

**August 19<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: Corrective Action Plan  
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). The surface sample at Point 1 returned a laboratory chloride reading, Gasoline Range Organics (GRO) reading and Diesel Range Organics (DRO) reading below regulatory standards. BTEX levels returned slightly elevated results. The surface sample at Point 2 returned a laboratory chloride reading, a DRO reading and BTEX readings that were elevated. The GRO reading returned a value of non-detect. The 2.5 ft bgs sample returned a laboratory chloride reading, GRO, DRO and BTEX readings below regulatory standards. The field data for Point 2 indicates that soil taken at 6 inches bgs will return all constituents below regulatory standards. The surface sample at Point 3 returned a laboratory chloride reading, GRO, DRO and BTEX readings that were elevated. The 3.5 ft bgs sample returned a laboratory chloride reading, GRO, DRO and BTEX readings below regulatory standards. The field data for Point 3 indicates that soil taken at 1.5 ft bgs will return all constituents below regulatory

standards. The surface sample at Point 4 returned a laboratory chloride reading below regulatory standards. However, GRO, DRO and BTEX readings were elevated. The 4 ft bgs sample returned a laboratory chloride reading, GRO, DRO and BTEX readings below regulatory standards. The field data for Point 4 indicates that soil taken at 1 ft bgs will return all constituents below regulatory standards. The surface sample at Point 5 returned a laboratory chloride reading and GRO reading below regulatory standards. However, DRO and BTEX readings were elevated. The 6 inch bgs sample returned a laboratory chloride reading, GRO, DRO and BTEX readings below regulatory standards. The field data for Point 5 indicates that soil taken at 6 inches bgs will return all constituents below regulatory standards.

Photo documentation of the release site can be found in Appendix C.

### **Corrective Action Plan**

Based on the field sampling data and laboratory analysis, the release will be remediated in five parts (Figure 2). The area around Point 1 is oil overspray that has lightly covered the vegetation in the area. Therefore, the area around Point 1 will 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 will be scraped down to 6 inches bgs. The scrape around Point 2 will not impinge on the well head or pump jack for safety reasons. The area around Point 3 will be scraped down to 1.5 ft bgs, and the area around Point 4 will be scraped down to 1 ft bgs. Once all the scrapes are completed, a bottom composite sample will be taken from each scrape and sent to a commercial laboratory to confirm that chlorides, GRO, DRO and BTEX readings are all below regulatory standards.

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

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

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in dark ink, appearing to read 'L.W.' followed by a stylized flourish.

Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

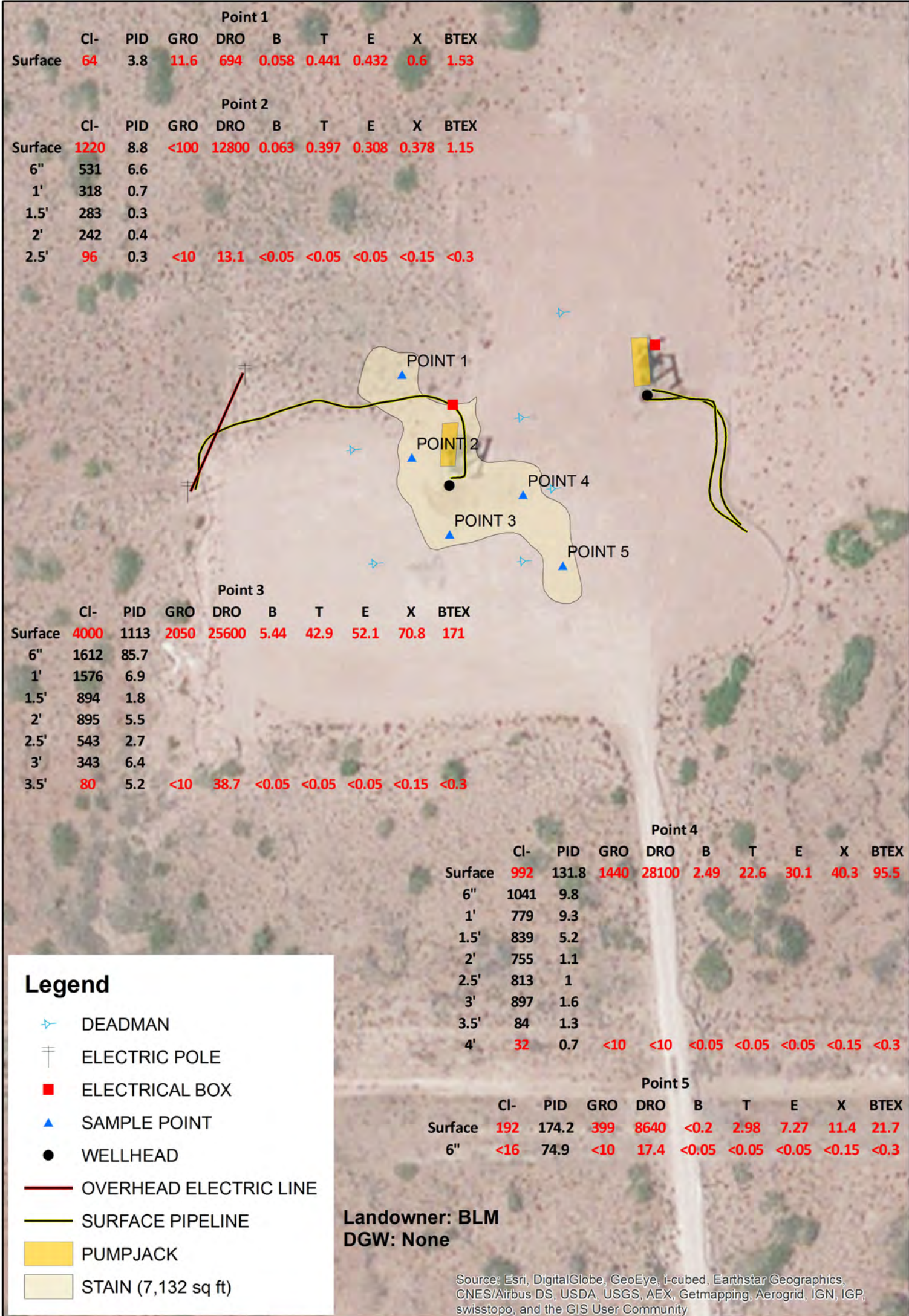
Attachments:

- Figure 1 – Initial Sampling Data
- Figure 2 – Proposed Corrective Actions
- Appendix A – Initial C-141
- Appendix B – Initial Sampling Lab
- Appendix C – Photo Documentation

# Figures



Initial Sampling Data



**BURNETT OIL  
GISSLER A 19**

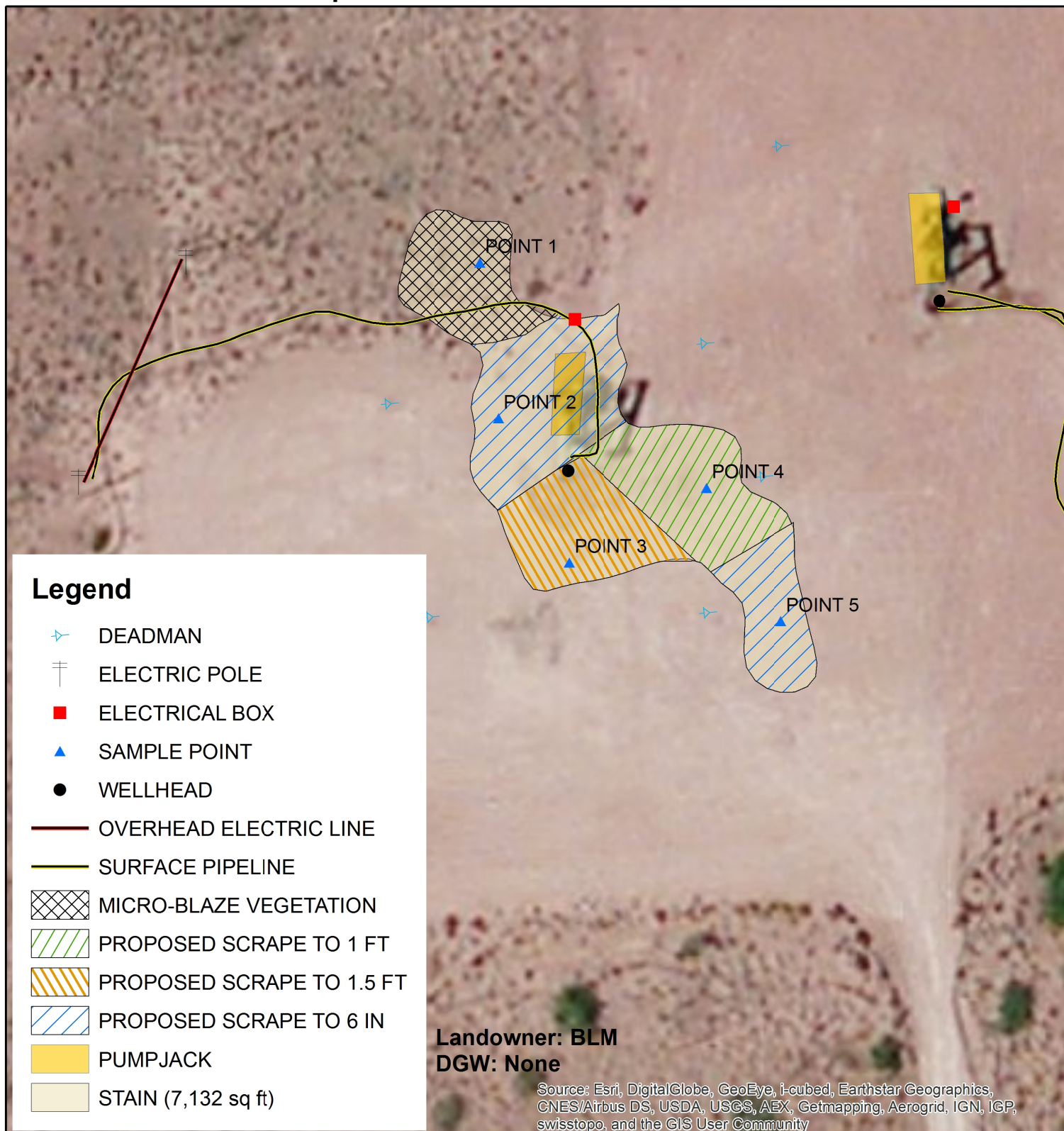
Legals: UL/J sec. 14  
T-17-S R-30-E  
EDDY COUNTY, NM

**Figure 1**

Drawing date: 7/16/14  
Drafted by: L. Weinheimer



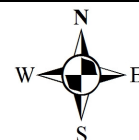
# Proposed Corrective Actions



## BURNETT OIL GISSLER A 19

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

Figure 2



0 25 50  
Feet

Drawing date: 8/11/14  
Drafted by: L. Weinheimer

# Appendix A

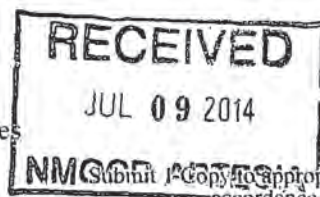
Initial C-141



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

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



Form C-141  
Revised August 8, 2011

Release Notification and Corrective Action

4HMP1420430499 OPERATOR ☒ Initial Report ☐ Final Report

Name of Company	Burnett Oil Co.	3080	Contact	Shawna Matthews
Address	87 Square Lake Rd., Loco Hills, NM 88255		Telephone No.	(575) 219-6370
Facility Name	Gissler A 19		Facility Type	Well head
Surface Owner	BLM		Mineral Owner	
		API No.		30-015-32835

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	14	17S	30E	2310	FSL	2310	FEL	Eddy

Latitude 32.8336322529691 Longitude -103.941654295496

NATURE OF RELEASE

Type of Release	Produced water and oil	Volume of Release	20 bbls	Volume Recovered	15 bbls
Source of Release	Well head	Date and Hour of Occurrence	Unknown	Date and Hour of Discovery	6/30/14 7:30 am
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required				
By Whom?	If YES, To Whom?				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Date and Hour					
If YES, Volume Impacting the Watercourse.					

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

The threads on the 5 1/2 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. The site will be remediated to NMOCD and BLM standards.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <u>Shawna Matthews</u>	OIL CONSERVATION DIVISION	
Printed Name: Shawna Matthews	Approved by Environmental Specialist: <u>H. P.</u>	
Title: Senior Production Technician	Approval Date: <u>7/23/14</u>	Expiration Date: <u>NA</u>
E-mail Address: smatthews@burnettoil.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7-9-14 Phone: (575) 219-6370	remediation per OGD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN: <u>8/23/14</u>	

\* Attach Additional Sheets If Necessary

2RP-2388



# Appendix B

## Initial Sampling Lab

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



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

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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 [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager

### Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY  
LAURA FLORES  
419 W. CAIN  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received: 07/09/2014  
Reported: 07/16/2014  
Project Name: GISSLER A #19  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 07/07/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

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

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.058</b>	0.050	07/14/2014	ND	1.88	94.1	2.00	4.05	
<b>Toluene*</b>	<b>0.441</b>	0.050	07/14/2014	ND	1.88	93.8	2.00	4.05	
<b>Ethylbenzene*</b>	<b>0.432</b>	0.050	07/14/2014	ND	1.85	92.6	2.00	3.40	
<b>Total Xylenes*</b>	<b>0.600</b>	0.150	07/14/2014	ND	5.68	94.7	6.00	3.57	
<b>Total BTX</b>	<b>1.53</b>	0.300	07/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	07/15/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>11.6</b>	10.0	07/11/2014	ND	184	92.2	200	2.67	
<b>DRO &gt;C10-C28</b>	<b>694</b>	10.0	07/11/2014	ND	196	98.2	200	3.22	

Surrogate: 1-Chlorooctane 91.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 108 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 RICE ENVIRONMENTAL CONSULTING & SAFETY  
 LAURA FLORES  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 397-1471

 Received: 07/09/2014  
 Reported: 07/16/2014  
 Project Name: GISSLER A #19  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 07/07/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

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

BTX 8021B		mg/kg		Analyzed 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 BTX	1.15	0.300	07/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed 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		Analyzed 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 % 65.2-140

Surrogate: 1-Chlorooctadecane 452 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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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  
 Reported: 07/16/2014  
 Project Name: GISSLER A #19  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 07/07/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

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

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/14/2014	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 BTX	<0.300	0.300	07/14/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed 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		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/12/2014	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 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 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		Analyzed 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 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4000	16.0	07/15/2014	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2050	200	07/12/2014	ND	184	92.2	200	2.67	
DRO >C10-C28	25600	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

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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LAURA FLORES  
419 W. CAIN  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received: 07/09/2014  
Reported: 07/16/2014  
Project Name: GISSLER A #19  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 07/09/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

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

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2014	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 BTX	<0.300	0.300	07/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed 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		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/12/2014	ND	184	92.2	200	2.67	
DRO >C10-C28	38.7	10.0	07/12/2014	ND	196	98.2	200	3.22	

Surrogate: 1-Chlorooctane 91.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.8 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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 LAURA FLORES  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 397-1471

 Received: 07/09/2014  
 Reported: 07/16/2014  
 Project Name: GISSLER A #19  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 07/07/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

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

BTEx 8021B		mg/kg		Analyzed 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 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	07/15/2014	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
				S-06					

**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
LAURA FLORES  
419 W. CAIN  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received: 07/09/2014  
Reported: 07/16/2014  
Project Name: GISSLER A #19  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 07/07/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

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

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/14/2014	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 BTX	<0.300	0.300	07/14/2014	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed 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		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/12/2014	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 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.6 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
LAURA FLORES  
419 W. CAIN  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received: 07/09/2014  
Reported: 07/16/2014  
Project Name: GISSLER A #19  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 07/07/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

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

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	07/14/2014	ND	1.88	94.1	2.00	4.05	
<b>Toluene*</b>	<b>2.98</b>	0.200	07/14/2014	ND	1.88	93.8	2.00	4.05	
<b>Ethylbenzene*</b>	<b>7.27</b>	0.200	07/14/2014	ND	1.85	92.6	2.00	3.40	
<b>Total Xylenes*</b>	<b>11.4</b>	0.600	07/14/2014	ND	5.68	94.7	6.00	3.57	
<b>Total BTX</b>	<b>21.7</b>	1.20	07/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 149 % 89.4-126

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>192</b>	16.0	07/15/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>399</b>	100	07/12/2014	ND	184	92.2	200	2.67	
<b>DRO &gt;C10-C28</b>	<b>8640</b>	100	07/12/2014	ND	196	98.2	200	3.22	

Surrogate: 1-Chlorooctane 147 % 65.2-140

Surrogate: 1-Chlorooctadecane 233 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 RICE ENVIRONMENTAL CONSULTING & SAFETY  
 LAURA FLORES  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 397-1471

 Received: 07/09/2014  
 Reported: 07/16/2014  
 Project Name: GISSLER A #19  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 07/07/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

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

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/14/2014	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 BTX	<0.300	0.300	07/14/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/15/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	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 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>RECS</b>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																			
Project Manager: <b>Laura Flores, Kyle Norman</b>				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>																			
Address:				Company:																							
City: <b>Hobbs</b> State: <b>NM</b> Zip: <b>88240</b>				Attn:																							
Phone #: Fax #:				Address:																							
Project #: Project Owner:				City:																							
Project Name:				State: Zip:																							
Project Location: <b>Gissler #19</b>				Phone #:																							
Sampler Name: <b>Kyle Schnaidt</b>				Fax #:																							
FOR LAB USE ONLY																											
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING													
								GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:				ACID/BASE: ICE / COOL OTHER:		DATE TIME													
<b>H402094</b>																											
1 Point 1 @ surface				G 1								X		7-7-14 11:45		X											
2 Point 2 @ surface				G 1								X		7-7-14 11:50		X											
3 Point 2 @ 2.5'				G 1								X		7-7-14 12:00		X											
4 Point 3 @ surface				G 1								X		7-7-14 12:05		X											
5 Point 3 @ 3.5'				G 1								X		7-9-14 12:30		X											
6 Point 4 @ surface				G 1								X		7-7-14 12:15		X											
7 Point 4 @ 4'				G 1								X		7-7-14 12:20		X											
8 Point 5 @ surface				G 1								X		7-7-14 12:25		X											
9 Point 5 @ 8"				G 1								X		7-7-14 12:40		X											
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Relinquished By: <b>Kyle Schnaidt</b>				Date: <b>7-9-14</b>				Received By: <b>Wendi Henson</b>				Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Add'l Phone #:											
				Time: <b>4:30</b>								Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Add'l Fax #:											
Relinquished By:				Date:				Received By:				REMARKS:															
				Time:								email: hconder@riceswd.com; lflores@rice-ecs.com; lweinheimer@rice-ecs.com; knorman@rice-ecs.com; jkamplain@rice-ecs.com; sedwards@rice-ecs.com; cursanic@rice-ecs.com															
Delivered By: (Circle One)								Sample Condition				CHECKED BY:				Environmental Tech: <b>Kschnaidt</b>											
Sampler - UPS - Bus - Other:								Cool Intact				(Initials)															
								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				@rice-ecs.com											

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

#54

# Appendix C

Photo Documentation

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



# Burnett Oil Gissler A 19

Unit Letter J, Section 14, T17S, R30E



Initial release area, facing northwest

7/7/14



Initial release area, facing northeast

7/7/14



Initial release area, facing southeast

7/7/14



Hand augur for depth, facing north

7/9/14