

April 25, 2012

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

Mr. Mike Bratcher
NMOCD District 2
811 S. 1st Street
Artesia, NM 88210

ARTESIA
408 West Texas Ave.
Artesia, New Mexico 88210
Phone 575.746.8768
Fax 575.746.8905

Subject: **Soil Assessment and Remediation Work Plan**
Devon Energy
Hackberry 18 Federal No. 1
API # 30-015-29780 2RP-1042

AUSTIN
911 West Anderson Lane
Suite 202
Austin, Texas 78757
Phone 512.989.3428
Fax 512.989.3487

Dear Mr. Bratcher,

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88240
Phone 575.393.4261
Fax 575.393.4658

Devon Energy has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Hackberry 18 Federal No. 1. The incident description, soil assessment, completed remediation activities todate and proposed remediation activities consist of the following:

MIDLAND
2901 State Hwy 349
Midland, Texas 79706
Phone 432.522.2133
Fax 432.522.2180

Background Information

The Hackberry 18 Federal No. 1 is located approximately nineteen (19) miles southeast of Artesia, New Mexico. The legal location for the site is Section 18, Township 19 South and Range 31 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the location are 32.654948 North and 103.906560 West.

SAN ANTONIO
11 Commercial Place
Schertz, Texas 78154
Phone 210.265.8025
Fax 210.568.2191

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services, the soil in this area is made up of Berino loamy fine sand complex with 0 to 3 percent slopes. The local surface and shallow geology, Quaternary Age sedimentary deposits, is comprised of loamy alluvium and eolian sands which includes silty soils under lain by clay loam and hard caliches. Drainage courses in this area are normally dry. The New Mexico State Engineer web site indicates there is not any water well data within a 4,000 meter radius of this location. The referenced groundwater data is presented in Appendix I.

TULSA
525 South Main Street
Suite 535
Tulsa, Oklahoma 74103
Phone 918.742.0871
Fax 918.382.0232

The ranking for this site is 0 based on the as following:

- Depth to ground water >100'
- Wellhead Protection Area >1000'
- Distance to surface water body >1000'

Incident Description

On February 9, 2012 a lease operator discovered a release of 218 barrels of oil and an unknown amount of produced water caused by a downhole communication issue between the Hackberry 18 Federal No. 1 well and the Arcturus 18 Federal Com No. 4H well that

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was undergoing hydraulic fracture stimulation. The Hackberry 18 Federal No.1 well was isolated to stop the flow of mixed fluids. A vacuum truck was immediately called to the location and recovered 103 barrels of oil and 220 barrels of produced water. A fence was subsequently erected around the release area which measured approximately 200-feet long by 350-feet wide.

Actions Taken

On March 14, 2012 Talon/LPE mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. Grab soil samples were collected utilizing a backhoe to a depth of 6-feet below ground surface. Soil sample locations are illustrated on the attached site plan.

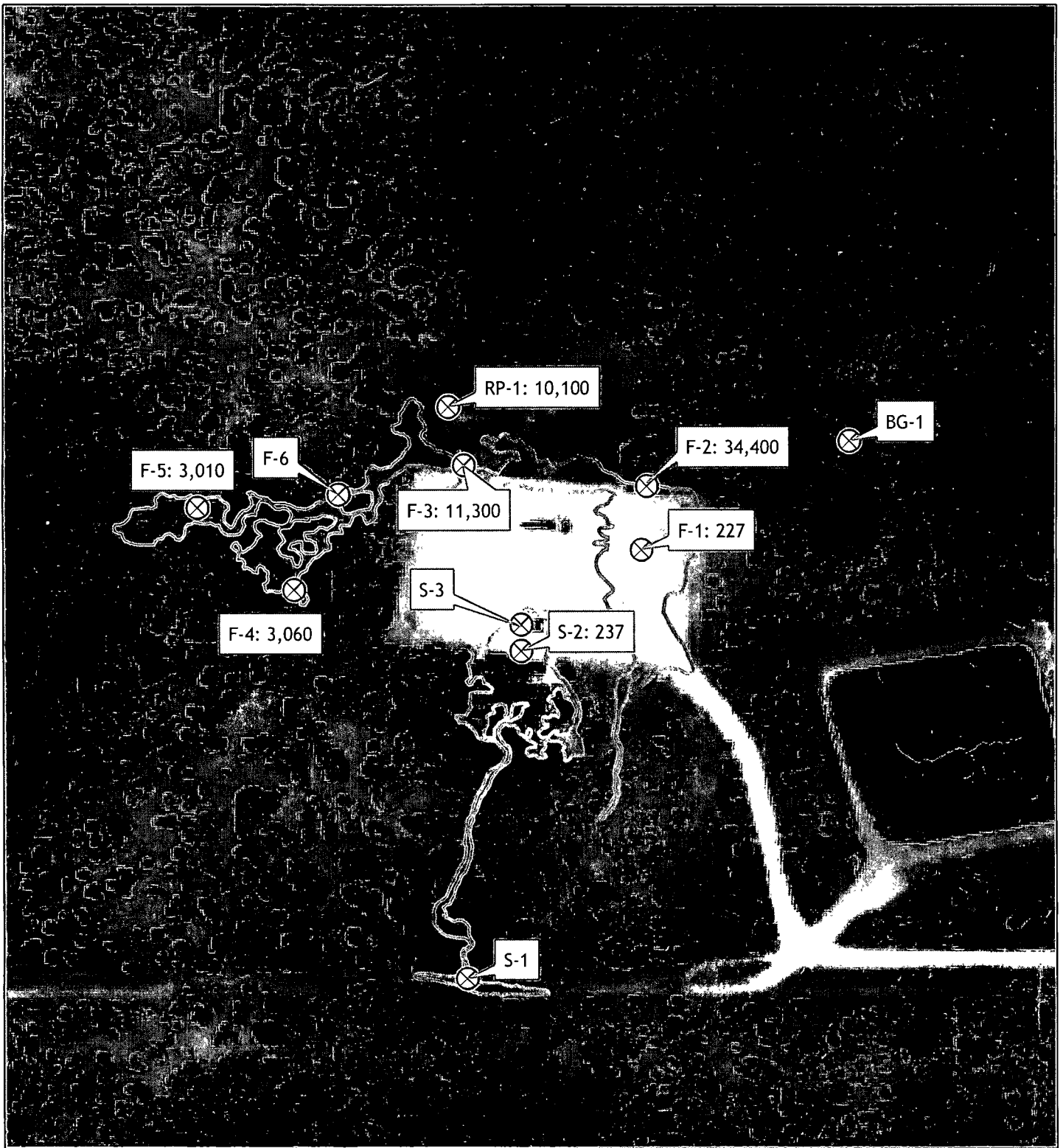
Soil samples were collected by Talon personnel wearing clean nitrile gloves. The samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, volatile organics (BTEX) using EPA Method 8021B and analysis of Chlorides using Method SM4500CL-B. Pursuant to the request of Brian Schultz, EHS Coordinator with the Devon Energy Corporation, analysis of pH levels and Glutaraldehyde was also included via Method 8315A. The complete laboratory report is attached as Appendix II.

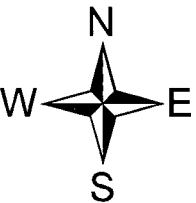

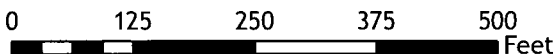
Analytical Results

Analytical results received from Cardinal Laboratories and Trace Analysis are summarized below:

March 23, 2012

<u>Sample, Depth</u>	<u>BTEX</u>	<u>Chlorides</u>	<u>pH</u>	<u>DRO</u>	<u>GRO</u>	<u>Glutaraldehyde</u>
F-1 0'	0.703	227	8.38	515	<10	ND (mg/kg)
1'	<0.060	315	8.28	<50	<2	ND
2'	<0.060	<100	8.42	<50	<2	ND
4'	<0.060	<100	8.57	<50	<2	ND
6'	<0.060	128	8.67	<50	<2	ND
F-2 0'	<0.060	34400	7.22	1570	<20	ND
1'	<0.060	847	8.19	<50	<2	ND
2'	<0.060	1640	7.76	<50	<2	ND
4'	<0.060	<100	9.00	<50	<2	ND
6'	<0.060	<100	8.93	<50	<2	ND
F-3 0'	<0.060	11300	7.89	150	<2	ND
1'	<0.060	2120	8.31	<50	<2	ND
2'	<0.060	739	9.26	<50	<2	ND
4'	<0.060	2560	8.61	<50	<2	ND
6'	<0.060	6750	8.25	<50	<2	ND



	<h2>Hackberry 18 Federal #1</h2>	
	<h3>Chloride (mg/Kg) Map 0 Feet</h3>	<p>Hackberry 18 Federal #1</p>
		<p>Undesirable Event: NU12079TG</p>
		<p>Eddy County, New Mexico</p>
		<p>Created by: BSS 03/29/12</p>

APPENDIX I
GROUNDWATER DATA
INITIAL C-141



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Subbasin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00829			LE	2	4	16	19S	31E		606165	3614009*	3358	120		
													Average Depth to Water:	--	
													Minimum Depth:	--	
													Maximum Depth:	--	

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 602851

Northing (Y): 3613465

Radius: 4000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

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

30-015-29780 **Release Notification and Corrective Action**
NMLB 1205450496 **OPERATOR** Initial Report Final Report

Name of Company Devon Energy	6137	Contact Roger Hernandez
Address P. O. Box 250 Artesia, NM 88211		Telephone No. 575-748-5238
Facility Name Hackberry 18 Federal #1		Facility Type Gas Well
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter 0	Section 18	Township 19S	Range 31E	Feet from the 660	North/South Line South	Feet from the 1980	East/West Line East	County Eddy
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NATURE OF RELEASE

Type of Release Oil and Salt Water	Volume of Release 218 Oil / ? Salt Water	Volume Recovered 103bbls Oil / 220 bbls Salt Water
Source of Release Downhole Well to Well Communication Issue	Date and Hour of Occurrence 2/9/12, 10:00AM	Date and Hour of Discovery 2/9/12, 10:00AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jim Amos (BLM) & Mike Bratcher (OCD)	
By Whom? Roger Hernandez	Date and Hour Jim, 2/10/12, 2:00PM, Mike, 2/10/12, 2:14PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

RECEIVED
FEB 22 2012
NMOGD-ARTESIA

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
At the Hackberry 18 Federal 1 location, a lease operator discovered a 218 bbl oil spill and a salt water spill caused by a downhole communication issue between the Hackberry 18 Federal 1 and the Arcturus 18 Fed Com 4H location undergoing hydraulic fracture stimulation. A root cause analysis will be conducted to identify the causal factors which will determine the corrective actions to be implemented to prevent this type of incident from occurring again. Devon is currently working with the BLM and will submit the remediation action plan to clean up the contaminated area.

Describe Area Affected and Cleanup Action Taken.*
The spill area was separated into two areas (total area: 200' x 350')

Upon arrival of the location, the Devon field rep isolated the well to stop the continuing flow of the well. A vacuum truck was ordered and was able to pick up 103 bbl of oil and 220 bbl of salt water. Fencing was erected around the spill area to identify the affected surface stains within the spill area.

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: Gracie Bustamante	OIL CONSERVATION DIVISION Signed By <u>W. J. Bratcher</u>	
Printed Name: Gracie Bustamante	Approved by District Supervisor:	
Title: Field Tech	Approval Date: FEB 23 2012	Expiration Date:
Date: 2/14/12 Phone: (575) 746-5559	Conditions of Approval:	Attached <input type="checkbox"/>

Attach Additional Sheets If Necessary

Remediation per OCD Rules &
Guidelines. **SUBMIT REMEDIATION
PROPOSAL NOT LATER THAN: 3/23/2012** 2RP-1042

APPENDIX II
LABORATORY RESULTS



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquaSc) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Mike Stubblefield
Talon LPE-Artesia
408 West Texas St.
Artesia, NM, 88210

Report Date: March 23, 2012

Work Order: 12031904



Project Location: Sec. 18, T195-R31E
Project Name: Hackberry 18 Federal No. 1
Project Number: 700794.025.01
Project Owner: Devon Energy Corp.

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
291697	F-1 0'	soil	2012-03-14	09:47	2012-03-16
291698	F-1 1'	soil	2012-03-14	10:04	2012-03-16
291699	F-1 2'	soil	2012-03-14	10:06	2012-03-16
291700	F-1 4'	soil	2012-03-14	10:08	2012-03-16
291701	F-1 6'	soil	2012-03-14	10:14	2012-03-16
291702	F-2 0'	soil	2012-03-14	10:34	2012-03-16
291703	F-2 1'	soil	2012-03-14	10:38	2012-03-16
291704	F-2 2'	soil	2012-03-14	10:40	2012-03-16
291705	F-2 4'	soil	2012-03-14	10:42	2012-03-16
291706	F-2 6'	soil	2012-03-14	10:49	2012-03-16
291707	F-3 0'	soil	2012-03-14	11:04	2012-03-16
291708	F-3 1'	soil	2012-03-14	11:07	2012-03-16
291709	F-3 2'	soil	2012-03-14	11:09	2012-03-16
291710	F-3 4'	soil	2012-03-14	11:11	2012-03-16
291711	F-3 6'	soil	2012-03-14	11:15	2012-03-16
291712	RP-1 0'	soil	2012-03-14	11:21	2012-03-16
291713	RP-1 1'	soil	2012-03-14	11:25	2012-03-16

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
291714	RP-1 2'	soil	2012-03-14	11:27	2012-03-16
291715	RP-1 4'	soil	2012-03-14	11:29	2012-03-16
291716	RP-1 6'	soil	2012-03-14	11:31	2012-03-16
291717	F-4 0'	soil	2012-03-14	13:06	2012-03-16
291718	F-4 1'	soil	2012-03-14	13:08	2012-03-16
291719	F-4 2'	soil	2012-03-14	13:10	2012-03-16
291720	F-4 4'	soil	2012-03-14	13:12	2012-03-16
291721	F-4 6'	soil	2012-03-14	13:15	2012-03-16
291722	F-5 0'	soil	2012-03-14	13:23	2012-03-16
291723	F-5 1'	soil	2012-03-14	13:25	2012-03-16
291724	F-5 2'	soil	2012-03-14	13:27	2012-03-16
291725	F-5 4'	soil	2012-03-14	13:29	2012-03-16
291726	F-5 6'	soil	2012-03-14	13:30	2012-03-16
291727	F-6 0'	soil	2012-03-14	13:41	2012-03-16
291728	F-6 1'	soil	2012-03-14	13:45	2012-03-16
291729	F-6 2'	soil	2012-03-14	13:47	2012-03-16
291730	F-6 4'	soil	2012-03-14	13:49	2012-03-16
291731	F-6 6'	soil	2012-03-14	13:55	2012-03-16
291732	S-1 0'	soil	2012-03-14	14:15	2012-03-16
291733	S-1 1'	soil	2012-03-14	14:17	2012-03-16
291734	S-1 2'	soil	2012-03-14	14:19	2012-03-16
291735	S-1 4'	soil	2012-03-14	14:21	2012-03-16
291736	S-1 6'	soil	2012-03-14	14:23	2012-03-16
291737	S-2 0'	soil	2012-03-14	14:40	2012-03-16
291738	S-2 1'	soil	2012-03-14	14:42	2012-03-16
291739	S-2 2'	soil	2012-03-14	14:44	2012-03-16
291740	S-2 4'	soil	2012-03-14	14:46	2012-03-16
291741	S-2 6'	soil	2012-03-14	14:48	2012-03-16
291742	S-3 0'	soil	2012-03-14	15:04	2012-03-16
291743	S-3 1'	soil	2012-03-14	15:06	2012-03-16
291744	S-3 2'	soil	2012-03-14	15:08	2012-03-16
291745	S-3 4'	soil	2012-03-14	15:10	2012-03-16
291746	S-3 6'	soil	2012-03-14	15:12	2012-03-16
291747	BG-1 0'	soil	2012-03-14	09:30	2012-03-16
291748	BG-1 3'	soil	2012-03-14	09:35	2012-03-16

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

Michael Abel

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

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Case Narrative

Samples for project Hackberry 18 Federal No. 1 were received by TraceAnalysis, Inc. on 2012-03-16 and assigned to work order 12031904. Samples for work order 12031904 were received intact at a temperature of 3.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	75959	2012-03-19 at 16:41	89483	2012-03-19 at 16:41
BTEX	S 8021B	75962	2012-03-19 at 16:41	89498	2012-03-19 at 16:41
BTEX	S 8021B	75995	2012-03-20 at 14:34	89523	2012-03-20 at 14:34
Chloride (Titration)	SM 4500-Cl B	76054	2012-03-19 at 13:00	89584	2012-03-20 at 18:00
Chloride (Titration)	SM 4500-Cl B	76055	2012-03-19 at 13:00	89585	2012-03-20 at 18:00
Chloride (Titration)	SM 4500-Cl B	76056	2012-03-19 at 13:00	89586	2012-03-20 at 18:00
Chloride (Titration)	SM 4500-Cl B	76057	2012-03-19 at 13:00	89587	2012-03-20 at 18:00
Chloride (Titration)	SM 4500-Cl B	76058	2012-03-19 at 13:00	89588	2012-03-20 at 18:00
pH	SM 4500-H+	76044	2012-03-20 at 12:00	89575	2012-03-21 at 16:20
pH	SM 4500-H+	76047	2012-03-20 at 12:00	89577	2012-03-21 at 16:24
pH	SM 4500-H+	76048	2012-03-20 at 12:00	89579	2012-03-21 at 14:00
pH	SM 4500-H+	76049	2012-03-20 at 12:00	89580	2012-03-21 at 14:00
pH	SM 4500-H+	76050	2012-03-20 at 12:00	89581	2012-03-21 at 14:00
Total BTEX	S 8021B	75959	2012-03-19 at 16:41	89483	2012-03-19 at 16:41
Total BTEX	S 8021B	75962	2012-03-19 at 16:41	89498	2012-03-19 at 16:41
Total BTEX	S 8021B	75995	2012-03-20 at 14:34	89523	2012-03-20 at 14:34
TPH DRO - NEW	S 8015 D	76008	2012-03-20 at 15:00	89532	2012-03-20 at 16:11
TPH DRO - NEW	S 8015 D	76009	2012-03-20 at 15:30	89533	2012-03-20 at 19:45
TPH DRO - NEW	S 8015 D	76010	2012-03-20 at 16:00	89534	2012-03-21 at 00:30
TPH GRO	S 8015 D	75959	2012-03-19 at 16:41	89484	2012-03-19 at 16:41
TPH GRO	S 8015 D	75962	2012-03-19 at 16:41	89501	2012-03-19 at 16:41
TPH GRO	S 8015 D	75995	2012-03-20 at 14:34	89524	2012-03-20 at 14:34
TPH GRO	S 8015 D	76041	2012-03-21 at 15:58	89571	2012-03-21 at 15:58

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 12031904 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: 291697 - F-1 0'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.124	mg/Kg	5	0.0200
Toluene		1	0.187	mg/Kg	5	0.0200
Ethylbenzene		1	<0.100	mg/Kg	5	0.0200
Xylene	nb	1	<0.100	mg/Kg	5	0.0200
Total BTEX			0.392	mg/Kg	5	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.59	mg/Kg	5	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	5	2.00	99	70 - 130

Sample: 291697 - F-1 0'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			227	mg/Kg	20	5.00

Sample: 291697 - F-1 0'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

continued ...

sample 291697 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.38	s.u.	1	2.00

Sample: 291697 - F-1 0'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	515	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291697 - F-1 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	1	u	<10.0	mg/Kg	5	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.64	mg/Kg	5	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	5	2.00	99	70 - 130

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Sample: 291698 - F-1 1'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.19	mg/Kg	1	2.00	110	70 - 130

Sample: 291698 - F-1 1'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			315	mg/Kg	20	5.00

Sample: 291698 - F-1 1'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.28	s.u.	1	2.00

Sample: 291698 - F-1 1'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	75.4 - 130

Sample: 291698 - F-1 1'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			2.13	mg/Kg	1	2.00	106	70 - 130

Sample: 291699 - F-1 2'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

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sample 291699 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	70 - 130

Sample: 291699 - F-1 2'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291699 - F-1 2'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.42	s.u.	1	2.00

Sample: 291699 - F-1 2'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			119	mg/Kg	1	100	119	75.4 - 130

Sample: 291699 - F-1 2'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	70 - 130

Sample: 291700 - F-1 4'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

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Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.57	s.u.	1	2.00

Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	75.4 - 130

Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 291701 - F-1 6'

Laboratory: Lubbock

Analysis: BTEX, Total BTEX

QC Batch: 89483

Prep Batch: 75959

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5035

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.76	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 291701 - F-1 6'

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 89584

Prep Batch: 76054

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			128	mg/Kg	20	5.00

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Sample: 291701 - F-1 6'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.67	s.u.	1	2.00

Sample: 291701 - F-1 6'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			118	mg/Kg	1	100	118	75.4 - 130

Sample: 291701 - F-1 6'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

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Sample: 291702 - F-2 0'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.200	mg/Kg	10	0.0200
Toluene	u	1	<0.200	mg/Kg	10	0.0200
Ethylbenzene	u	1	<0.200	mg/Kg	10	0.0200
Xylene	u	1	<0.200	mg/Kg	10	0.0200
Total BTEX			<0.600	mg/Kg	10	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.08	mg/Kg	10	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	10	2.00	105	70 - 130

Sample: 291702 - F-2 0'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			34400	mg/Kg	80	5.00

Sample: 291702 - F-2 0'

Laborator



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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Mike Stubblefield
Talon LPE-Artesia
408 West Texas St.
Artesia, NM, 88210

Report Date: March 23, 2012

Work Order: 12031904



Project Location: Sec. 18, T195-R31E
Project Name: Hackberry 18 Federal No. 1
Project Number: 700794.025.01
Project Owner: Devon Energy Corp.

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
291697	F-1 0'	soil	2012-03-14	09:47	2012-03-16
291698	F-1 1'	soil	2012-03-14	10:04	2012-03-16
291699	F-1 2'	soil	2012-03-14	10:06	2012-03-16
291700	F-1 4'	soil	2012-03-14	10:08	2012-03-16
291701	F-1 6'	soil	2012-03-14	10:14	2012-03-16
291702	F-2 0'	soil	2012-03-14	10:34	2012-03-16
291703	F-2 1'	soil	2012-03-14	10:38	2012-03-16
291704	F-2 2'	soil	2012-03-14	10:40	2012-03-16
291705	F-2 4'	soil	2012-03-14	10:42	2012-03-16
291706	F-2 6'	soil	2012-03-14	10:49	2012-03-16
291707	F-3 0'	soil	2012-03-14	11:04	2012-03-16
291708	F-3 1'	soil	2012-03-14	11:07	2012-03-16
291709	F-3 2'	soil	2012-03-14	11:09	2012-03-16
291710	F-3 4'	soil	2012-03-14	11:11	2012-03-16
291711	F-3 6'	soil	2012-03-14	11:15	2012-03-16
291712	RP-1 0'	soil	2012-03-14	11:21	2012-03-16
291713	RP-1 1'	soil	2012-03-14	11:25	2012-03-16

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
291714	RP-1 2'	soil	2012-03-14	11:27	2012-03-16
291715	RP-1 4'	soil	2012-03-14	11:29	2012-03-16
291716	RP-1 6'	soil	2012-03-14	11:31	2012-03-16
291717	F-4 0'	soil	2012-03-14	13:06	2012-03-16
291718	F-4 1'	soil	2012-03-14	13:08	2012-03-16
291719	F-4 2'	soil	2012-03-14	13:10	2012-03-16
291720	F-4 4'	soil	2012-03-14	13:12	2012-03-16
291721	F-4 6'	soil	2012-03-14	13:15	2012-03-16
291722	F-5 0'	soil	2012-03-14	13:23	2012-03-16
291723	F-5 1'	soil	2012-03-14	13:25	2012-03-16
291724	F-5 2'	soil	2012-03-14	13:27	2012-03-16
291725	F-5 4'	soil	2012-03-14	13:29	2012-03-16
291726	F-5 6'	soil	2012-03-14	13:30	2012-03-16
291727	F-6 0'	soil	2012-03-14	13:41	2012-03-16
291728	F-6 1'	soil	2012-03-14	13:45	2012-03-16
291729	F-6 2'	soil	2012-03-14	13:47	2012-03-16
291730	F-6 4'	soil	2012-03-14	13:49	2012-03-16
291731	F-6 6'	soil	2012-03-14	13:55	2012-03-16
291732	S-1 0'	soil	2012-03-14	14:15	2012-03-16
291733	S-1 1'	soil	2012-03-14	14:17	2012-03-16
291734	S-1 2'	soil	2012-03-14	14:19	2012-03-16
291735	S-1 4'	soil	2012-03-14	14:21	2012-03-16
291736	S-1 6'	soil	2012-03-14	14:23	2012-03-16
291737	S-2 0'	soil	2012-03-14	14:40	2012-03-16
291738	S-2 1'	soil	2012-03-14	14:42	2012-03-16
291739	S-2 2'	soil	2012-03-14	14:44	2012-03-16
291740	S-2 4'	soil	2012-03-14	14:46	2012-03-16
291741	S-2 6'	soil	2012-03-14	14:48	2012-03-16
291742	S-3 0'	soil	2012-03-14	15:04	2012-03-16
291743	S-3 1'	soil	2012-03-14	15:06	2012-03-16
291744	S-3 2'	soil	2012-03-14	15:08	2012-03-16
291745	S-3 4'	soil	2012-03-14	15:10	2012-03-16
291746	S-3 6'	soil	2012-03-14	15:12	2012-03-16
291747	BG-1 0'	soil	2012-03-14	09:30	2012-03-16
291748	BG-1 3'	soil	2012-03-14	09:35	2012-03-16

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

Michael Abel

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

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Case Narrative

Samples for project Hackberry 18 Federal No. 1 were received by TraceAnalysis, Inc. on 2012-03-16 and assigned to work order 12031904. Samples for work order 12031904 were received intact at a temperature of 3.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	75959	2012-03-19 at 16:41	89483	2012-03-19 at 16:41
BTEX	S 8021B	75962	2012-03-19 at 16:41	89498	2012-03-19 at 16:41
BTEX	S 8021B	75995	2012-03-20 at 14:34	89523	2012-03-20 at 14:34
Chloride (Titration)	SM 4500-Cl B	76054	2012-03-19 at 13:00	89584	2012-03-20 at 18:00
Chloride (Titration)	SM 4500-Cl B	76055	2012-03-19 at 13:00	89585	2012-03-20 at 18:00
Chloride (Titration)	SM 4500-Cl B	76056	2012-03-19 at 13:00	89586	2012-03-20 at 18:00
Chloride (Titration)	SM 4500-Cl B	76057	2012-03-19 at 13:00	89587	2012-03-20 at 18:00
Chloride (Titration)	SM 4500-Cl B	76058	2012-03-19 at 13:00	89588	2012-03-20 at 18:00
pH	SM 4500-H+	76044	2012-03-20 at 12:00	89575	2012-03-21 at 16:20
pH	SM 4500-H+	76047	2012-03-20 at 12:00	89577	2012-03-21 at 16:24
pH	SM 4500-H+	76048	2012-03-20 at 12:00	89579	2012-03-21 at 14:00
pH	SM 4500-H+	76049	2012-03-20 at 12:00	89580	2012-03-21 at 14:00
pH	SM 4500-H+	76050	2012-03-20 at 12:00	89581	2012-03-21 at 14:00
Total BTEX	S 8021B	75959	2012-03-19 at 16:41	89483	2012-03-19 at 16:41
Total BTEX	S 8021B	75962	2012-03-19 at 16:41	89498	2012-03-19 at 16:41
Total BTEX	S 8021B	75995	2012-03-20 at 14:34	89523	2012-03-20 at 14:34
TPH DRO - NEW	S 8015 D	76008	2012-03-20 at 15:00	89532	2012-03-20 at 16:11
TPH DRO - NEW	S 8015 D	76009	2012-03-20 at 15:30	89533	2012-03-20 at 19:45
TPH DRO - NEW	S 8015 D	76010	2012-03-20 at 16:00	89534	2012-03-21 at 00:30
TPH GRO	S 8015 D	75959	2012-03-19 at 16:41	89484	2012-03-19 at 16:41
TPH GRO	S 8015 D	75962	2012-03-19 at 16:41	89501	2012-03-19 at 16:41
TPH GRO	S 8015 D	75995	2012-03-20 at 14:34	89524	2012-03-20 at 14:34
TPH GRO	S 8015 D	76041	2012-03-21 at 15:58	89571	2012-03-21 at 15:58

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 12031904 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: 291697 - F-1 0'

Laboratory: Lubbock	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX, Total BTEX	Date Analyzed: 2012-03-19	Analyzed By: ZLM
QC Batch: 89483	Sample Preparation: 2012-03-19	Prepared By: ZLM
Prep Batch: 75959		

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.124	mg/Kg	5	0.0200
Toluene		1	0.187	mg/Kg	5	0.0200
Ethylbenzene		1	<0.100	mg/Kg	5	0.0200
Xylene	JB	1	<0.100	mg/Kg	5	0.0200
Total BTEX			0.392	mg/Kg	5	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.59	mg/Kg	5	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	5	2.00	99	70 - 130

Sample: 291697 - F-1 0'

Laboratory: Lubbock	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2012-03-20	Analyzed By: AM
QC Batch: 89584	Sample Preparation: 2012-03-20	Prepared By: AM
Prep Batch: 76054		

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			227	mg/Kg	20	5.00

Sample: 291697 - F-1 0'

Laboratory: Lubbock	Analytical Method: SM 4500-H+	Prep Method: N/A
Analysis: pH	Date Analyzed: 2012-03-21	Analyzed By: AM
QC Batch: 89575	Sample Preparation: 2012-03-20	Prepared By: AM
Prep Batch: 76044		

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sample 291697 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.38	s.u.	1	2.00

Sample: 291697 - F-1 0'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	515	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291697 - F-1 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	1	u	1	<10.0	mg/Kg	5

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.64	mg/Kg	5	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	5	2.00	99	70 - 130

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Sample: 291698 - F-1 1'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.19	mg/Kg	1	2.00	110	70 - 130

Sample: 291698 - F-1 1'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			315	mg/Kg	20	5.00

Sample: 291698 - F-1 1'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.28	s.u.	1	2.00

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Sample: 291698 - F-1 1'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	75.4 - 130

Sample: 291698 - F-1 1'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			2.13	mg/Kg	1	2.00	106	70 - 130

Sample: 291699 - F-1 2'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

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sample 291699 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	70 - 130

Sample: 291699 - F-1 2'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	v		<100	mg/Kg	20	5.00

Sample: 291699 - F-1 2'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.42	s.u.	1	2.00

Sample: 291699 - F-1 2'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			119	mg/Kg	1	100	119	75.4 - 130

Sample: 291699 - F-1 2'

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 89484
Prep Batch: 75959

Analytical Method: S 8015 D
Date Analyzed: 2012-03-19
Sample Preparation: 2012-03-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	70 - 130

Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX
QC Batch: 89483
Prep Batch: 75959

Analytical Method: S 8021B
Date Analyzed: 2012-03-19
Sample Preparation: 2012-03-19

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

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Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.57	s.u.	1	2.00

Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	75.4 - 130

Sample: 291700 - F-1 4'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 291701 - F-1 6'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.76	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 291701 - F-1 6'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			128	mg/Kg	20	5.00

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Sample: 291701 - F-1 6'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.67	s.u.	1	2.00

Sample: 291701 - F-1 6'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			118	mg/Kg	1	100	118	75.4 - 130

Sample: 291701 - F-1 6'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

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Sample: 291702 - F-2 0'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.200	mg/Kg	10	0.0200
Toluene	u	1	<0.200	mg/Kg	10	0.0200
Ethylbenzene	u	1	<0.200	mg/Kg	10	0.0200
Xylene	u	1	<0.200	mg/Kg	10	0.0200
Total BTEX			<0.600	mg/Kg	10	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.08	mg/Kg	10	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	10	2.00	105	70 - 130

Sample: 291702 - F-2 0'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			34400	mg/Kg	80	5.00

Sample: 291702 - F-2 0'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			7.22	s.u.	1	2.00

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Sample: 291702 - F-2 0'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	1570	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	QSR	QSR	142	mg/Kg	1	100	142	75.4 - 130

Sample: 291702 - F-2 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL	
GRO	3	U	1	<20.0	mg/Kg	10	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.14	mg/Kg	10	2.00	107	70 - 130
4-Bromofluorobenzene (4-BFB)			2.16	mg/Kg	10	2.00	108	70 - 130

Sample: 291703 - F-2 1'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	1	<0.0200	mg/Kg	1	0.0200
Xylene	U	1	<0.0200	mg/Kg	1	0.0200

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sample 291703 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

Sample: 291703 - F-2 1'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			847	mg/Kg	20	5.00

Sample: 291703 - F-2 1'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.19	s.u.	1	2.00

Sample: 291703 - F-2 1'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	75.4 - 130

Sample: 291703 - F-2 1'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			1.78	mg/Kg	1	2.00	89	70 - 130

Sample: 291704 - F-2 2'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	70 - 130

Sample: 291704 - F-2 2'

Laboratory:	Lubbock	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2012-03-20	Analyzed By:	AM
QC Batch:	89584	Sample Preparation:	2012-03-20	Prepared By:	AM
Prep Batch:	76054				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1640	mg/Kg	20	5.00

Sample: 291704 - F-2 2'

Laboratory:	Lubbock	Analytical Method:	SM 4500-H+	Prep Method:	N/A
Analysis:	pH	Date Analyzed:	2012-03-21	Analyzed By:	AM
QC Batch:	89575	Sample Preparation:	2012-03-20	Prepared By:	AM
Prep Batch:	76044				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			7.76	s.u.	1	2.00

Sample: 291704 - F-2 2'

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2012-03-20	Analyzed By:	DS
QC Batch:	89532	Sample Preparation:	2012-03-20	Prepared By:	DS
Prep Batch:	76008				

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291704 - F-2 2'

Laboratory:	Lubbock	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2012-03-19	Analyzed By:	ZLM
QC Batch:	89484	Sample Preparation:	2012-03-19	Prepared By:	ZLM
Prep Batch:	75959				

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.89	mg/Kg	1	2.00	94	70 - 130

Sample: 291705 - F-2 4'

Laboratory: Lubbock

Analysis: BTEX, Total BTEX

QC Batch: 89483

Prep Batch: 75959

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5035

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.85	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1	2.00	98	70 - 130

Sample: 291705 - F-2 4'

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 89584

Prep Batch: 76054

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

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Sample: 291705 - F-2 4'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			9.00	s.u.	1	2.00

Sample: 291705 - F-2 4'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	36	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	75.4 - 130

Sample: 291705 - F-2 4'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	0	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	70 - 130

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Sample: 291706 - F-2 6'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1	2.00	98	70 - 130

Sample: 291706 - F-2 6'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291706 - F-2 6'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.93	s.u.	1	2.00

Sample: 291706 - F-2 6'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			121	mg/Kg	1	100	121	75.4 - 130

Sample: 291706 - F-2 6'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 291707 - F-3 0'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene		1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

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sample 291707 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.01	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Sample: 291707 - F-3 0'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		11300	mg/Kg	200	5.00

Sample: 291707 - F-3 0'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			7.89	s.u.	1	2.00

Sample: 291707 - F-3 0'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	1	150	mg/Kg	1	50.0

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291707 - F-3 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.14	mg/Kg	1	2.00	107	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

Sample: 291708 - F-3 1'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

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Sample: 291708 - F-3 1'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		2120	mg/Kg	100	5.00

Sample: 291708 - F-3 1'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.31	s.u.	1	2.00

Sample: 291708 - F-3 1'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1	100	126	75.4 - 130

Sample: 291708 - F-3 1'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.99	mg/Kg	1	2.00	100	70 - 130

Sample: 291709 - F-3 2'

Laboratory: Lubbock

Analysis: BTEX, Total BTEX

QC Batch: 89483

Prep Batch: 75959

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5035

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	ub	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1	2.00	104	70 - 130

Sample: 291709 - F-3 2'

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 89585

Prep Batch: 76055

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	qs		739	mg/Kg	100	5.00

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Sample: 291709 - F-3 2'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			9.26	s.u.	1	2.00

Sample: 291709 - F-3 2'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	75.4 - 130

Sample: 291709 - F-3 2'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

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Sample: 291710 - F-3 4'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	70 - 130

Sample: 291710 - F-3 4'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		2560	mg/Kg	200	5.00

Sample: 291710 - F-3 4'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.61	s.u.	1	2.00

Sample: 291710 - F-3 4'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291710 - F-3 4'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	70 - 130

Sample: 291711 - F-3 6'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylenes	u	1	<0.0200	mg/Kg	1	0.0200

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sample 291711 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	70 - 130

Sample: 291711 - F-3 6 '

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		6750	mg/Kg	100	5.00

Sample: 291711 - F-3 6 '

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.25	s.u.	1	2.00

Sample: 291711 - F-3 6 '

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291711 - F-3 6 '

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.05	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

Sample: 291712 - RP-1 0'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride	Qs		10100	mg/Kg	100	5.00

Sample: 291713 - RP-1 1'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

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sample 291713 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		8230	mg/Kg	100	5.00

Sample: 291714 - RP-1 2'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		6750	mg/Kg	100	5.00

Sample: 291715 - RP-1 4'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	Qs		3050	mg/Kg	100	5.00

Sample: 291716 - RP-1 6'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76055 Sample Preparation: 2012-03-20 Prepared By: AM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	qs		3450	mg/Kg	100	5.00

Sample: 291717 - F-4 0'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.100	mg/Kg	5	0.0200
Toluene	u	1	<0.100	mg/Kg	5	0.0200
Ethylbenzene	u	1	<0.100	mg/Kg	5	0.0200
Xylene	u	1	<0.100	mg/Kg	5	0.0200
Total BTEX			<0.300	mg/Kg	5	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.60	mg/Kg	5	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			2.17	mg/Kg	5	2.00	108	70 - 130

Sample: 291717 - F-4 0'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89586 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76056 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3060	mg/Kg	100	5.00

Sample: 291717 - F-4 0'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			7.44	s.u.	1	2.00

Sample: 291717 - F-4 0'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291717 - F-4 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<10.0	mg/Kg	5	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.64	mg/Kg	5	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	5	2.00	108	70 - 130

Sample: 291718 - F-4 1'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1	2.00	102	70 - 130

Sample: 291718 - F-4 1'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89586 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76056 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			336	mg/Kg	40	5.00

Sample: 291718 - F-4 1'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.18	s.u.	1	2.00

Sample: 291718 - F-4 1'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	75.4 - 130

Sample: 291718 - F-4 1'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

Sample: 291719 - F-4 2'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			2.08	mg/Kg	1	2.00	104	70 - 130

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Sample: 291719 - F-4 2'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89586 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76056 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	v		<100	mg/Kg	20	5.00

Sample: 291719 - F-4 2'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.52	s.u.	1	2.00

Sample: 291719 - F-4 2'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	75.4 - 130

Sample: 291719 - F-4 2'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			2.05	mg/Kg	1	2.00	102	70 - 130

Sample: 291720 - F-4 4'

Laboratory: Lubbock

Analysis: BTEX, Total BTEX

QC Batch: 89483

Prep Batch: 75959

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5035

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.97	mg/Kg	1	2.00	98	70 - 130

Sample: 291720 - F-4 4'

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 89586

Prep Batch: 76056

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

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Sample: 291720 - F-4 4'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.76	s.u.	1	2.00

Sample: 291720 - F-4 4'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			116	mg/Kg	1	100	116	75.4 - 130

Sample: 291720 - F-4 4'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.08	mg/Kg	1	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	70 - 130

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Sample: 291721 - F-4 6'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

Sample: 291721 - F-4 6'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89586 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76056 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291721 - F-4 6'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.77	s.u.	1	2.00

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Sample: 291721 - F-4 6'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89532 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76008 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291721 - F-4 6'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.81	mg/Kg	1	2.00	90	70 - 130

Sample: 291722 - F-5 0'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	⁶ u	1	<0.0400	mg/Kg	2	0.0200
Toluene	u	1	<0.0400	mg/Kg	2	0.0200
Ethylbenzene	u	1	<0.0400	mg/Kg	2	0.0200
Xylene	u	1	<0.0400	mg/Kg	2	0.0200

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sample 291722 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			<0.120	mg/Kg	2	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.67	mg/Kg	2	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)			2.14	mg/Kg	2	2.00	107	70 - 130

Sample: 291722 - F-5 0'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89586 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76056 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3010	mg/Kg	100	5.00

Sample: 291722 - F-5 0'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76048 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			7.64	s.u.	1	2.00

Sample: 291722 - F-5 0'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb,Qs	1	<50.0	mg/Kg	1	50.0

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	75.4 - 130

Sample: 291722 - F-5 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL	
GRO	7	u	1	<4.00	mg/Kg	2	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.74	mg/Kg	2	2.00	87	70 - 130
4-Bromofluorobenzene (4-BFB)			2.09	mg/Kg	2	2.00	104	70 - 130

Sample: 291723 - F-5 1'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89483 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylenc	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	70 - 130

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Sample: 291723 - F-5 1'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89586 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76056 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			543	mg/Kg	100	5.00

Sample: 291723 - F-5 1'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76048 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.06	s.u.	1	2.00

Sample: 291723 - F-5 1'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb,Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	75.4 - 130

Sample: 291723 - F-5 1'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89484 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75959 Sample Preparation: 2012-03-19 Prepared By: ZLM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	70 - 130

Sample: 291724 - F-5 2'

Laboratory: Lubbock

Analysis: BTEX, Total BTEX

QC Batch: 89498

Prep Batch: 75962

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5035

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.84	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

Sample: 291724 - F-5 2'

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 89586

Prep Batch: 76056

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

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Sample: 291724 - F-5 2'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76048 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.46	s.u.	1	2.00

Sample: 291724 - F-5 2'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jh, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			118	mg/Kg	1	100	118	75.4 - 130

Sample: 291724 - F-5 2'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	70 - 130

Sample: 291725 - F-5 4'

Laboratory: Lubbock	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX, Total BTEX	Date Analyzed: 2012-03-19	Analyzed By: ZLM
QC Batch: 89498	Sample Preparation: 2012-03-19	Prepared By: ZLM
Prep Batch: 75962		

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	105	70 - 130

Sample: 291725 - F-5 4'

Laboratory: Lubbock	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2012-03-20	Analyzed By: AM
QC Batch: 89586	Sample Preparation: 2012-03-20	Prepared By: AM
Prep Batch: 76056		

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291725 - F-5 4'

Laboratory: Lubbock	Analytical Method: SM 4500-H+	Prep Method: N/A
Analysis: pH	Date Analyzed: 2012-03-21	Analyzed By: AM
QC Batch: 89579	Sample Preparation: 2012-03-20	Prepared By: AM
Prep Batch: 76048		

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.38	s.u.	1	2.00

Sample: 291725 - F-5 4'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	1b,Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	75.4 - 130

Sample: 291725 - F-5 4'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	70 - 130

Sample: 291726 - F-5 6'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89586 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76056 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

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Sample: 291726 - F-5 6'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76048 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.71	s.u.	1	2.00

Sample: 291727 - F-6 0'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<1.00	mg/Kg	50	0.0200
Toluene	u	1	<1.00	mg/Kg	50	0.0200
Ethylbenzene	u	1	<1.00	mg/Kg	50	0.0200
Xylene		1	<1.00	mg/Kg	50	0.0200
Total BTEX			<3.00	mg/Kg	50	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	2.89	mg/Kg	50	2.00	144	70 - 130
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	50	2.00	108	70 - 130

Sample: 291727 - F-6 0'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76057 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

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Sample: 291727 - F-6 0'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76048 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			7.71	s.u.	1	2.00

Sample: 291727 - F-6 0'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	qs	1	483	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	qs	qs	131	mg/Kg	1	100	131	75.4 - 130

Sample: 291727 - F-6 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	9	1	<100	mg/Kg	50	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	50	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			2.01	mg/Kg	50	2.00	100	70 - 130

Sample: 291728 - F-6 1'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			1.98	mg/Kg	1	2.00	99	70 - 130

Sample: 291728 - F-6 1'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76057 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			632	mg/Kg	40	5.00

Sample: 291728 - F-6 1'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76048 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			6.78	s.u.	1	2.00

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Sample: 291728 - F-6 1'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			125	mg/Kg	1	100	125	75.4 - 130

Sample: 291728 - F-6 1'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.99	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			1.95	mg/Kg	1	2.00	98	70 - 130

Sample: 291729 - F-6 2'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

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sample 291729 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.77	mg/Kg	1	2.00	89	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	97	70 - 130

Sample: 291729 - F-6 2'

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 89587

Prep Batch: 76057

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1030	mg/Kg	40	5.00

Sample: 291729 - F-6 2'

Laboratory: Lubbock

Analysis: pH

QC Batch: 89579

Prep Batch: 76048

Analytical Method: SM 4500-H+

Date Analyzed: 2012-03-21

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.02	s.u.	1	2.00

Sample: 291729 - F-6 2'

Laboratory: Lubbock

Analysis: TPH DRO - NEW

QC Batch: 89533

Prep Batch: 76009

Analytical Method: S 8015 D

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: DS

Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1	100	126	75.4 - 130

Sample: 291729 - F-6 2'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

Sample: 291730 - F-6 4'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylenc	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.87	mg/Kg	1	2.00	93	70 - 130

Sample: 291730 - F-6 4'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76057 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291730 - F-6 4'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76048 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.80	s.u.	1	2.00

Sample: 291730 - F-6 4'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb,Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1	100	126	75.4 - 130

Sample: 291730 - F-6 4'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.00	mg/Kg	1	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			1.85	mg/Kg	1	2.00	92	70 - 130

Sample: 291731 - F-6 6'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	70 - 130

Sample: 291731 - F-6 6'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76057 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			672	mg/Kg	40	5.00

Sample: 291731 - F-6 6'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76048 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.34	s.u.	1	2.00

Sample: 291731 - F-6 6'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	75.4 - 130

Sample: 291731 - F-6 6'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.02	mg/Kg	1	2.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			1.94	mg/Kg	1	2.00	97	70 - 130

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Sample: 291732 - S-1 0'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	16.7	mg/Kg	20	0.0200
Toluene		1	106	mg/Kg	20	0.0200
Ethylbenzene		1	31.8	mg/Kg	20	0.0200
Xylene		1	61.8	mg/Kg	20	0.0200
Total BTEX			216	mg/Kg	20	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.42	mg/Kg	20	2.00	71	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qst	15.2	mg/Kg	20	2.00	760	70 - 130

Sample: 291732 - S-1 0'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76057 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291732 - S-1 0'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.31	s.u.	1	2.00

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Sample: 291732 - S-1 0'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	12600	mg/Kg	10	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	768	mg/Kg	10	100	768	75.4 - 130

Sample: 291732 - S-1 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	1580	mg/Kg	20	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	0.456	mg/Kg	20	2.00	23	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	27.6	mg/Kg	20	2.00	1380	70 - 130

Sample: 291733 - S-1 1'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	12.2	mg/Kg	10	0.0200
Toluene		1	151	mg/Kg	10	0.0200
Ethylbenzene		1	57.2	mg/Kg	10	0.0200
Xylene	Je	1	109	mg/Kg	10	0.0200

continued ...

sample 291733 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			329	mg/Kg	10	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.59	mg/Kg	10	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	26.7	mg/Kg	10	2.00	1335	70 - 130

Sample: 291733 - S-1 1'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76057 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291733 - S-1 1'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.75	s.u.	1	2.00

Sample: 291733 - S-1 1'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	5330	mg/Kg	5	50.0

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	324	mg/Kg	5	100	324	75.4 - 130

Sample: 291733 - S-1 1'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89571 Date Analyzed: 2012-03-21 Analyzed By: ZLM
 Prep Batch: 76041 Sample Preparation: 2012-03-21 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qs	1	2720	mg/Kg	100	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.66	mg/Kg	100	2.00	83	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	52.4	mg/Kg	100	2.00	2620	70 - 130

Sample: 291734 - S-1 2'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0721	mg/Kg	1	0.0200
Toluene		1	2.82	mg/Kg	1	0.0200
Ethylbenzene		1	2.26	mg/Kg	1	0.0200
Xylene		1	4.86	mg/Kg	1	0.0200
Total BTEX			10.0	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.54	mg/Kg	1	2.00	77	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	3.47	mg/Kg	1	2.00	174	70 - 130

Sample: 291734 - S-1 2'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76057 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291734 - S-1 2'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.59	s.u.	1	2.00

Sample: 291734 - S-1 2'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	545	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	159	mg/Kg	1	100	159	75.4 - 130

Sample: 291734 - S-1 2'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89571 Date Analyzed: 2012-03-21 Analyzed By: ZLM
 Prep Batch: 76041 Sample Preparation: 2012-03-21 Prepared By: ZLM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qs	1	72.3	mg/Kg	5	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.09	mg/Kg	5	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	3.98	mg/Kg	5	2.00	199	70 - 130

Sample: 291735 - S-1 4'

Laboratory: Lubbock

Analysis: BTEX, Total BTEX

QC Batch: 89498

Prep Batch: 75962

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5035

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene		1	0.0278	mg/Kg	1	0.0200
Ethylbenzene		1	0.0755	mg/Kg	1	0.0200
Xylene		1	0.209	mg/Kg	1	0.0200
Total BTEX			0.312	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	70 - 130

Sample: 291735 - S-1 4'

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 89587

Prep Batch: 76057

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	v		<100	mg/Kg	20	5.00

Sample: 291735 - S-1 4'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.75	s.u.	1	2.00

Sample: 291735 - S-1 4'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B,Q1	1	222	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			131	mg/Kg	1	100	131	75.4 - 130

Sample: 291735 - S-1 4'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	5.66	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			2.28	mg/Kg	1	2.00	114	70 - 130

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Sample: 291736 - S-1 6'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	70 - 130

Sample: 291736 - S-1 6'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76057 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291736 - S-1 6'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.82	s.u.	1	2.00

Sample: 291736 - S-1 6'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	fb, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			125	mg/Kg	1	100	125	75.4 - 130

Sample: 291736 - S-1 6'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	v	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			1.80	mg/Kg	1	2.00	90	70 - 130

Sample: 291737 - S-2 0'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.21	mg/Kg	10	0.0200
Toluene		1	14.8	mg/Kg	10	0.0200
Ethylbenzene		1	8.82	mg/Kg	10	0.0200
Xylene		1	19.9	mg/Kg	10	0.0200

continued ...

sample 291737 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			44.7	mg/Kg	10	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.68	mg/Kg	10	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	8.90	mg/Kg	10	2.00	445	70 - 130

Sample: 291737 - S-2 0'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89588 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76058 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			237	mg/Kg	20	5.00

Sample: 291737 - S-2 0'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.11	s.u.	1	2.00

Sample: 291737 - S-2 0'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	31200	mg/Kg	20	50.0

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	1700	mg/Kg	20	100	1700	75.4 - 130

Sample: 291737 - S-2 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO		1	719	mg/Kg	10	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	1.39	mg/Kg	10	2.00	70	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	15.8	mg/Kg	10	2.00	790	70 - 130

Sample: 291738 - S-2 1'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89523 Date Analyzed: 2012-03-20 Analyzed By: ZLM
 Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	U	1	<0.0200	mg/Kg	1	0.0200
Toluene	U	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene		1	<0.0200	mg/Kg	1	0.0200
Xylenes	B	1	0.0298	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

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Sample: 291738 - S-2 1'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89588 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76058 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291738 - S-2 1'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			9.58	s.u.	1	2.00

Sample: 291738 - S-2 1'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	1b, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	75.4 - 130

Sample: 291738 - S-2 1'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89524 Date Analyzed: 2012-03-20 Analyzed By: ZLM
Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GR0		1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.97	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1	2.00	102	70 - 130

Sample: 291739 - S-2 2'

Laboratory: Lubbock

Analysis: BTEX, Total BTEX

Analytical Method: S 8021B

Prep Method: S 5035

QC Batch: 89498

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Prep Batch: 75962

Sample Preparation: 2012-03-19

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	v	1	<0.0200	mg/Kg	1	0.0200
Toluene	v	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	v	1	<0.0200	mg/Kg	1	0.0200
Xylene		1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	97	70 - 130

Sample: 291739 - S-2 2'

Laboratory: Lubbock

Analysis: Chloride (Titration)

Analytical Method: SM 4500-Cl B

Prep Method: N/A

QC Batch: 89588

Date Analyzed: 2012-03-20

Analyzed By: AM

Prep Batch: 76058

Sample Preparation: 2012-03-20

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			109	mg/Kg	20	5.00

Sample: 291739 - S-2 2'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.79	s.u.	1	2.00

Sample: 291739 - S-2 2'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	JL, Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			119	mg/Kg	1	100	119	75.4 - 130

Sample: 291739 - S-2 2'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

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Sample: 291740 - S-2 4'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene		1	<0.0200	mg/Kg	1	0.0200
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.05	mg/Kg	1	2.00	103	70 - 130

Sample: 291740 - S-2 4'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 89588 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76058 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			474	mg/Kg	20	5.00

Sample: 291740 - S-2 4'

Laboratory: Lubbock
Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			7.95	s.u.	1	2.00

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Sample: 291740 - S-2 4'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Jb,Qs	1	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			119	mg/Kg	1	100	119	75.4 - 130

Sample: 291740 - S-2 4'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.17	mg/Kg	1	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Sample: 291741 - S-2 6'

Laboratory: Lubbock
Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	1	<0.0200	mg/Kg	1	0.0200
Xylene	u	1	<0.0200	mg/Kg	1	0.0200

continued ...

sample 291741 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Total BTEX			<0.0600	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

Sample: 291741 - S-2 6'

Laboratory: Lubbock
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
 QC Batch: 89588 Date Analyzed: 2012-03-20 Analyzed By: AM
 Prep Batch: 76058 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291741 - S-2 6'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76049 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.45	s.u.	1	2.00

Sample: 291741 - S-2 6'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	1h, Qs	1	<50.0	mg/Kg	1	50.0

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			124	mg/Kg	1	100	124	75.4 - 130

Sample: 291741 - S-2 6'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	u	1	<2.00	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Sample: 291742 - S-3 0'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89523 Date Analyzed: 2012-03-20 Analyzed By: ZLM
 Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	15.6	mg/Kg	50	0.0200
Toluene		1	110	mg/Kg	50	0.0200
Ethylbenzene		1	14.1	mg/Kg	50	0.0200
Xylenc		1	129	mg/Kg	50	0.0200
Total BTEX			269	mg/Kg	50	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.31	mg/Kg	50	2.00	116	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	12.7	mg/Kg	50	2.00	635	70 - 130

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Sample: 291742 - S-3 0'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89581 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76050 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			7.86	s.u.	1	2.00

Sample: 291742 - S-3 0'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89533 Date Analyzed: 2012-03-20 Analyzed By: DS
 Prep Batch: 76009 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qs	1	49200	mg/Kg	20	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	2150	mg/Kg	20	100	2150	75.4 - 130

Sample: 291742 - S-3 0'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89524 Date Analyzed: 2012-03-20 Analyzed By: ZLM
 Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	3340	mg/Kg	50	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	0.857	mg/Kg	50	2.00	43	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	82.9	mg/Kg	50	2.00	4145	70 - 130

Sample: 291743 - S-3 1'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89523 Date Analyzed: 2012-03-20 Analyzed By: ZLM
 Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0263	mg/Kg	1	0.0200
Toluene		1	1.07	mg/Kg	1	0.0200
Ethylbenzene		1	0.650	mg/Kg	1	0.0200
Xylene		1	2.08	mg/Kg	1	0.0200
Total BTEX			3.83	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			2.37	mg/Kg	1	2.00	118	70 - 130

Sample: 291743 - S-3 1'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89581 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76050 Sample Preparation: 2012-03-20 Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.18	s.u.	1	2.00

Sample: 291743 - S-3 1'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89534 Date Analyzed: 2012-03-21 Analyzed By: DS
 Prep Batch: 76010 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	287	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	136	mg/Kg	1	100	136	75.4 - 130

Sample: 291743 - S-3 1'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89524 Date Analyzed: 2012-03-20 Analyzed By: ZLM
 Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	57.0	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.67	mg/Kg	1	2.00	84	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	2.61	mg/Kg	1	2.00	130	70 - 130

Sample: 291744 - S-3 2'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89523 Date Analyzed: 2012-03-20 Analyzed By: ZLM
 Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene	u	1	<0.0200	mg/Kg	1	0.0200
Ethylbenzene		1	0.196	mg/Kg	1	0.0200
Xylene		1	1.13	mg/Kg	1	0.0200
Total BTEX			1.33	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.64	mg/Kg	1	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			2.51	mg/Kg	1	2.00	126	70 - 130

Sample: 291744 - S-3 2'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89581 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76050 Sample Preparation: 2012-03-20 Prepared By: AM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.02	s.u.	1	2.00

Sample: 291744 - S-3 2'

Laboratory: Lubbock
 Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
 QC Batch: 89534 Date Analyzed: 2012-03-21 Analyzed By: DS
 Prep Batch: 76010 Sample Preparation: 2012-03-20 Prepared By: DS

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}	Q _{sr}	131	mg/Kg	1	100	131	75.4 - 130

Sample: 291744 - S-3 2'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89524 Date Analyzed: 2012-03-20 Analyzed By: ZLM
 Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	47.3	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)	Q _{sr}	Q _{sr}	3.02	mg/Kg	1	2.00	151	70 - 130

Sample: 291745 - S-3 4'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89498 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.0200	mg/Kg	1	0.0200
Toluene		1	0.0514	mg/Kg	1	0.0200
Ethylbenzene		1	0.140	mg/Kg	1	0.0200
Xylene		1	0.416	mg/Kg	1	0.0200
Total BTEX			0.607	mg/Kg	1	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.47	mg/Kg	1	2.00	124	70 - 130

Sample: 291745 - S-3 4'

Laboratory: Lubbock
Analysis: pH
QC Batch: 89581
Prep Batch: 76050

Analytical Method: SM 4500-H+
Date Analyzed: 2012-03-21
Sample Preparation: 2012-03-20

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			9.05	s.u.	1	2.00

Sample: 291745 - S-3 4'

Laboratory: Lubbock
Analysis: TPH DRO - NEW
QC Batch: 89534
Prep Batch: 76010

Analytical Method: S 8015 D
Date Analyzed: 2012-03-21
Sample Preparation: 2012-03-20

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	B	1	170	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsf	Qsf	131	mg/Kg	1	100	131	75.4 - 130

Sample: 291745 - S-3 4'

Laboratory: Lubbock
 Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
 QC Batch: 89501 Date Analyzed: 2012-03-19 Analyzed By: ZLM
 Prep Batch: 75962 Sample Preparation: 2012-03-19 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	42.4	mg/Kg	1	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.15	mg/Kg	1	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			2.50	mg/Kg	1	2.00	125	70 - 130

Sample: 291746 - S-3 6'

Laboratory: Lubbock
 Analysis: BTEX, Total BTEX Analytical Method: S 8021B Prep Method: S 5035
 QC Batch: 89523 Date Analyzed: 2012-03-20 Analyzed By: ZLM
 Prep Batch: 75995 Sample Preparation: 2012-03-20 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.06	mg/Kg	5	0.0200
Toluene		1	29.1	mg/Kg	5	0.0200
Ethylbenzene		1	9.01	mg/Kg	5	0.0200
Xylene		1	28.7	mg/Kg	5	0.0200
Total BTEX			67.9	mg/Kg	5	0.0600

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.64	mg/Kg	5	2.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	4.74	mg/Kg	5	2.00	237	70 - 130

Sample: 291746 - S-3 6'

Laboratory: Lubbock
 Analysis: pH Analytical Method: SM 4500-H+ Prep Method: N/A
 QC Batch: 89581 Date Analyzed: 2012-03-21 Analyzed By: AM
 Prep Batch: 76050 Sample Preparation: 2012-03-20 Prepared By: AM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
pH			8.28	s.u.	1	2.00

Sample: 291746 - S-3 6'

Laboratory: Lubbock
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 89534 Date Analyzed: 2012-03-21 Analyzed By: DS
Prep Batch: 76010 Sample Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	2360	mg/Kg	5	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr	213	mg/Kg	5	100	213	75.4 - 130

Sample: 291746 - S-3 6'

Laboratory: Lubbock
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 89571 Date Analyzed: 2012-03-21 Analyzed By: ZLM
Prep Batch: 76041 Sample Preparation: 2012-03-21 Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qs	1	1050	mg/Kg	10	2.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	Qsr	1.34	mg/Kg	10	2.00	67	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	31.5	mg/Kg	10	2.00	1575	70 - 130

Sample: 291747 - BG-1 0'

Laboratory: Lubbock
Analysis: Chloride (Titration) Analytical Method: SM 4500-C1 B Prep Method: N/A
QC Batch: 89588 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76058 Sample Preparation: 2012-03-20 Prepared By: AM

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Sample: 291748 - BG-1 3'

Laboratory: Lubbock

Analysis: Chloride (Titration)

QC Batch: 89588

Prep Batch: 76058

Analytical Method: SM 4500-Cl B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: N/A

Analyzed By: AM

Prepared By: AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<100	mg/Kg	20	5.00

Method Blanks

Method Blank (1) QC Batch: 89483

QC Batch: 89483
Prep Batch: 75959

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00365	mg/Kg	0.02
Toluene		1	<0.00816	mg/Kg	0.02
Ethylbenzene		1	<0.00560	mg/Kg	0.02
Xylene		1	0.00530	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	70 - 130

Method Blank (1) QC Batch: 89484

QC Batch: 89484
Prep Batch: 75959

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<0.359	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.09	mg/Kg	1	2.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			2.05	mg/Kg	1	2.00	102	70 - 130

Method Blank (1) QC Batch: 89498

QC Batch: 89498
Prep Batch: 75962

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00365	mg/Kg	0.02
Toluene		1	<0.00816	mg/Kg	0.02
Ethylbenzene		1	<0.00560	mg/Kg	0.02
Xylene		1	<0.00460	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1	2.00	101	70 - 130

Method Blank (1) QC Batch: 89501

QC Batch: 89501
Prep Batch: 75962

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<0.359	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.03	mg/Kg	1	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			2.02	mg/Kg	1	2.00	101	70 - 130

Method Blank (1) QC Batch: 89523

QC Batch: 89523
Prep Batch: 75995

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00365	mg/Kg	0.02
Toluene		1	<0.00816	mg/Kg	0.02
Ethylbenzene		1	<0.00560	mg/Kg	0.02
Xylene		1	0.00700	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 130

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method blank continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			1.96	mg/Kg	1	2.00	98	70 - 130

Method Blank (1) QC Batch: 89524

QC Batch: 89524
Prep Batch: 75995

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<0.359	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

Method Blank (1) QC Batch: 89532

QC Batch: 89532
Prep Batch: 76008

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: DS
Prepared By: DS

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	26.2	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			127	mg/Kg	1	100	127	75.4 - 130

Method Blank (1) QC Batch: 89533

QC Batch: 89533
Prep Batch: 76009

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: DS
Prepared By: DS

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Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	29.9	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			123	mg/Kg	1	100	123	75.4 - 130

Method Blank (1) QC Batch: 89534

QC Batch: 89534 Date Analyzed: 2012-03-21 Analyzed By: DS
Prep Batch: 76010 QC Preparation: 2012-03-20 Prepared By: DS

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	24.0	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			120	mg/Kg	1	100	120	75.4 - 130

Method Blank (1) QC Batch: 89571

QC Batch: 89571 Date Analyzed: 2012-03-21 Analyzed By: ZLM
Prep Batch: 76041 QC Preparation: 2012-03-21 Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<0.359	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.17	mg/Kg	1	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	70 - 130

Method Blank (1) QC Batch: 89584

QC Batch: 89584 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76054 QC Preparation: 2012-03-19 Prepared By: AM

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Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.05	mg/Kg	5

Method Blank (1) QC Batch: 89585

QC Batch: 89585 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76055 QC Preparation: 2012-03-19 Prepared By: AM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.05	mg/Kg	5

Method Blank (1) QC Batch: 89586

QC Batch: 89586 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76056 QC Preparation: 2012-03-19 Prepared By: AM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.05	mg/Kg	5

Method Blank (1) QC Batch: 89587

QC Batch: 89587 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76057 QC Preparation: 2012-03-19 Prepared By: AM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.05	mg/Kg	5

Method Blank (1) QC Batch: 89588

QC Batch: 89588 Date Analyzed: 2012-03-20 Analyzed By: AM
Prep Batch: 76058 QC Preparation: 2012-03-19 Prepared By: AM

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Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.05	mg/Kg	5

Duplicates (1) Duplicated Sample: 291706

QC Batch: 89575 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76044 QC Preparation: 2012-03-20 Prepared By: AM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	8.96	8.93	s.u.	1	0	20

Duplicates (1) Duplicated Sample: 291721

QC Batch: 89577 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76047 QC Preparation: 2012-03-20 Prepared By: AM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	8.77	8.77	s.u.	1	0	20

Duplicates (1) Duplicated Sample: 291731

QC Batch: 89579 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76048 QC Preparation: 2012-03-20 Prepared By: AM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	8.37	8.34	s.u.	1	0	20

Duplicates (1) Duplicated Sample: 291741

QC Batch: 89580 Date Analyzed: 2012-03-21 Analyzed By: AM
Prep Batch: 76049 QC Preparation: 2012-03-20 Prepared By: AM

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Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	8.44	8.45	s.u.	1	0	20

Duplicates (1) Duplicated Sample: 291746

QC Batch: 89581
Prep Batch: 76050

Date Analyzed: 2012-03-21
QC Preparation: 2012-03-20

Analyzed By: AM
Prepared By: AM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	8.30	8.28	s.u.	1	0	20

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 89483
Prep Batch: 75959

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.16	mg/Kg	1	2.00	<0.00365	108	75.4 - 120
Toluene		1	2.22	mg/Kg	1	2.00	<0.00816	111	74.9 - 120
Ethylbenzene		1	2.15	mg/Kg	1	2.00	<0.00560	108	78.1 - 120
Xylene		1	6.52	mg/Kg	1	6.00	0.0053	109	77.3 - 120

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.18	mg/Kg	1	2.00	<0.00365	109	75.4 - 120	1	20
Toluene		1	2.24	mg/Kg	1	2.00	<0.00816	112	74.9 - 120	1	20
Ethylbenzene		1	2.19	mg/Kg	1	2.00	<0.00560	110	78.1 - 120	2	20
Xylene		1	6.64	mg/Kg	1	6.00	0.0053	111	77.3 - 120	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)	2.07	2.06	mg/Kg	1	2.00	104	103	70 - 130
4-Bromofluorobenzene (4-BFB)	2.14	2.13	mg/Kg	1	2.00	107	106	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89484
Prep Batch: 75959

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	18.0	mg/Kg	1	20.0	<0.359	90	68.9 - 120

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

continued ...

Laboratory Control Spike (LCS-1)

QC Batch: 89501
Prep Batch: 75962

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
GRO		1	17.8	mg/Kg	1	20.0	<0.359	89	68.9 - 120

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
GRO		1	17.0	mg/Kg	1	20.0	<0.359	85	68.9 - 120	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	2.12	2.13	mg/Kg	1	2.00	106	106	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89523
Prep Batch: 75995

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Benzene		1	1.94	mg/Kg	1	2.00	<0.00365	97	75.4 - 120
Toluene		1	2.00	mg/Kg	1	2.00	<0.00816	100	74.9 - 120
Ethylbenzene		1	1.93	mg/Kg	1	2.00	<0.00560	96	78.1 - 120
Xylene		1	5.84	mg/Kg	1	6.00	0.007	97	77.3 - 120

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Benzene		1	1.95	mg/Kg	1	2.00	<0.00365	98	75.4 - 120	0	20
Toluene		1	2.02	mg/Kg	1	2.00	<0.00816	101	74.9 - 120	1	20
Ethylbenzene		1	1.95	mg/Kg	1	2.00	<0.00560	98	78.1 - 120	1	20
Xylene		1	5.90	mg/Kg	1	6.00	0.007	98	77.3 - 120	1	20

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

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	18.6	mg/Kg	1	20.0	<0.359	93	68.9 - 120	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.95	1.94	mg/Kg	1	2.00	98	97	70 - 130
4-Bromofluorobenzene (4-BFB)	2.18	2.17	mg/Kg	1	2.00	109	108	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89498
Prep Batch: 75962

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.19	mg/Kg	1	2.00	<0.00365	110	75.4 - 120
Toluene		1	2.27	mg/Kg	1	2.00	<0.00816	114	74.9 - 120
Ethylbenzene		1	2.18	mg/Kg	1	2.00	<0.00560	109	78.1 - 120
Xylene		1	6.61	mg/Kg	1	6.00	<0.00460	110	77.3 - 120

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.19	mg/Kg	1	2.00	<0.00365	110	75.4 - 120	0	20
Toluene		1	2.27	mg/Kg	1	2.00	<0.00816	114	74.9 - 120	0	20
Ethylbenzene		1	2.19	mg/Kg	1	2.00	<0.00560	110	78.1 - 120	0	20
Xylene		1	6.62	mg/Kg	1	6.00	<0.00460	110	77.3 - 120	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.02	2.01	mg/Kg	1	2.00	101	100	70 - 130
4-Bromofluorobenzene (4-BFB)	2.20	2.20	mg/Kg	1	2.00	110	110	70 - 130

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.77	1.81	mg/Kg	1	2.00	88	90	70 - 130
4-Bromofluorobenzene (4-BFB)	1.95	1.99	mg/Kg	1	2.00	98	100	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89524
Prep Batch: 75995

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	16.8	mg/Kg	1	20.0	<0.359	84	68.9 - 120

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Limit	RPD	RPD Limit	
GRO		1	17.5	mg/Kg	1	20.0	<0.359	88	68.9 - 120	4	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.76	1.82	mg/Kg	1	2.00	88	91	70 - 130
4-Bromofluorobenzene (4-BFB)	2.01	2.04	mg/Kg	1	2.00	100	102	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89532
Prep Batch: 76008

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: DS
Prepared By: DS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	277	mg/Kg	1	250	26.2	100	73.2 - 118

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

continued ...

control spikes continued ...

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	280	mg/Kg	1	250	26.2	102	73.2 - 118	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
n-Tricosane	117	116	mg/Kg	1	100	117	116	75.4 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89533
Prep Batch: 76009

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: DS
Prepared By: DS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	288	mg/Kg	1	250	30	103	73.2 - 118

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	284	mg/Kg	1	250	30	102	73.2 - 118	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
n-Tricosane	119	118	mg/Kg	1	100	119	118	75.4 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89534
Prep Batch: 76010

Date Analyzed: 2012-03-21
QC Preparation: 2012-03-20

Analyzed By: DS
Prepared By: DS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	283	mg/Kg	1	250	24	104	73.2 - 118

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

Param	LCS		Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	F	C								
DRO		1	290 mg/Kg	1	250	24	106	73.2 - 118	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit

Laboratory Control Spike (LCS-1)

QC Batch: 89571
Prep Batch: 76041

Date Analyzed: 2012-03-21
QC Preparation: 2012-03-21

Analyzed By: ZLM
Prepared By: ZLM

Param	LCS		Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
	F	C						
GRO		1	18.2 mg/Kg	1	20.0	<0.359	91	68.9 - 120

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

Param	LCS		Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
	F	C								
GRO		1	17.7 mg/Kg	1	20.0	<0.359	88	68.9 - 120	3	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	2.11	2.22	mg/Kg	1	2.00	106	111	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291698

QC Batch: 89483
Prep Batch: 75959

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Toluene		1	2.10	mg/Kg	1	2.00	<0.00816	105	38.6 - 153
Ethylbenzene		1	2.06	mg/Kg	1	2.00	<0.00560	103	36.7 - 172
Xylene		1	6.32	mg/Kg	1	6.00	<0.00460	105	36.7 - 173

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
Benzene		1	2.03	mg/Kg	1	2.00	<0.00365	102	37.6 - 142	3	20
Toluene		1	2.17	mg/Kg	1	2.00	<0.00816	108	38.6 - 153	3	20
Ethylbenzene		1	2.12	mg/Kg	1	2.00	<0.00560	106	36.7 - 172	3	20
Xylene		1	6.43	mg/Kg	1	6.00	<0.00460	107	36.7 - 173	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	2.14	2.20	mg/Kg	1	2	107	110	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291698

QC Batch: 89484
Prep Batch: 75959

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
GRO		1	18.6	mg/Kg	1	20.0	<0.359	93	70 - 130

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

Param	F	C	MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
			Result	Units							
GRO		1	17.3	mg/Kg	1	20.0	<0.359	86	70 - 130	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
4-Bromofluorobenzene (4-BFB)	2.28	2.16	mg/Kg	1	2	114	108	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291719

QC Batch: 89498
Prep Batch: 75962

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Benzene		1	2.01	mg/Kg	1	2.00	<0.00365	100	37.6 - 142

continued ...

matrix spikes continued ...

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Toluene		1	2.13	mg/Kg	1	2.00	<0.00816	106	38.6 - 153
Ethylbenzene		1	2.07	mg/Kg	1	2.00	<0.00560	104	36.7 - 172
Xylene		1	6.25	mg/Kg	1	6.00	<0.00460	104	36.7 - 173

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.94	mg/Kg	1	2.00	<0.00365	97	37.6 - 142	4	20
Toluene		1	2.07	mg/Kg	1	2.00	<0.00816	104	38.6 - 153	3	20
Ethylbenzene		1	2.05	mg/Kg	1	2.00	<0.00560	102	36.7 - 172	1	20
Xylene		1	6.24	mg/Kg	1	6.00	<0.00460	104	36.7 - 173	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.00	1.92	mg/Kg	1	2	100	96	70 - 130
4-Bromofluorobenzene (4-BFB)	1.89	1.92	mg/Kg	1	2	94	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291719

QC Batch: 89501
Prep Batch: 75962

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	16.5	mg/Kg	1	20.0	<0.359	82	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	16.6	mg/Kg	1	20.0	<0.359	83	70 - 130	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.83	1.78	mg/Kg	1	2	92	89	70 - 130
4-Bromofluorobenzene (4-BFB)	1.98	1.97	mg/Kg	1	2	99	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291738

QC Batch: 89523
Prep Batch: 75995

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.83	mg/Kg	1	2.00	<0.00365	92	37.6 - 142
Toluene		1	1.94	mg/Kg	1	2.00	<0.00816	97	38.6 - 153
Ethylbenzene		1	1.91	mg/Kg	1	2.00	0.0071	95	36.7 - 172
Xylene		1	5.82	mg/Kg	1	6.00	0.0298	96	36.7 - 173

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.72	mg/Kg	1	2.00	<0.00365	86	37.6 - 142	6	20
Toluene		1	1.83	mg/Kg	1	2.00	<0.00816	92	38.6 - 153	6	20
Ethylbenzene		1	1.84	mg/Kg	1	2.00	0.0071	92	36.7 - 172	4	20
Xylene		1	5.63	mg/Kg	1	6.00	0.0298	93	36.7 - 173	3	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	1.90	mg/Kg	1	2	96	95	70 - 130
4-Bromofluorobenzene (4-BFB)	2.05	2.01	mg/Kg	1	2	102	100	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291738

QC Batch: 89524
Prep Batch: 75995

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	18.6	mg/Kg	1	20.0	0.737	89	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	19.2	mg/Kg	1	20.0	0.737	92	70 - 130	3	20

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

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.85	1.88	mg/Kg	1	2	92	94	70 - 130
4-Bromofluorobenzene (4-BFB)	2.20	2.19	mg/Kg	1	2	110	110	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291721

QC Batch: 89532
Prep Batch: 76008

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: DS
Prepared By: DS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	255	mg/Kg	1	250	37.8	87	75.4 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	241	mg/Kg	1	250	37.8	81	75.4 - 130	6	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	116	120	mg/Kg	1	100	116	120	38.4 - 143

Matrix Spike (MS-1) Spiked Sample: 291741

QC Batch: 89533
Prep Batch: 76009

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: DS
Prepared By: DS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
DRO	Qs	Qs	1	209	mg/Kg	1	250	31.7	71	75.4 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
DRO	Qs	Qs	1	210	mg/Kg	1	250	31.7	71	75.4 - 130	0	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	125	121	mg/Kg	1	100	125	121	38.4 - 143

Matrix Spike (MS-1) Spiked Sample: 291743

QC Batch: 89534 Date Analyzed: 2012-03-21 Analyzed By: DS
Prep Batch: 76010 QC Preparation: 2012-03-20 Prepared By: DS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	511	mg/Kg	1	250	287	90	75.4 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	556	mg/Kg	1	250	287	108	75.4 - 130	8	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	133	132	mg/Kg	1	100	133	132	38.4 - 143

Matrix Spike (MS-1) Spiked Sample: 291734

QC Batch: 89571 Date Analyzed: 2012-03-21 Analyzed By: ZLM
Prep Batch: 76041 QC Preparation: 2012-03-21 Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
GRO	Qs	Qs	1	134	mg/Kg	5	20.0	72.3	308	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	Qs	Qs	1	130	mg/Kg	5	20.0	288	70 - 130	3	20

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

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.04	2.02	mg/Kg	5	2	102	101	70 - 130
4-Bromofluorobenzene (4-BFB) <small>Q_{sr} Q_{sr}</small>	4.56	4.14	mg/Kg	5	2	228	207	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291706

QC Batch: 89584
Prep Batch: 76054

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-19

Analyzed By: AM
Prepared By: AM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			975	mg/Kg	20	1000	<61.0	98	80 - 120

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			985	mg/Kg	20	1000	<61.0	98	80 - 120	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: 291716

QC Batch: 89585
Prep Batch: 76055

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-19

Analyzed By: AM
Prepared By: AM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	<small>Q_s</small>	<small>Q_s</small>	4330	mg/Kg	100	5000	3450	18	80 - 120

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	<small>Q_s</small>	<small>Q_s</small>	4380	mg/Kg	100	5000	3450	19	80 - 120	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: 291726

QC Batch: 89586
Prep Batch: 76056

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-19

Analyzed By: AM
Prepared By: AM

Report Date: March 23, 2012
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Work Order: 12031904
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Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			968	mg/Kg	20	1000	<61.0	97	80 - 120

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			958	mg/Kg	20	1000	<61.0	96	80 - 120	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: 291736

QC Batch: 89587
Prep Batch: 76057

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-19

Analyzed By: AM
Prepared By: AM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			1010	mg/Kg	20	1000	<61.0	101	80 - 120

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			1020	mg/Kg	20	1000	<61.0	102	80 - 120	1	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 89483

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.105	105	80 - 120	2012-03-19
Toluene		1	mg/kg	0.100	0.110	110	80 - 120	2012-03-19
Ethylbenzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-03-19
Xylenc		1	mg/kg	0.300	0.321	107	80 - 120	2012-03-19

Standard (CCV-2)

QC Batch: 89483

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.107	107	80 - 120	2012-03-19
Toluene		1	mg/kg	0.100	0.111	111	80 - 120	2012-03-19
Ethylbenzene		1	mg/kg	0.100	0.107	107	80 - 120	2012-03-19
Xylenc		1	mg/kg	0.300	0.328	109	80 - 120	2012-03-19

Standard (CCV-3)

QC Batch: 89483

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.109	109	80 - 120	2012-03-19
Toluene		1	mg/kg	0.100	0.112	112	80 - 120	2012-03-19
Ethylbenzene		1	mg/kg	0.100	0.109	109	80 - 120	2012-03-19
Xylene		1	mg/kg	0.300	0.329	110	80 - 120	2012-03-19

Standard (CCV-2)

QC Batch: 89498

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.107	107	80 - 120	2012-03-19
Toluene		1	mg/kg	0.100	0.110	110	80 - 120	2012-03-19
Ethylbenzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-03-19
Xylene		1	mg/kg	0.300	0.321	107	80 - 120	2012-03-19

Standard (CCV-3)

QC Batch: 89498

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.107	107	80 - 120	2012-03-19
Toluene		1	mg/kg	0.100	0.110	110	80 - 120	2012-03-19
Ethylbenzene		1	mg/kg	0.100	0.106	106	80 - 120	2012-03-19
Xylene		1	mg/kg	0.300	0.323	108	80 - 120	2012-03-19

Standard (CCV-1)

QC Batch: 89501

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.849	85	80 - 120	2012-03-19

Standard (CCV-2)

QC Batch: 89501

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.862	86	80 - 120	2012-03-19

Standard (CCV-3)

QC Batch: 89501

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.972	97	80 - 120	2012-03-19

Standard (CCV-1)

QC Batch: 89523

Date Analyzed: 2012-03-20

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0973	97	80 - 120	2012-03-20
Toluene		1	mg/kg	0.100	0.0991	99	80 - 120	2012-03-20
Ethylbenzene		1	mg/kg	0.100	0.0973	97	80 - 120	2012-03-20
Xylene		1	mg/kg	0.300	0.296	99	80 - 120	2012-03-20

Standard (CCV-2)

QC Batch: 89523

Date Analyzed: 2012-03-20

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0968	97	80 - 120	2012-03-20
Toluene		1	mg/kg	0.100	0.103	103	80 - 120	2012-03-20
Ethylbenzene		1	mg/kg	0.100	0.0991	99	80 - 120	2012-03-20
Xylene		1	mg/kg	0.300	0.305	102	80 - 120	2012-03-20

Standard (CCV-1)

QC Batch: 89524

Date Analyzed: 2012-03-20

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.894	89	80 - 120	2012-03-20

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Standard (CCV-2)

QC Batch: 89524

Date Analyzed: 2012-03-20

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.992	99	80 - 120	2012-03-20

Standard (CCV-1)

QC Batch: 89532

Date Analyzed: 2012-03-20

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	280	112	80 - 120	2012-03-20

Standard (CCV-2)

QC Batch: 89532

Date Analyzed: 2012-03-20

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	289	116	80 - 120	2012-03-20

Standard (CCV-3)

QC Batch: 89532

Date Analyzed: 2012-03-20

Analyzed By: DS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	284	114	80 - 120	2012-03-20

Standard (CCV-4)

QC Batch: 89532

Date Analyzed: 2012-03-20

Analyzed By: DS

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH			s.u.	7.00	7.00	100	98 - 102	2012-03-21

Standard (ICV-1)

QC Batch: 89581

Date Analyzed: 2012-03-21

Analyzed By: AM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH			s.u.	7.00	7.02	100	98 - 102	2012-03-21

Standard (CCV-1)

QC Batch: 89581

Date Analyzed: 2012-03-21

Analyzed By: AM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH			s.u.	7.00	7.00	100	98 - 102	2012-03-21

Standard (ICV-1)

QC Batch: 89584

Date Analyzed: 2012-03-20

Analyzed By: AM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.5	100	85 - 115	2012-03-20

Standard (CCV-1)

QC Batch: 89584

Date Analyzed: 2012-03-20

Analyzed By: AM

Report Date: March 23, 2012
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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2012-03-20

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704210-12-6	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

- 1 Dilution due to surfactants.
- 2 Dilution due to surfactants.
- 3 Dilution due to surfactants.
- 4 Sample dilution due to surfactants.

- 5 Sample dilution due to surfactants.
- 6 Dilution due to surfactants.
- 7 Dilution due to surfactants.
- 8 Sample dilution due to surfactants.
- 9 Dilution due to surfactants.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

12031904

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
 (575) 393-2326 FAX (575) 393-2476

1-6

Company Name: <u>Talon/LPE</u>				ANALYSIS REQUEST														
Project Manager: <u>MIKE STUBBLEFIELD</u>				P.O. #:														
Address: <u>408 WEST TOWN AVE</u>				Company: <u>Talon/LPE</u>														
City: <u>Artesia</u>		State: <u>NM</u>		Zip: <u>88210</u>		Attn:												
Phone #: <u>575-441-7254</u>		Fax #:		Address:		City:												
Project #: <u>700794.025 01</u>				Project Owner: <u>Devon Energy Corp</u>														
Project Name: <u>Hackberry 18 Federal No. 1</u>				State: Zip:														
Project Location: <u>sec. 18 T19S R31E</u>				Phone #:														
Sampler Name: <u>MIKE STUBBLEFIELD</u>				Fax #:														
FOR LAB USE ONLY																		
Lab I.D.	Sample I.D.	(GRAB OR C/COMP.)	# CONTAINERS	MATRIX			PRESERV.	SAMPLING										
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL	OTHER:	DATE	TIME				
291697	F-1 0'	G				/				/			3/14/2012	9:47A	/	/	/	/
698	F-1 1'	G				/				/			3/14/2012	10:04A	/	/	/	/
699	F-1 2'	G				/				/			3/14/2012	10:06A	/	/	/	/
700	F-1 4'	G				/				/			3/14/2012	10:08A	/	/	/	/
701	F-1 6'	G				/				/			3/14/2012	10:14A	/	/	/	/
702	F-2 0'	G				/				/			3/14/2012	10:34A	/	/	/	/
703	F-2 1'	G				/				/			3/14/2012	10:38A	/	/	/	/
704	F-2 2'	G				/				/			3/14/2012	10:40A	/	/	/	/
705	F-2 4'	G				/				/			3/14/2012	10:42A	/	/	/	/
706	F-2 6'	G				/				/			3/14/2012	10:49A	/	/	/	/

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Relinquished By: <u>MIKE STUBBLEFIELD</u>	Date: <u>3/16/2012</u>	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <u>10:40A</u>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <u>FREEDY</u>	Date: <u>3/16/12</u>	Received By: <u>ALLEN</u>	REMARKS:	
	Time: <u>9:30</u>			
Delivered By: (Circle One) <u>IRN</u>	Sample Condition: <u>3.0</u>	Sample Condition: Cool Intact	CHECKED BY: (Initials) <u>AL</u>	
Sampler - UPS - Bus - Other: <u>3.1</u>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Warland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

2-6

Company Name: <u>Talon/LPE</u>				DATE TO: _____				ANALYSIS REQUEST																																																																																																																											
Project Manager: <u>Mike Stubblefield</u>				P.O. #:				<table border="1"> <tr><td>Glutathione</td><td>PH</td><td>8015M TPH</td><td>8021B BTEX</td><td>Total chlorides</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>				Glutathione	PH	8015M TPH	8021B BTEX	Total chlorides																																																																																																																			
Glutathione	PH	8015M TPH	8021B BTEX	Total chlorides																																																																																																																															
Address: <u>408 West Town Ave</u>				Company: <u>Talon/LPE</u>																																																																																																																															
City: <u>Artesia</u>		State: <u>NM</u>		Zip: <u>88210</u>		Airtel:																																																																																																																													
Phone #: <u>505-441-7254</u>		Fax #:		Address:		City:																																																																																																																													
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Project Name: <u>Hackberry 18 Federal No. 1</u>				Phone #:																																																																																																																															
Project Location: <u>sec. 18-7195-R31E</u>				Fax #:																																																																																																																															
Sampler Name: <u>Mike Stubblefield</u>																																																																																																																																			
FOR LAB USE ONLY																																																																																																																																			
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708	F-3 1'	5										3/14/2012	11:07 A																																																																																																																						
709	F-3 2'	5										3/14/2012	11:09 A																																																																																																																						
710	F-3 4'	5										3/14/2012	11:11 A																																																																																																																						
711	F-3 6'	5										3/14/2012	11:15 A																																																																																																																						
712	RP-1 0'	5										3/14/2012	11:21 A																																																																																																																						
713	RP-1 1'	5										3/14/2012	11:25 A																																																																																																																						
714	RP-1 2'	5										3/14/2012	11:27 A																																																																																																																						
715	RP-1 4'	5										3/14/2012	11:29 A																																																																																																																						
716	RP-1 6'	5										3/14/2012	11:31 A																																																																																																																						

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Relinquished By: <u>Mike Stubblefield</u>	Date: <u>3/16/2012</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <u>[Signature]</u>	Time: <u>10:40</u>	Received By: <u>[Signature]</u>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <u>R31/3.0</u>	Sample Condition Cool in container <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <u>[Signature]</u>	REMARKS:	

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Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

3-6

Company Name: <u>Talon/LPE</u>		P.O. #:		ANALYSIS REQUEST	
Project Manager: <u>Mike Stubblefield</u>		Company: <u>Talon/LPE</u>			
Address: <u>408 West Tacon Ave</u>		Attn:			
City: <u>Artesia</u> State: <u>NM</u> Zip: <u>88210</u>		Address:			
Phone #: <u>505-441-7254</u> Fax #:		City:			
Project #: <u>700794.025.01</u> Project Owner: <u>Devon Energy Co. P.</u>		State: Zip:			
Project Name: <u>Hackberry 18 Federal No. 1</u>		Phone #:			
Project Location: <u>sec. 18 T195-R31E</u>		Fax #:			
Sampler Name: <u>Mike Stubblefield</u>					

Lab I.D.	Sample I.D.	(GRAB OR (COMP. # CONTAINERS	MATRIX					PRESERV.			SAMPLING		Glutathalhyde	PH	8015M TPH	8021B BTEX	Total chlorides	
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER:	DATE						TIME
291717	F-4 0'	G			/					/			3/14/2012	1:06 P	/	/	/	/
718	F-4 1'	G			/					/			3/14/2012	1:08 P	/	/	/	/
719	F-4 2'	G			/					/			3/14/2012	1:10 P	/	/	/	/
720	F-4 4'	G			/					/			3/14/2012	1:12 P	/	/	/	/
721	F-4 6'	G			/					/			3/14/2012	1:15 P	/	/	/	/
722	F-5 0'	G			/					/			3/14/2012	1:23 P	/	/	/	/
723	F-5 1'	G			/					/			3/14/2012	1:25 P	/	/	/	/
724	F-5 2'	G			/					/			3/14/2012	1:27 P	/	/	/	/
725	F-5 4'	G			/					/			3/14/2012	1:29 P	/	/	/	/
726	F-5 6'	G			/					/			3/14/2012	1:30 P	/	/	/	/

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>Mike Stubblefield</u>	Date: <u>3/16/2012</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <u>10:40 AM</u>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <u>[Signature]</u>	Date: <u>3/16/2012</u>	Received By: <u>[Signature]</u>	REMARKS:	
Delivered By: (Circle One)	Sample Condition	CHECKED BY: <u>[Signature]</u>		
Sampler - UPS - Bus - Other: <u>RR 3/30</u>	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			

Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

12031904

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

6-6

Company Name: <u>Tulsa/LPE</u>				BILL TO				ANALYSIS REQUEST							
Project Manager: <u>Mike Stubblefield</u>				P.O. #:											
Address: <u>408 West Texas Ave.</u>				Company: <u>Tulsa/LPE</u>											
City: <u>Atsita</u> State: <u>NM</u> Zip:				Attn:											
Phone #: <u>575-441-7254</u> Fax #:				Address:											
Project #: <u>200294.025.01</u> Project Owner: <u>Devco Energy Corp.</u>				City:											
Project Name: <u>Hackberry 18 Fed No. 1</u>				State: Zip:											
Project Location: <u>sec. 18 - T19J - R31E</u>				Phone #:											
Sampler Name: <u>Mike Stubblefield</u>				Fax #:											
FOR LAB USE ONLY				MATRIX								PRESERV			
				GROUNDWATER								DATE			
				WASTEWATER				TIME							
				SOIL											
				OIL											
				SLUDGE											
				OTHER:											
				ACID/BASE:											
				ICE/COOL											
				OTHER:											
Lab I.D.		Sample I.D.		(GIRAB OR (COMP. # CONTAINERS											
<u>291747</u>		<u>BG-1 0</u>								Total Chloride					
<u>748</u>		<u>BG-1 3</u>													

PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>Mike Stubblefield</u>	Date: <u>3/16/12</u> Time: <u>10:40 A</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <u>[Signature]</u>	Date: <u>3/16/12</u> Time: <u>7:20</u>	Received By: <u>[Signature]</u>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <u>PS 3/13.0</u>	Sample Condition Cool Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CHECKED BY: <u>[Signature]</u>	REMARKS:	

12031904

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Warland, Hobbs, NM 88240
 (575) 393-2020 FAX (575) 393-2476

5-6

Company Name: <u>Talon/LPE</u>		P.O. #:	
Project Manager: <u>Mike Stubblefield</u>		Company: <u>Talon/LPE</u>	
Address: <u>408 West Teard Dr</u>		Attn:	
City: <u>Artesia</u>	State: <u>NM</u>	Zip: <u>88210</u>	Address:
Phone #: <u>575-441-7254</u>	Fax #:	City:	State: Zip:
Project #: <u>700794.025.01</u>	Project Owner: <u>Devon Energy Corp.</u>	Phone #:	Fax #:
Project Name: <u>Hackberry 18 Federal No.1</u>	Project Location: <u>sec. 18-7195-R31E</u>		
Sampler Name: <u>Mike Stubblefield</u>			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV		SAMPLING		61 Natural hydr GBW-18	PH	8015M TPH	8021B BTEX	Total chlorides
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER	DATE	TIME					
291737	S-2 0'	G											3/14/2012	2:40P	/	/	/	/	/
738	S-2 1'	G											3/14/2012	2:42P	/	/	/	/	/
739	S-2 2'	G											3/14/2012	2:44P	/	/	/	/	/
740	S-2 4'	G											3/14/2012	2:46P	/	/	/	/	/
741	S-2 6'	G											3/14/2012	2:48P	/	/	/	/	/
742	S-3 0'	G											3/14/2012	3:04P	/	/	/	/	/
743	S-3 1'	G											3/14/2012	3:06P	/	/	/	/	/
744	S-3 2'	G											3/14/2012	3:08P	/	/	/	/	/
745	S-3 4'	G											3/14/2012	3:10P	/	/	/	/	/
746	S-3 6'	G											3/14/2012	3:12P	/	/	/	/	/

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Relinquished By: <u>Mike Stubblefield</u>	Date: <u>3/16/2012</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: <u>10:40 A</u>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By: <u>[Signature]</u>	Date: <u>3/16/2012</u>	Received By: <u>[Signature]</u>	REMARKS:	
Delivered By: (Circle One)	Sample Condition	CHECKED BY: <u>[Signature]</u>		
Sampler - UPS - Bus - Other: <u>IRA 3.113.0</u>	Cool: <input type="checkbox"/> Yes <input type="checkbox"/> No	Initial: <u>[Signature]</u>		
	Insul: <input type="checkbox"/> Yes <input type="checkbox"/> No			
	Other: <input type="checkbox"/> Yes <input type="checkbox"/> No			

* Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

12031904

Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Warland, Hobbs, NM 88240
 (575) 393-2320 FAX (575) 393-2476

4-6

Company Name: Talon/LPE		P.O. #:		ANALYSIS REQUEST														
Project Manager: Mike Stubblefield		Company: Talon/LPE																
Address: 408 West Tean Ave		City: Astoria State: NM Zip: 88210																
Phone #: 575-441-7254 Fax #:		Address:																
Project #: 700794.025 01 Project Owner: Devon Energy Corp.		City:																
Project Name: Hackberry 18 Federal No. 1		State: Zip:																
Project Location: sec. 18-7195-R31E		Phone #:																
Sampler Name: Mike Stubblefield		Fax #:																
Lab I.D.	Sample I.D.	(GRAB OR (COMP. # CONTAINERS	MATRIX						PRESERV			SAMPLING		Glutaralhyde	PH	8015M TPH	8021B BTEX	Total chlorides
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME					
29727	F-6 0'	S									3/14/2012	1:41 P	/	/	/	/	/	/
728	F-6 1'	S									3/14/2012	1:45 P	/	/	/	/	/	/
729	F-6 2'	S									3/14/2012	1:47 P	/	/	/	/	/	/
730	F-6 4'	S									3/14/2012	1:49 P	/	/	/	/	/	/
731	F-6 6'	S									3/14/2012	1:55 P	/	/	/	/	/	/
732	S-1 0'	S									3/14/2012	2:15 P	/	/	/	/	/	/
733	S-1 1'	S									3/14/2012	2:17 P	/	/	/	/	/	/
734	S-1 2'	S									3/14/2012	2:19 P	/	/	/	/	/	/
735	S-1 4'	S									3/14/2012	2:21 P	/	/	/	/	/	/
736	S-1 6'	S									3/14/2012	2:23 P	/	/	/	/	/	/

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Relinquished by: Mike Stubblefield	Date: 3/16/2012	Time: 10:40 A	Received by: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished by: <i>[Signature]</i>	Date: 3/16/12	Time: 4:20	Received by: <i>[Signature]</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)	Sampler - UPS - Bus - Other: 2313.0	Sample Condition Cool <input type="checkbox"/> In-cust <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	CHECKED BY: <i>[Signature]</i>	REMARKS:	

Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

2601

March 29, 2012

Analytical Report for Service Request No: K1202557

Liz Givens
TraceAnalysis, Inc.
6701 Aberdeen Ave.; Ste 9
Lubbock, TX 79424

RE: 12031904

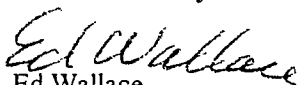
Dear Liz:

Enclosed are the results of the samples submitted to our laboratory on March 21, 2012. For your reference, these analyses have been assigned our service request number K1202557.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3291. You may also contact me via Email at Ed.Wallace@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc.
Ed Wallace
Project Chemist

EW/ln

Page 1 of 65

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Agency	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
DOD ELAP	L11-119
Florida DOH	E87412
Georgia DNR	881
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
ISO 17025	L11-118
Louisiana DEQ	3016
Louisiana DHH	LA080001
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DEQ (NELAP)	WA100010
South Carolina DHEC	61002
Texas CEQ	04704427-08-TX
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-



TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

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

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

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

Company Name: _____ Phone #: _____
 Address: (Street, City, Zip) _____ Fax #: _____
 Contact Person: _____ E-mail: lwens
 Invoice to: _____
 (If different from above)
 Project #: _____ Project Name: _____
 Project Location (including state): _____ Sampler Signature: _____

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		Turn Around Time if different from standard	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE			DATE
	291697			X									3/14/12	0000		
	291698			X												5
	291699			X												
	291700			X												
	291701			X												
	291702			X												
	291703			X												
	291704			X												
	291705			X												
	291706			X												
	291707			X												

- MTBE 8021 / 602 / 8260 / 624
- BTEX 8021 / 602 / 8260 / 624
- TPH 418.1 / TX1005 / TX1005 Ext(C35)
- TPH 8015 GRO / DRO / TVHC
- PAH 8270 / 625
- Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7
- TCLP Metals Ag As Ba Cd Cr Pb Se Hg
- TCLP Volatiles
- TCLP Semi Volatiles
- TCLP Pesticides
- RCI
- GC/MS Vol. 8260 / 624
- GC/MS Semi. Vol. 8270 / 625
- PCB's 8082 / 608
- Pesticides 8081 / 608
- BOD, TSS, pH
- Moisture Content
- Cl, F, SO₄, NO₃-N, NO₂-N, PO₄-P, Alkalinity
- Na, Ca, Mg, K, TDS, EC
- C-1-tetrahydro G&W-18

Relinquished by: _____ Company: _____ Date: _____ Time: _____
 Received by: _____ Company: _____ Date: _____ Time: _____
 INST
 OBS
 COR
 Relinquished by: _____ Company: _____ Date: _____ Time: _____
 Received by: _____ Company: _____ Date: _____ Time: _____
 INST
 OBS
 COR
 Relinquished by: Brenda Ward Tracy 3/20/12 4:30 pm Wasser
 Received by: Tricia Smith ALS 3/21/12 6:00

LAB USE ONLY

REMARKS: 12031904 Columbia, WA

Intact Y / N
 Headspace Y / N / NA

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

Log-in: Review _____

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

Carrier # _____

ORIGINAL COPY

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

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

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

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

Company Name: _____ Phone #: _____
 Address: (Street, City, Zip) _____ Fax #: _____
 Contact Person: _____ E-mail: _____
 Invoice to: _____
 (If different from above)
 Project #: _____ Project Name: Wens
 Project Location (Including state): _____ Sampler Signature: _____

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ , P, Alkalinity	Na, Ca, Mg, K, TDS, EC	<u>Glutaraldehyde G-BW-18</u> Turn Around Time if different from standard Hold
BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	
RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ , P, Alkalinity	Na, Ca, Mg, K, TDS, EC	
DATE	TIME								
3/14/12	0000								

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE
	291708	1		X										
	291709	1		X										
	291710	1		X										
	291711	1		X										
	291717	1		X										
	291718	1		X										
	291719	1		X										
	291720	1		X										
	291721	1		X										
	291722	1		X										
	291723	1		X										

Relinquished by: _____ Company: _____ Date: _____ Time: _____ Received by: _____ Company: _____ Date: _____ Time: _____

INST _____ OBS _____ COR _____

LAB USE ONLY

REMARKS: 12031904 Columbus, WA

Intact Y/N

Headspace Y/N/NA

Log-in-Review _____

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

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

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

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

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

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

Company Name: _____ Phone #: _____
 Address: (Street, City, Zip) _____ Fax #: _____
 Contact Person: _____ E-mail: _____
 Invoice to: _____
 (If different from above)
 Project #: _____ Project Name: _____
 Project Location (including state): _____ Sampler Signature: _____

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		MTBE 8021 / 602 / 8260 / 624 BTEX 8021 / 602 / 8260 / 624 TPH 418 1 / TX1005 / TX1005 EX(C35) TPH 8015 GRO / DRO / TVHC PAH 8270 / 625 Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7 TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Semi Volatiles TCLP Pesticides RCL GC/MS Vol. 8260 / 624 GC/MS Semi. Vol. 8270 / 625 PCB's 8082 / 608 Pesticides 8081 / 608 BOD, TSS, pH Moisture Content Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity Na, Ca, Mg, K, TDS, EC C-MATERIALS G-BW-18	DATE	TIME	Turn Around Time if different from standard	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE							
	291724	1		X											3/14/12	0900				
	291725	1		X																
	291726	1		X																
	291727	1		X																
	291728	1		X																
	291729	1		X																
	291730	1		X																
	291731	1		X																
	291732	1		X																
	291733	1		X																
	291734	1		X																

Relinquished by: _____ Company: _____ Date: _____ Time: _____ Received by: _____ Company: _____ Date: _____ Time: _____ INST _____ OBS _____ COR _____

Relinquished by: _____ Company: _____ Date: _____ Time: _____ Received by: _____ Company: _____ Date: _____ Time: _____ INST _____ OBS _____ COR _____

Relinquished by: Brenda Wood Lubbock Thad 3/12 4:30 Received by: Krystal Smith ALS 3/12 1900 INST _____ OBS _____ COR _____

LAB USE ONLY: _____ REMARKS: 12031904 COLUMBIA, WA

Intact Y / N _____
 Headspace Y / N / NA _____
 Dry Weight Basis Required
 TRRP Report Required
 Check If Special Reporting Limits Are Needed

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

Carrier # _____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
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5002 Basin Street, Suite A1
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Fax (915) 585-4944
1 (888) 588-3443

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

Company Name: _____ Phone #: _____
 Address: (Street, City, Zip) _____ Fax #: _____
 Contact Person: _____ E-mail: wena
 Invoice to: _____
 (If different from above)
 Project #: _____ Project Name: _____
 Project Location (including state): _____ Sampler Signature: _____

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		Turn Around Time if different from standard	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE			TIME
	291 745	1		X										3/14/12	0000		
	291 746	1		X													9

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	Na, Ca, Mg, K, TDS, EC	<u>Glutaraldehyde C-BW-18</u>
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Relinquished by: _____ Company: _____ Date: _____ Time: _____
 Received by: _____ Company: _____ Date: _____ Time: _____
 INST OBS COR
 Relinquished by: _____ Company: _____ Date: _____ Time: _____
 Received by: _____ Company: _____ Date: _____ Time: _____
 INST OBS COR
 Relinquished by: Grenda Wood Trace Company: Lubbock Date: 3/20/12 Time: 4:30
 Received by: Krull Smith ALS Company: ALS Date: 3/21/12 Time: 12:00
 INST OBS COR

LAB USE ONLY

REMARKS: 12031904

Intact Y/N
 Headspace Y/N/NA
 Dry Weight Basis Required
 TRRP Report Required
 Check If Special Reporting Limits Are Needed

Log-in-Review _____

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

Carrier # _____

ORIGINAL COPY

**Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form**

PC Ed. W

Client / Project: Trace Analysis Service Request K12 02557
 Received: 3/21/12 Opened: 3/21/12 By: [Signature] Unloaded: 3/21/12 By: [Signature]

1. Samples were received via? Mail Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other _____ NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? 2, front
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
1.4	/	315	<input checked="" type="radio"/> NA	86597751 1224		

7. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count / Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
291697	K1202557-001	03/14/2012	03/21/2012	03/23/2012	99.2	
291698	K1202557-002	03/14/2012	03/21/2012	03/23/2012	92.3	
291699	K1202557-003	03/14/2012	03/21/2012	03/23/2012	92.2	
291700	K1202557-004	03/14/2012	03/21/2012	03/23/2012	93.0	
291701	K1202557-005	03/14/2012	03/21/2012	03/23/2012	94.0	
291702	K1202557-006	03/14/2012	03/21/2012	03/23/2012	90.6	
291703	K1202557-007	03/14/2012	03/21/2012	03/23/2012	90.0	
291704	K1202557-008	03/14/2012	03/21/2012	03/23/2012	89.1	
291705	K1202557-009	03/14/2012	03/21/2012	03/23/2012	94.7	
291706	K1202557-010	03/14/2012	03/21/2012	03/23/2012	93.5	
291707	K1202557-011	03/14/2012	03/21/2012	03/23/2012	98.1	
291708	K1202557-012	03/14/2012	03/21/2012	03/23/2012	92.4	
291709	K1202557-013	03/14/2012	03/21/2012	03/23/2012	93.6	
291710	K1202557-014	03/14/2012	03/21/2012	03/23/2012	94.2	
291711	K1202557-015	03/14/2012	03/21/2012	03/23/2012	93.1	
291717	K1202557-016	03/14/2012	03/21/2012	03/23/2012	82.0	
291718	K1202557-017	03/14/2012	03/21/2012	03/23/2012	89.7	
291719	K1202557-018	03/14/2012	03/21/2012	03/23/2012	90.0	
291720	K1202557-019	03/14/2012	03/21/2012	03/23/2012	96.2	
291721	K1202557-020	03/14/2012	03/21/2012	03/23/2012	96.0	
291722	K1202557-021	03/14/2012	03/21/2012	03/23/2012	89.8	
291723	K1202557-022	03/14/2012	03/21/2012	03/23/2012	92.7	
291724	K1202557-023	03/14/2012	03/21/2012	03/23/2012	91.1	
291725	K1202557-024	03/14/2012	03/21/2012	03/23/2012	94.0	
291726	K1202557-025	03/14/2012	03/21/2012	03/23/2012	91.9	
291727	K1202557-026	03/14/2012	03/21/2012	03/23/2012	95.6	
291728	K1202557-027	03/14/2012	03/21/2012	03/23/2012	90.2	
291729	K1202557-028	03/14/2012	03/21/2012	03/23/2012	88.9	
291730	K1202557-029	03/14/2012	03/21/2012	03/23/2012	91.5	
291731	K1202557-030	03/14/2012	03/21/2012	03/23/2012	95.2	
291732	K1202557-031	03/14/2012	03/21/2012	03/23/2012	96.9	
291733	K1202557-032	03/14/2012	03/21/2012	03/23/2012	95.2	
291734	K1202557-033	03/14/2012	03/21/2012	03/23/2012	95.8	
291735	K1202557-034	03/14/2012	03/21/2012	03/23/2012	95.9	
291736	K1202557-035	03/14/2012	03/21/2012	03/23/2012	96.3	
291737	K1202557-036	03/14/2012	03/21/2012	03/23/2012	96.6	
291738	K1202557-037	03/14/2012	03/21/2012	03/23/2012	93.4	
291739	K1202557-038	03/14/2012	03/21/2012	03/23/2012	96.5	
291740	K1202557-039	03/14/2012	03/21/2012	03/23/2012	94.0	
291741	K1202557-040	03/14/2012	03/21/2012	03/23/2012	96.4	
291742	K1202557-041	03/14/2012	03/21/2012	03/23/2012	88.7	
291743	K1202557-042	03/14/2012	03/21/2012	03/23/2012	89.1	
291744	K1202557-043	03/14/2012	03/21/2012	03/23/2012	90.0	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557

Total Solids

Prep Method: NONE
Analysis Method: 160 3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
291745	K1202557-044	03/14/2012	03/21/2012	03/23/2012	93.8	
291746	K1202557-045	03/14/2012	03/21/2012	03/23/2012	90.4	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

QA/QC Report

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Analyzed: 03/23/2012

Duplicate Sample Summary
Total Solids

Prep Method: NONE
Analysis Method: 160 3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
291706	K1202557-010	93.5	93.6	93.6	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Analyzed: 03/23/2012

Duplicate Sample Summary
Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
291721	K1202557-020	96.0	95.9	96.0	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Analyzed: 03/23/2012

Duplicate Sample Summary
Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wct

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
291731	K1202557-030	95.2	95.4	95.3	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Analyzed: 03/23/2012

Duplicate Sample Summary
Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
291741	K1202557-040	96.4	96.5	96.5	<1	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

QA/QC Report

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Analyzed: 03/23/2012

Duplicate Sample Summary
Total Solids

Prep Method: NONE
Analysis Method: 160 3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
291745	K1202557-044	93.8	94.0	93.9	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291697
Lab Code: K1202557-001
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291698
Lab Code: K1202557-002
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.2	1	03/23/12	03/24/12	KWG1202872	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291699
Lab Code: K1202557-003
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.2	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraccAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291700
Lab Code: K1202557-004
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291701
Lab Code: K1202557-005
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291702
Lab Code: K1202557-006
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.3	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291703
Lab Code: K1202557-007
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.3	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291704
Lab Code: K1202557-008
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291705
Lab Code: K1202557-009
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.0	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291706
Lab Code: K1202557-010
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.0	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291707
Lab Code: K1202557-011
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291708
Lab Code: K1202557-012
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.2	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291709
Lab Code: K1202557-013
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.2	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

**Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography**

Sample Name: 291710
Lab Code: K1202557-014
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.1	1	03/23/12	03/24/12	KWG1202868	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291711
Lab Code: K1202557-015
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291717
Lab Code: K1202557-016
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.5	1	03/23/12	03/25/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291718
Lab Code: K1202557-017

Units: mg/Kg
Basis: Dry

Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.2	1	03/23/12	03/25/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291719
Lab Code: K1202557-018
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.2	1	03/23/12	03/25/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291720
Lab Code: K1202557-019

Units: mg/Kg
Basis: Dry

Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/25/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291721
Lab Code: K1202557-020
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.0	1	03/23/12	03/25/12	KWG1202868	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291722
Lab Code: K1202557-021
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.1	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291723
Lab Code: K1202557-022
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.2	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291724
Lab Code: K1202557-023
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291725
Lab Code: K1202557-024
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/25/12	KWG1202870	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291726
Lab Code: K1202557-025
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.2	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291727
Lab Code: K1202557-026
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291728
Lab Code: K1202557-027
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.3	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: I2031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291729
Lab Code: K1202557-028
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.2	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291730
Lab Code: K1202557-029
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.0	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: I2031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291731
Lab Code: K1202557-030
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291732
Lab Code: K1202557-031
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.0	1	03/23/12	03/25/12	KWG1202870	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291733
Lab Code: K1202557-032
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291734
Lab Code: K1202557-033
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291735
Lab Code: K1202557-034
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291736
Lab Code: K1202557-035
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.1	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291737
Lab Code: K1202557-036

Units: mg/Kg
Basis: Dry

Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.1	1	03/23/12	03/25/12	KWG1202870	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291738
Lab Code: K1202557-037
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.2	1	03/23/12	03/26/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291739
Lab Code: K1202557-038
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/26/12	KWG1202870	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC. ,

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

**Extraction Method Specified in Analytical Method
 Carbonyls by High Performance Liquid Chromatography**

Sample Name: 291740
Lab Code: K1202557-039
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.1	1	03/23/12	03/26/12	KWG1202870	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291741
Lab Code: K1202557-040
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/26/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291742
Lab Code: K1202557-041

Units: mg/Kg
Basis: Dry

Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.3	1	03/23/12	03/26/12	KWG1202872	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291743
Lab Code: K1202557-042
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.3	1	03/23/12	03/26/12	KWG1202872	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291744
Lab Code: K1202557-043
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.2	1	03/23/12	03/26/12	KWG1202872	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291745
Lab Code: K1202557-044
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.2	1	03/23/12	03/26/12	KWG1202872	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: I2031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: 03/14/2012
Date Received: 03/21/2012
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: 291746
Lab Code: K1202557-045
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.2	1	03/23/12	03/26/12	KWG1202872	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: NA
Date Received: NA
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: Method Blank
Lab Code: KWG1202868-4

Units: mg/Kg
Basis: Dry

Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.0	1	03/23/12	03/24/12	KWG1202868	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: NA
Date Received: NA
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: Method Blank
Lab Code: KWG1202870-4
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND U	2.0	1	03/23/12	03/25/12	KWG1202870	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: TraceAnalysis, Inc.
Project: 12031904
Sample Matrix: Soil

Service Request: K1202557
Date Collected: NA
Date Received: NA
Date Prepared: 03/21/2012

Extraction Method Specified in Analytical Method
Carbonyls by High Performance Liquid Chromatography

Sample Name: Method Blank
Lab Code: KWG1202872-4
Preparation Method: METHOD
Extraction Method: METHOD
Analysis Method: 8315A

Units: mg/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Glutaraldehyde	ND	U	2.2	1	03/23/12	03/26/12	KWG1202872	

Comments: _____