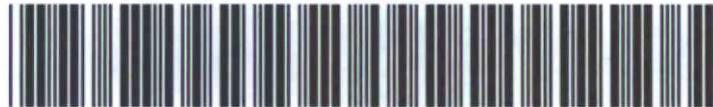




# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number: pGRL1132042453**

**1RP - 2761**

**KEY ENERGY SERVICES, LLC**

# Bronco Services

**Key Brine Water Station  
Section 15 of Township 21 South, Range 37 East,  
Lea County, New Mexico**

## Closure Report

**April 17, 2012**



Prepared By:

***Safety & Environmental Solutions, Inc.  
703 East Clinton Street  
Hobbs, New Mexico 88240  
(575) 397-0510***

Approved  
Steve Perkins  
Env. Specialist  
NMOCB-DIST 1  
4/19/12

2761

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**I. Company Contacts**

Representative	Company	Telephone	E-mail
Sergio Contreras	SESI	575-397-0510	scontreras@sesi-nm.com

**II. Background**

Safety and Environmental Solutions, Inc. (SESI) was engaged by Bronco Services to perform cleanup services at the Key Brine Station along the northwest corner fence line of the facility. The facility is located in Section 15 of Township 21 South, Range 37 East, of Lea County New Mexico.

According to the C-141 dated May 31, 2011, the facility was affected by an overloaded truck due to the Bronco Services truck operator fell asleep while loading. Approximately 100 barrels of produced fluid were released, in which 40 barrels were recovered.

**III. Surface and Ground Water**

According the database provided by the New Mexico Office of State Engineer's online database, the average depth of water in this area is 70 feet which is located approximately 1,431 ft. northwest of the location.

**IV. Soils**

The surface soils in the area are predominantly consists of well drained soils. Typically the surface layer is gravelly fine sandy loam or loamy fine sand. The subsoil is pale brown fine sandy loam, and the substratum is white, platy, indurate caliche. These soils are formed in wind-worked, calcareous sediments over fractured caliche. Slopes are 0 to 3 percent. The vegetation consists of short and mid grasses and shrubs. These soils are used as range and wildlife habitat. Small areas are used for irrigated cropland.

**V. Work Performed**

On March 1-5, SESI was onsite with Bryan's Oilfield Service to begin remediation of the affected area. The northwest corner fence line of the facility was excavated to a depth of 4' below ground surface (bgs).

A total of five (5) grab samples were retrieved from the bottom of the excavation. All samples were properly preserved and transported under Chain of Custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 4500-Cl<sup>-</sup> B).

The results of the analysis are as follows:

Lab ID	Sample ID	Cl <sup>-</sup> (mg/kg)
Analysis Date		03/09/12
H200548-1	#1	608
H200548-2	#2	912
H200548-3	#3	2,840

Lab ID	Sample ID	Cl <sup>-</sup> (mg/kg)
Analysis Date		03/09/12
H200548-4	#4	752
H200548-5	#5	320

On March 21-26, the floor of the excavation was padded and domed with one (1) foot of clean topsoil. Akome, Inc. was onsite to install the 20-mil reinforced geo-membrane liner. Upon completion, the area was padded with an additional one (1) foot of clean topsoil then backfilled with like soils and contoured to grade.

A total of 688 cubic yards of contaminated soil were transported to Sundance Services for disposal.

#### VI. Conclusion

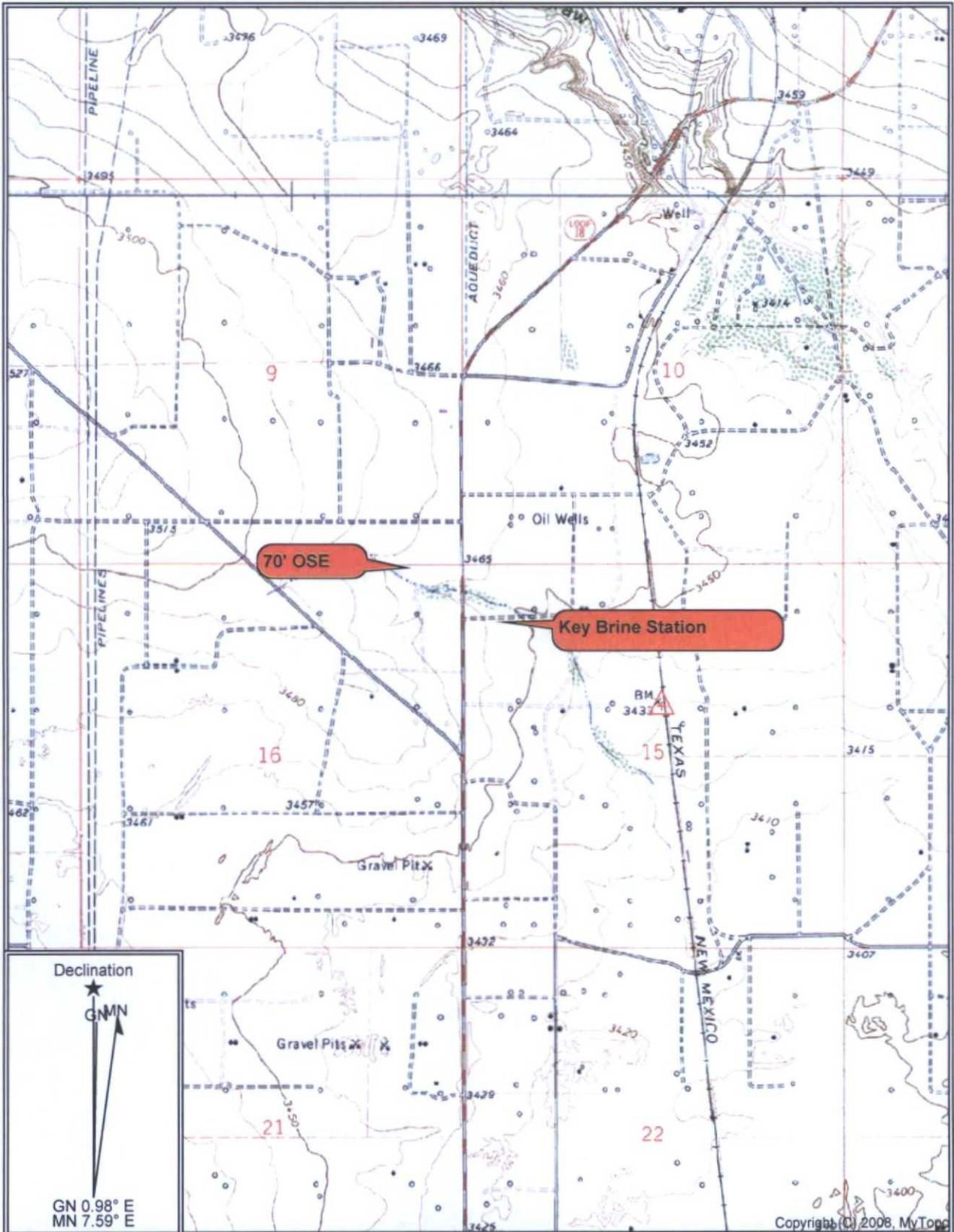
Remedial actions at this site have all been performed with the approval of, and in accordance with all NMOCD requirements.

As a result, we respectfully submit this closure report for your consideration and approval.

#### VII. Figures

- Figure 1 – Vicinity Map
- Figure 2 – Site Plan
- Appendix A-- Analytical Results
- Appendix B—Site Photographs
- Appendix C—C-141

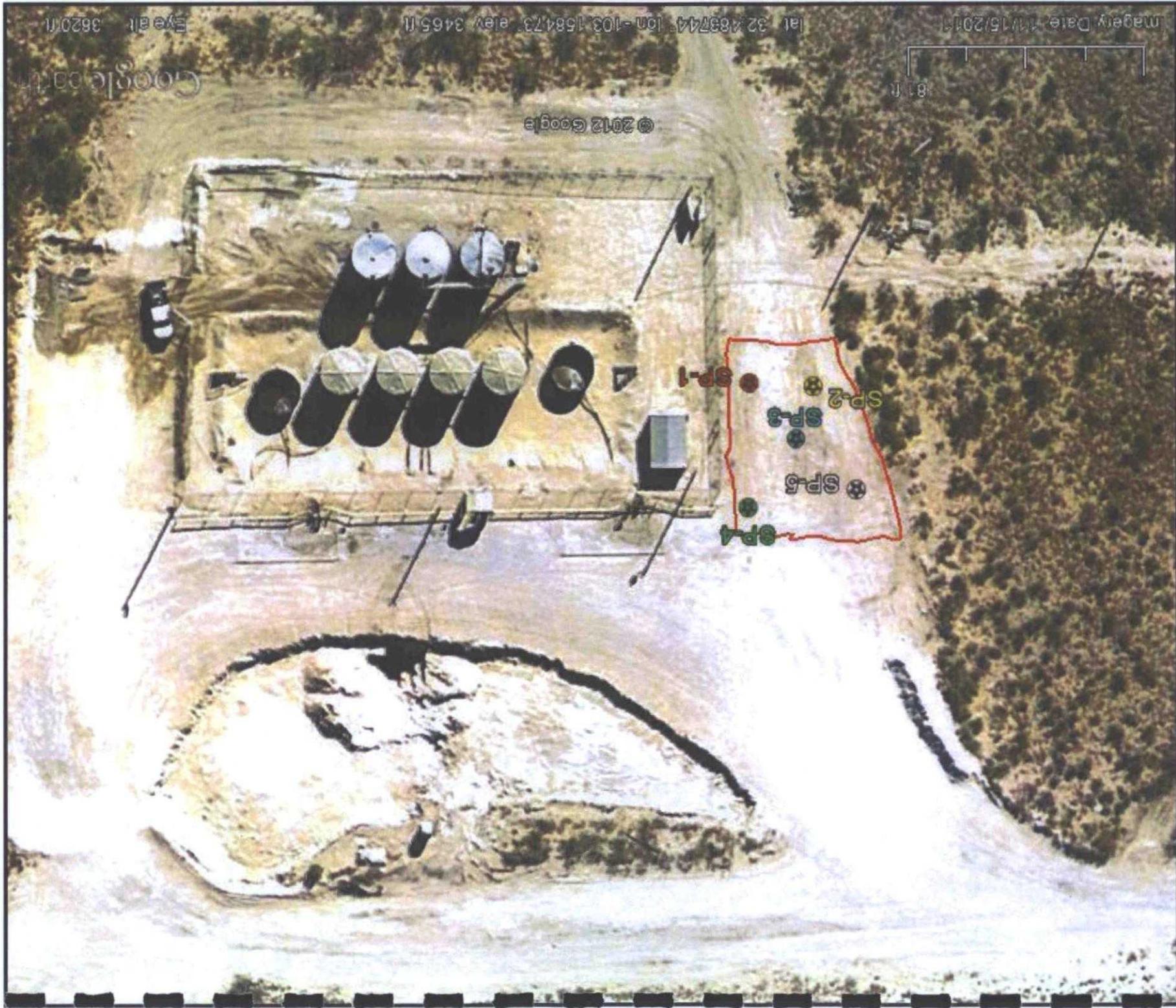
**Figure 1**  
**Vicinity Map**



Map Name: EUNICE,  
 Scale: 1 inch = 2,000 ft.

Map Center: 032.4841035° N 103.1587867° W  
 Map Type: Topographic

**Figure 2  
Site Plan**



**Appendix A**  
**Analytical Results**

March 12, 2012

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: BRO-11-002

Enclosed are the results of analyses for samples received by the laboratory on 03/07/12 7:54.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

 Received: 03/07/2012  
 Reported: 03/12/2012  
 Project Name: BRO-11-002  
 Project Number: KEY BRINE STATION  
 Project Location: EUNICE, NM

 Sampling Date: 03/06/2012  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Celey D. Keene

**Sample ID: #1 (H200598-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	03/09/2012	ND	416	104	400	0.00		

**Sample ID: #2 (H200598-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	03/09/2012	ND	416	104	400	0.00		

**Sample ID: #3 (H200598-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2840	16.0	03/09/2012	ND	416	104	400	0.00		

**Sample ID: #4 (H200598-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	752	16.0	03/09/2012	ND	416	104	400	0.00		

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Safety & Environmental Solutions  
 Bob Allen  
 703 East Clinton  
 Hobbs NM, 88240  
 Fax To: (575) 393-4388

Received:	03/07/2012	Sampling Date:	03/06/2012
Reported:	03/12/2012	Sampling Type:	Soil
Project Name:	BRO-11-002	Sampling Condition:	** (See Notes)
Project Number:	KEY BRINE STATION	Sample Received By:	Celey D. Keene
Project Location:	EUNICE, NM		

**Sample ID: #5 (H200598-05)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	03/09/2012	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**CARDINAL LABORATORIES**  
 101 East Marland, Hobbs, NM 88240  
 (505) 393-2326 Fax (505) 393-2476

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Page \_\_\_\_\_ of \_\_\_\_\_

Company Name: <b>Safety &amp; Environmental Solutions, Inc.</b>		<b>BILL TO</b>		ANALYSIS REQUEST	
Project Manager: <b>Bob Allen</b>		P.O. #:			
Address: <b>703 East Clinton</b>		Company: <b>Same</b>			
City: <b>Hobbs</b> State: <b>NM</b> Zip: <b>88240</b>		Attn:			
Phone #: <b>575-397-0510</b> Fax #: <b>575-393-4388</b>		Address:			
Project #: <b>B201100Z</b> Project Owner: <b>BRUNCO</b>		City:			
Project Name: <b>KEY BRINE STATION</b>		State:			
Project Location: <b>BUNICE, NM</b>		Phone #:			
Sampler Name: <b>SERGIO CONTRERAS</b>		Fax #:			
FOR LAB USE ONLY		PRESERV.		SAMPLING	
Lab I.D. <b>H200548</b>	Sample I.D. #1 #2 #3 #4 #5	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX	
		GROUNDWATER		WASTEWATER	
		SOIL		SLUDGE	
		OTHER:		ACID/BASE	
		ICE/COOL		OTHER:	
		DATE	TIME		
		3-6-72	1345		
			1355		
			1359		
			1404		
			1410		

TERMS AND CONDITIONS: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished:	Date: <b>3/7/12</b>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: _____
Relinquished By: <i>[Signature]</i>	Time: <b>7:54</b>	Received By: <i>[Signature]</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: _____
Delivered By: <b>(Circle One)</b>	Date: <b>3/7/12</b>	Temp. <b>17.5C</b>	REMARKS:	
Sampler - UPS - Bus - Other:	Time: <b>7:54</b>	Sample Condition	CITRATES	
		Cool <input type="checkbox"/> Intact <input type="checkbox"/>		
		Yes <input type="checkbox"/> No <input type="checkbox"/>		
		Checked By: <i>[Signature]</i>		

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

#20

**Appendix B**  
**Site Photographs**

Site Photographs March 1, 2012



Site before excavation looking south



Site before excavation looking north



Site excavation looking north



Site excavation looking south

Site Photographs March 2, 2012



Excavation facing north



Excavation facing South

Site Photographs March 5, 2012



East end of excavation facing North



West end of excavation facing North

Site Photographs March 6, 2012



Excavation facing north

Site Photographs March 21, 2012



20 mil liner bottom hole of excavation facing southeast

Site Photographs March 26, 2012



Topsoil process



Topsoil on liner facing North



Spill area after liner installation and backfill process



Completion of site facing South

**Appendix C**  
**C-141**

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

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

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Key Energy Service	Contact	Bob Fisher
Address	Box 99 Eunice, N.M.	Telephone No.	575-394-2581
Facility Name	State S Water Station	Facility Type	Brine & Fresh Water Sales
Surface Owner	Deck Estate	Mineral Owner	State of New Mexico
		Lease No.	MS 0004 0001

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	15	21S	37E	1340	north	330	west	Lea

Latitude  $N 32^{\circ} 29'$  Longitude  $W 103^{\circ} 09' 28.8''$

**NATURE OF RELEASE**

Type of Release	over loaded truck	Volume of Release	100 bbls	Volume Recovered	40 bbls
Source of Release	transport truck-Bronco Services	Date and Hour of Occurrence	5-30-2011 @ 6 am	Date and Hour of Discovery	5-30-2011 @ 8 am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Noey Franco. Supervisor on duty			
By Whom?	John Sanders	Date and Hour 5-30-2011 @ 8 am			
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.* Bronco Services truck operator fell asleep while loading his truck.					
Describe Area Affected and Cleanup Action Taken.* Area North of the loading docks. Ramon Ponce with Bronco Services Will take care of the clean up & expense					
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: Robert J Fisher		<b>OIL CONSERVATION DIVISION</b>			
Printed Name: Bob Fisher		Approved by <sup>ENV. SPECIALIST:</sup> <del>District Supervisor</del> <i>Jeff Robinson</i>			
Title: District Manager		Approval Date:	4/19/12	Expiration Date:	—
E-mail Address: rfisher@keyenergy.com		Conditions of Approval:		Attached <input type="checkbox"/>	
Date: 5-31-2011	Phone: 575-394-2581	—		1RP-11-11-2761	

\* Attach Additional Sheets If Necessary