

Basin Environmental Service Technologies, LLC

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Lovington, New Mexico 88260

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REMEDIATION SUMMARY AND SITE CLOSURE REQUEST

**BOPCO, LP
JAMES RANCH UNIT #105 FLOW LINE
Eddy County, New Mexico
Unit Letter "J" (NW/SE), Section 36, Township 22 South, Range 30 East
Latitude 32.346486° North, Longitude 103.833236° West
NMOCD Reference #2RP-1731**

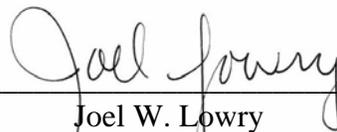
Prepared For:

**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**

January 2015



Joel W. Lowry
Project Manager

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1.0 INTRODUCTION & 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 James Ranch Unit #105 Flow Line (JRU #105). The legal description of the release site is Unit Letter "J" (NW/SE), Section 36, Township 22 South, Range 30 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.346486° North latitude and 103.833236° West longitude. The property affected by the release is owned by the State of New Mexico and administered by the New Mexico State Land Office (NMSLO). A "Site Location Map" is provided as Figure 1.

On May 19, 2013, BOPCO discovered a release had occurred on the JRU #105 flow line. The release was attributed to the failure of a section of two and seven-eighths inch (2 7/8") flow line, resulting in the release of approximately two barrels (2 bbls) of crude oil and six barrels (6 bbls) of produced water. The "Release Notification and Corrective Action" (Form C-141) indicated approximately three hundred square feet (300 ft²) of caliche road and two hundred square feet (200 ft²) of pasture was affected by the release. During initial response activities, approximately two barrels (2 bbls) of free-standing fluid was recovered using a vacuum truck. The affected segment of pipe has since been replaced. The Form C-141 is provided as Appendix A. General photographs of the release site are provided as 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 36, Township 22 South, Range 30 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately two hundred (200) to two hundred and twenty-five feet (225') below ground surface (bgs). Based on the New Mexico Oil Conservation Division (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 JRU #105 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)
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) – 50 mg/Kg (ppm)
- Total Petroleum Hydrocarbons (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 January 9, 2015, Basin conducted an initial investigation at the release site. During the initial investigation, five (5) soil samples (SP #1 @ Surface, SP #1 @ 1', SP #1 @ 2', SP #2 @ Surface and Flowline @ Surface) were collected from within the inferred release margins and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 7,120 ppm for soil sample SP #1 @ Surface to 32.0 ppm for soil samples SP #2 @ Surface. Soil samples SP #1 @ Surface, SP #1 @ 1' and SP #2 @ Surface were also analyzed for concentrations of TPH, which were determined to be less than the laboratory method detection limit (MDL). A summary of "Concentrations of Benzene, BTEX, TPH & Chloride in Soil" is provided in Table 1. A "Site & Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided as Appendix C.

On January 13, 2015, Basin began excavating impacted soil at the release site. The floor and sidewalls of the excavation were advanced until field tests suggested concentrations of BTEX, TPH and chloride were below NMOCD regulatory standards. Excavated soil was stockpiled on-site, pending final disposition.

Upon excavating the impacted area, five (5) confirmation soil samples (NW #1, EW #1, SW #1, WW #1 and Floor) were collected from the excavated area and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 448 ppm for soil sample SP #1 @ 1' to 272 ppm for soil sample Floor. Soil sample Floor was also analyzed for concentrations of BTEX and TPH, which were determined to be less than the appropriate laboratory MDL.

Approximately forty cubic yards (40 yd³) of impacted material was transported to Lea Land, Inc. (NMOCD Permit #WM-01-035) for disposal. The final dimensions of the excavation were approximately fifteen feet (15') in width, thirty-five feet (35') in length and one foot (1') in depth. Upon receiving laboratory analytical data from confirmation soil samples, the excavated area was backfilled with locally purchased, non-impacted caliche.

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

Confirmation soil samples collected from the floor and sidewalls of the JRU #105 excavation were analyzed by an NMOCD-approved laboratory, which determined concentrations of BTEX, TPH and chloride were less than NMOCD regulatory standards in each of the submitted soil samples. Based on these laboratory analytical results, Basin recommends BOPCO provide the NMOCD-Artesia District Office and the NMSLO a copy of this *Remediation Summary and Site Closure Request* and request the NMOCD grant site closure to the JRU #105 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: Ian Dolly
New Mexico State Land Office
602 N. Canal, Suite B
Carlsbad, New Mexico 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

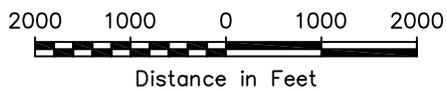
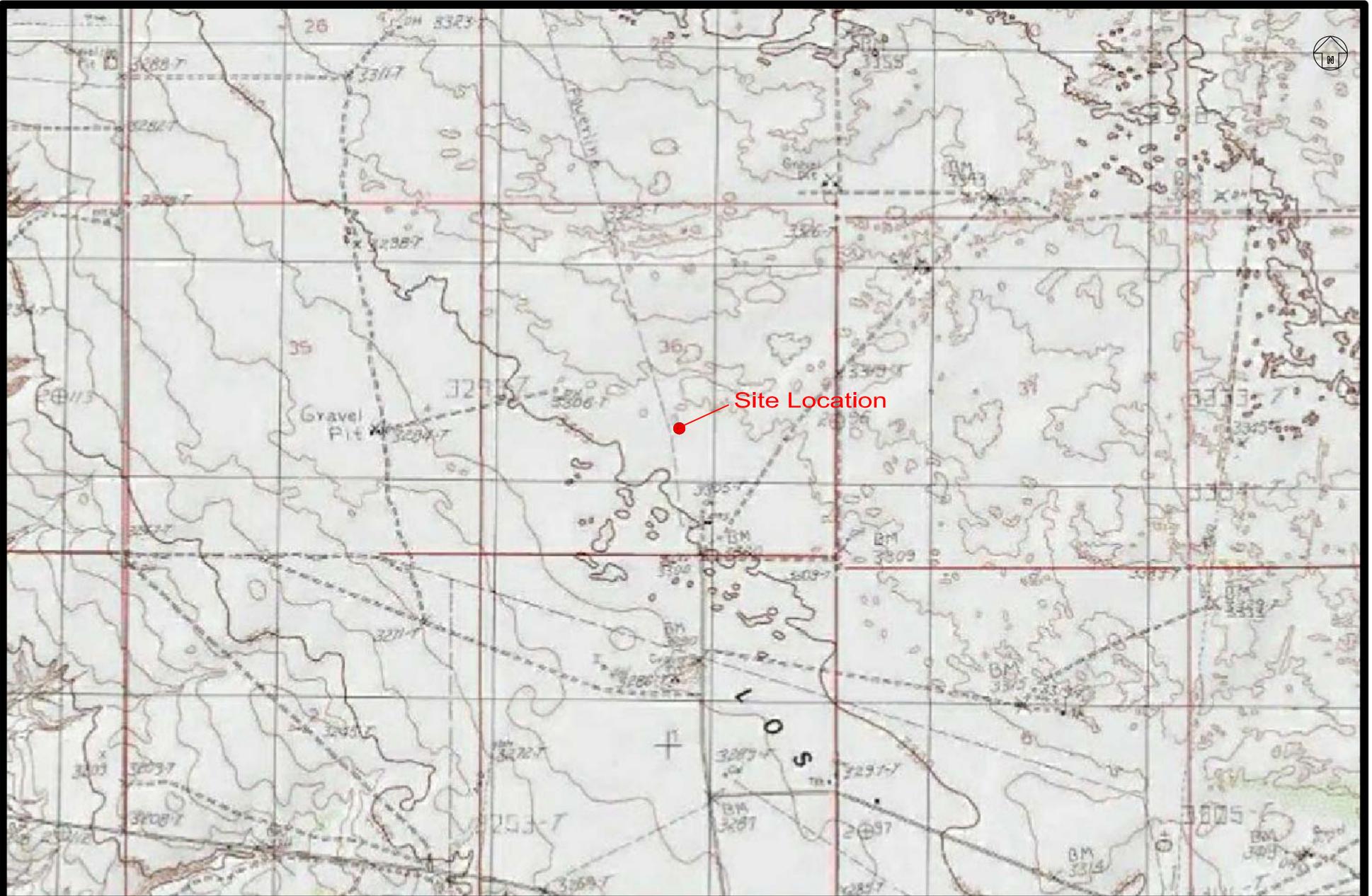


Figure 1
 Site Location Map
 BOPCO, LP
 James Ranch Unit 105 Flow Line
 Eddy County, New Mexico

Basin Environmental Service Technologies

Prep By: JWL

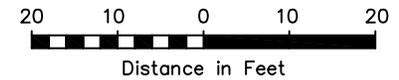
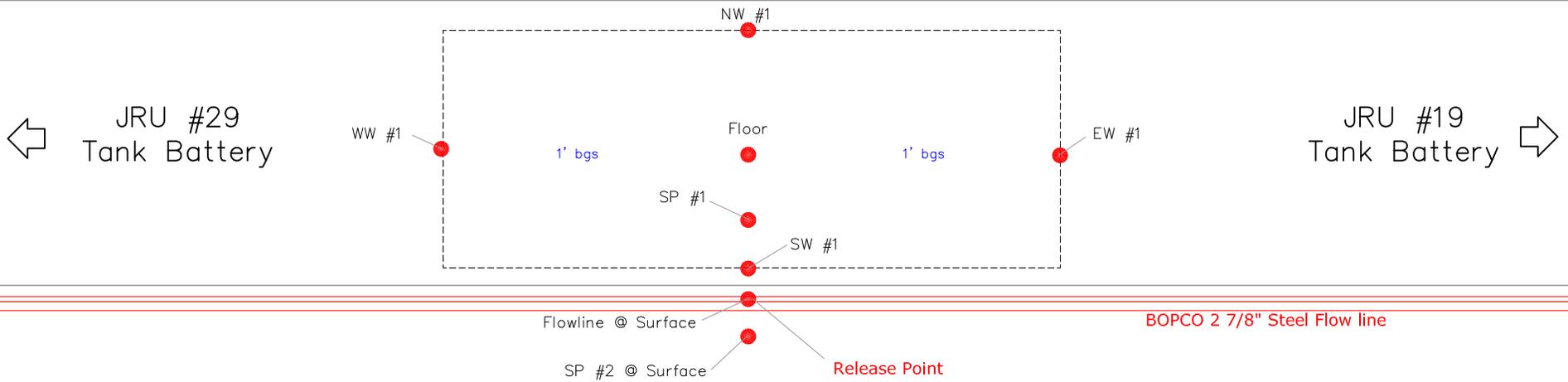
Checked By: BJA

January 16, 2015

Scale 1"=4000'



BOPCO 2 7/8" Steel Flow line



Legend:

- Excavation Extent
- Sample Location
- 1' bgs
- Steel Flow Line
- Oilfield Access Road
- X Release Point

Figure 2
 Site & Sample Location Map
 BOPCO, L.P.
 JRU #105 Flow Line
 Eddy County, New Mexico
 NMOCD Ref# 2RP-1731

Basin Environmental Services

Prep By: JWL	Checked By: BJA
January 15, 2014	Scale 1"=20'

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

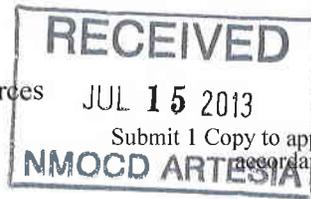
**BOPCO, LP
JRU #105 FLOW LINE
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-1731**

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C ₆ -C ₃₅ (mg/Kg)	4500 CI-B CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)		
SP #1 @ Surface	Surface	1/9/2015	Excavated	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	7,120
SP #1 @ 1'	1'	1/9/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	448
SP #1 @ 2'	2'	1/9/2015	In-Situ	-	-	-	-	-	-	-	-	-	288
SP #2 @ Surface	Surface	1/9/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32.0
Flowline @ Surface	Surface	1/9/2015	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	80.0
NW #1	6"	1/13/2015	In-Situ	-	-	-	-	-	-	-	-	-	400
EW #1	6"	1/13/2015	In-Situ	-	-	-	-	-	-	-	-	-	336
SW #1	6"	1/13/2015	In-Situ	-	-	-	-	-	-	-	-	-	448
WW #1	6"	1/13/2015	In-Situ	-	-	-	-	-	-	-	-	-	304
Floor	1'	1/13/2015	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	272
NMOCD Criteria				10				50				5,000	1,000

- = Not analyzed.

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



Form C-141
Revised August 8, 2011

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. 575-887-7329
Facility Name: JRU-105 The spill location is 1912 ft. S.E. of the well location on lease road to tank Battery JRU-19	Facility Type: Exploration and Production

Surface Owner: State of NM	Mineral Owner: State of NM	API No. 30-015-37064
----------------------------	----------------------------	----------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	36	22S	30E					Eddy

Latitude N 32.346486 Longitude W 103.833236

NATURE OF RELEASE

Type of Release: Crude oil and produced water	Volume of Release: 2 bbls oil and 6 bbls water	Volume Recovered: 2 bbls total fluid
Source of Release: 2 7/8" flow line	Date and Hour of Occurrence: 5/19/13 time unknown	Date and Hour of Discovery: 5/19/13 10:00 a.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?	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.*

The flow developed a leak due to external corrosion, a temporary repair clamp was placed on the line. The bad section of pipe will be replaced.

Describe Area Affected and Cleanup Action Taken.*

Approximately 300 sq.ft. of road and approximately 200 sq.ft. of pasture area. The free standing fluid was recovered. The spill area will be remediated in accordance to the NMOCD guidelines for the remediation of spills.

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>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Tony Savoie		Approved by Environmental Specialist:	
Title: Waste Management and Remediation Specialist		Approval Date:	Expiration Date:
E-mail Address: tasavoie@basspet.com		Conditions of Approval:	
Date: 7/14/13	Phone: 432-556-8730	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

2 RP-1731



Photograph of the initial release at the JRU #105 flow line release site.



Photograph of the excavated area at the JRU #105 flow line release site.



Photograph of the JRU #105 flow line release site after remediation activities.



January 15, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: JRU #105 FLOW LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/13/15 13:15.

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.

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".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/13/2015	Sampling Date:	01/09/2015
Reported:	01/15/2015	Sampling Type:	Soil
Project Name:	JRU #105 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP #1 @ SURFACE (H500121-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7120	16.0	01/15/2015	ND	400	100	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	01/14/2015	ND	194	97.0	200	4.54	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	212	106	200	0.979	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					
<i>Surrogate: 1-Chlorooctane</i>	96.6 %	47.2-157							
<i>Surrogate: 1-Chlorooctadecane</i>	114 %	52.1-176							

Sample ID: SP #1 @ 1' (H500121-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	01/15/2015	ND	400	100	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	01/14/2015	ND	194	97.0	200	4.54	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	212	106	200	0.979	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					
<i>Surrogate: 1-Chlorooctane</i>	105 %	47.2-157							
<i>Surrogate: 1-Chlorooctadecane</i>	121 %	52.1-176							

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 01/13/2015
 Reported: 01/15/2015
 Project Name: JRU #105 FLOW LINE
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 01/09/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP #1 @ 2' (H500121-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	01/15/2015	ND	400	100	400	0.00	

Sample ID: SP #2 @ SURFACE (H500121-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/15/2015	ND	400	100	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	01/14/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					

Surrogate: 1-Chlorooctane 104 % 47.2-157

Surrogate: 1-Chlorooctadecane 116 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 01/13/2015
 Reported: 01/15/2015
 Project Name: JRU #105 FLOW LINE
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 01/09/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: FLOWLINE @ SURFACE (H500121-05)

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	01/15/2015	ND	400	100	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	01/14/2015	ND	189	94.4	200	2.45	
DRO >C10-C28	<10.0	10.0	01/14/2015	ND	202	101	200	3.96	
EXT DRO >C28-C35	<10.0	10.0	01/14/2015	ND					
<i>Surrogate: 1-Chlorooctane</i>	<i>97.4 %</i>	<i>47.2-157</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>100 %</i>	<i>52.1-176</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

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



Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Cardinal Laboratories Project Manager: Joel Lowry Address: P.O. Box 301 City: Lovington Phone #: (575)396-2378 Project #: TRU Project Name: PET#105 Flow Line Project Location: Eddy Co., NM Sampler Name: Matt Taylor		State: NM Zip: 88260 Attn: Tony Savoe Address: City: State: NM Zip: Phone #: Fax #:		BILL TO P.O. #: Company: BOPCO, LP Attn: Tony Savoe Address: City: State: NM Zip: Phone #: Fax #:		ANALYSIS REQUEST					
FOR LAB USE ONLY Lab I.D.: H5D0121 Sample I.D.: N315		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SOIL <input type="checkbox"/> OIL <input type="checkbox"/> SLUDGE <input type="checkbox"/> OTHER : PRESERV. <input type="checkbox"/> YES <input type="checkbox"/> NO SAMPLING		DATE TIME		Chloride TPH (8015M) BTEX (8021B) HOLD FOR TPH			
SP #1 @ Surface SP #1 @ 1' SP #1 @ 2' SP #2 @ Surface Flowline @ Surface		9 1 9 1 9 1 9 1 9 1		<input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X		1/9/15 1/9/15 1/9/15 1/9/15 1/9/15		<input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X			
<p><small>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidents or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</small></p>											
Relinquished By: [Signature] Date: 1-13-15 Time: 1:15		Received By: [Signature] Date: Time:		Sample Condition <input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: [Signature]		REMARKS: Please email results to pm@basinenv.com, TSavoe@BassPet.com, acruth@basspet.com			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Relinquished By: [Signature]		Sample Condition <input checked="" type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: [Signature]		REMARKS: -3.20c #54			

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



January 20, 2015

JOEL LOWRY

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: JRU #105 FLOW LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/14/15 11:00.

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.

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".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 01/14/2015
 Reported: 01/20/2015
 Project Name: JRU #105 FLOW LINE
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

 Sampling Date: 01/13/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: NW #1 (H500135-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	01/16/2015	ND	432	108	400	0.00	

Sample ID: EW #1 (H500135-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	01/16/2015	ND	432	108	400	0.00	

Sample ID: SW #1 (H500135-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	01/16/2015	ND	432	108	400	0.00	

Sample ID: WW #1 (H500135-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	01/16/2015	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/14/2015	Sampling Date:	01/13/2015
Reported:	01/20/2015	Sampling Type:	Soil
Project Name:	JRU #105 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: FLOOR (H500135-05)

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	01/16/2015	ND	1.62	81.2	2.00	10.6		
Toluene*	<0.050	0.050	01/16/2015	ND	1.57	78.7	2.00	11.7		
Ethylbenzene*	<0.050	0.050	01/16/2015	ND	1.54	77.2	2.00	11.8		
Total Xylenes*	<0.150	0.150	01/16/2015	ND	4.64	77.4	6.00	12.3		
Total BTEX	<0.300	0.300	01/16/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	01/16/2015	ND	432	108	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	01/15/2015	ND	187	93.6	200	8.50		
DRO >C10-C28	<10.0	10.0	01/15/2015	ND	209	104	200	15.9		
EXT DRO >C28-C35	<10.0	10.0	01/15/2015	ND						

Surrogate: 1-Chlorooctane 107 % 47.2-157

Surrogate: 1-Chlorooctadecane 125 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- 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



Celey D. Keene, Lab Director/Quality Manager

