

**APPROVED**



# CONOCOPHILLIPS

P.O. Box 2197  
Houston, TX 77252-2197  
Phone 281.293.1000

## PHILMEX #15

---

### Corrective Action Plan

1RP-3999

API 30-025-27402

Release Date: November 11, 2015

Unit Letter A, Section 28, Township 17S, Range 33E



PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

**August 3<sup>rd</sup>, 2016**

**Jamie Keyes**

Environmental Specialist – New Mexico Oil Conservation Division  
Energy, Minerals and Natural Resources Department  
1625 N. French Dr.  
Hobbs, NM 88240

**RE: Corrective Action Plan  
ConocoPhillips – Philmex 15 (1RP-3999)  
UL/A sec. 28 T17S R33E  
API No. 30-025-27402**

Ms. Jones:

ConocoPhillips (CoP) has retained Basin Environmental Service Technologies (Basin) to address potential environmental concerns at the above-referenced site.

**Background and Previous Work**

The site is located approximately 0.5 miles northeast of the intersection of Mescalero Road and Hummingbird Road in Lea County, New Mexico at Unit Letter F of Section 28, in Township 20 South of Range 37 East. The Global Positioning System (GPS) coordinates are: Latitude – 32.8033257, Longitude - -103.7240601. Utilizing the New Mexico Water and Infrastructure Data System (NM WAIDS), existing well records indicate that groundwater will likely be encountered at a depth of approximately one-hundred eighty (180) +/- feet.

On November 24<sup>th</sup>, 2015, CoP discovered a release from a flow-line. A total of seven and one-half (7.5) barrels (bbls) of crude oil and produced water were released over approximately two-thousand nine-hundred twenty-eight (2,928) square feet (ft<sup>2</sup>) of pasture land. Approximately five (5) bbls total of fluid were recovered. The New Mexico Oil Conservation Division (NMOCD) was notified of the release on November 25<sup>th</sup>, 2015, and an initial C-141 was submitted the same day. NMOCD approved the initial C-141 on November 25<sup>th</sup>, 2015 (Appendix A).

Basin personnel were on site to assess the release December 4<sup>th</sup>, 2015. The release was mapped and photographed (Figure 1). On December 9<sup>th</sup> and 10<sup>th</sup>, 2015, samples were taken with depth and submitted to a NMOCD approved commercial laboratory for analysis (Appendix B). Laboratory analysis of the soil sample (Point 1) retrieved at two (2) feet below ground surface (bgs) showed an elevated chloride concentration of 6,560 mg/kg, gasoline range organics (GRO) concentration of 15.3 mg/kg, and diesel range organics (DRO) concentration of 101 mg/kg. Benzene concentration was below the applicable method detection limit. Toluene concentration was 0.361 mg/kg. Ethylbenzene concentration was 0.878 mg/kg. Xylenes concentration was 1.43

mg/kg. The total BTEX concentration was 2.67 mg/kg. The soil sample (Point 1) retrieved at three (3) feet bgs had a chloride concentration at 112 mg/kg. GRO and DRO concentrations were below the applicable detection limit.

The soil sample (Point 2) retrieved at one (1) feet (bgs) showed an elevated chloride concentration of 3,120 mg/kg, GRO concentration of 447 mg/kg, and DRO concentration of 4030 mg/kg. Benzene concentration was 0.268 mg/kg. Toluene concentration was 6.63 mg/kg. Ethylbenzene concentration was 14 mg/kg. Xylenes concentration was 24.3 mg/kg. The total BTEX concentration was 45.2 mg/kg. The soil sample (Point 2) retrieved at three and one-half (3.5) feet bgs had a chloride concentration less than the appropriate method detection limit. GRO and DRO concentrations were below the applicable detection limit.

The soil sample (Point 3) retrieved at one (1) feet (bgs) showed an elevated chloride concentration of 11,500 mg/kg, GRO concentration of 409 mg/kg, and DRO concentration of 3350 mg/kg. Benzene concentration was 0.639 mg/kg. Toluene concentration was 11.9 mg/kg. Ethylbenzene concentration was 19.2 mg/kg. Xylenes concentration was 28 mg/kg. The total BTEX concentration was 59.7 mg/kg. The soil sample (Point 3) retrieved at two and one-half (2.5) feet bgs had a chloride concentration of 48 mg/kg with GRO and DRO concentrations below the applicable detection limit.

Photo Documentation of the of these activities may be found in Appendix C.

### **Corrective Action Plan**

Based on the assessment and sampling data, the release will be excavated down at various depths. The area around Point 1 as depicted in Figure 1, will be excavated to a depth of three (3) feet bgs. The area around Point 2 will be excavated to a depth of three and one-half (3.5) feet bgs. The area around Point 3 will be excavated to a depth of two and one-half (2.5) feet bgs. Once the entire excavation is completed, discreet wall samples from the excavation will be collected and field tested for chlorides and organic vapors. If the field data indicates that the wall samples will not achieve chloride, Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX readings below regulatory standards, the walls of the excavation will be extended until field testing indicates that all constituents from the wall samples will return values below regulatory standards. The samples will then be taken to a commercial laboratory to confirm that all constituents return readings are below regulatory standards.

All excavated soil will be taken to a NMOCD approved facility for disposal. Clean soil will be imported to the site to serve as backfill. A sample of the backfill soil will be taken to a commercial laboratory to confirm that the chloride concentration is below the recommended regulatory standards. The excavated area will be backfilled with clean, imported topsoil and contoured to the surrounding location.

Revegetation of the site will be performed as follows:

Disturbed areas associated with the remediation efforts will be reseeded. If after one growing season the vegetation has not taken hold, seeding may need to be repeated until revegetation is successful. The seed will be spread using a hand-held broadcaster and the area raked or dragged

to cover the seed. Because the seed will be broadcast, the pounds per acre will be doubled. BLM #2 seed mix will be used.

The seed mixture will be planted in the amounts specified in pounds of pure live seed (PLS) per acre. Commercially sold seed will be either certified or registered. The area will be seeded following backfilling of the excavated area.

The site will be visited on a quarterly basis to assess the establishment of vegetative growth. Staff personnel performing the site visit will also look for the presence of noxious weeds at the site. If a noxious weed is observed at the site, CoP will determine the most effective manner to eradicate it.

Once these activities have been completed, a report will be sent to NMOCD requesting 'remediation termination' and site closure.

Basin appreciates the opportunity to work with you on this project. Please contact me if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in cursive script that reads "Kyle Norman" followed by a horizontal line.

Kyle Norman  
Project Lead  
Basin Environmental Service Technologies  
(575) 942-8542

Attachments:

- Figure 1 – Proposed Excavation
- Appendix A – Initial C-141
- Appendix B – Laboratory Analysis
- Appendix C – Photo Documentation

# Figures

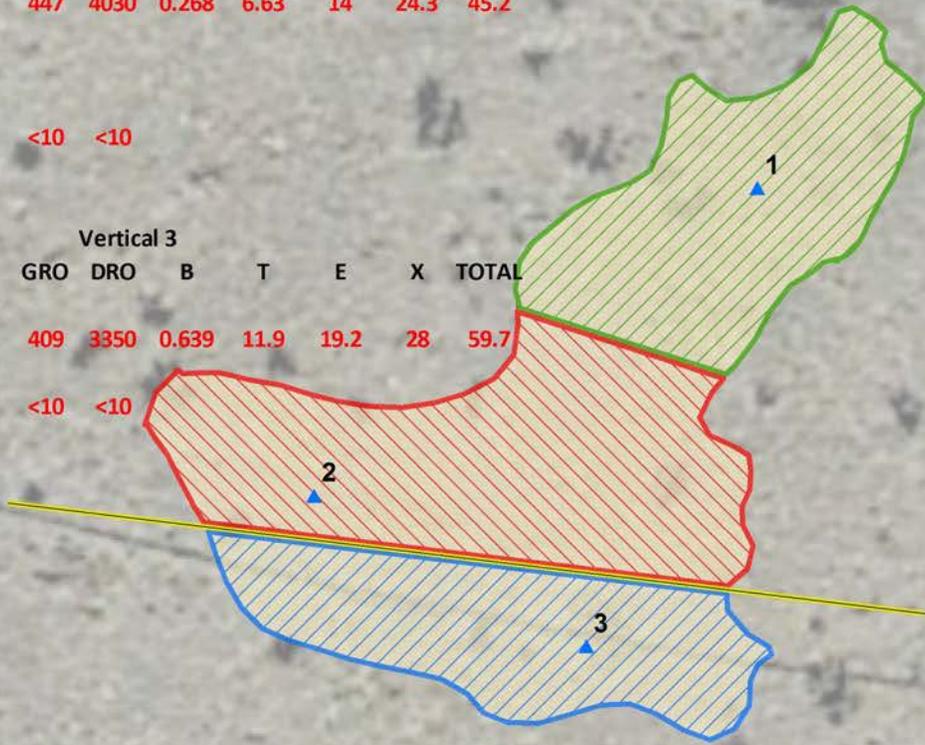
**Basin Environmental Service Technologies, LLC**  
P.O. Box 2948, Hobbs, NM 88241  
Phone 575.393.2967

# Proposed Excavation

Vertical 1									
Depth	Cl-	PID	GRO	DRO	B	T	E	X	TOTAL
SS	480	694.7							
1'	592	1213							
2'	6560	624.5	15.3	101	<0.05	0.361	0.878	1.43	2.67
2.5'	656	11.1							
3'	112	4.9	<10	<10					

Vertical 2									
Depth	Cl-	PID	GRO	DRO	B	T	E	X	TOTAL
SS	3067	153.1							
1'	3120	203.5	447	4030	0.268	6.63	14	24.3	45.2
2'	1759	113							
2.5'	1653	107							
3'	594	34.6							
3.5'	<16	0.4	<10	<10					

Vertical 3									
Depth	Cl-	PID	GRO	DRO	B	T	E	X	TOTAL
SS	4268	778.3							
1'	11500	397.1	409	3350	0.639	11.9	19.2	28	59.7
2'	3637	70.7							
2.5'	48	7	<10	<10					



Landowner: State  
DGW: 180 Ft

**Legend**

- ▲ SAMPLE POINT
- SURFACE PIPELINE
- ▨ PROP. EXCAV @ 2.5'
- ▨ PROP. EXCAV @ 3'
- ▨ PROP. EXCAV @ 3.5'
- STAIN - 2,928 SQ FT



**CONOCOPHILLIPS**  
**PHILMEX #15**  
1RP-3999  
  
UL A SECTION 28  
T-17-S R-33-E  
LEA COUNTY, NM

**Figure 1**

GPS: 32.811329 -103.661798

0 10 20  
Feet

GPS date: 11/4/15 JK  
Drawing date: 3/16/16  
Drafted by: T. Grieco

# Appendix A

Intial C-141

**Basin Environmental Service Technologies, LLC**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

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

**RECEIVED**  
By JKeyes at 12:18 pm, Nov 25, 2015

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

### Release Notification and Corrective Action

**OPERATOR**  Initial Report  Final Report

Name of Company: <b>ConocoPhillips</b>	Contact: <b>Spencer Cluff</b>
Address: <b>29 Vacuum Complex Lane</b>	Telephone No. <b>575-746-7248</b>
Facility Name: <b>Philmex 15</b>	Facility Type: <b>Well</b>

Surface Owner: NMOCD	Mineral Owner: NMOCD	API No. 30-025-27402
----------------------	----------------------	----------------------

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	28	17S	33E	660	North	660	East	LEA

Latitude 32.8033257 Longitude 103.7240601 NAD83

### NATURE OF RELEASE

Type of Release: <b>Spill</b>	Volume of Release: 7.50 BBLS	Volume Recovered: 5 BBLS
Source of Release: Fiber Spar Line	Date and Hour of Occurrence 11/23/2015 2:00 pm	Date and Hour of Discovery 11/24/2015 2:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Jamie Keyes</b>	
By Whom? <b>Spencer Cluff</b>	Date and Hour: <b>11/25/2015 11:05 am</b>	
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.\*  
On November 24<sup>th</sup>, 2015 at 1400 hrs. MDT a flow line leak occurred at the Philmex 15. The immediate action by the MSO was to shut down the well, isolate the line, and repair the line. The spill released 5 bbls of oil and 2.5 bbls of produced water for a total of 7.5 bbls, with 5 bbls of fluid recovered. The spill will be remediated according to NMOCD and COPC guidelines.

Describe Area Affected and Cleanup Action Taken.\*  
The area was in the pasture and will be remediated according to NMOCD 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.

<b>OIL CONSERVATION DIVISION</b>	
Signature: <i>Spencer A. Cluff</i>	Approved by Environmental Specialist: <i>Jamie Keyes</i>
Printed Name: Spencer A. Cluff	Approval Date: <b>11/25/2015</b> Expiration Date: <b>01/25/2016</b>
Title: HSE Specialist	Conditions of Approval: Discrete site samples required. Delineate and remediate per NMOCD guidelines. Geotagged photos recommended.
E-mail Address: <b>spencer.a.cluff@conocophillips.com</b>	Attached <input type="checkbox"/> <b>IRP 3999</b>
Date: 11/25/2015 Phone: 575-746-7248	

\* Attach Additional Sheets If Necessary

# Appendix B

Laboratory Analysis

**Basin Environmental Service Technologies, LLC**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

December 17, 2015

KYLE NORMAN

BASIN ENVIRONMENTAL - HOBBS

419 W. CAIN

HOBBS, NM 88240

RE: PHILMEX #15

Enclosed are the results of analyses for samples received by the laboratory on 12/15/15 8:15.

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](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 - HOBBS  
 KYLE NORMAN  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 393-0293

Received:	12/15/2015	Sampling Date:	12/09/2015
Reported:	12/17/2015	Sampling Type:	Soil
Project Name:	PHILMEX #15	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: VERTICAL 1 @ 2' (H503248-01)**

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	12/16/2015	ND	1.95	97.5	2.00	0.179	
<b>Toluene*</b>	<b>0.361</b>	0.050	12/16/2015	ND	1.97	98.6	2.00	0.739	
<b>Ethylbenzene*</b>	<b>0.878</b>	0.050	12/16/2015	ND	2.00	100	2.00	0.0556	
<b>Total Xylenes*</b>	<b>1.43</b>	0.150	12/16/2015	ND	5.99	99.9	6.00	0.291	
<b>Total BTEX</b>	<b>2.67</b>	0.300	12/16/2015	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.6-140*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>6560</b>	16.0	12/15/2015	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
<b>GRO C6-C10</b>	<b>15.3</b>	10.0	12/15/2015	ND	206	103	200	3.57	
<b>DRO &gt;C10-C28</b>	<b>101</b>	10.0	12/15/2015	ND	190	95.1	200	4.23	

*Surrogate: 1-Chlorooctane 107 % 35-147*
*Surrogate: 1-Chlorooctadecane 94.5 % 28-171*

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 - HOBBS  
 KYLE NORMAN  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 393-0293

 Received: 12/15/2015  
 Reported: 12/17/2015  
 Project Name: PHILMEX #15  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 12/09/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: VERTICAL 1 @ 3' (H503248-02)**

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>112</b>	16.0	12/15/2015	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	12/15/2015	ND	206	103	200	3.57	
DRO >C10-C28	<10.0	10.0	12/15/2015	ND	190	95.1	200	4.23	
<i>Surrogate: 1-Chlorooctane</i>	<i>108 %</i>	<i>35-147</i>							
<i>Surrogate: 1-Chlorooctadecane</i>	<i>95.1 %</i>	<i>28-171</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 - HOBBS  
 KYLE NORMAN  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 393-0293

Received:	12/15/2015	Sampling Date:	12/09/2015
Reported:	12/17/2015	Sampling Type:	Soil
Project Name:	PHILMEX #15	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: VERTICAL 2 @ 1' (H503248-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.268</b>	0.200	12/16/2015	ND	1.95	97.5	2.00	0.179	
<b>Toluene*</b>	<b>6.63</b>	0.200	12/16/2015	ND	1.97	98.6	2.00	0.739	
<b>Ethylbenzene*</b>	<b>14.0</b>	0.200	12/16/2015	ND	2.00	100	2.00	0.0556	
<b>Total Xylenes*</b>	<b>24.3</b>	0.600	12/16/2015	ND	5.99	99.9	6.00	0.291	
<b>Total BTEX</b>	<b>45.2</b>	1.20	12/16/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>3120</b>	16.0	12/15/2015	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>447</b>	100	12/15/2015	ND	206	103	200	3.57		
<b>DRO &gt;C10-C28</b>	<b>4030</b>	100	12/15/2015	ND	190	95.1	200	4.23		

Surrogate: 1-Chlorooctane 169 % 35-147

Surrogate: 1-Chlorooctadecane 166 % 28-171

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 - HOBBS  
 KYLE NORMAN  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 393-0293

Received:	12/15/2015	Sampling Date:	12/10/2015
Reported:	12/17/2015	Sampling Type:	Soil
Project Name:	PHILMEX #15	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: VERTICAL 2 @ 3.5' (H503248-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/15/2015	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	12/15/2015	ND	206	103	200	3.57	
DRO >C10-C28	<10.0	10.0	12/15/2015	ND	190	95.1	200	4.23	

Surrogate: 1-Chlorooctane      107 %      35-147

Surrogate: 1-Chlorooctadecane      102 %      28-171

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 - HOBBS  
 KYLE NORMAN  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 393-0293

Received:	12/15/2015	Sampling Date:	12/10/2015
Reported:	12/17/2015	Sampling Type:	Soil
Project Name:	PHILMEX #15	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: VERTICAL 3 @ 1' (H503248-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.639</b>	0.200	12/16/2015	ND	1.95	97.5	2.00	0.179	
<b>Toluene*</b>	<b>11.9</b>	0.200	12/16/2015	ND	1.97	98.6	2.00	0.739	
<b>Ethylbenzene*</b>	<b>19.2</b>	0.200	12/16/2015	ND	2.00	100	2.00	0.0556	
<b>Total Xylenes*</b>	<b>28.0</b>	0.600	12/16/2015	ND	5.99	99.9	6.00	0.291	
<b>Total BTEX</b>	<b>59.7</b>	1.20	12/16/2015	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 118 % 73.6-140*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>11500</b>	16.0	12/15/2015	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
<b>GRO C6-C10</b>	<b>409</b>	50.0	12/16/2015	ND	206	103	200	3.57	
<b>DRO &gt;C10-C28</b>	<b>3350</b>	50.0	12/16/2015	ND	190	95.1	200	4.23	

*Surrogate: 1-Chlorooctane 104 % 35-147*
*Surrogate: 1-Chlorooctadecane 93.1 % 28-171*

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 - HOBBS  
 KYLE NORMAN  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 393-0293

Received:	12/15/2015	Sampling Date:	12/10/2015
Reported:	12/17/2015	Sampling Type:	Soil
Project Name:	PHILMEX #15	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: VERTICAL 3 @ 2.5' (H503248-06)**

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>48.0</b>	16.0	12/15/2015	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	12/16/2015	ND	206	103	200	3.57	
DRO >C10-C28	<10.0	10.0	12/16/2015	ND	190	95.1	200	4.23	

Surrogate: 1-Chlorooctane      107 %      35-147

Surrogate: 1-Chlorooctadecane      96.1 %      28-171

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**

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- 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

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



# Appendix C

Photo Documentation

**Basin Environmental Service Technologies, LLC**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

# Conoco Phillips - Philmex #015

Unit Letter A, Section 28, T17S, R33E



Initial release, facing northeast

12/4/15



Initial release, facing southwest

12/4/15



Top 1' removed, facing northeast

12/16/15



Top 1' removed, facing northwest

3/22/12