

CONOCOPHILLIPS

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

MCA Transfer Line

1RP-3373

Corrective Action Plan

Release Date: December 13th, 2013

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



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 13th, 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 13th, 2014, and an initial C-141 was sent to both parties. NMOCD approved the initial C-141 on October 10th, 2014 (Appendix A).

RECS personnel were on site to visually assess the release on December 20th, 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 8th, 2014.

On October 10th, 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,

 \sim

Lara Weinheimer Project Scientist RECS (575) 441-0431

Attachments: Figure 1 – Initial Sampling Data Figure 2 – Excavation Map Appendix A – Initial C-141 Appendix B – Lab Analyses Appendix C – Photo Documentation

Figures

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948, Hobbs, NM 88241 Phone 575.393.2967

Initial Sampling Data

Point 1 Augur Point	The second is the second
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CI- PID GRO DRO B T E X BTEX	
6' 4240 27.1 <10 12 <0.05 <0.05 <0.05 <0.15 <0.3 7' 7200 22.1 <10 <10 <0.05 <0.05 <0.05 <0.15 <0.3	The second se
7' 7200 22.1 <10 <10 <0.05 <0.05 <0.05 <0.15 <0.3 7.5' 6748 27.4	NOT THE REAL OF AN ADDRESS TO THE STREET
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Point 2 Augur Point	All and the second and the second sec
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3' 768 4187 17300 6730 21 207 178 270 676	WALL 3 COP
3.5' 3886 2458	WALL 2
4' 2680 1753 <10 169 <0.05 <0.05 <0.05 <0.15 <0.3	AUGUR 2
4.5' 4960 1336 <10 26.9 <0.05 <0.05 <0.15 <0.3	WALL 1
5' 8314 1015	Point 5
5.5' 7288 755.2 6' 5989 1188	Point
6 5989 1188 6.5' 7483 1093	Point 3 and
7' 7725 576	Point 6 STEEL
7.5' 4484 987	Point 6
8' 8414 1023	COP Point 6
8.5' 623 25.9	Point 7
10' 4484 987	COP GAS LINE 25 IN
11' 8414 1023	COP GAS
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6" <16 2.3 <10 <10 <0.05 <0.05 <0.05 <0.15 <0.3	
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CI- PID GRO DRO B T E X BTEX	ÅS
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Cl- PID GRO DRO B T E X BTEX SS <16	
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Cl- PID GRO DRO B T E X BTEX SS 416 1.9 410 400 40.05	Point 4 CI- PID GRO DRO B T E X BTEX
Cl- PID GRO DRO B T E X BTEX SS 416 1.9 410 400 40.05	Point 4 Cl- PID GRO DRO B T E X BTEX SS 48 0.2 <10

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 <0.3</td>



SS

Excavation Map



Appendix A Initial C-141

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967 District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

HOBBBS OCD

State of New Mexico MCTEnergyMinerals and Natural Resources

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

Form C-141 Revised August 8, 2011

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

Release Notification and Corrective Action OPERATOR Initial Report Final Report Name of Company: ConocoPhillips Contact: Jose A Zepeda - 3 Address: 1410 N West County Road Telephone No. 575-391-3165 Facility Name: Transfer Line Facility Type: Pipeline Surface Owner: Federal Mineral Owner: N/A API No. Fed Lse No LOCATION OF RELEASE Unit Letter Feet from the Section Township North/South Line Feet from the East/West Line County Range -1980' С 28 175 32E 680' North Line West LEA Latitude 32.8110202208679 Longitude 103.77358375187 NATURE OF RELEASE Type of Release: Produce Water Volume of Release: 25 BBLs Volume Recovered: 0 Source of Release: Transfer Line Date and Hour of Occurrence Date and Hour of Discovery 12/13/13 0850 hours SAME Was Immediate Notice Given? If YES, To Whom? Yes 🗌 No 🗌 Not Required **Geoffrey Leking** By Whom? Jose A Zepeda Date and Hour: 12/13/13 1445 hours Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. 🗌 Yes 🛛 No If a Watercourse was Impacted, Describe Fully.* N/A Describe Cause of Problem and Remedial Action Taken.* On 12/13/13 @ ~ 0850 hrs. property damage occurred resulting in a reportable release to a COPC water transfer line as excavation was being conducted for Project Group. The release occurred approximately .8 miles S of the Maljamar Office as the track-hoe was being operated by the contract excavation company operator struck a 8 inch fiberglass line that transfers produced water from Station #2 and Station #4. The area Project Lead responded after being contacted by excavation supervisor. The line was identified and shut in by the MSO. Spill volumes were calculated to be ~25 bbls of produced water with 0 bbls being recovered due to sandy condition and not being able to get a vacuum truck in the area. COPC had completed an area sweep of all line and had identified affected line and was fully identified and spotted. Contractor Equipment Operator decided to excavate in an area that was not supposed to be excavated on any longer resulting in property damage resulting in release of 25 BBL of PDW. The spill site will be remediated in accordance with COPC and NMOCD guidelines. Describe Area Affected and Cleanup Action Taken.* Pipeline Ditch and some pasture area got run off. 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. OIL CONSERVATION DIVISION Signature: JOSE A 3EPEDA Printed Name: Jose A Zepeda Approved by Environmental Specialist: Expiration Date: 12-10-14 Approval Date: 10-10-14 Title: LEAD HSE Conditions of Approval: 5778 Systems - yend Deluse Enders up NMOCD guide. Salue For E-mail Address: Jose. A. Zepeda@conocophillips.com Attached C-141 by 12-10-14 IRP- 3373 Date: 12/13/13 Phone: 575-391-3158 0g+id 217817

* Attach Additional Sheets If Necessary

OCT 1 7 2014

FTO 1428 3433 53

N704+8 343576 p TO 1428 34 3802

Appendix B Lab Analyses

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967



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 www.tceq.texas.gov/field/ga/lab_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.

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. Keine

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

Celey D. Keine

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. 2 WALL (H400065-02)

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	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	% 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

Celey D. Keine

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. 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 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	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

Celey D. Keine

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 @ 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

Celey D. Keine

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 @ 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, SM4500Cl-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

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



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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' (H400065-06)

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	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	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	
DRO >C10-C28	24.0	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	95.8	65.2-14	0						
Surrogate: 1-Chlorooctadecane	96.7	63.6-15	4						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

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 @ 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 %	% 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 \$	65.2-14	0						
Surrogate: 1-Chlorooctadecane	91.2 9	63.6-15	1						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

- ND
 Analyte NOT DETECTED at or above the reporting limit

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

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(CA)

ARDINAL LABORATORIES

Company Name:	· RECS						El	ll fo						ANAL	YSIS	RE	QUE	ST		
Project Manager	" Jacob Kamplain				Ρ.	0. #:											1			T
Address:					С	ompa	ny:							S						
City: Hobbs	State: NM	Zip: 8	8240		A	itn:								D						
Phone #:	Fax #:	-			A	ddres	s:		-					I						
Project #:	Project Owne	r:			C	ity:					Σ		T	s//						
Project Name:					S	ate:		Zip:		Chlorides	15	×	6	ü						
Project Location	1: MCA Transfor line			•	P	hone	#:			l E	801	BTEX	പ	ati	TDS					
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FOR LAB USE ONLY	Sample I.D. $p \neq 1 wall$ $p \neq 2 wall$ $p \neq 1 @ 6'$ $p \neq 1 @ 7'$ $p \neq 1 @ 7$ $p \neq 1 @ 9.5$ $p \neq 1 @ 9.5$	へていていていていていていていていていていていていていていた。 	GROUNDWATER		SLUDGE	ACID/BASE:		DATE 1-7-19	TIME 12:45 3:00 3:05 2:00 2:05 1:45 1:45	K KK KK C	HDT XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXX	Texas TPH	Complete Cations/Anions						
analyses. All claims includin service. In no event shall Ca		deemed wa g without lim Cardinal, reg Rece	nitation, b	ss made in writin usiness interrupi f whether such of By:	ig and rea ions, loss	eived by of use, o	Cardinal loss of p	within 30 days aft rofits incurred by	er completion of t client, its subsidia	the applica aries, ise Sult: It: S:	□ Ye □ Ye			Add'l Add'l	Phone # Fax #:	4:	L	I		
Sampler - UPS	Time: : (Circle One) - Bus - Other: cannot accept verbal changes. Pleas			ampie Co Cool Inta					Knorn Kjone hcond	nan(s@r	@ric ices	wd.c	om;	jkan					com	



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 www.tceq.texas.gov/field/ga/lab_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.

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. Keine

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

Celey D. Keine

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 @ 4.5' (H400066-02)

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	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	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	
DRO >C10-C28	26.9	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	90.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	92.1	% 63.6-15	4						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

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 @ 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 %	% 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 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	102 %	63.6-15	4						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

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 @ 12' (H400066-04)

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 %	% 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	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	
DRO >C10-C28	17.7	10.0	01/09/2014	ND	178	89.2	200	7.01	
Surrogate: 1-Chlorooctane	89.2 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	93.4 9	63.6-15	4						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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 SM4500CI-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

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

ompany Name: RECS	3-2326 FAX (505) 393-24									BIL	170	2.01			-	A	ANAL	YSIS R	EQUEST	 	_
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Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Time:	Sample Condition Cool Intact Yes Yes No No No	CHECKED BY: (Initials)	Kjones@	riceswo	d.com	; jkamplain@rice-ecs.com m; Lweinheimer@rice-ecs.com
† Cardinal cannot accept verb	al changes. Please fax w	ritten changes to 505-	393-2476 \$54		R	u	SH !!!



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 www.tceq.texas.gov/field/ga/lab_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.

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. Keine

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 %	% 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	95.6 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	110 %	63.6-15	4						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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 @ 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, 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	96.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	111 9	63.6-15	4						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

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. 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 %	% 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 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	109 %	63.6-15	4						

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*=Accredited Analyte

Celez D. Keine

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. 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 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	95.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	111 9	63.6-15	4						

Cardinal Laboratories

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Celez D. Keine

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. 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 9	63.6-15	4						

Cardinal Laboratories

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Celez D. Keine

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. 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 %	% 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 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	112 %	63.6-15	4						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

- ND
 Analyte NOT DETECTED at or above the reporting limit

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

Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES

Company Name: RECS						BILL TO								ANA	ANALYSIS REQUEST							
Project Manage	Manager: Laura Flores, Kyle Norman							P.O. #:						T								
Address:								c	omp	any	:							S				1 1
City: Hobbs	State: NM	Zi	p: 8	8240)			At	tn:					1				on				1 1
Phone #:	Fax #:							A	ddre	SS:								,in				1 1
Project #: Project Owner:							Ci	ty:					1.	Σ			S/P				1 1	
Project Name:						St	ate:			Zip:		Chlorides	10		TPH	Cations/Anions				1 1		
roject Locatio	n: MCA Transfer line							Ph	none	#:				1:	801	BTEX	5	atic	TDS			1 1
ampler Name:	Kyle Schnaidt							Fa	x #:					18		H H	Texas	Ű	F			
FOR LAB USE ONLY	1		Г		N	ATR	IX	r	PR	ESE	RV.	SAMPL	ING	10	TPH	-	e l	te				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME					Complete				
1	Point I@ Sorface	6	X		3					X		8-19-14	2:00	X	X	X						
NM	10. 1+2@ 6"	6	1		_	4	-			X		(2:65	9	X	X						
3	foint 2@ Surface	6	1		0	5	+	-		X	-	\rightarrow	2:10	X	X	K	_		-			+
4	Point 2 @ 6	6	+		0		+	-		S	+	6	2:15	X	X	X,	-	-			_	+
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101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

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 re Date: 8-19-14 Time: Relinquished By: Received By: Phone Result: Yes Ø No Add'l Phone #: □ Yes ☑ No Fax Result: Add'l Fax #: REMARKS: Relinquished By: Received By: Date: Time: Delivered By: (Circle One) Sample Condition CHECKED B Cool Intact Yes Yes No No

email: hconder@riceswd.com; lflores@rice-ecs.com; lweinheimer@rice-ecs.com; knorman@rice-ecs.com; jkamplain@rice-ecs.com; sedwards@rice-ecs.com; cursanic@rice-ecs.com Environmental Tech: @rice-ecs.com

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

Sampler - UPS - Bus - Other:


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 www.tceq.texas.gov/field/ga/lab_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.

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. Keine

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 %	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	107 %	6 47.2-157	7						
Surrogate: 1-Chlorooctadecane	114 %	6 52.1-170	5						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

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 @ 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 g	52.1-170	5						

Cardinal Laboratories

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Celeg D. Keine

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 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						

Cardinal Laboratories

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Celeg D. Keine

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 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 %	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 %	6 47.2-152	7						
Surrogate: 1-Chlorooctadecane	115 %	6 52.1-170	5						

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*=Accredited Analyte

Celeg D. Keine

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 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 %	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 %	6 47.2-15	7						
Surrogate: 1-Chlorooctadecane	112 %	6 52.1-17	6						

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Celeg D. Keine

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 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 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	<10.0	10.0	10/11/2014	ND	188	94.0	200	0.737	
Surrogate: 1-Chlorooctane	104 %	6 47.2-152	7						
Surrogate: 1-Chlorooctadecane	107 %	6 52.1-170	5						

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*=Accredited Analyte

Celeg D. Keine

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 7 AUGER @ SURFACE (H403126-07)

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	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	47.2-152	7						
Surrogate: 1-Chlorooctadecane	110 9	52.1-170	5						

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*=Accredited Analyte

Celeg D. Keine

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 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	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	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	47.2-152	7						
Surrogate: 1-Chlorooctadecane	116 %	6 52.1-170	5						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

- ND
 Analyte NOT DETECTED at or above the reporting limit

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

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

RUSH

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Page 11 of 11

ARDINAL LABORATORIES	ARDIN	IAI	I ABO	DRA1	ORIES
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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/ Company Name: RECS						BILL TO										ANALYSIS REQUEST								
Project Manager: Laura Flores / Kyle Norman					P.O. #:																			
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city. Hobbs						Add	Ires	s:								-	Cations/Anions							
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FOR LAB USE ONLY	(Will Flowes				N	ATR	X		PRE	SER	۲V.	S	AMPLI	NG	0	ā		е Н	ete					
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	D	ATE	TIME					Complete					
Q	Point HAnger & Surface					1				V		10-1	0-2014	12:00 PM	X	4	X	-	-	-			-	+
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affiliates or successors arising out of or related to the periodina Redinquished By:		ived By:	Phone Result: Yes No Add Phone #. Fax Result: Yes No Add'I Fax #:
Relinquished By:	Time:	ived By:	REMARKS: email results: hconder@rice-ecs.com; knorman@rice-ecs.com; jkamplain@rice-ecs.com; regans@rice-ecs.com; lflores@rice-ecs.com; lweinbeimer@rice-ecs.com; cursanic@rice-ecs.com
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	5.8°C	Sample Condition CHECKED Cool Intact (Initials Pres Yes No No	(0)(Ce-PCS (0)()

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

Appendix C Photo Documentation

RICE Environmental Consulting and Safety (RECS) P.O. Box 2948 Hobbs, NM 88241 Phone 575.393.2967

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



Initial site photo, facing northwest

12/20/13



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