

**1RP-1614**

**Assessment and workplan  
Report**

**DATE:  
Oct. 2009**



**TETRA TECH**

October 12, 2009

Mr. Glenn von Gonten  
Senior Hydrologist/Acting Environmental Bureau Chief  
Environmental Bureau  
Oil Conservation Division  
Energy, Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**RE: Assessment Report and Workplan for a Pit Located at the  
Rock Queen Unit Track 13 Tank Battery, Unit Letter G, Section  
36, Township 13 South, Range 31 East, Chaves County, New  
Mexico, Operated by Celero Energy II, LP (NMOCD 1RP#1614)**

Dear Mr. von Gonten:

Tetra Tech was contacted by Celero Energy (Celero) to assist in the closure of a pit at the Rock Queen Unit Track 13 Tank Battery, located in Unit Letter G, Section 36, Township 13 South, Range 31 East, Chaves County, New Mexico (Site). The pit coordinates are N 33.14639° W 103.77500°. Both the State of New Mexico C-141 and C-144 (Initial) are included in Appendix D. The Site is shown on Figures 1 and 2.

### **Background**

On September 21, 2007, Highlander submitted an Investigation and Characterization work plan (ICP) for an open pit at this site. The ICP was approved by the New Mexico Oil Conservation Division (NMOCD).

The Tract 13 Tank Battery pit was dewatered and the residual sludge, tank bottom materials, and liner were removed in late July and early August 2007. Removed fluids were placed into an existing SWD system or taken to disposal, while the sludge, tank bottom materials, and liner were disposed of at Gandy-Marley, Inc. landfill site of Lovington, New Mexico. Upon completion of the removal of the fluids, sludge and liner, the underlying soils were visually inspected for obvious signs of impact. Approximately 400 cubic yards of soil were excavated and transported to Gandy-Marley, Inc. for disposal. The pit was excavated to a point where the subsoil would support a soil boring rig.

**Tetra Tech**

1210 North Big Spring, Midland, TX 79701

Tel 432.682.1559

Fax 432.682.9946 [www.tetratech.com](http://www.tetratech.com)



## **Groundwater and Regulatory**

Neither the New Mexico State Engineer's Office database nor the USGS database show any wells in Section 36, Township 13 South, Range 31 East. However, a monitor well installed at this site had a depth to groundwater of approximately 127 feet below ground surface (bgs).

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

## **Assessment and Results**

On October 17-18, 2007 and March 25, 2008, Highlander supervised the installation of soil borings at the pit. Prior to the installation of the borings, a visual inspection was performed around the perimeter of the pit. The area of the pit excavation measured approximately 110 feet by 125 feet. One soil boring (SB-1) was installed in the center of the pit. The remaining boreholes (SB-2 through SB-13) were installed outside the edges of the pit. The boring locations and the approximate edge of the pit are shown on Figure 3.

The borings were installed using an air-rotary type drilling rig. Soil samples from soil boring SB-1 were collected at 5 foot intervals to 20 feet and 10 foot intervals thereafter during drilling operations. The samples were field screened for hydrocarbons with a PID, and field screened for chlorides. Soil samples from the remaining soil borings were collected at 10 foot intervals to depths of 50 feet bgs.

The soil samples were field screened for chlorides to determine if impacts showed a distinctive decline with depth. Select soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) by method modified 8015 DRO/GRO, benzene, toluene, ethylbenzene, and xylene (BTEX) by



method 8021B and chloride by method 4500 Cl-B. All samples were collected and preserved in laboratory prepared sample containers with standard QA/QC procedures. All samples were shipped under proper chain-of-custody control and analyzed within the standard holding times. The results of the sampling are shown in Table 1. The laboratory reports and chain-of-custody are included in Appendix A.

All down hole equipment was washed between boreholes or sampling events using a potable water and laboratory grade detergent. All down hole equipment (i.e., drill rods, drill bits, etc.) were thoroughly decontaminated between each use with a high-pressure hot water wash and rinse. Soil cuttings from drilling were stockpiled adjacent to the borehole. Following the completion of the drilling activities, all boreholes were grouted to the surface.

Referring to Table 1, the samples selected for TPH and BTEX analysis were all below the reporting limits. Chloride impact was found throughout SB-1, SB-3 through SB-7, and SB-10, while decreasing with depth in soil borings SB-2, SB-8, SB-9 and SB-11. Chloride concentrations were below 250 mg/L for perimeter soil borings SB-12 and SB-13.

### **Soil Capping**

In late November-December 2007, Gandy-Marley Corporation of Lovington, New Mexico was onsite to install a one foot thick clay liner for the pit. The pit area was further extended out approximately 25 feet east, west, north, and south of the original dimensions. See Figure 3 for pit liner dimensions. The soils were excavated to a depth of 4 feet bgs. The soils excavated were placed back into the center of the original excavation in order to bring the original excavation up to a depth of 4 feet bgs. Upon completion of the clay liner, overburden material stripped from the expansion of the pit was utilized as backfill for the site and brought up to grade. A copy of the sieve analysis/permeability data for the clay is included in Appendix B.

In order to complete the capping of the soils at the site, the clay liner will need to be extended towards the onsite equipment approximately 40 feet east of the pit. In accordance with a verbal agreement with the NMOCD, the chloride impacted soils beneath the onsite equipment will not require a liner. The soils may need to be addressed at a future date should the site be decommissioned or the equipment relocated.



## Monitor Well Installation

On May 25, 2007, Tetra Tech was onsite to oversee the installation of monitor well MW-1 located south/southwest of the closed pit. Monitor well MW-1 was drilled to a depth of 158 feet. Sixty feet of 0.02" slotted screen was installed at the bottom of the monitor well. The remainder of the well boring was fitted with blank schedule 40 blank PVC to the top of the boring. Groundwater was encountered at 127 feet below ground surface (bgs) in both wells. On May 31 and June 1, 2007, Tetra Tech was onsite to develop and sample monitor well MW-1. Approximately 100 gallons of water were removed from the well and stored in onsite 55-gallon drums. Once the well stabilized, a sample was collected and submitted to Trace Analysis, Inc. of Midland, Texas for analysis of major anions/cations along with pH and TDS. Monitor well MW-1 had results of 3,278 mg/L chlorides. The results of the sampling are shown in Table 2. A copy of the laboratory reports and chain-of-custody are included in Appendix A, while the boring logs and monitor well installation diagrams are included in Appendix C.

Based on the results of the sampling, additional monitor wells will be required at the site to complete delineation of the groundwater.

## Conclusions

Between November and December 2007, the pit area was excavated to dimensions of 160 feet by 175 feet. Approximately 400 cubic yards of soil were excavated and transported offsite for disposal at Gandy-Marley of Lovington, New Mexico. A one foot thick clay liner was placed at 4 feet bgs in the excavation in order to impede the remaining chlorides at the site from migrating to the underlying groundwater. Upon completion of the clay liner, the site was backfilled with overburden material and brought up to surface grade.

## Recommendations

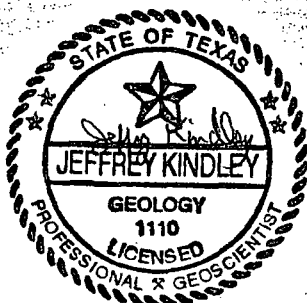
In order to complete the capping of the soils at the site, the clay liner will need to be extended towards the onsite equipment approximately 40 feet east of the pit. In accordance with a verbal agreement with the NMOCD, the chloride impacted soils beneath the onsite equipment will not require a liner. The soils may need to be addressed at a future date should the site be decommissioned or the equipment relocated.



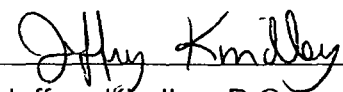
**TETRA TECH**

In addition, additional monitor wells will be required at the facility in order to complete delineation of the chloride impacted groundwater at the Site.

If you require any additional information or have any questions or comments concerning the assessment/closure report, please call at (432) 682-4559.

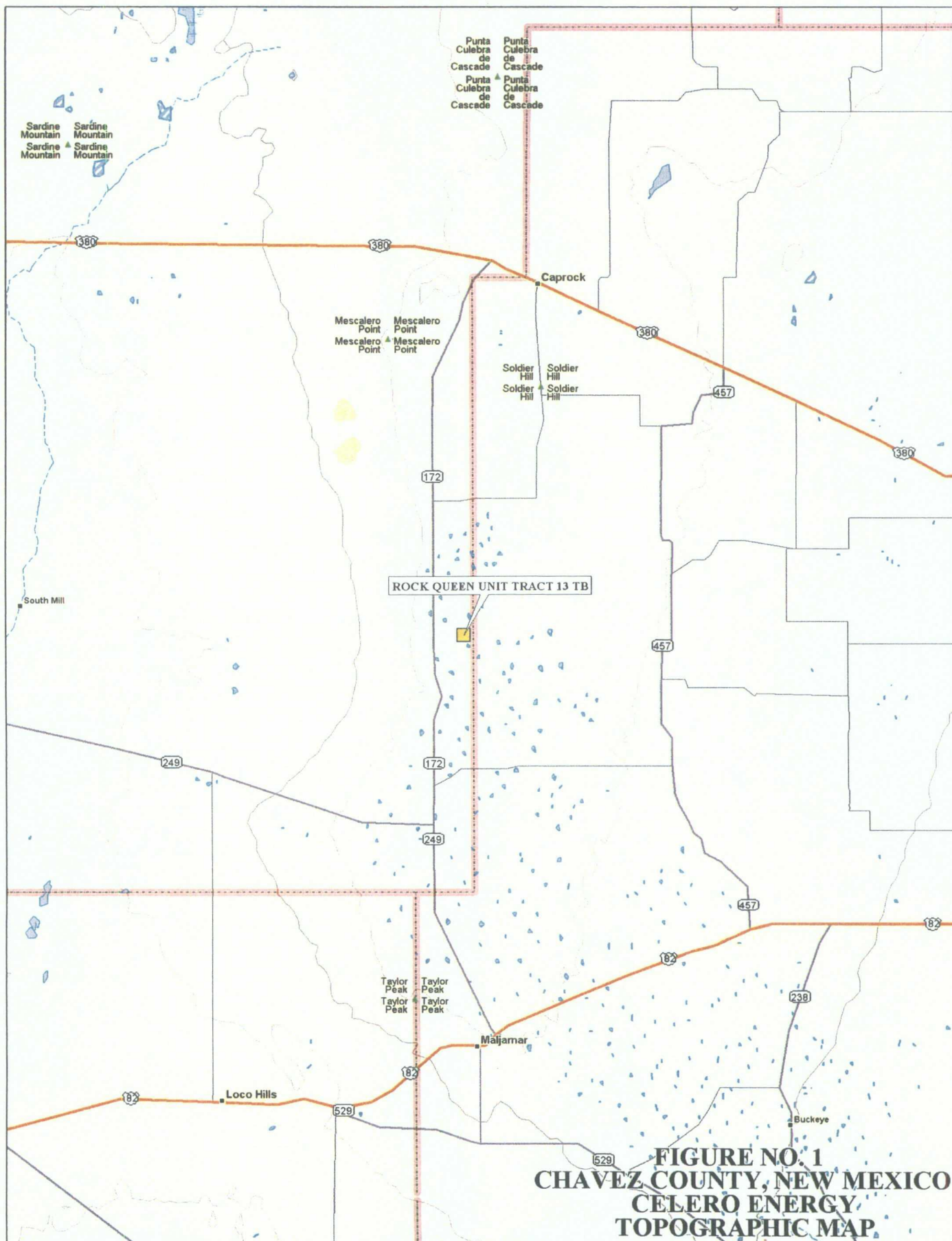


Respectfully submitted,  
Tetra Tech

  
Jeffrey Kindley, P.G.  
Senior Environmental Geologist

cc: Bruce Woodard – Celero Energy II LP  
Larry Johnson – NMOCD – Hobbs, NM

## FIGURES

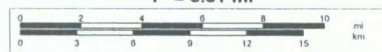


**FIGURE NO. 1**  
**CHAVEZ COUNTY, NEW MEXICO**  
**CELERO ENERGY**  
**TOPOGRAPHIC MAP**

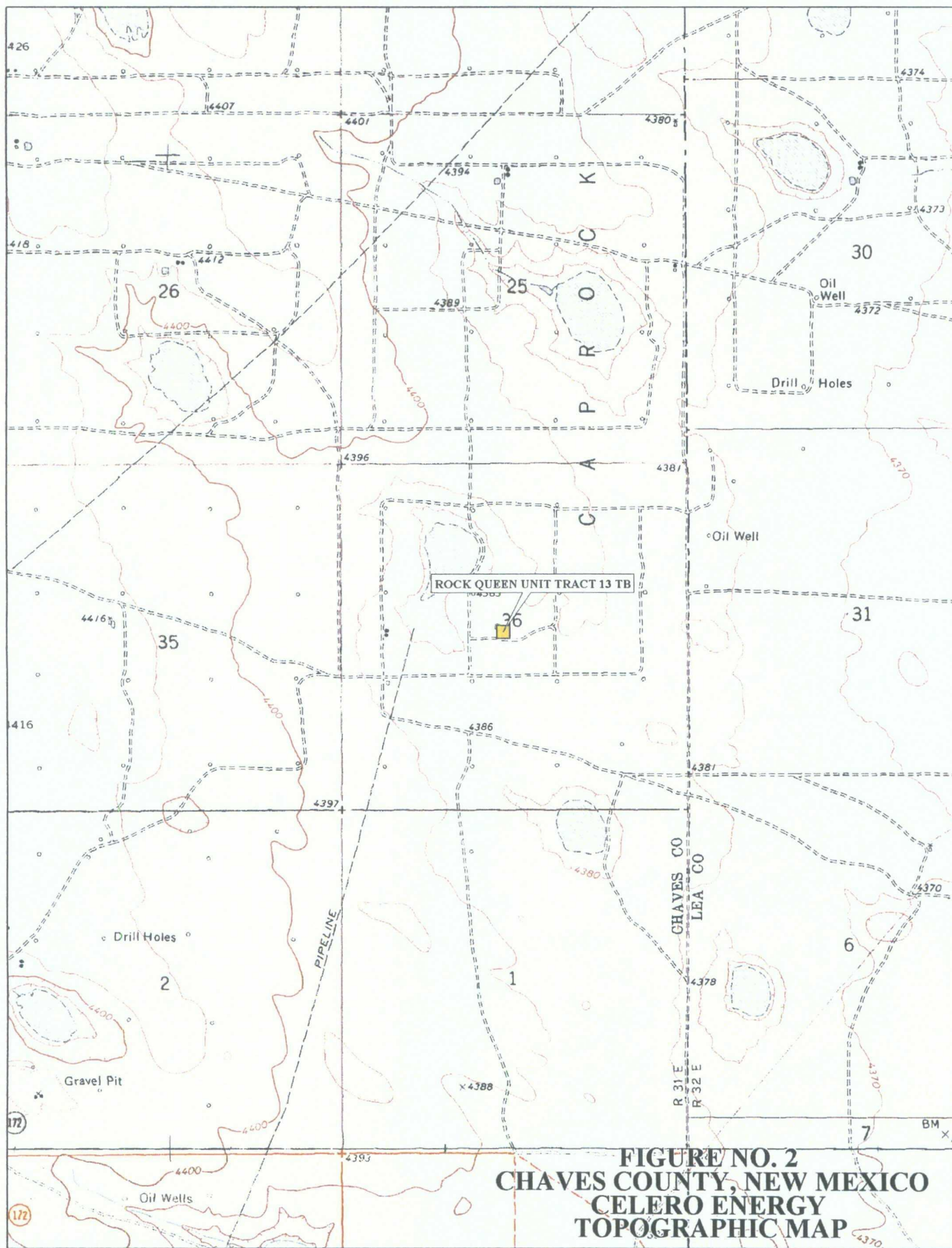


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[www.delorme.com](http://www.delorme.com)

Scale 1 : 400,000  
 1" = 6.31 mi





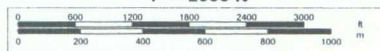


**FIGURE NO. 2**  
**CHAVES COUNTY, NEW MEXICO**  
**CELERO ENERGY**  
**TOPOGRAPHIC MAP**



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Scale 1 : 24,000  
 1" = 2000 ft



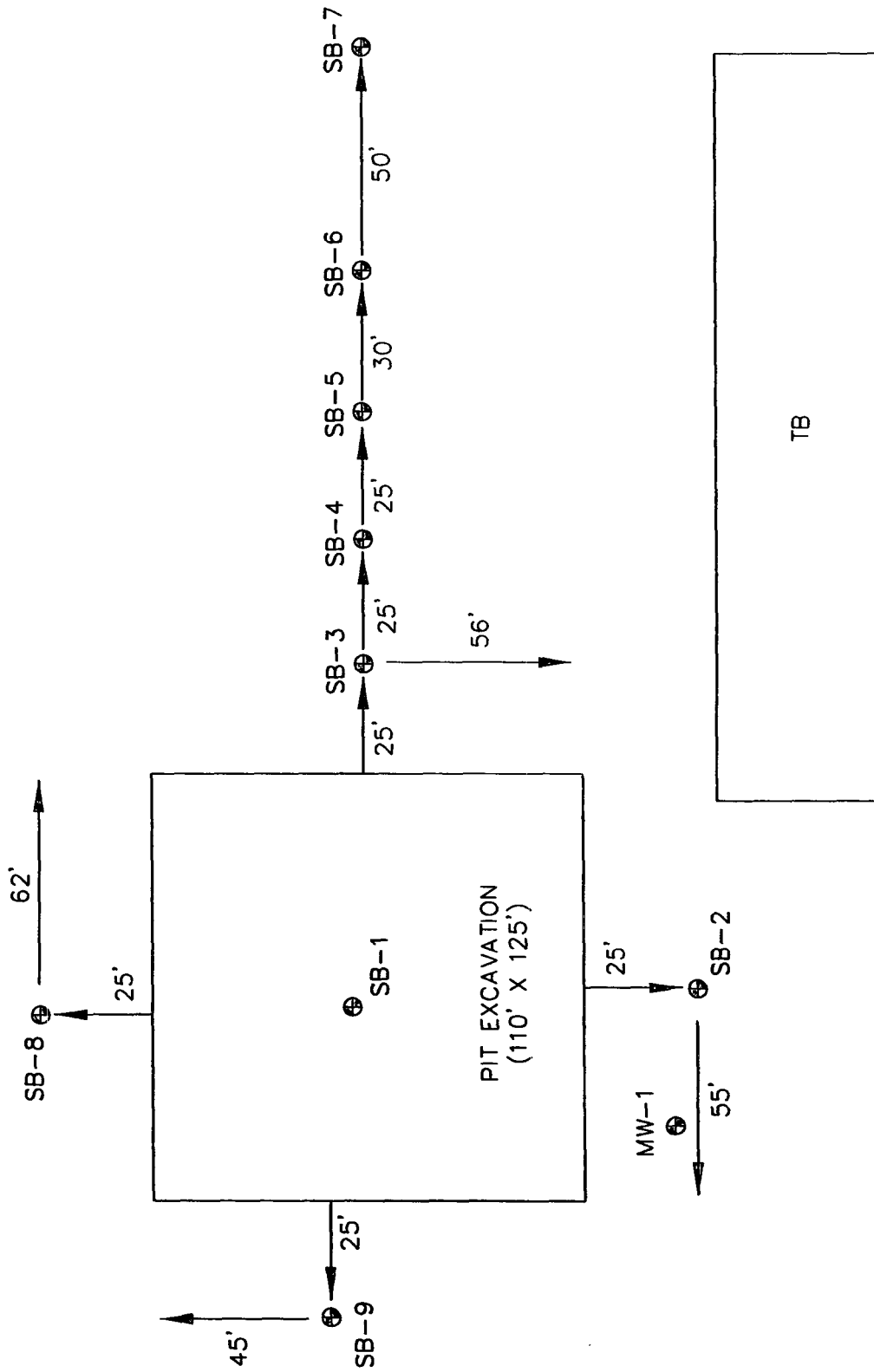


FIGURE NO. 3

CHAVES COUNTY, NEW MEXICO
CELERO ENERGY
ROCK QUEEN UNIT TRACT #13
SOIL BORING LOCATIONS
TETRA TECH, INC.
MIDLAND, TEXAS

DATE:	10/30/07
DRAWN BY:	RC
FILE:	CELERO 113131
	10/30/07

NOT TO SCALE

## TABLES

Table 1  
Celero Energy  
Rock Queen Unit Tract 13 Tank Battery  
Chaves County, New Mexico

Sample ID	Date Sampled	Excavation Depth (ft.)	TPH (mg/kg)		Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			DRO	GRO					
SB-1	10/18/2007	(3-5')	<50.0	<1.00	<0.0100	<0.0100	<0.0100	<0.0100	6,600
SB-1	10/18/2007	(8-10')	-	-	-	-	-	-	7,330
SB-1	10/18/2007	(13-15')	-	-	-	-	-	-	16,900
SB-1	10/18/2007	(18-20')	-	-	-	-	-	-	15,200
SB-1	10/18/2007	(28-30')	-	-	-	-	-	-	12,800
SB-1	10/18/2007	(38-40')	-	-	-	-	-	-	12,100
SB-1	10/18/2007	(48-50')	-	-	-	-	-	-	8,010
SB-1	10/18/2007	(58-60')	-	-	-	-	-	-	7,780
SB-1	10/18/2007	(68-70')	-	-	-	-	-	-	6,600
SB-1	10/18/2007	(78-80')	-	-	-	-	-	-	6,520
SB-1	10/18/2007	(88-90')	-	-	-	-	-	-	6,910
SB-1	10/18/2007	(98-100')	-	-	-	-	-	-	5,670
SB-2	10/18/2007	(8-10')	-	-	-	-	-	-	3,620
SB-2	10/18/2007	(18-20')	-	-	-	-	-	-	2,330
SB-2	10/18/2007	(28-30')	-	-	-	-	-	-	2,580
SB-2	10/18/2007	(38-40')	-	-	-	-	-	-	969
SB-2	10/18/2007	(48-50')	-	-	-	-	-	-	727
SB-3	10/18/2007	(8-10')	-	-	-	-	-	-	7,290
SB-3	10/18/2007	(18-20')	-	-	-	-	-	-	4,630
SB-3	10/18/2007	(28-30')	-	-	-	-	-	-	9,560
SB-3	10/18/2007	(38-40')	-	-	-	-	-	-	8,770
SB-3	10/18/2007	(48-50')	-	-	-	-	-	-	7,750
SB-4	10/18/2007	(8-10')	-	-	-	-	-	-	6,560
SB-4	10/18/2007	(18-20')	-	-	-	-	-	-	9,930
SB-4	10/18/2007	(28-30')	-	-	-	-	-	-	7,860
SB-4	10/18/2007	(38-40')	-	-	-	-	-	-	7,340
SB-4	10/18/2007	(48-50')	-	-	-	-	-	-	2,670
SB-5	10/18/2007	(8-10')	-	-	-	-	-	-	6,860
SB-5	10/18/2007	(18-20')	-	-	-	-	-	-	6,840
SB-5	10/18/2007	(28-30')	-	-	-	-	-	-	5,770
SB-5	10/18/2007	(38-40')	-	-	-	-	-	-	3,590
SB-5	10/18/2007	(48-50')	-	-	-	-	-	-	2,760
SB-6	10/18/2007	(8-10')	-	-	-	-	-	-	3,950
SB-6	10/18/2007	(18-20')	-	-	-	-	-	-	6,360

Table 1  
Celero Energy  
Rock Queen Unit Tract 13 Tank Battery  
Chaves County, New Mexico

Sample ID	Date Sampled	Excavation Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			DRO	GRO	Total					
SB-6	10/18/2007	(28-30')	-	-	-	-	-	-	-	3,370
SB-6	10/18/2007	(38-40')	-	-	-	-	-	-	-	1,860
SB-6	10/18/2007	(48-50')	-	-	-	-	-	-	-	1,220
SB-7	10/18/2007	(8-10')	-	-	-	-	-	-	-	4,300
SB-7	10/18/2007	(18-20')	-	-	-	-	-	-	-	5,440
SB-7	10/18/2007	(28-30')	-	-	-	-	-	-	-	2,090
SB-7	10/18/2007	(38-40')	-	-	-	-	-	-	-	1,500
SB-7	10/18/2007	(48-50')	-	-	-	-	-	-	-	1,420
SB-8	10/18/2007	(8-10')	-	-	-	-	-	-	-	6,240
SB-8	10/18/2007	(18-20')	-	-	-	-	-	-	-	1,410
SB-8	10/18/2007	(28-30')	-	-	-	-	-	-	-	223
SB-8	10/18/2007	(38-40')	-	-	-	-	-	-	-	123
SB-8	10/18/2007	(48-50')	-	-	-	-	-	-	-	197
SB-9	10/18/2007	(8-10')	-	-	-	-	-	-	-	1,110
SB-9	10/18/2007	(18-20')	-	-	-	-	-	-	-	187
SB-9	10/18/2007	(28-30')	-	-	-	-	-	-	-	138
SB-9	10/18/2007	(38-40')	-	-	-	-	-	-	-	<100
SB-9	10/18/2007	(48-50')	-	-	-	-	-	-	-	<100
SB-10	3/25/2008	(8-10')	-	-	-	-	-	-	-	3,410
SB-10	3/25/2008	(18-20')	-	-	-	-	-	-	-	2,100
SB-10	3/25/2008	(28-30')	-	-	-	-	-	-	-	5,020
SB-10	3/25/2008	(38-40')	-	-	-	-	-	-	-	5,310
SB-10	3/25/2008	(48-50')	-	-	-	-	-	-	-	3,720
SB-11	3/25/2008	(8-10')	-	-	-	-	-	-	-	1,130
SB-11	3/25/2008	(18-20')	-	-	-	-	-	-	-	1,120
SB-11	3/25/2008	(28-30')	-	-	-	-	-	-	-	230
SB-11	3/25/2008	(38-40')	-	-	-	-	-	-	-	175
SB-11	3/25/2008	(48-50')	-	-	-	-	-	-	-	106
SB-12	3/25/2008	(8-20')	-	-	-	-	-	-	-	<100
SB-12	3/25/2008	(18-20')	-	-	-	-	-	-	-	<100
SB-12	3/25/2008	(28-30')	-	-	-	-	-	-	-	<100
SB-12	3/25/2008	(38-40')	-	-	-	-	-	-	-	<100
SB-12	3/25/2008	(48-50')	-	-	-	-	-	-	-	<100
SB-13	3/25/2008	(8-10')	-	-	-	-	-	-	-	187
SB-13	3/25/2008	(18-20')	-	-	-	-	-	-	-	374

Table 1  
 Celero Energy  
 Rock Queen Unit Tract 13 Tank Battery  
 Chaves County, New Mexico

Sample ID	Date Sampled	Excavation Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			DRO	GRO	Total					
SB-13	3/25/2008	(28-30')	-	-	-	-	-	-	-	132
SB-13	3/25/2008	(38-40')	-	-	-	-	-	-	-	136
SB-13	3/25/2008	(48-50')	-	-	-	-	-	-	-	134

(-) Not Analyzed

Table 2

Celero Energy  
Groundwater Analytical Results  
Rock Queen Unit Tract 13 Tank Battery  
Chaves County, New Mexico

Monitor Well	Date Sampled	Dissolved Calcium (mg/L)	Dissolved Magnesium (mg/L)	Dissolved Sodium (mg/L)	Dissolved Potassium (mg/L)	Hydroxide Alkalinity (mg/L)	Carbonate Alkalinity (mg/L)	Bicarbonate Alkalinity (mg/L)	Total Alkalinity (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)	Hardness (mg/L)	pH
MW-1	06/01/07	282	24.4	2,020	20.1	<1.00	8.00	652	660	91.1	3,270	7,245	804	7.02

NS - Not sampled

**APPENDIX A**  
**LABORATORY ANALYTICAL**





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

## Analytical and Quality Control Report

Gary Miller  
Highlander Environmental Services  
1910 N. Big Spring Street  
Midland, TX, 79705

Report Date: June 15, 2007

Work Order: 7060508



Project Location: Chaves Co. NM  
Project Name: Celero Energy-Rock Queen ESA  
Project Number: 2972

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
126448	RQU Tract 11 MW-1	water	2007-05-31	16:45	2007-06-04
126449	RQU Tract 13 MW-1	water	2007-06-01	14:30	2007-06-04

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

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

Dr. Blair Leftwich, Director

### Standard Flags

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

## Analytical Report

### Sample: 126448 - RQU Tract 11 MW-1

Analysis: Alkalinity  
QC Batch: 38159  
Prep Batch: 33038

Analytical Method: SM 2320B  
Date Analyzed: 2007-06-14  
Sample Preparation: 2007-06-14

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

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		110	mg/L as CaCo3	1	4.00
Total Alkalinity		110	mg/L as CaCo3	1	4.00

### Sample: 126448 - RQU Tract 11 MW-1

Analysis: Ca, Dissolved  
QC Batch: 38113  
Prep Batch: 32823

Analytical Method: S 6010B  
Date Analyzed: 2007-06-13  
Sample Preparation: 2007-06-06

Prep Method: S 3005A  
Analyzed By: TP  
Prepared By: TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		1300	mg/L	20	0.500

### Sample: 126448 - RQU Tract 11 MW-1

Analysis: Chloride (IC)  
QC Batch: 38153  
Prep Batch: 33031

Analytical Method: E 300.0  
Date Analyzed: 2007-06-13  
Sample Preparation: 2007-06-13

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		37800	mg/L	5000	0.500

### Sample: 126448 - RQU Tract 11 MW-1

Analysis: Hardness  
QC Batch: 38113  
Prep Batch: 32823

Analytical Method: S 6010B  
Date Analyzed: 2007-06-13  
Sample Preparation: 2007-06-06

Prep Method: N/A  
Analyzed By: TP  
Prepared By: TS

Parameter	Flag	RL Result	Units	Dilution	RL
Hardness (by ICP)		7570	mg eq CaCO3/L	1	0.00

**Sample: 126448 - RQU Tract 11 MW-1**

Analysis:	K, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	38113	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32823	Sample Preparation:	2007-06-06	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Potassium		416	mg/L	20	0.500

**Sample: 126448 - RQU Tract 11 MW-1**

Analysis:	Mg, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	38113	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32823	Sample Preparation:	2007-06-06	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Magnesium		1050	mg/L	20	0.500

**Sample: 126448 - RQU Tract 11 MW-1**

Analysis:	Na, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	38113	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32823	Sample Preparation:	2007-06-06	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Sodium		19400	mg/L	200	0.500

**Sample: 126448 - RQU Tract 11 MW-1**

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	37918 <sup>a</sup>	Date Analyzed:	2007-06-05	Analyzed By:	JS
Prep Batch:	32839	Sample Preparation:	2007-06-05	Prepared By:	JS

<sup>a</sup>samples were ran in the lab

Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.06	s.u.	1	0.00

**Sample: 126448 - RQU Tract 11 MW-1**

Analysis:	SO4 (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	38153	Date Analyzed:	2007-06-13	Analyzed By:	ER
Prep Batch:	33031	Sample Preparation:	2007-06-13	Prepared By:	ER

Report Date: June 15, 2007  
2972

Work Order: 7060508  
Celero Energy-Rock Queen ESA

Page Number: 4 of 16  
Chaves Co. NM

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		1080	mg/L	50	0.500

**Sample: 126448 - RQU Tract 11 MW-1**

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	38061	Date Analyzed:	2007-06-11	Analyzed By:	ER
Prep Batch:	32957	Sample Preparation:	2007-06-06	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		59400	mg/L	200	10.00

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	38159	Date Analyzed:	2007-06-14	Analyzed By:	JS
Prep Batch:	33038	Sample Preparation:	2007-06-14	Prepared By:	JS

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		8.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		652	mg/L as CaCo3	1	4.00
Total Alkalinity		660	mg/L as CaCo3	1	4.00

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis:	Ca, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	38113	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32823	Sample Preparation:	2007-06-06	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		282	mg/L	5	0.500

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	38153	Date Analyzed:	2007-06-13	Analyzed By:	ER
Prep Batch:	33031	Sample Preparation:	2007-06-13	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3270	mg/L	500	0.500

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**Sample: 126449 - RQU Tract 13 MW-1**

Analysis:	Hardness	Analytical Method:	S 6010B	Prep Method:	N/A
QC Batch:	38113	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32823	Sample Preparation:	2007-06-06	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Hardness (by ICP)		804	mg eq CaCO3/L	1	0.00

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis:	K, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	38113	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32823	Sample Preparation:	2007-06-06	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Potassium		20.1	mg/L	5	0.500

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis:	Mg, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	38113	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32823	Sample Preparation:	2007-06-06	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Magnesium		24.4	mg/L	5	0.500

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis:	Na, Dissolved	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	38113	Date Analyzed:	2007-06-13	Analyzed By:	TP
Prep Batch:	32823	Sample Preparation:	2007-06-06	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Sodium		2020	mg/L	50	0.500

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis:	pH	Analytical Method:	SM 4500-H+	Prep Method:	N/A
QC Batch:	37918 <sup>a</sup>	Date Analyzed:	2007-06-05	Analyzed By:	JS
Prep Batch:	32839	Sample Preparation:	2007-06-05	Prepared By:	JS

<sup>a</sup>samples were ran in the lab

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Parameter	Flag	RL Result	Units	Dilution	RL
pH		7.02	s.u.	1	0.00

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis: SO4 (IC)	Analytical Method: E 300.0	Prep Method: N/A
QC Batch: 38204	Date Analyzed: 2007-06-15	Analyzed By: ER
Prep Batch: 33077	Sample Preparation: 2007-06-14	Prepared By: ER

Parameter	Flag	RL Result	Units	Dilution	RL
Sulfate		91.1	mg/L	5	0.500

**Sample: 126449 - RQU Tract 13 MW-1**

Analysis: TDS	Analytical Method: SM 2540C	Prep Method: N/A
QC Batch: 38061	Date Analyzed: 2007-06-11	Analyzed By: ER
Prep Batch: 32957	Sample Preparation: 2007-06-06	Prepared By: ER

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		7245	mg/L	5	10.00

**Method Blank (1) QC Batch: 38061**

QC Batch: 38061	Date Analyzed: 2007-06-11	Analyzed By: ER
Prep Batch: 32957	QC Preparation: 2007-06-06	Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

**Method Blank (1) QC Batch: 38113**

QC Batch: 38113	Date Analyzed: 2007-06-13	Analyzed By: TP
Prep Batch: 32823	QC Preparation: 2007-06-06	Prepared By: TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		<0.0290	mg/L	0.5

**Method Blank (1) QC Batch: 38113**

QC Batch: 38113	Date Analyzed: 2007-06-13	Analyzed By: TP
Prep Batch: 32823	QC Preparation: 2007-06-06	Prepared By: TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Potassium		<0.307	mg/L	0.5

Method Blank (1) QC Batch: 38113

QC Batch: 38113 Date Analyzed: 2007-06-13 Analyzed By: TP  
Prep Batch: 32823 QC Preparation: 2007-06-06 Prepared By: TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Magnesium		<0.0740	mg/L	0.5

Method Blank (1) QC Batch: 38113

QC Batch: 38113 Date Analyzed: 2007-06-13 Analyzed By: TP  
Prep Batch: 32823 QC Preparation: 2007-06-06 Prepared By: TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Sodium		<0.529	mg/L	0.5

Method Blank (1) QC Batch: 38153

QC Batch: 38153 Date Analyzed: 2007-06-13 Analyzed By: ER  
Prep Batch: 33031 QC Preparation: 2007-06-13 Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.172	mg/L	0.5

Method Blank (1) QC Batch: 38153

QC Batch: 38153 Date Analyzed: 2007-06-13 Analyzed By: ER  
Prep Batch: 33031 QC Preparation: 2007-06-13 Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.777	mg/L	0.5

Method Blank (1) QC Batch: 38159

QC Batch: 38159 Date Analyzed: 2007-06-14 Analyzed By: JS  
Prep Batch: 33038 QC Preparation: 2007-06-14 Prepared By: JS

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Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1)      QC Batch: 38204

QC Batch: 38204  
Prep Batch: 33077

Date Analyzed: 2007-06-15  
QC Preparation: 2007-06-14

Analyzed By: ER  
Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Sulfate		<0.777	mg/L	0.5

Duplicates (1)

QC Batch: 37918  
Prep Batch: 32839

Date Analyzed: 2007-06-05  
QC Preparation: 2007-06-05

Analyzed By: JS  
Prepared By: JS

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
pH	7.09	7.06	s.u.	1	0	0.8

Duplicates (1)

QC Batch: 38061  
Prep Batch: 32957

Date Analyzed: 2007-06-11  
QC Preparation: 2007-06-06

Analyzed By: ER  
Prepared By: ER

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	596.0	582.0	mg/L	2	2	17.2

Duplicates (1)

QC Batch: 38159  
Prep Batch: 33038

Date Analyzed: 2007-06-14  
QC Preparation: 2007-06-14

Analyzed By: JS  
Prepared By: JS

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	928	764	mg/L as CaCo3	1	19	20
Total Alkalinity	928	764	mg/L as CaCo3	1	19	20



**Laboratory Control Spike (LCS-1)**

QC Batch: 38113  
Prep Batch: 32823

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-06

Analyzed By: TP  
Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	50.4	mg/L	1	50.0	<0.0290	101	79.1 - 121

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	51.0	mg/L	1	50.0	<0.0290	102	79.1 - 121	1	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 38113  
Prep Batch: 32823

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-06

Analyzed By: TP  
Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Potassium	51.4	mg/L	1	50.0	<0.307	103	78.8 - 114

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Potassium	51.9	mg/L	1	50.0	<0.307	104	78.8 - 114	1	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 38113  
Prep Batch: 32823

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-06

Analyzed By: TP  
Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Magnesium	50.1	mg/L	1	50.0	<0.0740	100	80.2 - 120

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Magnesium	50.6	mg/L	1	50.0	<0.0740	101	80.2 - 120	1	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 38113  
Prep Batch: 32823

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-06

Analyzed By: TP  
Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium	53.1	mg/L	1	50.0	<0.529	106	79.4 - 123

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium	53.3	mg/L	1	50.0	<0.529	107	79.4 - 123	0	20

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

#### Laboratory Control Spike (LCS-1)

QC Batch: 38153  
Prep Batch: 33031

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-13

Analyzed By: ER  
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12.2	mg/L	1	12.5	<0.172	98	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12.1	mg/L	1	12.5	<0.172	97	90 - 110	1	20

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

#### Laboratory Control Spike (LCS-1)

QC Batch: 38153  
Prep Batch: 33031

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-13

Analyzed By: ER  
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	12.4	mg/L	1	12.5	<0.777	99	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	11.6	mg/L	1	12.5	<0.777	93	90 - 110	7	20

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

#### Laboratory Control Spike (LCS-1)

QC Batch: 38204  
Prep Batch: 33077

Date Analyzed: 2007-06-15  
QC Preparation: 2007-06-14

Analyzed By: ER  
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	11.3	mg/L	1	12.5	<0.777	90	90 - 110

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	12.0	mg/L	1	12.5	<0.777	96	90 - 110	6	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: 126448

QC Batch: 38113  
Prep Batch: 32823

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-06

Analyzed By: TP  
Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	<sup>1</sup> 1290	mg/L	1	50.0	1300	-20	69 - 130

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	<sup>2</sup> 1290	mg/L	1	50.0	1300	-20	69 - 130	0	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: 126448

QC Batch: 38113  
Prep Batch: 32823

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-06

Analyzed By: TP  
Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Potassium	<sup>3</sup> 446	mg/L	1	50.0	416	60	76.8 - 117

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Potassium	468	mg/L	1	50.0	416	104	76.8 - 117	5	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: 126448

QC Batch: 38113  
Prep Batch: 32823

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-06

Analyzed By: TP  
Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Magnesium	<sup>4</sup> 1050	mg/L	1	50.0	1050	0	77.9 - 122

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

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

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

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

<sup>4</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Magnesium	<sup>5</sup> 1040	mg/L	1	50.0	1050	-20	77.9 - 122	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: 126448

QC Batch: 38113  
Prep Batch: 32823

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-06

Analyzed By: TP  
Prepared By: TS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Sodium	<sup>6</sup> 19400	mg/L	1	50.0	19400	0	84.2 - 120

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Sodium	<sup>7</sup> 19900	mg/L	1	50.0	19400	1000	84.2 - 120	2	20

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

**Matrix Spike (MS-1)** Spiked Sample: 126147

QC Batch: 38153  
Prep Batch: 33031

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-13

Analyzed By: ER  
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	798	mg/L	50	625	185.563	98	10 - 188

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	787	mg/L	50	625	185.563	96	10 - 188	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: 126147

QC Batch: 38153  
Prep Batch: 33031

Date Analyzed: 2007-06-13  
QC Preparation: 2007-06-13

Analyzed By: ER  
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	671	mg/L	50	625	<38.8	107	83.1 - 114

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

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

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

<sup>7</sup>Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	670	mg/L	50	625	<38.8	107	83.1 - 114	0	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: 126449

QC Batch: 38204  
Prep Batch: 33077

Date Analyzed: 2007-06-15  
QC Preparation: 2007-06-14

Analyzed By: ER  
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Sulfate	159	mg/L	5	62.5	91.0693	109	83.1 - 114

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Sulfate	151	mg/L	5	62.5	91.0693	96	83.1 - 114	5	20

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

**Standard (ICV-1)**

QC Batch: 37918

Date Analyzed: 2007-06-05

Analyzed By: JS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.10	101	98 - 102	2007-06-05

**Standard (CCV-1)**

QC Batch: 37918

Date Analyzed: 2007-06-05

Analyzed By: JS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
pH		s.u.	7.00	7.14	102	98 - 102	2007-06-05

**Standard (ICV-1)**

QC Batch: 38061

Date Analyzed: 2007-06-11

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1006	101	90 - 110	2007-06-11

**Standard (CCV-1)**

QC Batch: 38061

Date Analyzed: 2007-06-11

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	981.0	98	90 - 110	2007-06-11

Standard (ICV-1)

QC Batch: 38113

Date Analyzed: 2007-06-13

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	49.5	99	90 - 110	2007-06-13

Standard (ICV-1)

QC Batch: 38113

Date Analyzed: 2007-06-13

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Potassium		mg/L	50.0	49.9	100	90 - 110	2007-06-13

Standard (ICV-1)

QC Batch: 38113

Date Analyzed: 2007-06-13

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Magnesium		mg/L	50.0	49.3	99	90 - 110	2007-06-13

Standard (ICV-1)

QC Batch: 38113

Date Analyzed: 2007-06-13

Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		mg/L	50.0	51.5	103	90 - 110	2007-06-13

Standard (CCV-1)

QC Batch: 38113

Date Analyzed: 2007-06-13

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	51.6	103	90 - 110	2007-06-13

**Standard (CCV-1)**

QC Batch: 38113

Date Analyzed: 2007-06-13

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Potassium		mg/L	50.0	52.8	106	90 - 110	2007-06-13

**Standard (CCV-1)**

QC Batch: 38113

Date Analyzed: 2007-06-13

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Magnesium		mg/L	50.0	51.7	103	90 - 110	2007-06-13

**Standard (CCV-1)**

QC Batch: 38113

Date Analyzed: 2007-06-13

Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		mg/L	50.0	52.7	105	90 - 110	2007-06-13

**Standard (ICV-1)**

QC Batch: 38153

Date Analyzed: 2007-06-13

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2007-06-13

**Standard (ICV-1)**

QC Batch: 38153

Date Analyzed: 2007-06-13

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	11.7	94	90 - 110	2007-06-13

**Standard (CCV-1)**

QC Batch: 38153

Date Analyzed: 2007-06-13

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.3	98	90 - 110	2007-06-13

Standard (CCV-1)

QC Batch: 38153

Date Analyzed: 2007-06-13

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	12.6	101	90 - 110	2007-06-13

Standard (ICV-1)

QC Batch: 38159

Date Analyzed: 2007-06-14

Analyzed By: JS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	242	97	90 - 110	2007-06-14

Standard (CCV-1)

QC Batch: 38159

Date Analyzed: 2007-06-14

Analyzed By: JS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2007-06-14

Standard (ICV-1)

QC Batch: 38204

Date Analyzed: 2007-06-15

Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	11.6	93	90 - 110	2007-06-15

Standard (CCV-1)

QC Batch: 38204

Date Analyzed: 2007-06-15

Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Sulfate		mg/L	12.5	11.3	90	90 - 110	2007-06-15







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## Analytical and Quality Control Report

Ike Tavarez  
Highlander Environmental Services  
1910 N. Big Spring Street  
Midland, TX, 79705

Report Date: November 1, 2007

Work Order: 7102211



Project Name: Rock Queen Unit 13  
Project Number: 3132

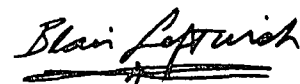
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
139864	SB-1 (3-5')	soil	2007-10-17	00:00	2007-10-22
139865	SB-1 (8-10')	soil	2007-10-17	00:00	2007-10-22
139866	SB-1 (13-15')	soil	2007-10-17	00:00	2007-10-22
139867	SB-1 (18-20')	soil	2007-10-17	00:00	2007-10-22
139868	SB-1 (28-30')	soil	2007-10-17	00:00	2007-10-22
139869	SB-1 (38-40')	soil	2007-10-17	00:00	2007-10-22
139870	SB-1 (48-50')	soil	2007-10-17	00:00	2007-10-22
139871	SB-1 (58-60')	soil	2007-10-17	00:00	2007-10-22
139872	SB-1 (68-70')	soil	2007-10-17	00:00	2007-10-22
139873	SB-1 (78-80')	soil	2007-10-17	00:00	2007-10-22
139874	SB-1 (88-90')	soil	2007-10-17	00:00	2007-10-22
139875	SB-1 (98-100')	soil	2007-10-17	00:00	2007-10-22
139876	SB-2 (8-10')	soil	2007-10-18	00:00	2007-10-22
139877	SB-2 (18-20')	soil	2007-10-18	00:00	2007-10-22
139878	SB-2 (28-30')	soil	2007-10-18	00:00	2007-10-22
139879	SB-2 (38-40')	soil	2007-10-18	00:00	2007-10-22
139880	SB-2 (48-50')	soil	2007-10-18	00:00	2007-10-22
139881	SB-3 (8-10')	soil	2007-10-18	00:00	2007-10-22
139882	SB-3 (18-20')	soil	2007-10-18	00:00	2007-10-22
139883	SB-3 (28-30')	soil	2007-10-18	00:00	2007-10-22
139884	SB-3 (38-40')	soil	2007-10-18	00:00	2007-10-22
139885	SB-3 (48-50')	soil	2007-10-18	00:00	2007-10-22
139886	SB-4 (8-10')	soil	2007-10-18	00:00	2007-10-22
139887	SB-4 (18-20')	soil	2007-10-18	00:00	2007-10-22

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
139888	SB-4 (28-30')	soil	2007-10-18	00:00	2007-10-22
139889	SB-4 (38-40')	soil	2007-10-18	00:00	2007-10-22
139890	SB-4 (48-50')	soil	2007-10-18	00:00	2007-10-22
139891	SB-5 (8-10')	soil	2007-10-18	00:00	2007-10-22
139892	SB-5 (18-20')	soil	2007-10-18	00:00	2007-10-22
139893	SB-5 (28-30')	soil	2007-10-18	00:00	2007-10-22
139894	SB-5 (38-40')	soil	2007-10-18	00:00	2007-10-22
139895	SB-5 (48-50')	soil	2007-10-18	00:00	2007-10-22
139896	SB-6 (8-10')	soil	2007-10-18	00:00	2007-10-22
139897	SB-6 (18-20')	soil	2007-10-18	00:00	2007-10-22
139898	SB-6 (28-30')	soil	2007-10-18	00:00	2007-10-22
139899	SB-6 (38-40')	soil	2007-10-18	00:00	2007-10-22
139900	SB-6 (48-50')	soil	2007-10-18	00:00	2007-10-22
139901	SB-7 (8-10')	soil	2007-10-18	00:00	2007-10-22
139902	SB-7 (18-20')	soil	2007-10-18	00:00	2007-10-22
139903	SB-7 (28-30')	soil	2007-10-18	00:00	2007-10-22
139904	SB-7 (38-40')	soil	2007-10-18	00:00	2007-10-22
139905	SB-7 (48-50')	soil	2007-10-18	00:00	2007-10-22
139906	SB-8 (8-10')	soil	2007-10-18	00:00	2007-10-22
139907	SB-8 (18-20')	soil	2007-10-18	00:00	2007-10-22
139908	SB-8 (28-30')	soil	2007-10-18	00:00	2007-10-22
139909	SB-8 (38-40')	soil	2007-10-18	00:00	2007-10-22
139910	SB-8 (40-50')	soil	2007-10-18	00:00	2007-10-22
139911	SB-9 (8-10')	soil	2007-10-18	00:00	2007-10-22
139912	SB-9 (18-20')	soil	2007-10-18	00:00	2007-10-22
139913	SB-9 (28-30')	soil	2007-10-18	00:00	2007-10-22
139914	SB-9 (38-40')	soil	2007-10-18	00:00	2007-10-22
139915	SB-9 (48-50')	soil	2007-10-18	00:00	2007-10-22

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

This report consists of a total of 27 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

#### Standard Flags

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

## Analytical Report

### Sample: 139864 - SB-1 (3-5')

Analysis: BTEX  
QC Batch: 42329  
Prep Batch: 36547

Analytical Method: S 8021B  
Date Analyzed: 2007-10-23  
Sample Preparation: 2007-10-23

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.763	mg/Kg	1	1.00	76	39.6 - 116
4-Bromofluorobenzene (4-BFB)		0.728	mg/Kg	1	1.00	73	47.3 - 144.2

### Sample: 139864 - SB-1 (3-5')

Analysis: Chloride (Titration)  
QC Batch: 42558  
Prep Batch: 36730

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6600	mg/Kg	50	2.00

### Sample: 139864 - SB-1 (3-5')

Analysis: TPH DRO  
QC Batch: 42274  
Prep Batch: 36501

Analytical Method: Mod. 8015B  
Date Analyzed: 2007-10-23  
Sample Preparation: 2007-10-23

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		136	mg/Kg	1	150	91	17.3 - 169.6

### Sample: 139864 - SB-1 (3-5')

Analysis: TPH GRO  
QC Batch: 42333  
Prep Batch: 36547

Analytical Method: S 8015B  
Date Analyzed: 2007-10-23  
Sample Preparation: 2007-10-23

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.623	mg/Kg	1	1.00	62	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		0.766	mg/Kg	1	1.00	77	51.2 - 107.4

**Sample: 139865 - SB-1 (8-10')**

Analysis: Chloride (Titration)	Analytical Method: SM 4500-Cl B	Prep Method: N/A
QC Batch: 42558	Date Analyzed: 2007-10-30	Analyzed By: AR
Prep Batch: 36730	Sample Preparation:	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7330	mg/Kg	50	2.00

**Sample: 139866 - SB-1 (13-15')**

Analysis: Chloride (Titration)	Analytical Method: SM 4500-Cl B	Prep Method: N/A
QC Batch: 42558	Date Analyzed: 2007-10-30	Analyzed By: AR
Prep Batch: 36730	Sample Preparation:	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		16900	mg/Kg	50	2.00

**Sample: 139867 - SB-1 (18-20')**

Analysis: Chloride (Titration)	Analytical Method: SM 4500-Cl B	Prep Method: N/A
QC Batch: 42558	Date Analyzed: 2007-10-30	Analyzed By: AR
Prep Batch: 36730	Sample Preparation:	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		15200	mg/Kg	50	2.00

**Sample: 139868 - SB-1 (28-30')**

Analysis: Chloride (Titration)	Analytical Method: SM 4500-Cl B	Prep Method: N/A
QC Batch: 42558	Date Analyzed: 2007-10-30	Analyzed By: AR
Prep Batch: 36730	Sample Preparation:	Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		12800	mg/Kg	50	2.00

**Sample: 139869 - SB-1 (38-40')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		12100	mg/Kg	50	2.00

**Sample: 139870 - SB-1 (48-50')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8010	mg/Kg	50	2.00

**Sample: 139871 - SB-1 (58-60')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7780	mg/Kg	50	2.00

**Sample: 139872 - SB-1 (68-70')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6600	mg/Kg	50	2.00

**Sample: 139873 - SB-1 (78-80')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

*continued ...*

*sample 139873 continued ...*

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>6520</b>	mg/Kg	50	2.00

**Sample: 139874 - SB-1 (88-90')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>6910</b>	mg/Kg	50	2.00

**Sample: 139875 - SB-1 (98-100')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>5670</b>	mg/Kg	50	2.00

**Sample: 139876 - SB-2 (8-10')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>3620</b>	mg/Kg	50	2.00

**Sample: 139877 - SB-2 (18-20')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>2330</b>	mg/Kg	50	2.00

**Sample: 139878 - SB-2 (28-30')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42563	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36732	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2580	mg/Kg	50	2.00

**Sample: 139879 - SB-2 (38-40')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42564	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36733	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		969	mg/Kg	50	2.00

**Sample: 139880 - SB-2 (48-50')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42564	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36733	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		727	mg/Kg	50	2.00

**Sample: 139881 - SB-3 (8-10')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42564	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36733	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7290	mg/Kg	50	2.00

**Sample: 139882 - SB-3 (18-20')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42564	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36733	Sample Preparation:		Prepared By:	AR

*continued ...*



*sample 139882 continued ...*

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4630	mg/Kg	50	2.00

**Sample: 139883 - SB-3 (28-30')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42564	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36733	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9560	mg/Kg	50	2.00

**Sample: 139884 - SB-3 (38-40')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42564	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36733	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8770	mg/Kg	50	2.00

**Sample: 139885 - SB-3 (48-50')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42564	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36733	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7750	mg/Kg	50	2.00

**Sample: 139886 - SB-4 (8-10')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42564	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36733	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6560	mg/Kg	50	2.00

**Sample: 139887 - SB-4 (18-20')**

Analysis: Chloride (Titration)  
QC Batch: 42564  
Prep Batch: 36733

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9930	mg/Kg	50	2.00

**Sample: 139888 - SB-4 (28-30')**

Analysis: Chloride (Titration)  
QC Batch: 42564  
Prep Batch: 36733

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7860	mg/Kg	50	2.00

**Sample: 139889 - SB-4 (38-40')**

Analysis: Chloride (Titration)  
QC Batch: 42605  
Prep Batch: 36766

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7340	mg/Kg	50	2.00

**Sample: 139890 - SB-4 (48-50')**

Analysis: Chloride (Titration)  
QC Batch: 42605  
Prep Batch: 36766

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2670	mg/Kg	50	2.00

**Sample: 139891 - SB-5 (8-10')**

Analysis: Chloride (Titration)  
QC Batch: 42605  
Prep Batch: 36766

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

*continued ...*

sample 139891 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6860	mg/Kg	50	2.00

Sample: 139892 - SB-5 (18-20')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42605	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36766	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6840	mg/Kg	50	2.00

Sample: 139893 - SB-5 (28-30')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42605	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36766	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5770	mg/Kg	50	2.00

Sample: 139894 - SB-5 (38-40')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42605	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36766	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3590	mg/Kg	50	2.00

Sample: 139895 - SB-5 (48-50')

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42605	Date Analyzed:	2007-10-30	Analyzed By:	AR
Prep Batch:	36766	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2760	mg/Kg	50	2.00

**Sample: 139896 - SB-6 (8-10')**

Analysis: Chloride (Titration)  
QC Batch: 42605  
Prep Batch: 36766

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3950	mg/Kg	50	2.00

**Sample: 139897 - SB-6 (18-20')**

Analysis: Chloride (Titration)  
QC Batch: 42605  
Prep Batch: 36766

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6360	mg/Kg	50	2.00

**Sample: 139898 - SB-6 (28-30')**

Analysis: Chloride (Titration)  
QC Batch: 42605  
Prep Batch: 36766

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-30  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3370	mg/Kg	50	2.00

**Sample: 139899 - SB-6 (38-40')**

Analysis: Chloride (Titration)  
QC Batch: 42606  
Prep Batch: 36769

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-31  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1860	mg/Kg	50	2.00

**Sample: 139900 - SB-6 (48-50')**

Analysis: Chloride (Titration)  
QC Batch: 42606  
Prep Batch: 36769

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-31  
Sample Preparation:

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

*continued ...*

sample 139900 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1220	mg/Kg	50	2.00

**Sample: 139901 - SB-7 (8-10')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42606	Date Analyzed:	2007-10-31	Analyzed By:	AR
Prep Batch:	36769	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4300	mg/Kg	50	2.00

**Sample: 139902 - SB-7 (18-20')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42606	Date Analyzed:	2007-10-31	Analyzed By:	AR
Prep Batch:	36769	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5440	mg/Kg	50	2.00

**Sample: 139903 - SB-7 (28-30')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42606	Date Analyzed:	2007-10-31	Analyzed By:	AR
Prep Batch:	36769	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2090	mg/Kg	50	2.00

**Sample: 139904 - SB-7 (38-40')**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	42606	Date Analyzed:	2007-10-31	Analyzed By:	AR
Prep Batch:	36769	Sample Preparation:		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1500	mg/Kg	50	2.00

**Sample: 139905 - SB-7 (48-50')**

Analysis: Chloride (Titration)  
QC Batch: 42606  
Prep Batch: 36769

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-31  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1420	mg/Kg	50	2.00

**Sample: 139906 - SB-8 (8-10')**

Analysis: Chloride (Titration)  
QC Batch: 42606  
Prep Batch: 36769

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-31  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6240	mg/Kg	50	2.00

**Sample: 139907 - SB-8 (18-20')**

Analysis: Chloride (Titration)  
QC Batch: 42606  
Prep Batch: 36769

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-31  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1410	mg/Kg	50	2.00

**Sample: 139908 - SB-8 (28-30')**

Analysis: Chloride (Titration)  
QC Batch: 42606  
Prep Batch: 36769

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-31  
Sample Preparation:

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		223	mg/Kg	50	2.00

**Sample: 139909 - SB-8 (38-40')**

Analysis: Chloride (Titration)  
QC Batch: 42607  
Prep Batch: 36770

Analytical Method: SM 4500-Cl B  
Date Analyzed: 2007-10-31  
Sample Preparation:

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

*continued ...*

sample 139909 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		123	mg/Kg	50	2.00

Sample: 139910 - SB-8 (40-50')

Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 42607      Date Analyzed: 2007-10-31      Analyzed By: AR  
Prep Batch: 36770      Sample Preparation:      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		197	mg/Kg	50	2.00

Sample: 139911 - SB-9 (8-10')

Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 42607      Date Analyzed: 2007-10-31      Analyzed By: AR  
Prep Batch: 36770      Sample Preparation:      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1110	mg/Kg	50	2.00

Sample: 139912 - SB-9 (18-20')

Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 42607      Date Analyzed: 2007-10-31      Analyzed By: AR  
Prep Batch: 36770      Sample Preparation:      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		187	mg/Kg	50	2.00

Sample: 139913 - SB-9 (28-30')

Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 42607      Date Analyzed: 2007-10-31      Analyzed By: AR  
Prep Batch: 36770      Sample Preparation:      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		138	mg/Kg	50	2.00

**Sample: 139914 - SB-9 (38-40')**

Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 42607      Date Analyzed: 2007-10-31      Analyzed By: AR  
Prep Batch: 36770      Sample Preparation:      Prepared By: AR

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

**Sample: 139915 - SB-9 (48-50')**

Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 42607      Date Analyzed: 2007-10-31      Analyzed By: AR  
Prep Batch: 36770      Sample Preparation:      Prepared By: AR

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

**Method Blank (1)      QC Batch: 42274**

QC Batch: 42274      Date Analyzed: 2007-10-23      Analyzed By: LD  
Prep Batch: 36501      QC Preparation: 2007-10-23      Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		23.6	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		109	mg/Kg	1	150	73	32.9 - 156.1

**Method Blank (1)      QC Batch: 42329**

QC Batch: 42329      Date Analyzed: 2007-10-23      Analyzed By: DC  
Prep Batch: 36547      QC Preparation: 2007-10-23      Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.747	mg/Kg	1	1.00	75	58.2 - 121.3
4-Bromofluorobenzene (4-BFB)		0.543	mg/Kg	1	1.00	54	53.1 - 111.6



**Method Blank (1)**      QC Batch: 42333

QC Batch: 42333  
Prep Batch: 36547

Date Analyzed: 2007-10-23  
QC Preparation: 2007-10-23

Analyzed By: DC  
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.706	mg/Kg	1	1.00	71	67.8 - 103
4-Bromofluorobenzene (4-BFB)		0.576	mg/Kg	1	1.00	58	24.6 - 123

**Method Blank (1)**      QC Batch: 42558

QC Batch: 42558  
Prep Batch: 36730

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

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

**Method Blank (1)**      QC Batch: 42563

QC Batch: 42563  
Prep Batch: 36732

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

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

**Method Blank (1)**      QC Batch: 42564

QC Batch: 42564  
Prep Batch: 36733

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

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

**Method Blank (1)**      QC Batch: 42605

QC Batch: 42605  
Prep Batch: 36766

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

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

Method Blank (1) QC Batch: 42606

QC Batch: 42606  
Prep Batch: 36769

Date Analyzed: 2007-10-31  
QC Preparation: 2007-10-31

Analyzed By: AR  
Prepared By: AR

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

Method Blank (1) QC Batch: 42607

QC Batch: 42607  
Prep Batch: 36770

Date Analyzed: 2007-10-31  
QC Preparation: 2007-10-31

Analyzed By: AR  
Prepared By: AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 42274  
Prep Batch: 36501

Date Analyzed: 2007-10-23  
QC Preparation: 2007-10-23

Analyzed By: LD  
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	333	mg/Kg	1	250	<13.4	133	49.1 - 142.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	317	mg/Kg	1	250	<13.4	127	49.1 - 142.3	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	140	129	mg/Kg	1	150	93	86	49 - 133.2

Laboratory Control Spike (LCS-1)

QC Batch: 42329  
Prep Batch: 36547

Date Analyzed: 2007-10-23  
QC Preparation: 2007-10-23

Analyzed By: DC  
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.878	mg/Kg	1	1.00	<0.00110	88	71.2 - 119
Toluene	0.893	mg/Kg	1	1.00	<0.00150	89	76.3 - 116.5
Ethylbenzene	0.892	mg/Kg	1	1.00	<0.00160	89	77.6 - 114
Xylene	2.71	mg/Kg	1	3.00	<0.00410	90	78.8 - 113.9

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.933	mg/Kg	1	1.00	<0.00110	93	71.2 - 119	6	20
Toluene	0.980	mg/Kg	1	1.00	<0.00150	98	76.3 - 116.5	9	20
Ethylbenzene	1.02	mg/Kg	1	1.00	<0.00160	102	77.6 - 114	13	20
Xylene	3.10	mg/Kg	1	3.00	<0.00410	103	78.8 - 113.9	13	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.658	0.650	mg/Kg	1	1.00	66	65	56.1 - 107.8
4-Bromofluorobenzene (4-BFB)	0.660	0.722	mg/Kg	1	1.00	66	72	56.2 - 118.8

#### Laboratory Control Spike (LCS-1)

QC Batch: 42333  
Prep Batch: 36547

Date Analyzed: 2007-10-23  
QC Preparation: 2007-10-23

Analyzed By: DC  
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.43	mg/Kg	1	10.0	<0.739	74	56 - 105.2

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.65	mg/Kg	1	10.0	<0.739	76	56 - 105.2	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.865	0.890	mg/Kg	1	1.00	86	89	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	0.738	0.728	mg/Kg	1	1.00	74	73	67.2 - 119.2

#### Laboratory Control Spike (LCS-1)

QC Batch: 42558  
Prep Batch: 36730

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.0	mg/Kg	1	100	<0.500	97	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	98.0	mg/Kg	1	100	<0.500	98	85 - 115	1	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 42563  
Prep Batch: 36732

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	102	mg/Kg	1	100	<0.500	102	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<0.500	103	85 - 115	1	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 42564  
Prep Batch: 36733

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	94.7	mg/Kg	1	100	<0.500	95	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	95.7	mg/Kg	1	100	<0.500	96	85 - 115	1	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 42605  
Prep Batch: 36766

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<0.500	101	85 - 115	1	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 42606  
Prep Batch: 36769

Date Analyzed: 2007-10-31  
QC Preparation: 2007-10-31

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.2	mg/Kg	1	100	<0.500	96	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	97.2	mg/Kg	1	100	<0.500	97	85 - 115	1	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 42607  
Prep Batch: 36770

Date Analyzed: 2007-10-31  
QC Preparation: 2007-10-31

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.1	mg/Kg	1	100	<0.500	98	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.1	mg/Kg	1	100	<0.500	99	85 - 115	1	20

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

**Matrix Spike (MS-1) Spiked Sample: 139812**

QC Batch: 42274  
Prep Batch: 36501

Date Analyzed: 2007-10-23  
QC Preparation: 2007-10-23

Analyzed By: LD  
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	223	mg/Kg	1	250	<13.4	89	30.2 - 201.4

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	249	mg/Kg	1	250	<13.4	100	30.2 - 201.4	11	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	127	120	mg/Kg	1	150	85	80	10 - 194

**Matrix Spike (MS-1) Spiked Sample: 139757**

QC Batch: 42329  
Prep Batch: 36547

Date Analyzed: 2007-10-23  
QC Preparation: 2007-10-23

Analyzed By: DC  
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.847	mg/Kg	1	1.00	<0.00110	85	65.7 - 119.1
Toluene	0.900	mg/Kg	1	1.00	<0.00150	90	47.7 - 153.8
Ethylbenzene	0.939	mg/Kg	1	1.00	<0.00160	94	73.5 - 126.3
Xylene	2.87	mg/Kg	1	3.00	<0.00410	96	73.6 - 125.9

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.910	mg/Kg	1	1.00	<0.00110	91	65.7 - 119.1	7	20
Toluene	0.952	mg/Kg	1	1.00	<0.00150	95	47.7 - 153.8	6	20
Ethylbenzene	0.966	mg/Kg	1	1.00	<0.00160	97	73.5 - 126.3	3	20
Xylene	2.94	mg/Kg	1	3.00	<0.00410	98	73.6 - 125.9	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.651	0.662	mg/Kg	1	1	65	66	51 - 109.6
4-Bromofluorobenzene (4-BFB)	0.707	0.636	mg/Kg	1	1	71	64	60.3 - 124.3

**Matrix Spike (MS-1) Spiked Sample: 139812**

QC Batch: 42333  
Prep Batch: 36547

Date Analyzed: 2007-10-23  
QC Preparation: 2007-10-23

Analyzed By: DC  
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	5.99	mg/Kg	1	10.0	<0.739	60	10 - 102.2

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	5.56	mg/Kg	1	10.0	<0.739	56	10 - 102.2	7	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.514	0.553	mg/Kg	1	1	51	55	47.2 - 84.2
4-Bromofluorobenzene (4-BFB)	0.823	0.825	mg/Kg	1	1	82	82	58 - 162.6

**Matrix Spike (MS-1) Spiked Sample: 139868**

QC Batch: 42558  
Prep Batch: 36730

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	17500	mg/Kg	50	5000	12855.7	93	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	17500	mg/Kg	50	5000	12855.7	93	85 - 115	0	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: 139878

QC Batch: 42563  
Prep Batch: 36732

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	7610	mg/Kg	50	5000	2580.18	100	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	7660	mg/Kg	50	5000	2580.18	102	85 - 115	1	20

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

**Matrix Spike (MS-1)** Spiked Sample: 139888

QC Batch: 42564  
Prep Batch: 36733

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12600	mg/Kg	50	5000	7862.34	95	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12600	mg/Kg	50	5000	7862.34	95	85 - 115	0	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: 139898

QC Batch: 42605  
Prep Batch: 36766

Date Analyzed: 2007-10-30  
QC Preparation: 2007-10-30

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	8140	mg/Kg	50	5000	3369.35	95	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	8190	mg/Kg	50	5000	3369.35	96	85 - 115	1	20

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

**Matrix Spike (MS-1)** Spiked Sample: 139908

QC Batch: 42606  
Prep Batch: 36769

Date Analyzed: 2007-10-31  
QC Preparation: 2007-10-31

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5130	mg/Kg	50	5000	222.652	98	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5180	mg/Kg	50	5000	222.652	99	85 - 115	1	20

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

**Matrix Spike (MS-1)** Spiked Sample: 139918

QC Batch: 42607  
Prep Batch: 36770

Date Analyzed: 2007-10-31  
QC Preparation: 2007-10-31

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5690	mg/Kg	50	5000	906.404	96	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5740	mg/Kg	50	5000	906.404	97	85 - 115	1	20

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

**Standard (ICV-1)**

QC Batch: 42274

Date Analyzed: 2007-10-23

Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	235	94	85 - 115	2007-10-23

**Standard (CCV-1)**

QC Batch: 42274

Date Analyzed: 2007-10-23

Analyzed By: LD



Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	230	92	85 - 115	2007-10-23

Standard (ICV-1)

QC Batch: 42329

Date Analyzed: 2007-10-23

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.106	106	85 - 115	2007-10-23
Toluene		mg/Kg	0.100	0.107	107	85 - 115	2007-10-23
Ethylbenzene		mg/Kg	0.100	0.106	106	85 - 115	2007-10-23
Xylene		mg/Kg	0.300	0.322	107	85 - 115	2007-10-23

Standard (CCV-1)

QC Batch: 42329

Date Analyzed: 2007-10-23

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0855	86	85 - 115	2007-10-23
Toluene		mg/Kg	0.100	0.0864	86	85 - 115	2007-10-23
Ethylbenzene		mg/Kg	0.100	0.0862	86	85 - 115	2007-10-23
Xylene		mg/Kg	0.300	0.262	87	85 - 115	2007-10-23

Standard (ICV-1)

QC Batch: 42333

Date Analyzed: 2007-10-23

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.926	93	85 - 115	2007-10-23

Standard (CCV-1)

QC Batch: 42333

Date Analyzed: 2007-10-23

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.957	96	85 - 115	2007-10-23

Standard (ICV-1)

QC Batch: 42558

Date Analyzed: 2007-10-30

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2007-10-30

**Standard (CCV-1)**

QC Batch: 42558

Date Analyzed: 2007-10-30

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.0	99	85 - 115	2007-10-30

**Standard (ICV-1)**

QC Batch: 42563

Date Analyzed: 2007-10-30

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	96.4	96	85 - 115	2007-10-30

**Standard (CCV-1)**

QC Batch: 42563

Date Analyzed: 2007-10-30

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	104	104	85 - 115	2007-10-30

**Standard (ICV-1)**

QC Batch: 42564

Date Analyzed: 2007-10-30

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	103	103	85 - 115	2007-10-30

**Standard (CCV-1)**

QC Batch: 42564

Date Analyzed: 2007-10-30

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	96.6	97	85 - 115	2007-10-30

Standard (ICV-1)

QC Batch: 42605

Date Analyzed: 2007-10-30

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.9	98	85 - 115	2007-10-30

Standard (CCV-1)

QC Batch: 42605

Date Analyzed: 2007-10-30

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2007-10-30

Standard (ICV-1)

QC Batch: 42606

Date Analyzed: 2007-10-31

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2007-10-31

Standard (CCV-1)

QC Batch: 42606

Date Analyzed: 2007-10-31

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.2	98	85 - 115	2007-10-31

Standard (ICV-1)

QC Batch: 42607

Date Analyzed: 2007-10-31

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.9	100	85 - 115	2007-10-31

Standard (CCV-1)

QC Batch: 42607

Date Analyzed: 2007-10-31

Analyzed By: AR

Report Date: November 1, 2007  
3132

Work Order: 7102211  
Rock Queen Unit 13

Page Number: 27 of 27

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2007-10-31

work order: 7102241

Analysis Request and Chain of Custody Record										PAGE: 1	OF: 1	
HIGHLANDER ENVIRONMENTAL CORP.										ANALYSIS REQUEST (Circle or Specify Method No.)		
1910 N. Big Spring St. Midland, Texas 79705												
(432) 682-4559										Fax (432) 682-3946		
CLIENT NAME: Celero Energy		PROJECT NAME: Rock Queen Unit 13		SITE MANAGER: Ike Tavares / Jeff Kindley		PRESERVATIVE METHOD						
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNOS	ICE	NONE
13964	10/17/07		S	✓	✓	SB-1 (3-5')	1		✓	✓	✓	✓
865	10/17/07		S	✓	✓	SB-1 (8-10')	1		✓	✓	✓	✓
866	10/17/07		S	✓	✓	SB-1 (13-15')	1		✓	✓	✓	✓
867	10/17/07		S	✓	✓	SB-1 (18-20')	1		✓	✓	✓	✓
868	10/17/07		S	✓	✓	SB-1 (28-30')	1		✓	✓	✓	✓
869	10/17/07		S	✓	✓	SB-1 (38-40')	1		✓	✓	✓	✓
870	10/17/07		S	✓	✓	SB-1 (48-50')	1		✓	✓	✓	✓
871	10/17/07		S	✓	✓	SB-1 (58-60')	1		✓	✓	✓	✓
872	10/17/07		S	✓	✓	SB-1 (68-70')	1		✓	✓	✓	✓
873	10/17/07		S	✓	✓	SB-1 (78-80')	1		✓	✓	✓	✓

RELINQUISHED BY: (Signature)	Date: 10-22-07	Time: 2:30	RECEIVED BY: (Signature)	Date: 10-22-07	Time: 2:30
RELINQUISHED BY: (Signature)	Date: _____	Time: _____	RECEIVED BY: (Signature)	Date: _____	Time: _____
RELINQUISHED BY: (Signature)	Date: _____	Time: _____	RECEIVED BY: (Signature)	Date: _____	Time: _____
RECEIVING LABORATORY: TCU Analytical	STATE: TX	ZIP: _____	DATE: 10-22-07	TIME: 14:30	
CITY: Midland	PHONE: _____				
SAMPLE CONDITION WHEN RECEIVED: 1.9°C intact					

REMARKS: * Run these 4 TPH > 5000 ppm, BTEX > 50 ppm, on samples > 10g/m All tests - Midland	
--	--

Please fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp. - Project Manager retains pink copy - Accounting receives Gold copy.





work order: 710211

# Analysis Request and Chain of Custody Record

## HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559

Fax (432) 682-3946

CLIENT NAME: Celeco Energy SITE MANAGER: Tracy Kindley

PROJECT NO.: 3132 PROJECT NAME: Rock Quarry Unit 13

LAB ID. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS				PRESERVATIVE METHOD			
							1	2	3	4	HCL	HNO3	ICE	NONE
1398T4	10/18/07		S	✓	✓	SB-5 (38-40')	1						✓	
895	10/18/07		S	✓	✓	SB-5 (40-50')	1						✓	
896	10/18/07		S	✓	✓	SB-6 (8-10')	1						✓	
897	10/18/07		S	✓	✓	SB-6 (18-20')	1						✓	
898	10/18/07		S	✓	✓	SB-6 (28-30')	1						✓	
899	10/18/07		S	✓	✓	SB-6 (38-40')	1						✓	
900	10/18/07		S	✓	✓	SB-6 (48-50')	1						✓	
901	10/18/07		S	✓	✓	SB-7 (8-10')	1						✓	
902	10/18/07		S	✓	✓	SB-7 (18-20')	1						✓	
903	10/18/07		S	✓	✓	SB-7 (28-30')	1						✓	

RECEIVED BY: (Signature) <u>[Signature]</u> Date: <u>10/22/07</u> Time: <u>2:30</u> RECEIVED BY: (Signature) Date: _____ Time: _____ RECEIVED BY: (Signature) Date: _____ Time: _____ RECEIVED BY: (Signature) Date: _____ Time: _____		SAMPLED BY: (Print & Sign) <u>Tracy Kindley</u> Date: <u>October 18, 2007</u> Time: _____ SAMPLE SHIPPED BY: (Print & Sign) <u>[Signature]</u> Date: _____ Time: _____ OTHER: _____ RECEIVED BY: (Signature) Date: _____ Time: _____	
RECEIVING LABORATORY: <u>Paul Analytica</u> ADDRESS: <u>Midland</u> STATE: <u>TX</u> ZIP: _____ CONTACT: <u>[Signature]</u> PHONE: _____		HIGHLANDER CONTACT PERSON: <u>Tracy Kindley</u> RUSH CHARGES AUTHORIZED: _____ Yes _____ No _____	
SAMPLE CONDITION WHEN RECEIVED: <u>1.8°C intact</u> MATRIX: <u>8-Solid</u> A-Air B-Solid C-Solid D-Solid E-Solid F-Solid G-Solid H-Solid I-Solid J-Solid K-Solid L-Solid M-Solid N-Solid O-Solid P-Solid Q-Solid R-Solid S-Solid T-Solid U-Solid V-Solid W-Solid X-Solid Y-Solid Z-Solid		REMARKS: <u>All tests - Midland</u>	

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## Analysis Request and Chain of Custody Record

# HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559

**Fax (432) 682-3946**

CLIENT NAME: Celeste Energy		PROJECT NAME: Red River Unit 13		SITE MANAGER: Ike Taraway / Jeff Kindley	
PROJECT NO.: 3132					
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB
139904	10/18/07		S	✓	58-7 (38-40')
905	10/18/07		S	✓	58-7 (48-50')
906	10/18/07		S	✓	58-8 (8-10')
907	10/18/07		S	✓	58-8 (18-20')
908	10/18/07		S	✓	58-8 (28-30')
909	10/18/07		S	✓	58-8 (38-40')
910	10/18/07		S	✓	58-8 (48-50')
911	10/18/07		S	✓	58-9 (8-10')
912	10/18/07		S	✓	58-9 (18-20')
913	10/18/07		S	✓	58-9 (28-30')

PRESERVATIVE METHOD		NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNOS	ICE	NONE
		1				✓	✓
		1				✓	✓
		1				✓	✓
		1				✓	✓
		1				✓	✓
		1				✓	✓
		1				✓	✓
		1				✓	✓

RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 2:50	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 2:50	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 2:50	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 2:50	
RECEIVING LABORATORY: T.E. Kindley					
ADDRESS: 1010 1st St. N. W.					
CITY: MIDLAND STATE: TX ZIP: 79701					
CONTACT: PHONE: 806-734-1111					

SAMPLE CONDITION WHEN RECEIVED:		MATRIX:		DATE: 10-22-07		TIME: 14:30	
1.0 c indist		W-Water		A-Air		SD-Solid	
		S-Soil		SL-Sludge		O-Other	

RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVING LABORATORY: T.E. Kindley					
ADDRESS: 1010 1st St. N. W.					
CITY: MIDLAND STATE: TX ZIP: 79701					
CONTACT: PHONE: 806-734-1111					

RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVING LABORATORY: T.E. Kindley					
ADDRESS: 1010 1st St. N. W.					
CITY: MIDLAND STATE: TX ZIP: 79701					
CONTACT: PHONE: 806-734-1111					

RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVING LABORATORY: T.E. Kindley					
ADDRESS: 1010 1st St. N. W.					
CITY: MIDLAND STATE: TX ZIP: 79701					
CONTACT: PHONE: 806-734-1111					

RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVING LABORATORY: T.E. Kindley					
ADDRESS: 1010 1st St. N. W.					
CITY: MIDLAND STATE: TX ZIP: 79701					
CONTACT: PHONE: 806-734-1111					

RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVING LABORATORY: T.E. Kindley					
ADDRESS: 1010 1st St. N. W.					
CITY: MIDLAND STATE: TX ZIP: 79701					
CONTACT: PHONE: 806-734-1111					

RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-07		TIME: 14:30	
RECEIVED BY: (Signature)		DATE: 10-22-			

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

## Analytical and Quality Control Report

Jeff Kindley  
Highlander Environmental Services  
1910 N. Big Spring Street  
Midland, TX, 79705

Report Date: March 31, 2008

Work Order: 8032657



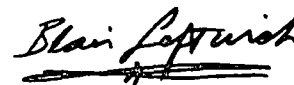
Project Name: Celero/Rock Queen Unit 13  
Project Number: 3132

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
154780	SB-10 8-10'	soil	2008-03-25	00:00	2008-03-26
154781	SB-10 18-20'	soil	2008-03-25	00:00	2008-03-26
154782	SB-10 28-30'	soil	2008-03-25	00:00	2008-03-26
154783	SB-10 38-40'	soil	2008-03-25	00:00	2008-03-26
154784	SB-10 48-50'	soil	2008-03-25	00:00	2008-03-26
154785	SB-11 8-10'	soil	2008-03-25	00:00	2008-03-26
154786	SB-11 18-20'	soil	2008-03-25	00:00	2008-03-26
154787	SB-11 28-30'	soil	2008-03-25	00:00	2008-03-26
154788	SB-11 38-40'	soil	2008-03-25	00:00	2008-03-26
154789	SB-11 48-50'	soil	2008-03-25	00:00	2008-03-26
154790	SB-12 8-10'	soil	2008-03-25	00:00	2008-03-26
154791	SB-12 18-20'	soil	2008-03-25	00:00	2008-03-26
154792	SB-12 28-30'	soil	2008-03-25	00:00	2008-03-26
154793	SB-12 38-40'	soil	2008-03-25	00:00	2008-03-26
154794	SB-12 48-50'	soil	2008-03-25	00:00	2008-03-26
154795	SB-13 8-10'	soil	2008-03-25	00:00	2008-03-26
154796	SB-13 18-20'	soil	2008-03-25	00:00	2008-03-26
154797	SB-13 28-30'	soil	2008-03-25	00:00	2008-03-26
154798	SB-13 38-40'	soil	2008-03-25	00:00	2008-03-26
154799	SB-13 48-50'	soil	2008-03-25	00:00	2008-03-26

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

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



---

Dr. Blair Leftwich, Director

**Standard Flags**

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

## Analytical Report

### Sample: 154780 - SB-10 8-10'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3410	mg/Kg	50	2.00

### Sample: 154781 - SB-10 18-20'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2100	mg/Kg	50	2.00

### Sample: 154782 - SB-10 28-30'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5020	mg/Kg	50	2.00

### Sample: 154783 - SB-10 38-40'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5310	mg/Kg	50	2.00

### Sample: 154784 - SB-10 48-50'

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3720	mg/Kg	50	2.00

**Sample: 154785 - SB-11 8-10'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1130	mg/Kg	50	2.00

**Sample: 154786 - SB-11 18-20'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1120	mg/Kg	50	2.00

**Sample: 154787 - SB-11 28-30'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		230	mg/Kg	50	2.00

**Sample: 154788 - SB-11 38-40'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46932	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40367	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		175	mg/Kg	50	2.00

**Sample: 154789 - SB-11 48-50'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		106	mg/Kg	50	2.00

**Sample: 154790 - SB-12 8-10'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

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

**Sample: 154791 - SB-12 18-20'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

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

**Sample: 154792 - SB-12 28-30'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

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

**Sample: 154793 - SB-12 38-40'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

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

**Sample: 154794 - SB-12 48-50'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

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

**Sample: 154795 - SB-13 8-10'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		187	mg/Kg	50	2.00

**Sample: 154796 - SB-13 18-20'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		374	mg/Kg	50	2.00

**Sample: 154797 - SB-13 28-30'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		132	mg/Kg	50	2.00

**Sample: 154798 - SB-13 38-40'**

Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	46933	Date Analyzed:	2008-03-28	Analyzed By:	AR
Prep Batch:	40368	Sample Preparation:	2008-03-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		136	mg/Kg	50	2.00



**Sample: 154799 - SB-13 48-50'**

Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 46934      Date Analyzed: 2008-03-28      Analyzed By: AR  
Prep Batch: 40369      Sample Preparation: 2008-03-28      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		134	mg/Kg	50	2.00

**Method Blank (1)**      QC Batch: 46932

QC Batch: 46932      Date Analyzed: 2008-03-28      Analyzed By: AR  
Prep Batch: 40367      QC Preparation: 2008-03-28      Prepared By: AR

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

**Method Blank (1)**      QC Batch: 46933

QC Batch: 46933      Date Analyzed: 2008-03-28      Analyzed By: AR  
Prep Batch: 40368      QC Preparation: 2008-03-28      Prepared By: AR

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

**Method Blank (1)**      QC Batch: 46934

QC Batch: 46934      Date Analyzed: 2008-03-28      Analyzed By: AR  
Prep Batch: 40369      QC Preparation: 2008-03-28      Prepared By: AR

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 46932      Date Analyzed: 2008-03-28      Analyzed By: AR  
Prep Batch: 40367      QC Preparation: 2008-03-28      Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	103	mg/Kg	1	100	<0.500	103	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	96.9	mg/Kg	1	100	<0.500	97	85 - 115	6	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 46933  
Prep Batch: 40368

Date Analyzed: 2008-03-28  
QC Preparation: 2008-03-28

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<0.500	101	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<0.500	102	85 - 115	2	20

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

**Laboratory Control Spike (LCS-1)**

QC Batch: 46934  
Prep Batch: 40369

Date Analyzed: 2008-03-28  
QC Preparation: 2008-03-28

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.3	mg/Kg	1	100	<0.500	97	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	98.4	mg/Kg	1	100	<0.500	98	85 - 115	1	20

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

**Matrix Spike (MS-1) Spiked Sample: 154788**

QC Batch: 46932  
Prep Batch: 40367

Date Analyzed: 2008-03-28  
QC Preparation: 2008-03-28

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5070	mg/Kg	50	5000	175.439	98	85 - 115

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

*continued ...*

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5000	mg/Kg	50	5000	175.439	96	85 - 115	1	20

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

**Matrix Spike (MS-1)** Spiked Sample: 154798

QC Batch: 46933  
Prep Batch: 40368

Date Analyzed: 2008-03-28  
QC Preparation: 2008-03-28

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5040	mg/Kg	50	5000	136.571	98	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5100	mg/Kg	50	5000	136.571	99	85 - 115	1	20

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

**Matrix Spike (MS-1)** Spiked Sample: 154800

QC Batch: 46934  
Prep Batch: 40369

Date Analyzed: 2008-03-28  
QC Preparation: 2008-03-28

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5190	mg/Kg	50	5000	292.949	98	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	5250	mg/Kg	50	5000	292.949	99	85 - 115	1	20

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

**Standard (ICV-1)**

QC Batch: 46932

Date Analyzed: 2008-03-28

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2008-03-28

Standard (CCV-1)

QC Batch: 46932

Date Analyzed: 2008-03-28

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.9	99	85 - 115	2008-03-28

Standard (ICV-1)

QC Batch: 46933

Date Analyzed: 2008-03-28

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2008-03-28

Standard (CCV-1)

QC Batch: 46933

Date Analyzed: 2008-03-28

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-03-28

Standard (ICV-1)

QC Batch: 46934

Date Analyzed: 2008-03-28

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.4	99	85 - 115	2008-03-28

Standard (CCV-1)

QC Batch: 46934

Date Analyzed: 2008-03-28

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-03-28

WO# 8032657

# Analysis Request of Chain of Custody Record

## HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559

Fax (432) 682-3946

CLIENT NAME: <u>Celeco Energy</u>		SITE MANAGER: <u>Jeffrey Kindley</u>	
PROJECT NO.: <u>3132</u>		PROJECT NAME: <u>Rock Queen Unit 13</u>	
LAB I.D. NUMBER	DATE	TIME	SAMPLE IDENTIFICATION
154780	03/25/08		SB-10 (8-10')
781	03/25/08		SB-10 (18-20')
782	03/25/08		SB-10 (28-30')
783	03/25/08		SB-10 (38-40')
784	03/25/08		SB-10 (48-50')
785	03/25/08		SB-11 (8-10')
786	03/25/08		SB-11 (18-20')
787	03/25/08		SB-11 (28-30')
788	03/25/08		SB-11 (38-40')
789	03/25/08		SB-11 (48-50')

RELINQUISHED BY: (Signature)	Date:	Time:	RECEIVED BY: (Signature)	Date:	Time:
<u>Jeffrey Kindley</u>	03/25/08	11:15	<u>Paul Campbell</u>	03/25/08	11:15
RELINQUISHED BY: (Signature)	Date:	Time:	RECEIVED BY: (Signature)	Date:	Time:
RELINQUISHED BY: (Signature)	Date:	Time:	RECEIVED BY: (Signature)	Date:	Time:

RECEIVING LABORATORY: 1244 Analytix

ADDRESS: Midland STATE: TX ZIP:

CITY: Midland PHONE:

SAMPLE CONDITION WHEN RECEIVED: 3.0

REMARKS: all tests - Midland

PAGE: 1 OF 2

### ANALYSIS REQUEST (Circle or Specify Method No.)

TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	TCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCRP Metals Ag As Ba Cd Vr Pd Hg Se	TCRP Volatiles	TCRP Semi Volatiles	ROI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCBs 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

SAMPLED BY: (Print & Initial) Jeffrey Kindley Date: 03/25/08 Time: 12:00

SAMPLE SHIPPED BY: (Circle) BUS Date: 03/25/08 Time: 12:00

FEDEX (HAND DELIVERED) UPS

HIGHLANDER CONTACT PERSON: Jeffrey Kindley

Results by: Jeffrey Kindley

RUSH Charges Authorized: Yes



**APPENDIX B**  
**PERMEABILITY/SIEVE ANALYSIS**

Hines, Joleen

From: Hines, Joleen  
Sent: Monday, September 28, 2005 3:40 PM  
To: 'John P Pellicer'  
Subject: Cover Bucket Density & Clay K-Sat

John,

I have attached the results for the density of the cover material 'as-is' in the 5-gal bucket, and the saturated hydraulic conductivity for the clay (remolded at 90%). Please let me know how to proceed.

Thank you,

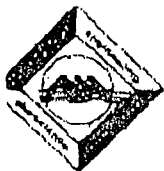
Joleen

Joleen Hines  
Daniel B. Stephens & Associates Laboratory  
5840 Osuna Rd., NE  
Albuquerque, NM 87108

505.889.7752  
505.889.0258(fax)  
jhines@dbstephens.com  
www.dbstephens.com

9/26/2005





Daniel B. Stephens & Associates, Inc.

**Data for Initial Moisture Content,  
Bulk Density, Porosity, and Percent Saturation**

Job Name: Gandy Marley  
Job Number: LB05.0208.00  
Sample Number: Cover (Bucket)  
Ring Number: N/A  
Depth: N/A

Test Date: 23-Sep-06

Field weight\* of sample (g): 21936.00  
Tare weight, ring (g): 0.00  
Tare weight, cap/plate/epoxy (g): 0.00

Dry weight of sample (g): 20511.00  
Sample volume (cm<sup>3</sup>): 14884.53  
Assumed particle density: 2.65

---

Initial Volumetric Moisture Content (% vol): 6.9  
Initial Gravimetric Moisture Content (% g/g): 5.0  
Dry bulk density (g/cm<sup>3</sup>): 1.38  
Wet bulk density (g/cm<sup>3</sup>): 1.45  
Calculated Porosity (% vol): 48.0  
Percent Saturation: 14.3

---

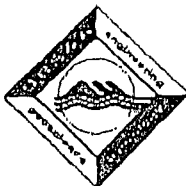
**Comments:**

\* Weight including tares  
NA = Not analyzed

Laboratory analysis by: D. O'Dowd  
Data entered by: D. O'Dowd  
Checked by: J. Hines

*Daniel B. Stephens & Associates, Inc.***Summary of Saturated Hydraulic Conductivity Tests**

Sample Number	$K_{sat}$ (cm/sec)	Method of Analysis	
		Constant Head Flexible Wall	Falling Head Flexible Wall
Clay	1.5E-08		X



Daniel B. Stephens & Associates, Inc.

### SAMPLE RECEIPT FORM

CLIENT: Gandy Marley, Inc.

DATE RECEIVED: 9/16/05

PROJECT #: \_\_\_\_\_

DBS&A

PROJECT #: \_\_\_\_\_

- |   |           |
|---|-----------|
| 1) Are the custody seals on the cooler intact?                          | NA        |
| 2) Are the custody seals on the sample containers intact?               | Yes       |
| 3) Are there Chain of Custody(COC), or other directive shipping papers? | Yes       |
| 4) Is the COC complete?   | See Notes |
| 5) Is the COC in agreement with the samples received?                   | See Notes |
| 6) Did all the samples arrive intact?                                   | Yes       |
| 7) Comments   |           |

Three samples arrived, each in full 5-gallon buckets, in good condition. The clay sample is being prepared today and testing will begin soon. Will await further instruction on the Cover and Caliche samples. Also awaiting in-situ clay core sample.

If you have any questions or concerns please contact Joleen Hines at (505) 889-7752.

NOTE: Samples will be held for a period of 30 days after the completion of testing. After 30 days samples will be disposed of locally unless DBS&A receives other instructions.

Signature: \_\_\_\_\_

5840 OSUNA RD NE, ALBUQUERQUE, NM 87109

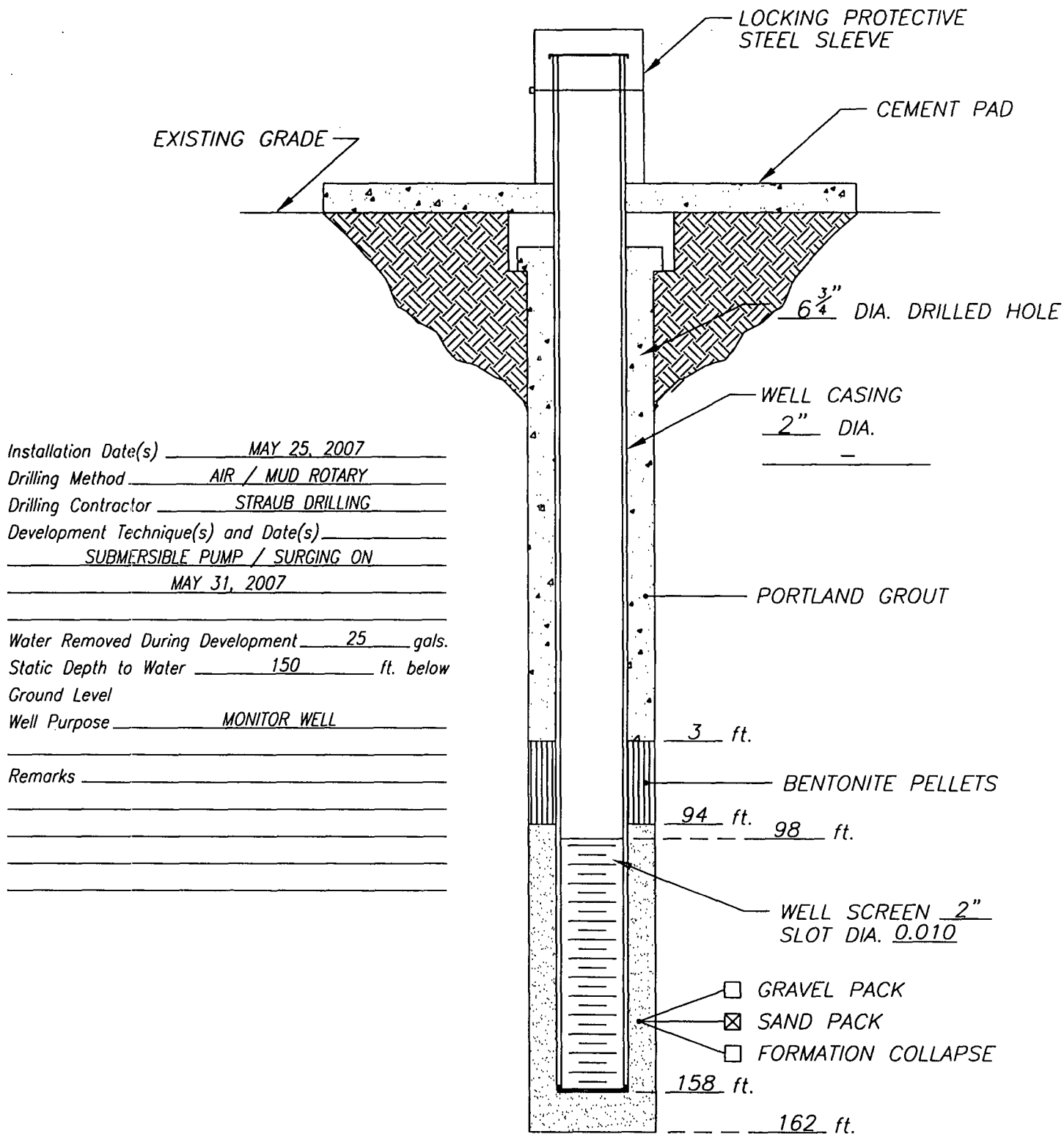
(505) 889-7752 FAX (505) 889-0250

#### Disclaimer:

Interpretations of test results, interim reports of laboratory work, and research and development of special equipment or test procedures will be charged at our regular schedule of professional services fees, which is available upon request. The testing utilized to generate laboratory reports follows methods that are standard for the industry. The results do not constitute a professional or expert opinion by DBS&A, nor can the results affect any professional or expert opinions rendered with respect thereto by DBS&A. All testing undertaken by DBS&A, and any and all reports provided from said testing, constitute mere test results using standardized methods, and cannot be used to disqualify DBS&A from rendering any professional or expert opinion. Because of the nature of the results of our testing, and the limited scope of the Lab's undertaking, you hereby waive any claim of conflict of interest by DBS&A in the event professional or expert opinion is requested of qualified professionals or experts within DBS&A, for or against any party. Other than the express warranty that the testing utilized under this Contract uses standard methods, DBS&A disclaims any and all other warranties of any kind whatsoever.

**APPENDIX C**  
**BORING LOG/MONITOR WELL**  
**CONSTRUCTION DIAGRAM**

# WELL CONSTRUCTION LOG



DATE: 5/25/07

**TETRA TECH, INC.**  
**MIDLAND, TEXAS**

CLIENT: CELERO

PROJECT: ROCK QUEEN UNIT TRACT 13 TB

LOCATION: CHAVES COUNTY, NM

WELL NO.

MW-1

## SAMPLE LOG

Boring/Well: MW-1  
 Project Number: 2972  
 Client: Celero Energy  
 Site Location: Rock Queen Tract 13 Tank Battery  
 Location: Chaves County, New Mexico  
 Total Depth: 160  
 Date Installed: 05/25/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Buff to tan sandy limestone
5-10	--	Buff to tan sandy limestone
10-15	--	Buff to tan sandy limestone with chert
15-20	--	Buff sandy limestone with chert
20-25	--	Buff to tan calcareous sand
25-30	--	Buff to tan calcareous sand
30-35	--	Buff to tan calcareous sand
35-40	--	Buff to tan calcareous sand
40-45	--	Buff to tan calcareous sand
45-50	--	Tan fine sand - v.f. sand
50-55	--	Tan fine sand - v.f. sand
55-60	--	Tan fine sand - v.f. sand
63-65	--	Tan fine sand - v.f. sand
68-70	--	Tan fine sand - v.f. sand
73-75	--	Tan fine sand - v.f. sand
78-80	--	Tan fine sand - v.f. sand
83-85	--	Tan fine sand - v.f. sand
88-90	--	Tan fine sand - v.f. sand
93-95	--	Tan fine sand - v.f. sand
98-100	--	Tan fine sand - v.f. sand
103-105	--	Tan fine sand - v.f. sand
108-110	--	Tan fine sand - v.f. sand
113-115	--	Tan fine sand - v.f. sand
118-120	--	Tan fine sand - v.f. sand
123-125	--	Tan fine sand - v.f. sand
128-130	--	Tan fine sand - v.f. sand

## SAMPLE LOG

Boring/Well: MW-1  
Project Number: 2972  
Client: Celero Energy  
Site Location: Rock Queen Tract 13 Tank Battery  
Location: Chaves County, New Mexico  
Total Depth: 160  
Date Installed: 05/25/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
133-135	--	Tan fine sand - v.f. sand
138-140	--	Tan fine sand - v.f. sand
143-145	--	Tan fine sand - v.f. sand
148-150	--	Chert layer intermixed with red sand
153-155	--	Chert layer intermixed with red sand
158-160	--	Red sand

Total Depth is 160 feet      Groundwater encountered at 117 feet

## SAMPLE LOG

Boring/Well: SB-1  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 100  
Date Installed: 10/17/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	10.5	Buff hard limestone with chert intermixed
5-10	9.8	buff hard fine grain sandy limestone
10-15	7.6	Buff/tan calcareous fine grain sand
15-20	2.6	Tan fine grain sand
25-30	2.5	Tan fine grain sand
35-40	2.4	Tan fine grain well sorted sand
45-50	2.2	Tan fine grain well sorted sand
55-60	2.1	Tan fine grain well sorted sand
65-70	2.6	Tan fine grain well sorted sand
75-80	2.5	Tan fine grain well sorted sand
85-90	2.4	Tan fine grain well sorted sand
95-100	2.2	Tan fine grain well sorted sand

Total Depth is 100 feet

No Groundwater encountered during drilling



## SAMPLE LOG

Boring/Well: SB-2  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 10/18/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	2.8	Buff hard limestone with chert and sand intermixed
15-20	2.7	Buff/tan fine grain sandy limestone
25-30	2.7	Tan fine grain sand
35-40	2.6	Tan fine grain sand
45-50	2.6	Tan fine grain sand

Total Depth is 50 feet      No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-3  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 10/18/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	2.5	Tan/buff limestone with chert and sand intermixed
15-20	2.5	Buff/tan fine grain sandy limestone
25-30	2.6	Tan fine grain sand
35-40	2.7	Tan fine grain sand
45-50	2.8	Tan fine grain sand

Total Depth is 50 feet      No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-4  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 10/18/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	2.2	Tan/buff limestone with chert intermixed with sand
15-20	1.9	Buff/tan fine grain calcareous sand
25-30	2.1	Tan fine grain well sorted sand
35-40	2.7	Tan fine grain well sorted sand
45-50	2.6	Tan fine grain well sorted sand

Total Depth is 50 feet      No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-5  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 10/18/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	2.7	Tan/buff limestone with chert and sand intermixed
15-20	2.8	Buff/tan fine grain sandy limestone
25-30	2.4	Tan fine grain well sorted sand
35-40	2.4	Tan fine grain well sorted sand
45-50	2.6	Tan fine grain well sorted sand

Total Depth is 50 feet      No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-6  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 10/18/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	2.7	Tan/buff limestone with chert and sand intermixed
15-20	2.8	Buff/tan fine grain sandy limestone
25-30	2.7	Tan fine grain well sorted sand
35-40	2.6	Tan fine grain well sorted sand
45-50	2.6	Tan fine grain well sorted sand

Total Depth is 50 feet

No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-7  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 10/18/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	2.4	Tan/buff limestone with chert and sand intermixed
15-20	2.6	Tan/buff limestone with chert and sand intermixed
25-30	2.5	Tan fine grain well sorted sand
35-40	2.4	Tan fine grain well sorted sand
45-50	2.3	Tan fine grain well sorted sand

Total Depth is 50 feet      No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-8  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 10/18/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	2.6	Tan/buff limestone with chert and sand intermixed
15-20	2.7	Tan/buff fine grain calcareous sand
25-30	2.7	Tan fine grain well sorted sand
35-40	2.6	Tan fine grain well sorted sand
45-50	2.5	Tan fine grain well sorted sand

Total Depth is 50 feet      No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-9  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 10/18/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	2.6	Tan/buff limestone with chert and sand intermixed
15-20	2.7	Tan/buff fine grain sandy limestone
25-30	2.6	Tan fine grain well sorted sand
35-40	2.5	Tan fine grain well sorted sand
45-50	2.3	Tan fine grain well sorted sand

Total Depth is 50 feet      No Groundwater encountered during drilling



## SAMPLE LOG

Boring/Well: SB-10  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 03/25/08

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	1.3	Tan/buff fine grain sandy limestone (salty)
15-20	1.4	Tan/buff calcareous sand
25-30	1.2	Tan fine grain well sorted sand
35-40	1.5	Tan fine grain well sorted sand
45-50	1.7	Tan fine grain well sorted sand

Total Depth is 50 feet

No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-11  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 03/25/08

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	1.6	Tan/buff fine grain sandy limestone
15-20	1.5	Tan/buff calcareous sand
25-30	1.4	Tan fine grain well sorted sand
35-40	1.8	Tan fine grain well sorted sand
45-50	2.1	Tan fine grain well sorted sand

Total Depth is 50 feet      No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-12  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 03/25/08

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	1.8	Tan/buff fine grain sandy limestone
15-20	1.6	Tan/buff calcareous sand
25-30	1.7	Tan fine grain well sorted sand
35-40	1.9	Tan fine grain well sorted sand
45-50	2.0	Tan fine grain well sorted sand

Total Depth is 50 feet      No Groundwater encountered during drilling

## SAMPLE LOG

Boring/Well: SB-13  
Project Number: 3132  
Client: Celero Energy  
Site Location: Rock Queen Unit Tract # 13  
Location: Chavez County, New Mexico  
Total Depth: 50  
Date Installed: 03/25/08

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
5-10	1.5	Tan/buff fine grain sandy limestone
15-20	1.7	Tan/buff calcareous sand
25-30	1.4	Tan fine grain well sorted sand
35-40	1.6	Tan fine grain well sorted sand
45-50	1.7	Tan fine grain well sorted sand

Total Depth is 50 feet      No Groundwater encountered during drilling

**APPENDIX D**  
**INITIAL C-141 & C-144**

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Celero Energy	Contact	Don Hale
Address	400 W. Illinois Midland, Texas 79705	Telephone No.	432-556-9225
Facility Name	Rock Queen Bat. #13	Facility Type	oil
Surface Owner	State of N.M.	Mineral Owner	State of N.M.
Lease No.	302917		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	36	13S	31E	2400	S	2200	E	Chaves

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

NATURE OF RELEASE

Type of Release	salt water	Volume of Release	30 bbls	Volume Recovered	18 bbls
Source of Release	water pump	Date and Hour of Occurrence	7 am 10-3-07	Date and Hour of Discovery	8 am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Gary Wink			
By Whom?	Don Hale	Date and Hour 10-3-07 3pm			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.

Describe Cause of Problem and Remedial Action Taken.\*  
Had a nipple leak on the salt water pump. Nipple was replaced. Water was picked up by a vacuum truck. 40 yds. of soil was picked up for disposal.

Describe Area Affected and Cleanup Action Taken \*  
30' x 200' area was affected. water was picked up with a vacuum truck, dirt was dug out for disposal. Water has 190,000 ppm chlorides

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

Signature: <i>Don Hale</i>	OIL CONSERVATION DIVISION	
Printed Name: Don Hale	Approved by District <i>Don Johnson</i> ENVIRONMENTAL ENGINEER	
Title: Production Superintendent	Approval Date: 10.9.07	Expiration Date: 12.10.07
E-mail Address:	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10-4-07 Phone: 432-556-9225	SUBMIT PLAN OR FINAL BY	

Attach Additional Sheets If Necessary

RP# 1614

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 June 10, 2003

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

Release Notification and Corrective Action

(AMENDED)

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Celero Energy II, LP	Contact: Bruce Woodard
Address: 400 W. Illinois, Suite 1601, Midland, TX 79701	Telephone No. 432-686-1883
Facility Name: Rock Queen Unit Tract #13 TB	Facility Type: Pit at Tank Battery

Surface Owner State	Mineral Owner State	Lease No.
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LOCATION OF RELEASE

Unit Letter G	Section/ 36	Township 13S	Range 31E	Feet from the	North/South Line	Feet from the	East/West Line	County Chaves
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Latitude 33.14639° Longitude 103.77500°

NATURE OF RELEASE

Type of Release Oil & Produced Water	Volume of Release Unknown	Volume Recovered None
Source of Release	Date and Hour of Occurrence Unknown	Date and Hour of Discovery N/A
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson, NMOCD	
By Whom? Bruce Woodard	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

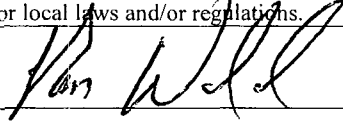
This is an historic pit location. Celero acquired from Palisades and is in the process of closing.

Describe Area Affected and Cleanup Action Taken.\*

Pit has been dewatered. Investigation and Characterization Plan has been submitted for approval.

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.

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Bruce Woodard			
Title: Engineer	Approval Date:	Expiration Date:	
E-mail Address: bwoodard@celeroenergy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: Phone: (432) 686-1883			

\* Attach Additional Sheets If Necessary

District I  
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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

Form C-144  
June 1, 2004

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

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office.

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Celero Energy II, LP Telephone: (432) 686-1883 e-mail address: bwoodard@celeroenergy.com  
Address: 400 West Illinois, Suite 1601, Midland, Texas 79701  
Facility or well name: Rock Queen Unit Tract I3 Tank Battery API #: U/L or Qtr/Qtr G Sec 36 T-13-S R-31-E  
County: Chaves Latitude 33.14639 N Longitude 103.77500 W NAD: 1927 ☒ 1983 ☐  
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

Pit	Below-grade tank
Type: Drilling <input type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input checked="" type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Fiberglass <input checked="" type="checkbox"/> Thickness <u>Unknown</u> mil Clay <input type="checkbox"/> Pit Volume 14,000 bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not: _____
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) 100 feet or more (0 points) 0
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) No (0 points) 0
Distance to surface water: (Horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) 1000 feet or more (0 points) 0
Ranking Score (Total Points) 0	

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: This registration is for information purposes only. This pit was constructed in the 1960's and were inventoried, but never registered in 1997.  
This pit is out of service and a work plan for closure is being prepared.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐. See above ☒

Date: 6-15-2007

Printed Name/Title: Bruce Woodard, Engineer

Signature: 

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_