

# **CONOCOPHILLIPS**

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

# MCA Transfer Line

1RP-3373

# Corrective Action Plan

Release Date: December 13<sup>th</sup>, 2013

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



CONSULTING & SAFETY

PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

# October 30th, 2014

# Dr. Tomáš Oberding, PhD

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 Transfer Line (1RP-3373) UL/C sec. 28 T17S R32E

Dr. Oberding:

ConocoPhillips (CoP) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

# **Background and Previous Work**

The site is located approximately 3.1 miles southwest of Maljamar, New Mexico. The initial C-141 states that the release is situated in UL/C; however, GPS mapping shows the site is situated in UL/B sec. 28 T17S R32E. NM OSE and BLM records indicate that groundwater will likely be encountered at a depth of approximately 70 +/- feet.

On December 13<sup>th</sup>, 2013, a buried 8 inch fiberglass line was struck by a track-hoe while installing a new line. The line released 25 barrels of produced water, none of which was recovered. The line was identified and shut in. The release covered 14,704 square feet of open trench, caliche road and pasture land. NMOCD and BLM were notified of the release on December 13<sup>th</sup>, 2014, and an initial C-141 was sent to both parties. NMOCD approved the initial C-141 on October 10<sup>th</sup>, 2014 (Appendix A).

RECS personnel were on site to visually assess the release on December 20<sup>th</sup>, 2013. The release was mapped and photographed. Based on the visual assessment, a hydro-vac was used to remove the wet material from the trench. Once all the wet material was removed, samples were taken from the north wall of the trench and two auger points were installed in the base of the trench. As the auger points were advanced, samples were taken at varying depths and field tested for chlorides and organic vapors. Representative samples from both the auger points and the three wall samples were taken to a commercial laboratory for analysis (Appendix B). Laboratory results from the wall samples confirmed chloride, Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX readings at or near non-detectable levels. Laboratory sampling from both auger points revealed elevated chloride readings with depth. GRO, DRO and BTEX readings

in Auger Point 1 returned values at or near non-detectable levels at all depths. In Auger Point 2, GRO, DRO and BTEX readings were elevated at the 3 ft bgs. However, the readings declined to non-detectable levels at 12 ft bgs, except for the DRO reading, which returned a result of 17.7 mg/kg. Given the elevated chloride readings with depth in both auger points, RECS installed a 20-mil reinforced poly liner measuring 130 ft x 4 ft throughout the base of the trench (Figure 1). NMOCD verbally approved the liner installation in the trench on January 8<sup>th</sup>, 2014.

On October 10<sup>th</sup>, 2014, seven points within the remainder of the release area were sampled at the surface and with depth. The soil samples were field tested for chlorides and organic vapors, and the samples were then sent to a commercial laboratory for analysis. Points 1 and 2 and Points 4 through 7 returned laboratory chloride readings below regulatory standards with depth. Point 3 returned laboratory chloride values of 7,330 mg/kg at the surface and 80 mg/kg at 2 ft bgs. GRO, DRO and BTEX readings returned values of non-detect at all points at all depths, except at the surface of Point 6, where the DRO reading was 20.8 mg/kg.

Photo Documentation of all the field activities can be found in Appendix C.

# **Corrective Action Plan**

Based on the laboratory analysis of the release, the area around Point 3 will be excavated to a depth of 2 ft bgs (Figure 2). To provide for the safety of equipment and personnel, the excavation will remain 3-5 ft from the active pipelines. Once the excavation is completed, a bottom composite will be taken and field tested for chlorides. If the field data indicates that the composite will not achieve a chloride reading below regulatory standards, the scrape will be deepened until field testing indicates that the chloride reading from the bottom composite will be below regulatory standards. The bottom composite will then be taken to a commercial laboratory to confirm that the chloride reading is below regulatory standards.

All excavated soil will be taken to a NMOCD approved facility for disposal. Clean top soil will be imported to the site to serve 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 imported soil and contoured to the surrounding location. All disturbed areas in the pasture will be seeded with a blend of native vegetation.

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

RECS 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,

Lara Weinheimer

RECS (575) 441-0431

**Project Scientist** 

# Attachments:

Figure 1 – Initial Sampling Data

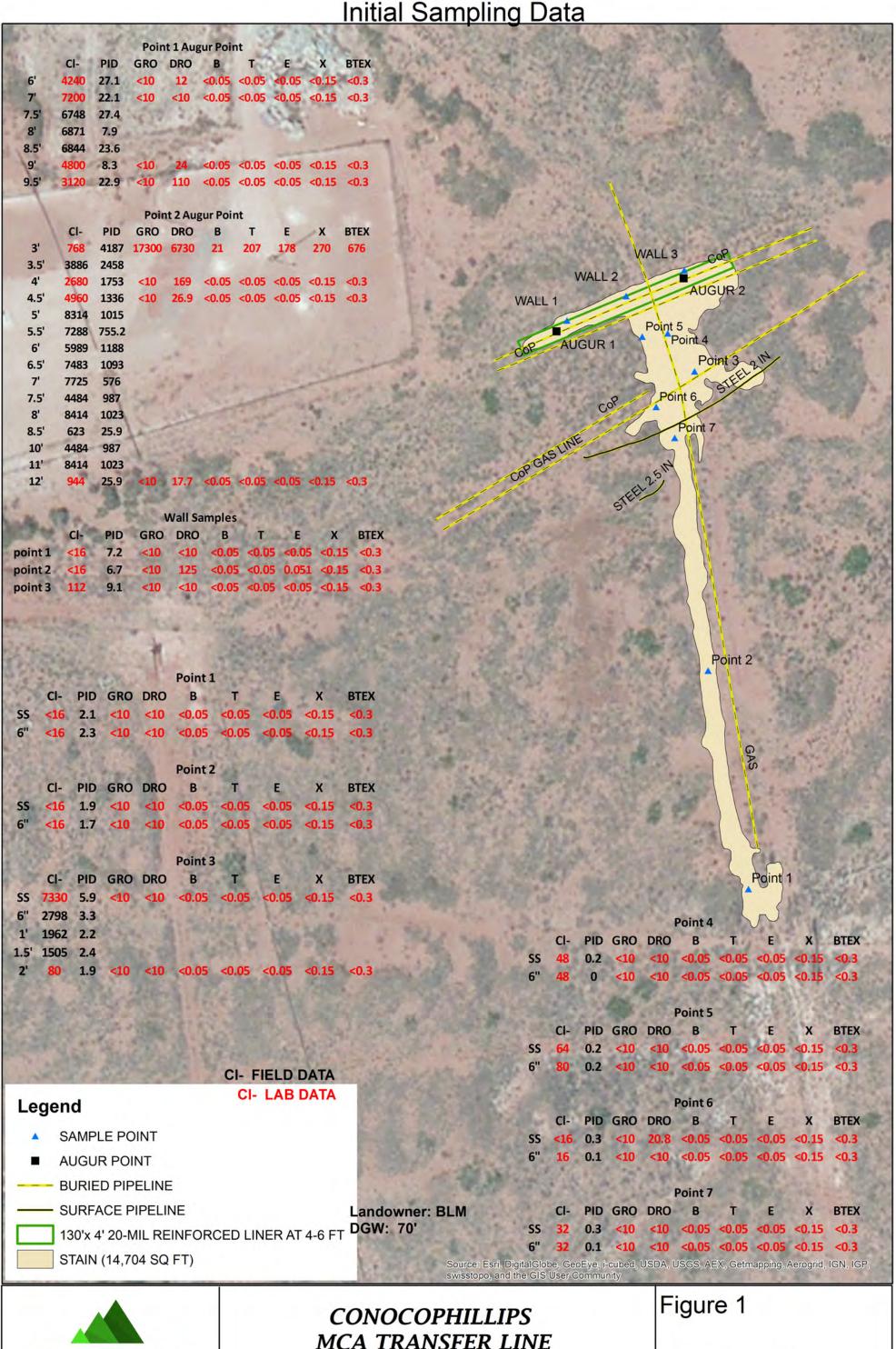
Figure 2 – Excavation Map

Appendix A – Initial C-141

Appendix B – Lab Analyses

Appendix C – Photo Documentation

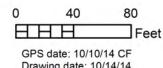
# Figures





# MCA TRANSFER LINE

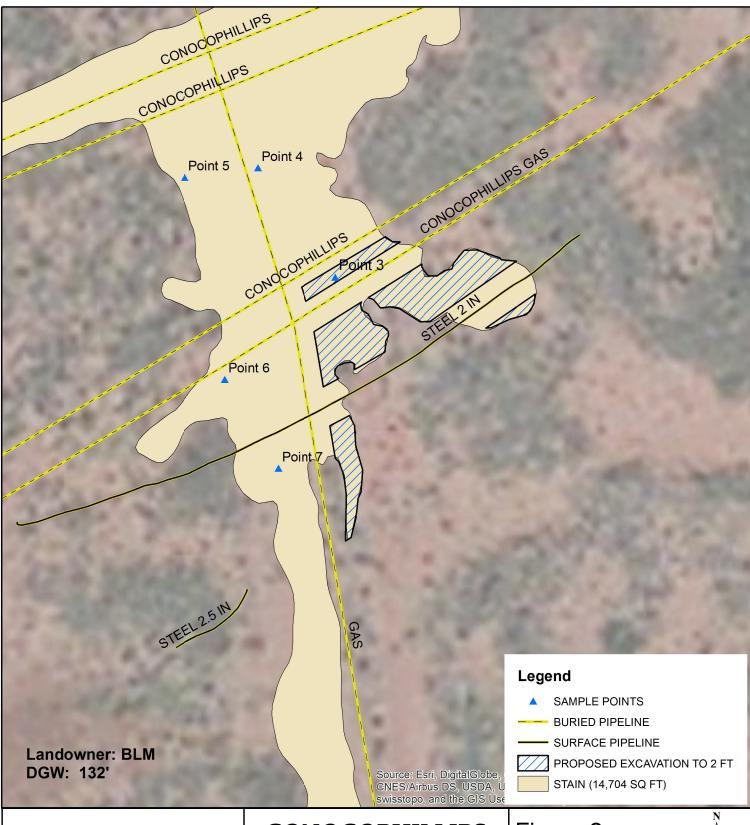
LEGALS: UL/B SEC. 28 T17S R32E LEA COUNTY, NM



Drawing date: 10/14/14 Drafted by: L. Weinheimer



# **Excavation Map**





# CONOCOPHILLIPS MCA TRANSFER LINE

LEGALS: UL/B SEC. 28 T17S R32E LEA COUNTY, NM

# Figure 2



0 10 20 HHH Feet

GPS date: 8/19/14 KS, 10/10/14 CF Drawing date: 10/22/14 Drafted by: L. Weinheimer, T. Grieco

# Appendix A Initial C-141

# HOBBS OCD

District 1 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 OCTENERRY Minerals and Natural Resources

Form C-141 Revised August 8, 2011

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

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

			Rele	ease Notific	atior	and Co	orrective A	ction	1					
						<b>OPERA</b>	ГOR		Initi	al Report		Final Report		
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Facility Na		st County Ro	oau			Facility Type	No. <b>575-391-31</b> 0 oe: Pineline			•				
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Surface Ow	mer: reger	aı		Mineral O	wner:	N/A			API No. Fed Lse No					
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Unit Letter C	Section 28	Township 17S	Range 32E	Feet from the 680'	North/ North	South Line Line	Feet from the -1980'	East/\   West	West Line	County LEA				
	I	Latitude3	2.811020	02208679		Longitu	de103.7735	837518	37					
				NAT	URE	OF REL	EASE							
Type of Rele Source of Re				<del></del> .			Release: 25 BBL lour of Occurrence			Recovered:				
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By Whom? J							lour: 12/13/13 14							
Was a Water	course Reac		Yes 🗵	No		If YES, Vo	olume Impacting t	he Wate	ercourse.					
If a Watercon	urse was Im	pacted, Descri	be Fully.	ŧ										
N/A														
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I hereby certi regulations al public health should their cor the environ	fy that the i il operators or the envir operations h nment. In a	nformation gi are required to conment. The ave failed to a	ven above o report an acceptance dequately CD accep	is true and completed of file certain release of a C-141 report investigate and relations of a C-141 relations of a C-141 relations.	te to the lease not the total the tease not the tease not the tease neediate	ne best of my otifications as NMOCD m contaminati	knowledge and und perform correct arked as "Final Roon that pose a three the operator of a second control	tive act eport" d eat to gr responsi	ions for rel loes not rel round wate ibility for c	eases which ieve the ope r, surface w ompliance v	n may en crator of ater, hur with any	ndanger Tliability man health		
Signature: 90	OSE A ZET	PEDA					OIL CON	SERV	ATION	DIVISIO	<u> </u>			
Printed Name	e: Jose A Ze	peda				Approved by	Enwironmental Sp	pecialis	t:					
Title: LEAD	HSE				-		e: 10-10-14			Date: 12	-10-19	7		
E-mail Addre	ess: <b>Jose.</b>	A. Zepeda	@conoc	ophillips.com		Conditions of	Approval: 5.74e Deluste Emis muds. Sul 11-10-14	Soyles lake lake	ns an pr funl	Attached	ı 🗀			
Date: 12/13/1				Phone: 575-391-3	58	C-141 by	12-10-14			IRP-	377			
Attach Addit	tional Char	te If Necess	arst								na ki d	<b>よ/コタ/フ</b>		

# Appendix B Lab Analyses



January 09, 2014

JACOB KAMPLAIN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: MCA TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/08/14 16:35.

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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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.

Celey D. Keens

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



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/07/2014

Reported: 01/09/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: PT. 1 WALL (H400065-01)

BTEX 8021B	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	< 0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	
DRO >C10-C28	<10.0	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	94.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	104 9	% 63.6-15	4						

# Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/07/2014

Reported: 01/09/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Sample ID: PT. 2 WALL (H400065-02)

**NOT GIVEN** 

Project Location:

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	0.051	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	
DRO >C10-C28	125	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	86.8	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	91.7	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/07/2014

Reported: 01/09/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

### Sample ID: PT. 3 WALL (H400065-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	< 0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	< 0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	
DRO >C10-C28	<10.0	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	89.8	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	88.1	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/07/2014

Reported: 01/09/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

### Sample ID: PT. 1 @ 6' (H400065-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	<0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4240	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	
DRO >C10-C28	12.0	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	88.3	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	89.4	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/07/2014

Reported: 01/09/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

### Sample ID: PT. 1 @ 7' (H400065-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	<0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 9	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7200	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	
DRO >C10-C28	<10.0	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	89.5	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	88.6	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/07/2014

Reported: 01/09/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Sample ID: PT. 1 @ 9' (H400065-06)

**NOT GIVEN** 

96.7 %

63.6-154

Project Location:

Surrogate: 1-Chlorooctadecane

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	<0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	
	24.0	10.0	01/09/2014	ND	178	89.2	200	7.01	

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/07/2014

Reported: 01/09/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

### Sample ID: PT. 1 @ 9.5 (H400065-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	<0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3120	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	
DRO >C10-C28	110	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	89.0								

Surrogate: 1-Chlorooctadecane 91.2 % 63.6-154

Cardinal Laboratories \*=Accredited Analyte

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#### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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# ARDINAL LA

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

# 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

Company Name	RECS					0.7011010101010101010101010101	ILL TO						ANAL	YSIS	RE	QUE	ST		
Project Manager			-		P.0											1			
Address:					Con	npany:							S						
City: Hobbs	State: NIV	Zi <sub>l</sub>	<b>):</b> 88	3240	Attr	ı:							Cations/Anions					İ	
Phone #:	Fax #:				Add	lress:		-			·		\ I						
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Project Name:					Stat	ie:	Zip:		ĕ	5	×	ТРН	üC					ļ	
Project Location	: MCA Transfer line	<u>.</u>			Pho	ne #:	1		Chlorides	801	BTEX	S	ati(	TDS				1	
Sampler Name:	•				Fax				] 은		BT	Texas	Ö	F				-	
FOR LAB USE ONLY	,		Г	MATRIX		PRESER	V. SAMPI	ING	ᄗ	F		<u>(a</u>	te						
Lab I.D. Ĥ4000 <b>6</b> ≸	Sample I.D.	(G)RAB OR (C)OMP	NTAINE	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER:	ACID/BASE:	DATE	TIME					Complete						
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Relinquished By:	Date 4 14	Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #:  Fax Result: ☐ Yes ☑ No Add'l Fax #:
1 Cyle Schnadt	11/23/35	GOOL HEULDY	REMARKS:
Relinquished By:	Date:	Redeived By:	email results
	Time:		Knorman@rice-ecs.com
Delivered By: (Circle One)	· .	Sample Condition CHECKED BY	
Sampler - UPS - Bus - Other:		Cool Intact (Infilals)  Ves Ves	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

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

RUSH!!



January 13, 2014

JACOB KAMPLAIN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: MCA TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 01/08/14 16:35.

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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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.

Celes D. Keens

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



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/08/2014

Reported: 01/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: PT. 2 @ 3' (H400066-01)

BTEX 8021B	mg,	'kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	21.0	5.00	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	207	5.00	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	178	5.00	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	270	15.0	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	676	30.0	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	130	% 89.4-12	6						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: ms					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	6730	200	01/09/2014	ND	176	88.2	200	7.91	
DRO >C10-C28	17300	200	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	260	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	414	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/08/2014

Reported: 01/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Sample ID: PT. 2 @ 4.5' (H400066-02)

NOT GIVEN

Project Location:

DRO >C10-C28

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	<0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 89.4-12	6						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4960	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	

ND

178

89.2

200

7.01

01/09/2014

Surrogate: 1-Chlorooctane 90.2 % 65.2-140 Surrogate: 1-Chlorooctadecane 92.1 % 63.6-154

26.9

10.0

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/08/2014

Reported: 01/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

### Sample ID: PT. 2 @ 4' (H400066-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47	
Ethylbenzene*	<0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46	
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54	
Total BTEX	<0.300	0.300	01/09/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2680	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	
DRO >C10-C28	169	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	95.8	% 65.2-14	0						

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 01/08/2014 Sampling Date: 01/08/2014

Reported: 01/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Sample ID: PT.2 @ 12' (H400066-04)

NOT GIVEN

Project Location:

DRO >C10-C28

Surrogate: 1-Chlorooctadecane

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40	
Toluene*	<0.050	0.050	01/00/2014	ND	1 95	02.5	2.00	2 47	

Benzene*	<0.050	0.050	01/09/2014	ND	1.86	93.1	2.00	2.40
Toluene*	<0.050	0.050	01/09/2014	ND	1.85	92.5	2.00	2.47
Ethylbenzene*	<0.050	0.050	01/09/2014	ND	1.90	94.8	2.00	2.46
Total Xylenes*	<0.150	0.150	01/09/2014	ND	5.64	93.9	6.00	1.54
Total BTEX	<0.300	0.300	01/09/2014	ND				

Surrogate: 4-Bromofluorobenzene (PID 103 % 89.4-126

Chloride, SM4500Cl-B	mg	mg/kg		d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	944	16.0	01/09/2014	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/09/2014	ND	176	88.2	200	7.91	

ND

178

89.2

200

7.01

01/09/2014

Surrogate: 1-Chlorooctane 89.2 % 65.2-140

17.7

93.4 %

10.0

63.6-154

Cardinal Laboratories \*=Accredited Analyte

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### **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.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

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# RDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	RECS								-	BIL	470					- 1	NAL	YSIS R	EQUEST	
Project Manager	Jacob Kamplain						F	.0. #	t:											
Address:	•						C	omp	any	:							2			
City: Hobbs	State: NM	Zip	: 88	240			1	ttn:									Cations/Anions			
Phone #:	Fax #:						1	ddre	ess:					_			A			
Project #:	Project Owne	r:					0	ity:					S	Σ		포	S/			
Project Name:							1	tate	:	- 2	Zip:		g	15	×	비비	<u>0</u>	co		
Project Location	1: MCA Transfer line						F	hon	e #:				1.5	801	BTEX	S	at	TDS		
Sampler Name:		_	_	_			_	ax#	_				Chlorides	PH	m	Texas TPH		-		
FOR LAB USE ONLY					MA	TRIX		PF	RESE	RV.	SAMPLI	NG	10	6		H	ete		1 1 1	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	AN	GROUNDWATER	SOIL	OIL	SLUDGE	ACID/BASE:		OTHER:	DATE	TIME	V	1/	V		Complete			
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5	0+3@4' 0+3@12'	6	1		X			+	D	$\Box$	)	2:20	K	X	K					
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	nd Damages, Cardinal's liability and client's exclusive remedy fo										. De see et co	id by the elect t	lar the							

service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiarie 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.

Relinguished By:	Date://	Received By:		Phone Result:	□ Yes	☑ No	Add'I Phone #:
(1 (1 1)	118014 Time:	- Andi No	MARIA	Fax Result; REMARKS:	□ Yes	☑ No	Add'l Fax #:
Relinquished By:	Date:	Received By:	mer C	email resi	ults		
	Time:	V		Knorman			om ; jkamplain@rice-ecs.com
Delivered By: (Circle One)		Sample Condition Cool Intact	CHECKED BY:	hconder@	price-e	CS.COI	m; Lweinheimer@rice-ecs.com
Sampler - UPS - Bus - Other:		Ves Ves	GIN	1 Sam	ple ic	a	ried as our Lora. [10114]

† Cardinal cannot accept verbal changes. Please fax written changes to



August 22, 2014

JACOB KAMPLAIN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: MCA TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 08/19/14 16:10.

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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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.

Celey D. Keine

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



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 08/19/2014 Sampling Date: 08/19/2014

Reported: 08/22/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: PT. 1 @ SURFACE (H402543-01)

BTEX 8021B	mg/	kg	Analyze	d By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2014	ND	1.80	89.8	2.00	5.15	
Toluene*	< 0.050	0.050	08/20/2014	ND	1.65	82.6	2.00	4.46	
Ethylbenzene*	< 0.050	0.050	08/20/2014	ND	1.84	91.8	2.00	4.49	
Total Xylenes*	<0.150	0.150	08/20/2014	ND	5.47	91.1	6.00	5.21	
Total BTEX	<0.300	0.300	08/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/20/2014	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2014	ND	187	93.3	200	1.35	
DRO >C10-C28	<10.0	10.0	08/20/2014	ND	194	96.9	200	2.36	
Surrogate: 1-Chlorooctane	95.6	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	110 %	63.6-15	4						

# 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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 08/19/2014 Sampling Date: 08/19/2014

Reported: 08/22/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: PT. 1 @ 6" (H402543-02)

BTEX 8021B	mg/	kg	Analyze	d By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2014	ND	1.80	89.8	2.00	5.15	
Toluene*	<0.050	0.050	08/20/2014	ND	1.65	82.6	2.00	4.46	
Ethylbenzene*	<0.050	0.050	08/20/2014	ND	1.84	91.8	2.00	4.49	
Total Xylenes*	<0.150	0.150	08/20/2014	ND	5.47	91.1	6.00	5.21	
Total BTEX	<0.300	0.300	08/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/20/2014	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2014	ND	187	93.3	200	1.35	
DRO >C10-C28	<10.0	10.0	08/20/2014	ND	194	96.9	200	2.36	
Surrogate: 1-Chlorooctane	96.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	111 %	63.6-15	4						

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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 08/19/2014 Sampling Date: 08/19/2014

Reported: 08/22/2014 Sampling Type: Soil

Project Name:MCA TRANSFER LINESampling Condition:Cool & IntactProject Number:NONE GIVENSample Received By:Jodi HensonProject Location:NOT GIVEN

# Sample ID: PT. 2 @ SURFACE (H402543-03)

BTEX 8021B	mg/	kg	Analyze	d By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2014	ND	1.80	89.8	2.00	5.15	
Toluene*	<0.050	0.050	08/20/2014	ND	1.65	82.6	2.00	4.46	
Ethylbenzene*	<0.050	0.050	08/20/2014	ND	1.84	91.8	2.00	4.49	
Total Xylenes*	<0.150	0.150	08/20/2014	ND	5.47	91.1	6.00	5.21	
Total BTEX	<0.300	0.300	08/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/20/2014	ND	416	104	400	3.92	
TPH 8015M	mg/	'kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2014	ND	187	93.3	200	1.35	
DRO >C10-C28	<10.0	10.0	08/20/2014	ND	194	96.9	200	2.36	
Surrogate: 1-Chlorooctane	96.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	109 9	% 63.6-15	4						

# 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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Freene



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 08/19/2014 Sampling Date: 08/19/2014

Reported: 08/22/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: PT. 2 @ 6" (H402543-04)

BTEX 8021B	mg/	kg	Analyze	d By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	08/20/2014	ND	1.80	89.8	2.00	5.15	
Toluene*	<0.050	0.050	08/20/2014	ND	1.65	82.6	2.00	4.46	
Ethylbenzene*	<0.050	0.050	08/20/2014	ND	1.84	91.8	2.00	4.49	
Total Xylenes*	<0.150	0.150	08/20/2014	ND	5.47	91.1	6.00	5.21	
Total BTEX	<0.300	0.300	08/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/20/2014	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2014	ND	187	93.3	200	1.35	
DRO >C10-C28	<10.0	10.0	08/20/2014	ND	194	96.9	200	2.36	
Surrogate: 1-Chlorooctane	95.2 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	111 %	63.6-15	4						

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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 08/19/2014 Sampling Date: 08/19/2014

Reported: 08/22/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

### Sample ID: PT. 3 @ SURFACE (H402543-05)

BTEX 8021B	mg/	kg	Analyze	d By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2014	ND	1.80	89.8	2.00	5.15	
Toluene*	<0.050	0.050	08/20/2014	ND	1.65	82.6	2.00	4.46	
Ethylbenzene*	<0.050	0.050	08/20/2014	ND	1.84	91.8	2.00	4.49	
Total Xylenes*	<0.150	0.150	08/20/2014	ND	5.47	91.1	6.00	5.21	
Total BTEX	<0.300	0.300	08/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7330	16.0	08/20/2014	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2014	ND	187	93.3	200	1.35	
DRO >C10-C28	<10.0	10.0	08/20/2014	ND	194	96.9	200	2.36	
Surrogate: 1-Chlorooctane	96.5	% 65.2-14	0						

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 08/19/2014 Sampling Date: 08/19/2014

Reported: 08/22/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: PT. 3 @ 2' (H402543-06)

BTEX 8021B	mg/	kg	Analyze	d By: ck					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/20/2014	ND	1.80	89.8	2.00	5.15	
Toluene*	<0.050	0.050	08/20/2014	ND	1.65	82.6	2.00	4.46	
Ethylbenzene*	<0.050	0.050	08/20/2014	ND	1.84	91.8	2.00	4.49	
Total Xylenes*	<0.150	0.150	08/20/2014	ND	5.47	91.1	6.00	5.21	
Total BTEX	<0.300	0.300	08/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/20/2014	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/20/2014	ND	187	93.3	200	1.35	
DRO >C10-C28	<10.0	10.0	08/20/2014	ND	194	96.9	200	2.36	
Surrogate: 1-Chlorooctane	98.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	112 9	63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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#### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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 whistoever 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 related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Freene

# ARDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: RECS					BILL TO							ANALYSIS REQUEST											
Project Manager: Laura Flores , Fyly Norman							P.O. #:					T											
Address:							Company:						1				S			1 1			
City: Hobbs State: NM Zip: 88240							Attn:					1	9						1 1				
Phone #: Fax #:							Address:						8015 M	втех	з ТРН	Cations/Anions							
Project #: Project Owner:							City:					1											
Project Name:								State: Zip:									es						
Project Location: M& A Transfer line							Phone #:					Chlorides					TDS		1 1				
Sampler Name: Kyle Schnaidt						Fax #:						1은		BT	Ka	Ö	=						
FOR LAB USE ONLY	1	T.	Т			MATRIX			PRESERV.		1	SAMPLING		Ö	TPH,	_	Texas						
Lab I.D.	Sample I.D.	(G)RAB OR (C)ON	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL OTHER:		DATE	TIME					Complete					
1	Point I @ Sorface	6	X		3				1	$\langle$		9-19-14	2:00	X	X	X							
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3	foint 2@ surface	6	1	Ш		(	L	L		X	L	1	2:10	X	×	K							
4	Point 2@ 6	6	ļ.			< <	+	-		ζ	L	1	2:15	X	X	X,		_		_	$\perp$	_	
5	Point 3 @ Sortace	6	1,	Н		×	+	$\vdash$	1	X	H	)	2:20	N	. /	X.		-		+	+		1
4	Point3@2'	6	1	Н	- 1	X	+	+	H	1	Ͱ	/	2:25	12	X	X			-	-	+	_	
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PLEASE NOTE: Liability at	nd Damages. Cardinal's liability and client's exclusive remedy for	any dai	m arisi	no whe	ther ha	sed in c	ontrac	t or to	f shall t	a limited	to th	ne amount nai	d by the client fo	r the							-		

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 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 30 days after completion of the applicable service. In no event shall Cardinal be faible for incidental or consequental damages, including without little, business in 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.

Relinquished By:	Date:	Received By:	Phone Result:	□ Yes ☑ No	Add'l Phone #:					
16.1.56.1	8-14-14 Time: 10	Andi William	Fax Result: REMARKS:	□ Yes ☑ No	Add'I Fax #:					
Relinquished By:	Date:	Received By:	lweinheimer	email: hconder@riceswd.com; lflores@rice-ecs.com; lweinheimer@rice-ecs.com; knorman@rice-ecs.com; jkamplain@rice-ecs.com; sedwards@rice-ecs.com;						
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition CHECK Cool Intact (Initial Pres 1 Yes	PBY:	ce-ecs.com						

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476





October 13, 2014

KYLE NORMAN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: MCA TRANSFER LINE

Enclosed are the results of analyses for samples received by the laboratory on 10/10/14 14:40.

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 <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated 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.

Celey D. Keine

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



RICE ENVIRONMENTAL CONSULTING & SAFETY

KYLE NORMAN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/10/2014 Sampling Date: 10/10/2014

Reported: 10/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Celey D. Keene

Project Location: NOT GIVEN

#### Sample ID: POINT 4 AUGER @ SURFACE (H403126-01)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2014	ND	1.73	86.7	2.00	1.98	
Toluene*	< 0.050	0.050	10/13/2014	ND	1.67	83.4	2.00	2.16	
Ethylbenzene*	<0.050	0.050	10/13/2014	ND	1.60	79.9	2.00	3.62	
Total Xylenes*	<0.150	0.150	10/13/2014	ND	4.77	79.5	6.00	3.41	
Total BTEX	<0.300	0.300	10/13/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	6 61-154							
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/13/2014	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2014	ND	178	88.9	200	0.0506	
DRO >C10-C28	<10.0	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	107 %	6 47.2-15%	7						
Surrogate: 1-Chlorooctadecane	114 %	6 52.1-170	5						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY

KYLE NORMAN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/10/2014 Sampling Date: 10/10/2014

Reported: 10/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Celey D. Keene

Project Location: NOT GIVEN

#### Sample ID: POINT 4 AUGER @ 6" (H403126-02)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2014	ND	1.73	86.7	2.00	1.98	
Toluene*	< 0.050	0.050	10/13/2014	ND	1.67	83.4	2.00	2.16	
Ethylbenzene*	< 0.050	0.050	10/13/2014	ND	1.60	79.9	2.00	3.62	
Total Xylenes*	< 0.150	0.150	10/13/2014	ND	4.77	79.5	6.00	3.41	
Total BTEX	<0.300	0.300	10/13/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	61-154	!						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/13/2014	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2014	ND	178	88.9	200	0.0506	
DRO >C10-C28	<10.0	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	93.5 9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	98.3	% 52.1-17	6						

Cardinal Laboratories \*=Accredited Analyte

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KYLE NORMAN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/10/2014 Sampling Date: 10/10/2014

Reported: 10/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Celey D. Keene

Project Location: NOT GIVEN

#### Sample ID: POINT 5 AUGER @ SURFACE (H403126-03)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2014	ND	1.73	86.7	2.00	1.98	
Toluene*	<0.050	0.050	10/13/2014	ND	1.67	83.4	2.00	2.16	
Ethylbenzene*	<0.050	0.050	10/13/2014	ND	1.60	79.9	2.00	3.62	
Total Xylenes*	<0.150	0.150	10/13/2014	ND	4.77	79.5	6.00	3.41	
Total BTEX	<0.300	0.300	10/13/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	61-154							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	10/13/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2014	ND	178	88.9	200	0.0506	
DRO >C10-C28	<10.0	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	98.6	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	105 9	52.1-17	6						

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**KYLE NORMAN** 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/10/2014 Sampling Date: 10/10/2014

Reported: 10/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact Sample Received By: Celey D. Keene Project Number: NONE GIVEN

Project Location: **NOT GIVEN** 

#### Sample ID: POINT 5 AUGER @ 6" (H403126-04)

BTEX 8021B	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2014	ND	1.73	86.7	2.00	1.98	
Toluene*	<0.050	0.050	10/13/2014	ND	1.67	83.4	2.00	2.16	
Ethylbenzene*	<0.050	0.050	10/13/2014	ND	1.60	79.9	2.00	3.62	
Total Xylenes*	<0.150	0.150	10/13/2014	ND	4.77	79.5	6.00	3.41	
Total BTEX	<0.300	0.300	10/13/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 61-154							
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/13/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2014	ND	178	88.9	200	0.0506	
DRO >C10-C28	<10.0	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	109 9	% 47.2-15	7						
C 1 CH 1	115 (		,						

115 % 52.1-176 Surrogate: 1-Chlorooctadecane

Cardinal Laboratories \*=Accredited Analyte

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HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/10/2014 Sampling Date: 10/10/2014

Reported: 10/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Celey D. Keene

Project Location: NOT GIVEN

#### Sample ID: POINT 6 AUGER @ SURFACE (H403126-05)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2014	ND	1.73	86.7	2.00	1.98	
Toluene*	<0.050	0.050	10/13/2014	ND	1.67	83.4	2.00	2.16	
Ethylbenzene*	<0.050	0.050	10/13/2014	ND	1.60	79.9	2.00	3.62	
Total Xylenes*	<0.150	0.150	10/13/2014	ND	4.77	79.5	6.00	3.41	
Total BTEX	<0.300	0.300	10/13/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	% 61-154							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/13/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2014	ND	178	88.9	200	0.0506	
DRO >C10-C28	20.8	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	106 9	% 47.2-15	7						

Surrogate: 1-Chlorooctadecane 112 % 52.1-176

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KYLE NORMAN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/10/2014 Sampling Date: 10/10/2014

Reported: 10/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Celey D. Keene

Project Location: NOT GIVEN

#### Sample ID: POINT 6 AUGER @ 6" (H403126-06)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2014	ND	1.73	86.7	2.00	1.98	
Toluene*	<0.050	0.050	10/13/2014	ND	1.67	83.4	2.00	2.16	
Ethylbenzene*	<0.050	0.050	10/13/2014	ND	1.60	79.9	2.00	3.62	
Total Xylenes*	<0.150	0.150	10/13/2014	ND	4.77	79.5	6.00	3.41	
Total BTEX	<0.300	0.300	10/13/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.5	% 61-154							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/13/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2014	ND	178	88.9	200	0.0506	
DRO >C10-C28	<10.0	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	104 %	% 47.2-15	7						

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Celeg D. Keine

Surrogate: 1-Chlorooctadecane

107 %

52.1-176



RICE ENVIRONMENTAL CONSULTING & SAFETY

KYLE NORMAN 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/10/2014 Sampling Date: 10/10/2014

Reported: 10/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Celey D. Keene

Project Location: NOT GIVEN

#### Sample ID: POINT 7 AUGER @ SURFACE (H403126-07)

110 %

52.1-176

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2014	ND	1.73	86.7	2.00	1.98	
Toluene*	<0.050	0.050	10/13/2014	ND	1.67	83.4	2.00	2.16	
Ethylbenzene*	<0.050	0.050	10/13/2014	ND	1.60	79.9	2.00	3.62	
Total Xylenes*	<0.150	0.150	10/13/2014	ND	4.77	79.5	6.00	3.41	
Total BTEX	<0.300	0.300	10/13/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.1	% 61-154							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/13/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2014	ND	178	88.9	200	0.0506	
DRO >C10-C28	<10.0	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	108 9	26 47.2-15	7						

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Celey D. Keine

Surrogate: 1-Chlorooctadecane



RICE ENVIRONMENTAL CONSULTING & SAFETY

**KYLE NORMAN** 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/10/2014 Sampling Date: 10/10/2014

Reported: 10/13/2014 Sampling Type: Soil

Project Name: MCA TRANSFER LINE Sampling Condition: Cool & Intact Project Number: Sample Received By: NONE GIVEN Celey D. Keene

Project Location: **NOT GIVEN** 

#### Sample ID: POINT 7 AUGER @ 6" (H403126-08)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2014	ND	1.73	86.7	2.00	1.98	
Toluene*	<0.050	0.050	10/13/2014	ND	1.67	83.4	2.00	2.16	
Ethylbenzene*	<0.050	0.050	10/13/2014	ND	1.60	79.9	2.00	3.62	
Total Xylenes*	<0.150	<0.150 0.150		ND	4.77	79.5	6.00	3.41	
Total BTEX	<0.300	0.300	10/13/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	% 61-154							
Chloride, SM4500Cl-B	mg/	mg/kg		d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/13/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/11/2014	ND	178	88.9	200	0.0506	
DRO >C10-C28	<10.0	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	107 9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	1169	% 52 1-17	6						

52.1-176 Surrogate: 1-Chlorooctadecane 116 %

Cardinal Laboratories \*=Accredited Analyte

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#### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

RDINAL 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

(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 F						BILL TO ANALYSIS REQUEST										_						
Company Name:	1.00.00						P.O. #:															
	Laura Flores / Kyle Norman						Company:						- 1	2					- 1			
ddress: 419 V	W Cain State: NM	7in	00'	240			Attn:							0				1 1				
city: Hobbs	Fax #:	Lip.	004	240			Address:								Cations/Anions		1					
hone #:							City:					Σ	- 1	I	l/S							
Project #:	Project Owner					Sta		-	Zip:	- 1	es	2	×	٩	-C		1 1		1 1			
	Comoco Phillips						1	Phone #:				Chlorides	6	BTEX	S	atio	TDS					
	: MCA Transfer Line							x#:				9	8	3	(a)	Ö	F					
Sampler Name:	Chrty Flones		П		MATE	RIX	_		SERV.	SAMPLI	NG	Ö	<b>TPH 8015</b>	-	Texas TPH	ete						
Lab I.D.	Sample I.D.	G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	SOIL	OIL	OTHER:	ACID/BASE:	ICE / COOL OTHER:	DATE	TIME					Complete						
0	Point 4 Auger & Surface	G			1				V	10-10-2014	12:00 PM	X	*	1			-	-	-	+ +	_	_
02	Point 4 Auger & 6"	G	1		1				1	/	12:05 PM	×	7	*	-	-	-	-		+		
US	Point 5 Auger @ Surface	G	1		V				1		12:10 PM		1	×	-	-	-	+		+		
OV	Polat 5 Auger ( 6"	G			1		1		1	1	12:15 94	1	y	×	-	-		-				
95	Point 6 Auger @ Surface	G			1		-		1	-	12:20 04		7	7	-	$\vdash$		1		1 1		
04	Point 6 Auger P 6"	G	1		1		1		1	1	12: 25 pm		+	X		-	1					
07	Point 7 Auger @ Surface	6			1		+		1	1	12:30 PM		7	*	-	1	1					
58	Point 7 Auger & Surface Point 7 Auger & "	G	1		J	1	+		1	1	15: 35 64	1^	7	×								
		1	-		-	1	+															
	Demonar Continuits inhibity and client's exclusive remedy for		in air	inc whel	ther based	in cont	act or t	ort, shall	be limite	d to the amount pe	aid by the client for	or the										

analyses. All claims including those for negligence and any other cause whatsoever shall be deemed valved 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 incidental or consequental 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 performa Relinquished By:	Date: 10-(0-2014	tation, business interruptions, coas or use, or loss or posi- ardiess of whether such claim is based upon any of the ab- rived By:	Phone Result: Fax Result: REMARKS:	☐ Yes	☑ No ☑ No	Add'l Phone #: Add'l Fax #:
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



# Appendix C Photo Documentation

## ConocoPhillips MCA Transfer Line Unit Letter C, Section 28, T17S, R32E



Initial site photo, facing northwest





Hydro-excavating, facing northeast

1/7/14



Initial site photo, facing south

12/20/13



Installing vertical, facing northwest

1/8/14



Installed liner, facing east 1/9/14



Installed liner, facing west 1/9/14