .ea Cour	r: 6 of 8 nty, NM
Surrogate		Flag	Result	Unit	s Di	lution	Spike Amount		Percent Recovery	Re L	covery imits
Trifluorotoluene (TFT)			0.987	mg/ł	ζg	1	1.00		99	39.2	- 135.2
4-Bromofluorobenzene (4-B	FB)		0.895	mg/ł	ζg	1	1.00		90	16.8	- 138.1
Laboratory Control Spil	ke (LCS	5-1)									
QC Batch: 51699			Date A	nalyzed:	2008-08	8-22			Anal	yzed By	7: LD
Prep Batch: 44325			QC Pre	eparation	: 2008-0	8-22			Prep	ared By	r: LD
_		LCS	5			Spike	Ma	trix	_]	Rec.
Param		Resu	lt	Units	Dil.	Amount	Re	sult	Rec.		imit
DRO		223	r	ng/Kg	1	250	<	15.8	89	27.8	- 152.1
ercent recovery is based or	n the spi	ke result.	RPD is	based on	the spike	and spike	duplicat	e resi	ılt.		
		LCSD			Spike	Matrix			Rec.		RPD
Param		\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.		Limit	RPD	Limit
DRO		235	mg/Kg	1	250	<15.8	94	27.8	8 - 152.1	5	20
urrogate] -Triacontane	Result 109	Result 116	n.	Units 1g/Kg	Dil. 1	Amount 100	t R 1	ec. 09	Rec. 116	38	Limit - 130.4
Surrogate 1 n-Triacontane Laboratory Control Spil	Result 109 ke (LCS	Result 116 5-1)	<u>1</u> 	Units ng/Kg	Dil. 1	Amount 100	t R 1	ec. 09	Rec. 116	38	Limit - 130.4
Surrogate 1 I-Triacontane Laboratory Control Spil QC Batch: 51763 Prep Batch: 44347	Result 109 ke (LCS	Result 116	Date A QC Pre	Units ng/Kg nalyzed: eparation:	Dil. 1 2008-08 2008-08	Amount 100 8-25 8-25	t R	ec. 09	Rec. 116 Anal Prep	38 yzed By ared By	Limit - 130.4 - DC : DC
Jurrogate I-Triacontane Laboratory Control Spil QC Batch: 51763 Prep Batch: 44347	Result 109 ke (LCS	Result 116 5-1) LCS	Date A QC Pre	Units ng/Kg nalyzed: eparation:	Dil. 1 2008-08 2008-08	Amount 100 8-25 8-25 Spike	t R 1	ec. 09 utrix	Rec. 116 Anal Prep	38 yzed By ared By	<u>Limit</u> - 130.4 - DC : DC Rec.
Aurrogate 1 -Triacontane Jaboratory Control Spil OC Batch: 51763 Prep Batch: 44347 Param	Result 109 ke (LCS	Result 116 5-1) LCS Resu	Date A QC Pre	Units ng/Kg nalyzed: eparation: Units	Dil. 1 2008-08 2008-08 Dil.	Amount 100 8-25 8-25 8-25 Spike Amount	t R 1 Ma Re	ec. 09 utrix sult	Rec. 116 Anal Prep Rec.	38 yzed By ared By I L	Limit - 130.4 - DC : DC : DC Rec.
Aurrogate 1 I-Triacontane Laboratory Control Spil QC Batch: 51763 Prep Batch: 44347 Param GRO	Result 109 ke (LCS	Result 116 5-1) LCS Resu 8.23	Date A QC Pre	Units nalyzed: eparation: Units ng/Kg	Dil. 1 2008-08 2008-08 Dil. 1	Amount 100 8-25 8-25 8-25 Spike Amount 10.0	t R 1 Ma Re 0.	ec. 09 ttrix sult 984	Rec. 116 Anal Prep Rec. 72	38 yzed By ared By I L 57.5	Limit - 130.4 - 130.4 - DC - DC Rec. - imit - 106.4
Surrogate I-Triacontane Laboratory Control Spil QC Batch: 51763 Prep Batch: 44347 Param GRO Percent recovery is based or	Result 109 ke (LCS n the spi	Result 116 5-1) LCS Resu 8.23 ke result.	Date A QC Pre	Units nalyzed: eparation: Units ng/Kg based on	Dil. 2008-08 2008-08 Dil. 1 the spike	Amount 100 8-25 8-25 8-25 Spike Amount 10.0 e and spike	t R 1 Ma Re 0. duplicat	ec. 09 utrix sult 984 e resu	Rec. 116 Anal Prep Rec. 72 Ilt.	38 yzed By ared By I L 57.5	Limit - 130.4 - 130.4 - DC : DC Rec. imit - 106.4
Surrogate 1 -Triacontane Laboratory Control Spil QC Batch: 51763 Prep Batch: 44347 Param GRO Percent recovery is based of	Result 109 ke (LCS	Result 116 5-1) LCS Resu 8.23 ke result. LCSD	Date A QC Pre	Units nalyzed: eparation: Units ng/Kg based on	Dil. 2008-08 2008-08 2008-08 Dil. 1 the spike Spike	Amount 100 8-25 8-25 Spike Amount 10.0 and spike Matrix	t R 1 Ma Re 0. duplicat	ec. 09 sult 984 e resu	Rec. 116 Anal Prep Rec. 72 Ilt. Rec.	38 yzed By ared By L 57.5	Limit - 130.4 - 130.4 - DC Rec. imit - 106.4 RPD
Jurrogate 1 -Triacontane Laboratory Control Spil QC Batch: 51763 Prep Batch: 44347 Param GRO Percent recovery is based of Param	Result 109 ke (LCS n the spi	Result 116 5-1) LCS Result LCSD Result	Date A QC Pre b lt RPD is Units	Units nalyzed: eparation: Units ng/Kg based on Dil.	Dil. 2008-08 2008-08 Dil. 1 the spike Amount	Amount 100 8-25 8-25 8-25 Spike Amount 10.0 e and spike Matrix Result	t R 1 Ma Re 0. duplicat Rec.	ec. 09 ttrix sult 984 e resu	Rec. 116 Anal Prep Rec. 72 Ilt. Rec. Limit	38 yzed By ared By L 57.5 RPD	Limit - 130.4 - 130.4 - 130.4 - 100.4 Rec. imit - 106.4 RPD Limit
Aurrogate 1 -Triacontane Jaboratory Control Spil QC Batch: 51763 Prep Batch: 44347 Param GRO Percent recovery is based on Param GRO	Result 109 ke (LCS	Result 116 5-1) LCS Resul 8.23 ke result. LCSD Result 9.60	Date A QC Pre	Units nalyzed: eparation: Units ng/Kg based on Dil. 1	Dil. 2008-08 2008-08 2008-08 Dil. 1 the spike Amount 10.0	Amount 100 8-25 8-25 8-25 8-25 8-25 8-25 8-25 8-25	t R 1 Ma Re 0. duplicat Rec. 86	ec. 09 ttrix sult 984 e resu 57.	Rec. 116 Anal Prep Rec. 72 Ilt. Rec. Limit 5 - 106.4	38 yzed By ared By I L 57.5 RPD 15	Limit - 130.4 - 130.4 - 130.4 - DC - DC - DC - C - C - 106.4 RPD Limit - 20
Aurrogate 1 -Triacontane Jaboratory Control Spil QC Batch: 51763 Prep Batch: 44347 Param GRO Percent recovery is based of Param GRO Percent recovery is based of Percent recove	Result 109 ke (LCS n the spi	Result 116 5-1) LCS Resu 8.23 ke result. LCSD Result 9.60 ke result.	Date A QC Pre	Units nalyzed: eparation: Units ng/Kg based on Dil. 1 based on	Dil. 2008-08 2008-08 2008-08 Dil. 1 the spike Amount 10.0 the spike	Amount 100 8-25 8-25 8-25 8-25 8-25 8-25 8-25 8-25	t R 1 Ma Rec 0. duplicat Rec. 86 duplicat	ec. 09 sult 984 e resu 57. e resu	Rec. 116 Anal Prep Rec. 72 ilt. Rec. Limit 5 - 106.4 ilt.	38 yzed By ared By L 57.5 RPD 15	Limit - 130.4 - 130.4 - 130.4 - DC Rec. imit - 106.4 RPD Limit 20
Aurrogate	Result 109 ke (LCS n the spi n the spi	Result 116 5-1) LCS Resul 8.23 ke result. LCSD Result 9.60 ke result. LCS	Date A QC Pre	Units nalyzed: eparation: Units ng/Kg based on Dil. 1 based on	Dil. 2008-08 2008-08 2008-08 Dil. 1 the spike Amount 10.0 the spike	Amount 100 8-25 8-25 8-25 Spike Amount 10.0 and spike Matrix Result 0.984 and spike Spike Spike Matrix Result 0.984 Spike S	t R 1 1 Ma Rec 0. duplicat 86 duplicat	ec. 09 ttrix sult 984 e resu 57. e resu LCS	Rec. 116 Anal Prep Rec. 72 ilt. Rec. Limit 5 - 106.4 ilt. LCSD	38 yzed By ared By I L 57.5 RPD 15	Limit - 130.4 - 130.4 - 130.4 - DC : DC Rec. imit - 106.4 RPD Limit 20 Rec.
Surrogate	Result 109 ke (LCS n the spi	Result 116 5-1) LCS Resul 8.23 ke result. LCSD Result 9.60 ke result. LCS Resul	Date A QC Pre	Units nalyzed: eparation: Units ng/Kg based on Dil. 1 based on SD sult U	Dil. 1 2008-08 2008-08 2008-08 Dil. 1 the spike Amount 10.0 the spike Juits	Amount 100 8-25 8-25 8-25 Spike Amount 10.0 and spike Matrix Result 0.984 and spike Spike Spike Spike Amount 10.0 Amount 10	t R 1 1 Ma Re 0. duplicat Rec. 86 duplicat pike	ec. 09 ttrix sult 984 e resu 57. e resu LCS Rec.	Rec. 116 Anal Prep Rec. 72 Ilt. Rec. Limit 5 - 106.4 Ilt. LCSD Rec.	38 yzed By ared By I <u>L</u> 57.5 <u>RPD</u> 15	Limit - 130.4 - 130.4 - 130.4 - DC - DC Rec. - imit 20 Rec. - imit
Surrogate 1 n-Triacontane Laboratory Control Spil QC Batch: 51763 Prep Batch: 44347 Param GRO Percent recovery is based on Param GRO Percent recovery is based on Param Control Spil Prep Batch: 51763 Prep Batch: 44347 Param GRO Percent recovery is based on Param Control Spil Param Control Spil Prep Batch: 51763 Prep Batch: 51763 Prep Batch: 44347 Param GRO Percent recovery is based on Param Control Spil Param Control Spil Param Control Spil Param Control Spil Param Control Spil Param Param Control Spil Param Control Spil Param Param Control Spil Param Control Spil Param Param Control Spil Param	Result 109 ke (LCS n the spi	Result 116 5-1) LCS Resul 8.23 ke result. LCSD Result 9.60 ke result. LCS Result 1.01	Date A QC Pre	Units malyzed: eparation: Units mg/Kg based on Dil. 1 based on SD sult U 05 m	Dil. 2008-08 2008-08 2008-08 Dil. 1 the spike Amount 10.0 the spike Jnits g/Kg	Amount 100 8-25 8-25 8-25 Spike Amount 10.0 and spike Matrix Result 0.984 and spike Spike Spike Matrix Result 0.984 and spike 10.0	t R 1 1 Ma Rec 0. duplicat Rec. 86 duplicat pike hount .00	ec. 09 sult 984 e resu 57. e resu LCS Rec. 101	Rec. 116 Anal Prep Rec. 72 Ilt. Rec. Limit 5 - 106.4 Ilt. LCSD Rec. 105	38 yzed By ared By I <u>L</u> 57.5 <u>RPD</u> 15	Limit - 130.4 - 130.4 - 130.4 - 130.4 - 130.4 - 134.3 - 134.3

Report Date: August 25, Plains071SPL	2008 Work Order: 8082204 EK Queen BLM									Page L	Numbe ea Cou	er: 7 of 8 nty, NM
Matrix Spike (MS-1)	Spiked	Sample: 17	1420									
QC Batch: 51699			Date A	nalyzed:	2008-08	-22				Anal	vzed B	y: LD
Prep Batch: 44325			QC Pre	paration	n: 2008-08	-22				Prep	ared By	y: LD
		MS				Spik	e	Matı	rix			Rec.
Param		Resul	t	Units	Dil.	Amou	nt	Resu	ılt	Rec.		Limit
DRO		309	n	ng/Kg	1	250		158.	14	60	18	3 - 179.5
Percent recovery is based	on the sp	ike result. I	RPD is	based or	n the spike	and spik	e dupli	cate r	esult.			
		MSD			Spike	Matr	ix		Re	с.		RPD
Param		\mathbf{Result}	Units	Dil.	Amount	Resu	lt R	ec.	Lin	nit	RPD	Limit
DRO		311	mg/Kg	1	250	158.1	.4 6	51	18 - 1	79.5	1	20
Percent recovery is based	on the sp	ike result. I	RPD is	based or	n the spike	and spik	e dupli	cate r	esult.			
	MS	MSD				Spik	e.	MS		MSD		Rec.
Surrogate	\mathbf{Result}	Result	τ	Units	Dil.	Amou	int	Rec		Rec.		Limit
n-Triacontane	97.3	96.7	m	ıg/Kg	1	100		97		97	34	.1 - 158
Matrix Spike (MS-1) QC Batch: 51763 Prep Batch: 44347	Spiked	Sample: 171	1420 Date Ar QC Pre	nalyzed: paration	2008-08 1: 2008-08	-25 -25				Analy Prepa	zed By ared By	v: DC v: DC
		MS				Spike	e	Matr	ix			Rec.
Param		Resul	t ·	Units	Dil.	Amou	nt	Resu	lt	Rec.		Limit
GRO		52.3	n	ng/Kg	1	10.0		39.29	46	130	10	- 139.3
Percent recovery is based	on the sp	ike result. I	RPD is	based or	n the spike	and spik	e dupli	cate r	esult.			
		MSD			Spike	Matr	x		Re	c.		RPD
Param		Result	Units	Dil.	Amount	Resu	lt R	ec.	Lin	nit	RPD	Limit
GRO		50.5	mg/Kg	1	10.0	39.29	46 1	12	10 - 1	39.3	4	20
Percent recovery is based	on the sp	ike result. I	RPD is	based or	n the spike	and spik	e dupli	cate re	esult.			
		MS	М	SD			Spike		MS	MSE	ł	Rec.
Surrogate		Result	t Re	sult	Units	Dil.	Amour	ıt	Rec.	Rec.		Limit
Trifluorotoluene (TFT)		1.05	0.9	984	mg/Kg	1	1		105	98	21	.3 - 119
4-Bromofluorobenzene (4-	BFB)	1.03	1.	.08	mg/Kg	1	1		103	108	52	2.5 - 154
Standard (ICV-1)												

QC Batch: 51699

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Date Analyzed: 2008-08-22

Analyzed By: LD

Report Date: August 25, 2008 Plains071SPL				Work Order: 8 EK Queen B	Page Number: 8 of Lea County, N				
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed		
DRO		mg/Kg	250	233	93	85 - 115	2008-08-22		
Standard	(CCV-1)								
QC Batch:	51699		Date Ana	alyzed: 2008-0	8-22	Anal	lyzed By: LD		
D		T T 14	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date		
Param DRO	Flag	mg/Kg	250	228	91	111111111111111111111111111111111111	2008-08-22		
Standard QC Batch:	(ICV-1) 51763		Date An	alyzed: 2008-0	8-25	Anal	yzed By: DC		
Param GRO	Flag	Units mg/Kg	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery 115	Percent Recovery Limits 85 - 115	Date Analyzed 2008-08-25		
Standard	(CCV-1)								
QC Batch:	51763		Date Ana	alyzed: 2008-0	8-25	Anal	yzed By: DC		
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed		
GRO		mg/Kg	1.00	1.12	112	85 - 115	2008-08-25		

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	LAB Order ID # 808	1204	Page of
TraceAnalysis, Inc. email: lab@traceanalysis.com	6701 Aberdeen Avenue, Suite 9 5002 Bas Lubbock, Texas 79424 Midlan Tel (806) 794-1296 Tel (4 Fax (806) 794-1298 Fax (4 1 (800) 378-1296	in Street, Suite A1 (Texas 79703 132) 689-6301 432) 689-6313 (Texas 79703 (Contemportaneous Contemportaneous Contem	E 8808 Camp Bowie Blvd. West, Suite 180 Ft. Worth, Texas 76116 Tel (817) 201-5260 Fax (817) 560-4336
Company Name: Pho Intervention Intervention Address: (Street, City, Zip) Fax	132 238-6588 #:	ANALYSIS R (Circle or Specify	LEQUEST y Method No.)
STRE. 7A4/0/ HOBBS Nr 88240 contact Person: Em EB TA4/0 nvoice to: If different from above) PIAINS		(624 524	om standard
Project Location (Including state):	pler Signature:	/ 8260B / (8260B / (7/TVHO5 7/TVHO5 1/CrPb Se a Cd Cr I a Cd Cr I 324 70C / 622	Ifferent fr
	PRESERVATIVE METHOD SAMPLING	3 / 602 / 602 / 7 (1005 / 7 (1005 / 7 (1005 / 7 (1005 / 7 (1005 / 1 (1005 / 7 (1005 /	008 ant me if d
TVB# FIELD CODE YMATER ABIDE Volume ABIDE SOIL ABIDE SOIL ABIDE	HCI HNO ₃ H ₂ SO ₄ NaOH NONE DATE DATE TIME	MTBE 8021E BTEX 8021B / TPH 418.1 / TT TPH 8015 GBI PAH 82005 / 6 PAH 82005 / 6 TCLP Metals A TCLP Volatiles TCLP Pesticide RCI TCLP Pesticide SC/MS Vol. 82 SC/MS Semi. /	PCB'S 8082 / 9 Pesticides 808 BOD, TSS, pH Moisture Conte Moisture Conte furm Around Ti
1420 BF-6 1 X	X 8/20 17:00	× · · · · · · · · · · · · · · · · · · ·	X
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Relinquished by: Company: Date: Time: Received by:	Company: Date: Time: Tem THLONLPR: B/22/08 8:07 Company: Date: Time: Tem	p°c: LAB USE REMARKS:⊃ ONLY //b/D p°c: mact©in	HH TVEN FOR B-TEL
<u>Xentt Amon Treton/LDR 8/22/08 8:35</u> Received by: Company: Date: Time: Received by:	<u>Түсме 8/27/8 8'.55</u> 2.6 Company: Date: Time: Tem	_' C Ffeadspace 7 C NA p° C: 2 C C C C C C C C C C C C C C C C C	leport Required f Special Reporting re Needed
Submittal of samples constitutes agreement to Terms and Conditions listed on rev ORIGINAL COPY	erse side of C. O. C.	Carrier #	

MULLING TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9Lubbock, Texas 79424200 East Suiset Road, Suite EEl Paso, Texas 799225002 Basin Street, Suite A1Midland, Texas 797036015 Harris Parkway Suite 110Ft. Worth, Texas 76132

Lubbock, Texas 79424 800 • 378 • 1296 El Paso, Texas 79922 888 • 588 • 3443 Midland, Texas 79703 t. Worth, Texas 76132 E-Mail, Tab@traceanalysis.com 806 • 794 • 1296 FAX 915 • 585 • 3443 FAX 432 • 689 • 6301 FAX 817 • 201 • 5260

6 FAX 806+794+1298 3 FAX 915+585+4944 1 FAX 432+689+6313 0

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

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Report Date: September 4, 2008

Work Order: 8082924

Project Location:Lea County, NMProject Name:EK Queen BLMProject Number:Plains071SPL

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	\mathbf{Taken}	Taken	Received
172368	BF-8	soil	2008-08-26	16:30	2008-08-29
172369	BF-9	soil	2008-08-26	16:48	2008-08-29
172370	BF-10	soil	2008-08-26	17:00	2008-08-29

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

Blain Leptinich

Dr. Blair Leftwich, Director

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Standard Flags

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 ${\bf B}\,$ - The sample contains less than ten times the concentration found in the method blank.

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Case Narrative

Samples for project EK Queen BLM were received by TraceAnalysis, Inc. on 2008-08-29 and assigned to work order 8082924. Samples for work order 8082924 were received intact at a temperature of 2.8 deg. C.

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

Test	Method
BTEX	S 8021B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8082924 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: 172368 - BF-8

Laboratory:	Lubbock									
Analysis:	TPH DRO			Analytical Me	ethod:	Mod. 80	15B	[°] Prep 1	Method:	N/A
QC Batch:	51983			Date Analyze	d:	2008-09-	02	Analy	zed By:	MN
Prep Batch:	44578			Sample Prepa	ration:	2008-09-	02	Prepa	red By:	MN
		•		\mathbf{RL}						
Parameter		Flag		\mathbf{Result}		Units	3	Dilution		\mathbf{RL}
DRO				1100		mg/Kg	S	1		50.0
	,						Spike	Percent	Rec	overy
Surrogate	Flag	z	Result	Units	Dilu	tion	Amount	Recovery	Li	mits
n-Triacontan	e ¹		340	mg/Kg]		100	340	49.5	- 185

Sample: 172368 - BF-8

Laboratory:	Lubbock							
Analysis:	TPH GRO		Analytical Method:		S 8015B		Prep Me	thod: S 5035
QC Batch: 51974			Date Analyzed:		2008-09-02		Analyze	d By: ER
Prep Batch:	Prep Batch: 44568 Sample Preparation		reparation:	2008-09-02		Prepareo	d By: ER	
			\mathbf{RL}					
Parameter	\mathbf{Flag}		Result		Units		Dilution	\mathbf{RL}
GRO			17.0		mg/Kg		2	1.00
						Spike	Percent	Recovery
Surrogate		Flag	\mathbf{Result}	\mathbf{Units}	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)	,	0.966	mg/Kg	2	1.00	97	55.3 - 161.9
4-Bromofluor	obenzene (4-BFB)		2.06	mg/Kg	2	1.00	206	45.6 - 214.7

Sample: 172369 - BF-9

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	51983	Date Analyzed:	2008-09-02	Analyzed By:	MN
Prep Batch:	44578	Sample Preparation:	2008-09-02	Prepared By:	MN
		RL			
Parameter	Flag	Result	\mathbf{Units}	Dilution	\mathbf{RL}
DRO		1530	mg/Kg	1	50.0

¹High surrogate recovery due to peak interference.

Report Date: S Plains071SPL	September 4, 2008		Work Orde EK Que	Page Number: 5 of 12 Lea County, NM				
Surrogate Flag		Result	Units	Units Dily		Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	2	466	mg/Kg	¢	1	100	466	49.5 - 185
Sample: 1723	69 - BF-9							
Laboratory: I	ubbock							
Analysis: 7	TPH GRO		Analytica	l Method:	S 8015B		Prep Me	thod: S 5035
QC Batch: 5	1974		Date Ana	lyzed:	2008-09-02		Analyze	d By: ER
Prep Batch: 4	4568		Sample P	reparation:	2008-09-02		Prepareo	d By: ER
			\mathbf{RL}					
Parameter	Flag		Result		Units		Dilution	\mathbf{RL}
GRO	.		36.9		mg/Kg		2	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units -	Dilution	Amount	Recovery	Limits
Trifluorotoluen	e (TFT)		1.14	mg/Kg	2	1.00	114	55.3 - 161.9
4-Bromofluorob	enzene (4-BFB)		2.02	mg/Kg	2	1.00	202	45.6 - 214.7
4-Bromofluorot Sample: 1723	enzene (4-BFB) 70 - BF-10		2.02	mg/Kg	2	1.00	202	45.0 - 214

Laboratory: Analysis: QC Batch: Prep Batch:	Lubbock BTEX 51972 44568			Analytical Date Anal Sample Pr	Method: yzed: eparation:	S 8021B 2008-09-02 2008-09-02		Prep Me Analyzee Prepared	thod: S d By: El d By: El	5035 R R
				1						
				RI	- -					
Parameter		Flag		Resul	t	Units		Dilution		RL
Benzene		3		< 0.020	0	mg/Kg		2	0.	0100
Toluene				< 0.020	0	mg/Kg		2	0.	0100
Ethylbenzene				0.088	7	mg/Kg		2	0.	0100
Xylene				0.26	6	mg/Kg		2	0.	0100
							Spike	Percent	Recov	ery
Surrogate			Flag	Result	Units	Dilution	Amount	Recovery	Limi	ts
Trifluorotolue	ene (TFT)			1.29	mg/Kg	2	1.00	129	59 - 13	36.1
4-Bromofluor	obenzene (4-BF	FB)		1.37	mg/Kg	2	1.00	137	54.4 - 1	.76.2

Sample: 172370 - BF-10

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	51983	Date Analyzed:	2008-09-02	Analyzed By:	MN
Prep Batch:	44578	Sample Preparation:	2008-09-02	Prepared By:	MN

²High surrogate recovery due to peak interference. ³Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.

Report Date: September 4, 2008 Plains071SPL			Wo	rk Order: 80829 EK Queen BLM	Page Number: 6 of 12 Lea County, NM		
Parameter	Fla	g	RL Result	Uni	ts	Dilution	\mathbf{RL}
DRO			892	mg/ł	Кg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	4	285	mg/Kg	1	100	285	49.5 - 185

Sample: 172370 - BF-10

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Laboratory:	Lubbock								
Analysis:	TPH GRO		Analytica	l Method:	S 8015B		Prep Me	thod:	S 5035
QC Batch:	51974		Date Ana	lyzed:	2008-09-02		Analyze	d By:	\mathbf{ER}
Prep Batch:	44568		Sample P	reparation:	2008-09-02		Prepareo	d By:	\mathbf{ER}
•			\mathbf{RL}						
Parameter	\mathbf{Flag}		\mathbf{Result}		\mathbf{Units}		Dilution		\mathbf{RL}
GRO			18.0		mg/Kg		2		1.00
						Spike	Percent	\mathbf{Re}	covery
Surrogate		$\mathbf{F}\mathbf{lag}$	\mathbf{Result}	Units	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ene (TFT)		1.22	mg/Kg	2	1.00	122	55.3	- 161.9
4-Bromofluor	obenzene (4-BFB)	5	2.24	mg/Kg	2	1.00	224	45.6	- 214.7

Method Blank (1) QC Batch: 51972

QC Batch: 51972	Date An	alyzed:	2008-09-02		An	alyzed By:	\mathbf{ER}	
Prep Batch: 44568		QC Prep	paration:	2008-09-02		Pre	epared By:	\mathbf{ER}
			Ν	MDL				
Parameter	Flag		Re	\mathbf{esult}	Un		\mathbf{RL}	
Benzene		< 0.0	0347	mg	/Kg		0.01	
Toluene			< 0.0	0525	mg		0.01	
Ethylbenzene			< 0.0	0607	mg	/Kg		0.01
Xylene			< 0.0	0724	mg	/Kg		0.01
					Spike	Percent	Reco	very
Surrogate	Flag	\mathbf{Result}	Units	Dilution	Amount	Recovery	Lim	its
Trifluorotoluene (TFT)		0.945	mg/Kg	; 1	1.00	94	69.3 -	110.2
4-Bromofluorobenzene (4-BFB)		0.673	mg/Kg	1	1.00	67	24.4 -	114.6

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⁴High surrogate recovery due to peak interference. ⁵High surrogate recovery due to peak interference.

Report Date: Septe Plains071SPL	}	Work Order: 8082924 EK Queen BLM						Page Number: 7 of 12 Lea County, NM			
Method Blank (1)) QC Ba	tch: 51974									
OC Batch: 51974			Date A	nalvzed:	2008-0	9-02			Ana	lvzed Bv:	ER
Prep Batch: 44568			QC Pr	eparation:	2008-0	9-02			Pre	pared By:	ER
•			-	-					_		
D		T21		N D	1DL			TT	_		БТ
Parameter CPO	·····	Flag							S a		<u>1</u>
GRU					.144			iiig/ N	-g		I
							\mathbf{Sp}	ike	Percent	Rec	overy
Surrogate		Flag	Result	Unit	s D	ilution	Ame	ount	Recovery	Liı	nits
Trifluorotoluene (TH	\mathbf{T}		0.914	mg/ŀ	Кg	1	1.	00	91	83.3 -	- 108.5
4-Bromofluorobenze	ne (4-BFB)		0.771	mg/ŀ	ζg	1	1.	00	77	34.5	- 105.8
Method Blank (1) QC Batch: 51983 Prep Batch: 44578) QC Ba	atch: 51983	Date A QC Pre	nalyzed: eparation:	2008-0 2008-0	9-02 9-02			Anal Prep	yzed By: ared By:	MN MN
				M	IDL						
Parameter		Flag		\mathbf{Re}	sult			Units	5		\mathbf{RL}
DRO				<	6.77			mg/K	g		50
							Spiles		Dorcont	Po	
Surrogate	Flag	Result	Unit	te	Dilution		Amount	+	Recovery	Li	imits
n-Triacontane	1108	96.7	mg/I	Kg	1		100		97	49.4	5 - 185
Laboratory Contr QC Batch: 51972 Prep Batch: 44568	rol Spike (L	CS-1)	Date A QC Pre	analyzed: eparation	2008-0 : 2008-0	19-02 19-02			, Ana Prej	lyzed By: bared By:	ER
		\mathbf{LC}	S			Spike	9	Matrix		R	.ec.
Param		Resu	ilt l	Units	Dil.	Amou	nt	Result	Rec.	Li	mit
Benzene		0.97	'8 m	ıg/Kg	1	1.00	•	< 0.0034	7 98 7	80.5 -	- 115.5
Toluene		0.99	iu m	lg/Kg	1	1.00	•	< 0.0052	5 99 7 100	80 -	114.7
Luiyidenzene Xylene		3 D. 1'0'	۵ m ۱ m	ug/Kg vg/Kg	1	1.00 1.00	•	<0.0000 <0.0079	7 102 7 100	77 6	· 114.2
Democrate and output is 1	acad on the	anilea nacult		<u>18/118</u>	the emile	0.00		1:+	- 100	11.0	- 114.0
rercent recovery is i	based on the	spike result.		based on	the spike	e and sp	ыке аир	ncate re	suit.		
		LCSD			\mathbf{Spike}	Mat	rix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Rest	ult I	Rec.	Limit	RPD	Limit
Benzene		1.01	mg/Kg	1	1.00	< 0.00	347	101 8	0.5 - 115.5	3	20
Toluene		1.01	mg/Kg	1	1.00	< 0.00	525	101	80 - 114.7	2	20

continued ...

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Report Date: September 4, 2008	Work Order: 8082924	Page Number: 8 of 12
Plains071SPL	EK Queen BLM	Lea County, NM

control spikes continued ...

LCSD			\mathbf{Spike}	Matrix		Rec.		\mathbf{RPD}
\mathbf{Result}	Units	Dil.	$\mathbf{A}\mathbf{m}\mathbf{o}\mathbf{u}\mathbf{n}\mathbf{t}$	\mathbf{Result}	Rec.	\mathbf{Limit}	RPD	Limit
0.994	mg/Kg	1	1.00	< 0.00607	99	77.1 - 114.2	3	20
2.99	mg/Kg	1	3.00	< 0.00724	100	77.6 - 114.5	1	20
	LCSD Result 0.994 2.99	LCSD Result Units 0.994 mg/Kg 2.99 mg/Kg	LCSD Result Units Dil. 0.994 mg/Kg 1 2.99 mg/Kg 1	LCSDSpikeResultUnitsDil.Amount0.994mg/Kg11.002.99mg/Kg13.00	LCSD Spike Matrix Result Units Dil. Amount Result 0.994 mg/Kg 1 1.00 <0.00607	LCSD Spike Matrix Result Units Dil. Amount Result Rec. 0.994 mg/Kg 1 1.00 <0.00607	LCSD Spike Matrix Rec. Result Units Dil. Amount Result Rec. Limit 0.994 mg/Kg 1 1.00 <0.00607	LCSD Spike Matrix Rec. Result Units Dil. Amount Result Rec. Limit RPD 0.994 mg/Kg 1 1.00 <0.00607

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

	\mathbf{LCS}	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	\mathbf{Result}	\mathbf{Units}	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Trifluorotoluene (TFT)	0.897	1.00	mg/Kg	1	1.00	90	100	74.2 - 114.7
4-Bromofluorobenzene (4-BFB)	0.887	0.954	mg/Kg	1	1.00	89	95	69.7 - 118.7

Laboratory Control Spike (LCS-1)

QC Batch:	51974	Date Analyzed:	2008-09-02		Analyzed By:	\mathbf{ER}
Prep Batch:	44568	QC Preparation:	2008-09-02	٠	Prepared By:	\mathbf{ER}

	LCS			Spike	Matrix		Rec.
Param	Result	\mathbf{Units}	Dil.	Amount	\mathbf{Result}	Rec.	Limit .
GRO	10.6	mg/Kg	1	10.0	< 0.144	106	73.1 - 114.7

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

	LCSD			\mathbf{Spike}	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}	RPD	Limit
GRO	10.8	mg/Kg	1	10.0	< 0.144	108	73.1 - 114.7	2	20

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

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	\mathbf{Result}	\mathbf{Result}	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.09	0.972	mg/Kg	1	1.00	109	97	77.4 - 111.4
4-Bromofluorobenzene (4-BFB)	1.02	0.944	mg/Kg	1	1.00	102	94	70.3 - 116.1

Laboratory Control Spike (LCS-1)

QC Batch:	51983	Date	e Analyzed:	2008-09	-02		Analyze	ed By: MN
Prep Batch:	44578	\mathbf{QC}	Preparation:	2008-09-02			Prepare	ed By: MN
		LCS			Spike	Matrix		Rec.
Param		\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}
DRO		 289	mg/Kg	1	250	<6.77	116	73.9 - 138

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

Plains071SPL	, 2008		Work Order: 8082924 EK Queen BLM						Page Number: 9 of Lea County, N			
control spikes continued		LCSD			Spike		Matrix		I	Rec.		RPD
Param		Result	Units	s Dil	. Amour	nt	Result	Rec.	L	imit	RPD	Limit
e main an co					a				_			
D		LCSD	TT		Spike		Matrix	D	I T	lec.	מחת	RPD
Param		Result	Units		Amour	1t	$\frac{\text{Result}}{< 6.77}$	Rec.		imit	RPD °	Limit
		207		<u>g 1</u>	200		<0.11	107	13.3	9 - 130	0	20
Percent recovery is based of	n the sp	oike result.	RPD is	s based	on the spik	e and	spike d	uplicate	result	5.		
	LCS	LCSD)				Spike	LC	S	LCSD		Rec.
Surrogate	Result	Result	t	Units	Dil.	А	mount	Re	~ c.	Rec.	I	Limit
n-Triacontane	84.9	71.3	1	ng/Kg	1		100	85	5	71	49.	5 - 185
QC Batch: 51972 Prep Batch: 44568		.	Date A QC Pr	Analyze eparati	d: 2008-0 on: 2008-0)9-02)9-02				Anal Prep	yzed By ared By	ER ER
		MS				S ~	iko	Mote	iv		Б	200
Param		Resul	t	Units	Dil	որ հեր	ount	Resu	lt.	Rec	L.	mit
Benzene		1 11		ng/Kg	1	1	00	< 0.00	347	111	42.9	- 130 7
Toluene		1.18	n	ng/Kg	1	1.	.00	< 0.00	525	118	46.9	- 135.4
Ethylbenzene		1.32	n	ng/Kg	1	1.	.00	< 0.00	607	132	48.3	- 149.3
Xylene		3.95	n	ng/Kg	1	3.	.00	< 0.00	724	132	48.8	- 150.9
Percent recovery is based of	n the sp	ike result.	RPD is	s based	on the spik	e and	spike d	uplicate	result			
v		1.000			<u> </u>			1	-			
D		MSD	T T •,	D .1	Spike	M	latrix	D	ł	lec.	DDD	RPD
Param		Result	Units	<u></u>	Amount	K		Rec.	10 D	$\frac{120.7}{120.7}$	<u> RPD</u>	Limit
Teluene		0.979	mg/Kg	1	1.00	<0	00525	98 104	42.9	- 130.7	12	20
Fthylbongono		1.04	mg/Kg	1	1.00		00607	104	40.9	- 155.4	15	20
Xvlene		3 39	mø/Kg	1	3.00	<0	00724	114	48.8	- 149.5	15	20
Percent recovery is based or	n the sn	ike result	RPD is	s hased	on the spik	e and	spike d	unlicate	result		10	20
	1	·		100	F		~p a	.,	1.00	MOD	F	
Surrogate		MS Resu	N lt R	4SD esult	Units	Dil	Sp Am	ike	MS Rec	MSD Bec	ti Là	lec. mit
Trifluorotoluene (TFT)		1.22		.09	mø/Kø	1		1	$\frac{1000}{122}$	109	63 2	- 128.3
4-Bromofluorobenzene (4-B	FB)	1.23		.10	mg/Kg	1		1	123	110	61.5	- 161.2
Matrix Spike (MS-1) QC Batch: 51974	Spiked	Sample: 17	72376 Date A	Analyzed	1: 2008-0	9-02				Anal	vzed Bv	ER
Prep Batch: 44568			QC Pr	eparatio	2000 c	9-02				Pren	ared By	ER
			-aç⊖ I I	-Par avia		0 04				rieb	and Dy	

Report Date: September 4, 2008 Plains071SPL	Work Order: 8082924 EK Queen BLM							Page N I	umber: Jea Cour	10 of 12 nty, NM
	MS				Spike	М	atrix		1	Rec.
Param	\mathbf{Resul}	t Ui	nits	Dil.	Amoun	t R	\mathbf{esult}	Rec.	L	imit
GRO	14.3	mg	/Kg	1	10.0	<	0.144	143	48.9	- 155.8
Percent recovery is based on the sp	oike result. I	RPD is ba	ased or	n the spike	and spik	e duplica	te resul	t.		
	MSD			Spike	Matrix	c	I	Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	L	imit	RPD	Limit
GRO	14.6	mg/Kg	1	10.0	< 0.14	146	48.9	- 155.8	2	20
Percent recovery is based on the sp	oike result.	RPD is ba	ased or	n the spike	and spik	e duplica	te resul	t.		
	MS	MSI	D			Spike	MS	MSD	I	Rec.
Surrogate	Result	t Resu	ılt	Units	Dil. A	mount	Rec.	Rec.	L	imit
Trifluorotoluene (TFT)	1.36	1.34	4 ı	ng/Kg	1	1	136	134	41.8	- 145.4
4-Bromofluorobenzene (4-BFB)	1.83	1.84	4 ı	ng/Kg	1	1	183	184	50.3	- 197.8
-	MS				Spik	e I	Matrix	_		Rec.
Param	Resu	lt U	Jnits	Dil.	Amou	nt l	\mathbf{Result}	Rec.	1	Limit
DRO	⁶ 1120) m	g/Kg	1	250		758	145	50	.7 - 134
Percent recovery is based on the sp	oike result. I	RPD is ba	ased or	n the spike	and spik	e duplica	te resul	t.		
	MSD			Spike	Matr	\mathbf{x}		Rec.		RPD
Param	Result	Units	Dil.	Amount	Resu	lt Rec	:. I	Limit	RPD	Limit
DRO 7	1140	mg/Kg	1	250	758	153	3 50.	7 - 134	2	20
Percent recovery is based on the sp	oike result. I	RPD is ba	ased or	n the spike	and spik	e duplica	te resul	t.		
MS	MSE)			Spil	æ	MS	MSD		Rec.
Surrogate Result	: Resul	lt L	Jnits	Dil.	Amo	ınt	Rec.	Rec.]	Limit
n-Triacontane ⁸ 9 335	349	m	g/Kg	1	100)	335	349	49	.5 - 185
Standard (ICV-1) QC Batch: 51972		Date Ana	ılyzed:	2008-09-	02			Anal	yzed By	\sim ER

⁶Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. ⁷Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. ⁸Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. ⁹Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: September 4, 2008 Plains071SPL			Wo]	rk Order: 8082 EK Queen BLM	Page Number: 11 of 12 Lea County, NM		
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	0	mg/Kg	0.100	0.101	101	85 - 115	2008-09-02
Toluene		mg/Kg	0.100	0.102	102	85 - 115	2008-09-02
Ethylbenzene		mg/Kg	0.100	0.106	106	85 - 115	2008-09-02
Xylene		mg/Kg	0.300	0.313	104	85 - 115	2008-09-02

Standard (CCV-1)

QC Batch: 51	.972		Date Analyz	Analyzed By: ER			
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Benzene		mg/Kg	0.100	0.0929	93	85 - 115	2008-09-02
Toluene		mg/Kg	0.100	0.0938	94	85 - 115	2008-09-02
Ethylbenzene		mg/Kg	0.100	0.0924	92	85 - 115	2008-09-02
Xylene		mg/Kg	0.300	0.288	96	85 - 115	2008-09-02

Standard (ICV-1)

QC Batch:	51974		Date Ana	alyzed: 2008-0	Anal	Analyzed By: ER					
			ICVs	ICVs	ICVs	Percent	.				
			True	Found	Percent	· Recovery	Date				
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed				
GRO		mg/Kg	1.00	0.997	100	85 - 115	2008-09-02				

Standard (CCV-1)

QC Batch:	51974		Date Ana	alyzed: 2008-0	Anal	yzed By: ER	
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.12	112	85 - 115	2008-09-02

Standard (ICV-1)

QC Batch: 51983

Date Analyzed: 2008-09-02

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Analyzed By: MN

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Report Dat Plains071S	e: Septembe PL	r 4, 2008		Work Order: 8 EK Queen B	Page Number: 12 of 12 Lea County, NM					
			ICVs	ICVs	ICVs	Percent				
			True	Found	Percent	Recovery	Date			
Param	\mathbf{Flag}	\mathbf{Units}	Conc.	Conc.	Recovery	Limits	Analyzed			
DRO		mg/Kg	250	281	112	85 - 115	2008-09-02			
Standard	(CCV-1)									
QC Batch:	51983		Date Ana	alyzed: 2008-0	Anal	yzed By: MN				
			CCVs	CCVs	CCVs	Percent				
			True	Found	Percent	Recovery	Date			
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed			
DRO		mg/Kg	250	223	89	85 - 115	2008-09-02			

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												LÆ	4B (Order	⁻ ID #	5	<u><u></u><u></u><u></u><u></u><u></u><u></u></u>	28	2	90	20	4						F	² ag	e	1	0	of <u>/</u>		
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Contact Person: SA To Invoice to:	1/19/07 201/07	104	<u>-02</u>		<u>nr</u>	<u> </u>		E-n	nail:							1	4		(C35)		6010B/200.7	Se Hg													standard
(If different from a Project #: PLAINS Project Location	above) PTATA 07#SP2 (Including state):	15				٤	K	Pro	oject V <i>G</i> mple	Nam	ne: J Inati	ß	<i>L</i>)	η			8260B / 62	260B / 624	TX1005 Ex		Cr Pb Se Hg	Cd Cr Pb				24	0C / 625							-	fferent from
LEA CO	unty mm		S	tur		MA	TRI)	$\frac{\mathcal{U}}{\mathcal{U}}$	$\overline{\top}$	PR	ESI			/E	SAM	PLING	3 / 602 /	602/8	(1005 /	52	s Ba Cd	g As Ba	latilae			60B / 6	Vol. 827	105 10 / 605	ŝ	t					me if di
LAB # (LAB USE) (ONLY)	FIELD CODE		# CONTAINEF	Volume / Amor	WATER	SOIL	AIK	arunde	P	HNO ³	H ₂ SO ₄	NaOH	CE	NONE	DATE	TIME	MTBE 8021E	3TEX 8021B/	TPH 418.1 / T)	PAH 8270C / 6	fotal Metals Ag A	TCLP Metals A	I CLP Volatiles	ICLP Pesticide	RCI	GC/MS Vol 82	GC/MS Semi	Destroides 8082 / 6	BOD, TSS, pH	Moisture Conte					Turn Around Ti
172368 BF	-8					X							×		8/34	11.30	-		\$ ·	F F															
319 RF	-9		1			X			-				*		8/26	10:48)											+					
-368 B F 370	-10		_			<u>X</u>							<u>y</u>		806	17:00			_/	<										+					
																														+					
Relinquished by	: Company:	Date:	Tin	ne:	Re	ceivy	ed b	y; _	C	pmp	bany		Da	ate:	Time	: Tei	mp	c:		ĂĔ		ISE		R	EMA	RK	S :								
Relinquished by	Company:	8/39 Date: 8/29		45 ne: 4.80	3	eive	eð b	y:		14 omp	any any	// /:	9	7/29 ate:	Time	: Ter	mpʻ	°C:	Inta Head		NL N	Y 2 N (Dry TR) <i>(</i> We RP F	fD / ight Repo	2 Basis int Re	s Rec	5 / · juired	e×			
Submittal of same	: Company:	Pate:	Tin ms and	ne: d Con	ditior	ceive /	ed b	y: Wa on re		sid	le of	" €/ €/ ℃. (D: 5. C	ate: /39	тіте 14:	: те 0 ⁰⁾ С	mp' 2.8	ές: δ δ	Lòg	in-Rei	view,		P.				eck I lits A	f Spe Are N	eede	Repo d	orting				



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 432•689•6301
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 817•201•5260
 FAX 432•689•6313

Certifications

WBE: 237019

HUB: 1752439743100-86536

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

Eb Taylor Talon LPE-Hobbs 318 E Taylor Hobbs, NM, 88240

Report Date: September 11, 2008

Work Order: 8091001

Project Location:Lea County, NMProject Name:EK Queen BLMProject Number:Plains071SPLSRS#:2008-078

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
172984	BF 9	soil	2008-09-08	13:05	2008-09-10
172985	BF 8	soil	2008-09-08	13:12	2008-09-10

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

This report consists of a total of 12 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.
Michael april

Dr. Blair Leftwich, Director

Standard Flags

 ${\bf B}$ - The sample contains less than ten times the concentration found in the method blank.

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Case Narrative

Samples for project EK Queen BLM were received by TraceAnalysis, Inc. on 2008-09-10 and assigned to work order 8091001. Samples for work order 8091001 were received intact at a temperature of 3.0 deg. C.

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

Test	\mathbf{Method}
BTEX	S 8021B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8091001 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: 172984 - BF 9

Laboratory: Midland Analysis: BTEX QC Batch: 52250				Analytical Date Anal;	Method: yzed:	S 8021B 2008-09-10		Prep Method: Analyzed By:		
Prep Batch:	44790			Sample Pr	eparation:	2008-09-10		Prepare	d By:	\mathbf{DC}
				RI	- 					
Parameter		Flag		Resul	t	Units		Dilution		\mathbf{RL}
Benzene				< 0.010	0	mg/Kg		1		0.0100
Toluene				< 0.010	0	mg/Kg		1		0.0100
Ethylbenzene				< 0.010	0	mg/Kg		1		0.0100
Xylene	······································			0.0478	8	mg/Kg		1		0.0100
							Spike	Percent	Re	covery
Surrogate			Flag	\mathbf{Result}	\mathbf{Units}	Dilution	Amount	Recovery	L	imits
Trifluorotolue	ne (TFT)			1.02	mg/Kg	1	1.00	102	82.9) - 125.1
4-Bromofluoro	benzene (4-B	FB)		0.926	mg/Kg	1	1.00	93	48.9) - 160.4

Sample: 172984 - BF 9

Laboratory:MidlandAnalysis:TPH DROQC Batch:52252Prep Batch:44789		Analytical Method: Date Analyzed: Sample Preparation:		Mod. 801 2008-09-1 2008-09-1	5B 0 0	Prep Method: Analyzed By: Prepared By:		N/A LD LD		
				\mathbf{RL}						
Parameter		Flag		\mathbf{Result}		Units		Dilution		\mathbf{RL}
DRO				1100		mg/Kg		1		50.0
							Spike	Percent	Rec	overy
Surrogate	Flag	5	\mathbf{Result}	Units	Dilu	tion	Amount	Recovery	Li	mits
n-Triacontane	e 1		412	mg/Kg	1		100	412	10 -	250.4

Sample: 172984 - BF 9

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	52251	Date Analyzed:	2008-09-10	Analyzed By:	DC
Prep Batch:	44790	Sample Preparation:	2008-09-10	Prepared By:	DC

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continued ...

¹High surrogate recovery due to peak interference.

Report Date: September 11, 2008	Work Order: 8091001	Page Number: 5 of 12
Plains071SPL	EK Queen BLM	Lea County, NM

sample 172984 continued ...

Parameter	Flag		RL Result		Units	D	vilution	RI.
	1 145		ICSUIT		011105	D		
			\mathbf{RL}					
Parameter	Flag		\mathbf{Result}		\mathbf{Units}	· D	ilution	\mathbf{RL}
GRO			27.2		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotoluene (TFT)			0.887	mg/Kg	1	1.00	89	75 - 117.2
4-Bromofluorobenzene (4	l-BFB)		0.864	mg/Kg	1	1.00	86	66 - 142.8

Sample: 172985 - BF 8

Laboratory: Analysis: QC Batch: Prep Batch:	Midland BTEX 52250 44790			Analytical Date Anal Sample Pr	Method: yzed: eparation:	S 8021B 2008-09-10 2008-09-10		Prep Method Analyzed By Prepared By:		5 ,
				R	L					
Parameter		Flag		Resul	t	Units		Dilution	RI	L
Benzene				< 0.020	0	mg/Kg		2	0.0100	0
Toluene				0.031	2	mg/Kg		2	0.0100	0
Ethylbenzene	1			· <0.020	0	mg/Kg		2	0.0100	0
Xylene				0.30	5	mg/Kg		2	0.0100	0
							Spike	Percent	Recovery	
Surrogate			Flag	\mathbf{Result}	Units	Dilution	\mathbf{Amount}	Recovery	Limits	
Trifluorotolue	ene (TFT)			1.99	mg/Kg	2	2.00	100	82.9 - 125.1	1
4-Bromofluor	obenzene (4-BI	FB)		1.93	mg/Kg	2	2.00	96	48.9 - 160. 4	4

Sample: 172985 - BF 8

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 52252 44789	Analytical Method: Date Analyzed: Sample Preparation:	Mod. 8015B 2008-09-10 2008-09-10	Prep Method: Analyzed By: Prepared By:	N/A LD LD
		\mathbf{RL}			
Parameter	\mathbf{Flag}	\mathbf{Result}	Units	Dilution	\mathbf{RL}
DRO		2420	mg/Kg	1	50.0
				×	

.

Report Date: S Plains071SPL	September 11, 200)8		Work Ord EK Que		Page Number: 6 of 12 Lea County, NM		
, Surrogate	Flag	Result	Units	Dil	ution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	2	630	mg/Kg	5	1	100	630	10 - 250.4
Sample: 1729	85 - BF 8							
Laboratory:MidlandAnalysis:TPH GROQC Batch:52251Prep Batch:44790			Analytical Method Date Analyzed: Sample Preparatio		S 8015B 2008-09-10 2008-09-10		Prep Me Analyzec Preparec	thod: S 5035 H By: DC H By: DC
			\mathbf{RL}					
Parameter	Flag		Result		\mathbf{Units}]	Dilution	\mathbf{RL}
GRO			188		mg/Kg		5	1.00
Cumanata		Elem	Dogult	TInita	Dilution	Spike	Percent	Recovery
Surrogate	\ (TET)	Flag	Result 4.57	Units	Dilution	Amount	Recovery	
4-Bromofluorob	enzene (4-BFB)		4.57 5.50	mg/Kg	5 5	5.00	110	66 - 142.8
Method Bland QC Batch: 5: Prep Batch: 4	k (1) QC Ba 2250 4790	atch: 52250	Date Ana QC Prep	alyzed: 20 aration: 20	008-09-10 008-09-10		Analy Prepa	zed By: DC red By: DC
				MD	L			
Parameter		Flag		Resu	lt	Uni	ts	\mathbf{RL}
Benzene				< 0.01	10	mg/	Kg	0.01
Toluene				< 0.010)9	mg/	Kg	0.01
Ethylbenzene				< 0.010)9	mg/	Kg	0.01
Xylene	Kylene			< 0.03	31	mg/	Kg	0.01
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Becovery	Recovery Limits
Trifluorotoluene	(TFT)		0.994	mg/Kg	1	1.00	99	82.3 - 121.6
4-Bromofluorob	enzene (4-BFB)		0.910	mg/Kg	1	1.00	91	72 - 123
Method Blanl	k (1) QC Ba	tch: 52251						

QC Batch:	52251	Date Analyzed:	2008-09-10	Analyzed By:	DC
Prep Batch:	44790	QC Preparation:	2008-09-10	Prepared By:	DC

²High surrogate recovery due to peak interference.

Report Date: September 11, 20 Plains071SPL	port Date: September 11, 2008 Work Order: 8091001 Page Number: ains071SPL EK Queen BLM Lea Coun						Number: ' Lea Count	7 of 12 ty, NM	
Parameter	Flag		M Res	IDL sult		Units			RL
GRO			0.	842		mg/Kg	5		1
Surrogate	Flag	Result	Uni	ts I	Dilution	Spike Amount	Percent Recovery	Red Li	covery imits
Trifluorotoluene (TFT)	0	0.910	mg/	Kg	1	1.00	91	70	- 130
4-Bromofluorobenzene (4-BFB)		0.844	mg/I	Kg	1	1.00	84	70	- 130
Method Blank (1) QC E QC Batch: 52252 Prep Batch: 44789	Batch: 52252	Date Ar QC Pre	nalyzed:	2008-09 2008-09	9-10 9-10		Anal Prep	yzed By: ared By:	LD LD
-		•	-				•		
Parameter	Flag		M Res	IDL sult		Units			\mathbf{RL}
DRO	0		<1	15.8		mg/Kg	5		50
					~ ··	-			
Constant Plan	Dlt	TT!+_	т	21	Spike	e P	ercent	Reco	overy
Surrogate Flag	Result 196	Units		Jution	Amoui	nt Ro	ecovery		$\frac{110}{1464}$
Laboratory Control Spiles (<u>.</u>	-	100		120	00.0	110.1
Laboratory Control Spike (LC5-1)						,		
QC Batch: 52250 Prep Batch: 44790		Date Ai QC Pre	nalyzed: paration:	2008-09	9-10 9-10		Anal Prep	yzed By: ared By:	DC DC
		40110	paration	2000 00			1105	arca By.	20
	LC	5			Spike	Matrix		Re	ec.
Param	Resu	ılt (Units	Dil.	Amount	Result	Rec.	Liı	mit
Benzene	1.0	1 m	ıg/Kg	1	1.00	< 0.0110	101	72.7 -	129.8
Toluene	0.98	6 m	g/Kg	1	1.00	< 0.0109	99	71.6 -	129.6
Ethylbenzene	0.98	8 m	g/Kg	1	1.00	< 0.0109	99	70.8 -	129.7
Xylene	2.8	5 m	g/Kg	1	3.00	< 0.0331	95	70.9 -	129.4
Percent recovery is based on the	e spike result.	RPD is	based on	the spike	and spike d	uplicate res	ult.		
	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit

Param	Result	Units	Dil.	$\mathbf{A}\mathbf{m}\mathbf{o}\mathbf{u}\mathbf{n}\mathbf{t}$	Result	Rec.	\mathbf{Limit}	RPD	\mathbf{Limit}
Benzene	1.02	mg/Kg	1	1.00	< 0.0110	102	72.7 - 129.8	1	20
Toluene	0.996	mg/Kg	1	1.00	< 0.0109	100	71.6 - 129.6	1	20
Ethylbenzene	1.00	mg/Kg	1	1.00	< 0.0109	100	70.8 - 129.7	1	20
Xylene	2.89	mg/Kg	1	3.00	< 0.0331	96	70.9 - 129.4	1	20
Percent recovery is based	on the snike result	RPD is l	used o	n the snike	and snike d	lunlicat	a result		

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

Report Date: September 1 Plains071SPL	1, 2008			Work EK	Order: 8 Queen	809100 BLM)1			Page I I	Number Lea Cou	:: 8 of 12 inty, NM
Surrogate		LCS Result	LCS Resu	D ilt	Units	Dil.	Spi Amo	ke unt	LCS Rec.	LCSD Rec.		Rec. Limit
Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-I	BFB)	1.00 0.940	0.99 0.94	96 n 16 n	ng/Kg ng/Kg	1 1	1.0 1.0)0)0	100 94	100 94	82.9 73.6	9 - 122.8 8 - 122.4
Laboratory Control Spi	ke (LC	S-1)										
QC Batch: 52251 Prep Batch: 44790			Date An QC Prep	alyzed: paration	2008- : 2008-	09-10 09-10				Anal Prep	yzed B ared B	y: DC y: DC
Param		LCS Resu	S llt	Units	Dil.		Spike Amount	N t F	latrix Result	Re	c	Rec. Limit
GRO Persont recovery is based of	n the en	8.48	B r	ng/Kg	the spil	io and	10.0	(uplicato	0.842	76	j	70 - 130
refcent recovery is based o	ar the sp	TRE TESUIT.	nf D IS t	aseu or		ke and	spike u	upricate	resuit.			
Param		LCSD Result	Units	Dil.	Amo	ke unt	Matrix Result	Rec.	R . Li	lec. mit	RPD	RPD Limit
GRO	•	8.77	mg/Kg	1	10.	0	0.842	79	70	- 130	3	20
Surrogate Trifluorotoluene (TFT) 4-Bromofluorobenzene (4-F		LCS Resul 0.954 0.877	LC t Res 1 0.9	SD sult 956	Units mg/Kg mg/Kg	 	S 1. A1	opike nount 1.00	LCS Rec. 95 88	LC Re 90	SD ec. 6 8	Rec. Limit 70 - 130 70 - 130
Laboratory Control Spi QC Batch: 52252 Prep Batch: 44789	ke (LC	S-1)	Date An QC Prep	alyzed:	2008- : 2008-	09-10 09-10				Anal Prep	lyzed B pared B	y: LD y: LD
Param DRO		LCS Resul 266	t U	nits g/Kg	Dil.	S Aı	Spike mount 250	Mat Res <13	ult 5.8	Rec.	27.8	Rec. Limit 8 - 152.1
Percent recovery is based o	n the sp	ike result. 1	RPD is b	ased or	the spil	ke and	spike d	uplicate	result.			
Param	-	LCSD Result	Units	Dil.	Spike Amour	nt R	fatrix lesult	Rec.	Re Lin	ec. nit	RPD	RPD Limit
DRO		274	mg/Kg	1	250	<	<15.8	110	27.8 -	152.1	3	20
Percent recovery is based o	n the sp	ike result. I	RPD is b	ased or	the spil	ke and	spike d	uplicate	result.			
Surrogate n-Triacontane	LCS Result 122	LCSD Result 121	U	nits /Kg	Dil.	A	Spike mount 100	LC Re 12	2S 	LCSD Rec. 121		Rec. Limit 8 - 130.4

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Matrix Spike (MS-1) Spiked Sample: 172985

QC Batch: Prep Batch:	52250 44790	I C	Date Analyzed: QC Preparation	2008 n: 2008	3-09-10 3-09-10		\mathbf{Anal} Prepa	yzed By: DC ared By: DC
Param		${ m MS}$ Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2.16	mg/Kg	2	2.00	< 0.0220	108	58.6 - 165.2
Toluene	•	2.12	mg/Kg	2	2.00	0.0312	104	64.2 - 153.8
Ethylbenzene	2	2.38	mg/Kg	2	2.00	< 0.0218	119	61.6 - 159.4
Xylene		6.69	mg/Kg	2	6.00	0.3049	106	64.4 - 155.3

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

	MSD			Spike	Matrix		Rec.		RPD
Param	\mathbf{Result}	Units	Dil.	Amount	\mathbf{Result}	Rec.	\mathbf{Limit}	\mathbf{RPD}	\mathbf{Limit}
Benzene	2.46	mg/Kg	2	2.00	< 0.0220	123	58.6 - 165.2	13	20
Toluene	2.46	mg/Kg	2	2.00	0.0312	121	64.2 - 153.8	15	20
Ethylbenzene	2.74	mg/Kg	2	2.00	< 0.0218	137	61.6 - 159.4	14	20
Xylene	7.88	mg/Kg	2	6.00	0.3049	126	64.4 - 155.3	16	20

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

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	\mathbf{Result}	\mathbf{Result}	Units	Dil.	Amount	Rec.	Rec.	Limit
Trifluorotoluene (TFT)	1.97	1.96	mg/Kg	2	2	98	98	76.5 - 127.9
4-Bromofluorobenzene (4-BFB)	1.95	1.96	mg/Kg	2	2	98	98	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 172985

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QC Batch:	52251	Date Analyzed:	2008-09-10	Analyzed By:	\mathbf{DC}
Prep Batch:	44790	QC Preparation:	2008-09-10	Prepared By:	DC

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	\mathbf{Result}	Rec.	Limit
GRO	249	mg/Kg	5	50.0	188.473	121	22.3 - 134.6

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 Besult	Rec	Rec. Limit	RPD	RPD Limit
GRO	3	276	mg/Kg	5	50.0	188.473	175	22.3 - 134.6	10	20
Percent recovery is based on the	he sp	ike result.	RPD is b	based o	n the spike	and spike o	luplicat	e result.		

continued ...

³MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

Report Date: September 11, Plains071SPL	2008		Work EK	Order: 80 Queen Bl	91001 LM			Page Nu L	umber: ea Cou	10 of 12 nty, NM
matrix spikes continued						<i></i>				_
Zumorata		MS Rogult	MSD Rosult	Unite	Dil	Spike	MS MS	MSD	T	Rec.
Surrogate		nesun	nesun	Omts	DII.	Alloui	n nec.	nec.	1	
		MS	MSD			Spike	MS	MSD		Rec.
Surrogate		\mathbf{Result}	Result	Units	Dil.	Amour	nt Rec.	Rec.	I	Limit
Trifluorotoluene (TFT)		5.04	5.11	mg/Kg	5	5	101	102	68.4	- 113.1
4-Bromofluorobenzene (4-BFI	3)	5.77	5.75	mg/Kg	5	5	115	115	66.7	- 134.3
Matrix Spike (MS-1) S	piked Samp	le: 17298	4							
QC Batch: 52252		Da	te Analyzed:	2008-0	9-10			Anal	vzed B	v: LD
Prep Batch: 44789		QC	Preparation	n: 2008-0	9-10			Prep	ared B	y: LD
•		-	-					-		
		MS			S	nike	Matrix			Rec
Param		Result	Units	Dil.	An	ount	Result	Rec.		Limit
DRO	4	1060	mg/Kg	1		250	1060	0	18	- 179.5
Percent recovery is based on t	the spike re	sult. RP	D is based of	n the spike	e and s	pike dup	licate resu	lt.		
v	•			с. ч		· · ·		D		חחח
Domorro	MC Dec	עס 	nita Dil	5ріке Ата очт		atrix	Dee	Rec.	חחח	RPD
	5 10	$\frac{100}{50}$ m	$\frac{1}{\sqrt{K}} \frac{1}{\sqrt{K}}$	Amoun 250	1	$\frac{1}{060}$	$\frac{10}{10}$	170 5		
	100			200	1	., , ,	0 10	- 179.5	1	20
Percent recovery is based on t	the spike re	sult. RP.	D is based of	n the spike	e and s	pike dup	licate resu	lt.		
	MS	MSD			5	Spike	MS	MSD		Rec.
Surrogate	Result	Result	\mathbf{Units}	Dil.	A	mount	Rec.	Rec.		Limit
1-Triacontane 6 7	297	292	mg/Kg	1		100	297	292	34	.1 - 158
Standard (ICV-1) QC Batch: 52250		Da	te Analyzed:	2008-09	-10			Anal	yzed By	v: DC
Standard (ICV-1) QC Batch: 52250		Da	te Analyzed: ICVs	2008-09 ICVs	-10	ICVs	Pe	Anal	yzed By	7: DC
Standard (ICV-1) QC Batch: 52250		Da	te Analyzed: ICVs True	2008-09 ICVs Found	-10	ICVs Percent	Pe Re	Anal ercent ecovery	yzed B	7: DC Date
Standard (ICV-1) QC Batch: 52250 Param Flag	Units	Da	te Analyzed: ICVs True Conc.	2008-09- ICVs Found Conc.	-10] R	ICVs Percent ecovery	Pe Re L	Anal ercent ecovery imits	yzed By Aı	y: DC Date nalyzed
Standard (ICV-1) QC Batch: 52250 Param Flag Benzene	Units mg/Kg	Da	te Analyzed: ICVs True Conc. 0.100	2008-09- ICVs Found Conc. 0.100	-10] R	ICVs Percent Lecovery 100	Po Re 1 85	Anal ercent covery imits 5 - 115	yzed By Aı 200	7: DC Date nalyzed)8-09-10
Standard (ICV-1) QC Batch: 52250 Param Flag Benzene Foluene	Units mg/Kg mg/Kg	Da	te Analyzed: ICVs True Conc. 0.100 0.100	2008-09- ICVs Found Conc. 0.100 0.0986	-10 I R	ICVs Percent ecovery 100 99	P0 Re 1 85 85	Anal ercent covery imits - 115 - 115	yzed By <u>A1</u> 200 200	7: DC Date nalyzed)8-09-10)8-09-10
Standard (ICV-1) QC Batch: 52250 Param Flag Benzene Foluene Ethylbenzene	Units mg/Kg mg/Kg mg/Kg	Da	te Analyzed: ICVs True Conc. 0.100 0.100 0.100	2008-09- ICVs Found Conc. 0.100 0.0986 0.0980	-10 I R	ICVs Percent ecovery 100 99 98	Po Re L 85 85 85	Anal ercent covery imits - 115 - 115 - 115	yzed By An 200 200 200	7: DC Date nalyzed)8-09-10)8-09-10)8-09-10

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⁴Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. ⁵Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control. ⁶High surrogate recovery due to peak interference. ⁷High surrogate recovery due to peak interference.

Report Dat Plains071S	e: September 1 PL	1, 2008	Work Order: 8091001Page Number: 11 of 1EK Queen BLMLea County, NM						
Standard ((CCV-1)								
QC Batch:	52250		Date Anal	yzed: 2008-09-	-10	Anal	yzed By: DC		
			CCVs	CCVs	CCVs	Percent			
			True	Found	Percent	Recovery	Date		
Param	\mathbf{Flag}	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
Benzene		mg/Kg	0.100	0.106	106	85 - 115	2008-09-10		
Toluene		m mg/Kg	0.100	0.104	104	85 - 115	2008-09-10		
Ethylbenzer	ne	mg/Kg	0.100	0.101	101	85 - 115	2008-09-10		
Xylene		mg/Kg	0.300	0.294	98	85 - 115	2008-09-10		
Standard ((ICV-1)								
QC Batch:	52251		Date Anal	yzed: 2008-09-	-10	Anal	yzed By: DC		
			ICVs	ICVs	ICVs	Percent			
			True	Found	Percent	Recovery	Date		
Param	Flag	Units	Conc	Conc	Recovery	Limits	Analyzed		
GRO	0	mg/Kg	1.00	1.01	101	85 - 115	2008-09-10		
		0, 0					· ··· ·		
Standard ((CCV-1)								
QC Batch:	52251		Date Anal	yzed: 2008-09-	-10	Anal	yzed By: DC		
			COV-	COVe	COV-	Deveent			
			True	COVS	Dencent	Percent	Data		
Danam	Flor	Unita	True	Found	Percent	Limita	Date		
	r lag	ma/Ka	1.00	1 10	110				
GRO		iiig/ Kg	1.00	1.10	110	89 - 119	2008-09-10		
Standard ((ICV-1)								
QC Batch:	52252		Date Anal	yzed: 2008-09-	-10	Anal	yzed By: LD		
			ICVs	ICVs	ICVs	Percent			
			True	Found	Percent	Recoverv	Date		
Param	Flag	Units	Conc.	Conc.	Recoverv	Limits	Analyzed		
DRO	<u>~</u>	mg/Kg	250	256	102	85 - 115	2008-09-10		
Standard ((CCV-1)								
OC Batch	52252		Date Anal	vzed• ാററെ_ററ	-10	Anal	wood By. ID		

Report Da Plains0719	ate: Septembe: SPL	r 11, 2008		Work Order: 8 EK Queen I	091001 3LM	Page N I	umber: 12 of 12 Lea County, NM
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	266	106	85 - 115	2008-09-10

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email: lab@tracea	nalysis.co	m							1	(800) 378	3-1296	6				.,					1	(888)	8) 58	38-3	443						<u> </u>					
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APPENDIX D

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Photograph Documentation

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Facility Name: E.K. Queen BLM Location: Lea County, New Mexico Project Number: PLAINS071SPL

Prepared by: Kyle J. Waggoner

Photograph No. 1

Description: View looking north at the flow path.



Photograph No. 2

Description: View looking northeast at the flow path.





Facility Name: E.K. Queen BLM Location: Lea County, New Mexico Project Number: PLAINS071SPL

Prepared by: Kyle J. Waggoner

02/04/2008

Photograph No. 3

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Description: Source area.

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Photograph No. 4

Description: Source area.





Facility Name: E.K. Queen BLM Location: Lea County, New Mexico Project Number: PLAINS071SPL Prepared by: Kyle J. Waggoner

Photograph No. 5



Description: During excavation activities.

Photograph No. 6

Description: During excavation activities.





Facility Name: E.K. Queen BLM Location: Lea County, New Mexico Project Number: PLAINS071SPL

Prepared by: Kyle J. Waggoner

Photograph No. 7



Description: Site Restoration.

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Photograph No. 8

Description: Site Restoration



APPENDIX E

BLM Undesirable Event Form

Form NM 3162-1 (August 2004)

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UNITED STATES DEPARTMENT OF THE INTERIOR S Bureau of Land Management New Marico State Office
REPORT OF UNDESIRABLE EVENT
DATE OF OCCURRENCE/DISCOVERY: 3 27/68 TIME OF OCCURRENCE: 1100
DATE REPORTED TO BLM: 3 27/08 TIME REPORTED: 110:00
BLM OFFICE REPORTED TO: (FIELD/DISTRICT/OTHER) At Strict Office (Jim Amos)
LOCATION: (1/ 4) SECTION 19 T. 185R. 84E MERIDIAN DW MUELLO Prime
COUNTY: ALLA STATE: MM WELL NAME
OPERATOR: COMPANY NAME PLOINS POOLING, PHONE NO 505/441-09 65 CONTACT PERSON'S NAME CAMILLE PLUNELOS
SURFACE OWNER: BLM MINERAL OWNER:
LEASE NO .: RIGHT-OF-WAY NO .: TTM LOD 175
UNIT NAME / COMMUNITIZATION AGREEMENT NO .:
TYPE OF EVENT, CIRCLE APPROPRIATE ITEM (S):
BLOWOUT, FIRE, FATALITY, INJURY, PROPERTY DAMAGE, OIL SPILL SALTWATER SPILL, OIL AND SALTWATER SPILL, TOXIC FLUID SPILL, HAZARDOUS MATERIAL SPILL, UNCONTROLLED FLOW OF WELLBORE FLUIDS, OTHER (SPECIFY):
CAUSE OF EVENT: Internal Corrosion of loinch
HazMat Notified: (for spills)
Law Enforcement Notified: (for thefts)
CAUSE AND EXTENT OF PERSONAL INJURIES/CAUSE OF DEATH(S):
Safety Officer Notified:
EFFECTS OF EVENT: Lycho Carbon impacted Soil
ACTION TAKEN TO CONTROL EVENT: CLAMP placed on line
LENGTH OF TIME TO CONTROL BLOWOUT OR FIRE:
VOLUMES DISCHARGED: OIL 55 KILLES WATER GAS
NOODS Office

FINAL INVESTIGA TK TEAM NAME()N: S)	
FIBLD INSPEC	TION DATE/	
SUMMARY O	F RESULTS OF INSPECTION	
ESOURCE LOSS WAS	s (Circle Item): Avoidable Fying Minrals Management Sserv	UNAVOIDABLE ICE THAT LOSS WAS AVOIDABLE:
ATE/TIME/PERSON 1 DISTRICT OFF	NOTHTED: ICE	
STATE OFFICE	3	······································
WASHINGTON	OFFICE	na agusta an ann an tha br>Na sharanna an tha ann a
UMMARY OF RESUL	TS OF RECLAMATION/CORRECTIVE ACT	30N :
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EMARKS:		
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APPENDIX F

Archeological Survey

NMCRIS IN\	/ESTIGATION	ABSTRACT	FORM (NIAF)

	2a. Lead (Sponsoring) Agency:							
1. NMCRIS Activity No.:		2b. Other Perm	itting Agency(ies):	3. Lead Agency Report No.:				
10/423 BLM, CFU 5 Type of Papert								
4. The of Report: EK QL	leen I runk location.	-		5. Type of Report				
Author(s) Ann and Danny Boone								
Research Design	Survey/Inventory Test Exc	cavation 🗌 E		ections/Non-Field Study				
Overview/Lit Review		aphic study 🔲 S	Site specific visit	TOther				
7. Description of Undertak	ing (what does the project entail?): An ex	cavated area we	re a buried pipeline le	eaked petroleum fluids.				
8 Dates of Investigation: (from: 8/21/2007 to:) 9. Report Date: 08/27/2007								
10. Performing Agency/0 Principal Investigate Field Supervisor D	Consultant: Boone Archaeological Se pr: Danny Boone	ervices, LLC	11. Performing Ag BAS 08-07-12	gency/Consultant Report No.:				
Field Personnel Na	mes: Danny Boone		12. Applicable Cultural Resource Permit No(s):					
13 Client/Customer (pro	iect propopent): Plains All American	Pipeline I P	14 Client/Custom	er Project No :				
Contact: Ed Taylor (Agent)	1 ipenne, L.I .						
Address: 1301 S Co	ountry Road 1150			-				
Phone: (432) 682-53	exas 79706-4476 392							
15. Land Ownership Sta	tus (Must be indicated on project map):			-				
Land Owner		Acres	Surveved Acres in	APE				
BLM		3.77	(+/-) 2.33 (-	-/+)				
	······································							
		TOTALS 3.77	(-/+) 2.33 (+/-)				
· · · ·		I						
16 Records Search(es):								
Date(s) of ARMS File R	eview: 08/20/2007 Name o	of Reviewer(s): Da	anny Boone					
Date(s) of Other Agency	File Review: 08/20/2007 Name of	of Reviewer(s): D	anny Boone Age	ency: BLM, CFO				
Findings: LA 152393, 4	9626, 35674, 29418, and 49784 are	with 0.25 mile	1119 200110 1 1 190					
-			,					
17. Survey Data:a. Sourc		0.83	ono mon Contas					
	\boxtimes USGS 7.5' (1:24,000) topo map \square Other topo map, Scale:							
b.USGS 7.5' Topographic	Map Name USGS Quad C	Code		-10011				
IRONHOUSE WELL,	NM (1984) 32103G8							
c. County(ies): Lea								

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17. Survey Data (o	continued):					
d. Nearest City or	Town: Buckeye, NM					
e. Legal Descript	ION:	Papas (EMI)	Section	1/ 1/	1/	
	18S		19	SE SW		
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f. Other Descriptio	scription? Yes 🏼 , No n (e.g. well pad footag	ges, mile markers	atted [] s, plats, land grant nan	ne, etc.):		
18. Survey Field M	Methods:					
Intensity: 🛛 100	% coverage 🔲 <10	0% coverage				
Configuration: 🛛 I	olock survey units	linear survey u	inits (I x w):	other survey unit	s (specify):	
Scope: X non-sel	ective (all sites record	led) 🗍 selectiv	e/thematic (selected s	ites recorded)		
Coverage Method:	Systematic node	strian coverage	C other method (des	cribe)		
Survey Interval (m	1. 15 Crew Size: 1	Fieldwork Dates	· 28 Aug 2007			
Survey Person Ho	urs: 1.5 Recording	Person Hours: 0	Total Hours: 1.5			
Additional Narrativ	e: Location, footage a	nd acres are est	imates based on a har	nd held GPS Unit. A	100 foot buffer was surveve	ed
around the impact	ed area and marked v	vith a combinatio	n of pink and orange t	ape.	,	
19. Environmental	Setting (NRCS soil de	esignation; veget	ative community; elev	ation; etc.):	•	Magazia
Topography: Mil	dly rolling dunal plai	n.				
Vegetative com	unity: Shinoak sage	hrush mesquite	broom snakeweed as	orted grasses and off	per flora	
	falianaa Vanuitaaaa	eistisse Contlesse		doon conducacilo		
NRCS. Peyole-IV	aijamar-Kermit asso	ciation: Genuy u	idulating and folling,	leep, sandy soms		
Elevation: 3,970	leet					
20.a. Percent Grou around bu	nd Visibility: 90 b. Co rried pipeline.	ndition of Survey	Area (grazed, bladed	, undisturbed, etc.):	Impacted area excavated	
21. CULTURAL RE	SOURCE FINDINGS	🗌 Yes, See P	age 3 🛛 🖾 No, E	Discuss Why: Unknow	wn	
22. Required Attac	hments (check all app	propriate boxes):			· · · · · · · · · · · · · · · · · · ·	
USGS 7.5 Topo	graphic Map with site	s, isolates, and s	survey area clearly dra	wn	23. Other Attachments:	
	S Mapserver Map Cn new sites (with sketch)	eck man & tonographi	manl		C Other Attachments	
LA Site Forms (update) - previously r	recorded & un-rel	ocated sites (first 2 pag	<u>es minimum)</u>	(Describe):	
Historic Cultura	Property Inventory F	orms				
List and Descrip	tion of isolates, if app tion of Collections if a	olicable applicable		۲		
24. I certify the information provided above is correct and accurate and meets all applicable agency standards.						
Principal Investigat	or/Posponsible Areh	pologist: Doppy	Boopo			
- incipal investigat	on responsible Archa	aeologist. Danny	DOONA			
Signature /	and the		Date: 08/27/2	007 Litle (if not PI)	:	
25. Reviewing Age Reviewer's Name/[ancy. Date		26. SHPO Reviewer's Name/Dat	e:		
Accepted (Rejected (HPD Log #:			
			SHPO File Location:			
Tribal Consultation	(if applicable):	es ⊡No	Date sent to ARMS:			
		[

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

.

1. NMCRIS Activity No.: 107423	2. Lead (Sponsoring) Agency: BLM, CFO	3. Lead Agency Report No.:
SURVEY RESULTS: Sites discovered and reg Sites discovered and NO Previously recorded sites Previously recorded sites TOTAL SITES VISITED: Total isolates recorded: 0 Total structures recorded MANAGEMENT SUMM	stered: 0 F registered: 0 revisited (<i>site update form required</i>): 0 not relocated (<i>site update form required</i>): 0 Non-selective isolate recording? (<i>new and previously recorded, including acequias</i>): 0 IARY: No cultural resources were encountered d	uring the survey therefore clearance of the EK
Queen Trunk location f	or Plains All American Pipeline, L.P. is recomme ared at any time all activity should cease and the	nded as presently flagged. If cultural BLM Archaeologist notified immediately.
SURVEY LA NUMBER LO	IF REPORT IS NEGATIVE YOU ARE DONE A	T THIS POINT.
LA No.	Field/Agency No. Eligible? (Y/N, applicable c	riteria)
Previously recorded revis	ted sites:	- ·
LA No.	Field/Agency No. Eligible? (Y/N, applicable cr	iteria)
MONITORING LA NUMBI Sites Discovered (site form	ER LOG (site form required) required) : Previously recorded sites (Site upda)	te form required):
LA No. Field	VAgency No. LA No. Field/Agency No.	
Areas outside known nea	by site boundaries monitored? Yes [], No [] If no ε	xplain why:
TESTING & EXCAVATION Tested LA number(s)	N LA NUMBER LOG (site form required) Excavated LA number(s)	
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APPENDIX G

NMOCD C-141 Reports

Initial C-141 Report Final C-141 Report

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District 1 1625 N. French Dr., Hobbs, NM 88240 District II Energy	State of I Minerals	New Mex and Natura	ico 1 Resources			Re	vised O	Form C-141 stober 10, 2003
1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1200 S. Emersie IN. South Fo. NM 87505	Oil Conservation Division 1220 South St. Francis Dr.				Submit 2 Copies to approp District Office in accord with Rule 116 on 1			
Dalaasa Nati	Santa Fe	, NM 875	05	otion				
Kelease nou	lication		TOD	cuou	. Initi	nl Denart		Final Benort
Name of Company Plains Pipeline	j	Contact Car	nille Reynolds		X IIIU	агкероп	<u> </u>	Thial Report
Address 3112 W. US Hwy 82, Lovington, NM 88260		Telephone 1	No. 505-441-09	65				
Facility Name E.K. Queen 6 Inch BLM		Facility Typ	e 6"Steel Pipel	ine				
Surface Owner BLM Miner	al Owner				Lease N	No.		
LO	CATIO	OF RE	LEASE					
Unit LetterSectionTownshipRangeFeet from theN1918S34E	e North/	South Line	Fect from the	East/V	Vest Line	County Lea		
Latitude_32° 43' 44.1"		Longitude	103° 36' 01.3	»,		- v	JTR 1	, ['] ας'
N.	ATURE	OF REL	EASE	10	Volume	anovered A	0 horrel	
Source of Release 6" Steel Pipeline		Date and H 03/27/08 @	lour of Occurrence 11:00	ce	Date and 03/27/08	Hour of Dis @ 12:46	covery	<u>s</u>
Was Immediate Notice Given? XYes No No	t Required	If YES, To Larry John	Whom? son	_	6	260	6	
By Whom? Camille Reynolds		Date and Hour 03/27/08 @ 15:56						
Yes X No		is thes, volume impacting the watercoorse.						
Describe Cause of Problem and Remedial Action Taken Interr inch steel gathering line that produces approximately 300 barr sweet crude oil is 42. The sweet crude has an H ₂ S content of 4	aal corrosion els of oil per <10 ppm. T	of the 6 incl day. The pr he line is app	n steel pipeline re essure on the line roximately 3 feet	sulted in t is appro- t bgs at the	release of eximately S ne release p	sweet crude of psi and the	e oil. T	he line is a 6- ty of the
Describe Area Affected and Cleanup Action Taken.* The imp	acted soil w	as excavated	and stockpiled or	n plastic.			<u></u> ,,	
I hereby certify that the information given above is true and corregulations all operators are required to report and/or file certa public health or the environment. The acceptance of a C-141 is should their operations have failed to adequately investigate and or the environment. In addition, NMOCD acceptance of a C-1 federal, state, or local laws and/or regulations.	emplete to the in release no report by the ind remediate 41 report do	e best of my otifications au NMOCD m contaminations not reliev	knowledge and u ad perform correc arked as "Final R on that pose a thr e the operator of	inderstan ctive acti ceport" do cat to gro responsi	d that purs ons for rele oes not reli ound water bility for co	suant to NM cases which ieve the ope r, surface wa ompliance v	OCD rains of ater, hus with any	iles and idanger 'liability man health y other
signature: amille trypolder				SERV.	ATION	DIVISIC	<u>DN</u>	
Printed Name: Camille Reynolds	/	Approved by	District Supervis	<u> Nimen</u>	VTAL EN	IGINEER		
Title: Remediation Coordinator	/	Approval Dat	e: 4.2.08		xpiration	Date: 6.	6.0	8
E-mail Address: cjreynolds@paalp.com	0	Conditions of	Approval:			Attached		
Date: 03/28/2008 Phone: 505-44	1-0965	Sum	T CLOSURE	. 31		1RP-	1831	
Autoria Additional Sheets II (Necessary	angli	31715						

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