

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

1RP-1887

OPERATOR

☐ Initial Report ☒ **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 4 Inch Poly	Facility Type	4 Inch Poly Pipeline

Surface Owner	BLM	Mineral Owner		Lease No.	
---------------	-----	---------------	--	-----------	--

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	22	18S	33E					Lea

Latitude N 32° 43' 47.7" Longitude W 103° 38' 42.8"

NATURE OF RELEASE

Type of Release	Crude Oil	Volume of Release	8 bbls	Volume Recovered	0 bbls
Source of Release	4" poly pipeline	Date and Hour of Occurrence	06/24/2008 @ 10:00	Date and Hour of Discovery	06/24/2008 @ 10:00
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Larry Johnson		
By Whom?	Camille Bryant	Date and Hour	06/24/2008 @ 15:15		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

RECEIVED

JUL 29 2009

Describe Cause of Problem and Remedial Action Taken.*

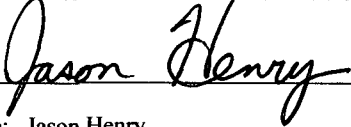
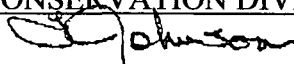
HOBBSOCD

Failure of 4 - inch poly line resulted in the release of sweet crude oil. The line is a 4 - inch poly gathering line that has a throughput of approximately 645 bbls of oil per day. The pressure on the line is approximately 55 psi and the gravity of the sweet crude is 40. The H₂S concentration is <10 ppm and the line is approximately 3.5 bgs at the release point.

Describe Area Affected and Cleanup Action Taken.*

Please see the attached Talon/LPE Soil Closure Report for details of remedial activities conducted for site closure.

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

Signature: 	OIL CONSERVATION DIVISION 	
Printed Name: Jason Henry	Approved by District Supervisor ENVIRONMENTAL ENGINEER	
Title: Remediation Coordinator	Approval Date: 7-30-09	Expiration Date:
E-mail Address: jhenry@paalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 07-30-2009 Phone: (575) 441-1099		1RP#1887

* Attach Additional Sheets If Necessary



AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806.467.0622

AUSTIN
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Suite 202
Austin, Texas 78757
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Fax 512.989.3487

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Hobbs, New Mexico 88241
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Fax 505.393.4658

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Fax 903.531.9979

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
EMERGENCY RESPONSE

**SOIL CLOSURE REPORT
E.K. QUEEN 4" POLY
LEA COUNTY, NEW MEXICO**

PLAINS SRS #2008-169

NMOCD REF # 1R-1887

SECTION 12, TOWNSHIP 18 SOUTH, RANGE 33 EAST

PREPARED FOR:

**PLAINS PIPELINE, L.P.
333 CLAY STREET
SUITE 1600
HOUSTON, TEXAS 77002**

PREPARED BY:

**TALON/LPE
318 EAST TAYLOR STREET
HOBBS, NEW MEXICO 88240**

DISTRIBUTION:

**COPY 1 – PLAINS PIPELINE, L.P. – DENVER CITY
COPY 2 – PLAINS PIPELINE, L.P. – HOUSTON
COPY 3 – NMOCD – HOBBS
COPY 4 – BLM – CARSBAD
COPY 5 – TALON/LPE**

JULY 23, 2009

RECEIVED

JUL 29 2009

HOBBSOCD

Toll Free: 866 742 0742
www.talonlpe.com

SOIL CLOSURE REPORT

**E.K. QUEEN 4" POLY
LEA COUNTY, NEW MEXICO
PLAINS SRS #2008-169
NMOCD REF. # 1R-1887**

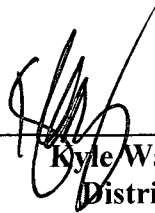
**PLAINS PIPELINE, L.P.
333 CLAY STREET, SUITE 1600
HOUSTON, TEXAS**

TALON/LPE PROJECT NO. PLAINS076SPL

Prepared by:



**Shanna Smith
Project Manager**



**Kyle Waggoner, P. G.
District Manager**

**Talon/LPE
318 East Taylor Street
Hobbs, New Mexico 88240**

July 2009

Distribution List

Name	Title	Company or Agency	Mailing Address	e-mail
Larry Johnson	Environmental Engineer	NMOCD	1625 French Dr. Hobbs, NM 88231	lwjohnson@state.nm.us
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
Jim Amos	Lead Petroleum Engineering Tech	BLM	620 E. Greene St. Carlsbad, New Mexico 88220	Jim_Amos@nm.blm.gov
File		Talon/LPE	318 East Taylor Street Hobbs, New Mexico 88240	ssmith@talonlpe.com

NMOCD – New Mexico Oil Conservation Division

BLM – New Mexico Bureau of Land Management

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Initial C-141

Final C-141

1.0 INTRODUCTION

1.1 Objectives and Site Background

Talon/LPE was retained by Plains Pipeline, L.P. (Plains) to conduct an assessment and remediation activities at the E.K. Queen 4" Poly 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 current conditions supporting closure of this site.

The E.K. Queen 4" Poly release site is located approximately 25 miles east of Loco Hills in Lea County, New Mexico. The GPS coordinates for the site are 32° 43' 47.7" N latitude and 103° 38' 42.8" 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. A topographic map is provided as Figure 1 in Appendix A.

A crude oil release occurred at the site on June 24, 2008. Plains personnel estimated that eight barrels of crude oil were released and zero barrels were recovered during emergency response activities. The release was verbally reported to the New Mexico Oil Conservation Division (NMOCD) on June 24, 2008 and a C-141 Form was submitted to the NMOCD on June 30, 2008. The Bureau of Land Management was notified on June 27, 2008. The site was assigned NMOCD Reference number 1R-1887. The release was the result of a four-inch poly line failure on the Plains E.K. Queen 4" poly pipeline.

1.2 Regulatory Framework

1.2.1 Soil Delineation and Remediation

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 4" Poly 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 24 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>	<u>Site Condition:</u>	<u>Ranking Score:</u>
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 December 17, 2008, as part of the initial investigation activities required by the BLM. 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 B of this report.

2.0 SOIL EXCAVATION AND REMEDIATION ACTIVITIES

2.1 Remedial Excavation Activities

Talon mobilized equipment and personnel to the site to initiate soil excavation and remediation activities on June 30, 2008. Talon personnel began locating the poly lines (by excavating with shovels) which were located in the planned excavation area. A trackhoe was utilized to excavate the source area and a backhoe was used to stockpile the impacted soil on a plastic. Details of the soil sampling activities and certified laboratory results are presented in Section 3.0 of this report.

Upon completion of excavation activities, grab samples were collected from the sidewalls (SW-1, SW-2, SW-3, and SW-4) and bottom of the excavation (BH-1 18') to document the successful removal of soil impacted above the NMOCD remedial thresholds. Laboratory analyses of the samples collected on August 28, 2008 indicated the sample locations of BH-1 and SW-3 to be above the NMOCD remedial thresholds for TPH (reference Table 1).

On September 16, 2008, over-excavation activities were performed on the impacted sidewall (SW-3) and bottom (BH-1) of excavation. A confirmation soil sample was collected from the bottom of the excavation (BH-2 24') on September 19, 2008. Subsequent to completion of the over-excavation activities, soil samples were collected on September 30 and November 6, 2008 from the sidewall (SW-3) and bottom hole (BH-1 24'). Laboratory analyses of the sidewall and bottom of the excavation indicated BTEX and TPH concentrations below NMOCD remedial thresholds. The location of the confirmation samples are presented on Figure 2.

The excavation limits were initially determined during excavation activities using visual and olfactory observations. Certified laboratory analyses for soil samples obtained from the walls and the bottom of the excavation determined actual excavation limits. Details of the soil sampling activities and certified laboratory results are presented in Section 3.0 of this report.

The final excavation limits measured approximately 40 feet in width, 40 feet in length, and an approximate depth of 24 feet. Approximately 1,422 cubic yards of affected soil were excavated and subsequently blended and aerated with native soil. Figure 2 depicts the final excavation limits. Photographic documentation of the soil excavation activities is presented in Appendix E.

2.2 Soil Remediation Activities

Following the initial excavation activities, stockpile samples (SP-1 and SP-2) that were collected on August 28, 2008 exhibited TPH concentrations above the NMOCD remedial thresholds. On February 17, 2009, all excavated affected soil was blended and aerated with non-affected surrounding native soil to promote bio-remediation and reduction of petroleum hydrocarbon concentrations. Four stockpile soil samples were collected on February 20, 2009. Laboratory analyses of the stockpile samples (SP-1 through SP-4) indicate TPH concentrations above the NMOCD remedial threshold of 1,000 mg/kg. The four remediated stockpile (SP-1 through SP-4) sample analytical results for BTEX concentrations were below the NMOCD remedial threshold of 10 mg/kg for benzene and 50 mg/kg for total BTEX.

Further blending and aeration activities continued on March 6, 2009, four additional stockpile samples were collected. Stockpile samples SP-1 and SP-2 were below the NMOCD TPH remediation thresholds. The analytical results for stockpile samples SP-3 and SP-4 indicated TPH concentrations above regulatory guidelines. After further blending and aeration, stockpile SP-3 and SP-4 soil samples were collected on April 9, 2009. Laboratory analyses of the stockpile samples indicate TPH concentrations below NMOCD remedial thresholds. Final confirmation stockpile soil samples collected indicated residual petroleum hydrocarbon concentrations to be below applicable cleanup levels. Details of the soil sampling activities and certified laboratory results are presented in Section 3.0 of this report.

2.3 Backfill, Compaction and Site Grading Activities

Subsequent to soil remediation activities and verbal approval from the NMOCD and BLM, the excavated area was backfilled with remediated soil. A backhoe was utilized to restore the site to natural grade. Blending, backfilling, and contouring to original grade activities were completed on May 23, 2009. The entire site was then seeded with a seed mix recommended by the BLM.

3.0 SOIL SAMPLING ACTIVITIES

3.1 Excavation Confirmation Soil Sampling

3.1.1 Sample Collection

During and at the completion of excavation activities (based on visual observations and field screenings), eight (8) discrete confirmation soil samples were collected from various locations within the excavation area (bottom and sidewall samples). Additional confirmation soil samples were collected following over-excavation activities when initial soil samples indicated concentrations of petroleum hydrocarbons above applicable remedial thresholds. Additional confirmation soil samples are designated with a deeper sample depth when compared to the original soil sample. A total of eight (8) confirmation soil samples were collected from August 28, 2008 to November 6, 2008. Confirmation soil samples were collected by Talon personnel wearing clean nitrile gloves with disposal sampling tools. Confirmation soil sampling locations are depicted on Figure 2.

The confirmation soil samples were containerized in laboratory provided sample containers, immediately placed on ice, and transported to TraceAnalysis in Midland, Texas for benzene, toluene, ethylbenzene, and xylenes (BTEX) analysis using EPA SW-846 Method 8021B and TPH analysis using EPA SW-846 Method 8015B. All analytical testing was performed on a standard turn-around basis.

3.1.2 Analytical Results

Analytical results indicate BTEX concentrations in the final confirmation soil samples to be below the respective NMOCD remedial thresholds. Final TPH concentrations were determined to be below the NMOCD remediation threshold for TPH of 1,000 mg/kg. Certified copies of the laboratory analytical results and proper chain of custody documentation are presented in Appendix D. A summary of the excavation confirmation soil sample analytical results is presented on Table 1.

3.2 Remediated Soil Stockpile Sampling

3.2.1 Sample Collection

During soil remediation activities (blending, aeration, and stockpiling), a total twelve (12) discrete soil samples (designated as SP-1 through SP-4) were collected from August 28, 2008 to April 9, 2009 from the remediated soil. The soil samples were collected by Talon personnel wearing clean nitrile gloves with disposal sampling tools.

The confirmation soil samples were containerized in laboratory provided sample containers, immediately placed on ice, and transported to TraceAnalysis in Midland, Texas for BTEX analysis using EPA SW-846 Method 8021B and TPH analysis using EPA SW-846 Method 8015B. All analytical testing was performed on a standard turn-around basis.

3.2.2 Analytical Results

Analytical results indicate the final BTEX concentrations in the four (4) stockpile soil samples dated March 6 (SP-1 and SP-2) and April 9, 2009 (SP-3 and SP-4) to be below the respective NMOCD Soil Remediation Threshold. TPH concentrations were determined to be below the NMOCD Soil Remediation Thresholds for TPH of 1,000 mg/kg in the final four (4) stockpile samples. Certified copies of the laboratory analytical results and proper chain of custody documentation are presented in Appendix D. A summary of the remediated soil sample analytical results is presented on Table 1.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

A crude oil release occurred at the site on June 24, 2008. Plains personnel estimated that eight barrels of crude oil were released and zero barrels were recovered during emergency response activities. Following the emergency response activities, excavation and remediation activities were initiated. A total of approximately 1,066 yards of crude oil affected soil was excavated, blended/aerated, and utilized as backfill material. Soil samples were collected from the excavation and remediated soil throughout the soil remediation activities. All final soil samples indicate BTEX and TPH concentrations are below applicable NMOCD Remediation Thresholds.

4.2 Recommendations

The following activities/actions are recommended for the site:

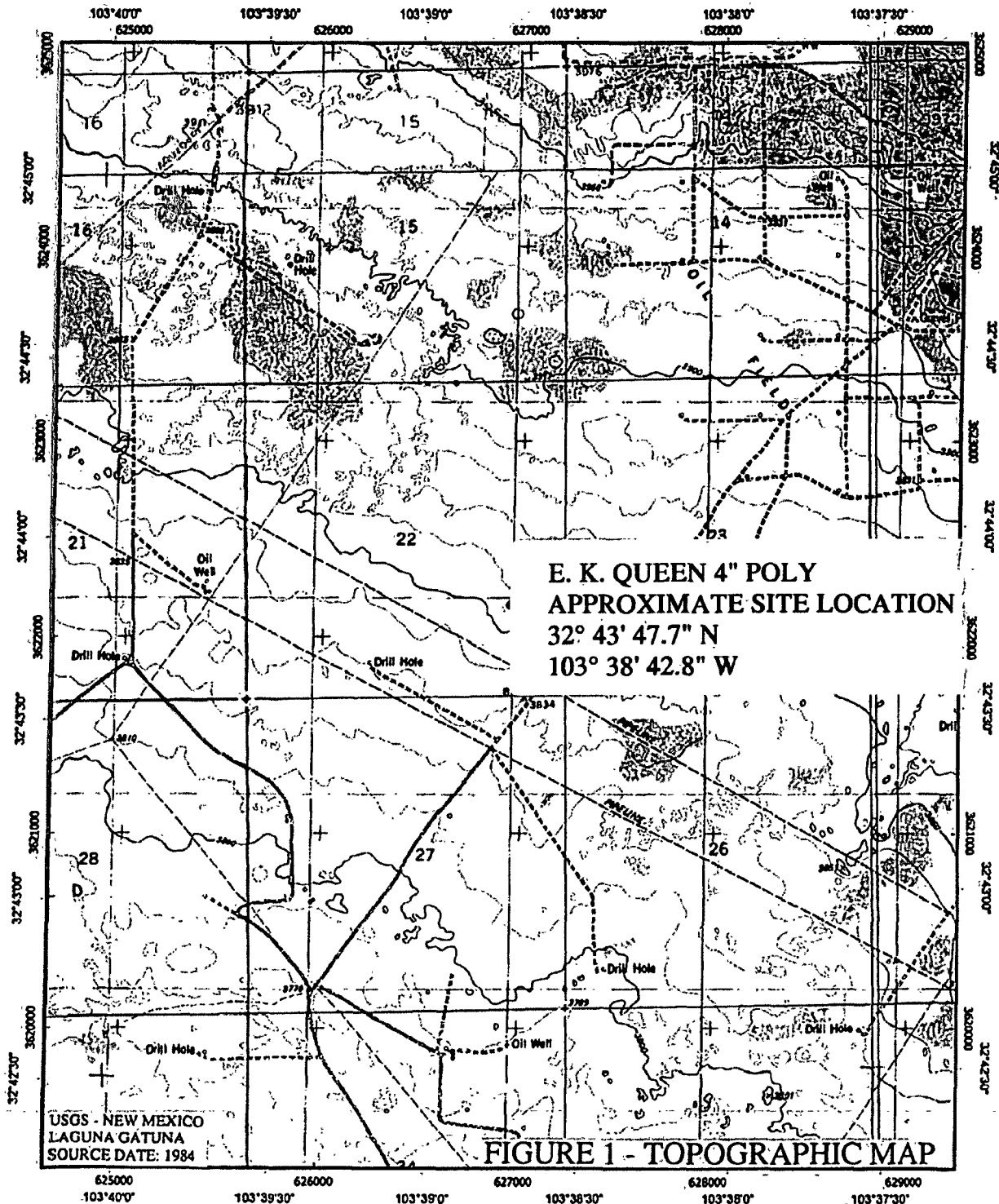
- Based on soil sample analytical results from samples collected from the excavation and remediated soil indicating BTEX and TPH concentrations below NMOCD Remediation Thresholds, no further action is proposed and closure of site soils should be requested from the NMOCD.

APPENDIX A

FIGURES

Figure 1 – Topographic Map

Figure 2 – Site Plan with Confirmation Sample Location Map



1:25000 Scale
Universal Transverse Mercator (UTM) Projection Zone 13
North American Datum of 1983 (NAD83)
UTM Grid shown in Blue

Magnetic Declination at center of map is
November 25, 2008



Date: 7/20/2009

Scale: 1" = 30'

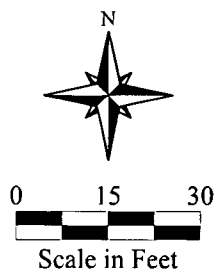
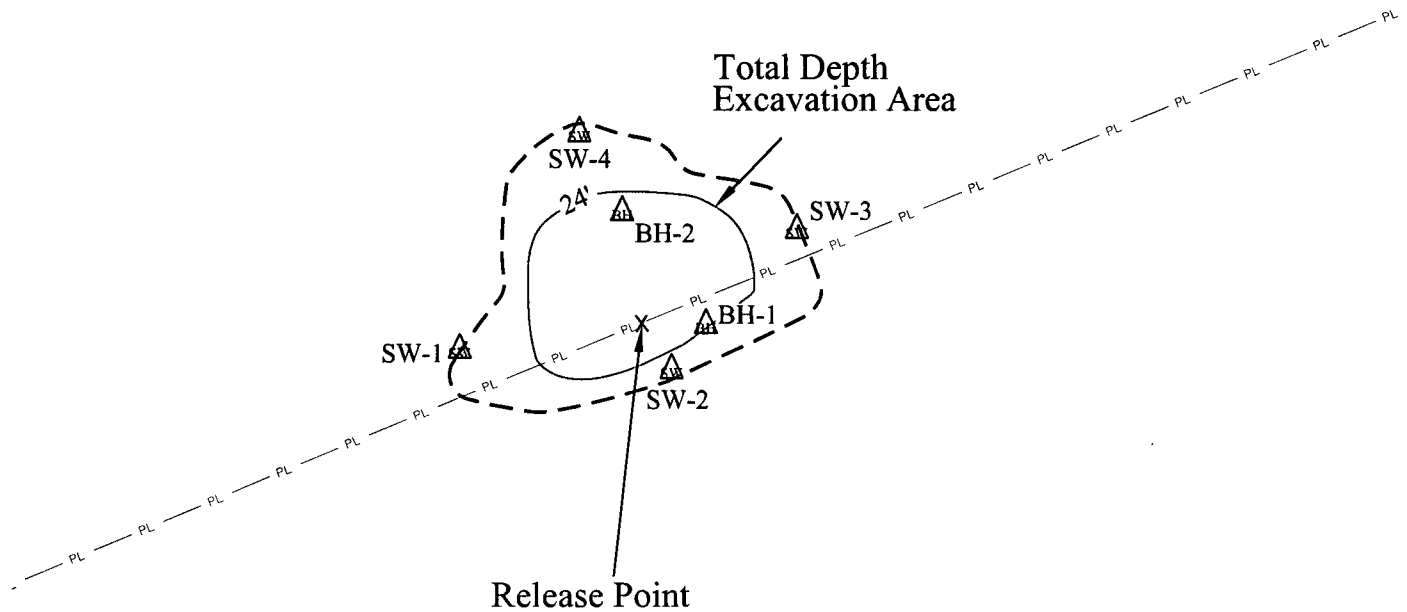
Drawn By: HDJ



E. K. Queen Poly 4" (PLAINS076SPL)

SRS # 2008-169

Lea County, New Mexico

Figure 1 - Topographic Map



Legend	
	Wall Samples
	Bottom Hole Samples
---	Excavation Area
—	Surface Area



Date: 7/20/2009

Scale: 1" = 30'

Drawn By: HDJ

E. K. Queen Poly 4" (PLAINS076SPL)

SRS # 2008-169

Lea County, New Mexico

Figure 2 - Site Plan with Confirmation Sampling Locations Map

APPENDIX B

Archeological Survey

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 112468	2a. Lead (Sponsoring) Agency: BLM, CFO	2b. Other Permitting Agency(ies):	3. Lead Agency Report No.:
4. Title of Report: EK Queen 4" Poly pipeline petroleum leak. Author(s) Ann and Danny Boone			5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive
6. Investigation Type <input type="checkbox"/> Research Design <input checked="" type="checkbox"/> Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation <input type="checkbox"/> Collections/Non-Field Study <input type="checkbox"/> Overview/Lit Review <input type="checkbox"/> Monitoring <input type="checkbox"/> Ethnographic study <input type="checkbox"/> Site specific visit <input type="checkbox"/> Other			
7. Description of Undertaking (what does the project entail?): The project is an area where petroleum fluid has leaked from a buried 4" Poly pipeline. The affected area has been excavated and the current survey is a 100 feet buffer zone around the impacted area. See attached photos. Location and acres are estimates based on a hand held GPS Unit.			
8. Dates of Investigation: (from: 12/17/2008 to:)		9. Report Date: 19 Dec. 08	
10. Performing Agency/Consultant: Boone Archaeological Services, LLC 2030 North Canal, Carlsbad, NM 88220 575-885-1352 Principal Investigator: Danny Boone Field Supervisor: Danny Boone Field Personnel Names: Danny Boone		11. Performing Agency/Consultant Report No.: BAS 12-08-06	
13. Client/Customer (project proponent): Plains Marketing, L.P. Contact: Shanna Smith (Agent for TALON LPE) Address: 1301 S Country Road 1150 Midland, Texas 79706-4476 Phone: (432) 682-5392		12. Applicable Cultural Resource Permit No(s): BLM: 190-2920-06-K STATE: NM-08-157	
14. Client/Customer Project No.: SRS# 2008-169			
15. Land Ownership Status (<u>Must</u> be indicated on project map):			
Land Owner		Acres Surveyed	Acres in APE
BLM		2.43 (+/-)	1.2 (+/-)
TOTALS		2.43 (+/-)	1.2 (+/-)
16. Records Search(es):			
Date(s) of ARMS File Review: 16 Dec. 08		Name of Reviewer(s): Ann Boone	
Date(s) of NR/SR File Review:		Name of Reviewer(s):	
Date(s) of Other Agency File Review: 16 Dec. 08		Name of Reviewer(s): Danny Boone Agency: BLM, CFO	
Findings: LA 101131 is within 1.0 mile.			
17. Survey Data:			
a. Source Graphics <input checked="" type="checkbox"/> NAD 27 <input type="checkbox"/> NAD 83			
<input checked="" type="checkbox"/> USGS 7.5' (1:24,000) topo map <input type="checkbox"/> Other topo map, Scale:			
<input checked="" type="checkbox"/> GPS Unit Accuracy <input type="checkbox"/> <1.0m <input checked="" type="checkbox"/> 1-10m <input type="checkbox"/> 10-100m <input type="checkbox"/> >100m			
b. USGS 7.5' Topographic Map Name		USGS Quad Code	
LAGUNA GATUNA NW, NM (1984)		32103-F6	
c. County(ies): Lea			

17. Survey Data (continued):

d. Nearest City or Town: Maljamar, NM

e. Legal Description:

Township (N/S)	Range (E/W)	Section	¼	¼	¼
18S	33E	22	se	se, ne	se,

Projected legal description? Yes [] , No [X] Unplatted []

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

18. Survey Field Methods:

Intensity: ☒ 100% coverage ☐ <100% coverageConfiguration: ☒ block survey units ☐ linear survey units (l x w): ☐ other survey units (specify):Scope: ☒ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)Coverage Method: ☒ systematic pedestrian coverage ☐ other method (describe)

Survey Interval (m): 15 Crew Size: 1 Fieldwork Dates: 17 Dec. 2008

Survey Person Hours: 1 Recording Person Hours: 0 Total Hours: 1

Additional Narrative: A 100 feet buffer zone around the impacted area was surveyed and the boundaries were flagged with orange tape tied to vegetation.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):

Topography: Rolling dunes

Vegetative community: Mesquite, shinoak, yucca cactus, sage brush, various grasses and other flora.

NRCS: Peyote-Maljamar-Kermit association: Gently undulating and rolling, deep, sandy soils.

Elevation: 3,840 (+/-) feet

20.a. Percent Ground Visibility: 75 overall b. Condition of Survey Area (grazed, bladed, undisturbed, etc.): Project is in an area where 2 buried pipelines intersect and the affected area has been excavated.

21. CULTURAL RESOURCE FINDINGS ☐ Yes, See Page 3 ☒ No, Discuss Why: Unknown

22. Required Attachments (check all appropriate boxes):

- ☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn
☒ Copy of NMCRIS Mapserver Map Check
☐ LA Site Forms - new sites (*with sketch map & topographic map*)
☐ LA Site Forms (update) - previously recorded & un-relocated sites (*first 2 pages minimum*)
☐ Historic Cultural Property Inventory Forms
☐ List and Description of isolates, if applicable
☐ List and Description of Collections, if applicable

23. Other Attachments:

- ☒ Photographs and Log
☐ Other Attachments
(Describe):

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Responsible Archaeologist: Danny Boone

Signature Danny Boone

Date: 22 Dec. 2008 Title (if not PI):

25. Reviewing Agency:
Reviewer's Name/Date

Accepted () Rejected ()

Tribal Consultation (if applicable): ☐ Yes ☐ No

26. SHPO

Reviewer's Name/Date:

HPD Log #:

SHPO File Location:

Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.: 112468	2. Lead (Sponsoring) Agency: BLM, CFO	3. Lead Agency Report No.:
-----------------------------------	--	----------------------------

SURVEY RESULTS:
 Sites discovered and registered: 0
 Sites discovered and NOT registered: 0
 Previously recorded sites revisited (*site update form required*): 0
 Previously recorded sites not relocated (*site update form required*): 0
 TOTAL SITES VISITED: 0
 Total isolates recorded: 0 Non-selective isolate recording? ☒
 Total structures recorded (*new and previously recorded, including acequias*): 0

MANAGEMENT SUMMARY: No cultural resources were encountered therefore clearance of the EK Queen 4" Poly pipeline petroleum leak for Plains Marketing is recommended. If cultural resources are encountered at any time, all activity should cease and the BLM Archaeologist notified immediately.
IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG
 Sites Discovered:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

Previously recorded revisited sites:

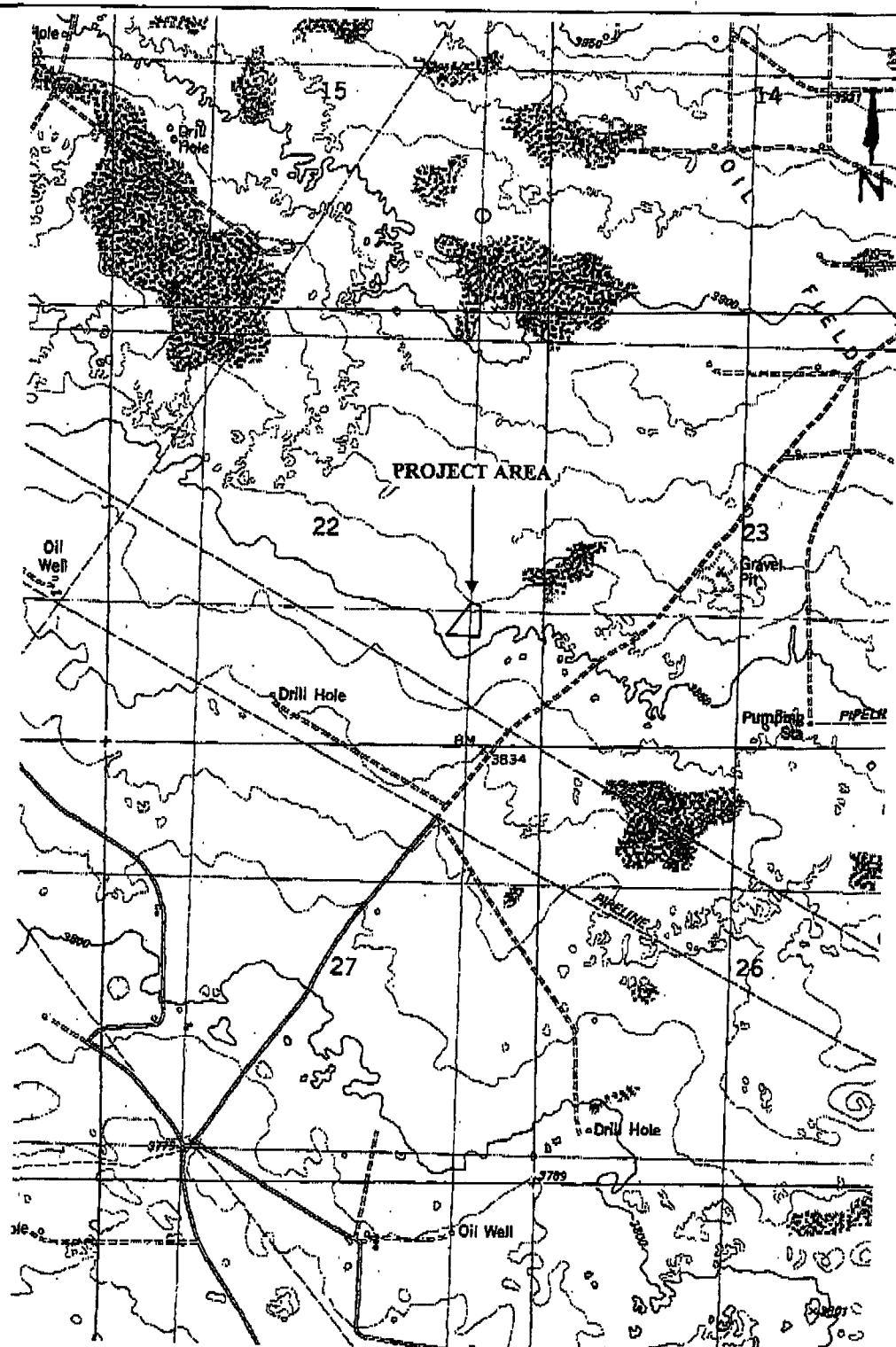
LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

MONITORING LA NUMBER LOG (*site form required*)
 Sites Discovered (*site form required*): Previously recorded sites (*Site update form required*):

LA No.	Field/Agency No.	LA No.	Field/Agency No.

Areas outside known nearby site boundaries monitored? Yes ☐, No ☐ If no explain why:

TESTING & EXCAVATION LA NUMBER LOG (*site form required*)
 Tested LA number(s) Excavated LA number(s)

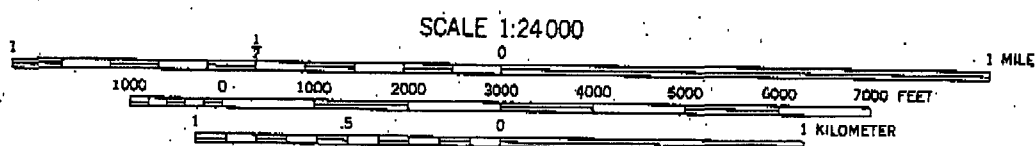


Location Map

BAS 12-08-06

EK Queen 4" Poly pipeline petroleum leak for Plains Marketing in Section 22, T 19S, R 33E, NMPM, Lea County, New Mexico.

Map Reference USGS 7.5' Series: LAGUNA GATUNA NW, NM (1984) 32103-F6



APPENDIX C

TABLES

Table 1 – Summary of Soil Analytical Data



TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
PLAINS PIPELINE, L.P. - SRS# 2008-169
E.K. QUEEN 4" POLY
NMOCD REF. # 1RP-1887
LEA COUNTY, NEW MEXICO
TALON/LPE PROJECT NUMBER PLAINS076SPL

All concentrations are in mg/Kg

Sample Designation	Date Sampled	Depth (feet bgs)	Status	Chloride	DRO	GRO	Total TPH	Benzene	Toluene	Ethyl benzene	Xylenes	Total BTEX
BH-1	08/28/08	18	Excavated		9490	1560	11050					
SW-1	08/28/08	12	In-Place		360	38.4	398.4	<0.100	<0.100	0.300	1.12	1.420
SW-2	08/28/08	12	In-Place		758	18.4	776.4	<0.0500	<0.0500	<0.0500	0.0752	0.0752
SW-3	08/28/08	12	Excavated		5310	283	5593					
SW-4	08/28/08	12	In-Place		<50.0	<1.00	<51.0	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
SP-1	08/28/08				2650	158	2808					
SP-2	08/28/08				4620	145	4765					
CHL-1	08/28/08			<32.5								
(Over-Excavation) Results												
BH-2	09/19/08	24	In-Place		251	53.5	304.5	<0.0100	<0.0100	0.0609	0.0894	0.2397
SW-3	09/30/08	12	In-Place		<50.0	<1.00	<51.0	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
BH-1	11/06/08	24	In-Place		<50.0	2.15	2.15	<0.0100	<0.0100	<0.0100	0.0375	0.0375
(Soil Blending) Results												
SP 1	02/20/09						4970	<0.0100	<0.0100	<0.0100	0.0788	0.0788
SP 2	02/20/09						1350	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
SP 3	02/20/09						1350	<0.0100	0.0412	0.0332	0.137	0.2114
SP 4	02/20/09						1550	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
SP-1	03/06/09				144	154	298					
SP-2	03/06/09				<50.0	14.2	14.2					
SP-3	03/06/09				1710	132	1842					
SP-4	03/06/09				1310	81.3	1391.3					
SP-3	04/09/09				73.9	4.08	77.98					
SP-4	04/09/09				<50.0	9.88	9.88					
NMOCD Remediation Guidelines							1,000	10				50

¹ **Bolded** values are in excess of the NMOCD Remediation Thresholds

² BGS = Below Ground Surface

All BLENDED TO MEET REGS

APPENDIX D

LABORATORY ANALYTICAL DATA REPORTS AND CHAIN OF CUSTODY DOCUMENTATION



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

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 8, 2008

Work Order: 8082926



Project Location: Lea County, NM
Project Name: EK Queen 4" Polly
Project Number: Plains076SPL
SRS#: 2008-169

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
172372	BH-1	soil	2008-08-28	13:25	2008-08-29
172373	SW-1	soil	2008-08-28	13:31	2008-08-29
172374	SW-2	soil	2008-08-28	13:36	2008-08-29
172375	SW-3	soil	2008-08-28	13:43	2008-08-29
172376	SW-4	soil	2008-08-28	13:57	2008-08-29
172377	SP-1	soil	2008-08-28	14:15	2008-08-29
172378	SP-2	soil	2008-08-21	14:21	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 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink, appearing to read "Michael Abel".

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project EK Queen 4" Polly were received by TraceAnalysis, Inc. on 2008-08-29 and assigned to work order 8082926. Samples for work order 8082926 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 8082926 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: 172372 - BH-1

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 51983
Prep Batch: 44578

Analytical Method: Mod. 8015B
Date Analyzed: 2008-09-02
Sample Preparation: 2008-09-02

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		9490	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	1	1610	mg/Kg	10	100	1610	49.5 - 185

Sample: 172372 - BH-1

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 52078
Prep Batch: 44649

Analytical Method: S 8015B
Date Analyzed: 2008-09-04
Sample Preparation: 2008-09-04

Prep Method: S 5035
Analyzed By: ER
~~Prepared By: ER~~

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1560	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	2	0.437	mg/Kg	50	1.00	44	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)	3	92.2	mg/Kg	50	1.00	9220	45.6 - 214.7

Sample: 172373 - SW-1

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 51972
Prep Batch: 44568

Analytical Method: S 8021B
Date Analyzed: 2008-09-02
Sample Preparation: 2008-09-02

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	4	<0.100	mg/Kg	10	0.0100
Toluene		<0.100	mg/Kg	10	0.0100
Ethylbenzene		0.300	mg/Kg	10	0.0100

¹High surrogate recovery due to peak interference.

²High surrogate recovery due to peak interference.

³High surrogate recovery due to peak interference.

⁴Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.

.continued . . .

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sample 172373 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene		1.12	mg/Kg	10	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	⁵	1.42	mg/Kg	10	1.00	142	59 - 136.1
4-Bromofluorobenzene (4-BFB)	⁶	1.83	mg/Kg	10	1.00	183	54.4 - 176.2

Sample: 172373 - SW-1

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 51983
Prep Batch: 44578

Analytical Method: Mod. 8015B
Date Analyzed: 2008-09-02
Sample Preparation: 2008-09-02

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		360	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		75.3	mg/Kg	1	100	75	49.5 - 185

Sample: 172373 - SW-1

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 52078
Prep Batch: 44649

Analytical Method: S 8015B
Date Analyzed: 2008-09-04
Sample Preparation: 2008-09-04

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		38.4	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.949	mg/Kg	10	1.00	95	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.88	mg/Kg	10	1.00	188	45.6 - 214.7

⁵High surrogate recovery due to peak interference.

⁶High surrogate recovery due to peak interference.

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Sample: 172374 - SW-2

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 51972
Prep Batch: 44568

Analytical Method: S 8021B
Date Analyzed: 2008-09-02
Sample Preparation: 2008-09-02

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene	7	<0.0500	mg/Kg	5	0.0100
Toluene		<0.0500	mg/Kg	5	0.0100
Ethylbenzene		<0.0500	mg/Kg	5	0.0100
Xylene		0.0752	mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.13	mg/Kg	5	1.00	113	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	5	1.00	132	54.4 - 176.2

Sample: 172374 - SW-2

Laboratory: Lubbock
Analysis: TPH DRO
QC Batch: 51983
Prep Batch: 44578

Analytical Method: Mod. 8015B
Date Analyzed: 2008-09-02
Sample Preparation: 2008-09-02

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		758	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	8	336	mg/Kg	1	100	336	49.5 - 185

Sample: 172374 - SW-2

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 51974
Prep Batch: 44568

Analytical Method: S 8015B
Date Analyzed: 2008-09-02
Sample Preparation: 2008-09-02

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		18.4	mg/Kg	5	1.00

⁷Sample ran at dilution due to hydrocarbons with a retention time greater than xylene.

⁸High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	5	1.00	108	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)	⁹	2.39	mg/Kg	5	1.00	239	45.6 - 214.7

Sample: 172375 - SW-3

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		5310	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹⁰	1050	mg/Kg	5	100	1050	49.5 - 185

Sample: 172375 - SW-3

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
 QC Batch: 51974 Date Analyzed: 2008-09-02 Analyzed By: ER
 Prep Batch: 44568 Sample Preparation: 2008-09-02 Prepared By: ER

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		283	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.20	mg/Kg	10	1.00	120	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)	¹¹	11.5	mg/Kg	10	1.00	1150	45.6 - 214.7

Sample: 172376 - SW-4

Laboratory: Lubbock
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 51972 Date Analyzed: 2008-09-02 Analyzed By: ER
 Prep Batch: 44568 Sample Preparation: 2008-09-02 Prepared By: ER

⁹High surrogate recovery due to peak interference.

¹⁰High surrogate recovery due to peak interference.

¹¹High surrogate recovery due to peak interference.

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	¹²	1.57	mg/Kg	1	1.00	157	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.55	mg/Kg	1	1.00	155	54.4 - 176.2

Sample: 172376 - SW-4

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		122	mg/Kg	1	100	122	49.5 - 185

Sample: 172376 - SW-4

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 51974 Date Analyzed: 2008-09-02 Analyzed By: ER
Prep Batch: 44568 Sample Preparation: 2008-09-02 Prepared By: ER

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.52	mg/Kg	1	1.00	152	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.80	mg/Kg	1	1.00	180	45.6 - 214.7

¹²High surrogate recovery. Sample non-detect, result bias high.

Sample: 172377 - SP-1

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		2650	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹³	565	mg/Kg	5	100	565	49.5 - 185

Sample: 172377 - SP-1

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 51974 Date Analyzed: 2008-09-02 Analyzed By: ER
Prep Batch: 44568 Sample Preparation: 2008-09-02 Prepared By: ER

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		158	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.995	mg/Kg	2	1.00	100	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)	¹⁴	8.87	mg/Kg	2	1.00	887	45.6 - 214.7

Sample: 172378 - SP-2

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		4620	mg/Kg	10	50.0

¹³High surrogate recovery due to peak interference.

¹⁴High surrogate recovery due to peak interference.

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹⁵	961	mg/Kg	10	100	961	49.5 - 185

Sample: 172378 - SP-2

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 51974
Prep Batch: 44568

Analytical Method: S 8015B
Date Analyzed: 2008-09-02
Sample Preparation: 2008-09-02

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		145	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.14	mg/Kg	5	1.00	114	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)	¹⁶	5.12	mg/Kg	5	1.00	512	45.6 - 214.7

Method Blank (1) QC Batch: 51972

QC Batch: 51972
Prep Batch: 44568

Date Analyzed: 2008-09-02
QC Preparation: 2008-09-02

Analyzed By: ER
Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00347	mg/Kg	0.01
Toluene		<0.00525	mg/Kg	0.01
Ethylbenzene		<0.00607	mg/Kg	0.01
Xylene		<0.00724	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
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

Method Blank (1) QC Batch: 51974

QC Batch: 51974
Prep Batch: 44568

Date Analyzed: 2008-09-02
QC Preparation: 2008-09-02

Analyzed By: ER
Prepared By: ER

¹⁵High surrogate recovery due to peak interference.

¹⁶High surrogate recovery due to peak interference.

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Parameter	Flag	MDL Result	Units	RL
GRO		<0.144	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.914	mg/Kg	1	1.00	91	83.3 - 108.5
4-Bromofluorobenzene (4-BFB)		0.771	mg/Kg	1	1.00	77	34.5 - 105.8

Method Blank (1) QC Batch: 51983

QC Batch: 51983 Date Analyzed: 2008-09-02 Analyzed By: MN
Prep Batch: 44578 QC Preparation: 2008-09-02 Prepared By: MN

Parameter	Flag	MDL Result	Units	RL
DRO		<6.77	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		96.7	mg/Kg	1	100	97	49.5 - 185

Method Blank (1) QC Batch: 52078

QC Batch: 52078 Date Analyzed: 2008-09-04 Analyzed By: ER
Prep Batch: 44649 QC Preparation: 2008-09-04 Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
GRO		<0.144	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.890	mg/Kg	1	1.00	89	83.3 - 108.5
4-Bromofluorobenzene (4-BFB)		0.810	mg/Kg	1	1.00	81	34.5 - 105.8

Laboratory Control Spike (LCS-1)

QC Batch: 51972 Date Analyzed: 2008-09-02 Analyzed By: ER
Prep Batch: 44568 QC Preparation: 2008-09-02 Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.978	mg/Kg	1	1.00	<0.00347	98	80.5 - 115.5
Toluene	0.990	mg/Kg	1	1.00	<0.00525	99	80 - 114.7
Ethylbenzene	1.02	mg/Kg	1	1.00	<0.00607	102	77.1 - 114.2
Xylene	3.01	mg/Kg	1	3.00	<0.00724	100	77.6 - 114.5

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.01	mg/Kg	1	1.00	<0.00347	101	80.5 - 115.5	3	20
Toluene	1.01	mg/Kg	1	1.00	<0.00525	101	80 - 114.7	2	20
Ethylbenzene	0.994	mg/Kg	1	1.00	<0.00607	99	77.1 - 114.2	3	20
Xylene	2.99	mg/Kg	1	3.00	<0.00724	100	77.6 - 114.5	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	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
Prep Batch: 44568

Date Analyzed: 2008-09-02
QC Preparation: 2008-09-02

Analyzed By: ER
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	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.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	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.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD 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
Prep Batch: 44578

Date Analyzed: 2008-09-02
QC Preparation: 2008-09-02

Analyzed By: MN
Prepared By: MN

Report Date: September 8, 2008
Plains076SPL

Work Order: 8082926
EK Queen 4" Polly

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Lea County, NM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. 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.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	267	mg/Kg	1	250	<6.77	107	73.9 - 138	8	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	84.9	71.3	mg/Kg	1	100	85	71	49.5 - 185

Laboratory Control Spike (LCS-1)

QC Batch: 52078
Prep Batch: 44649

Date Analyzed: 2008-09-04
QC Preparation: 2008-09-04

Analyzed By: ER
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.00	mg/Kg	1	10.0	<0.144	90	73.1 - 114.7

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	10.3	mg/Kg	1	10.0	<0.144	103	73.1 - 114.7	14	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.891	0.937	mg/Kg	1	1.00	89	94	77.4 - 111.4
4-Bromofluorobenzene (4-BFB)	0.996	0.924	mg/Kg	1	1.00	100	92	70.3 - 116.1

Matrix Spike (MS-1) Spiked Sample: 172379

QC Batch: 51972
Prep Batch: 44568

Date Analyzed: 2008-09-02
QC Preparation: 2008-09-02

Analyzed By: ER
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.11	mg/Kg	1	1.00	<0.00347	111	42.9 - 130.7
Toluene	1.18	mg/Kg	1	1.00	<0.00525	118	46.9 - 135.4
Ethylbenzene	1.32	mg/Kg	1	1.00	<0.00607	132	48.3 - 149.3

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	3.95	mg/Kg	1	3.00	<0.00724	132	48.8 - 150.9

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.979	mg/Kg	1	1.00	<0.00347	98	42.9 - 130.7	12	20
Toluene	1.04	mg/Kg	1	1.00	<0.00525	104	46.9 - 135.4	13	20
Ethylbenzene	1.14	mg/Kg	1	1.00	<0.00607	114	48.3 - 149.3	15	20
Xylene	3.39	mg/Kg	1	3.00	<0.00724	113	48.8 - 150.9	15	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.22	1.09	mg/Kg	1	1	122	109	63.2 - 128.3
4-Bromofluorobenzene (4-BFB)	1.23	1.10	mg/Kg	1	1	123	110	61.5 - 161.2

Matrix Spike (MS-1) Spiked Sample: 172376

QC Batch: 51974
Prep Batch: 44568

Date Analyzed: 2008-09-02
QC Preparation: 2008-09-02

Analyzed By: ER
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.3	mg/Kg	1	10.0	<0.144	143	48.9 - 155.8

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	14.6	mg/Kg	1	10.0	<0.144	146	48.9 - 155.8	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.36	1.34	mg/Kg	1	1	136	134	41.8 - 145.4
4-Bromofluorobenzene (4-BFB)	1.83	1.84	mg/Kg	1	1	183	184	50.3 - 197.8

Matrix Spike (MS-1) Spiked Sample: 172374

QC Batch: 51983
Prep Batch: 44578

Date Analyzed: 2008-09-02
QC Preparation: 2008-09-02

Analyzed By: MN
Prepared By: MN

Report Date: September 8, 2008
Plains076SPL

Work Order: 8082926
EK Queen 4" Polly

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Lea County, NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	¹⁷ 1120	mg/Kg	1	250	758	145	50.7 - 134

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	¹⁸ 1140	mg/Kg	1	250	758	153	50.7 - 134	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	^{19 20} 335	349	mg/Kg	1	100	335	349	49.5 - 185

Matrix Spike (MS-1) Spiked Sample: 172373

QC Batch: 52078
Prep Batch: 44649

Date Analyzed: 2008-09-04
QC Preparation: 2008-09-04

Analyzed By: ER
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	48.1	mg/Kg	10	10.0	38.4	97	48.9 - 155.8

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	²¹ 56.3	mg/Kg	10	10.0	38.4	179	48.9 - 155.8	16	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.12	1.12	mg/Kg	10	1	112	112	41.8 - 145.4
4-Bromofluorobenzene (4-BFB)	^{22 23} 2.06	2.70	mg/Kg	10	1	206	270	50.3 - 197.8

Standard (ICV-1)

QC Batch: 51972

Date Analyzed: 2008-09-02

Analyzed By: ER

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

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

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

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

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

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

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

Report Date: September 8, 2008
Plains076SPL

Work Order: 8082926
EK Queen 4" Polly

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Lea County, NM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		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: 51972

Date Analyzed: 2008-09-02

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date 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 Analyzed: 2008-09-02

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.997	100	85 - 115	2008-09-02

Standard (CCV-1)

QC Batch: 51974

Date Analyzed: 2008-09-02

Analyzed By: ER

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	2008-09-02

Standard (ICV-1)

QC Batch: 51983

Date Analyzed: 2008-09-02

Analyzed By: MN

Report Date: September 8, 2008
Plains076SPL

Work Order: 8082926
EK Queen 4" Polly

Page Number: 17 of 17
Lea County, NM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	281	112	85 - 115	2008-09-02

Standard (CCV-1)

QC Batch: 51983

Date Analyzed: 2008-09-02

Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	223	89	85 - 115	2008-09-02

Standard (CCV-2)

QC Batch: 51983

Date Analyzed: 2008-09-02

Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	258	103	85 - 115	2008-09-02

Standard (ICV-1)

QC Batch: 52078

Date Analyzed: 2008-09-04

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.872	87	85 - 115	2008-09-04

Standard (CCV-1)

QC Batch: 52078

Date Analyzed: 2008-09-04

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.935	94	85 - 115	2008-09-04

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Company Name: TALON / LPE		Phone #: 432 238-6388	
Address: (Street, City, Zip) 318 E TAYLOR HOBBS NM 88246		Fax #:	
Contact Person: EB Taylor		E-mail:	
Invoice to: (If different from above) PLAINS SRS # 2008-119			
Project #: PLAINS 076 SPL		Project Name: EK PUPEN 4" POLLY	
Project Location (including state): LEA COUNTY NM		Sampler Signature: 807	

ANALYSIS REQUEST
(Circle or Specify Method No.)

[illegible]

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
<i>Eliza Talon</i>	TALON	8/29	1045	<i>Eliza Talon</i>	TALON	8/29	1045	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
<i>Eliza Talon</i>	TALON	8/29	1400	<i>Eliza Talon</i>	TALON	8/29	1400	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
<i>Eliza Talon</i>	TALON	8/29	1400	<i>Eliza Talon</i>	TALON	8/29	1400	

LAB USE ONLY Intact <u>Y / N</u> Headspace <u>Y / N / NA</u> Log-In-Review <u>14</u>	REMARKS: <i>Hold For B-TEX</i>
	<input type="checkbox"/> Dry Weight Basis Required <input type="checkbox"/> TRRP Report Required <input type="checkbox"/> Check If Special Reporting Limits Are Needed

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

Carrier #

Carey



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

NELAP Certifications

Lubbock: T104704219-08-TX
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 9, 2008

Work Order: 8082925




Project Location: Lea County, NM
Project Name: EK Queen 4" Polly
Project Number: Plains076SPL
SRS#: 2008-169

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
172371	CHL-1	soil	2008-08-28	14:04	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 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink, reading "Blair Leftwich". The signature is written in a cursive style with a horizontal line underneath.

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project EK Queen 4" Polly were received by TraceAnalysis, Inc. on 2008-08-29 and assigned to work order 8082925. Samples for work order 8082925 were received intact at a temperature of 2.8 deg. C.

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

Test	Method
Chloride (Titration)	SM 4500-Cl B

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 8082925 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: September 9, 2008
Plains076SPL

Work Order: 8082925
EK Queen 4" Polly

Page Number: 4 of 5
Lea County, NM

Analytical Report

Sample: 172371 - CHL-1

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 52179 Date Analyzed: 2008-09-09 Analyzed By: RG
Prep Batch: 44743 Sample Preparation: 2008-09-08 Prepared By: RG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<32.5	mg/Kg	10	3.25

Method Blank (1) QC Batch: 52179

QC Batch: 52179 Date Analyzed: 2008-09-09 Analyzed By: RG
Prep Batch: 44743 QC Preparation: 2008-09-08 Prepared By: RG

Parameter	Flag	MDL Result	Units	RL
Chloride		<1.80	mg/Kg	3.25

Laboratory Control Spike (LCS-1)

QC Batch: 52179 Date Analyzed: 2008-09-09 Analyzed By: RG
Prep Batch: 44743 QC Preparation: 2008-09-08 Prepared By: RG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.3	mg/Kg	1	100	<1.80	98	96.5 - 104.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.0	mg/Kg	1	100	<1.80	99	96.5 - 104.4	1	20

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

Matrix Spike (MS-1) Spiked Sample: 172380

QC Batch: 52179 Date Analyzed: 2008-09-09 Analyzed By: RG
Prep Batch: 44743 QC Preparation: 2008-09-08 Prepared By: RG

Report Date: September 9, 2008
Plains076SPL

Work Order: 8082925
EK Queen 4" Polly

Page Number: 5 of 5
Lea County, NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	576	mg/Kg	10	500	103.65	94	74.7 - 123.2

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	608	mg/Kg	10	500	103.65	101	74.7 - 123.2	5	20

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

Standard (ICV-1)

QC Batch: 52179

Date Analyzed: 2008-09-09

Analyzed By: RG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2008-09-09

Standard (CCV-1)

QC Batch: 52179

Date Analyzed: 2008-09-09

Analyzed By: RG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-09-09

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Ft. Worth, Texas 76116
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Company Name: TALON / LPE	Phone #: 452 238-6388
Address: (Street, City, Zip) 318 E TAMAR HUBBS NM 88240	Fax #:
Contact Person: EB TAMAR	E-mail:
Invoice to: (If different from above) PLAINS SRS# 2008-169	
Project #: PLAINS076SPC	Project Name: SK QUEEN 4" POLY
Project Location (including state): LEA COUNTY NM	Sampler Signature: SK

ANALYSIS REQUEST
(Circle or Specify Method No.)

[illegible]

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:	LAB USE ONLY	REMARKS:
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<i>[Signature]</i>	TALON	8/29	14:00	<i>[Signature]</i>	TALON	8/29	14:00		Headspace <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:	Log-In/Review <input checked="" type="checkbox"/>	
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6015 Harris Parkway, Suite 110 Ft Worth, Texas 76132 817•201•5260
E-Mail lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: September 29, 2008

Work Order: 8091933



Project Location: Lea Co., NM
Project Name: EK Queens 4 inch Polly
Project Number: SRS# 2008-169

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
174016	BH-2	soil	2008-09-19	07:30	2008-09-19

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

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

TraceAnalysis, Inc.

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

Dr. Blair Leftwich, Director

Standard Flags

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

A horizontal line of dense, illegible text or a scan artifact, possibly representing a redacted section or a corrupted line of text.

Case Narrative

Samples for project EK Queens 4 inch Polly were received by TraceAnalysis, Inc. on 2008-09-19 and assigned to work order 8091933. Samples for work order 8091933 were received intact at a temperature of 3.1 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 8091933 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: 174016 - BH-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 52620
Prep Batch: 45093

Analytical Method: S 8021B
Date Analyzed: 2008-09-22
Sample Preparation: 2008-09-22

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		0.0609	mg/Kg	1	0.0100
Xylene		0.0894	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	82.9 - 125.1
4-Bromofluorobenzene (4-BFB)		1.02	mg/Kg	1	1.00	102	48.9 - 160.4

Sample: 174016 - BH-2

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 52677
Prep Batch: 45145

Analytical Method: Mod. 8015B
Date Analyzed: 2008-09-24
Sample Preparation: 2008-09-24

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		251	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		156	mg/Kg	1	100	156	10 - 250.4

Sample: 174016 - BH-2

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 52621
Prep Batch: 45093

Analytical Method: S 8015B
Date Analyzed: 2008-09-22
Sample Preparation: 2008-09-22

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

continued ...

Report Date: September 29, 2008
SRS# 2008-169

Work Order: 8091933
EK Queens 4 inch Polly

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sample 174016 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		53.5	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.846	mg/Kg	1	1.00	85	75 - 117.2
4-Bromofluorobenzene (4-BFB)		1.21	mg/Kg	1	1.00	121	66 - 142.8

Method Blank (1) QC Batch: 52620

QC Batch: 52620 Date Analyzed: 2008-09-22 Analyzed By: DC
Prep Batch: 45093 QC Preparation: 2008-09-22 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0110	mg/Kg	0.01
Toluene		<0.0109	mg/Kg	0.01
Ethylbenzene		<0.0109	mg/Kg	0.01
Xylene		<0.0331	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	1	1.00	101	82.3 - 121.6
4-Bromofluorobenzene (4-BFB)		0.972	mg/Kg	1	1.00	97	72 - 123

Method Blank (1) QC Batch: 52621

QC Batch: 52621 Date Analyzed: 2008-09-22 Analyzed By: DC
Prep Batch: 45093 QC Preparation: 2008-09-22 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		0.841	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.900	mg/Kg	1	1.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)		0.867	mg/Kg	1	1.00	87	70 - 130

Report Date: September 29, 2008
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Work Order: 8091933
EK Queens 4 inch Polly

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Method Blank (1) QC Batch: 52677

QC Batch: 52677
Prep Batch: 45145

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: LD
Prepared By: LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		120	mg/Kg	1	100	120	30.9 - 146.4

Laboratory Control Spike (LCS-1)

QC Batch: 52620
Prep Batch: 45093

Date Analyzed: 2008-09-22
QC Preparation: 2008-09-22

Analyzed By: DC
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.09	mg/Kg	1	1.00	<0.0110	109	72.7 - 129.8
Toluene	1.08	mg/Kg	1	1.00	<0.0109	108	71.6 - 129.6
Ethylbenzene	1.10	mg/Kg	1	1.00	<0.0109	110	70.8 - 129.7
Xylene	3.21	mg/Kg	1	3.00	<0.0331	107	70.9 - 129.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.08	mg/Kg	1	1.00	<0.0110	108	72.7 - 129.8	0	20
Toluene	1.08	mg/Kg	1	1.00	<0.0109	108	71.6 - 129.6	0	20
Ethylbenzene	1.10	mg/Kg	1	1.00	<0.0109	110	70.8 - 129.7	0	20
Xylene	3.19	mg/Kg	1	3.00	<0.0331	106	70.9 - 129.4	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.02	1.02	mg/Kg	1	1.00	102	102	82.9 - 122.8
4-Bromofluorobenzene (4-BFB)	0.999	0.999	mg/Kg	1	1.00	100	100	73.8 - 122.4

Laboratory Control Spike (LCS-1)

QC Batch: 52621
Prep Batch: 45093

Date Analyzed: 2008-09-22
QC Preparation: 2008-09-22

Analyzed By: DC
Prepared By: AG

Report Date: September 29, 2008
SRS# 2008-169

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EK Queens 4 inch Polly

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.69	mg/Kg	1	10.0	0.841	78	70 - 130

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.47	mg/Kg	1	10.0	0.841	86	70 - 130	9	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.970	0.925	mg/Kg	1	1.00	97	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.903	0.905	mg/Kg	1	1.00	90	90	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 52677
Prep Batch: 45145

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: LD
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	248	mg/Kg	1	250	<15.8	99	27.8 - 152.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	233	mg/Kg	1	250	<15.8	93	27.8 - 152.1	6	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	121	118	mg/Kg	1	100	121	118	38 - 130.4

Matrix Spike (MS-1) Spiked Sample: 174053

QC Batch: 52620
Prep Batch: 45093

Date Analyzed: 2008-09-22
QC Preparation: 2008-09-22

Analyzed By: DC
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.13	mg/Kg	1	1.00	<0.0110	113	58.6 - 165.2
Toluene	1.12	mg/Kg	1	1.00	<0.0109	112	64.2 - 153.8
Ethylbenzene	1.14	mg/Kg	1	1.00	<0.0109	114	61.6 - 159.4

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	3.36	mg/Kg	1	3.00	<0.0331	112	64.4 - 155.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.11	mg/Kg	1	1.00	<0.0110	111	58.6 - 165.2	2	20
Toluene	1.11	mg/Kg	1	1.00	<0.0109	111	64.2 - 153.8	1	20
Ethylbenzene	1.13	mg/Kg	1	1.00	<0.0109	113	61.6 - 159.4	1	20
Xylene	3.31	mg/Kg	1	3.00	<0.0331	110	64.4 - 155.3	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.02	1.01	mg/Kg	1	1	102	101	76.5 - 127.9
4-Bromofluorobenzene (4-BFB)	0.977	0.980	mg/Kg	1	1	98	98	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 174016

QC Batch: 52621
Prep Batch: 45093

Date Analyzed: 2008-09-22
QC Preparation: 2008-09-22

Analyzed By: DC
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	¹ 79.1	mg/Kg	1	10.0	53.5289	256	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 Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	² 78.9	mg/Kg	1	10.0	53.5289	254	22.3 - 134.6	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.833	0.810	mg/Kg	1	1	83	81	68.4 - 113.1
4-Bromofluorobenzene (4-BFB)	1.30	1.31	mg/Kg	1	1	130	131	66.7 - 134.3

Matrix Spike (MS-1) Spiked Sample: 174016

QC Batch: 52677
Prep Batch: 45145

Date Analyzed: 2008-09-24
QC Preparation: 2008-09-24

Analyzed By: LD
Prepared By: LD

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

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

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	396	mg/Kg	1	250	251	58	18 - 179.5

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	360	mg/Kg	1	250	251	44	18 - 179.5	10	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane ³	163	126	mg/Kg	1	100	163	126	34.1 - 158

Standard (ICV-1)

QC Batch: 52620

Date Analyzed: 2008-09-22

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.106	106	85 - 115	2008-09-22
Toluene		mg/Kg	0.100	0.106	106	85 - 115	2008-09-22
Ethylbenzene		mg/Kg	0.100	0.108	108	85 - 115	2008-09-22
Xylene		mg/Kg	0.300	0.312	104	85 - 115	2008-09-22

Standard (CCV-1)

QC Batch: 52620

Date Analyzed: 2008-09-22

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.112	112	85 - 115	2008-09-22
Toluene		mg/Kg	0.100	0.110	110	85 - 115	2008-09-22
Ethylbenzene		mg/Kg	0.100	0.111	111	85 - 115	2008-09-22
Xylene		mg/Kg	0.300	0.323	108	85 - 115	2008-09-22

Standard (ICV-1)

QC Batch: 52621

Date Analyzed: 2008-09-22

Analyzed By: DC

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

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SRS# 2008-169

Work Order: 8091933
EK Queens 4 inch Polly

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	85 - 115	2008-09-22

Standard (CCV-1)

QC Batch: 52621

Date Analyzed: 2008-09-22

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.06	106	85 - 115	2008-09-22

Standard (ICV-1)

QC Batch: 52677

Date Analyzed: 2008-09-24

Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	260	104	85 - 115	2008-09-24

Standard (CCV-1)

QC Batch: 52677

Date Analyzed: 2008-09-24

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	281	112	85 - 115	2008-09-24

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ANALYSIS REQUEST
(Circle or Specify Method No.)

[illegible]

LAB USE
ONLY

Initial Mr. N.

Headspace Y IN NA

3.1°C

Log in Review

REMARKS:
HOLD FOR BTEX
All 1st - Midland

☐ Dry Weight Basis Required

☐ TRRP Report Required

☐ Check If Special Reporting Limits Are Needed

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

Carrier #

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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: October 3, 2008

Work Order: 8093017



Project Location: Lea Co., NM
Project Name: EK Queens 4 inch Polly
Project Number: Plains076SPL
SRS #: 2008-169

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
175029	SW3	soil	2008-09-30	07:45	2008-09-30

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

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

A handwritten signature in black ink, appearing to read "Michael Abdul".

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project EK Queens 4 inch Polly were received by TraceAnalysis, Inc. on 2008-09-30 and assigned to work order 8093017. Samples for work order 8093017 were received intact at a temperature of 3.2 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 8093017 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: 175029 - SW3

Laboratory: Midland
Analysis: BTEX
QC Batch: 52963
Prep Batch: 45376

Analytical Method: S 8021B
Date Analyzed: 2008-10-02
Sample Preparation: 2008-10-02

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.793	mg/Kg	1	1.00	79	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.811	mg/Kg	1	1.00	81	48.2 - 155

Sample: 175029 - SW3

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 52962
Prep Batch: 45349

Analytical Method: Mod. 8015B
Date Analyzed: 2008-10-02
Sample Preparation: 2008-10-02

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		157	mg/Kg	1	100	157	10 - 250.4

Sample: 175029 - SW3

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 52964
Prep Batch: 45376

Analytical Method: S 8015B
Date Analyzed: 2008-10-02
Sample Preparation: 2008-10-02

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

continued ...

Report Date: October 3, 2008
Plains076SPL

Work Order: 8093017
EK Queens 4 inch Polly

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Lea Co., NM

sample 175029 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.835	mg/Kg	1	1.00	84	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.818	mg/Kg	1	1.00	82	63.8 - 141

Method Blank (1) QC Batch: 52962

QC Batch: 52962 Date Analyzed: 2008-10-02 Analyzed By: LD
Prep Batch: 45349 QC Preparation: 2008-10-02 Prepared By: LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		134	mg/Kg	1	100	134	30.9 - 146.4

Method Blank (1) QC Batch: 52963

QC Batch: 52963 Date Analyzed: 2008-10-02 Analyzed By: DC
Prep Batch: 45376 QC Preparation: 2008-10-02 Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00580	mg/Kg	0.01
Toluene		<0.00470	mg/Kg	0.01
Ethylbenzene		<0.00530	mg/Kg	0.01
Xylene		<0.0136	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.791	mg/Kg	1	1.00	79	48.3 - 132.5
4-Bromofluorobenzene (4-BFB)		0.799	mg/Kg	1	1.00	80	37.7 - 128.9

Report Date: October 3, 2008
Plains076SPL

Work Order: 8093017
EK Queens 4 inch Polly

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Method Blank (1) QC Batch: 52964

QC Batch: 52964
Prep Batch: 45376

Date Analyzed: 2008-10-02
QC Preparation: 2008-10-02

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		0.794	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.833	mg/Kg	1	1.00	83	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.811	mg/Kg	1	1.00	81	16.8 - 138.1

Laboratory Control Spike (LCS-1)

QC Batch: 52962
Prep Batch: 45349

Date Analyzed: 2008-10-02
QC Preparation: 2008-10-02

Analyzed By: LD
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	237	mg/Kg	1	250	<15.8	95	27.8 - 152.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	248	mg/Kg	1	250	<15.8	99	27.8 - 152.1	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	102	104	mg/Kg	1	100	102	104	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 52963
Prep Batch: 45376

Date Analyzed: 2008-10-02
QC Preparation: 2008-10-02

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.872	mg/Kg	1	1.00	<0.00580	87	73.3 - 116.6
Toluene	0.888	mg/Kg	1	1.00	<0.00470	89	78.6 - 115.1
Ethylbenzene	0.884	mg/Kg	1	1.00	<0.00530	88	77.4 - 114.9
Xylene	2.67	mg/Kg	1	3.00	<0.0136	89	78.2 - 114.7

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.955	mg/Kg	1	1.00	<0.00580	95	73.3 - 116.6	9	20
Toluene	0.976	mg/Kg	1	1.00	<0.00470	98	78.6 - 115.1	9	20
Ethylbenzene	0.985	mg/Kg	1	1.00	<0.00530	98	77.4 - 114.9	11	20
Xylene	2.97	mg/Kg	1	3.00	<0.0136	99	78.2 - 114.7	11	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.773	0.812	mg/Kg	1	1.00	77	81	45 - 124.2
4-Bromofluorobenzene (4-BFB)	0.798	0.835	mg/Kg	1	1.00	80	83	47.2 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 52964
Prep Batch: 45376

Date Analyzed: 2008-10-02
QC Preparation: 2008-10-02

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.43	mg/Kg	1	10.0	0.794	76	57.5 - 106.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	8.56	mg/Kg	1	10.0	0.794	78	57.5 - 106.4	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.820	0.838	mg/Kg	1	1.00	82	84	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.814	0.836	mg/Kg	1	1.00	81	84	53.3 - 123.6

Matrix Spike (MS-1) Spiked Sample: 175029

QC Batch: 52962
Prep Batch: 45349

Date Analyzed: 2008-10-02
QC Preparation: 2008-10-02

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	267	mg/Kg	1	250	<15.8	107	18 - 179.5

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

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Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	252	mg/Kg	1	250	<15.8	101	18 - 179.5	6	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	135	132	mg/Kg	1	100	135	132	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 175046

QC Batch: 52963
Prep Batch: 45376

Date Analyzed: 2008-10-02
QC Preparation: 2008-10-02

Analyzed By: DC
Prepared By: DC

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	¹	1.78	mg/Kg	1	1.00	<0.00580	178	62.2 - 134.3
Toluene	²	1.90	mg/Kg	1	1.00	0.0109	189	62.6 - 145.4
Ethylbenzene	³	1.96	mg/Kg	1	1.00	<0.00530	196	64.6 - 146.4
Xylene	⁴	5.96	mg/Kg	1	3.00	<0.0136	199	64.3 - 148.8

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

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	⁵	1.81	mg/Kg	1	1.00	<0.00580	181	62.2 - 134.3	2	20
Toluene	⁶	1.90	mg/Kg	1	1.00	0.0109	189	62.6 - 145.4	0	20
Ethylbenzene	⁷	1.96	mg/Kg	1	1.00	<0.00530	196	64.6 - 146.4	0	20
Xylene	⁸	5.96	mg/Kg	1	3.00	<0.0136	199	64.3 - 148.8	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.758	0.752	mg/Kg	1	1	76	75	38.8 - 127.5
4-Bromofluorobenzene (4-BFB)	0.806	0.781	mg/Kg	1	1	81	78	49.3 - 142.4

Matrix Spike (MS-1) Spiked Sample: 175029

QC Batch: 52964
Prep Batch: 45376

Date Analyzed: 2008-10-02
QC Preparation: 2008-10-02

Analyzed By: DC
Prepared By: DC

- ¹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
²Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
³Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
⁴Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
⁶Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
⁷Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
⁸Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.02	mg/Kg	1	10.0	<0.442	80	10 - 139.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.26	mg/Kg	1	10.0	<0.442	73	10 - 139.3	10	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.803	0.846	mg/Kg	1	1	80	85	21.3 - 119
4-Bromofluorobenzene (4-BFB)	0.821	0.842	mg/Kg	1	1	82	84	52.5 - 154

Standard (ICV-1)

QC Batch: 52962

Date Analyzed: 2008-10-02

Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	85 - 115	2008-10-02

Standard (CCV-1)

QC Batch: 52962

Date Analyzed: 2008-10-02

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	227	91	85 - 115	2008-10-02

Standard (ICV-1)

QC Batch: 52963

Date Analyzed: 2008-10-02

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.100	100	85 - 115	2008-10-02
Toluene		mg/Kg	0.100	0.102	102	85 - 115	2008-10-02
Ethylbenzene		mg/Kg	0.100	0.0973	97	85 - 115	2008-10-02
Xylene		mg/Kg	0.300	0.295	98	85 - 115	2008-10-02

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Standard (CCV-1)

QC Batch: 52963

Date Analyzed: 2008-10-02

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0850	85	85 - 115	2008-10-02
Toluene		mg/Kg	0.100	0.0865	86	85 - 115	2008-10-02
Ethylbenzene		mg/Kg	0.100	0.0850	85	85 - 115	2008-10-02
Xylene		mg/Kg	0.300	0.257	86	85 - 115	2008-10-02

Standard (ICV-1)

QC Batch: 52964

Date Analyzed: 2008-10-02

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.909	91	85 - 115	2008-10-02

Standard (CCV-1)

QC Batch: 52964

Date Analyzed: 2008-10-02

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	85 - 115	2008-10-02

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ER TAYLOR	
Invoice to:	
(If different from above) PLAINS	SRS # 2008-169
Project #:	Project Name:
PLAINS 076 SPL	EK QUEEN 4" ADITY
Project Location (including state):	Sampler Signature:
LEA COUNTY NM	ELQ

ANALYSIS REQUEST
(Circle or Specify Method No.)

[illegible]

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:	LAB USE ONLY	REMARKS:
<i>[Signature]</i>	TRACON	9/30/08	9:40	<i>[Signature]</i>	TRACON	09-30-08	9:40			
<i>[Signature]</i>	TRACON	9/30/08	12:55	<i>[Signature]</i>	TRACON	9-30-08	12:55			

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

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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: November 13, 2008

Work Order: 8111101



Project Location: Lea County, NM
Project Name: EK Queen 4" Polly
Project Number: Plains076SPL
SRS#: 2008-169

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
178900	BH-1	soil	2008-11-06	10:30	2008-11-11

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

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

Blair Leftwich

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project EK Queen 4" Polly were received by TraceAnalysis, Inc. on 2008-11-11 and assigned to work order 8111101. Samples for work order 8111101 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 8111101 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: 178900 - BH-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 54172
Prep Batch: 46351

Analytical Method: S 8021B
Date Analyzed: 2008-11-12
Sample Preparation: 2008-11-12

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.0375	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.885	mg/Kg	1	1.00	88	49 - 129.7
4-Bromofluorobenzene (4-BFB)		0.851	mg/Kg	1	1.00	85	45.2 - 144.3

Sample: 178900 - BH-1

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 54168
Prep Batch: 46331

Analytical Method: Mod. 8015B
Date Analyzed: 2008-11-11
Sample Preparation: 2008-11-11

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		91.2	mg/Kg	1	100	91	10 - 250.4

Sample: 178900 - BH-1

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 54175
Prep Batch: 46351

Analytical Method: S 8015B
Date Analyzed: 2008-11-12
Sample Preparation: 2008-11-12

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

continued ...

sample 178900 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.808	mg/Kg	1	1.00	81	66 - 142.8

Method Blank (1) QC Batch: 54168

QC Batch: 54168 Date Analyzed: 2008-11-11 Analyzed By: LD
Prep Batch: 46331 QC Preparation: 2008-11-11 Prepared By: LD

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

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

Method Blank (1) QC Batch: 54172

QC Batch: 54172 Date Analyzed: 2008-11-12 Analyzed By: AG
Prep Batch: 46351 QC Preparation: 2008-11-12 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00800	mg/Kg	0.01
Toluene		<0.00800	mg/Kg	0.01
Ethylbenzene		<0.00820	mg/Kg	0.01
Xylene		<0.00960	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.940	mg/Kg	1	1.00	94	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		0.851	mg/Kg	1	1.00	85	51.9 - 128.1

Method Blank (1) QC Batch: 54175

QC Batch: 54175 Date Analyzed: 2008-11-12 Analyzed By: AG
Prep Batch: 46351 QC Preparation: 2008-11-12 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		0.794	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.847	mg/Kg	1	1.00	85	70 - 130
4-Bromofluorobenzene (4-BFB)		0.828	mg/Kg	1	1.00	83	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 54168 Date Analyzed: 2008-11-11 Analyzed By: LD
Prep Batch: 46331 QC Preparation: 2008-11-11 Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	236	mg/Kg	1	250	<15.8	94	27.8 - 152.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	249	mg/Kg	1	250	<15.8	100	27.8 - 152.1	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	89.4	91.2	mg/Kg	1	100	89	91	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 54172 Date Analyzed: 2008-11-12 Analyzed By: AG
Prep Batch: 46351 QC Preparation: 2008-11-12 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.924	mg/Kg	1	1.00	<0.00800	92	72.7 - 129.8
Toluene	0.903	mg/Kg	1	1.00	<0.00800	90	71.6 - 129.6
Ethylbenzene	0.884	mg/Kg	1	1.00	<0.00820	88	70.8 - 129.7
Xylene	2.64	mg/Kg	1	3.00	<0.00960	88	70.9 - 129.4

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.942	mg/Kg	1	1.00	<0.00800	94	72.7 - 129.8	2	20
Toluene	0.916	mg/Kg	1	1.00	<0.00800	92	71.6 - 129.6	1	20
Ethylbenzene	0.898	mg/Kg	1	1.00	<0.00820	90	70.8 - 129.7	2	20
Xylene	2.73	mg/Kg	1	3.00	<0.00960	91	70.9 - 129.4	3	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.872	0.865	mg/Kg	1	1.00	87	86	65.9 - 132
4-Bromofluorobenzene (4-BFB)	0.864	0.878	mg/Kg	1	1.00	86	88	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 54175
Prep Batch: 46351

Date Analyzed: 2008-11-12
QC Preparation: 2008-11-12

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.79	mg/Kg	1	10.0	<0.171	78	70 - 130

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	8.06	mg/Kg	1	10.0	<0.171	81	70 - 130	3	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.920	0.868	mg/Kg	1	1.00	92	87	70 - 130
4-Bromofluorobenzene (4-BFB)	0.849	0.854	mg/Kg	1	1.00	85	85	70 - 130

Matrix Spike (MS-1) Spiked Sample: 178900

QC Batch: 54168
Prep Batch: 46331

Date Analyzed: 2008-11-11
QC Preparation: 2008-11-11

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	278	mg/Kg	1	250	30.3	99	18 - 179.5

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

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Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	269	mg/Kg	1	250	30.3	95	18 - 179.5	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	90.8	88.2	mg/Kg	1	100	91	88	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 178900

QC Batch: 54172
Prep Batch: 46351

Date Analyzed: 2008-11-12
QC Preparation: 2008-11-12

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.911	mg/Kg	1	1.00	<0.00800	91	58.6 - 165.2
Toluene	0.891	mg/Kg	1	1.00	<0.00800	89	64.2 - 153.8
Ethylbenzene	0.894	mg/Kg	1	1.00	<0.00820	89	61.6 - 159.4
Xylene	2.63	mg/Kg	1	3.00	<0.00960	88	64.4 - 155.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.855	mg/Kg	1	1.00	<0.00800	86	58.6 - 165.2	6	20
Toluene	0.874	mg/Kg	1	1.00	<0.00800	87	64.2 - 153.8	2	20
Ethylbenzene	0.898	mg/Kg	1	1.00	<0.00820	90	61.6 - 159.4	0	20
Xylene	2.64	mg/Kg	1	3.00	<0.00960	88	64.4 - 155.3	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.950	0.848	mg/Kg	1	1	95	85	76.5 - 127.9
4-Bromofluorobenzene (4-BFB)	0.889	0.859	mg/Kg	1	1	89	86	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 178900

QC Batch: 54175
Prep Batch: 46351

Date Analyzed: 2008-11-12
QC Preparation: 2008-11-12

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.3	mg/Kg	1	10.0	2.15	132	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 Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	14.8	mg/Kg	1	10.0	2.15	126	22.3 - 134.6	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.969	1.04	mg/Kg	1	1	97	104	68.4 - 113.1
4-Bromofluorobenzene (4-BFB)	0.834	0.869	mg/Kg	1	1	83	87	66.7 - 134.3

Standard (ICV-1)

QC Batch: 54168

Date Analyzed: 2008-11-11

Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	227	91	85 - 115	2008-11-11

Standard (CCV-1)

QC Batch: 54168

Date Analyzed: 2008-11-11

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	270	108	85 - 115	2008-11-11

Standard (ICV-1)

QC Batch: 54172

Date Analyzed: 2008-11-12

Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0968	97	85 - 115	2008-11-12
Toluene		mg/Kg	0.100	0.0969	97	85 - 115	2008-11-12
Ethylbenzene		mg/Kg	0.100	0.0949	95	85 - 115	2008-11-12
Xylene		mg/Kg	0.300	0.287	96	85 - 115	2008-11-12

Standard (CCV-1)

QC Batch: 54172

Date Analyzed: 2008-11-12

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0908	91	85 - 115	2008-11-12
Toluene		mg/Kg	0.100	0.0873	87	85 - 115	2008-11-12
Ethylbenzene		mg/Kg	0.100	0.0871	87	85 - 115	2008-11-12
Xylene		mg/Kg	0.300	0.258	86	85 - 115	2008-11-12

Standard (ICV-1)

QC Batch: 54175

Date Analyzed: 2008-11-12

Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	85 - 115	2008-11-12

Standard (CCV-1)

QC Batch: 54175

Date Analyzed: 2008-11-12

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.986	99	85 - 115	2008-11-12



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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: February 25, 2009

Work Order: 9022322



Project Location: Lea Co. NM
Project Name: EK Queen 4 in. Polly
Project Number: Plains041SPL

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
188222	SP 1	soil	2009-02-20	13:00	2009-02-23
188223	SP 2	soil	2009-02-20	13:10	2009-02-23
188224	SP 3	soil	2009-02-20	13:15	2009-02-23
188225	SP 4	soil	2009-02-20	13:22	2009-02-23

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

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



Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project EK Queen 4 in. Polly were received by TraceAnalysis, Inc. on 2009-02-23 and assigned to work order 9022322. Samples for work order 9022322 were received intact at a temperature of 4.8 deg. C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	48771	2009-02-23 at 17:00	57089	2009-02-23 at 17:00
TPH 418.1	E 418.1	48787	2009-02-24 at 12:00	57110	2009-02-24 at 14:39

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9022322 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: February 25, 2009
Plains041SPL

Work Order: 9022322
EK Queen 4 in. Polly

Page Number: 4 of 10
Lea Co. NM

Analytical Report

Sample: 188222 - SP 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 57089
Prep Batch: 48771

Analytical Method: S 8021B
Date Analyzed: 2009-02-23
Sample Preparation: 2009-02-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.0788	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.960	mg/Kg	1	1.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.10	mg/Kg	1	1.00	110	45.2 - 144.3

Sample: 188222 - SP 1

Laboratory: Lubbock
Analysis: TPH 418.1
QC Batch: 57110
Prep Batch: 48787

Analytical Method: E 418.1
Date Analyzed: 2009-02-24
Sample Preparation: 2009-02-24

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

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		4970	mg/Kg	5	10.0

Sample: 188223 - SP 2

Laboratory: Midland
Analysis: BTEX
QC Batch: 57089
Prep Batch: 48771

Analytical Method: S 8021B
Date Analyzed: 2009-02-23
Sample Preparation: 2009-02-23

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

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

Report Date: February 25, 2009
Plains041SPL

Work Order: 9022322
EK Queen 4 in. Polly

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Lea Co. NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.964	mg/Kg	1	1.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		0.863	mg/Kg	1	1.00	86	45.2 - 144.3

Sample: 188223 - SP 2

Laboratory: Lubbock
Analysis: TPH 418.1
QC Batch: 57110
Prep Batch: 48787

Analytical Method: E 418.1
Date Analyzed: 2009-02-24
Sample Preparation: 2009-02-24

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

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		1350	mg/Kg	1	10.0

Sample: 188224 - SP 3

Laboratory: Midland
Analysis: BTEX
QC Batch: 57089
Prep Batch: 48771

Analytical Method: S 8021B
Date Analyzed: 2009-02-23
Sample Preparation: 2009-02-23

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		0.0412	mg/Kg	1	0.0100
Ethylbenzene		0.0332	mg/Kg	1	0.0100
Xylene		0.137	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.964	mg/Kg	1	1.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		0.937	mg/Kg	1	1.00	94	45.2 - 144.3

Sample: 188224 - SP 3

Laboratory: Lubbock
Analysis: TPH 418.1
QC Batch: 57110
Prep Batch: 48787

Analytical Method: E 418.1
Date Analyzed: 2009-02-24
Sample Preparation: 2009-02-24

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

Report Date: February 25, 2009
Plains041SPL

Work Order: 9022322
EK Queen 4 in. Polly

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Lea Co. NM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		1350	mg/Kg	1	10.0

Sample: 188225 - SP 4

Laboratory: Midland

Analysis: BTEX

QC Batch: 57089

Prep Batch: 48771

Analytical Method: S 8021B

Date Analyzed: 2009-02-23

Sample Preparation: 2009-02-23

Prep Method: S 5035

Analyzed By: ME

Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.978	mg/Kg	1	1.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		0.899	mg/Kg	1	1.00	90	45.2 - 144.3

Sample: 188225 - SP 4

Laboratory: Lubbock

Analysis: TPH 418.1

QC Batch: 57110

Prep Batch: 48787

Analytical Method: E 418.1

Date Analyzed: 2009-02-24

Sample Preparation: 2009-02-24

Prep Method: N/A

Analyzed By: CM

Prepared By: CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		1550	mg/Kg	1	10.0

Method Blank (1) QC Batch: 57089

QC Batch: 57089

Prep Batch: 48771

Date Analyzed: 2009-02-23

QC Preparation: 2009-02-23

Analyzed By: ME

Prepared By: ME

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

continued ...

Report Date: February 25, 2009
Plains041SPL

Work Order: 9022322
EK Queen 4 in. Polly

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Lea Co. NM

method blank continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.963	mg/Kg	1	1.00	96	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		0.802	mg/Kg	1	1.00	80	51.9 - 128.1

Method Blank (1) QC Batch: 57110

QC Batch: 57110
Prep Batch: 48787

Date Analyzed: 2009-02-24
QC Preparation: 2009-02-24

Analyzed By: CM
Prepared By: CM

Parameter	Flag	MDL Result	Units	RL
TRPHC		<5.28	mg/Kg	10

Laboratory Control Spike (LCS-1)

QC Batch: 57089
Prep Batch: 48771

Date Analyzed: 2009-02-23
QC Preparation: 2009-02-23

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.888	mg/Kg	1	1.00	<0.00100	89	72.7 - 129.8
Toluene	0.894	mg/Kg	1	1.00	<0.00100	89	71.6 - 129.6
Ethylbenzene	0.900	mg/Kg	1	1.00	<0.00110	90	70.8 - 129.7
Xylene	2.63	mg/Kg	1	3.00	<0.00360	88	70.9 - 129.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.879	mg/Kg	1	1.00	<0.00100	88	72.7 - 129.8	1	20
Toluene	0.884	mg/Kg	1	1.00	<0.00100	88	71.6 - 129.6	1	20
Ethylbenzene	0.901	mg/Kg	1	1.00	<0.00110	90	70.8 - 129.7	0	20
Xylene	2.64	mg/Kg	1	3.00	<0.00360	88	70.9 - 129.4	0	20

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

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.960	0.969	mg/Kg	1	1.00	96	97	65.9 - 132
4-Bromofluorobenzene (4-BFB)	0.824	0.834	mg/Kg	1	1.00	82	83	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 57110
Prep Batch: 48787

Date Analyzed: 2009-02-24
QC Preparation: 2009-02-24

Analyzed By: CM
Prepared By: CM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	260	mg/Kg	1	250	<5.28	104	75.5 - 136

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	265	mg/Kg	1	250	<5.28	106	75.5 - 136	2	20

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

Matrix Spike (MS-1) Spiked Sample: 188234

QC Batch: 57089
Prep Batch: 48771

Date Analyzed: 2009-02-23
QC Preparation: 2009-02-23

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.758	mg/Kg	1	1.00	<0.00100	76	58.6 - 165.2
Toluene	0.731	mg/Kg	1	1.00	<0.00100	73	64.2 - 153.8
Ethylbenzene	0.719	mg/Kg	1	1.00	<0.00110	72	61.6 - 159.4
Xylene	2.14	mg/Kg	1	3.00	<0.00360	71	64.4 - 155.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	¹ 0.961	mg/Kg	1	1.00	<0.00100	96	58.6 - 165.2	24	20
Toluene	² 0.952	mg/Kg	1	1.00	<0.00100	95	64.2 - 153.8	26	20

continued ...

¹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

²MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued . . .

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene	³	0.958	mg/Kg	1	1.00	<0.00110	96	61.6 - 159.4	28	20
Xylene	⁴	2.86	mg/Kg	1	3.00	<0.00360	95	64.4 - 155.3	29	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.964	0.961	mg/Kg	1	1	96	96	76 - 127.9
4-Bromofluorobenzene (4-BFB)	1.00	1.01	mg/Kg	1	1	100	101	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 187705

QC Batch: 57110
Prep Batch: 48787

Date Analyzed: 2009-02-24
QC Preparation: 2009-02-24

Analyzed By: CM
Prepared By: CM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	224	mg/Kg	1	250	<5.28	90	10 - 354

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	235	mg/Kg	1	250	<5.28	94	10 - 354	5	20

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

Standard (ICV-1)

QC Batch: 57089

Date Analyzed: 2009-02-23

Analyzed By: ME

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0988	99	85 - 115	2009-02-23
Toluene		mg/Kg	0.100	0.0999	100	85 - 115	2009-02-23
Ethylbenzene		mg/Kg	0.100	0.101	101	85 - 115	2009-02-23
Xylene		mg/Kg	0.300	0.294	98	85 - 115	2009-02-23

Standard (CCV-1)

QC Batch: 57089

Date Analyzed: 2009-02-23

Analyzed By: ME

³MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

⁴MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: February 25, 2009
Plains041SPL

Work Order: 9022322
EK Queen 4 in. Polly

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Lea Co. NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0931	93	85 - 115	2009-02-23
Toluene		mg/Kg	0.100	0.0918	92	85 - 115	2009-02-23
Ethylbenzene		mg/Kg	0.100	0.0899	90	85 - 115	2009-02-23
Xylene		mg/Kg	0.300	0.266	89	85 - 115	2009-02-23

Standard (ICV-1)

QC Batch: 57110

Date Analyzed: 2009-02-24

Analyzed By: CM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	98.0	98	80 - 120	2009-02-24

Standard (CCV-1)

QC Batch: 57110

Date Analyzed: 2009-02-24

Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	91.5	92	80 - 120	2009-02-24

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

☐ Dry Weight Basis Required

☐ TRRP Report Required

☐ Check If Special Reporting Limits Are Needed

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6015 Harris Parkway Suite 110 Ft Worth, Texas 76132 817•201•5260
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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: March 13, 2009

Work Order: 9030936



Project Location: Lea County, NM
Project Name: EK Queen Poly 4 inch
Project Number: PLAINS076SPL
SRS#: 2008-169

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
189583	SP-1	soil	2009-03-06	16:30	2009-03-09
189584	SP-2	soil	2009-03-06	16:40	2009-03-09
189585	SP-3	soil	2009-03-06	16:48	2009-03-09
189586	SP-4	soil	2009-03-06	17:06	2009-03-09

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

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

TraceAnalysis, Inc.

A handwritten signature in black ink, appearing to read "Michael Abel".

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project EK Queen Poly 4 inch were received by TraceAnalysis, Inc. on 2009-03-09 and assigned to work order 9030936. Samples for work order 9030936 were received intact at a temperature of 10.7 deg. C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
TPH DRO	Mod. 8015B	49181	2009-03-12 at 12:00	57583	2009-03-12 at 13:50
TPH GRO	S 8015B	49115	2009-03-10 at 14:45	57488	2009-03-10 at 14:45

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 9030936 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: 189583 - SP-1

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-03-12	Analyzed By:	LD
QC Batch:	57583	Sample Preparation:	2009-03-12	Prepared By:	LD
Prep Batch:	49181				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		144	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		73.2	mg/Kg	1	100	73	13.2 - 219.3

Sample: 189583 - SP-1

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-03-10	Analyzed By:	ME
QC Batch:	57488	Sample Preparation:	2009-03-10	Prepared By:	ME
Prep Batch:	49115				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		154	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.03	mg/Kg	1	1.00	103	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	¹	2.23	mg/Kg	1	1.00	223	52 - 117

Sample: 189584 - SP-2

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-03-12	Analyzed By:	LD
QC Batch:	57583	Sample Preparation:	2009-03-12	Prepared By:	LD
Prep Batch:	49181				

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

¹High surrogate recovery due to peak interference.

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EK Queen Poly 4 inch

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		48.7	mg/Kg	1	100	49	13.2 - 219.3

Sample: 189584 - SP-2

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 57488
Prep Batch: 49115

Analytical Method: S 8015B
Date Analyzed: 2009-03-10
Sample Preparation: 2009-03-10

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		14.2	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	²	1.40	mg/Kg	1	1.00	140	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.06	mg/Kg	1	1.00	106	52 - 117

Sample: 189585 - SP-3

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 57583
Prep Batch: 49181

Analytical Method: Mod. 8015B
Date Analyzed: 2009-03-12
Sample Preparation: 2009-03-12

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

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1710	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		216	mg/Kg	1	100	216	13.2 - 219.3

Sample: 189585 - SP-3

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 57488
Prep Batch: 49115

Analytical Method: S 8015B
Date Analyzed: 2009-03-10
Sample Preparation: 2009-03-10

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

continued ...

²High surrogate recovery due to peak interference.

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EK Queen Poly 4 inch

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sample 189585 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
GRO		132	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.856	mg/Kg	1	1.00	86	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)	³	1.98	mg/Kg	1	1.00	198	52 - 117

Sample: 189586 - SP-4

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 57583 Date Analyzed: 2009-03-12 Analyzed By: LD
Prep Batch: 49181 Sample Preparation: 2009-03-12 Prepared By: LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		1310	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		198	mg/Kg	1	100	198	13.2 - 219.3

Sample: 189586 - SP-4

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 57488 Date Analyzed: 2009-03-10 Analyzed By: ME
Prep Batch: 49115 Sample Preparation: 2009-03-10 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		81.3	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.06	mg/Kg	1	1.00	106	68.5 - 119.4

continued ...

³High surrogate recovery due to peak interference.

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EK Queen Poly 4 inch

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sample continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)	⁴	1.31	mg/Kg	1	1.00	131	52 - 117

Method Blank (1) QC Batch: 57488

QC Batch: 57488
Prep Batch: 49115

Date Analyzed: 2009-03-10
QC Preparation: 2009-03-10

Analyzed By: ME
Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.877	mg/Kg	1	1.00	88	75.8 - 98.5
4-Bromofluorobenzene (4-BFB)		0.896	mg/Kg	1	1.00	90	56.5 - 109.5

Method Blank (1) QC Batch: 57583

QC Batch: 57583
Prep Batch: 49181

Date Analyzed: 2009-03-12
QC Preparation: 2009-03-12

Analyzed By: LD
Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<13.4	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		77.9	mg/Kg	1	100	78	13 - 178.5

Laboratory Control Spike (LCS-1)

QC Batch: 57488
Prep Batch: 49115

Date Analyzed: 2009-03-10
QC Preparation: 2009-03-10

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.24	mg/Kg	1	10.0	<0.482	72	60.5 - 100.1

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

⁴High surrogate recovery due to peak interference.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.29	mg/Kg	1	10.0	<0.482	73	60.5 - 100.1	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.913	0.915	mg/Kg	1	1.00	91	92	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	0.921	0.920	mg/Kg	1	1.00	92	92	66.1 - 107.3

Laboratory Control Spike (LCS-1)

QC Batch: 57583
Prep Batch: 49181

Date Analyzed: 2009-03-12
QC Preparation: 2009-03-12

Analyzed By: LD
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	236	mg/Kg	1	250	<13.4	94	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	232	mg/Kg	1	250	<13.4	93	57.4 - 133.4	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	62.5	64.2	mg/Kg	1	100	62	64	48.5 - 146.7

Matrix Spike (MS-1) Spiked Sample: 189586

QC Batch: 57488
Prep Batch: 49115

Date Analyzed: 2009-03-10
QC Preparation: 2009-03-10

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	⁵ 116	mg/Kg	1	10.0	81.3147	347	12.8 - 175.2

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	⁶ 116	mg/Kg	1	10.0	81.3147	347	12.8 - 175.2	0	20

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

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

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.32	1.32	mg/Kg	1	1	132	132	60.8 - 132.1
4-Bromofluorobenzene (4-BFB) ⁷	1.61	1.66	mg/Kg	1	1	161	166	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 189585

QC Batch: 57583
Prep Batch: 49181

Date Analyzed: 2009-03-12
QC Preparation: 2009-03-12

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO ⁸	1570	mg/Kg	1	250	1570	0	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO ⁹	1520	mg/Kg	1	250	1570	0	35.2 - 167.1	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane ^{10 11}	189	182	mg/Kg	1	100	189	182	34.5 - 178.4

Standard (ICV-1)

QC Batch: 57488

Date Analyzed: 2009-03-10

Analyzed By: ME

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.06	106	85 - 115	2009-03-10

Standard (CCV-1)

QC Batch: 57488

Date Analyzed: 2009-03-10

Analyzed By: ME

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.

¹⁰High surrogate recovery due to peak interference.

¹¹High surrogate recovery due to peak interference.

Report Date: March 13, 2009
PLAINS076SPL

Work Order: 9030936
EK Queen Poly 4 inch

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.916	92	85 - 115	2009-03-10

Standard (CCV-1)

QC Batch: 57583

Date Analyzed: 2009-03-12

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	217	87	85 - 115	2009-03-12

Standard (CCV-2)

QC Batch: 57583

Date Analyzed: 2009-03-12

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	213	85	85 - 115	2009-03-12

Standard (CCV-3)

QC Batch: 57583

Date Analyzed: 2009-03-12

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	262	105	85 - 115	2009-03-12

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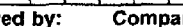
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Company Name: TAYLOR	Phone #: 432 238-6388
Address: (Street, City, Zip) 318 E TAYLOR MOORE NM	Fax #:
Contact Person: ER TAYLOR	E-mail:
Invoice to: (If different from above) PLAINS ATTN: JASON MEVEMY	Project Name: EX QUEN 4" POLLY
Project #: PLAIN50715PL	Sampler Signature: Wayman Taylor
Project Location (including state): LEACOUNTY NM	

ANALYSIS REQUEST

[illegible]

Relinquished by: 	Company:	Date: 3/9/09	Time: 1530	Received by: 	Company: Trace	Date: 3-9-09	Time: 15:30	Temp °C: 10.70
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp °C:

LAB USE ONLY

Intact Y/N

Headspace Y/N

107

Log-in/Review

REMARKS: All tests Midland

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

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

Carrier # LA 117 - 1

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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: April 15, 2009

Work Order: 9041411



Project Location: Lea County, NM
Project Name: EK Queen 4 in. Poly
Project Number: PLAINS071SPL

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

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
192974	SP-3	soil	2009-04-09	16:30	2009-04-14
192975	SP-4	soil	2009-04-09	16:45	2009-04-14

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.

A handwritten signature in black ink, appearing to read "Michael Abel". The signature is written in a cursive, flowing style.

Dr. Blair Leftwich, Director

Standard Flags

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

Case Narrative

Samples for project EK Queen 4 in. Poly were received by TraceAnalysis, Inc. on 2009-04-14 and assigned to work order 9041411. Samples for work order 9041411 were received intact at a temperature of 4.3 deg. C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
TPH DRO	Mod. 8015B	49967	2009-04-14 at 09:30	58556	2009-04-14 at 12:25
TPH GRO	S 8015B	49984	2009-04-14 at 14:45	58543	2009-04-14 at 14:45

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 9041411 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: 192974 - SP-3

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-04-14	Analyzed By:	LD
QC Batch:	58556	Sample Preparation:	2009-04-14	Prepared By:	LD
Prep Batch:	49967				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		73.9	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		121	mg/Kg	1	100	121	13.2 - 219.3

Sample: 192974 - SP-3

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-04-14	Analyzed By:	ME
QC Batch:	58543	Sample Preparation:	2009-04-14	Prepared By:	ME
Prep Batch:	49984				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		4.08	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.98	mg/Kg	1	2.00	99	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	52 - 117

Sample: 192975 - SP-4

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-04-14	Analyzed By:	LD
QC Batch:	58556	Sample Preparation:	2009-04-14	Prepared By:	LD
Prep Batch:	49967				

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

Report Date: April 15, 2009
PLAINS071SPL

Work Order: 9041411
EK Queen 4 in. Poly

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Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		110	mg/Kg	1	100	110	13.2 - 219.3

Sample: 192975 - SP-4

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 58543 Date Analyzed: 2009-04-14 Analyzed By: ME
Prep Batch: 49984 Sample Preparation: 2009-04-14 Prepared By: ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		9.88	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.89	mg/Kg	1	2.00	94	52 - 117

Method Blank (1) QC Batch: 58543

QC Batch: 58543 Date Analyzed: 2009-04-14 Analyzed By: ME
Prep Batch: 49984 QC Preparation: 2009-04-14 Prepared By: ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.95	mg/Kg	1	2.00	98	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.69	mg/Kg	1	2.00	84	45.7 - 118.9

Method Blank (1) QC Batch: 58556

QC Batch: 58556 Date Analyzed: 2009-04-14 Analyzed By: LD
Prep Batch: 49967 QC Preparation: 2009-04-14 Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		6.18	mg/Kg	50

Report Date: April 15, 2009
PLAINS071SPL

Work Order: 9041411
EK Queen 4 in. Poly

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Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		101	mg/Kg	1	100	101	13 - 178.5

Laboratory Control Spike (LCS-1)

QC Batch: 58543
Prep Batch: 49984

Date Analyzed: 2009-04-14
QC Preparation: 2009-04-14

Analyzed By: ME
Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.5	mg/Kg	1	20.0	<0.482	88	60.5 - 100.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.2	mg/Kg	1	20.0	<0.482	96	60.5 - 100.1	9	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.01	2.04	mg/Kg	1	2.00	100	102	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	1.77	1.81	mg/Kg	1	2.00	88	90	66.1 - 107.3

Laboratory Control Spike (LCS-1)

QC Batch: 58556
Prep Batch: 49967

Date Analyzed: 2009-04-14
QC Preparation: 2009-04-14

Analyzed By: LD
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	213	mg/Kg	1	250	6.18	83	57.4 - 133.4

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	203	mg/Kg	1	250	6.18	79	57.4 - 133.4	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	90.7	90.2	mg/Kg	1	100	91	90	48.5 - 146.7

Report Date: April 15, 2009
PLAINS071SPL

Work Order: 9041411
EK Queen 4 in. Poly

Page Number: 7 of 8
Lea County, NM

Matrix Spike (MS-1) Spiked Sample: 192928

QC Batch: 58543
Prep Batch: 49984

Date Analyzed: 2009-04-14
QC Preparation: 2009-04-14

Analyzed By: ME
Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	34.7	mg/Kg	1	20.0	<0.482	174	12.8 - 175.2

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	29.2	mg/Kg	1	20.0	<0.482	146	12.8 - 175.2	17	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.15	2.16	mg/Kg	1	2	108	108	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.55	1.58	mg/Kg	1	2	78	79	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 192923

QC Batch: 58556
Prep Batch: 49967

Date Analyzed: 2009-04-14
QC Preparation: 2009-04-14

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	353	mg/Kg	1	250	149.62	81	35.2 - 167.1

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	360	mg/Kg	1	250	149.62	84	35.2 - 167.1	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	126	135	mg/Kg	1	100	126	135	34.5 - 178.4

Standard (CCV-2)

QC Batch: 58543

Date Analyzed: 2009-04-14

Analyzed By: ME

Report Date: April 15, 2009
PLAINS071SPL

Work Order: 9041411
EK Queen 4 in. Poly

Page Number: 8 of 8
Lea County, NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.20	120	80 - 120	2009-04-14

Standard (CCV-3)

QC Batch: 58543

Date Analyzed: 2009-04-14

Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.978	98	80 - 120	2009-04-14

Standard (CCV-1)

QC Batch: 58556

Date Analyzed: 2009-04-14

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	225	90	80 - 120	2009-04-14

Standard (CCV-2)

QC Batch: 58556

Date Analyzed: 2009-04-14

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	235	94	80 - 120	2009-04-14

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

**5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313**

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

6015 Harris Pkwy., Suite 110
Ft. Worth, Texas 76132
Tel (817) 201-5260

Company Name: TAILOS 2PE Phone #: 482-238-6388
Address: (Street, City, Zip) 318 E. TAYLOR HORRIS NM 88240 Fax #:
Contact Person: ER TAYLOR E-mail:
Invoice to:
(If different from above) MAIN ATTN: JASON HENERY
Project #: P2AHC071SPC Project Name: ER QUEEN 4" PO14
Project Location (including state): 2EA COUNTRY NM Sampler Signature: ER

ANALYSIS REQUEST
(Circle or Specify Method No.)

[illegible]

Relinquished by: _____ Date: _____ Time: _____

Amto Chg 4-14-09 0800

Relinquished by: 0 Date: Time:

Latimer 9-14-09 0920

Relinquished by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____

Scot down TALON/LPE 4-14-09 0807

Received by: _____ Date: _____ Time: _____

4-14-09 9:20

Received at Laboratory by: _____ Date: _____ Time: _____

LAB USE ONLY

Intact ☒ Y ☐ N

Headspace Y V N

45

[illegible]

REMARKS:

24 145 All tests Midland

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

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

ORIGINAL COPY

Carrier # EWING

APPENDIX E

PHOTOGRAPHIC DOCUMENTATION

TALON/LPE

Client: Plains Pipeline, L.P.
Location: E.K. Queen 4" Poly
Lea County, New Mexico

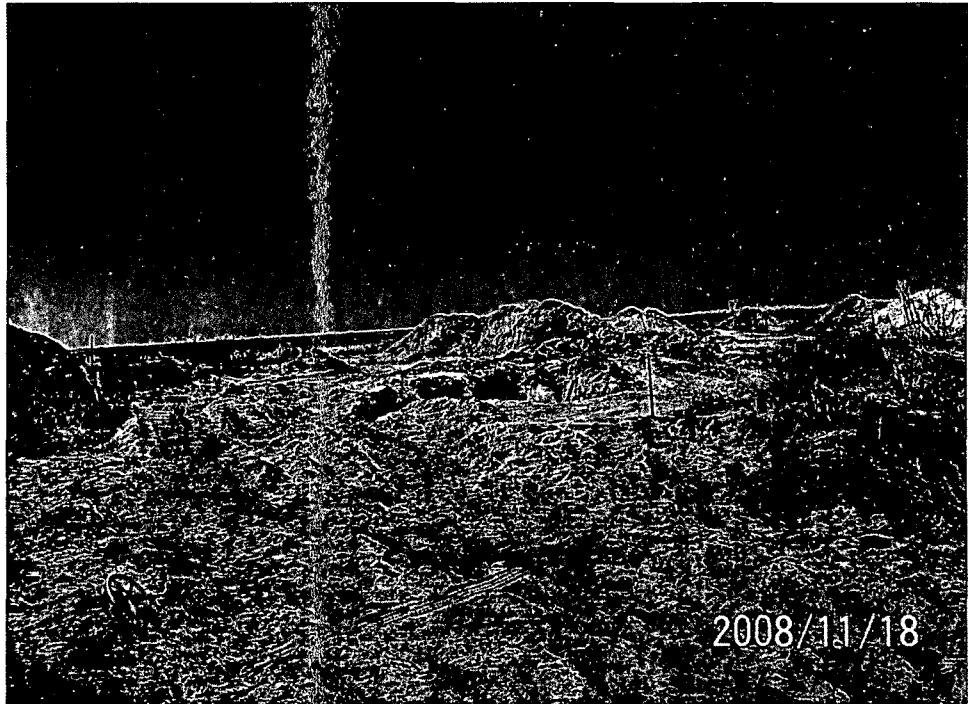
Photographic Documentation

Prepared by: Shanna Smith
Photographer: Scott Armour
Project Number: PLAINS076SPL

Photograph No. 1

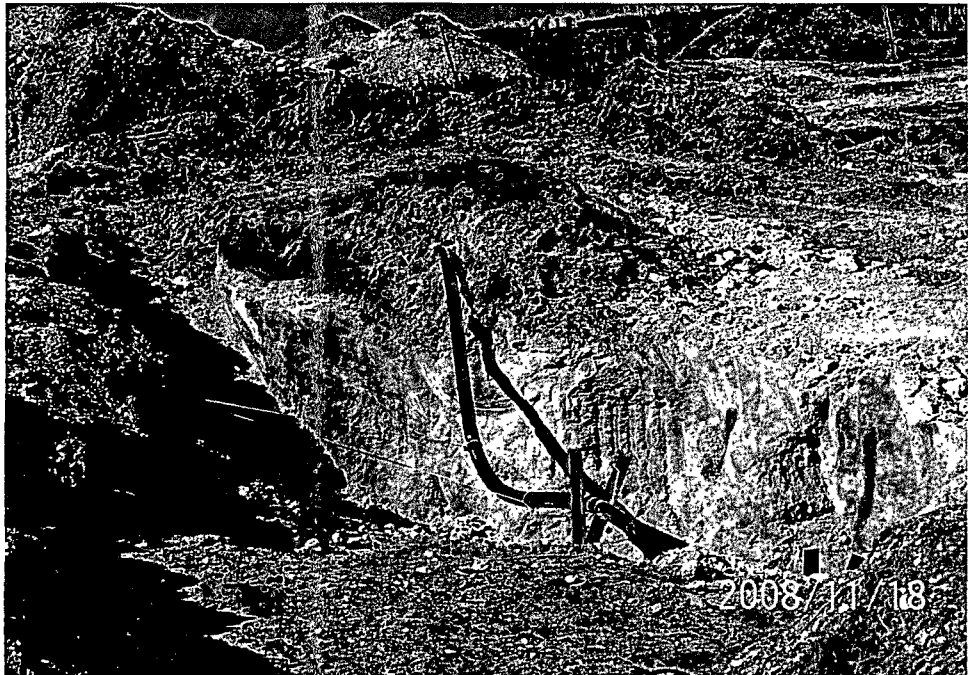
Direction: North

Description:
North view of
excavation.

**Photograph No. 2**

Direction: Northeast

Description:
Northeast view of
excavation.



TALON/LPE

Client: Plains Pipeline, L.P.

Location: E.K. Queen 4" Poly
Lea County, New Mexico

Photographic Documentation

Prepared by: Shanna Smith

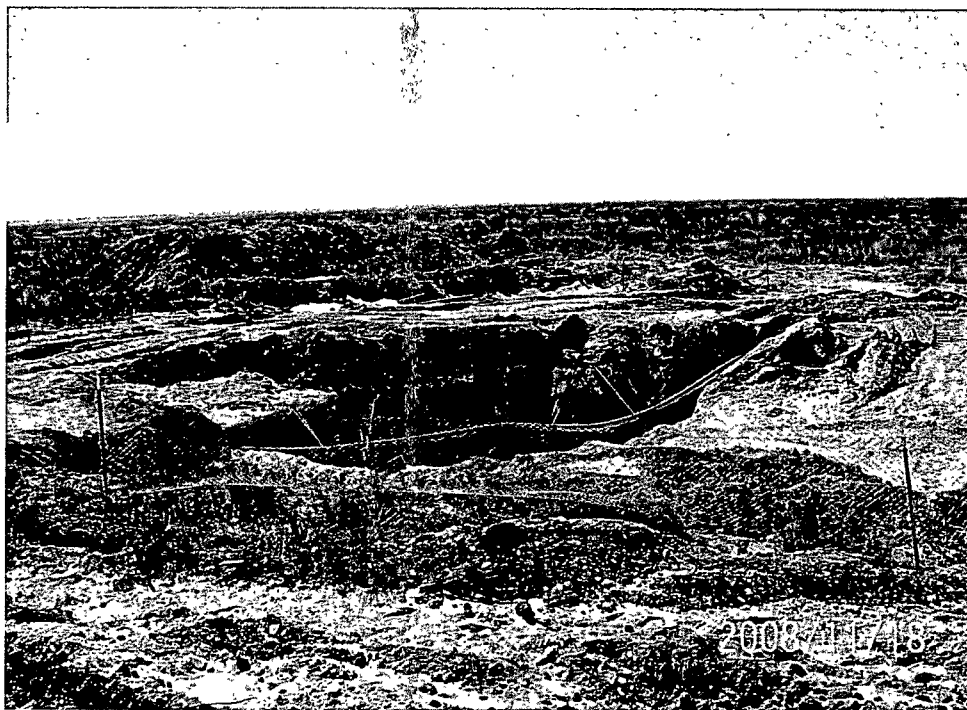
Photographer: Scott Armour

Project Number: PLAINS076SPL

Photograph No. 3

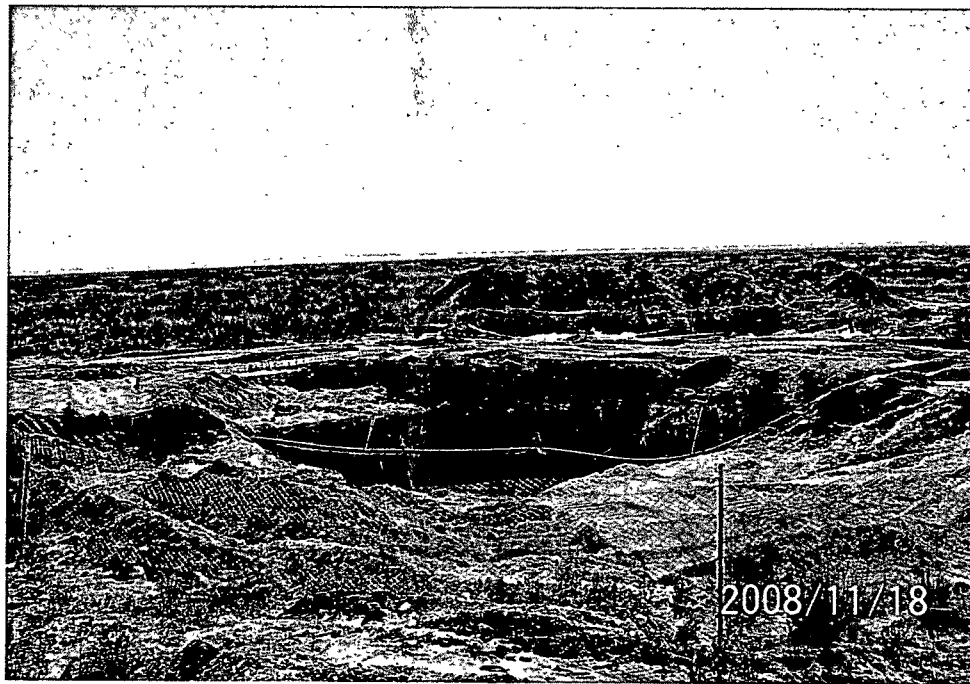
Direction: Southwest

Description:
Southwest view of
excavation.

**Photograph No. 4**

Direction: Northwest

Description:
Northwest view of
excavation.



TALON/LPE

Client: Plains Pipeline, L.P.

**Location: E.K. Queen 4" Poly
Lea County, New Mexico**

Photographic Documentation

Prepared by: Shanna Smith

Photographer: Scott Armour

Project Number: PLAINS076SPL

Photograph No. 5

Direction: North

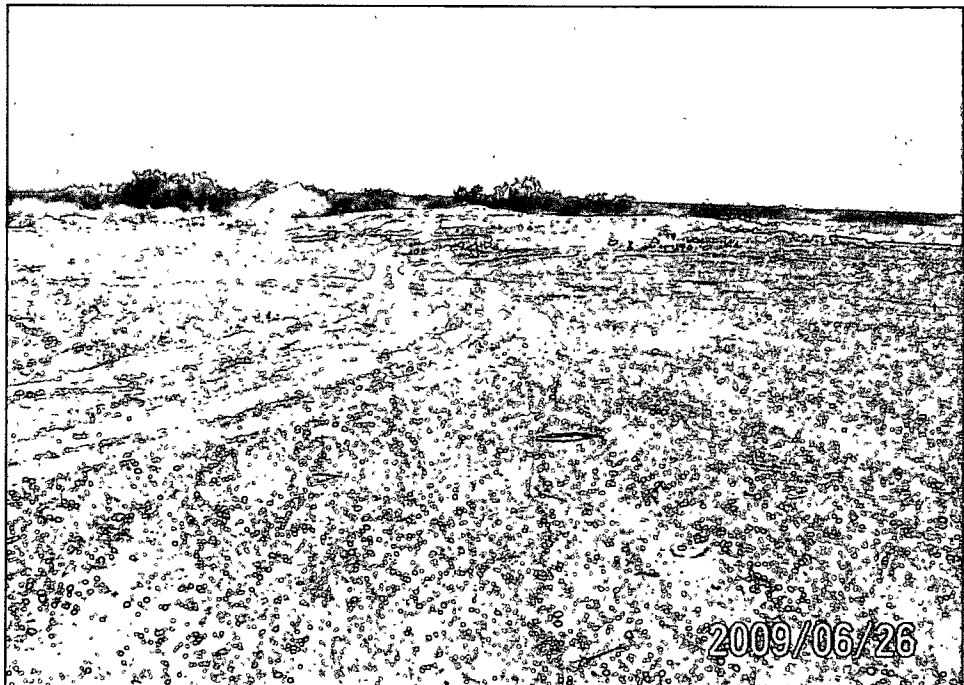
Description:
North view of site
restoration.



Photograph No. 6

Direction: South

Description:
South view of site
restoration.



APPENDIX F

BLM Undesirable Event Form

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
New Mexico State Office

REPORT OF UNDESIRABLE EVENT

DATE OF OCCURRENCE/DISCOVERY: 6/24/2008 TIME OF OCCURRENCE: 10:40

DATE REPORTED TO BLM: 6/27/2008 TIME REPORTED: 9:00

BLM OFFICE REPORTED TO: (FIELD/DISTRICT/OTHER) Carlsbad Office (Jim Amos)

LOCATION: (1/4 1/2) NE SE SECTION 22 T. 18S R. 33E MERIDIAN New Mexico Prime

COUNTY: Lea STATE: NM WELL NAME: _____

OPERATOR: COMPANY NAME Plains Pipeline PHONE NO. (505) 441-09105
CONTACT PERSON'S NAME Cameron Bryant

SURFACE OWNER: BLM MINERAL OWNER: _____
(FEDERAL/INDIAN/FEE/STATE)

LEASE NO.: _____ RIGHT-OF-WAY NO.: NM 167199

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: Pipe failure on 4" poly line (line is being analyzed) resulted in release of crude oil.

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: Soil impacted from crude oil release

ACTION TAKEN TO CONTROL EVENT: Line replaced

LENGTH OF TIME TO CONTROL BLOWOUT OR FIRE: _____

VOLUMES DISCHARGED: OIL 8 barrels WATER _____ GAS _____

OTHER AGENCIES NOTIFIED: Larry Johnson, NMCO,
Hobbs, Office

ACTION TAKEN OR TO BE TAKEN TO PREVENT RECURRENCE:

Pipe replaced

FINAL INVESTIGATION:

TEAM NAME(S) _____

FIELD INSPECTION DATE _____

SUMMARY OF RESULTS OF INSPECTION _____

RESOURCE LOSS WAS (CIRCLE ITEM):

AVOIDABLE

UNAVOIDABLE

DATE OF MEMO NOTIFYING MINERALS MANAGEMENT SERVICE THAT LOSS WAS AVOIDABLE: _____

DATE/TIME/PERSON NOTIFIED:

DISTRICT OFFICE _____

STATE OFFICE _____

WASHINGTON OFFICE _____

SUMMARY OF RESULTS OF RECLAMATION/CORRECTIVE ACTION: _____

REMARKS: _____

SIGNATURE OF AUTHORIZED OFFICER _____

DATE: _____

TITLE: _____

APPENDIX G

NMOCD Documentation

Initial C-141

Final C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company Plains Pipeline	Contact Camille Bryant
Address 3112 W. US Hwy 82, Lovington, NM 88260	Telephone No. 505-441-0965
Facility Name E.K. Queen 4 Inch Poly	Facility Type 4" Poly Line

Surface Owner BLM	Mineral Owner	Lease No. 30-025-38750
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LOCATION OF RELEASE

Unit Letter I	Section 22	Township 18S	Range 33E	Feet from the	North/South Line	Feet from the	East/West Line	County Lea
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Latitude 32° 43' 47.7" Longitude 103° 38' 42.8"

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 8 barrels	Volume Recovered 0 barrels
Source of Release 4" Poly line	Date and Hour of Occurrence 06/24/2008 @ 10:00	Date and Hour of Discovery 06/22/2008 @ 15:15
Was Immediate Notice Given? X Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson	RECEIVED JUN 30 2008 HOBBS OCD
By Whom? Camille Bryant	Date and Hour 06/24/2008 @ 15:15	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken Pipe failure of 4-inch poly line (pipe is being analyzed) resulted in release of sweet crude oil. The line is a 4-inch poly gathering line that produces approximately 645 barrels of oil per day. The pressure on the line is approximately 55 psi and the gravity of the sweet crude oil is 40. The sweet crude has an H₂S content of <10 ppm. The line is approximately 3.5 feet bgs at the release point.

Describe Area Affected and Cleanup Action Taken.* The impacted soil was excavated and stockpiled on plastic.

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

Signature: <i>Camille Bryant</i>	OIL CONSERVATION DIVISION	
Printed Name: Camille Bryant	Approved by District Supervisor: <i>J. Johnson</i> ENVIRONMENTAL ENGINEER	
Title: Remediation Coordinator	Approval Date: 6.30.08	Expiration Date: 8.30.08
E-mail Address: cjbrant@paalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 06/27/2008	Phone: 505-441-0965	1 RP-1887

* Attach Additional Sheets If Necessary

FGRL 0821751527

Curtis & Curtis Seed
4500 N. Prime
Cleveland NM 88101
Phone: 505-762-4759

Talon Drilling
1 - 1/2 Acre Bag @ 19.22 Bulk Pounds
1 - 1/2 Acre Bag @ 99.64 Bulk Pounds
1.5 Acres of BL 9762 and BLM 65, Broadcast Rate
John Cedar Chisom

Lot# 34-7928

Name	Origin	Purity	Germ	Dormant	Germ & Dormant	Test	Total PLS
Siddons Grass	Texas	41.03%	38.00%	47.00%	85.00%	10/07	21.00
Virgin							
Blue Grass	New Mexico	08.40%	90.00%	00.00%	90.00%	4	13/07 04.50
Not Stated							
Alkali Sycamore	New Mexico	06.40%	88.00%	00.00%	88.00%	07/07	03.00
Not Stated							
Youngling Sycamore	New Mexico	28.75%	90.00%	00.00%	90.00% (12)	07/07	15.00
Not Stated							
Other Crop: 00.27%	This Area 3 Bags For This BLM				Total Bulk Pounds: 2.56		
Wheat Seed: 00.30%	This Bag Weighs 99.64 Bulk Pounds						
Wheat Matter: 13.54%	On This Bag For 1 Acre						

BLM 2-3 seed mix