

# *Basin Environmental Service Technologies, LLC*

3100 Plains Highway  
P. O. Box 301  
Lovington, New Mexico 88260

**bjarguijo@basinenv.com**

Office: (575) 396-2378 Fax: (575) 396-1429



## **REMEDIATION SUMMARY & SITE CLOSURE REQUEST**

**BOPCO, LP  
POKER LAKE UNIT #213 TRUCK LINE SPILL  
Eddy County, New Mexico  
API 30-015-33859  
Unit Letter "P" (SE/SE), Section 18, Township 24 South, Range 30  
East Latitude 32.21252° North, Longitude 103.91408° West  
NMOCD Reference #2RP-2953**

Prepared For:

**BOPCO, LP  
522 W. Mermod, Suite 704  
Carlsbad, New Mexico 88220**

Prepared By:

**Basin Environmental Service Technologies, LLC  
3100 Plains Highway  
Lovington, New Mexico 88260**

**September 2015**

A handwritten signature in black ink, appearing to read "Ben J. Arguijo", is written over a horizontal line.

**Ben J. Arguijo  
Project Manager**

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## **1.0 INTRODUCTION & BACKGROUND INFORMATION**

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary & Site Closure Request* for the release site known as Poker Lake Unit (PLU) #213 Truck Line Spill. The legal description of the release site is Unit Letter "P" (SE/SE), Section 18, Township 24 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.21252° North latitude and 103.91408° West longitude. The property affected by the release is owned by the United States Department of the Interior – Bureau of Land Management (BLM). A "Site Location Map" is provided as Figure 1.

On March 19, 2015, BOPCO discovered a release at the PLU #213 tank battery. A valve on the LACT unit suction and truck load line was left cracked open, resulting in a release of crude oil. During initial response activities, the valve was closed and equipped with a security lock. A vacuum truck was utilized to recover all of the free-standing liquid.

The release was immediately reported to the New Mexico Oil Conservation Division's (NMOCD) Artesia District Office. The "Release Notification and Corrective Action" (Form C-141) indicated approximately seventy-six barrels (76 bbls) of crude oil were released and approximately fifty barrels (50 bbls) were recovered, for a net loss of twenty-six barrels (26 bbls). The release affected an area of the caliche tank battery pad measuring approximately five thousand, seven hundred sixty square feet (5,760 ft<sup>2</sup>).

Remedial activities at the PLU #213 Truck Line Spill release site were conducted in conjunction with ongoing remediation of other releases on/around the caliche pad.

The Form C-141 is provided as Appendix A. General photographs of the release site are provided in Appendix B.

## **2.0 NMOCD SITE CLASSIFICATION**

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 18, Township 24 South, Range 30 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered approximately two hundred feet fifteen (215') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

There are no surface water bodies within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the PLU #213 Truck Line Spill release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/kg
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) – 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) – 5,000 mg/kg

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

### **3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES**

On April 2, 2015, Basin Environmental commenced excavation of impacted soil at the site. A chloride field-test kit and olfactory/visual senses were utilized to determine the vertical and horizontal extent of impacted soil and to guide the excavation. Excavated soil was stockpiled on plastic on the caliche pad, pending final disposition.

Four (4) soil samples (N. Floor, S. Floor, E. Floor, and W. Floor) were collected from the floor of the excavation and submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of BTEX, TPH, and chloride concentrations using the Environmental Protection Agency (EPA) analytical methods listed in Section 4.1, “Soil Sampling”, below. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory method detection limit (MDL) in all submitted soil samples. TPH concentrations ranged from less than the laboratory MDL in samples N. Floor and S. Floor to 1,256 mg/kg in sample E. Floor. Chloride concentrations ranged from 80.0 mg/kg in sample N. Floor to 928 mg/kg in sample W. Floor.

A summary of “Concentrations of Benzene, BTEX, TPH & Chloride in Soil” is provided in Table 1. A “Sample Location Map” is provided as Figure 2. Laboratory analytical reports are provided in Appendix C.

From April 2 through April 6, 2015, approximately sixty cubic yards (60 yd<sup>3</sup>) of impacted soil was transported to Lea Land, Inc. (NMOCD Permit # WM-01-035), for disposal.

On April 6, 2015, based on laboratory analytical results, field-screens, and olfactory/visual senses, the excavation was backfilled with locally acquired, non-impacted material, compacted, and leveled to match the surrounding caliche pad. Prior to backfilling, the final dimensions of the excavation were approximately eighty feet (80’) in length, twelve (12) to fifty-five feet (55’) in width, and two (2) to three inches (3”) in depth.

### **4.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PROCEDURES**

#### **4.1 Soil Sampling**

Soil samples were delivered to Cardinal Laboratories, Inc., in Hobbs, New Mexico, for BTEX, TPH and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Method 4500 Cl-B

## **4.2 Decontamination of Equipment**

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

## **4.3 Laboratory Protocol**

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

## **5.0 SITE CLOSURE REQUEST**

Soil samples collected from the floors the PLU #213 Truck Line Spill excavation were analyzed by an NMOCD-approved laboratory, and concentrations of benzene, BTEX, TPH, and chloride were below the recommended remediation action levels established for the site by the NMOCD. Basin Environmental recommends BOPCO provide the NMOCD Artesia District Office and the NMSLO a copy of this *Remediation Summary & Site Closure Request* and request the NMOCD grant site closure to the PLU #213 Truck Line Spill release site.

## **6.0 LIMITATIONS**

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Basin Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

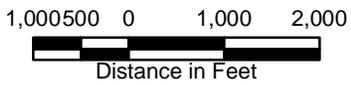
## **7.0 DISTRIBUTION:**

- Copy 1: Mike Bratcher  
New Mexico Energy, Minerals and Natural Resources Department  
Oil Conservation Division (District 2)  
1301 E. Grand Avenue  
Artesia, NM 88210
- Copy 2: James Amos  
Bureau of Land Management  
602 E. Greene Street  
Carlsbad, NM 88220
- Copy 3: Tony Savoie  
BOPCO, LP  
522 W. Mermod, Suite 704  
Carlsbad, NM 88220
- Copy 4: Basin Environmental Service Technologies, LLC  
P.O. Box 301  
Lovington, NM 88260

# Figures

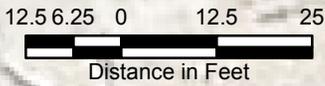
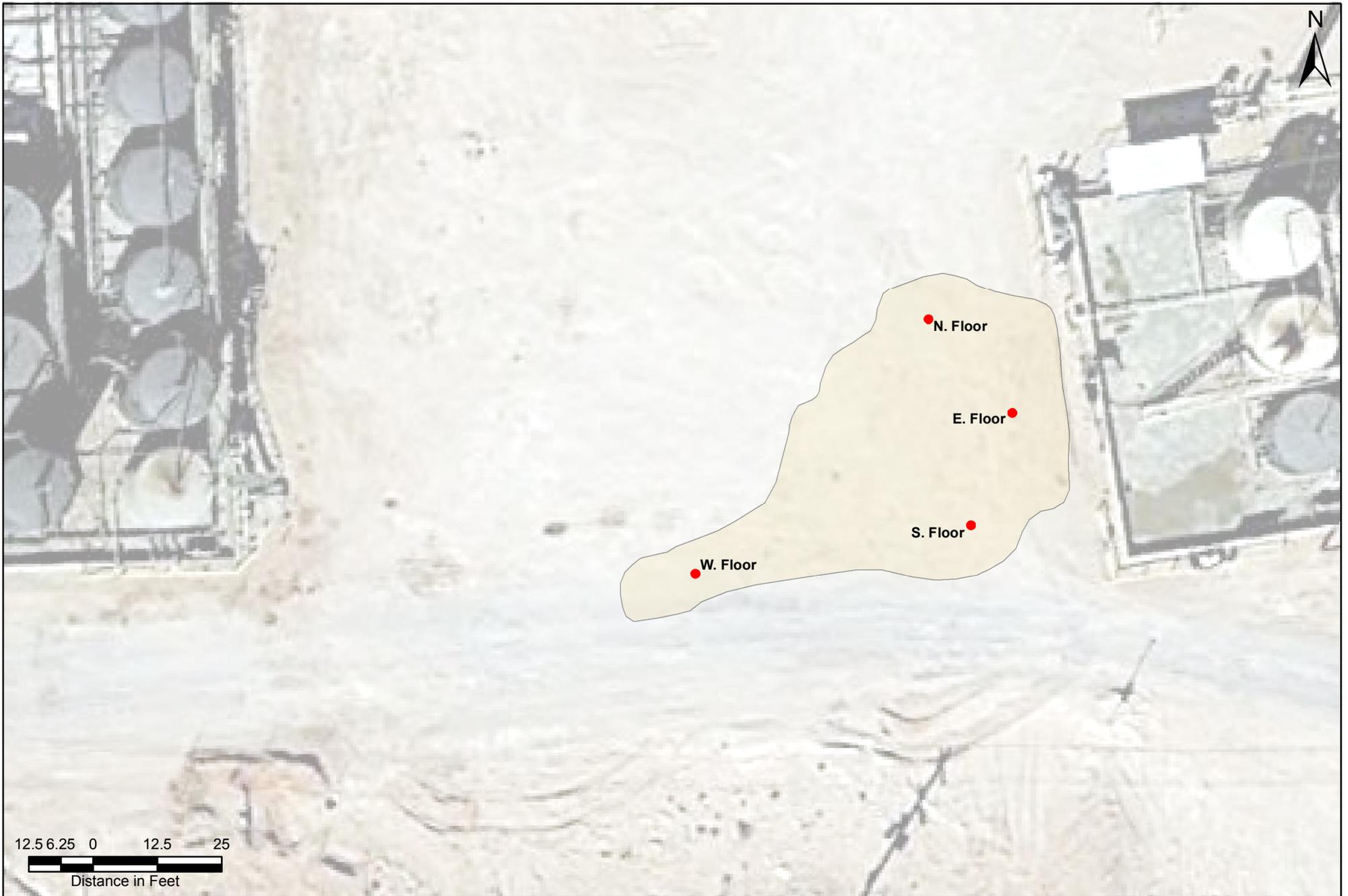


**Figure 1**  
**Site Location Map**  
**BOPCO, LP**  
**Poker Lake Unit #213 Truck Line Spill**  
**Eddy County, New Mexico**  
**NMOCD Reference #: 2RP-2953**



Basin Environmental Service Technologies, LLC  
 3100 Plains Hwy.  
 Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
June 1, 2015	Scale: 1" = 2,000'



**Legend**

- Excavation
- Sample Location

**Figure 2**  
**Sample Location Map**  
**BOPCO, LP**  
**Poker Lake Unit #213 Truck Line Spill**  
**Eddy County, New Mexico**  
**NMOCD Reference #: 2RP-2953**



Basin Environmental Service Technologies, LLC  
 3100 Plains Hwy.  
 Lovington, NM 88260

Drawn By: BJA	Checked By: HST
Sept. 25, 2015	Scale: 1" = 25'

# Tables

**TABLE 1  
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL**

**BOPCO, LP  
POKER LAKE UNIT #213 TRUCK LINE SPILL  
EDDY COUNTY, NEW MEXICO  
NMOCD REFERENCE #: 2RP-2953**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	4500 Cl-B CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)		
N. Floor	2"	4/2/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	80.0
S. Floor	2"	4/2/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	735
E. Floor	2"	4/2/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<50.0	1,030	226	1,256	768
W. Floor	2"	4/2/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	170	36.0	206	928
<b>NMOCD Criteria</b>				<b>10</b>				<b>50</b>				<b>5,000</b>	<b>1,000</b>

- = Not analyzed.

# Appendices

**Appendix A**  
**Release Notification &**  
**Corrective Action (Form C-141)**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., 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

**NM OIL CONSERVATION**

ARTESIA DISTRICT

Form C-141  
Revised August 8, 2011

**MAR 25 2015**

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

**RECEIVED**

**Release Notification and Corrective Action**

*NAB1510636750*

**OPERATOR**

Initial Report  Final Report

Name of Company: BOPCO, L.P. <i>260737</i>	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU-213 Tank Battery "Oil Production"	Facility Type: Exploration and Production
Surface Owner: Federal	Mineral Owner: Federal
API No. 30-015-33859	

**LOCATION OF RELEASE**

Unit Letter P	Section 18	Township 24S	Range 30E	Feet from the 860	North/South Line South	Feet from the 660	East/West Line East	County: Eddy
------------------	---------------	-----------------	--------------	----------------------	---------------------------	----------------------	------------------------	-----------------

**Latitude** N 32.21252 **Longitude** W 103.91408

**NATURE OF RELEASE**

Type of Release: Crude oil	Volume of Release: 76 Bbls	Volume Recovered: 50 Bbls
Source of Release: 4" Truck Load line Valve	Date and Hour of Occurrence: 3/19/15 time unknown	Date and Hour of Discovery: 3/19/15 at approximately 9:00 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Heather Patterson	
By Whom? Amy Ruth	Date and Hour: 3/19/15 at approximately 10:30 a.m. and a follow up at 4:50 p.m. on volume estimate.	
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.* A valve on the lact unit suction and truck load line was discovered cracked open. A chemical salesman discovered the spill, closed the valve and notified BOPCO. The valve has been locked in the closed position.		
Describe Area Affected and Cleanup Action Taken.* The spill impacted approximately 5760 sq.st. of caliche tank battery pad. All of the free standing fluid was picked up with a vacuum truck. After receiving permission from the NM one-call system a front loader was used to scrape up the saturated soil and stockpile on site. A remediation in the area was scheduled to begin on 3/23/15.		
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>Tony Savoie</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Tony Savoie	Signed By <i>Mike Brennan</i>	
Title: Waste Management and Remediation Specialist	Approval Date: <i>4/16/15</i>	Expiration Date: <i>N/A</i>
E-mail Address: <i>tasavoie@basspet.com</i>	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines Attached <input type="checkbox"/>	
Date: <i>3/25/15</i> Phone: 432-556-8730	<b>SPILL REMEDIATION PROPOSAL NO</b>	

\* Attach Additional Sheets If Necessary

TER THAN: *5/11/15*

*2RP-2953*

**Appendix B**  
**Photographs**



Poker Lake Unit #213 Truck Line Spill - Excavation



Poker Lake Unit #213 Truck Line Spill - Excavation

**Appendix C**  
**Laboratory Analytical Reports**



April 10, 2015

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: PLU #213 TRUCK LINE SPILL

Enclosed are the results of analyses for samples received by the laboratory on 04/06/15 11:52.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Basin Environmental Service  
 BEN J. ARGUIJO  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	04/06/2015	Sampling Date:	04/02/2015
Reported:	04/10/2015	Sampling Type:	Soil
Project Name:	PLU #213 TRUCK LINE SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: N. FLOOR (H500904-01)**

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2015	ND	1.91	95.5	2.00	3.64	
Toluene*	<0.050	0.050	04/09/2015	ND	1.75	87.4	2.00	0.366	
Ethylbenzene*	<0.050	0.050	04/09/2015	ND	1.70	85.1	2.00	0.951	
Total Xylenes*	<0.150	0.150	04/09/2015	ND	5.36	89.3	6.00	0.554	
Total BTEX	<0.300	0.300	04/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/08/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/07/2015	ND	183	91.4	200	0.116	
DRO >C10-C28	<10.0	10.0	04/07/2015	ND	191	95.4	200	0.113	
EXT DRO >C28-C35	<10.0	10.0	04/07/2015	ND					

Surrogate: 1-Chlorooctane 87.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 87.8 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Basin Environmental Service  
 BEN J. ARGUIJO  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	04/06/2015	Sampling Date:	04/02/2015
Reported:	04/10/2015	Sampling Type:	Soil
Project Name:	PLU #213 TRUCK LINE SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: E. FLOOR (H500904-02)**

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2015	ND	1.91	95.5	2.00	3.64	
Toluene*	<0.050	0.050	04/09/2015	ND	1.75	87.4	2.00	0.366	
Ethylbenzene*	<0.050	0.050	04/09/2015	ND	1.70	85.1	2.00	0.951	
Total Xylenes*	<0.150	0.150	04/09/2015	ND	5.36	89.3	6.00	0.554	
Total BTEX	<0.300	0.300	04/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>768</b>	16.0	04/08/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	04/07/2015	ND	183	91.4	200	0.116	
<b>DRO &gt;C10-C28</b>	<b>1030</b>	50.0	04/07/2015	ND	191	95.4	200	0.113	
<b>EXT DRO &gt;C28-C35</b>	<b>226</b>	50.0	04/07/2015	ND					

Surrogate: 1-Chlorooctane 82.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 107 % 52.1-176

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:**

 Basin Environmental Service  
 BEN J. ARGUIJO  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	04/06/2015	Sampling Date:	04/02/2015
Reported:	04/10/2015	Sampling Type:	Soil
Project Name:	PLU #213 TRUCK LINE SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: S. FLOOR (H500904-03)**

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/09/2015	ND	1.91	95.5	2.00	3.64		
Toluene*	<0.050	0.050	04/09/2015	ND	1.75	87.4	2.00	0.366		
Ethylbenzene*	<0.050	0.050	04/09/2015	ND	1.70	85.1	2.00	0.951		
Total Xylenes*	<0.150	0.150	04/09/2015	ND	5.36	89.3	6.00	0.554		
Total BTEX	<0.300	0.300	04/09/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>735</b>	16.0	04/08/2015	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/07/2015	ND	183	91.4	200	0.116		
DRO >C10-C28	<10.0	10.0	04/07/2015	ND	191	95.4	200	0.113		
EXT DRO >C28-C35	<10.0	10.0	04/07/2015	ND						

Surrogate: 1-Chlorooctane 89.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 90.7 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Basin Environmental Service  
 BEN J. ARGUIJO  
 P.O. Box 301  
 Lovington NM, 88260  
 Fax To: (575) 396-1429

Received:	04/06/2015	Sampling Date:	04/02/2015
Reported:	04/10/2015	Sampling Type:	Soil
Project Name:	PLU #213 TRUCK LINE SPILL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: W. FLOOR (H500904-04)**

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/09/2015	ND	1.91	95.5	2.00	3.64	
Toluene*	<0.050	0.050	04/09/2015	ND	1.75	87.4	2.00	0.366	
Ethylbenzene*	<0.050	0.050	04/09/2015	ND	1.70	85.1	2.00	0.951	
Total Xylenes*	<0.150	0.150	04/09/2015	ND	5.36	89.3	6.00	0.554	
Total BTEX	<0.300	0.300	04/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>928</b>	16.0	04/08/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/07/2015	ND	183	91.4	200	0.116	
<b>DRO &gt;C10-C28</b>	<b>170</b>	10.0	04/07/2015	ND	191	95.4	200	0.113	
<b>EXT DRO &gt;C28-C35</b>	<b>36.0</b>	10.0	04/07/2015	ND					

Surrogate: 1-Chlorooctane 88.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 89.2 % 52.1-176

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**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



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Celey D. Keene, Lab Director/Quality Manager

