

# *Basin Environmental Service Technologies, LLC*

3100 Plains Highway  
P. O. Box 301  
Lovington, New Mexico 88260  
jwlowry@basinenv.com  
Office: (575) 396-2378 Fax: (575) 396-1429



## **REMEDIATION SUMMARY AND SITE CLOSURE REQUEST**

**BOPCO, LP  
POKER LAKE UNIT #222 FLOWLINE  
Eddy County, New Mexico  
Unit Letter "K" (NE/SW), Section 19, Township 24 South, Range 30 East  
Latitude 32.200305° North, Longitude 103.922450° West  
NMOCD Reference #2RP-\_\_\_\_\_**

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

**May 2012**

Joel W. Lowry

Project Manager

NMOCD

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## 1.0 INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary and Site Closure Request* for the release site known as Poker Lake Unit #222 Flowline (PLU #222). The legal description of the release site is Unit Letter "K" (NE/SW), Section 19, Township 24 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.200305° North latitude and 103.922450° West longitude. The property affected by the release is owned by The United States Department of the Interior - Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map" and Figure 2 for a "Site & Sample Location Map".

On December 13, 2011, BOPCO discovered a release had occurred on the PLU #222 Flowline. The release was attributed to the failure of a two and three eighths inch (2 3/8") flowline caused by external corrosion. The release was reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office on December 15, 2011. The "Release Notification and Corrective Action" (Form C-141) indicated approximately ten (10) barrels of crude oil was released, with approximately five (5) barrels of crude oil being recovered. During initial response activities, a vacuum truck was utilized to recover free-standing fluids, and the visibly stained surface was excavated and stockpiled on-site atop an impermeable liner pending final disposition. The release affected approximately one thousand square feet (1,000 ft<sup>2</sup>) of caliche pad and a lease road. A Form C-141 is provided as Appendix A. General Photographs of the release site are provided as Appendix C.

## 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 20, Township 24 South, Range 30 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately two hundred twenty-five feet (225') 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 1,000 feet 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 1,000 feet 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 #222 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 (ppm)
- BTEX – 50 mg/Kg (ppm)
- TPH – 5,000 mg/Kg (ppm)

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 25, 2012, following initial response activities, excavation of impacted soil commenced at the release site. A Photo-Ionization Detector (PID) and chloride field kit were used to field screen the horizontal and vertical extent of impacted soil and to guide the excavation. Confirmation soil samples were collected and submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of benzene, ethylbenzene, toluene, and xylene (BTEX) using EPA SW-846-8021b, total petroleum hydrocarbon (TPH) using EPA SW-846 8015M, and/or chloride concentrations using EPA method 4500 Cl-B. The excavated soil was stockpiled on-site pending final disposition.

On April 27, 2012, five (5) soil samples (North Wall, South Wall, East Wall, West Wall and Floor) were collected from the excavation floor and sidewalls and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from less than the laboratory method detection limit (MDL) for soil samples East Wall and West Wall to 410 mg/Kg for soil sample North Wall. Chloride concentrations ranged from 400 mg/Kg for soil sample South Wall to 864 mg/Kg for soil sample North Wall. Each of the soil samples exhibited TPH and chloride concentrations below NMOCD regulatory standards. Soil samples North Wall and Floor were also analyzed for constituent concentrations of BTEX, which were determined to be both less than the appropriate laboratory MDL and less than NMOCD regulatory standards.

Between April 30 and May 7, 2012, approximately nine hundred cubic yards (900 yd<sup>3</sup>) of impacted material was transported to Lea Land, LLC (NMOCD Permit #WM-01-035), for disposal. The final dimensions of the excavation were approximately twenty (20') to thirty feet (30') in width, seventy-five feet (75') in length and five (5') to six and a half feet (6 1/2') in depth. Upon receiving laboratory analytical data from confirmation soil samples, the excavated area was backfilled with locally purchased, non-impacted material, and compacted in twelve inch (12") lifts. Following the backfilling of the excavation, areas affected by the remediation activities were contoured to fit the needs of the well pad.

### **4.0 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 floor and sidewalls of the PLU #222 excavation were analyzed by an NMOCD-approved laboratory, and concentrations of BTEX, TPH, and chloride were below the regulatory remediation action levels established for the site. Based on these laboratory analytical results, Basin recommends BOPCO provide the NMOCD Artesia District Office and the BLM a copy of this *Remediation Summary and Site Closure Request* and request the NMOCD grant site closure to the PLU #222 release site.

## **6.0 LIMITATIONS**

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

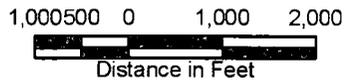
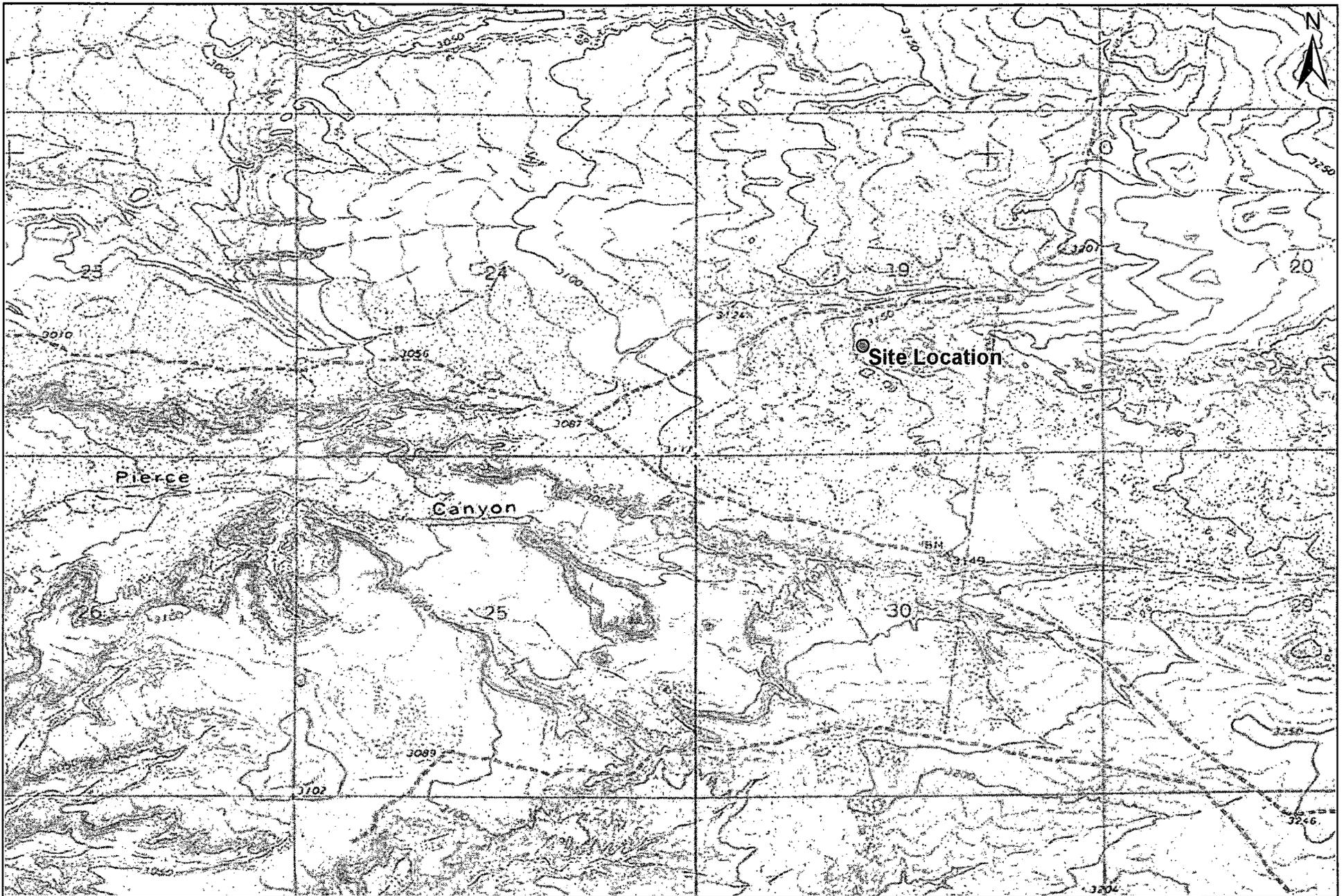


Figure 1  
 Site Location Map  
 BOPCO, LP  
 Poker Lake Unit #222 Flowline  
 Eddy County, New Mexico



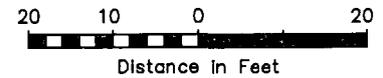
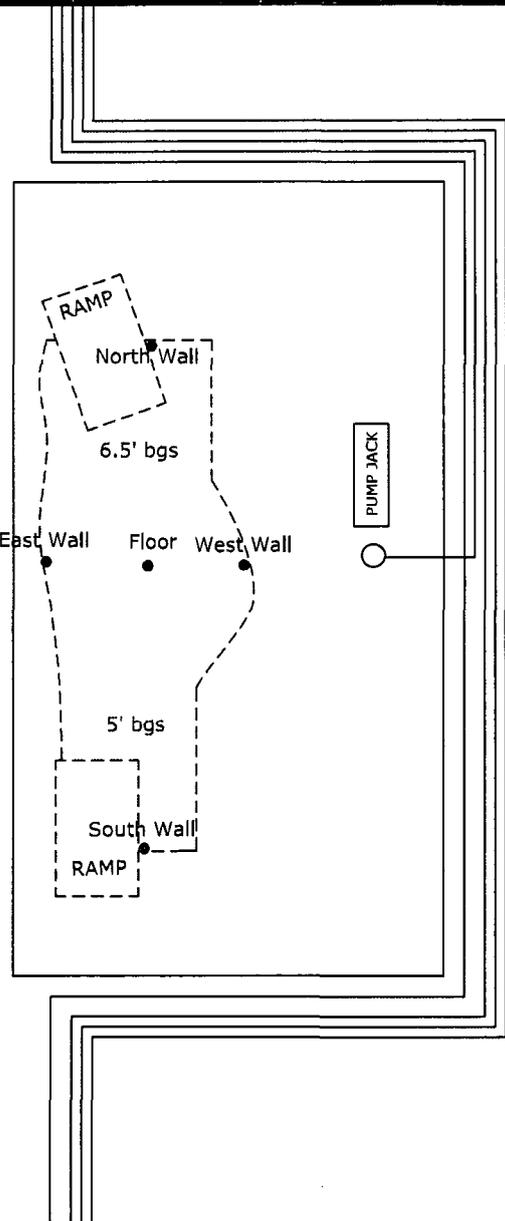
Basin Environmental Service Technologies, LLC  
 3100 Plains Hwy.  
 Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
May 15, 2012	Scale: 1" = 2000'

**Figure 2**  
**Site & Sample Location Map**



ROAD



**Legend:**

- Excavation Extent
- Well Pad
- Pipeline
- Road
- Sample Location

Figure 2  
Site Map  
BOPCO, L.P.  
Poker Lake Unit #222 Flowline  
Eddy County, New Mexico

**Basin Environmental Services**

Prep By: JWL	Checked By: BJA
May 15, 2011	Scale 1"=20'

# TABLES

## **Table 1**

**Concentrations of Benzene, BTEX, TPH & Chloride  
in Soil**

TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

BOPCO, LP  
 POKER LAKE UNIT #222 FLOWLINE  
 EDDY COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: 2RP-XXXX

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL	E 300
				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)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
North Wall	5'	4/27/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	343	66.5	410	864
South Wall	4'	4/27/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	14.6	14.6	400
East Wall	5'	4/27/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	640
West Wall	5'	4/27/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	512
Floor	6.5'	4/27/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	193	41.2	234	512
<b>NMOCD Standard</b>				<b>10</b>				<b>50</b>				<b>5,000</b>	<b>1,000</b>

- = Not analyzed.

# **APPENDICES**

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

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised October 10, 2003

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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 BOPCO, L.P.	Contact Tony Savoie	
Address 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 432-556-8730	
Facility Name Poker Lake Unit #222 on Well Pad #219	Facility Type E&P	
Surface Owner Federal	Mineral Owner Federal	Lease No.

**LOCATION OF RELEASE**

Unit Letter K	Section 19	Township 24S	Range 30E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude N 32.200305 Longitude W 103.922450

**NATURE OF RELEASE**

Type of Release: Crude oil	Volume of Release: 10 bbls of Crude oil	Volume Recovered: 5 Bbls
Source of Release: Flow Line	Date and Hour of Occurrence 12/13/11 time unknown	Date and Hour of Discovery 12/13/11 12:37 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Tony Savoie	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

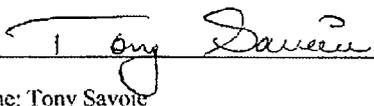
RECEIVED  
DEC 15 2011  
NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* A 2 3/8" flow developed a leak due to external corrosion, the line was excavated and a repair clamp was placed on the leak.

Describe Area Affected and Cleanup Action Taken.\* The spill affected approximately 1000 sq.ft. of caliche well pad and lease road. The free standing fluid was picked up with a vacuum truck and the saturated soil was scraped up and stockpiled on the well pad. The area will be delineated and a remediation plan will be submitted in accordance with the NMOCD recommended guidelines.

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: 		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Tony Savoie		Approved by District Supervisor:	
Title: Waste Mgmt. & Remediation Specialist		Approval Date:	Expiration Date:
E-mail Address: TASavoie@BassPet.com		Conditions of Approval:	
Date: 12/15/11	Phone: 432-556-8730	Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

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

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

**RECEIVED**

**AUG 30 2012**

**NMOCD ARTESIA**

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	BOPCO, LP	Contact	Tony Savoie
Address	522 W. Mermod, Suite 704 Carlsbad, NM 88220	Telephone No.	(432) 556-8730
Facility Name	Poker Lake Unit #222 on Well Pad #219	Facility Type	E & P

Surface Owner Federal	Mineral Owner: Federal	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	19	24S	30E					Eddy

Latitude N. 32.200305 Longitude W 103.922450

**NATURE OF RELEASE**

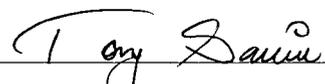
Type of Release	crude oil	Volume of Release:	10 bbls of crude oil.	Volume Recovered:	5 bbls
Source of Release:	Flow Line	Date and Hour of Occurrence	12/13/11 time unknown	Date and Hour of Discovery	12/13/11 12:37 p.m.
Was Immediate Notice Given?	Yes No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	Tony Savoie	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.\* A 2 3/8" flow developed a leak due to external corrosion, the line was excavated and a repair clamp was placed on the leak.

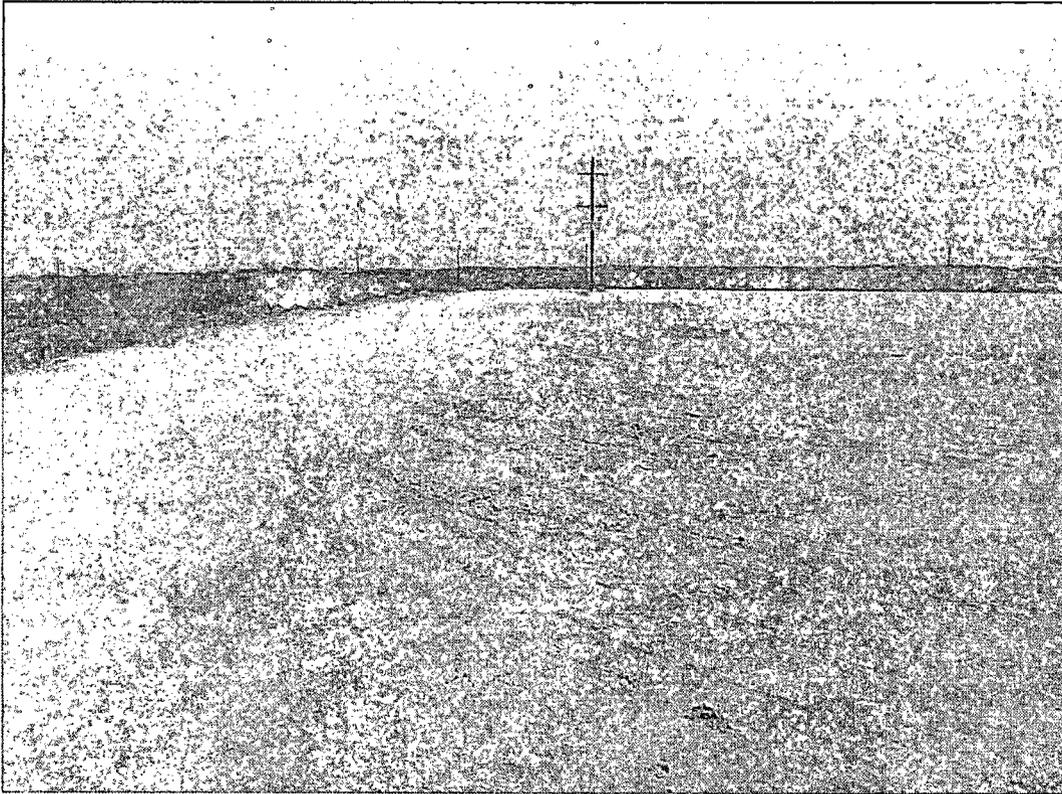
Describe Area Affected and Cleanup Action Taken.\* Approximately 1000 sq. ft. of caliche well pad and lease road was affected by the release. Please see the attached Remediation Summary and Site Closure Request, dated May 2012, for details of remediation activities and laboratory analytical results from confirmation soil samples.

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.

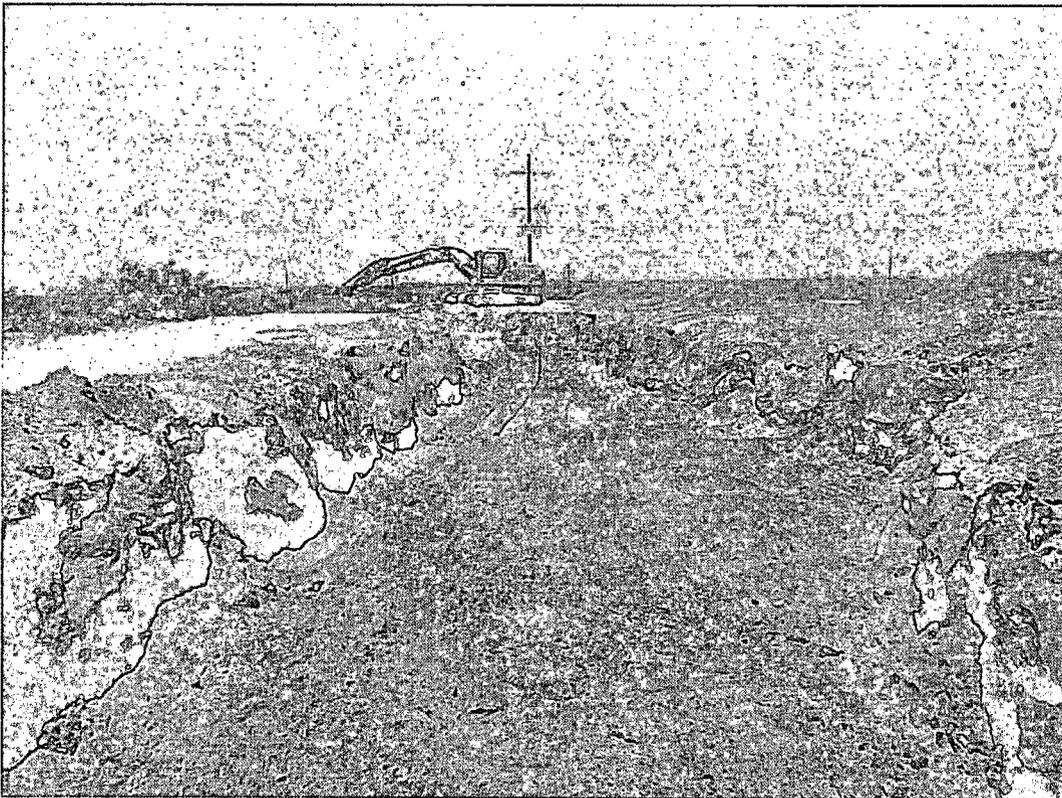
Signature: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Tony Savoie	Approved by District Supervisor:		
Title: Waste Mgmt. & Remediation Specialist	Approval Date:	Expiration Date:	
E-mail Address: <a href="mailto:tasavoie@basspet.com">tasavoie@basspet.com</a>	Conditions of Approval:		Attached <input type="checkbox"/>
Date: <u>8/30/12</u> Phone: (432) 556-8730			

# **Appendix B**

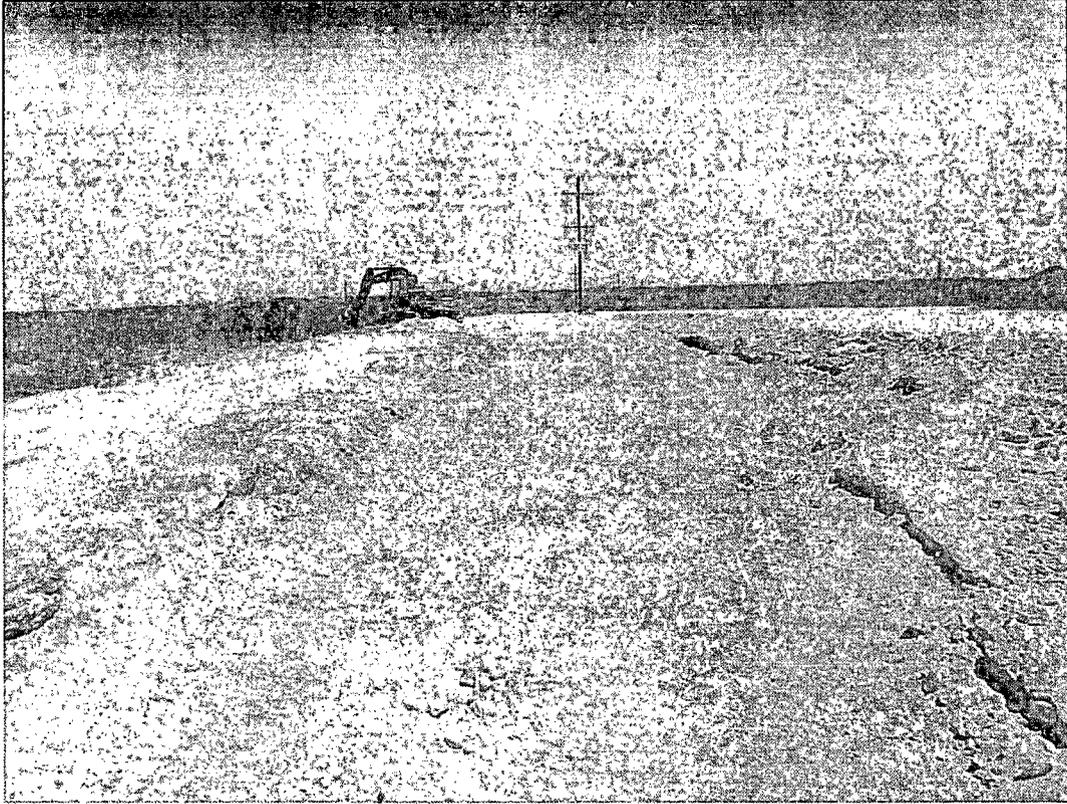
## **Photographs**



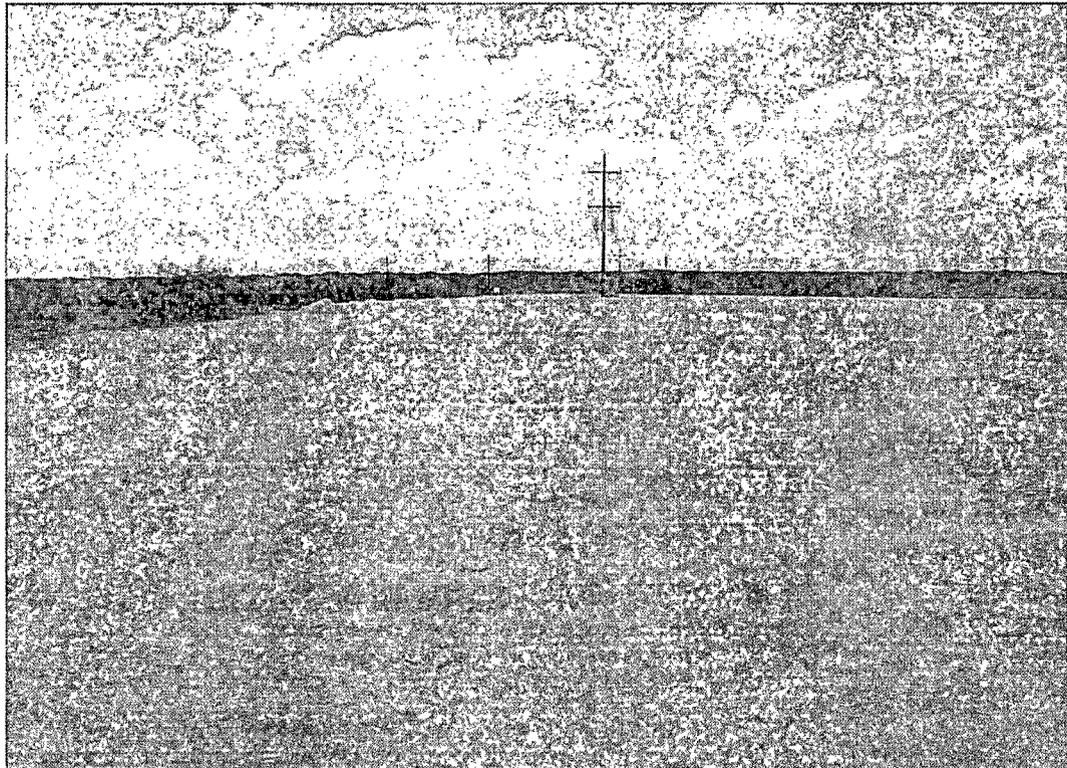
Impacted Area at the PLU #222 Flowline Release Site (Looking North)



Remediation Activities at the PLU #222 Flowline Release Site (Looking North)



Backfilling Activities at the PLU #222 Flowline Release Site (Looking North)



Repaired Well Pad at the PLU #222 Flowline Release Site (Looking North)

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

May 09, 2012

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: POKER LAKE UNIT 222 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 04/30/12 8:25.

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:**

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

Received:	04/30/2012	Sampling Date:	04/27/2012
Reported:	05/09/2012	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 222 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SOUTH WALL 4' (H200977-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>400</b>	16.0	05/01/2012	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	05/02/2012	ND	188	93.9	200	4.08		
DRO >C10-C28	<10.0	10.0	05/02/2012	ND	212	106	200	3.86		
<b>EXT DRO &gt;C28-C35</b>	<b>14.6</b>	10.0	05/02/2012	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>138 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>141 %</i>	<i>57.6-158</i>							

**Sample ID: EAST WALL 5' (H200977-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>640</b>	16.0	05/01/2012	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	05/02/2012	ND	188	93.9	200	4.08		
DRO >C10-C28	<10.0	10.0	05/02/2012	ND	212	106	200	3.86		
EXT DRO >C28-C35	<10.0	10.0	05/02/2012	ND						
<i>Surrogate: 1-Chlorooctane</i>		<i>145 %</i>	<i>55.5-154</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>147 %</i>	<i>57.6-158</i>							

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:	04/30/2012	Sampling Date:	04/27/2012
Reported:	05/09/2012	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 222 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

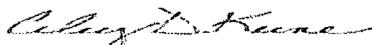
**Sample ID: WEST WALL 5' (H200977-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>512</b>	16.0	05/01/2012	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	05/02/2012	ND	188	93.9	200	4.08		
DRO >C10-C28	<10.0	10.0	05/02/2012	ND	212	106	200	3.86		
EXT DRO >C28-C35	<10.0	10.0	05/02/2012	ND						
Surrogate: 1-Chlorooctane	139 %	55.5-154								
Surrogate: 1-Chlorooctadecane	141 %	57.6-158								

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\*=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:	04/30/2012	Sampling Date:	04/27/2012
Reported:	05/09/2012	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 222 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: FLOOR 6.5' (H200977-04)**

BTEX 8021B		mg/kg		Analyzed By: ZZZ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2012	ND	1.87	93.7	2.00	6.62	
Toluene*	<0.050	0.050	05/08/2012	ND	1.97	98.5	2.00	6.61	
Ethylbenzene*	<0.050	0.050	05/08/2012	ND	1.95	97.6	2.00	6.70	
Total Xylenes*	<0.150	0.150	05/08/2012	ND	6.02	100	6.00	6.43	

Surrogate: 4-Bromofluorobenzene (PID) 109 % 64.4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	05/01/2012	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	05/02/2012	ND	188	93.9	200	4.08	
DRO >C10-C28	193	10.0	05/02/2012	ND	212	106	200	3.86	
EXT DRO >C28-C35	41.2	10.0	05/02/2012	ND					

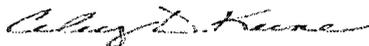
Surrogate: 1-Chlorooctane 144 % 55.5-154

Surrogate: 1-Chlorooctadecane 155 % 57.6-158

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\*=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:	04/30/2012	Sampling Date:	04/27/2012
Reported:	05/09/2012	Sampling Type:	Soil
Project Name:	POKER LAKE UNIT 222 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: NORTH WALL 5' (H200977-05)**

BTEX 8021B		mg/kg		Analyzed By: ZZZ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2012	ND	1.87	93.7	2.00	6.62	
Toluene*	<0.050	0.050	05/08/2012	ND	1.97	98.5	2.00	6.61	
Ethylbenzene*	<0.050	0.050	05/08/2012	ND	1.95	97.6	2.00	6.70	
Total Xylenes*	<0.150	0.150	05/08/2012	ND	6.02	100	6.00	6.43	

Surrogate: 4-Bromofluorobenzene (PID) 110 % 64.4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	05/01/2012	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	05/02/2012	ND	188	93.9	200	4.08	
DRO >C10-C28	343	10.0	05/02/2012	ND	212	106	200	3.86	
EXT DRO >C28-C35	66.5	10.0	05/02/2012	ND					

Surrogate: 1-Chlorooctane 141 % 55.5-154

Surrogate: 1-Chlorooctadecane 143 % 57.6-158

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

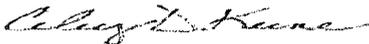
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

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Celey D. Keene, Lab Director/Quality Manager



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

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

Company Name: Basin Environmental Service Technologies, LLC		<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																				
Project Manager: Ben J. Arquio		P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chlorides</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">8015 M</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BIEX # Added 5/14/12</div> </div>																				
Address: P.O. Box 301		Company: BOPCO, LP																								
City: Lovington State: NM Zip: 88260		Attn: Tony Savoie																								
Phone #: (575) 396-2378 Fax #: (575) 396-1429		Address: 522 w. Merrod																								
Project #: Project Owner: BOPCO, LP		City: Carlsbad																								
Project Name: <u>Poker Lake Unit 222 Flowline</u>		State: NM Zip: 88220																								
Project Location: <u>EDDY, NM.</u>		Phone #: (432) 556-8730																								
Sampler Name: <u>Jody Walters</u>		Fax #:																								
FOR LAB USE ONLY																										
Lab I.D.	Sample I.D.	(Q)RAB OR (Q)OMP.	# CONTAINERS	MATRIX					PRESERV	SAMPLING																
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME												
H200977																										
1	South wall 4'	G	L		X					X			4-27-12	1:00	X	X										
2	EAST wall 5'	G	L		X					X			4-27-12	1:10	X	X										
3	West wall 5'	G	L		X					X			4-27-12	1:20	X	X										
4	Floor 6 1/2'	G	L		X					X			4-27-12	1:30	X	X	XX									
5	North wall 5'	G	L		X					Y			4-27-12	1:40	X	X	XX									

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Relinquished By:	Date: 4-30-12	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 0645		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date: 4-20-12	Received By:	REMARKS:	
	Time: 0825			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CHECKED BY: 	Please email results to <a href="mailto:pe@basinenv.com">pe@basinenv.com</a> & <a href="mailto:TA Savoie@BasinPec.com">TA Savoie@BasinPec.com</a>	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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