



# **December 17<sup>th</sup>, 2014**

## Mike Bratcher

New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau – District 2 811 S. First St. Artesia, NM 88210

> RE: Termination Request Burnett Oil Gissler A 19 (2RP-2387) UL/J sec. 14 T17S R30E API No. 30-015-32835

Mr. Bratcher:

Burnett Oil Co. (Burnett) 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 2.5 miles northeast of Loco Hills, New Mexico at UL/J sec. 14 T17S R30E. This site is in an area of no known groundwater.

On June 30<sup>th</sup>, 2014, Burnett discovered a release of 20 barrels of produced water and oil from the well head at the site. The threads on the 5 ½ inch casing pin failed and released the fluid over 7,132 square feet of the lease pad and pasture land. A vacuum truck was called to the site and recovered 15 barrels of fluid. An initial C-141 was submitted to NMOCD and BLM on July 9<sup>th</sup>, 2014, and was approved by NMOCD on July 23<sup>rd</sup>, 2014 (Appendix A).

RECS personnel were on site beginning on July 7<sup>th</sup>, 2014, to assess the release. Five points within the release area were field sampled at the surface, and four of the points were sampled with depth (Figure 1). Representative samples were taken to a commercial laboratory for analysis (Appendix B).

Based on the sampling data, a Corrective Action Plan (CAP) was submitted to NMOCD and BLM on August 19<sup>th</sup>, 2014. NMOCD approved the CAP on August 20<sup>th</sup>, 2014, with the stipulation that horizontal confirmation samples be taken from either the side walls or outside the excavation area.

The CAP stated that the release would be remediated in five parts (Figure 2). The area around Point 1 was oil overspray that had lightly covered the vegetation in the area. Therefore, the area around Point 1 would be sprayed with Micro-Blaze to wash the vegetation. Micro-Blaze contains a proprietary blend of wetting agents, nutrients, and several strains of safe, non-

pathogenic *Bacillus* bacteria. When applied to a hydrocarbon-based or organic spill, the wetting agent begins breaking down the contaminants into smaller molecules for more efficient degradation by the microbes into harmless byproducts like carbon dioxide, water and trace salts.

The area around Point 2 and the area around Point 5 would be scraped down to 6 inches bgs. The scrape around Point 2 would not impinge on the well head or pump jack for safety reasons. The area around Point 3 would be scraped down to 1.5 ft bgs, and the area around Point 4 would be scraped down to 1 ft bgs. Once all the scrapes were completed, a bottom composite sample would be taken from each scrape and sent to a commercial laboratory to confirm that chlorides, GRO, DRO and BTEX readings were all below regulatory standards.

The excavated soil would be evaluated for use as backfill, and any soils that did not meet regulatory standards would be taken to a NMOCD approved facility for disposal. Clean soil would be imported to the site to replace any soils taken for disposal. The clean soil would be blended with the remaining excavated soil and used to backfill the site. A sample of the blended soil would be taken to a commercial laboratory to confirm that chloride, GRO and DRO readings were all below regulatory standards. Once the site was backfilled, the area would be contoured to the surrounding location.

Corrective actions began at the site on October 15<sup>th</sup>, 2014. The release on the lease pad was excavated in 5 parts (Figure 3). Once each scrape was completed, final wall and bottom samples were taken and field tested for chlorides and organic vapors. The samples were then taken to a commercial laboratory for analysis (Appendix C). The southernmost 6 inch bgs scrape, located around Point 5, returned an elevated chloride concentration for the 5 point bottom composite. Therefore, the scrape was deepened to 9 inches bgs, and another 5 point bottom composite was taken. The 5 point bottom composite at 9 inches bgs returned an acceptable chloride value of 32 mg/kg.

A request to backfill the site was sent to NMOCD and BLM on October 31<sup>st</sup>, 2014. NMOCD approved the site to be backfilled on November 3<sup>rd</sup>, 2014, and BLM approved the site to be backfilled on November 13<sup>th</sup>, 2014. All excavated soil was taken to a NMOCD approved facility for disposal. Clean caliche was imported to the site to serve as backfill. A sample of the caliche was taken to a commercial laboratory for analysis and returned a chloride value of 176 mg/kg. The scrapes were backfilled with the imported caliche and contoured to the surrounding location.

The vegetation that was affected by the release was sprayed with Micro-Blaze on November 10<sup>th</sup>, 2014, and will be monitored for continued health.

Photo documentation of the field activities can be found in Appendix D.

Given that the contaminated soil was taken to a NMOCD approved facility and replaced with clean, imported soil, and the vegetation was washed with Micro-Blaze, Burnett respectfully requests 'remediation termination' and site closure. A final C-141 can be found in Appendix E.

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

Project Scientist

**RECS** 

(575) 441-0431

# Attachments:

Figure 1 – Initial Sampling Data

Figure 2 – Proposed Corrective Actions

Figure 3 – Excavation Map

Appendix A – Initial C-141

Appendix B – Initial Sampling Lab

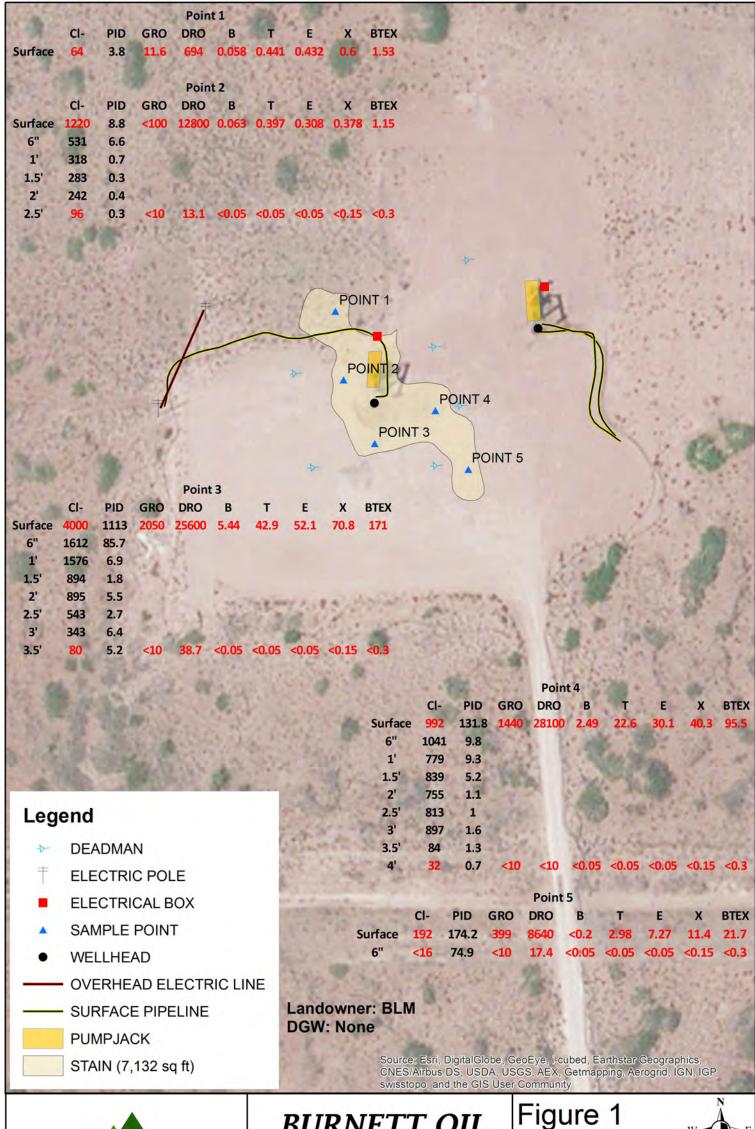
Appendix C – Corrective Action Labs

Appendix D – Photo Documentation

Appendix E – Final C-141

# Figures

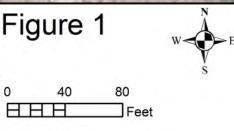
# **Initial Sampling Data**





# BURNETT OIL GISSLER A 19

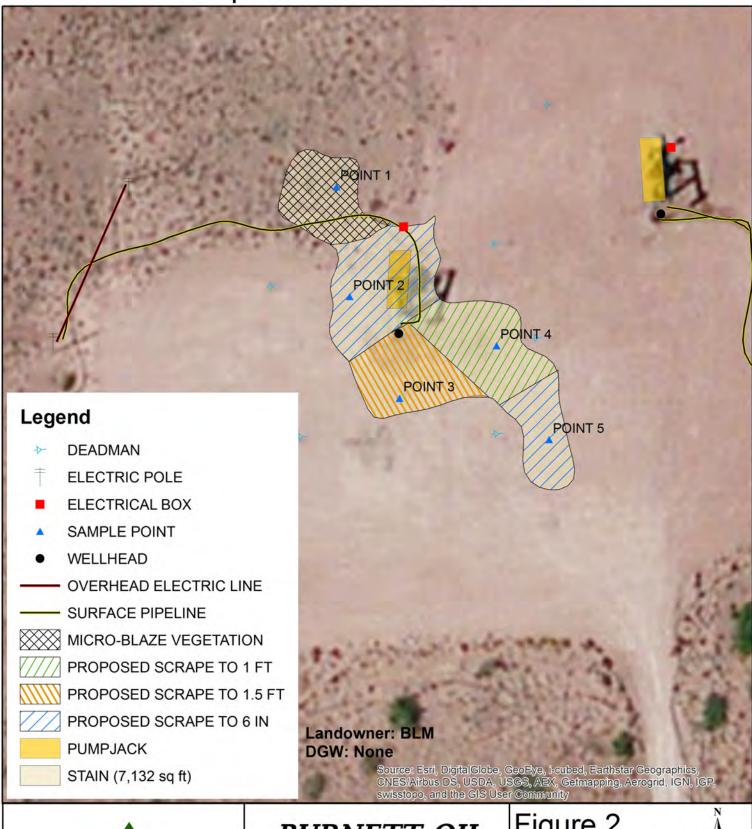
Legals: UL/J sec. 14 T-17-S R-30-E EDDY COUNTY, NM



Drawing date: 7/16/14

Drafted by: L. Weinheimer

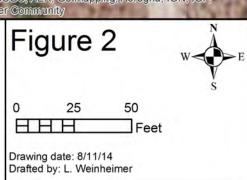
# **Proposed Corrective Actions**





# BURNETT OIL GISSLER A 19

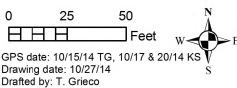
Legals: UL/J sec. 14 T-17-S R-30-E EDDY COUNTY, NM



**Excavation Map** Wall Samples South 9 in Scrape CI-PID DRO **TOTAL BTEX** <10.0 South Wall <16.0 0.4 <10.0 < 0.150 < 0.300 < 0.050 **East Wall** 32 12.1 <10.0 <10.0 <0.050 <0.050 < 0.050 <0.150 < 0.300 **West Wall** 1.3 <10.0 <10.0 < 0.050 < 0.300 5 point bottom composite 25.6 <10.0 <10.0 < 0.050 < 0.050 < 0.150 Wall Samples 1 ft Scrape PID GRO DRO В T E X TOTAL BTEX CI-**North Wall** 352 4.9 <10.0 <10.0 .050 < 0.050 < 0.050 < 0.150 < 0.300 South Wall 2.4 <10.0 <10.0 < 0.050 <0.050 < 0.150 < 0.300 East Wall <16.0 1.7 <10.0 <10.0 <0.0 < 0.050 < 0.050 < 0.150 < 0.300 West Wall 1.4 <10.0 < 0.0 < 0.050 < 0.050 < 0.150 < 0.300 <10.0 10.3 3 point bottom composite <10.0 52.1 < 0.050 < 0.050 CI-PID DRO В T E **TOTAL BTEX** Wall Samples 1.5 ft Scrape GRO X **North Wall** < 0.050 < 0.150 14.4 <10.0 < 0.0 < 0.050 <10.0 South Wall 7.4 <10.0 < 0.0 < 0.050 < 0.050 < 0.150 <0.300 **East Wall** 272 6.9 <10.0 <10.0 <0.0 < 0.050 < 0.050 <0.150 < 0.300 West Wall < 0.300 13.8 <10.0 <10.0 <0.0 < 0.050 < 0.050 < 0.150 3 point bottom composite 416 1.1 <10.0 <10.0 < 0.05 <0.050 < 0.050 < 0.150 < 0.300 N WALL N WALL W WAL E WALL W WALL N WALL 1 **EWALL** W WAL SWA W WA S WALL W WALL E WALL SWALL CI-PID GRO DRO В T E Wall Samples East 6 in Scrape **TOTAL BTEX** X **North Wall** 480 <10.0 123 < 0.300 16.3 < 0.050 < 0.050 < 0.050 < 0.150 **East Wall** 208 14.2 <10.0 320 < 0.050 < 0.050 < 0.050 < 0.150 < 0.300 **West Wall** <10.0 <10.0 < 0.300 32 11.7 < 0.050 < 0.050 < 0.050 < 0.150 2 point bottom composite 320 15.9 <10.0 597 < 0.050 < 0.050 < 0.050 < 0.150 < 0.300 TOTAL BTEX Wall Samples West 6 in Scrape CI-PID GRO DRO В T E X 400 **North Wall** 15.9 <10.0 79.6 < 0.050 < 0.050 < 0.050 < 0.150 < 0.300 **East Wall** 32 12.3 <10.0 <10.0 < 0.050 < 0.050 < 0.050 < 0.150 < 0.300 West Wall 14.2 176 <10.0 < 0.300 2 point bottom composite Legend CI- Field data **BURIED ELECTRIC** SAMPLE POINT SCRAPE @ 1 FT CI- Lab data **BURIED PIPELINE** SCRAPE @ 9 IN CONTROL BOX DEADMAN OVERHEAD ELECTRIC LINE SCRAPE @1.5 FT **ELECTRIC POLE** PAD/ROAD EDGE MUD TANK **ELECTRICAL BOX** SURFACE PIPELINE **PUMPJACK** Landowner: BLM VALVE SCRAPE @ 6 IN STAIN (7,132 sq ft) **DGW: None** WELLHEAD Figure 3 **BURNETT OIL** GISSLER A 19



Legals: UL/J sec. 14 T-17-S R-30-E EDDY COUNTY, NM



# Appendix A Initial C-141

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

State of New Mexico Energy Minerals and Natural Resources JUL 09 2014

RECEIVED

Form C-141 Revised August 8, 2011

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

Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505 Release Notification and Corrective Action

		43049				OPERA'	ror			al Report    Final Re	eport
		Burnett Oil C		3080			awna Matthews				
*			oco Hills	, NM 88255			No. (575) 219-	6370			
Facility Na	me Gissle	r A 19			10	Facility Typ	e Well head				
Surface Ov	vner BLM			Mineral Ov	wner				API No	. 30-015-32835	
				LOCA	TION	OFRE	LEASE				
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/W	est Line	County	
J	14	178	30E	2310	3	FSL.	2310	F	EL	Eddy	
			Latitud	le 32.833632252	9691	Longitud	e -103.9416542	295496		4	
						OF REL	W. 10.		www.	-	
Type of Rele	ease Produc	ed water and	oil	MAL	OILL		Release 20 bbls	5	Volume I	Recovered 15 bbls	
Source of Re							lour of Occurrence			Hour of Discovery	
						Unknown		7 0 0 7	6/30/14		
Was Immedi	iate Notice (		Yes 🗵	No Not Rec	quired	If YES, To	Whom?				
By Whom?						Date and f					
Was a Water	reourse Read		Yes 🗵	] No		If YES, Vo	olume Impacting	the Wate	rcourse.		
If a Waterson	urea urea lim	pacted, Descr	Oles Caller			-					_
A total of 7,	132 sq ft of l	and Cleanup and and NMOCD and	pasture la	nd was affected by	the rele	ease, A vacu	um truck was cal	led to the	e site and r	ecovered 15 bbls of fluid. Th	he
regulations a public health should their or the enviro	all operators or the environment operations honment. In a	are required to ronment. The ave failed to	o report and acceptant acc	nd/or file certain rel ce of a C-141 repor investigate and res	lease no t by the mediate	otifications a NMOCD m contaminati	nd perform correct arked as "Final R on that pose a thr the operator of	ctive action deport" de reat to gro responsil	ons for release not release not release ound water bility for c	suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human healt ompliance with any other	th
(		· · · AN	1014	P		and the same of	OIL CON	SERV	ATTON	DIVISION	
Signature	Shall	nam	util	news					1/		
Printed Nam	c: Shawna	Matthews				Approved by	Environmental S	pecialist	the	Ven	
Title: Senior	r Production	Technician				Approval Da	1/20/0	4	Expiration	Date: NA	
E-mail Addr	ess: smatth	ews@burnett	oil.com			Conditions o	Approval:			Attached	
Date: 7-9-	14		Phone	(575) 219-6370	ne	emediation	per UCD Kule &	Guiden	nes. 🚜 -		
Attach Addi		ets If Necess		(3/3) = (7-03/0	like	approval b	SAL NO LATER	REMED	PIATION	ZRP-2386	3

Acres to A service

# $\underset{\text{Initial Sampling Lab}}{Appendix} \, B$



July 16, 2014

LAURA FLORES
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN

HOBBS, NM 88240

RE: GISSLER A #19

Enclosed are the results of analyses for samples received by the laboratory on 07/09/14 16:30.

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. Keene

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 LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/07/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: POINT 1 @ SURFACE (H402094-01)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.058	0.050	07/14/2014	ND	1.88	94.1	2.00	4.05	
Toluene*	0.441	0.050	07/14/2014	ND	1.88	93.8	2.00	4.05	
Ethylbenzene*	0.432	0.050	07/14/2014	ND	1.85	92.6	2.00	3.40	
Total Xylenes*	0.600	0.150	07/14/2014	ND	5.68	94.7	6.00	3.57	
Total BTEX	1.53	0.300	07/14/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	107	% 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	64.0	16.0	07/15/2014	ND	416	104	400	3.92	
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	11.6	10.0	07/11/2014	ND	184	92.2	200	2.67	
DRO >C10-C28	694	10.0	07/11/2014	ND	196	98.2	200	3.22	
Surrogate: 1-Chlorooctane	91.8	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	108	% 63.6-15	4						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/07/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Jodi Henson

Project Location: **NOT GIVEN** 

# Sample ID: POINT 2 @ SURFACE (H402094-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.063	0.050	07/14/2014	ND	1.88	94.1	2.00	4.05	
Toluene*	0.397	0.050	07/14/2014	ND	1.88	93.8	2.00	4.05	
Ethylbenzene*	0.308	0.050	07/14/2014	ND	1.85	92.6	2.00	3.40	
Total Xylenes*	0.378	0.150	07/14/2014	ND	5.68	94.7	6.00	3.57	
Total BTEX	1.15	0.300	07/14/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 89.4-12	26						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1220	16.0	07/15/2014	ND	416	104	400	3.92	
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	<100	100	07/12/2014	ND	184	92.2	200	2.67	
DRO >C10-C28	12800	100	07/12/2014	ND	196	98.2	200	3.22	
Surrogate: 1-Chlorooctane	87.4	% 65.2-14	10						

452 % 63.6-154 Surrogate: 1-Chlorooctadecane

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/07/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Jodi Henson

Project Location: **NOT GIVEN** 

# Sample ID: POINT 2 @ 2.5' (H402094-03)

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	07/14/2014	ND	1.88	94.1	2.00	4.05	
Toluene*	<0.050	0.050	07/14/2014	ND	1.88	93.8	2.00	4.05	
Ethylbenzene*	<0.050	0.050	07/14/2014	ND	1.85	92.6	2.00	3.40	
Total Xylenes*	<0.150	0.150	07/14/2014	ND	5.68	94.7	6.00	3.57	
Total BTEX	<0.300	0.300	07/14/2014	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	96.0	16.0	07/15/2014	ND	416	104	400	3.92	
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	07/12/2014	ND	184	92.2	200	2.67	
DRO >C10-C28	13.1	10.0	07/12/2014	ND	196	98.2	200	3.22	
Surrogate: 1-Chlorooctane	97.2	% 65.2-14	0						
Common at a 1 Chlorida at all anno	101.0	/ /2 / 15							

101 % 63.6-154 Surrogate: 1-Chlorooctadecane

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/07/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: POINT 3 @ SURFACE (H402094-04)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	5.44	2.00	07/14/2014	ND	1.88	94.1	2.00	4.05	
Toluene*	42.9	2.00	07/14/2014	ND	1.88	93.8	2.00	4.05	
Ethylbenzene*	52.1	2.00	07/14/2014	ND	1.85	92.6	2.00	3.40	
Total Xylenes*	70.8	6.00	07/14/2014	ND	5.68	94.7	6.00	3.57	
Total BTEX	171	12.0	07/14/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	115	% 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	Qualifie
Chloride	4000	16.0	07/15/2014	ND	416	104	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	Qualifie
GRO C6-C10	2050	200	07/12/2014	ND	184	92.2	200	2.67	
		200	07/12/2014	ND	196	98.2	200	3.22	

Surrogate: 1-Chlorooctane 176 % 65.2-140
Surrogate: 1-Chlorooctadecane 695 % 63.6-154

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/09/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: POINT 3 @ 3.5' (H402094-05)

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	07/14/2014	ND	1.88	94.1	2.00	4.05	
Toluene*	<0.050	0.050	07/14/2014	ND	1.88	93.8	2.00	4.05	
Ethylbenzene*	< 0.050	0.050	07/14/2014	ND	1.85	92.6	2.00	3.40	
Total Xylenes*	<0.150	0.150	07/14/2014	ND	5.68	94.7	6.00	3.57	
Total BTEX	<0.300	0.300	07/14/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 %	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	80.0	16.0	07/15/2014	ND	416	104	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	07/12/2014	ND	184	92.2	200	2.67	
GRO CO-CIO						98.2	200		

Surrogate: 1-Chlorooctadecane 99.8 % 63.6-154

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/07/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: POINT 4 @ SURFACE (H402094-06)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.49	1.00	07/14/2014	ND	1.88	94.1	2.00	4.05	
Toluene*	22.6	1.00	07/14/2014	ND	1.88	93.8	2.00	4.05	
Ethylbenzene*	30.1	1.00	07/14/2014	ND	1.85	92.6	2.00	3.40	
Total Xylenes*	40.3	3.00	07/14/2014	ND	5.68	94.7	6.00	3.57	
Total BTEX	95.5	6.00	07/14/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	122	% 89.4-12	26						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	07/15/2014	ND	416	104	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	1440	200	07/12/2014	ND	184	92.2	200	2.67	
DRO >C10-C28	28100	200	07/12/2014	ND	196	98.2	200	3.22	
Surrogate: 1-Chlorooctane	158	% 65.2-14	10						

Surrogate: 1-Chlorooctadecane 807 % 63.6-154

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/07/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

### Sample ID: POINT 4 @ 4' (H402094-07)

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	07/14/2014	ND	1.88	94.1	2.00	4.05	
Toluene*	<0.050	0.050	07/14/2014	ND	1.88	93.8	2.00	4.05	
Ethylbenzene*	<0.050	0.050	07/14/2014	ND	1.85	92.6	2.00	3.40	
Total Xylenes*	<0.150	0.150	07/14/2014	ND	5.68	94.7	6.00	3.57	
Total BTEX	<0.300	0.300	07/14/2014	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	32.0	16.0	07/15/2014	ND	416	104	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	07/12/2014	ND	184	92.2	200	2.67	
DRO >C10-C28	<10.0	10.0	07/12/2014	ND	196	98.2	200	3.22	
Surrogate: 1-Chlorooctane	94.4	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	98.6	% 63.6-15	4						

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Celey D. Keine

Cardinal Laboratories

\*=Accredited Analyte



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/07/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

# Sample ID: POINT 5 @ SURFACE (H402094-08)

Analyzed 07/14/2014 07/14/2014 07/14/2014 07/14/2014	ND ND	BS 1.88 1.88 1.85	% Recovery 94.1 93.8 92.6	True Value QC 2.00 2.00	RPD 4.05 4.05	Qualifier
07/14/2014 07/14/2014 07/14/2014	ND ND	1.88	93.8			
07/14/2014 07/14/2014	ND			2.00	4 05	
07/14/2014		1.85	92.6		1.05	
	ND		72.0	2.00	3.40	
07/14/2014		5.68	94.7	6.00	3.57	
07/14/2014	ND					
9.4-126						
Analyz	ed By: AP					
Limit Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
07/15/2014	ND	416	104	400	0.00	
Analyz	ed By: MS					S-06
Limit Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
07/12/2014	ND	184	92.2	200	2.67	
	ND	196	98.2	200	3.22	
	07/12/2014	07/12/2014 ND	07/12/2014 ND 196	07/12/2014 ND 196 98.2	, ,	07/12/2014 ND 196 98.2 200 3.22

Surrogate: 1-Chlorooctadecane 14/% 05.2-140
Surrogate: 1-Chlorooctadecane 233 % 63.6-154

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 07/09/2014 Sampling Date: 07/07/2014

Reported: 07/16/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Jodi Henson

Project Location: **NOT GIVEN** 

### Sample ID: POINT 5 @ 6" (H402094-09)

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	07/14/2014	ND	1.88	94.1	2.00	4.05	
Toluene*	<0.050	0.050	07/14/2014	ND	1.88	93.8	2.00	4.05	
Ethylbenzene*	<0.050	0.050	07/14/2014	ND	1.85	92.6	2.00	3.40	
Total Xylenes*	<0.150	0.150	07/14/2014	ND	5.68	94.7	6.00	3.57	
Total BTEX	<0.300	0.300	07/14/2014	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	07/15/2014	ND	416	104	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	07/12/2014	ND	184	92.2	200	2.67	
DRO >C10-C28	17.4	10.0	07/12/2014	ND	196	98.2	200	3.22	
Surrogate: 1-Chlorooctane	96.8	% 65.2-14	0						
G , I CH , I	1027								

103 % 63.6-154 Surrogate: 1-Chlorooctadecane

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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

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# 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

	mpany Name: RECS  Dject Manager: Laura Flores, Kyle Norman							G		BI	ILL TO		ii .				ANA	LYSIS	REQU	EST	
Project Manage	er: Laura Flores , Kyle Nor	·mo	id					P.0	0. #:				T						1	TT	T
Address:	, ,							Co	mpa	ny:			1				(n			1 1	
City: Hobbs	State: NM	Zi	p: 8	3240	)			Att	n:				1	1			ü			1 1	
Phone #:	Fax #:							Ad	dres	s:			1				Ę.			$\perp$	
Project #:	Project Own	ner:						Cit	v:				1	Σ		-	Cations/Anions		- 1		
Project Name:	•								te:		Zip:		- Se	2	l.,	TPH	ns		- 1		
Project Locatio	n: Gissler # 19								one #	4.	Lip.		Chlorides	801	BTEX	-	ti Q	S			
Sampler Name:	11 1 1								(#:				흐	8	E	Texas	a				
FOR LAB USE ONLY	776	T	Т		MA	TRI	_	_	_	SERV.	SAMPL	ING	남	TF	1 8	ě K	4.5				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	OIL	SLUDGE	OTHER:	ACID/BASE:	OTHER:	DATE	TIME					Complete				
	Point 1@ Surface	6	1		X				P		7-7-14	11:45	V	V	N						
	Point 20 Sorface	6	1		X				P		7-7-14		X.	N	N						
3	Point 2@ 2.5'	6	1		X				2		7-7-14		X	X	X						
u	Point 3@ Surface	G	1		X						7-7-14		X	X	X						
5	Point 3@ 3.5'	6	1		X			1		X	7-9-14	12:30	X	N	X						
6	Point 4@ Syrface	6	1		K			1	X	\ I	7-7-14	12:15.	N/	×	X						1 1
7	Point 4@ 4	6	1		X			1	X	_	7-7-14		X	X	X						
8	Point 5 @ surface	6	1		X			1	X		7-7-14	12:25	X	2	V						
9	Point 5@ 8"	6	1		X			1	X		7-7-14	12:40	X	×	X						
N FACE WORK I'V	nd Demages. Cardinal's liability and client's exclusive remedy for				1																

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Kyle Schnick	Time: 20 /	101 20	Uson	Fax Result: REMARKS:	☐ Yes	☑ No	Add'l Fax #:	
Relinguished By:	Date: Re	ecelved By:		lweinheime	er@rice	e-ecs.c	vd.com; lflores@r com; knorman@ri	ice-ecs.com;
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool Intact Yes Yes No No	CHECKED BY:	cursanic@	rice-ec	s.com	n; sedwards@rice	e-ecs.com; @rice-ecs.com

#54

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

# Appendix C Corrective Action Labs



October 20, 2014

LAURA FLORES
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: GISSLER A #19

Enclosed are the results of analyses for samples received by the laboratory on 10/17/14 15:50.

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

Kathy Perez



# Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES 419 W. CAIN

Sample Received By:

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil
Project Name: GISSLER A #19 Sampling Condition: Cool & Intact

Project Number: NONE GIVEN
Project Location: NOT GIVEN

# Sample ID: S. WALL 6" S. SCRAPE (H403209-01)

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	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	61-154							
Chloride, SM4500CI-B	mg/	mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	186	93.2	200	1.87	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	195	97.5	200	2.76	
Surrogate: 1-Chlorooctane	88.3	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	96.2	52.1-17	6						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Project Number: Sample Received By: Kathy Perez NONE GIVEN

Project Location: **NOT GIVEN** 

## Sample ID: E WALL 6" S SCRAPE (H403209-02)

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	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	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	32.0	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	186	93.2	200	1.87	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	195	97.5	200	2.76	
Surrogate: 1-Chlorooctane	90.5	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	97.0	% 52 1-17	6						

52.1-176 Surrogate: 1-Chlorooctadecane 97.0 %

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Project Number: Sample Received By: NONE GIVEN Kathy Perez

Project Location: **NOT GIVEN** 

# Sample ID: W WALL 6" S SCRAPE (H403209-03)

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	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 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	10/20/2014	ND	416	104	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	10/20/2014	ND	186	93.2	200	1.87	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	195	97.5	200	2.76	
Surrogate: 1-Chlorooctane	88.8	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	94 3	% 52 1-17	6						

52.1-176 Surrogate: 1-Chlorooctadecane 94.3 %

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

Project Location: NOT GIVEN

# Sample ID: 3 PT. COMP 6" S SCRAPE (H403209-04)

Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	DDD	
		,	riculou blank	D3	70 Recovery	True Value QC	RPD	Qualifier
0.050	0.050	10/20/2014	ND	1.83	91.5	2.00	5.27	
0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
0.300	0.300	10/20/2014	ND					
104 %	61-154							
mg/k	g	Analyze	d By: AP					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
144	16.0	10/20/2014	ND	416	104	400	0.00	
mg/k	g	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<50.0	50.0	10/20/2014	ND	186	93.2	200	1.87	
L <b>230</b>	50.0	10/20/2014	ND	195	97.5	200	2.76	
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.050 0.050 0.150 0.300 104 % mg/k esult 144 mg/k	0.050 0.050 0.050 0.050 0.150 0.150 0.300 0.300  104 % 61-154  mg/kg  esult Reporting Limit 144 16.0  mg/kg  esult Reporting Limit 50.0 50.0	0.050 0.050 10/20/2014 0.050 0.050 10/20/2014 0.150 0.150 10/20/2014 0.300 0.300 10/20/2014  104 % 61-154  mg/kg Analyzed esult Reporting Limit Analyzed 144 16.0 10/20/2014  mg/kg Analyzed esult Reporting Limit Analyzed 10/20/2014  mg/kg Analyzed 10/20/2014	0.050 0.050 10/20/2014 ND 0.050 0.050 10/20/2014 ND 0.150 0.150 10/20/2014 ND 0.300 0.300 10/20/2014 ND 0.300 61-154  mg/kg Analyzed By: AP  esult Reporting Limit Analyzed Method Blank 144 16.0 10/20/2014 ND  mg/kg Analyzed By: MS  esult Reporting Limit Analyzed Method Blank 1.44 16.0 10/20/2014 ND  mg/kg Analyzed By: MS	0.050 0.050 10/20/2014 ND 1.72 0.050 0.050 10/20/2014 ND 1.63 0.150 0.150 10/20/2014 ND 4.84 0.300 0.300 10/20/2014 ND  104 % 61-154  mg/kg Analyzed By: AP  esult Reporting Limit Analyzed Method Blank BS 144 16.0 10/20/2014 ND 416  mg/kg Analyzed By: MS  esult Reporting Limit Analyzed Method Blank BS 50.0 50.0 10/20/2014 ND 186	0.050	0.050	0.050 0.050 10/20/2014 ND 1.72 86.0 2.00 6.28 0.050 0.050 10/20/2014 ND 1.63 81.3 2.00 6.47 0.150 0.150 10/20/2014 ND 4.84 80.7 6.00 6.71 0.300 0.300 10/20/2014 ND  104 % 61-154  mg/kg Analyzed By: AP  esult Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 144 16.0 10/20/2014 ND 416 104 400 0.00  mg/kg Analyzed By: MS  esult Reporting Limit Analyzed Method Blank BS % Recovery True Value QC RPD 50.0 50.0 10/20/2014 ND 186 93.2 200 1.87

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Celey D. Keine

Surrogate: 1-Chlorooctadecane

118 %

52.1-176



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Sample Received By: Kathy Perez Project Number: NONE GIVEN

Project Location: **NOT GIVEN** 

# Sample ID: N WALL 1' SCRAPE (H403209-05)

BTEX 8021B	mg/kg		Analyze	Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 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	352	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	186	93.2	200	1.87	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	195	97.5	200	2.76	
Surrogate: 1-Chlorooctane	91.5	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	98.6	% 52 1-17	6						

Surrogate: 1-Chlorooctadecane 98.6 % 52.1-176

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Project Number: Sample Received By: NONE GIVEN Kathy Perez

# Sample ID: S WALL 1' SCRAPE (H403209-06)

**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	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	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	80.0	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	186	93.2	200	1.87	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	195	97.5	200	2.76	
Surrogate: 1-Chlorooctane	93.1	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	103 9	% 52 1-17	6						

Surrogate: 1-Chlorooctadecane 103 % 52.1-176

Cardinal Laboratories \*=Accredited Analyte

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419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

NOT GIVEN

## Sample ID: E WALL 1' SCRAPE (H403209-07)

Project Location:

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	0.054	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	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	288	16.0	10/20/2014	ND	416	104	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	<50.0	50.0	10/20/2014	ND	186	93.2	200	1.87	
DRO >C10-C28	1860	50.0	10/20/2014	ND	195	97.5	200	2.76	
DRO >C10-C28  Surrogate: 1-Chlorooctane	94.8			ND	195	97.5	200	2.76	

 Surrogate: 1-Chlorooctadecane
 130 %
 52.1-176

Cardinal Laboratories \*=Accredited Analyte

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Celeg D. Freene



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

Project Location: NOT GIVEN

## Sample ID: W WALL 1' SCRAPE (H403209-08)

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	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	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	336	16.0	10/20/2014	ND	416	104	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	<50.0	50.0	10/20/2014	ND	186	93.2	200	1.87	
	1840	50.0	10/20/2014	ND	195	97.5	200	2.76	

*Surrogate: 1-Chlorooctane* 95.1 % 47.2-157

Surrogate: 1-Chlorooctadecane

132 %

52.1-176

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419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

Project Location: NOT GIVEN

# Sample ID: 3 PT. COMP 1' SCRAPE (H403209-09)

		Analyzed By: ms						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050	0.050	10/20/2014	ND	1.83	91.5	2.00	5.27	
<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
<0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
<0.300	0.300	10/20/2014	ND					
103 %	61-154							
mg/k	kg .	Analyze	d By: AP					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
128	16.0	10/20/2014	ND	416	104	400	0.00	
mg/k	(g	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<10.0	10.0	10/20/2014	ND	186	93.2	200	1.87	
52.1	10.0	10/20/2014	ND	195	97.5	200	2.76	
< < <	<0.050 <0.050 <0.050 <0.150 <0.300 103 % mg/k Result 128 mg/k Result <10.0	<0.050	<0.050	<0.050		<0.050	\$\lequiv \cdot 0.050 & 0.050 & 10/20/2014 & ND & 1.83 & 91.5 & 2.00 \\ \$\leq 0.050 & 0.050 & 10/20/2014 & ND & 1.72 & 86.0 & 2.00 \\ \$\leq 0.050 & 0.050 & 10/20/2014 & ND & 1.63 & 81.3 & 2.00 \\ \$\leq 0.150 & 0.150 & 10/20/2014 & ND & 4.84 & 80.7 & 6.00 \\ \$\leq 0.300 & 0.300 & 10/20/2014 & ND & \end{array}\$  **Result Reporting Limit Analyzed Method Blank BS % Recovery True Value QC   **True Value QC   **	\$\begin{array}{c c c c c c c c c c c c c c c c c c c

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine

Surrogate: 1-Chlorooctadecane

103 %

52.1-176



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Sample Received By: Kathy Perez Project Number: NONE GIVEN

Project Location: **NOT GIVEN** 

# Sample ID: N WALL 1.5' SCRAPE (H403209-10)

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	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	<0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 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	304	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	186	93.2	200	1.87	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	195	97.5	200	2.76	
Surrogate: 1-Chlorooctane	88.5	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	948	% 52 1-17	6						

52.1-176 Surrogate: 1-Chlorooctadecane 94.8 %

Cardinal Laboratories \*=Accredited Analyte

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419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

Project Location: NOT GIVEN

# Sample ID: S WALL 1.5' SCRAPE (H403209-11)

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	10/20/2014	ND	1.83	91.5	2.00	5.27	
Toluene*	< 0.050	0.050	10/20/2014	ND	1.72	86.0	2.00	6.28	
Ethylbenzene*	< 0.050	0.050	10/20/2014	ND	1.63	81.3	2.00	6.47	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	4.84	80.7	6.00	6.71	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	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	448	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	186	93.2	200	1.87	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	195	97.5	200	2.76	
Surrogate: 1-Chlorooctane	92.1 9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	99.3	52.1-17	6						

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 LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

Project Location: NOT GIVEN

# Sample ID: E WALL 1.5' SCRAPE (H403209-12)

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	10/20/2014	ND	1.84	91.8	2.00	3.54	
Toluene*	< 0.050	0.050	10/20/2014	ND	1.83	91.5	2.00	3.50	
Ethylbenzene*	< 0.050	0.050	10/20/2014	ND	1.84	92.2	2.00	3.72	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	5.45	90.8	6.00	3.45	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	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	272	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	177	88.3	200	1.44	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	199	99.7	200	2.58	
Surrogate: 1-Chlorooctane	82.3 9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	92.5	52.1-17	6						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

Project Location: NOT GIVEN

#### Sample ID: W. WALL 1.5' SCRAPE (H403209-13)

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	10/20/2014	ND	1.84	91.8	2.00	3.54	
Toluene*	<0.050	0.050	10/20/2014	ND	1.83	91.5	2.00	3.50	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.84	92.2	2.00	3.72	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	5.45	90.8	6.00	3.45	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 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	176	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	177	88.3	200	1.44	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	199	99.7	200	2.58	
Surrogate: 1-Chlorooctane	87.3	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	88.0	% 52.1-17	6						

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/17/2014 Sampling Date: 10/17/2014

Reported: 10/20/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Sample Received By: Kathy Perez Project Number: NONE GIVEN

Project Location: **NOT GIVEN** 

#### Sample ID: 3 PT. COMP 1.5' SCRAPE (H403209-14)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2014	ND	1.84	91.8	2.00	3.54	
Toluene*	<0.050	0.050	10/20/2014	ND	1.83	91.5	2.00	3.50	
Ethylbenzene*	<0.050	0.050	10/20/2014	ND	1.84	92.2	2.00	3.72	
Total Xylenes*	<0.150	0.150	10/20/2014	ND	5.45	90.8	6.00	3.45	
Total BTEX	<0.300	0.300	10/20/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 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	416	16.0	10/20/2014	ND	416	104	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	10/20/2014	ND	177	88.3	200	1.44	
DRO >C10-C28	<10.0	10.0	10/20/2014	ND	199	99.7	200	2.58	
Surrogate: 1-Chlorooctane	84.8	% 47.2-15	7						
Summanta 1 Chlana antada ana	105 (	52 1 17							

105 % 52.1-176 Surrogate: 1-Chlorooctadecane

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.

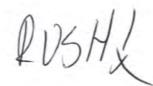
Chloride by SM4500Cl-B does not require samples be received at or below 6°C

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

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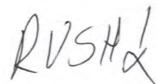
### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name	e: RECS					_			RII	LL TO				_		Α1	IALV	CIC	DE	OUE			
Project Manage	er: Laura Flores Jacob	Kn	m	ola: A		-	P.O. 1					T	T	Т	Т	AI	VALY	313	KE	QUE	51		
Address:			1				Comp	pany	:			1						- 1		1. 3			
City:	State:	Zip:					Attn:					1											
Phone #:	Fax #:						Addre	ess:				1											
Project #:	Project Owne	er:					city:					1			- 1			-	- 1				
Project Name:							State	:	- 1	Zip:		1											
Project Location						ı	hon	e#:		•		1											
Sampler Name:						F	ax#	:				1											
FOR LAB USE ONLY		ы	Т	M	ATRI)	X	PR	RESER	RV.	SAMPL	ING	1						- 1.				- 1	
Lab I.D.  H40380	Sample I.D.  South Wall 6 South Scrape  East Wall 6 South Scrape  West Wall 0 South Scrape  South Wall 1 Scrape  South Wall 1 Scrape  East Wall 1 Scrape  East Wall 1 Scrape  West Wall 1 Scrape	POS O O O O GIRABOR (C) OMP	#CONTAINERS	WASTEWATER X X X X X X X X X X X X X X X X X X X		SLUDGE	ACID/BASE:	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	OTHER:	DATE	TIME 12:40 12:46 12:50 12:55 1:00 1:05 1:15 1:15	SKKKKKKKK //	RXX XXXX - OII	000000000000000000000000000000000000000	•								
PLEASE NOTE: Liability and	d Damages. Cardinal's liability and client's exclusive remedy for a	anu claim ar	rising w	hether base	ed in cor	drawler	nrt shal	L be limit	ted to t	The amount on	1.25	X	W	10	X L								
inalyses. All claims including service. In no event shall Ca	ardinal be liable for incidental or consequental damages, including	deemed wa without lim	arved un mitation.	iless made business it									able										
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Delivered By: Sampler - UPS	11 10			Sample Cool Ye	Intac s 📑	t			CKE	D BY:													

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326





#### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Nam	e: RECS		BILL TO	ANALYSIS REQUEST
Project Manage	er: Laura Flores, Jacob	Lamplain	P.O. #:	
Address:		1	Company:	
City:	State:	Zip:	Attn:	7
Phone #:	Fax #:		Address:	
Project #:	Project Owne	r:	City:	
Project Name:			State: Zip:	
Project Location	n: Gissler A#19		Phone #:	
Sampler Name	Kyle Schnaidt		Fax #:	
FOR LAB USE ONLY	/	MATRIX	PRESERV. SAMPLING	
Lab I.D.	D. Sample I.D. Sample I.D. South Mall 1.5, scrape 6 1 & South Marsewater Base 1 & South Marsewater Base 1 & South Mars 1 & Sou		DATE TIME    COLUMB   COLUMB	X X X X X X X X X X X X X X X X X X X
PLEASE NOTE: Liability a	nd Damages. Cardinal's liability and client's exclusive remedy for	any claim arising whether based in contract	ct or lort, shall be limited to the amount paid by the clien	ent for the
analyses. All claims includ	ing those for negligence and any other cause whatsoever shall be Cardinal be liable for incidental or consequental damages, includin	deemed waived unless made in writing ar g without limitation, business interruptions,	nd redelived by Cardinal within 30 days after completion , loss of use, or loss of profits incurred by client, its sub-	n of the applicable
	Date: (0-12-14) Time: 5	Received By:  Sample Condit Cool Intact Yes Yes	tion CHECKED BY: ((Initials)	

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



October 21, 2014

LAURA FLORES
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: GISSLER A #19

Enclosed are the results of analyses for samples received by the laboratory on 10/20/14 16:17.

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)

Celey D. Keine

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/20/2014 Sampling Date: 10/20/2014

Reported: 10/21/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

#### Sample ID: N WALL E 6" SCRAPE (H403221-01)

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	10/21/2014	ND	1.81	90.6	2.00	8.37	
Toluene*	<0.050	0.050	10/21/2014	ND	1.72	85.8	2.00	8.23	
Ethylbenzene*	<0.050	0.050	10/21/2014	ND	1.61	80.6	2.00	9.37	
Total Xylenes*	<0.150	0.150	10/21/2014	ND	4.79	79.8	6.00	9.88	
Total BTEX	<0.300	0.300	10/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 %	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	480	16.0	10/21/2014	ND	400	100	400	3.92	
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	10/21/2014	ND	178	89.0	200	2.01	
DRO >C10-C28	123	10.0	10/21/2014	ND	209	105	200	3.44	
Surrogate: 1-Chlorooctane	85.7 9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	115 %	6 52.1-17	6						

Surrogate: 1-Chlorooctadecane

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/20/2014 Sampling Date: 10/20/2014

Reported: 10/21/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Jodi Henson

Project Location: **NOT GIVEN** 

#### Sample ID: E WALL E 6" SCRAPE (H403221-02)

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	10/21/2014	ND	1.81	90.6	2.00	8.37	
Toluene*	<0.050	0.050	10/21/2014	ND	1.72	85.8	2.00	8.23	
Ethylbenzene*	<0.050	0.050	10/21/2014	ND	1.61	80.6	2.00	9.37	
Total Xylenes*	<0.150	0.150	10/21/2014	ND	4.79	79.8	6.00	9.88	
Total BTEX	<0.300	0.300	10/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	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	208	16.0	10/21/2014	ND	400	100	400	3.92	
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	10/21/2014	ND	178	89.0	200	2.01	
DRO >C10-C28	320	10.0	10/21/2014	ND	209	105	200	3.44	
Surrogate: 1-Chlorooctane	84.7	% 47.2-15	7						

114 % 52.1-176 Surrogate: 1-Chlorooctadecane

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/20/2014 Sampling Date: 10/20/2014

Reported: 10/21/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Project Number: Sample Received By: NONE GIVEN Jodi Henson

Project Location: **NOT GIVEN** 

#### Sample ID: W WALL E 6" SCRAPE (H403221-03)

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	10/21/2014	ND	1.81	90.6	2.00	8.37	
Toluene*	<0.050	0.050	10/21/2014	ND	1.72	85.8	2.00	8.23	
Ethylbenzene*	<0.050	0.050	10/21/2014	ND	1.61	80.6	2.00	9.37	
Total Xylenes*	<0.150	0.150	10/21/2014	ND	4.79	79.8	6.00	9.88	
Total BTEX	<0.300	0.300	10/21/2014	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	32.0	16.0	10/21/2014	ND	400	100	400	3.92	
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	10/21/2014	ND	178	89.0	200	2.01	
DRO >C10-C28	<10.0	10.0	10/21/2014	ND	209	105	200	3.44	
Surrogate: 1-Chlorooctane	89.7	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	118	% 52 1-17	6						

52.1-176 Surrogate: 1-Chlorooctadecane 118 %

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/20/2014 Sampling Date: 10/20/2014

Reported: 10/21/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Analyzed By: me

Project Location: NOT GIVEN

#### Sample ID: 2 PT COMP 6" SCRAPE (H403221-04)

RTFY 8021R

BIEX 8051B	mg/	кд	Anaiyze	a By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2014	ND	1.81	90.6	2.00	8.37	
Toluene*	<0.050	0.050	10/21/2014	ND	1.72	85.8	2.00	8.23	
Ethylbenzene*	<0.050	0.050	10/21/2014	ND	1.61	80.6	2.00	9.37	
Total Xylenes*	<0.150	0.150	10/21/2014	ND	4.79	79.8	6.00	9.88	
Total BTEX	<0.300	0.300	10/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	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	320	16.0	10/21/2014	ND	400	100	400	3.92	
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	10/21/2014	ND	178	89.0	200	2.01	
DRO >C10-C28	597	10.0	10/21/2014	ND	209	105	200	3.44	
Surrogate: 1-Chlorooctane	101 %	6 47.2-157	7						

Surrogate: 1-Chlorooctadecane 149 % 52.1-176

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/20/2014 Sampling Date: 10/20/2014

Reported: 10/21/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

#### Sample ID: N WALL W 6" SCRAPE (H403221-05)

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	10/21/2014	ND	1.81	90.6	2.00	8.37	
Toluene*	<0.050	0.050	10/21/2014	ND	1.72	85.8	2.00	8.23	
Ethylbenzene*	<0.050	0.050	10/21/2014	ND	1.61	80.6	2.00	9.37	
Total Xylenes*	<0.150	0.150	10/21/2014	ND	4.79	79.8	6.00	9.88	
Total BTEX	<0.300	0.300	10/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 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	400	16.0	10/21/2014	ND	400	100	400	3.92	
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	10/21/2014	ND	178	89.0	200	2.01	
DRO >C10-C28	79.6	10.0	10/21/2014	ND	209	105	200	3.44	
Surrogate: 1-Chlorooctane	98.5	% 47.2-15	7						

Surrogate: 1-Chlorooctadecane 119 % 52.1-176

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/20/2014 Sampling Date: 10/20/2014

Reported: 10/21/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

#### Sample ID: E WALL W 6" SCRAPE (H403221-06)

BTEX 8021B	mg/	kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2014	ND	1.81	90.6	2.00	8.37	
Toluene*	<0.050	0.050	10/21/2014	ND	1.72	85.8	2.00	8.23	
Ethylbenzene*	<0.050	0.050	10/21/2014	ND	1.61	80.6	2.00	9.37	
Total Xylenes*	<0.150	0.150	10/21/2014	ND	4.79	79.8	6.00	9.88	
Total BTEX	<0.300	0.300	10/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	101 9	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	32.0	16.0	10/21/2014	ND	400	100	400	3.92	
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	10/21/2014	ND	178	89.0	200	2.01	
DRO >C10-C28	<10.0	10.0	10/21/2014	ND	209	105	200	3.44	
Surrogate: 1-Chlorooctane	94.0	% 47.2-15	7						

Surrogate: 1-Chlorooctadecane 111 % 52.1-176

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419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/20/2014 Sampling Date: 10/20/2014

Reported: 10/21/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

#### Sample ID: W WALL W 6" SCRAPE (H403221-07)

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	10/21/2014	ND	1.81	90.6	2.00	8.37	
Toluene*	<0.050	0.050	10/21/2014	ND	1.72	85.8	2.00	8.23	
Ethylbenzene*	<0.050	0.050	10/21/2014	ND	1.61	80.6	2.00	9.37	
Total Xylenes*	<0.150	0.150	10/21/2014	ND	4.79	79.8	6.00	9.88	
Total BTEX	<0.300	0.300	10/21/2014	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	176	16.0	10/21/2014	ND	400	100	400	3.92	
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	10/21/2014	ND	178	89.0	200	2.01	
DRO >C10-C28	175	10.0	10/21/2014	ND	209	105	200	3.44	
Surrogate: 1-Chlorooctane	94.6	% 47.2-15	7						

Surrogate: 1-Chlorooctadecane 130 % 52.1-176

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/20/2014 Sampling Date: 10/20/2014

Reported: 10/21/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact Sample Received By: Project Number: NONE GIVEN Jodi Henson

Analyzed By: me

Project Location: NOT GIVEN

RTFY 8021R

#### Sample ID: 2 PT. COMP W 6" SCRAPE (H403221-08)

ma/ka

BIEX 8051B	mg/	кд	Anaiyze	a By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2014	ND	1.81	90.6	2.00	8.37	
Toluene*	< 0.050	0.050	10/21/2014	ND	1.72	85.8	2.00	8.23	
Ethylbenzene*	< 0.050	0.050	10/21/2014	ND	1.61	80.6	2.00	9.37	
Total Xylenes*	<0.150	0.150	10/21/2014	ND	4.79	79.8	6.00	9.88	
Total BTEX	<0.300	0.300	10/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 %	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	272	16.0	10/21/2014	ND	400	100	400	3.92	
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	10/21/2014	ND	178	89.0	200	2.01	
DRO >C10-C28	540	10.0	10/21/2014	ND	209	105	200	3.44	
Surrogate: 1-Chlorooctane	95.7 %	% 47.2-157	7						

124 % 52.1-176

Surrogate: 1-Chlorooctadecane

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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.

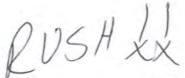
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

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

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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	ECS				BI	LL TO					ANA	LYSIS	REQUI	EST	 _
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Project #:	Project Owner:			Cit	ty:									1 1	
Project Name:	•			Sta	ate:	Zip:			- 1					1 1	
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Sampler Name: ///	le Schraide			Fa	x #:			1				1 1		1 1	
FOR LAB USE ONLY	C		MATRI	X	PRESERV	SAMPLIN	IG	1				1 1		1 1	
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service. In no event shall Cardinal be I	Date: Time:	Manager Inches	ed By:  Sample C	ch daim is b	end	the above stated re	client, its subsiderations or other Phone R Fax Res REMARI	Result: ult:	Ye	es 🗆 I		d'I Phone d'I Fax #:	#:		

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to (575) 398-2326



October 27, 2014

LAURA FLORES
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: GISSLER A #19

Enclosed are the results of analyses for samples received by the laboratory on 10/24/14 15:50.

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)

Celey D. Keine

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/24/2014 Sampling Date: 10/24/2014

Reported: 10/27/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

#### Sample ID: 1' SCRAPE EAST WALL (H403285-01)

BTEX 8021B	mg/	kg	Analyze	ed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	10/27/2014	ND	2.02	101	2.00	2.35	
Toluene*	< 0.050	0.050	10/27/2014	ND	1.91	95.7	2.00	1.95	
Ethylbenzene*	<0.050	0.050	10/27/2014	ND	1.79	89.7	2.00	0.686	
Total Xylenes*	<0.150	0.150	10/27/2014	ND	5.33	88.8	6.00	0.173	
Total BTEX	<0.300	0.300	10/27/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 %	61-154	!						
Chloride, SM4500Cl-B	mg/	kg	Analyze	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/27/2014	ND	400	100	400	0.00	
TPH 8015M	mg/	kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/24/2014	ND	201	100	200	0.982	
DRO >C10-C28	<10.0	10.0	10/24/2014	ND	188	94.1	200	1.63	
Surrogate: 1-Chlorooctane	105 %	6 47.2-15	7						
Surrogate: 1-Chlorooctadecane	113 %	6 52.1-17	6						

Cardinal Laboratories \*=Accredited Analyte

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RICE ENVIRONMENTAL CONSULTING & SAFETY LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/24/2014 Sampling Date: 10/24/2014

Reported: 10/27/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

#### Sample ID: 1' SCRAPE WEST WALL (H403285-02)

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	10/27/2014	ND	2.02	101	2.00	2.35	
Toluene*	< 0.050	0.050	10/27/2014	ND	1.91	95.7	2.00	1.95	
Ethylbenzene*	< 0.050	0.050	10/27/2014	ND	1.79	89.7	2.00	0.686	
Total Xylenes*	<0.150	0.150	10/27/2014	ND	5.33	88.8	6.00	0.173	
Total BTEX	<0.300	0.300	10/27/2014	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	10/27/2014	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	10/24/2014	ND	201	100	200	0.982	
DRO >C10-C28	<10.0	10.0	10/24/2014	ND	188	94.1	200	1.63	
Surrogate: 1-Chlorooctane	104 %	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	111 9	6 52.1-17	6						

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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.

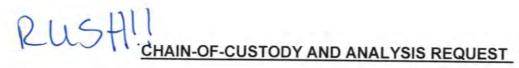
Chloride by SM4500Cl-B does not require samples be received at or below 6°C

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

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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

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	elivered By: (Circle One)  Sample Cool II  Pres							t .		CH		(ED B		lweinhe environi	menta	l tech	ecs.c	om; c	ursan	nc@ric		com lcom@	rice-ec	s.com	n



October 27, 2014

LAURA FLORES
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: GISSLER A #19

Enclosed are the results of analyses for samples received by the laboratory on 10/24/14 15:50.

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 LAURA FLORES

419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 10/24/2014 Sampling Date: 10/24/2014

Reported: 10/27/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Jodi Henson

Project Location: NOT GIVEN

#### Sample ID: SOUTH 9" SCRAPE 5 PT. COMP BTTM (H403286-01)

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	10/27/2014	ND	2.02	101	2.00	2.35	
Toluene*	<0.050	0.050	10/27/2014	ND	1.91	95.7	2.00	1.95	
Ethylbenzene*	<0.050	0.050	10/27/2014	ND	1.79	89.7	2.00	0.686	
Total Xylenes*	<0.150	0.150	10/27/2014	ND	5.33	88.8	6.00	0.173	
Total BTEX	<0.300	0.300	10/27/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	102 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	10/27/2014	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	10/24/2014	ND	201	100	200	0.982	
DRO >C10-C28	<10.0	10.0	10/24/2014	ND	188	94.1	200	1.63	
Surrogate: 1-Chlorooctane	106 9	% 47.2-15	7						
Surrogate: 1-Chlorooctadecane	114 9	6 52.1-17	6						

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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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) y Name: RECS								320	B	114	210	1346				Α	NAL	YSIS	REQUES	 _	_
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roject Manager: La	aura Flores /						-		mpa									2		1 1		
ddress: 419 W C										iiy.								6				
ity: Hobbs	State: NM	Zip:	88	240			$\neg$	Att										<u>-</u>				
hone #:	Fax #:								dres	s:					Σ		-	4				
roject #:	Project Owner	:						Cit						S			山	E I				
roject Name: Bu	mett oil co.							Sta	ate:		2	Zip:		ig	5	X	-	ţ	S			
Project Location:	Bissler A-17								one	#:				Chlorides	<b>TPH 8015</b>	BTEX	Texas TPH	Cations/Anions	TDS			
Sampler Name: Jos			_	_					x #:	.055	1/I	SAMPLIN	IG.	동	포	Ш	ě					
FOR LAB USE ONLY					M	ATRI	X		PRE	SEF	Ҡ	SAMPLI	10	10	片		-	let		1 1		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	17		0	,	Complete				
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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 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 performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

service. In no event shall Cardinal be ladde for industrial or observed affiliates or successors arising out of or related to the performance of Relinquished By:  Relinquished By:	Tipne: Store Received By:    Date:   Received By:   Received By:	Phone Result:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition CHECKED BY: Cool Intact Yes Yes No No	lweinheimer@rice-ecs.com; cursanic@rice-ecs.com environmental tech: jbalcom@rice-ecs.com

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





December 08, 2014

LAURA FLORES
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN
HOBBS, NM 88240

RE: GISSLER A #19

Enclosed are the results of analyses for samples received by the laboratory on 12/05/14 14:50.

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.

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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

LAURA FLORES 419 W. CAIN

HOBBS NM, 88240

Fax To: (575) 397-1471

Received: 12/05/2014 Sampling Date: 12/05/2014

Reported: 12/08/2014 Sampling Type: Soil

Project Name: GISSLER A #19 Sampling Condition: Cool & Intact
Project Number: NONE GIVEN Sample Received By: Kathy Perez

Project Location: NOT GIVEN

#### Sample ID: 5 PT. COMP IMPORTED CALICHE (H403725-01)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	12/08/2014	ND	432	108	400	3.77	

Cardinal Laboratories \*=Accredited Analyte

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#### **Notes and Definitions**

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RPD Relative Percent Difference

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\*\*\* 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 LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	East Mariand, Hobbs, NW 602 505) 393-2326 FAX (505) 393-24	10 (0	20)	0.0			圆		E	il.	470	17				A	NAL	YSIS R	QUES	-	_		$\dashv$
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ampler Name:	Total Boken						F	ax #:		D)/I	SAMPLIN	ic.	는	포	ш	e			1 1				
FOR LAB USE ONLY	CLUIT V		-	-	MAT	RIX	+	PR	ESE	KV.	SAMPLIN		10	片		-	et		1 1				
Lab I.D.	Sample I.D.  Spt Corposite imported of	(NG)RAB OR (C)OMP	- # CONTAINERS	GROUNDWATER	SOIL	OIL	SLUDGE	ACID/BASE:	ICE / COOL	OTHER:	DATE 12:5-147	TIME 2:00					Complete						
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analyses. All claims including service. In no event shall Can	Damages. Cardinal's sociary and destinate whatsoever shall ginose for negligence and any other cause whatsoever shall rdinal be liable for incidental or consequental damages, incl. gout of or related to the perfermance of services hereunder.	ding withou by Cardinal	ut limit. I, rega	ation, bu	usiness f wheth	interru er suct	ptions, claim	oss of u s based	upon a	loss of any of	ne above stated r	Phone F	nvise.		/es	☑ No	Add	'l Phone #:					
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

# Appendix D Photo Documentation

## **Burnett Oil Gissler A 19**

Unit Letter J, Section 14, T17S, R30E



Initial release area, facing northwest

7/7/14



Initial release area, facing southeast

7/7/14



Initial release area, facing northeast

7/7/14



Hand augur for depth, facing north

7/9/14



Beginning south 9 inch scrape, facing southwest 10/15/14



Beginning 1.5 ft scrape, facing northeast 10/16/14



Beginning 1 ft scrape, facing northeast 10/16/14



Exporting soil, facing southeast

10/20/14



Scraping 6 inches around well head, facing north 10/20/14



Importing caliche, facing northwest



Scrapes completed, facing north

10/24/14



Micro-Blazing vegetation, facing west

11/10/14



Backfilling site, facing northeast



Site completed, facing west 11/11/14

# Appendix E

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

#### State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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

			Rele	ease Notific	ation	and Co	rrective A	ction	1			
						OPERA	OR		☐ Initia	l Report	$\boxtimes$	Final Report
Name of Co					_	Contact						
Address			Loco Hil	ls, NM 88255		Telephone N						
Facility Nar	ne Gissle	r A 19			I	Facility Typ	e Well head					
Surface Ow	ner BL	M		Mineral O	wner				API No	30-015-3	32835	
				LOCA	TION	OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/V	Vest Line	County		
J	14	17S	30E	2310	I	FSL	2310	F	EL	Eddy		201
				32.833632252								
			Latitude					129349	<u> </u>			
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Source of Re	icase wen	nead				Unknown	our or occurrenc	C	7:30 am	nour of Dis	scovery	0/30/14
Was Immedia	ate Notice (		V [7	N. D. N.		If YES, To	Whom?					
☐ Yes ☐ No ☐ Not Required												
By Whom? Was a Water	course Read	ched?				Date and H	our lume Impacting t	he Wate	ercourse			
, as a mater	course recu		Yes 🗵	No		11 125, 10	rume impacting t	ne wat	reourse.			
If a Watercou	irse was Im	pacted, Descr	ibe Fully.	k								
					reads or	the 5 ½ in c	asing pin failed re	eleasing	20 bbls of	produced w	ater and	oil.
If a Watercourse was Impacted, Describe Fully.*  Describe Cause of Problem and Remedial Action Taken.*□The threads on the 5 ½ in casing pin failed releasing 20 bbls of produced water and oil.  Describe Area Affected and Cleanup Action Taken.*□A total of 7,132 sq ft of lease pad and pasture land was affected by the release. A vacuum truck was called to the site and recovered 15 bbls of fluid. RECS personnel were on site beginning on July 7th, 2014, to assess the release. Five points within the release area were field sampled at the surface, and four of the points were sampled with depth. Representative samples were taken to a commercial laboratory for analysis. Based on the sampling data, a CAP was submitted to NMOCD and BLM on August 19th, 2014. NMOCD approved the CAP on August 20th, 2014, with the stipulation that horizontal confirmation samples be taken from either the side walls or outside the excavation area. Corrective actions began at the site on October 15th, 2014. The release on the lease pad was excavated in 5 parts. Once each scrape was completed, final wall and bottom samples were taken and field tested for chlorides and organic vapors. The samples were then taken to a commercial laboratory for analysis. The southernmost 6 inch bgs scrape, located around Point 5, returned an elevated chloride concentration for the 5 point bottom composite. Therefore, the scrape was deepened to 9 inches bgs, and another 5 point bottom composite was taken. The 5 point bottom composite at 9 inches bgs returned an acceptable chloride value of 32 mg/kg. A request to backfill the site was sent to NMOCD and BLM on October 31sh, 2014. NMOCD approved the site to be backfilled on November 3sh, 2014. All excavated soil was taken to a NMOCD approved facility for disposal. Clean caliche was imported to the site to serve as backfill. A sample of the caliche was taken to a commercial laboratory for analysis and returned a chloride value of 176 mg/kg. The scrapes were backfilled on November 10th, 2014. This washed vegetation will b												
Signature:	Resli	O Sou					OIL CONS	3ER V	ATION	ופועוטוע	JIN	
Printed Name	e: Leslie (	Sarvis		16:	1	Approved by	Environmental S	pecialis	t:			
Title: Regu	ulatory Co	ordinator			1	Approval Dat	e:		Expiration 1	Date:		
E-mail Addre	ess: Igan	vis@burnett	oil.com			Conditions of	Approval:			Attached	ı 🗆	
Date: 12/2	2/14		Phone	817-583-8730								

<sup>\*</sup> Attach Additional Sheets If Necessary