



**RECEIVED**

*By OCD District 1 at 3:26 pm, Aug 05, 2015*

**APPROVED**

*By OCD District 1 at 3:26 pm, Aug 05, 2015*

**CONOCOPHILLIPS**

P.O. Box 2197

Houston, TX 77252-2197

Phone 281.293.1000

Ensure BLM concurrence/approval  
Geotagged photos of remediation  
required.

# MCA Unit Station No. 2

(1RP-3311)

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## Corrective Action Plan

Release Date: September 3<sup>rd</sup>, 2015

Unit Letter C, Section 28, Township 17S, Range 32E



PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

**August 5, 2015**

**Kellie Jones**

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 MCA Unit Station No. 2 (1RP-3311)  
UL/C sec. 28 T17S R32E**

Ms. Jones:

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

### **Background and Previous Work**

The site is located approximately 3 miles southwest of Maljamar, New Mexico at UL/C sec. 28 T17S R32E. NM OSE, BLM and RECS installed monitor well records indicate that groundwater will likely be encountered at a depth of approximately 81 +/- feet.

On September 3<sup>rd</sup>, 2014, CoP discovered that a check valve from discharge malfunctioned, releasing 3 bbls of oil and 14 bbls of produced water from a suction line. The release encompassed 1, 221 sq ft of caliche pad. A total of 15 bbls of fluid were recovered. NMOCD was notified of the release on September 3<sup>rd</sup>, 2014 and an initial C-141 was submitted to NMOCD for approval. NMOCD approved the C-141 on September 4<sup>th</sup>, 2014 (Appendix A).

Basin personnel were on site to assess the release on July 20<sup>th</sup>, 2015. The release was mapped, photographed and sampled at three points (Figure 1). Representative samples were sent to a commercial laboratory for analysis. Laboratory analysis at Point 1 returned a chloride value of 3000 mg/kg at the surface, 272 mg/kg at 1 ft bgs and 176 mg/kg at 2.5 ft bgs. Gasoline Range Organics (GRO) and Diesel Range Organics (DRO), as well as benzene, toluene, ethylbenzene, total xylenes (BTEX) returned levels of non-detect. Laboratory analysis at Point 2 returned a chloride value of 128 mg/kg at the surface and 112 mg/kg at 6 inches bgs. GRO, DRO and BTEX returned levels of non-detect. Laboratory analysis of Point 3 returned a chloride value of 992 mg /kg at 6 inches, 320 mg/kg at 1 ft and 160 mg/kg at 3 ft bgs. GRO, DRO and BTEX returned levels of non-detect (Appendix B).

Photo documentation of these activities may be found in Appendix C.

**Corrective Action plan**

Based on the assessment, the release will be scraped to 1 ft bgs. All excavated soils will be taken to a NMOCD approved facility for disposal. Clean caliche will be imported to the site to use as backfill. A sample of the imported soil will be taken to a commercial laboratory to confirm that the chloride reading is below regulatory standards. The scrape will be backfilled with the clean, imported caliche and contoured to the surrounding location.

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 call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in black ink that reads "Kyle Norman". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

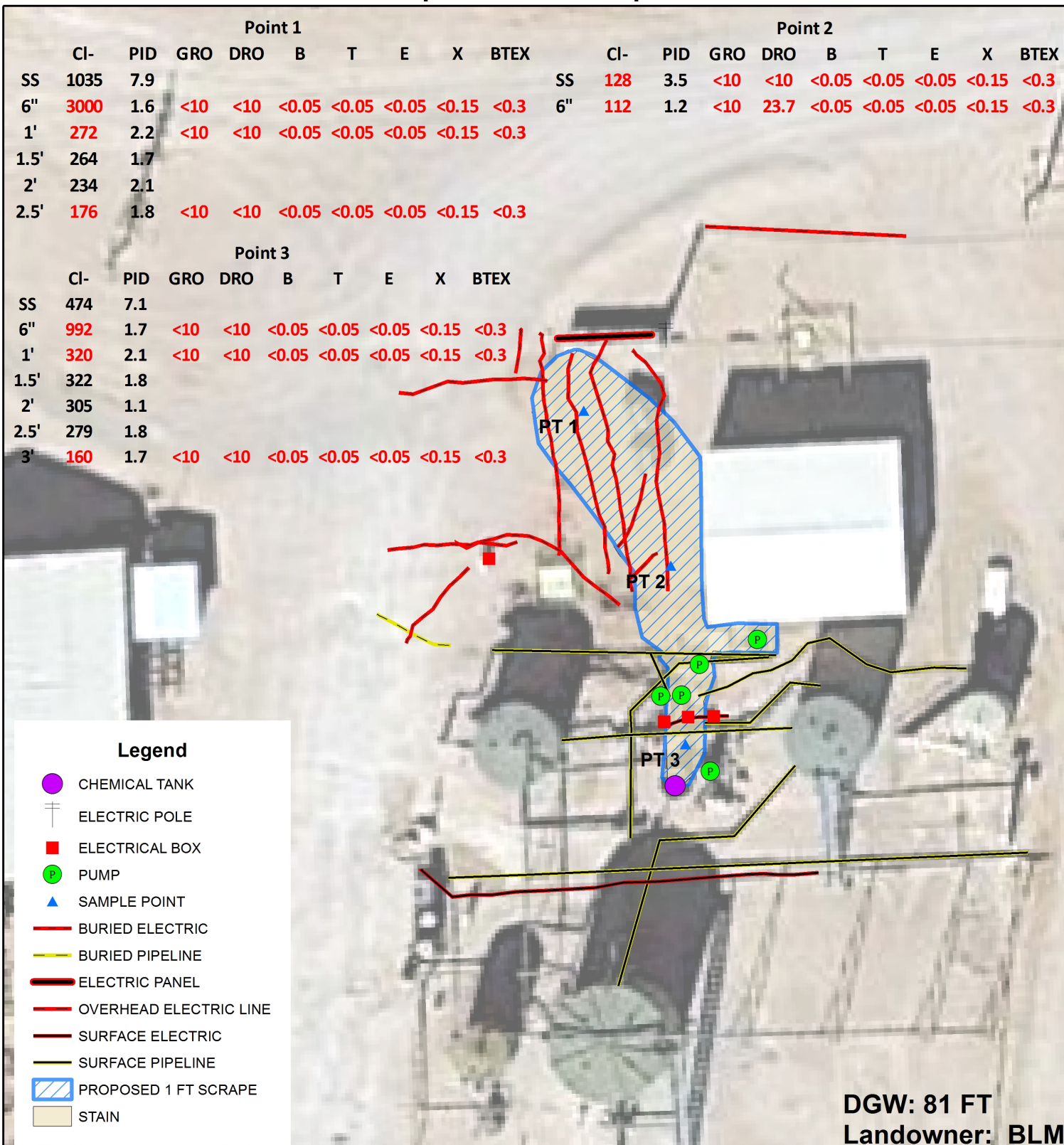
Kyle Norman  
Project Lead  
Basin Environmental Service Technologies  
(575) 942-8542

**Attachments:**

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

# Figures

# Proposed Scrape



**CONOCOPHILLIPS**  
**MCA UNIT**  
**STATION NO. 2**  
NMOCD Case #: 1RP-3311  
Legals: UL/C sec. 28  
T-17-S R-32-E  
LEA COUNTY, NM

Figure 1

GPS Source: 32.812396, -103.774182  
0 10 20  
Feet  
GPS date: 7/20/15 CF  
Drawing date: 7/21/15  
Drafted by: B. Cooper

# Appendix A

Intial C-141

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

State of New Mexico  
Energy Minerals and Natural Resources

HOBBS OCD

Form C-141  
Revised August 8, 2011

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

Submit to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

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>575-391-3143</b>	
Facility Name: <b>MCA Unit Station No. 2</b>	Facility Type: <b>Water Injection Station</b>	
Surface Owner: <b>NMOCD</b>	Mineral Owner <b>NMOCD</b>	API No.

LOCATION OF RELEASE

Unit Letter	Section 28	Township 17	Range 35E	Feet from the	North/South Line	Feet from the	East/West Line	County LEA
-------------	---------------	----------------	--------------	---------------	------------------	---------------	----------------	---------------

Latitude N32° 48.742' Longitude - W103° 46.465

NATURE OF RELEASE

Type of Release: <b>Spill</b>	Volume of Release: <b>17 BBLS</b>	Volume Recovered: <b>15 BBLS</b>
Source of Release: <b>Suction line</b>	Date and Hour of Occurrence <b>09/03/14 10:30 am</b>	Date and Hour of Discovery <b>09/03/2014 10:30 am</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Tomáš Oberding</b>	
By Whom? <b>Spencer Cluff</b>	Date and Hour: <b>09/03/2014 3:43 pm</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 Sep 3, 2014, at 1030 hrs. MST a release of crude oil and produced water occurred. The release originated from the suction line approximately 60 ft. from station # 2. The check valve from discharge malfunctioned. MSO closed discharge valve from station # 2 to stop the leak. The affected area was 100 ft. X 20 ft. X 1 inch deep and resulted in 3 BO and 14 BPW, with 15 recovered. The affected area will be remediated according to NMOCD guidelines.

Describe Area Affected and Cleanup Action Taken.\*

MSO closed discharge valve from station # 2 to stop the leak.

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>Spencer A. Cluff</b>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Spencer Cluff</b>		Approved by Environmental Specialist:	
Title: <b>HSE Lead</b>	Approval Date: <b>9-4-14</b>	Expiration Date: <b>11-4-14</b>	
E-mail Address: <b>spencer.a.cluff@conocophillips.com</b>	Conditions of Approval: <i>Site Supervisor Dehnto &amp; remediate area as per NMOCD guide. Submit final</i>		Attached <input type="checkbox"/>
Date: <b>09/03/2014</b>	Phone: <b>575-391-3143</b>	<b>12P-3311</b>	

\* Attach Additional Sheets If Necessary

C-141 by 11-4-14

SEP 05 2014

Ogria 217817  
F101924 747539  
N101424 747857  
P101424 748053

# Appendix B

## Laboratory Analysis

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





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

July 28, 2015

KYLE NORMAN

BASIN ENVIRONMENTAL - HOBBS

419 W. CAIN

HOBBS, NM 88240

RE: MCA UNIT STATION #2

Enclosed are the results of analyses for samples received by the laboratory on 07/22/15 9:45.

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: 07/22/2015  
Reported: 07/28/2015  
Project Name: MCA UNIT STATION #2  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 07/20/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: POINT 1 AUGER @ 6" (H501900-01)**

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	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTEX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3000	16.0	07/28/2015	ND	400	100	400	7.69		

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	07/23/2015	ND	191	95.5	200	0.718	
DRO >C10-C28	<10.0	10.0	07/23/2015	ND	190	94.9	200	1.01	

Surrogate: 1-Chlorooctane 95.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 105 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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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:	07/22/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	MCA UNIT STATION #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 1 AUGER @ 1' (H501900-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTEx	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 85.6-137

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	07/28/2015	ND	400	100	400	7.69	

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	07/23/2015	ND	191	95.5	200	0.718	
DRO >C10-C28	<10.0	10.0	07/23/2015	ND	190	94.9	200	1.01	

Surrogate: 1-Chlorooctane 101 % 47.2-157

Surrogate: 1-Chlorooctadecane 113 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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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: 07/22/2015  
Reported: 07/28/2015  
Project Name: MCA UNIT STATION #2  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 07/20/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: POINT 1 AUGER @ 2.5' (H501900-03)**

BTEx 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/27/2015	ND	2.03	102	2.00	8.11		
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56		
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81		
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18		
Total BTEx	<0.300	0.300	07/27/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	07/28/2015	ND	400	100	400	7.69	

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	07/23/2015	ND	191	95.5	200	0.718	
DRO >C10-C28	<10.0	10.0	07/23/2015	ND	190	94.9	200	1.01	

Surrogate: 1-Chlorooctane 85.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 95.3 % 52.1-176

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\*=Accredited Analyte

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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:	07/22/2015	Sampling Date:	07/14/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	MCA UNIT STATION #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 2 AUGER @ SURFACE (H501900-04)**

BTX 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	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/28/2015	ND	400	100	400	7.69	

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	07/23/2015	ND	191	95.5	200	0.718	
DRO >C10-C28	<10.0	10.0	07/23/2015	ND	190	94.9	200	1.01	

Surrogate: 1-Chlorooctane 90.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 99.2 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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

Received:	07/22/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	MCA UNIT STATION #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 2 AUGER @ 6" (H501900-05)**

BTX 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	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	07/28/2015	ND	400	100	400	7.69	

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	07/23/2015	ND	191	95.5	200	0.718	
DRO >C10-C28	23.7	10.0	07/23/2015	ND	190	94.9	200	1.01	

Surrogate: 1-Chlorooctane 83.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 95.0 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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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:	07/22/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	MCA UNIT STATION #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 3 AUGER @ 6" (H501900-06)**

BTX 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	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	07/28/2015	ND	400	100	400	7.69	

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	07/23/2015	ND	191	95.5	200	0.718	
DRO >C10-C28	<10.0	10.0	07/23/2015	ND	190	94.9	200	1.01	

Surrogate: 1-Chlorooctane 81.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 89.9 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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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:	07/22/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	MCA UNIT STATION #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 3 AUGER @ 1' (H501900-07)**

BTX 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	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	07/28/2015	ND	400	100	400	7.69	

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	07/23/2015	ND	191	95.5	200	0.718	
DRO >C10-C28	<10.0	10.0	07/23/2015	ND	190	94.9	200	1.01	

Surrogate: 1-Chlorooctane 81.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 90.8 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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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:	07/22/2015	Sampling Date:	07/20/2015
Reported:	07/28/2015	Sampling Type:	Soil
Project Name:	MCA UNIT STATION #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 3 AUGER @ 3' (H501900-08)**

BTX 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	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	07/28/2015	ND	400	100	400	7.69	

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	07/23/2015	ND	191	95.5	200	0.718	
DRO >C10-C28	<10.0	10.0	07/23/2015	ND	190	94.9	200	1.01	

Surrogate: 1-Chlorooctane 88.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 97.0 % 52.1-176

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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

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Celey D. Keene, Lab Director/Quality Manager



# ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603  
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: ConocoPhillips				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: Kyle Norman				P.O. #:				<div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div>											
Address: 419 W Cain				Company: Basin															
City: Hobbs		State: NM Zip: 88240		Attn:															
Phone #: 575-393-2967		Fax #: 575-393-0293		Address: 419 W Cain															
Project #:		Project Owner:		City: Hobbs															
Project Name: <i>COP</i>				State: NM Zip: 88240															
Project Location: <i>MCA Unit Station No 2</i>				Phone #: 575-393-2967															
Sampler Name: <i>Chris Flores</i>				Fax #: 575-393-0293															
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME					
<i>H501900</i>																			
<i>1</i>	<i>Point 1 Auger @ 6"</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>7-20-2015</i>	<i>11:30 AM</i>	<i>X</i>	<i>X</i>	<i>X</i>		
<i>2</i>	<i>Point 1 Auger @ 1'</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>(</i>	<i>1:00 PM</i>	<i>X</i>	<i>X</i>	<i>X</i>		
<i>3</i>	<i>Point 1 Auger @ 2.5'</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>(</i>	<i>1:15 PM</i>	<i>X</i>	<i>X</i>	<i>X</i>		
<i>4</i>	<i>Point 2 Auger @ Surface</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>7-14-2015</i>	<i>1:35 PM</i>	<i>X</i>	<i>X</i>	<i>X</i>		
<i>5</i>	<i>Point 2 Auger @ 6"</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>7-20-2015</i>	<i>11:35 AM</i>	<i>X</i>	<i>X</i>	<i>X</i>		
<i>6</i>	<i>Point 3 Auger @ 6"</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>(</i>	<i>11:40 AM</i>	<i>X</i>	<i>X</i>	<i>X</i>		
<i>7</i>	<i>Point 3 Auger @ 1'</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>(</i>	<i>1:25 PM</i>	<i>X</i>	<i>X</i>	<i>X</i>		
<i>8</i>	<i>Point 3 Auger @ 3'</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>(</i>	<i>1:45 PM</i>	<i>X</i>	<i>X</i>	<i>X</i>		

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Relinquished By:	Date: <i>7-22-2015</i>	Received By:	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
<i>Chris Flores</i>	Time: <i>9:45</i>	<i>Jodi Benson</i>	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		email results: hconder@basinenv.com; knorman@basinenv.com; jkamplain@basinenv; lflores@basinenv; lweinheimer@basinenv; cursanic@basinenv; sedwards@basinenv environmental tech: cflores @basinenv	
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	(Initials) <i>[Signature]</i>		

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

*#54*

# Appendix C

Photo Documentation

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



# ConocoPhillips MCA Unit Station No. 2

Unit Letter C, Section 28, T17S, R32E



Initial release area, facing southeast

7/20/15



Initial release area, facing northeast

7/20/15



Initial release area, facing northeast

7/20/15