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

RECEIVED
MAR 29 2010
NMOCD ARTESIA

Form C-141
Revised October 10, 2003

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

30-015-20665

nMLB1009647272

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **BP America Production Company** 778	Contact **Steve Pacheco**
Address **PO Box 129 Artesia, NM 88210**	Telephone No. **575-677-3642**
Facility Name **Empire Abo Unit N-13**	Facility Type **Flow line**

Surface Owner **BLM**	Mineral Owner **BLM**	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/~~South~~ Line	Feet from the	East/~~West~~ Line	County
E	**11**	**18S**	**27E**	**1618**		**330**		**Eddy**

Latitude 32.7645 **Longitude** 104.256181

NATURE OF RELEASE

Type of Release **Produced Water**	Volume of Release **Unknown**	Volume Recovered **Unknown**
Source of Release **Flow line**	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Historical Release

Describe Area Affected and Cleanup Action Taken.*
See attached site closure report.

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: Steve M Pacheco

Printed Name: Steve M Pacheco

Title: SENM Team Lead

E-mail Address: steve.pacheco@bp com

Date: March 12, 2010 Phone: 575-677-3642

OIL CONSERVATION DIVISION

Approved by District Supervisor: Signed By Mike Bratcher

Approval Date: APR 06 2010 Expiration Date: N/A

Conditions of Approval: Closure Report Attached

Attached ☐

* Attach Additional Sheets If Necessary

2RP-397

AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806 467 0607
Fax 806 467 0622

AUSTIN
911 W Anderson Lane,
Suite 202
Austin, TX 78757
Phone 512 989 3428
Fax 512 989 3487

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88241
Phone 505 393 4261
Fax 505 393.4658

MIDLAND
2901 State Highway 349
Midland, Texas 79706
Phone 432 522 2133
Fax 432 522 2180

SAN ANTONIO
17170 Jordan Road
Suite 102
Selma, Texas 78154
Phone 210 579 0235
Fax 210 568 2191

TULSA
9906 East 43rd Street
Suite G
Tulsa, Oklahoma 74146
Phone 918 742 0871
Fax 918.742 0876

TYLER
719 West Front Street
Suite 255
Tyler Texas 75702
Phone 903 531 9971
Fax 903 531 9979

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
EMERGENCY RESPONSE

Toll Free 866 742 0742
www talonlpe com

SITE CLOSURE REPORT

EMPIRE ABO UNIT N-13
SECTION 11, TOWNSHIP 18 S, RANGE 27 E
EDDY COUNTY, NEW MEXICO

PREPARED FOR:

BP AMERICA PRODUCTION COMPANY
P.O. BOX 129
ARTESIA, NEW MEXICO 88211

PREPARED BY:

TALON/LPE
408 WEST TEXAS
ARTESIA, NEW MEXICO 88211

March 15, 2010

SITE CLOSURE REPORT

EMPIRE ABO UNIT N-13
SECTION 11, TOWNSHIP 18 S, RANGE 27 E
EDDY COUNTY, NEW MEXICO

PREPARED BY:

TALON/LPE
408 WEST TEXAS
ARTESIA, NEW MEXICO 88211

Kyle Summers
District Manager

March 15, 2010

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1.0 INTRODUCTION

1.1 OBJECTIVES AND SITE BACKGROUND

This Report has been prepared on behalf of BP America Production Company (BP), to provide details of site closure activities for the remediation of a historical release of an unknown quantity of produced water at the Empire ABO Unit (EAU) N-13 (site) in Eddy County, New Mexico. The site is located at 32.7645° N and 104.2561° W, Section 11, Township 18 S, Range 27 E. The impacted soils at this location were removed by excavation, and transported to a New Mexico Oil Conservation Division (NMOCD) approved disposal facility. Talon/LPE (Talon) was retained by BP to perform these activities which are documented herein.

2.0 INITIAL SITE ACTIVITIES

Talon performed soil sampling activities to delineate the extent of impact at the site. These activities are discussed in further detail in the following sections.

2.1 SOIL INVESTIGATION ACTIVITIES

On October 29, 2008, soil samples were obtained from 14 different locations (SP-1 through SP-9, and SP-11 through SP-15) at the EAU N-13. Sample number SP-10 was inadvertently omitted from the sample sequence.

Four of these locations were sampled at two different depth intervals resulting in a total of 18 preliminary investigative samples. Additionally, one background sample (BG-1) was collected northeast of the site. These samples were collected from investigative "test holes" that were advanced by a backhoe. Sample depths ranged from 1 to 7 feet below ground surface (bgs). These preliminary sample locations are depicted on Figure 1.

2.2 INITIAL SOIL SAMPLING RESULTS

Personnel wearing new disposable gloves collected the soil samples and placed the samples in laboratory-supplied containers, which were sealed with Teflon lined caps, labeled, and subsequently placed on ice in a covered, insulated cooler. The soil samples were transported to Trace Analysis Inc. in Midland, Texas for analysis. The investigative soil samples were analyzed for total chlorides using EPA Method 4500-Cl B, and the background sample was analyzed for total chlorides as well as benzene, toluene, ethylbenzene, xylenes (BTEX) by SW-846 Method 8021B, and total petroleum hydrocarbons (TPH) Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) by SW-846 Method 8015B. Based on the estimated NMOCD site ranking of "0", the following NMOCD limits were used to determine the initial limits of excavation:

Constituent	Regulatory Limits (mg/Kg)
Total TPH	5000
Benzene	10
BTEX	50.0

The NMOCD currently determines the allowable levels of chlorides in soils on a case-by-case basis, taking into account the existing site ranking system with particular emphasis on surface vegetation, surface water proximity and groundwater depth and quality. The allowable level of chloride impact at a site typically starts at 250 mg/kg (derived from the 250mg/l limit for water), and may vary from site to site based on the specific conditions of the location. Analytical results for the preliminary soil samples indicate chloride concentrations ranged from 248 mg/kg to 9,420 mg/kg. The background sample did not exhibit chloride above the laboratory reporting limit of 100 mg/kg.

The background sample collected at the site exhibited BTEX constituent concentrations and TPH levels above the laboratory reporting limits, but below regulatory guidance concentrations.

Preliminary soil sampling results are presented on Table 1 of this document. Certified copies of the

laboratory analytical results and proper chain of custody documentation are presented in Attachment C.

3.0 SOIL EXCAVATION AND CONFIRMATION SAMPLING

Preliminary soil sampling and analyses identified impacted soil/material on and adjacent to the N-13 location. As a result of these findings, excavation activities were performed to remove adversely affected material. These and subsequent activities are described in the following sections.

3.1 SOIL EXCAVATION ACTIVITIES AND MONITOR WELL INSTALLATION

During the first half of February 2009 a road grader and water truck were used to prepare the lease road for heavy traffic. During the week of February 16th, 2009, excavation activities commenced at the site. Talon utilized a dozer, an excavator, and a loader to remove impacted material and load it into dump trucks for transportation to Lea Land landfill for proper disposal. Talon utilized field analyses for chlorides to verify the extent of initial excavation activities. Excavation activities continued into late April 2009, with the final area of excavation measuring over 650 feet in length, up to 120 feet wide, and ranging from three to eight feet in depth. As a result of these activities, over 17,150 tons of affected soil and gypsum were interned at the NMOCD approved landfill.

On March 30, 2009, a temporary monitor well was installed east of the location to a total depth of 73 feet below grade. The drilling activities encountered predominantly massive gypsum beds to a depth of 68 feet bgs, after which drilling speed and drill cuttings identified an apparently competent calcium carbonate containing bed (thought to be dolomite) that persisted to the total depth of the boring. Groundwater was never identified in the well, and as a result groundwater samples could not be obtained. The depth to groundwater could not be verified, but is known to be greater than 73 feet bgs at this location. The temporary monitor well boring log is presented as Attachment D.

3.2 SOIL CONFIRMATION SAMPLING

On Aril 29, 2009 Talon collected a total of 18 composite soil samples (Composite A and B, and SP-1 through SP-16). Figure 2 depicts these confirmation sample locations on the excavation floor. The confirmation soil samples were analyzed for total chlorides using EPA Method 4500-Cl B, BTEX using SW-846 Method 8021B, and TPH GRO/DRO using SW-846 Method 8015B.

3.3 SOIL CONFIRMATION RESULTS

The NMOCD regulatory limits described in Section 2.2 of this document were utilized to evaluate the analytical results from the confirmation sampling activities. None of the 18 confirmation samples exhibited BTEX or TPH concentrations above the allowable regulatory guidance. Chloride levels for these samples were reported at ranges varying from <200 mg/kg to 2,190 mg/kg (at sample location SP-3). As a result of conversations with Mike Bratcher (NMOCD, Artesia), Talon placed a 20-mil liner over the east end of the excavation to prevent rainwater drainage through the underlying soils, effectively prohibiting the leaching of material from these soils. As depicted in Figure 2, this liner covers former confirmation sample locations SP-1, SP-2, SP-3, and SP-4.

With the exception of the confirmation sample locations which are now protected under the installed liner (SP-1, SP-2, SP-3, and SP-4), five locations (SP-6, SP-8, SP-11, SP-16, and A) exhibited chloride concentrations above the laboratory reporting limit of 200 mg/kg, and one of

these locations (sample location A) exhibited a chloride concentration above 1,000 mg/kg. Analytical results for the confirmation samples are tabulated on the second page of Table 1. Disposal documentation is presented as Attachment E.

3.4 RECLAMATION ACTIVITIES

During May and June 2009, Talon backfilled the location with material obtained from a nearby Bureau of Land Management (BLM) borrow pit. The site was backfilled and contoured back to its approximate original grade. The site was reseeded with the BLM-approved seed mixture and Randy Rust (BLM representative) inspected and verbally approved the reclamation activities.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

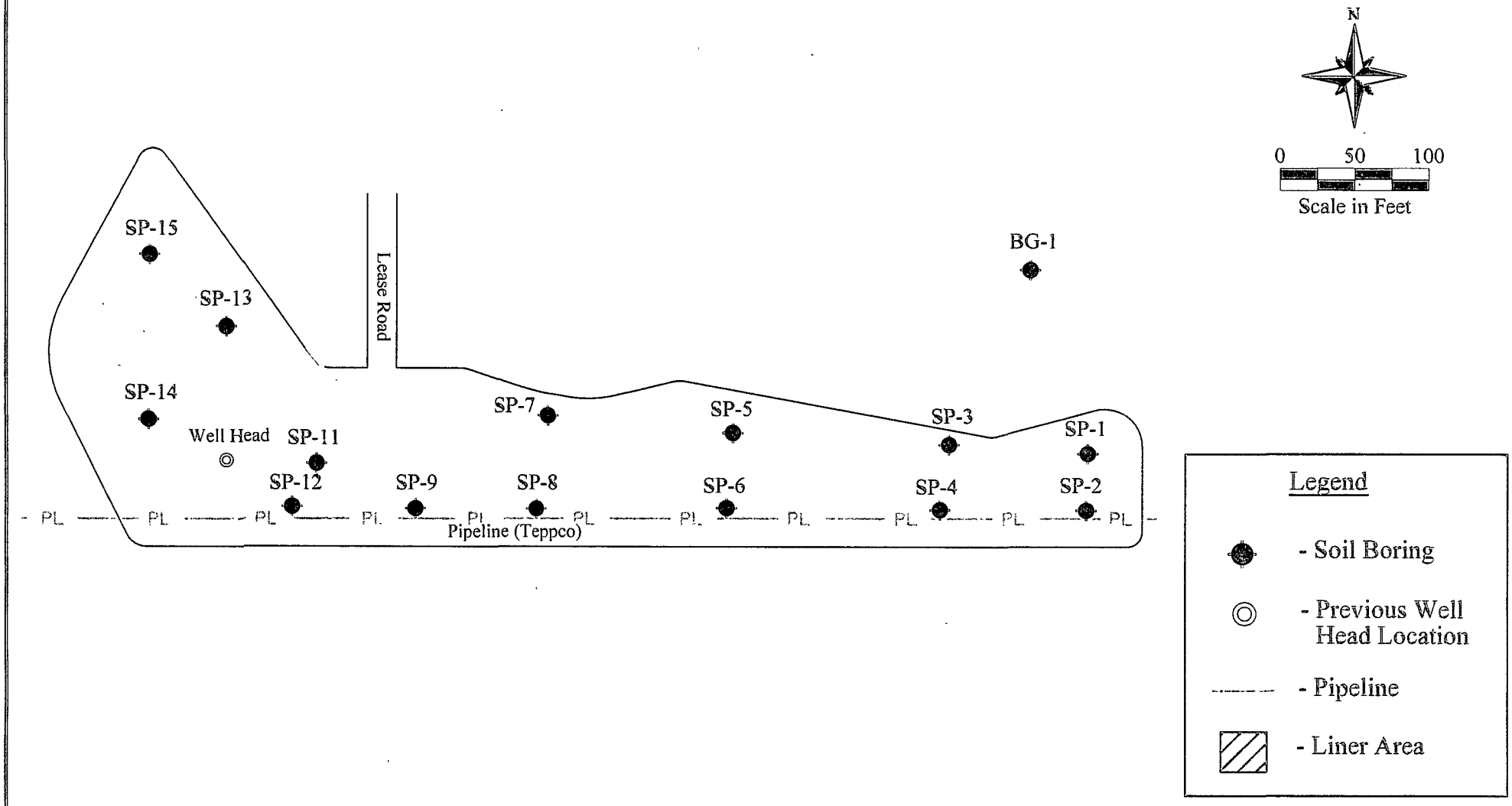
The site was subjected to soil assessment and remediation activities from October 2008 through June 2009. Analytical results did not indicate hydrocarbon impact at the site. Chloride impacted soils at the site were removed and delivered to Lea Land landfill in Lea County New Mexico. Confirmation soil samples indicated that a minimal amount of chloride impacted soil has been left in place with verbal NMOCD approval, while the majority of the chloride impacted soils have been removed. The site has been reclaimed and reseeded, and approval has been given by the BLM.

4.2 RECOMMENDATIONS

Based on the information included herein, no further assessment or remediation is planned for this site and final closure for this site should be requested from the NMOCD. A Final Report C-141 has been updated and attached for NMOCD approval (Attachment F).

ATTACHMENT A

FIGURES

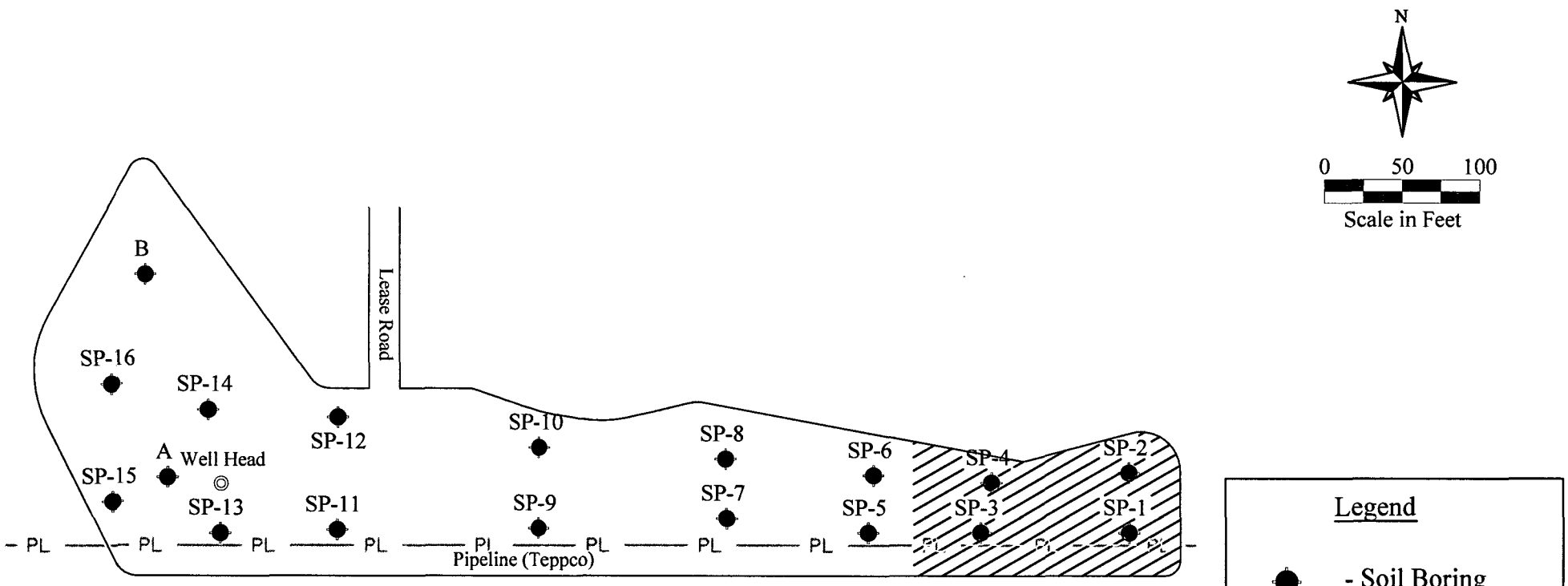


TalonLPE Project # - 700562.020.01

Note: Approximate scale, not for engineering reference

Date:	12/09/2009
Scale:	1" = 100'
Drawn By:	TJS

BP America
Empire ABO Unit N-13
Eddy County, New Mexico
Figure 1 - Preliminary Sample Locations



TalonLPE Project # - 700562.020.01

Note: Approximate scale, not for engineering reference

Date:	12/09/2009
Scale:	1" = 100'
Drawn By:	TJS

BP America
Empire ABO Unit N-13
Eddy County, New Mexico
Figure 2 - Final Confirmation Sample Locations

ATTACHMENT B

ANALYTICAL SUMMARY TABLES

TALON LPE

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
BP AMERICA
EMPIRE ABO UNIT N-13
EDDY COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE SAMPLED	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHLYBENZENE (mg/Kg)	XYLENES (mg/Kg)	BTEX (mg/Kg)	TPH DRO (mg/Kg)	TPH GRO (mg/Kg)	CHLORIDES (mg/Kg)
Preliminary Sampling									
BG-1	10/29/08	<0.0100	<0.0100	0.0326	0.135	0.1676	75.1	4 26	<100
SP-1 4'	10/29/08	NA	NA	NA	NA	NA	NA	NA	5710
SP-2 2.5'	10/29/08	NA	NA	NA	NA	NA	NA	NA	3020
SP-3 2.5'	10/29/08	NA	NA	NA	NA	NA	NA	NA	5000
SP-4 2'	10/29/08	NA	NA	NA	NA	NA	NA	NA	3470
SP-5 1'	10/29/08	NA	NA	NA	NA	NA	NA	NA	1070
SP-5 4'	10/29/08	NA	NA	NA	NA	NA	NA	NA	1230
SP-6 1'	10/29/08	NA	NA	NA	NA	NA	NA	NA	1270
SP-6 3'	10/29/08	NA	NA	NA	NA	NA	NA	NA	1090
SP-7 5'	10/29/08	NA	NA	NA	NA	NA	NA	NA	6050
SP-7 7'	10/29/08	NA	NA	NA	NA	NA	NA	NA	1850
SP-8 1'	10/29/08	NA	NA	NA	NA	NA	NA	NA	385
SP-8 4'	10/29/08	NA	NA	NA	NA	NA	NA	NA	248
SP-9 2'	10/29/08	NA	NA	NA	NA	NA	NA	NA	2320
SP-11 2'	10/29/08	NA	NA	NA	NA	NA	NA	NA	3290
SP-12 1'	10/29/08	NA	NA	NA	NA	NA	NA	NA	9420
SP-13 1'	10/29/08	NA	NA	NA	NA	NA	NA	NA	2440
SP-14 2'	10/29/08	NA	NA	NA	NA	NA	NA	NA	1890
SP-15 2'	10/29/08	NA	NA	NA	NA	NA	NA	NA	2480

TALON LPE

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
BP AMERICA
EMPIRE ABO UNIT N-13
EDDY COUNTY, NEW MEXICO

SAMPLE LOCATION	DATE SAMPLED	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHLYBENZENE (mg/Kg)	XYLENES (mg/Kg)	BTEX (mg/Kg)	TPH DRO (mg/Kg)	TPH GRO (mg/Kg)	CHLORIDES (mg/Kg)
Confirmation Sampling									
Composite A	04/29/09	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0 0100	<0 0100	1050
Composite B	04/29/09	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<200
SP-1	04/29/09	<0.0100	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	661
SP-2	04/29/09	<0.0100	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	1500
SP-3	04/29/09	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	2190
SP-4	04/29/09	<0 0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	<0 0100	269
SP-5	04/29/09	<0.0100	<0 0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	<200
SP-6	04/29/09	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0 0100	413
SP-7	04/29/09	<0.0100	<0 0100	<0.0100	<0 0100	<0.0100	<0.0100	<0 0100	<200
SP-8	04/29/09	<0 0100	<0.0100	<0 0100	<0 0100	<0.0100	<0 0100	<0.0100	234
SP-9	04/29/09	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0 0100	<0 0100	<200
SP-10	04/29/09	<0.0100	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	<200
SP-11	04/29/09	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	<0 0100	463
SP-12	04/29/09	<0.0100	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	<200
SP-13	04/29/09	<0.0100	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	<200
SP-14	04/29/09	<0.0100	<0 0100	<0.0100	<0 0100	<0.0100	<0.0100	<0 0100	<200
SP-15	04/29/09	<0.0100	<0.0100	<0 0100	<0.0100	<0.0100	<0.0100	<0.0100	<200
SP-16	04/29/09	<0.0100	<0.0100	<0.0100	<0 0100	<0.0100	<0.0100	<0 0100	259

1 BTEX = Benzene, toluene, ethylbenzene and xylenes analyzed by EPA SW-846 Method 8021B.
2 TPH DRO = Total Petroluem Hydrocarbons Diesel Range Organics by EPA Method 8015M
3 TPH GRO = Total Petroluem Hydrocarbons Gasoline Range Organics by EPA Method 8015
4 Chlorides by EPA Method 4500-Cl B
NA = Not Avaliable
Shaded = Liner Installed

ATTACHMENT C

SOIL SAMPLE ANALYTICAL DATA REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

Summary Report

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

Report Date: November 7, 2008

Work Order: 8103005

Project Location: Eddy County, NM
Project Name: Empire ABD Unit N-13

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
177579	BG-1	soil	2008-10-29	12:30	2008-10-30
177580	SP-1 4'	soil	2008-10-29	10:28	2008-10-30
177581	SP-2 2.5'	soil	2008-10-29	10:35	2008-10-30
177582	SP-3 2.5'	soil	2008-10-29	10:47	2008-10-30
177583	SP-4 2'	soil	2008-10-29	10:55	2008-10-30
177584	SP-5 1'	soil	2008-10-29	11:01	2008-10-30
177585	SP-5 4'	soil	2008-10-29	11:09	2008-10-30
177586	SP-6 1'	soil	2008-10-29	11:12	2008-10-30
177587	SP-6 3'	soil	2008-10-29	11:16	2008-10-30
177588	SP-7 5'	soil	2008-10-29	11:49	2008-10-30
177589	SP-7 7'	soil	2008-10-29	13:05	2008-10-30

	BTEX				TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
177580 - SP-1 4'	<0.0100	<0.0100	**0.0326**	**0.135**	**75.1**	**4.26**

Sample: 177579 - BG-1

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 177580 - SP-1 4'

Param	Flag	Result	Units	RL
Chloride		**5710**	mg/Kg	2.00

Sample: 177581 - SP-2 2.5'

Param	Flag	Result	Units	RL
Chloride		**3020**	mg/Kg	2.00

Sample: 177582 - SP-3 2.5'

Param	Flag	Result	Units	RL
Chloride		**5000**	mg/Kg	2.00

Sample: 177583 - SP-4 2'

Param	Flag	Result	Units	RL
Chloride		**3470**	mg/Kg	2.00

Sample: 177584 - SP-5 1'

Param	Flag	Result	Units	RL
Chloride		**1070**	mg/Kg	2.00

Sample: 177585 - SP-5 4'

Param	Flag	Result	Units	RL
Chloride		**1230**	mg/Kg	2.00

Sample: 177586 - SP-6 1'

Param	Flag	Result	Units	RL
Chloride		**1270**	mg/Kg	2.00

Sample: 177587 - SP-6 3'

Param	Flag	Result	Units	RL
Chloride		**1090**	mg/Kg	2.00

Sample: 177588 - SP-7 5'

Param	Flag	Result	Units	RL
Chloride		**6050**	mg/Kg	2.00

Sample: 177589 - SP-7 7'

Param	Flag	Result	Units	RL
Chloride		**1850**	mg/Kg	2.00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 | Lubbock, Texas 79424 | 800•378•1295 | 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

Certifications

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

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 7, 2008

Work Order: 8103005

Project Location: Eddy County, NM
Project Name: Empire ABD Unit N-13
Project Number: Empire ABD Unit N-13

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
177579	BG-1	soil	2008-10-29	12:30	2008-10-30
177580	SP-1 4'	soil	2008-10-29	10:28	2008-10-30
177581	SP-2 2.5'	soil	2008-10-29	10:35	2008-10-30
177582	SP-3 2.5'	soil	2008-10-29	10:47	2008-10-30
177583	SP-4 2'	soil	2008-10-29	10:55	2008-10-30
177584	SP-5 1'	soil	2008-10-29	11:01	2008-10-30
177585	SP-5 4'	soil	2008-10-29	11:09	2008-10-30
177586	SP-6 1'	soil	2008-10-29	11:12	2008-10-30
177587	SP-6 3'	soil	2008-10-29	11:16	2008-10-30
177588	SP-7 5'	soil	2008-10-29	11:49	2008-10-30
177589	SP-7 7'	soil	2008-10-29	13:05	2008-10-30

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 16 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 Empire ABD Unit N-13 were received by TraceAnalysis, Inc. on 2008-10-30 and assigned to work order 8103005. Samples for work order 8103005 were received intact at a temperature of 3.4 deg. C.

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

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
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 8103005 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: 177579 - BG-1

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

Sample: 177580 - SP-1 4'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	53834	Date Analyzed:	2008-10-31	Analyzed By:	AG
Prep Batch:	46075	Sample Preparation:	2008-10-31	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		**0.0326**	mg/Kg	1	0.0100
Xylene		**0.135**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.735	mg/Kg	1	1.00	74	70.9 - 125.1
4-Bromofluorobenzene (4-BFB)		0.763	mg/Kg	1	1.00	76	48.9 - 160.4

Sample: 177580 - SP-1 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5710**	mg/Kg	50	2.00

Sample: 177580 - SP-1 4'

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	53798	Date Analyzed:	2008-10-31	Analyzed By:	LD
Prep Batch:	46048	Sample Preparation:	2008-10-31	Prepared By:	LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**75.1**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		123	mg/Kg	1	100	123	10 - 250.4

Sample: 177580 - SP-1 4'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	53835	Date Analyzed:	2008-10-31	Analyzed By:	AG
Prep Batch:	46075	Sample Preparation:	2008-10-31	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.26**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.906	mg/Kg	1	1.00	91	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.914	mg/Kg	1	1.00	91	66 - 142.8

Sample: 177581 - SP-2 2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3020**	mg/Kg	50	2.00

Sample: 177582 - SP-3 2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5000**	mg/Kg	50	2.00

Sample: 177583 - SP-4 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3470**	mg/Kg	50	2.00

Sample: 177584 - SP-5 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1070**	mg/Kg	50	2.00

Sample: 177585 - SP-5 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1230**	mg/Kg	50	2.00

Sample: 177586 - SP-6 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1270**	mg/Kg	50	2.00

Sample: 177587 - SP-6 3'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1090**	mg/Kg	50	2.00

Sample: 177588 - SP-7 5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6050**	mg/Kg	50	2.00

Sample: 177589 - SP-7 7'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1850**	mg/Kg	50	2.00

Method Blank (1) QC Batch: 53798

QC Batch: 53798 | Date Analyzed: 2008-10-31 | Analyzed By: LD
Prep Batch: 46048 | QC Preparation: 2008-10-31 | 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		93.6	mg/Kg	1	100	94	30.9 - 146.4

Method Blank (1) QC Batch: 53834

QC Batch: 53834 | Date Analyzed: 2008-10-31 | Analyzed By: AG
Prep Batch: 46075 | QC Preparation: 2008-10-31 | 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)		0.762	mg/Kg	1	1.00	76	62.3 - 121.6
4-Bromofluorobenzene (4-BFB)		0.777	mg/Kg	1	1.00	78	62 - 123

Method Blank (1) QC Batch: 53835

QC Batch: 53835 | Date Analyzed: 2008-10-31 | Analyzed By: AG
Prep Batch: 46075 | QC Preparation: 2008-10-31 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		0.832	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.878	mg/Kg	1	1.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)		0.884	mg/Kg	1	1.00	88	70 - 130

Method Blank (1) QC Batch: 53964

QC Batch:	53964	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46162	QC Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Method Blank (1) QC Batch: 53965

QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	QC Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch:	53798	Date Analyzed:	2008-10-31	Analyzed By:	LD
Prep Batch:	46048	QC Preparation:	2008-10-31	Prepared By:	LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	232	mg/Kg	1	250	<15.8	93	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	254	mg/Kg	1	250	<15.8	102	27.8 - 152.1	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
n-Triacontane	95.3	93.5	mg/Kg	1	100	95	94	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch:	53834	Date Analyzed:	2008-10-31	Analyzed By:	AG
Prep Batch:	46075	QC Preparation:	2008-10-31	Prepared By:	AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.811	mg/Kg	1	1.00	<0.00800	81	72.7 - 129.8
Toluene	0.834	mg/Kg	1	1.00	<0.00800	83	71.6 - 129.6
Ethylbenzene	0.831	mg/Kg	1	1.00	<0.00820	83	70.8 - 129.7
Xylene	2.36	mg/Kg	1	3.00	<0.00960	79	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	0.786	mg/Kg	1	1.00	<0.00800	79	72.7 - 129.8	3	20
Toluene	0.806	mg/Kg	1	1.00	<0.00800	81	71.6 - 129.6	3	20
Ethylbenzene	0.809	mg/Kg	1	1.00	<0.00820	81	70.8 - 129.7	3	20
Xylene	2.30	mg/Kg	1	3.00	<0.00960	77	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	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.763	0.762	mg/Kg	1	1.00	76	76	62.9 - 122.8
4-Bromofluorobenzene (4-BFB)	0.797	0.791	mg/Kg	1	1.00	80	79	63.8 - 122.4

Laboratory Control Spike (LCS-1)

QC Batch: 53835 | Date Analyzed: 2008-10-31 | Analyzed By: AG
Prep Batch: 46075 | QC Preparation: 2008-10-31 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.67	mg/Kg	1	10.0	<0.171	87	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	8.80	mg/Kg	1	10.0	<0.171	88	70 - 130	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)	0.960	0.908	mg/Kg	1	1.00	96	91	70 - 130
4-Bromofluorobenzene (4-BFB)	0.916	0.913	mg/Kg	1	1.00	92	91	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 53964 | Date Analyzed: 2008-11-05 | Analyzed By: AR
Prep Batch: 46162 | QC Preparation: 2008-11-05 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.5	mg/Kg	1	100	<0.500	100	85 - 115

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	101	mg/Kg	1	100	<0.500	101	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 53965 Date Analyzed: 2008-11-05 Analyzed By: AR
Prep Batch: 46164 QC Preparation: 2008-11-05 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.2	mg/Kg	1	100	<0.500	99	85 - 115

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	99.8	mg/Kg	1	100	<0.500	100	85 - 115	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: 177580

QC Batch: 53798 Date Analyzed: 2008-10-31 Analyzed By: LD
Prep Batch: 46048 QC Preparation: 2008-10-31 Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	215	mg/Kg	1	250	75.1	56	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	248	mg/Kg	1	250	75.1	69	18 - 179.5	14	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	108	106	mg/Kg	1	100	108	106	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 177747

QC Batch: 53834 | Date Analyzed: 2008-10-31 | Analyzed By: AG
Prep Batch: 46075 | QC Preparation: 2008-10-31 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.846	mg/Kg	1	1.00	<0.00800	85	58.6 - 165.2
Toluene	0.874	mg/Kg	1	1.00	<0.00800	87	64.2 - 153.8
Ethylbenzene	0.888	mg/Kg	1	1.00	<0.00820	89	61.6 - 159.4
Xylene	2.52	mg/Kg	1	3.00	<0.00960	84	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	0.819	mg/Kg	1	1.00	<0.00800	82	58.6 - 165.2	3	20
Toluene	0.842	mg/Kg	1	1.00	<0.00800	84	64.2 - 153.8	4	20
Ethylbenzene	0.854	mg/Kg	1	1.00	<0.00820	85	61.6 - 159.4	4	20
Xylene	2.42	mg/Kg	1	3.00	<0.00960	81	64.4 - 155.3	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT) [1] [2]	0.716	0.712	mg/Kg	1	1	72	71	76.5 - 127.9
4-Bromofluorobenzene (4-BFB)	0.753	0.749	mg/Kg	1	1	75	75	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 177747

QC Batch: 53835 | Date Analyzed: 2008-10-31 | Analyzed By: AG
Prep Batch: 46075 | QC Preparation: 2008-10-31 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	11.4	mg/Kg	1	10.0	1.59	98	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	12.0	mg/Kg	1	10.0	1.59	104	22.3 - 134.6	5	20

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

[1]Surrogate out due to peak interference.
[2]Surrogate out due to peak interference.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT) [3]	1.22	1.07	mg/Kg	1	1	122	107	68.4 - 113.1
4-Bromofluorobenzene (4-BFB)	0.920	0.907	mg/Kg	1	1	92	91	66.7 - 134.3

Matrix Spike (MS-1) Spiked Sample: 177587

QC Batch: 53964 | Date Analyzed: 2008-11-05 | Analyzed By: AR
Prep Batch: 46162 | QC Preparation: 2008-11-05 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5900	mg/Kg	50	5000	1090	96	85 - 115

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	5980	mg/Kg	50	5000	1090	98	85 - 115	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: 177612

QC Batch: 53965 | Date Analyzed: 2008-11-05 | Analyzed By: AR
Prep Batch: 46164 | QC Preparation: 2008-11-05 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	7310	mg/Kg	50	5000	2480	97	85 - 115

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	7490	mg/Kg	50	5000	2480	100	85 - 115	2	20

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

Standard (ICV-1)

QC Batch: 53798 | Date Analyzed: 2008-10-31 | Analyzed By: LD

[3]High surrogate recovery due to peak interference.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	250	100	85 - 115	2008-10-31

Standard (CCV-1)

QC Batch: 53798 Date Analyzed: 2008-10-31 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	2008-10-31

Standard (ICV-1)

QC Batch: 53834 Date Analyzed: 2008-10-31 Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene	[4]	mg/Kg	0.100	0.0845	84	85 - 115	2008-10-31
Toluene		mg/Kg	0.100	0.0857	86	85 - 115	2008-10-31
Ethylbenzene		mg/Kg	0.100	0.0880	88	85 - 115	2008-10-31
Xylene		mg/Kg	0.300	0.260	87	85 - 115	2008-10-31

Standard (CCV-1)

QC Batch: 53834 Date Analyzed: 2008-10-31 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0862	86	85 - 115	2008-10-31
Toluene		mg/Kg	0.100	0.0874	87	85 - 115	2008-10-31
Ethylbenzene		mg/Kg	0.100	0.0870	87	85 - 115	2008-10-31
Xylene	[5]	mg/Kg	0.300	0.246	82	85 - 115	2008-10-31

Standard (ICV-1)

QC Batch: 53835 Date Analyzed: 2008-10-31 Analyzed By: AG

[4]Benzene outside of control limits on ICV. ICV component average is 0.0868 which is within acceptable range. This is acceptable by Method 8000.

[5]Xylene outside of control limits on CCV. CCV component average is 0.0852 which is within acceptable range. This is acceptable by Method 8000.

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.05	105	85 - 115	2008-10-31

Standard (CCV-1)

QC Batch: 53835 Date Analyzed: 2008-10-31 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	85 - 115	2008-10-31

Standard (ICV-1)

QC Batch: 53964 Date Analyzed: 2008-11-05 Analyzed By: AR

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	2008-11-05

Standard (CCV-1)

QC Batch: 53964 Date Analyzed: 2008-11-05 Analyzed By: AR

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	2008-11-05

Standard (ICV-1)

QC Batch: 53965 Date Analyzed: 2008-11-05 Analyzed By: AR

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	2008-11-05

Standard (CCV-1)

QC Batch: 53965 Date Analyzed: 2008-11-05 Analyzed By: AR

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	2008-11-05

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Project Name: EMPIRE ABO UNIT N-13
Project Location (including state): EDDY CTY NM
Sampler Signature: EBT

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Chlorides	Turn Around Time if different from standard	Hold
583	BG-1	1			X							X		10/29	12:30																	X		
584	SP-1 4'	1			X							X		10/29	10:28		X		X													X		
585	SP-2 2.5'	1			X							X		10/29	10:35																	X		
586	SP-3 2.5'	1			X							X		10/29	10:47																	X		
587	SP-4 2'	1			X							X		10/29	10:55																	X		
588	SP-5 1'	1			X							X		10/29	11:01																	X		
589	SP-5 4'	1			X							X		10/29	11:09																	X		
590	SP-6 1'	1			X							X		10/29	11:13																	X		
591	SP-6 3'	1			X							X		10/29	11:16																	X		
592	SP-7 5'	1			X							X		10/29	11:49																	X		
593	SP-7 7'	1			X							X		10/29	1:05																	X		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
EBT	TALON	10/30/18	8:20	MD	Trace	10/30/18	8:20	

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
3 4 °C
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 # Courier

ORIGINAL COPY

Summary Report

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

Report Date: November 7, 2008

Work Order: 8103007

Project Location: Eddy County, NM
Project Name: Empire ABD Unit N-13

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
177605	SP-8 1'	soil	2008-10-29	11:36	2008-10-30
177606	SP-8 4'	soil	2008-10-29	11:44	2008-10-30
177607	SP-9 2'	soil	2008-10-29	11:57	2008-10-30
177608	SP-11 2'	soil	2008-10-29	12:28	2008-10-30
177609	SP-12 1'	soil	2008-10-29	12:31	2008-10-30
177610	SP-13 1'	soil	2008-10-29	12:38	2008-10-30
177611	SP-14 2'	soil	2008-10-29	12:45	2008-10-30
177612	SP-15 2'	soil	2008-10-29	12:51	2008-10-30

Sample: 177605 - SP-8 1'

Param	Flag	Result	Units	RL
Chloride		**385**	mg/Kg	2.00

Sample: 177606 - SP-8 4'

Param	Flag	Result	Units	RL
Chloride		**248**	mg/Kg	2.00

Sample: 177607 - SP-9 2'

Param	Flag	Result	Units	RL
Chloride		**2320**	mg/Kg	2.00

Sample: 177608 - SP-11 2'

Param	Flag	Result	Units	RL
Chloride		**3290**	mg/Kg	2.00

Sample: 177609 - SP-12 1'

Param	Flag	Result	Units	RL
Chloride		**9420**	mg/Kg	2.00

Sample: 177610 - SP-13 1'

Param	Flag	Result	Units	RL
Chloride		**2440**	mg/Kg	2.00

Sample: 177611 - SP-14 2'

Param	Flag	Result	Units	RL
Chloride		**1890**	mg/Kg	2.00

Sample: 177612 - SP-15 2'

Param	Flag	Result	Units	RL
Chloride		**2480**	mg/Kg	2.00

TRACEANALYSIS, INC.

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5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

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

NELAP Certifications

Lubbock: T104704219-08-TX 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 7, 2008

Work Order: 8103007

Project Location: Eddy County, NM
Project Name: Empire ABD Unit N-13
Project Number: Empire ABD Unit N-13

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
177605	SP-8 1'	soil	2008-10-29	11:36	2008-10-30
177606	SP-8 4'	soil	2008-10-29	11:44	2008-10-30
177607	SP-9 2'	soil	2008-10-29	11:57	2008-10-30
177608	SP-11 2'	soil	2008-10-29	12:28	2008-10-30
177609	SP-12 1'	soil	2008-10-29	12:31	2008-10-30
177610	SP-13 1'	soil	2008-10-29	12:38	2008-10-30
177611	SP-14 2'	soil	2008-10-29	12:45	2008-10-30
177612	SP-15 2'	soil	2008-10-29	12:51	2008-10-30

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 7 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 Empire ABD Unit N-13 were received by TraceAnalysis, Inc. on 2008-10-30 and assigned to work order 8103007. Samples for work order 8103007 were received intact at a temperature of 3.4 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 8103007 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: 177605 - SP-8 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**385**	mg/Kg	50	2.00

Sample: 177606 - SP-8 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**248**	mg/Kg	50	2.00

Sample: 177607 - SP-9 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2320**	mg/Kg	50	2.00

Sample: 177608 - SP-11 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

continued ...

sample 177608 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3290**	mg/Kg	50	2.00

Sample: 177609 - SP-12 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**9420**	mg/Kg	50	2.00

Sample: 177610 - SP-13 1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2440**	mg/Kg	50	2.00

Sample: 177611 - SP-14 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1890**	mg/Kg	50	2.00

Sample: 177612 - SP-15 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	Sample Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2480**	mg/Kg	50	2.00

Method Blank (1) QC Batch: 53965

QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	QC Preparation:	2008-11-05	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

Laboratory Control Spike (LCS-1)

QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	QC Preparation:	2008-11-05	Prepared By:	AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.2	mg/Kg	1	100	<0.500	99	85 - 115

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	99.8	mg/Kg	1	100	<0.500	100	85 - 115	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: 177612

QC Batch:	53965	Date Analyzed:	2008-11-05	Analyzed By:	AR
Prep Batch:	46164	QC Preparation:	2008-11-05	Prepared By:	AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	7310	mg/Kg	50	5000	2480	97	85 - 115

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	7490	mg/Kg	50	5000	2480	100	85 - 115	2	20

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

Standard (ICV-1)

QC Batch: 53965 Date Analyzed: 2008-11-05 Analyzed By: AR

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	2008-11-05

Standard (CCV-1)

QC Batch: 53965 Date Analyzed: 2008-11-05 Analyzed By: AR

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	2008-11-05

LAB Order ID # ~~8103007~~ 8103007 Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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200 East Sunset Rd., Suite E, El Paso, Texas 79922, Tel (915) 585-3443, Fax (915) 585-4944, 1 (888) 588-3443
8808 Camp Bowie Blvd. West, Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: TALON LPE
Phone #: 432-238-6388
Address: (Street, City, Zip) 318 E. TAYLOR, HOBBS, NM 88240
Fax #:
Contact Person: ED TAYLOR
E-mail:
Invoice to: (if different from above) BP
Project #:
Project Name: EMPIRE ABO UNIT N-13
Project Location (including state): EDDY CTY NM
Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Chlorides	Turn Around Time if different from standard	Hold
7605	SP-8 1'	1			X							X		10/29	11:36																	X		
606	SP-8 4'	1			X							X		10/29	11:44																	X		
607	SP-9 2'	1			X							X		10/29	11:57																	X		
608	SP-11 2'	1			X							X		10/29	12:28																	X		
609	SP-12 1'	1			X							X		10/29	12:31																	X		
610	SP-13 1'	1			X							X		10/29	12:38																	X		
611	SP-14 2'	1			X							X		10/29	12:45																	X		
612	SB-15 2'	1			X							X		10/29	12:51																	X		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp°c:
[illegible]	TALON	10/30/08	8:20	[illegible]	Trace	10/30/08	8:20	
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 NA
2.4°C
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 #

ORIGINAL COPY

Summary Report

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

Report Date: May 8, 2009

Work Order: 9050432

Project Location: Eddy Co., NM
Project Name: EAV-N-13
Project Number: BPETRO029REC

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
194753	Composite A	soil	2009-04-29	11:10	2009-05-04
194754	Composite B	soil	2009-04-29	11:15	2009-05-04
194755	SP-1	soil	2009-04-29	07:49	2009-05-04
194756	SP-2	soil	2009-04-29	07:57	2009-05-04
194757	SP-3	soil	2009-04-29	08:06	2009-05-04
194758	SP-4	soil	2009-04-29	08:15	2009-05-04
194759	SP-5	soil	2009-04-29	08:25	2009-05-04
194760	SP-6	soil	2009-04-29	08:39	2009-05-04
194761	SP-7	soil	2009-04-29	08:45	2009-05-04
194762	SP-8	soil	2009-04-29	08:56	2009-05-04
194763	SP-9	soil	2009-04-29	09:11	2009-05-04
194764	SP-10	soil	2009-04-29	09:20	2009-05-04
194765	SP-11	soil	2009-04-29	09:35	2009-05-04
194766	SP-12	soil	2009-04-29	09:48	2009-05-04
194767	SP-13	soil	2009-04-29	10:10	2009-05-04
194768	SP-14	soil	2009-04-29	10:20	2009-05-04
194769	SP-15	soil	2009-04-29	10:35	2009-05-04
194770	SP-16	soil	2009-04-29	10:50	2009-05-04

	BTEX				TPH DRO	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
194753 - Composite A	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**2.23**
194754 - Composite B	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**5.05**
194755 - SP-1	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.77**
194756 - SP-2	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.20**
194757 - SP-3	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.29**
194758 - SP-4	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.26**
194759 - SP-5	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.70**

continued ...

... continued

Sample - Field Code	BTEX Benzene (mg/Kg)	BTEX Toluene (mg/Kg)	BTEX Ethylbenzene (mg/Kg)	BTEX Xylene (mg/Kg)	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
194760 - SP-6	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.23**
194761 - SP-7	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**3.67**
194762 - SP-8	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.43**
194763 - SP-9	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**3.36**
194764 - SP-10	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.69**
194765 - SP-11	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**26.8**
194766 - SP-12	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.98**
194767 - SP-13	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**3.24**
194768 - SP-14	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**3.75**
194769 - SP-15	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**3.75**
194770 - SP-16	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	**4.43**

Sample: 194753 - Composite A

Param	Flag	Result	Units	RL
Chloride		**1050**	mg/Kg	4.00

Sample: 194754 - Composite B

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194755 - SP-1

Param	Flag	Result	Units	RL
Chloride		**661**	mg/Kg	4.00

Sample: 194756 - SP-2

Param	Flag	Result	Units	RL
Chloride		**1500**	mg/Kg	4.00

Sample: 194757 - SP-3

Param	Flag	Result	Units	RL
Chloride		**2190**	mg/Kg	4.00

Sample: 194758 - SP-4

Param	Flag	Result	Units	RL
Chloride		**269**	mg/Kg	4.00

Sample: 194759 - SP-5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194760 - SP-6

Param	Flag	Result	Units	RL
Chloride		**413**	mg/Kg	4.00

Sample: 194761 - SP-7

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194762 - SP-8

Param	Flag	Result	Units	RL
Chloride		**234**	mg/Kg	4.00

Sample: 194763 - SP-9

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194764 - SP-10

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194765 - SP-11

Param	Flag	Result	Units	RL
Chloride		**463**	mg/Kg	4.00

Sample: 194766 - SP-12

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194767 - SP-13

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194768 - SP-14

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194769 - SP-15

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 194770 - SP-16

Param	Flag	Result	Units	RL
Chloride		**259**	mg/Kg	4.00

TRACEANALYSIS, INC.

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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 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

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: May 8, 2009

Work Order: 9050432

Project Location: Eddy Co., NM
Project Name: EAV-N-13
Project Number: BPETRO029REC

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
194753	Composite A	soil	2009-04-29	11:10	2009-05-04
194754	Composite B	soil	2009-04-29	11:15	2009-05-04
194755	SP-1	soil	2009-04-29	07:49	2009-05-04
194756	SP-2	soil	2009-04-29	07:57	2009-05-04
194757	SP-3	soil	2009-04-29	08:06	2009-05-04
194758	SP-4	soil	2009-04-29	08:15	2009-05-04
194759	SP-5	soil	2009-04-29	08:25	2009-05-04
194760	SP-6	soil	2009-04-29	08:39	2009-05-04
194761	SP-7	soil	2009-04-29	08:45	2009-05-04
194762	SP-8	soil	2009-04-29	08:56	2009-05-04

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
194763	SP-9	soil	2009-04-29	09:11	2009-05-04
194764	SP-10	soil	2009-04-29	09:20	2009-05-04
194765	SP-11	soil	2009-04-29	09:35	2009-05-04
194766	SP-12	soil	2009-04-29	09:48	2009-05-04
194767	SP-13	soil	2009-04-29	10:10	2009-05-04
194768	SP-14	soil	2009-04-29	10:20	2009-05-04
194769	SP-15	soil	2009-04-29	10:35	2009-05-04
194770	SP-16	soil	2009-04-29	10:50	2009-05-04

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.

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 EAV-N-13 were received by TraceAnalysis, Inc. on 2009-05-04 and assigned to work order 9050432. Samples for work order 9050432 were received intact at a temperature of 18.0 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	50515	2009-05-05 at 09:35	59187	2009-05-05 at 09:35
Chloride (Titration)	SM 4500-Cl B	50550	2009-05-05 at 11:32	59263	2009-05-07 at 16:01
Chloride (Titration)	SM 4500-Cl B	50551	2009-05-05 at 11:32	59264	2009-05-07 at 16:01
TPH DRO	Mod. 8015B	50499	2009-05-05 at 09:00	59189	2009-05-05 at 13:00
TPH GRO	S 8015B	50515	2009-05-05 at 09:35	59188	2009-05-05 at 09:35

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 9050432 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: 194753 - Composite A

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	45.2 - 144.3

Sample: 194753 - Composite A

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1050**	mg/Kg	50	4.00

Sample: 194753 - Composite A

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		86.1	mg/Kg	1	100	86	13.2 - 219.3

Sample: 194753 - Composite A

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**2.23**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.51	mg/Kg	1	2.00	76	52 - 117

Sample: 194754 - Composite B

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	45.2 - 144.3

Sample: 194754 - Composite B

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194754 - Composite B

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	Prepared By:	LD

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

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

Sample: 194754 - Composite B

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	Result	RL Units	Dilution	RL
GRO		**5.05**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.06	mg/Kg	1	2.00	103	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.49	mg/Kg	1	2.00	74	52 - 117

Sample: 194755 - SP-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.88	mg/Kg	1	2.00	94	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	45.2 - 144.3

Sample: 194755 - SP-1

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**661**	mg/Kg	50	4.00

Sample: 194755 - SP-1

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		104	mg/Kg	1	100	104	13.2 - 219.3

Sample: 194755 - SP-1

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		**4.77**		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.51	mg/Kg	1	2.00	76	52 - 117

Sample: 194756 - SP-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	45.2 - 144.3

Sample: 194756 - SP-2

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**1500**		mg/Kg	50	4.00

Sample: 194756 - SP-2

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		95.6	mg/Kg	1	100	96	13.2 - 219.3

Sample: 194756 - SP-2

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.20**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.09	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.51	mg/Kg	1	2.00	76	52 - 117

Sample: 194757 - SP-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	45.2 - 144.3

Sample: 194757 - SP-3

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2190**	mg/Kg	50	4.00

Sample: 194757 - SP-3

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		114	mg/Kg	1	100	114	13.2 - 219.3

Sample: 194757 - SP-3

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.29**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.51	mg/Kg	1	2.00	76	52 - 117

Sample: 194758 - SP-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.92	mg/Kg	1	2.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.68	mg/Kg	1	2.00	84	45.2 - 144.3

Sample: 194758 - SP-4

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**269**	mg/Kg	50	4.00

Sample: 194758 - SP-4

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		112	mg/Kg	1	100	112	13.2 - 219.3

Sample: 194758 - SP-4

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.26**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	52 - 117

Sample: 194759 - SP-5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	45.2 - 144.3

Sample: 194759 - SP-5

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194759 - SP-5

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		96.6	mg/Kg	1	100	97	13.2 - 219.3

Sample: 194759 - SP-5

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.70**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.50	mg/Kg	1	2.00	75	52 - 117

Sample: 194760 - SP-6

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.85	mg/Kg	1	2.00	92	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.62	mg/Kg	1	2.00	81	45.2 - 144.3

Sample: 194760 - SP-6

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**413**	mg/Kg	50	4.00

Sample: 194760 - SP-6

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		101	mg/Kg	1	100	101	13.2 - 219.3

Sample: 194760 - SP-6

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.23**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.01	mg/Kg	1	2.00	100	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.50	mg/Kg	1	2.00	75	52 - 117

Sample: 194761 - SP-7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.89	mg/Kg	1	2.00	94	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.64	mg/Kg	1	2.00	82	45.2 - 144.3

Sample: 194761 - SP-7

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194761 - SP-7

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		98.1	mg/Kg	1	100	98	13.2 - 219.3

Sample: 194761 - SP-7

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**3.67**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.54	mg/Kg	1	2.00	77	52 - 117

Sample: 194762 - SP-8

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.71	mg/Kg	1	2.00	86	45.2 - 144.3

Sample: 194762 - SP-8

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59263	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50550	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**234**	mg/Kg	50	4.00

Sample: 194762 - SP-8

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		98.4	mg/Kg	1	100	98	13.2 - 219.3

Sample: 194762 - SP-8

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.43**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.05	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.59	mg/Kg	1	2.00	80	52 - 117

Sample: 194763 - SP-9

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	45.2 - 144.3

Sample: 194763 - SP-9

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59264	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50551	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194763 - SP-9

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		82.9	mg/Kg	1	100	83	13.2 - 219.3

Sample: 194763 - SP-9

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**3.36**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	52 - 117

Sample: 194764 - SP-10

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.91	mg/Kg	1	2.00	96	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.63	mg/Kg	1	2.00	82	45.2 - 144.3

Sample: 194764 - SP-10

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59264	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50551	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194764 - SP-10

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		86.8	mg/Kg	1	100	87	13.2 - 219.3

Sample: 194764 - SP-10

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.69**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	52 - 117

Sample: 194765 - SP-11

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.87	mg/Kg	1	2.00	94	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.65	mg/Kg	1	2.00	82	45.2 - 144.3

Sample: 194765 - SP-11

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59264	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50551	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**463**	mg/Kg	50	4.00

Sample: 194765 - SP-11

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		112	mg/Kg	1	100	112	13.2 - 219.3

Sample: 194765 - SP-11

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**26.8**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.55	mg/Kg	1	2.00	78	52 - 117

Sample: 194766 - SP-12

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.84	mg/Kg	1	2.00	92	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.61	mg/Kg	1	2.00	80	45.2 - 144.3

Sample: 194766 - SP-12

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59264	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50551	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194766 - SP-12

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		118	mg/Kg	1	100	118	13.2 - 219.3

Sample: 194766 - SP-12

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.98**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.54	mg/Kg	1	2.00	77	52 - 117

Sample: 194767 - SP-13

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.88	mg/Kg	1	2.00	94	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.69	mg/Kg	1	2.00	84	45.2 - 144.3

Sample: 194767 - SP-13

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59264	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50551	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194767 - SP-13

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		80.9	mg/Kg	1	100	81	13.2 - 219.3

Sample: 194767 - SP-13

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**3.24**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	52 - 117

Sample: 194768 - SP-14

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.82	mg/Kg	1	2.00	91	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.63	mg/Kg	1	2.00	82	45.2 - 144.3

Sample: 194768 - SP-14

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59264	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50551	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194768 - SP-14

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		99.3	mg/Kg	1	100	99	13.2 - 219.3

Sample: 194768 - SP-14

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**3.75**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.94	mg/Kg	1	2.00	97	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	52 - 117

Sample: 194769 - SP-15

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.83	mg/Kg	1	2.00	92	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.66	mg/Kg	1	2.00	83	45.2 - 144.3

Sample: 194769 - SP-15

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59264	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50551	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 194769 - SP-15

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	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		91.1	mg/Kg	1	100	91	13.2 - 219.3

Sample: 194769 - SP-15

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**3.75**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.58	mg/Kg	1	2.00	79	52 - 117

Sample: 194770 - SP-16

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.88	mg/Kg	1	2.00	94	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.66	mg/Kg	1	2.00	83	45.2 - 144.3

Sample: 194770 - SP-16

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	59264	Date Analyzed:	2009-05-07	Analyzed By:	AR
Prep Batch:	50551	Sample Preparation:	2009-05-07	Prepared By:	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		**259**		mg/Kg	50	4.00

Sample: 194770 - SP-16

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	59189	Date Analyzed:	2009-05-05	Analyzed By:	LD
Prep Batch:	50499	Sample Preparation:	2009-05-05	Prepared By:	LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		115	mg/Kg	1	100	115	13.2 - 219.3

Sample: 194770 - SP-16

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	Sample Preparation:	2009-05-05	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4.43**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.01	mg/Kg	1	2.00	100	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.54	mg/Kg	1	2.00	77	52 - 117

Method Blank (1) QC Batch: 59187

QC Batch:	59187	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	QC Preparation:	2009-05-05	Prepared By:	ME

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.95	mg/Kg	1	2.00	98	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.81	mg/Kg	1	2.00	90	51.9 - 128.1

Method Blank (1) QC Batch: 59188

QC Batch:	59188	Date Analyzed:	2009-05-05	Analyzed By:	ME
Prep Batch:	50515	QC Preparation:	2009-05-05	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)		1.93	mg/Kg	1	2.00	96	71.9 - 115

continued ...

method blank continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		1.71	mg/Kg	1	2.00	86	45.7 - 118.9

Method Blank (1) QC Batch: 59189

QC Batch: 59189 Date Analyzed: 2009-05-05 Analyzed By: LD
Prep Batch: 50499 QC Preparation: 2009-05-05 Prepared By: LD

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		63.9	mg/Kg	1	100	64	13 - 178.5

Method Blank (1) QC Batch: 59263

QC Batch: 59263 Date Analyzed: 2009-05-07 Analyzed By: AR
Prep Batch: 50550 QC Preparation: 2009-05-05 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 59264

QC Batch: 59264 Date Analyzed: 2009-05-07 Analyzed By: AR
Prep Batch: 50551 QC Preparation: 2009-05-05 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Laboratory Control Spike (LCS-1)

QC Batch: 59187 Date Analyzed: 2009-05-05 Analyzed By: ME
Prep Batch: 50515 QC Preparation: 2009-05-05 Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.92	mg/Kg	1	2.00	<0.00100	96	72.7 - 129.8
Toluene	1.93	mg/Kg	1	2.00	<0.00100	96	71.6 - 129.6
Ethylbenzene	1.90	mg/Kg	1	2.00	<0.00110	95	70.8 - 129.7
Xylene	5.69	mg/Kg	1	6.00	<0.00360	95	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	2.01	mg/Kg	1	2.00	<0.00100	100	72.7 - 129.8	5	20
Toluene	1.96	mg/Kg	1	2.00	<0.00100	98	71.6 - 129.6	2	20
Ethylbenzene	2.01	mg/Kg	1	2.00	<0.00110	100	70.8 - 129.7	6	20
Xylene	6.00	mg/Kg	1	6.00	<0.00360	100	70.9 - 129.4	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.90	1.86	mg/Kg	1	2.00	95	93	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.83	1.84	mg/Kg	1	2.00	92	92	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 59188 | Date Analyzed: 2009-05-05 | Analyzed By: ME
Prep Batch: 50515 | QC Preparation: 2009-05-05 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.4	mg/Kg	1	20.0	<0.482	77	60.5 - 100.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.2	mg/Kg	1	20.0	<0.482	76	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)	2.00	2.00	mg/Kg	1	2.00	100	100	78.8 - 104.7
4-Bromofluorobenzene (4-BFB)	1.81	1.85	mg/Kg	1	2.00	90	92	66.1 - 107.3

Laboratory Control Spike (LCS-1)

QC Batch: 59189 | Date Analyzed: 2009-05-05 | Analyzed By: LD
Prep Batch: 50499 | QC Preparation: 2009-05-05 | Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	232	mg/Kg	1	250	<5.86	93	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	201	mg/Kg	1	250	<5.86	80	57.4 - 133.4	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
n-Triacontane	83.2	99.7	mg/Kg	1	100	83	100	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 59263 | Date Analyzed: 2009-05-07 | Analyzed By: AR
Prep Batch: 50550 | QC Preparation: 2009-05-05 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115

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	99.7	mg/Kg	1	100	<2.18	100	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 59264 | Date Analyzed: 2009-05-07 | Analyzed By: AR
Prep Batch: 50551 | QC Preparation: 2009-05-05 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.8	mg/Kg	1	100	<2.18	99	85 - 115

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	100	mg/Kg	1	100	<2.18	100	85 - 115	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: 194770

QC Batch: 59187 | Date Analyzed: 2009-05-05 | Analyzed By: ME
Prep Batch: 50515 | QC Preparation: 2009-05-05 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.98	mg/Kg	1	2.00	<0.00100	99	58.6 - 165.2
Toluene	2.04	mg/Kg	1	2.00	<0.00100	102	64.2 - 153.8
Ethylbenzene	2.09	mg/Kg	1	2.00	<0.00110	104	61.6 - 159.4
Xylene	6.17	mg/Kg	1	6.00	<0.00360	103	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	1.99	mg/Kg	1	2.00	<0.00100	100	58.6 - 165.2	0	20
Toluene	1.91	mg/Kg	1	2.00	<0.00100	96	64.2 - 153.8	7	20
Ethylbenzene	1.99	mg/Kg	1	2.00	<0.00110	100	61.6 - 159.4	5	20
Xylene	5.93	mg/Kg	1	6.00	<0.00360	99	64.4 - 155.3	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	1.93	mg/Kg	1	2	96	96	76 - 127.9
4-Bromofluorobenzene (4-BFB)	1.74	1.68	mg/Kg	1	2	87	84	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 194769

QC Batch: 59188 | Date Analyzed: 2009-05-05 | Analyzed By: ME
Prep Batch: 50515 | QC Preparation: 2009-05-05 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO [1]	39.0	mg/Kg	1	20.0	3.7506	176	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 [2]	40.2	mg/Kg	1	20.0	3.7506	182	12.8 - 175.2	3	20

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

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.07	2.15	mg/Kg	1	2	104	108	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.61	1.67	mg/Kg	1	2	80	84	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 194753

QC Batch: 59189 | Date Analyzed: 2009-05-05 | Analyzed By: LD
Prep Batch: 50499 | QC Preparation: 2009-05-05 | Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	197	mg/Kg	1	250	<5.86	79	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 [3]	261	mg/Kg	1	250	<5.86	104	35.2 - 167.1	28	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	98.0	101	mg/Kg	1	100	98	101	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 194762

QC Batch: 59263 | Date Analyzed: 2009-05-07 | Analyzed By: AR
Prep Batch: 50550 | QC Preparation: 2009-05-05 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5300	mg/Kg	50	5000	234	101	85 - 115

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	5340	mg/Kg	50	5000	234	102	85 - 115	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: 194770

QC Batch: 59264 | Date Analyzed: 2009-05-07 | Analyzed By: AR
Prep Batch: 50551 | QC Preparation: 2009-05-05 | Prepared By: AR

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

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5220	mg/Kg	50	5000	259	99	85 - 115

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	5270	mg/Kg	50	5000	259	100	85 - 115	1	20

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

Standard (CCV-1)

QC Batch: 59187 Date Analyzed: 2009-05-05 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0928	93	80 - 120	2009-05-05
Toluene		mg/Kg	0.100	0.0915	92	80 - 120	2009-05-05
Ethylbenzene		mg/Kg	0.100	0.0937	94	80 - 120	2009-05-05
Xylene		mg/Kg	0.300	0.278	93	80 - 120	2009-05-05

Standard (CCV-2)

QC Batch: 59187 Date Analyzed: 2009-05-05 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.104	104	80 - 120	2009-05-05
Toluene		mg/Kg	0.100	0.103	103	80 - 120	2009-05-05
Ethylbenzene		mg/Kg	0.100	0.102	102	80 - 120	2009-05-05
Xylene		mg/Kg	0.300	0.308	103	80 - 120	2009-05-05

Standard (CCV-3)

QC Batch: 59187 Date Analyzed: 2009-05-05 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.106	106	80 - 120	2009-05-05
Toluene		mg/Kg	0.100	0.106	106	80 - 120	2009-05-05
Ethylbenzene		mg/Kg	0.100	0.108	108	80 - 120	2009-05-05
Xylene		mg/Kg	0.300	0.324	108	80 - 120	2009-05-05

Standard (CCV-1)

QC Batch: 59188 Date Analyzed: 2009-05-05 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	0.846	85	80 - 120	2009-05-05

Standard (CCV-2)

QC Batch: 59188 Date Analyzed: 2009-05-05 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2009-05-05

Standard (CCV-3)

QC Batch: 59188 Date Analyzed: 2009-05-05 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.02	102	80 - 120	2009-05-05

Standard (CCV-1)

QC Batch: 59189 Date Analyzed: 2009-05-05 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	80 - 120	2009-05-05

Standard (CCV-2)

QC Batch: 59189 Date Analyzed: 2009-05-05 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	229	92	80 - 120	2009-05-05

Standard (CCV-3)

QC Batch: 59189 Date Analyzed: 2009-05-05 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	234	94	80 - 120	2009-05-05

Standard (CCV-4)

QC Batch: 59189 Date Analyzed: 2009-05-05 Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	244	98	80 - 120	2009-05-05

Standard (ICV-1)

QC Batch: 59263 Date Analyzed: 2009-05-07 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-05-07

Standard (CCV-1)

QC Batch: 59263 Date Analyzed: 2009-05-07 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2009-05-07

Standard (ICV-1)

QC Batch: 59264 Date Analyzed: 2009-05-07 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2009-05-07

Standard (CCV-1)

QC Batch: 59264 | Date Analyzed: 2009-05-07 | Analyzed By: AR

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	2009-05-07

LAB Order ID # 9050432 Page 1 of 2

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Invoice to: (If different from above) 6
Project #: BPETR0029 REL
Project Name: EAU - M-13
Project Location (including state): EDDY COUNTY NEW MEXICO
Sampler Signature: Mary Smith

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
754	Composite A	1			X									4/29	11:10
754	Composite B	1			X									4/29	11:15
755	SP-1	1			X									4/29	7:49
756	SP-2	1			X									4/29	7:57
757	SP-3	1			X									4/29	8:06
758	SP-4	1			X									4/29	8:15
759	SP-5	1			X									4/29	8:25
760	SP-6	1			X									4/29	8:39
761	SP-7	1			X									4/29	8:45
762	SP-8	1			X									4/29	8:56
763	SP-9	1			X									4/29	9:11

ANALYSIS REQUEST (Circle or Specify Method No.)

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

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	5-4-09	2:30	[signature]	5-4-09	14:30
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

LAB USE ONLY
Intact (Y) N
Headspace Y N (NA)
Temp 18.0°C
Log-In-Review

REMARKS: All tests Midland.

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

Carrier # Carry-in

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

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LAB Order ID # 9050432 Page 2 of 2

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Company Name: TAIGA LPE
Phone #: 432 238-6388
Address: (Street, City, Zip) 318 E TAYLOR HOBBS NM
Fax #:
Contact Person: ER TAYLOR
E-mail:
Invoice to: (If different from above) ø
Project #: BPETRO029 REL
Project Name: EAV - M - 13
Project Location (including state): EDDY COUNTY NEW MEXICO
Sampler Signature: Gary Smith

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
764	SB-10	1												4/29	9:20
765	SB-11	1												4/29	9:35
766	SB-12	1												4/29	9:48
767	SB-13	1												4/29	10:10
768	SB-14	1												4/29	10:20
769	SB-15	1												4/29	10:35
770	SB-16	1												4/29	10:50

ANALYSIS REQUEST (Circle or Specify Method No.)

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

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Dana A Tyler	5-4-16	2:30	RJ Vel	5-4-09	14:30
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

LAB USE ONLY
Intact Y N
Headspace Y N NA
Temp 17.0°C
Log-in-Review

REMARKS: All tests Midland.

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

Carrier # carry-in

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

ORIGINAL COPY

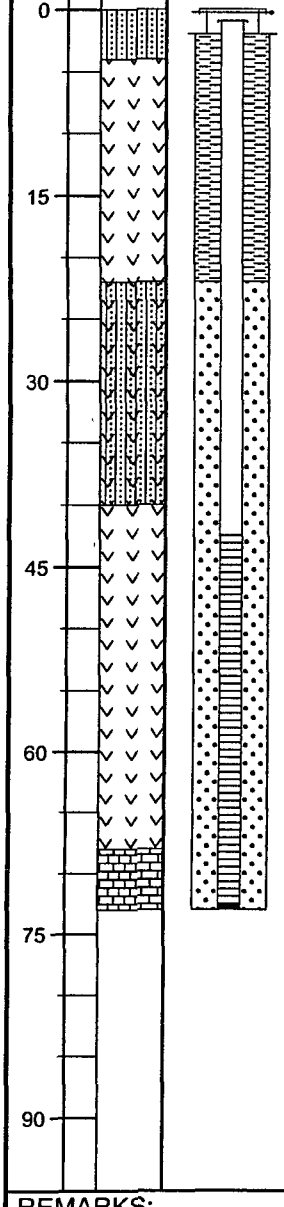
ATTACHMENT D

Temporary Monitor Well Boring Log

SOIL BORING / MONITORING WELL LOG

PROJECT: N-13
PROJECT NUMBER: BPPETRO029REC
CLIENT: B P Petrol
BORING / WELL NUMBER: MW-1 Temp
TOTAL DEPTH: 73'
SURFACE ELEVATION: N/A
GEOLOGIST: K. SUMMERS

DRILLING COMPANY: TALON LPE
DRILLER: Alejandro
DRILLING METHOD: Air Rotary
BORE HOLE DIAMETER: 6"
SCREEN: Diam. 2" Length 30' Slot Size 0.010"
CASING: Diam. 2" Length 42.5' Type PVC Sch 40
DATE DRILLED: 03/30/2009



PID Readings	Samples	Sample Interval	Description Interval	Description of Stratum	Depth (FT.)
					0
			4'	Silty Sand, Light Brown, 5YR, 6/4, Very Fine To Fine Sand, Some Gypsum. HCL indicates Calcium Carbonate Present	
				Gypsum, Moderate Reddish Brown, 10 YR, 4/6 to Grayish Pink, 5 YR, 8/2, Massive Gypsum.	15
			22'		
				Gypsum/Silty Sandy Clays, Moderate Reddish Brown, 10 YR, 4/6, Sand is Very Fine to Fine. Clay is Moderately Plastic and Moderatly Moist. Fines are Interbedded with the Gypsum	30
			40'		
				Gypsum, Pale Reddish Brown, 10 YR, 5/4, to Grayish Orange Pink, 10 R, 3/2.	45
			68'		60
			73'	Lithified Calcium Carbonate, Yellowish Gray, 5 YR, 7/2, To Light Olive Gray, 5 YR, 5/2. Appears to be Limestone, but Cuttings are Too Fine for a Positive Field ID. Effervesces in Dilute HCL, Fairly Hard Drilling. No Water Observed.	75
				Bottom of Hole	
					90

REMARKS:

THIS WELL DIAGRAM AND BORING LOG SHOULD NOT BE USED SEPERATE FROM THE ORIGINAL REPORT.

TALON LPE

KEY TO SYMBOLS

Symbol Description

Strata symbols

Silty sand

EXTRA:
regularly
spaced "V"'s

Description not given for:
"0<"

Limestone

Monitor Well Details

Capped riser with locking
cover

Bentonite pellets

Silica sand, blank PVC

Slotted pipe w/ sand

Endcap on pipe
Packed in sand

ATTACHMENT E
Disposal Documentation

Disposal documentation/manifest copies available in NMOCD hard copy file.

ATTACHMENT F

New Mexico Oil Conservation Division Release Notification and Corrective Action Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 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

RECEIVED
MAR 29 2010
NMOCD ARTESIA

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **BP America Production Company**	Contact **Steve Pacheco**
Address **PO Box 129 Artesia, NM 88210**	Telephone No. **575-677-3642**
Facility Name **Empire Abo Unit N-13**	Facility Type **Flow line**

Surface Owner **BLM**	Mineral Owner **BLM**	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/~~South~~ Line	Feet from the	East/~~West~~ Line	County
E	**11**	**18S**	**27E**	**1618**		**330**		**Eddy**

Latitude 32.7645 **Longitude** 104.256181

NATURE OF RELEASE

Type of Release **Produced Water**	Volume of Release **Unknown**	Volume Recovered **Unknown**
Source of Release **Flow line**	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Historical Release

Describe Area Affected and Cleanup Action Taken.*
Approximately 360 x 120 foot area of impacted soil. Soil will be excavated and transported to a NMOCD approved disposal facility.

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: Alton Callihan	OIL CONSERVATION DIVISION	
Printed Name: Alton G. Callihan	Approved by District Supervisor:	
Title: Permian Operating Center Manager	Approval Date:	Expiration Date:
E-mail Address: steve.pacheco@bp.com	Conditions of Approval:	Attached ☐
Date: 1/12/2009 Phone: 432-688-5200		

* Attach Additional Sheets If Necessary

District I
1625 N French Dr , Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **BP America Production Company**	Contact **Steve Pacheco**
Address **PO Box 129 Artesia, NM 88210**	Telephone No. **575-677-3642**
Facility Name **Empire Abo Unit N-13**	Facility Type **Flow line**

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LOCATION OF RELEASE

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Latitude 32.7645 **Longitude** 104.256181

NATURE OF RELEASE

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Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Historical Release

Describe Area Affected and Cleanup Action Taken.*
See attached site closure report.

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: Steve M Pacheco	OIL CONSERVATION DIVISION	
Printed Name: Steve M Pacheco	Approved by District Supervisor:	
Title: SENM Team Lead	Approval Date:	Expiration Date:
E-mail Address: steve.pacheco@bp.com	Conditions of Approval:	Attached ☐
Date: March 12, 2010 Phone: 575-677-3642		

* Attach Additional Sheets If Necessary

ATTACHMENT G
Photographs