



Infrastructure, buildings, environment, communications

Dr. Tomas Oberding
New Mexico Oil Conservation Division
1220 So. St. Francis Drive
Santa Fe, New Mexico 87505

Subject: **2015 ANNUAL GROUNDWATER REPORT**
NMOCD Case # AP-71
Blinebry Drinkard (BD) H-35 Emergency Overflow Pit
T22S, R37E, Section. 35, Unit H, Lea County, New Mexico

Dr. Oberding:

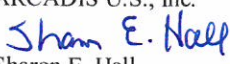
On behalf of Rice Operating Company (ROC), ARCADIS U.S., Inc. (ARCADIS) respectfully submits the 2015 Annual Groundwater Report for the BD H-35 Emergency Overflow Pit site located at the H-35 facility on the Blinebry-Drinkard Salt Water Disposal System.

One monitoring well was installed on December 21, 2005, following the approval of the Investigation and Characterization Work Plan on November 9, 2004.

The well was sampled quarterly in 2015 per NMOCD guidelines. The attached table summarizes the analytical results from groundwater samples collected from the monitor well at the site. ROC will continue to monitor through 2016.

ROC is the service provider (agent) for the BD Salt Water Disposal System and has no ownership of any portion of pipeline, well or facility. The BD SWD System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

Thank you for your consideration concerning this annual summary of groundwater monitoring information. If you have any questions, do not hesitate to contact me at 432 687-5400 or Katie Jones at (575) 393-9174.

Sincerely,
ARCADIS U.S., Inc.

Sharon E. Hall
Associate Vice President

Copies: Katie Jones- ROC

Attachments:
Site Location Map, Monitor Well Location Figure, Data Summary Table,
Most Recent Laboratory Results

ARCADIS U.S., Inc.
1004 North Big Spring Street
Suite 300
Midland
Texas 79701
Tel 432 687 5400
Fax 432 687 5401
www.arcadis-us.com

Environmental

Date:
March 25, 2016

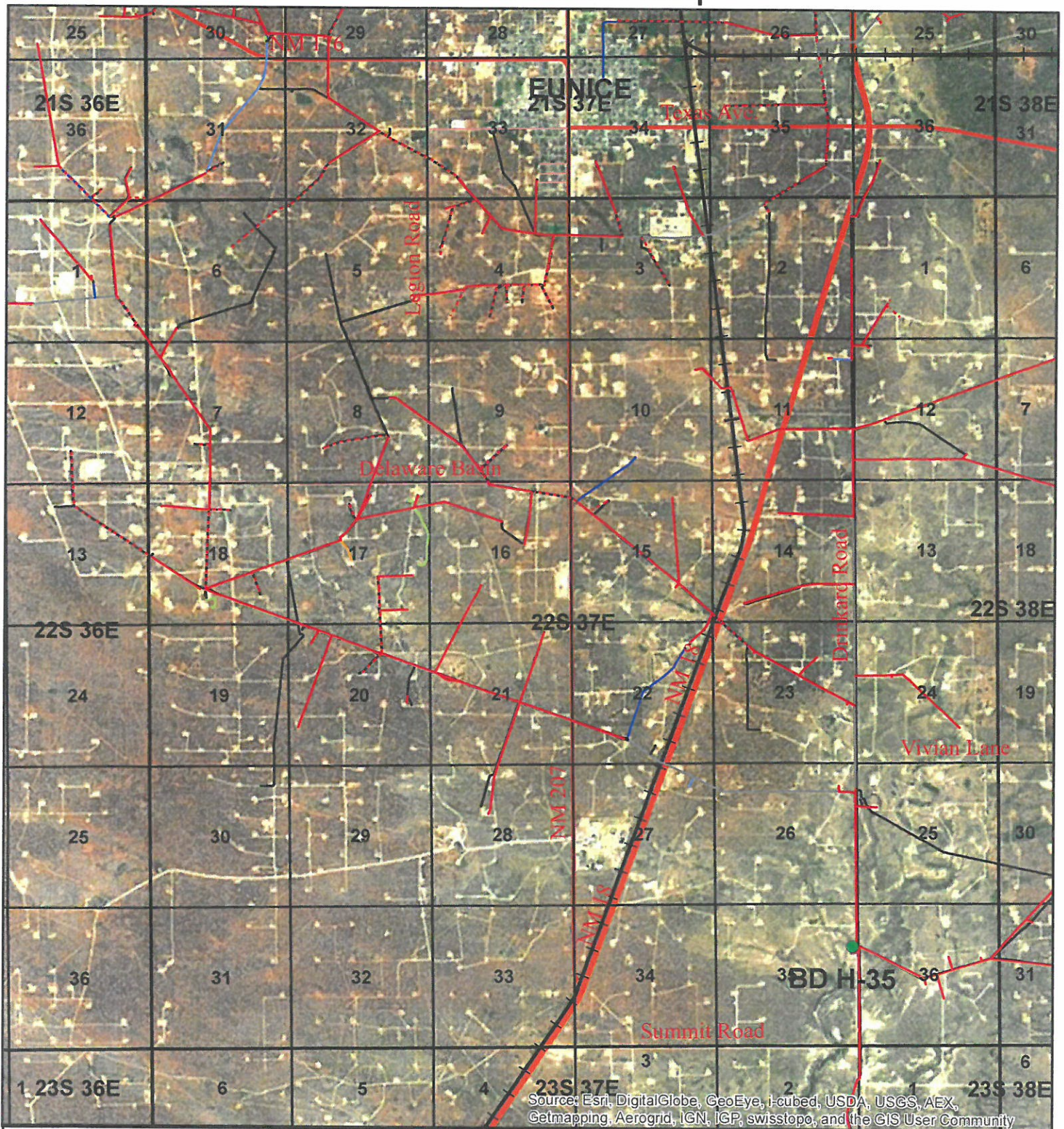
Contact:
Sharon E. Hall

Phone:
432 687-5400

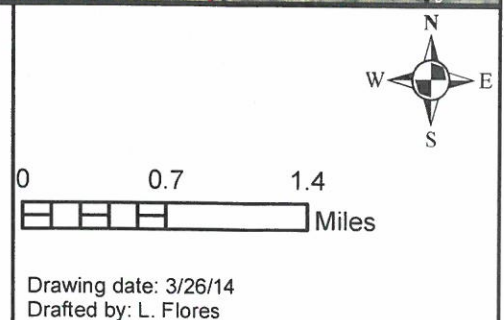
Email:
shall@arcadis-us.com

Our ref:
MT000846.0001

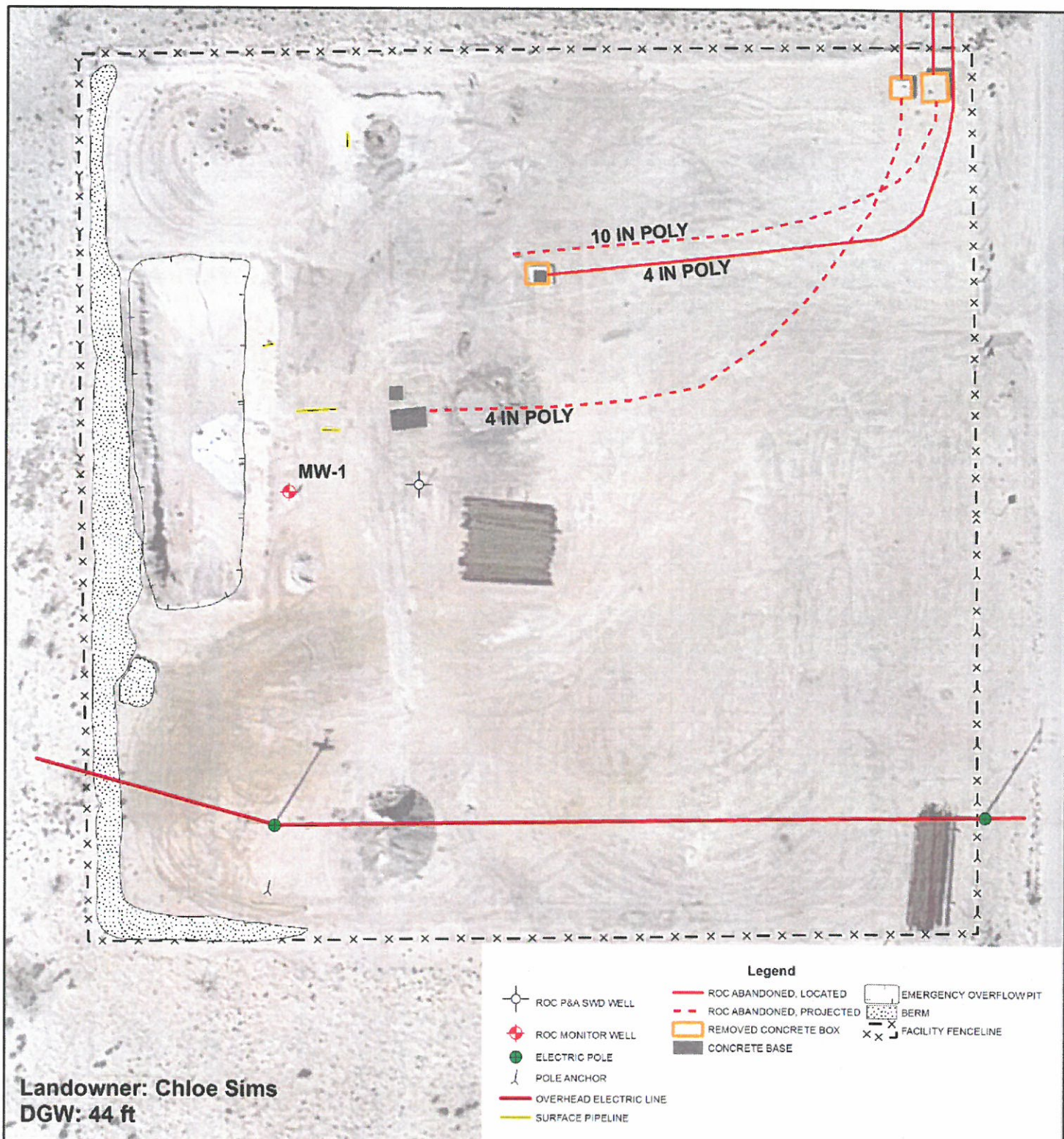
Site Location Map



BD H-35
Emergency
Overflow Pit
Legals: UL/H sec. 35
T-22-S R-37-E
NMOCD Case #: AP-71



Site Map



BD H-35 SWD EMERGENCY OVERFLOW PIT

AP-71

UL H SECTION 35
T-22-S R-37-E
LEA COUNTY, NM

**Underground facilities are
spatially projected
and need to be field verified.**

GPS: 32.350497 -103.125984

0 25 50
Feet

GPS date: 3/2/14 TG
Drawing date: 3/24/16
Drafted by: T. Grieco



ROC - BD H-35 (AP-71)

Unit Letter H, Section 35, T22S, R37E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	43.64	57.2	8.8	30	1/4/2006	1,880	4,290	<0.001	<0.001	<0.001	<0.001	383	Clear No odor
1	43.79	57.2	8.7	30	4/24/2006	2,360	5,380	<0.001	<0.001	<0.001	<0.001	405	XXX
1	43.92	57.2	8.6	35	7/19/2006	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
1	43.83	57.2	8.7	30	10/11/2006	2,880	7,460	<0.001	<0.001	<0.001	<0.001	561	clear
1	44.1	57.16	8.5	30	1/25/2007	3,240	5,300	<0.001	<0.001	<0.001	<0.001	556	XXX
1	44.2	57.16	8.4	30	4/4/2007	3,220	8,680	<0.001	<0.001	<0.001	<0.001	381	XXX
1	43.99	57.16	8.6	30	8/24/2007	4,749	12,345	0.003	0.003	0.003	0.008	565	Clear No odor
1	44.13	57.16	8.5	30	10/31/2007	3,400	7,028	<0.002	<0.002	<0.002	<0.006	499	Clear No odor
1	44.22	57.2	8.4	30	1/15/2008	4,800	9,194	<0.001	<0.001	<0.001	<0.003	665	Clear No odor
1	44.26	57.2	8.4	30	4/7/2008	4,600	9,350	<0.001	<0.001	<0.001	<0.003	888	Clear No odor
1	44.34	57.2	8.4	30	7/22/2008	4,400	9,580	<0.002	<0.002	<0.002	<0.006	714	Clear No odor
1	44.4	57.2	8.3	30	10/2/2008	3,950	9,350	<0.001	<0.001	<0.001	<0.003	675	Clear No odor
1	44.47	57.2	8.3	30	1/14/2009	3,650	7,600	<0.001	<0.001	<0.001	<0.003	657	Clear No odor
1	44.52	57.2	8.2	30	4/14/2009	3,400	6,550	<0.001	<0.001	<0.001	<0.003	629	Clear No odor
1	44.56	57.23	8.2	30	7/13/2009	2,380	4,800	<0.001	<0.001	<0.001	<0.003	522	Clear No odor
1	44.62	57.23	8.2	30	10/7/2009	3,050	6,900	<0.001	<0.001	<0.001	<0.003	519	Clear No odor
1	44.66	57.23	8.2	30	1/13/2010	3,050	6,300	<0.001	<0.001	<0.001	<0.003	490	Clear No odor
1	44.68	57.23	8.2	30	4/9/2010	2,850	5,480	<0.001	<0.001	<0.001	<0.003	618	Clear No odor
1	44.6	57.23	8.2	30	7/9/2010	2,650	4,970	<0.001	<0.001	<0.001	<0.003	526	Clear No odor
1	44.55	57.23	8.2	30	10/7/2010	2,750	6,430	<0.001	<0.001	<0.001	<0.003	512	Clear No odor
1	44.76	57.24	8.1	30	1/13/2011	2,650	5,160	<0.001	<0.001	<0.001	<0.003	598	Clear No odor
1	44.77	57.24	8.1	30	4/11/2011	3,050	5,480	<0.001	<0.001	<0.001	<0.003	567	Clear No odor
1	44.86	57.24	8	30	7/13/2011	4,050	6,590	<0.001	<0.001	<0.001	<0.003	597	Clear No odor
1	44.94	57.24	8	30	10/12/2011	3,400	5,890	<0.001	<0.001	<0.001	<0.003	607	Clear No odor
1	44.99	57.24	8	30	1/17/2012	2,470	5,070	<0.001	<0.001	<0.001	<0.003	558	Clear No odor
1	45.08	57.24	7.9	30	4/16/2012	2,570	5,100	<0.001	<0.001	<0.001	<0.003	437	Clear No odor
1	45.1	57.24	7.9	30	7/12/2012	2,430	4,940	<0.001	<0.001	<0.001	<0.003	504	Clear No odor
1	45.12	57.24	7.9	30	10/4/2012	2,700	5,380	<0.001	<0.001	<0.001	<0.003	615	Clear No odor
1	45.18	57.24	7.8	30	1/7/2013	2,200	4,290	<0.001	<0.001	<0.001	<0.003	501	Clear No odor

ROC - BD H-35 (AP-71)
Unit Letter H, Section 35, T22S, R37E

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	45.25	57.24	7.8	30	4/18/2013	2,080	4,100	<0.001	<0.001	<0.001	<0.003	504	Clear No odor
1	45.24	57.24	7.8	30	7/15/2013	1,980	4,240	XXX	XXX	XXX	XXX	456	Clear No odor
1	45.32	57.24	7.7	30	10/16/2013	1,800	4,080	XXX	XXX	XXX	XXX	418	Clear No odor
1	45.37	57.24	7.7	30	1/15/2014	2,000	3,680	XXX	XXX	XXX	XXX	401	Clear No odor
1	45.44	57.24	7.7	30	4/4/2014	1,970	3,890	XXX	XXX	XXX	XXX	363	Clear No odor
1	45.45	57.24	7.7	30	7/15/2014	1,660	4,360	XXX	XXX	XXX	XXX	224	Clear No odor
1	42.22	57.24	9.8	100	12/16/2014	13,800	24,600	XXX	XXX	XXX	XXX	1610	Clear No odor
1	42.19	57.24	9.8	100	1/30/2015	9,600	16,800	XXX	XXX	XXX	XXX	1110	Clear No odor
1	42.47	57.24	9.6	100	4/20/2015	6,700	12,700	XXX	XXX	XXX	XXX	629	Clear No odor
1	42.18	57.24	9.79	100	7/20/2015	5,900	10,800	XXX	XXX	XXX	XXX	497	Clear No odor
1	43.03	57.24	9.24	100	10/21/2015	5,800	11,000	XXX	XXX	XXX	XXX	621	Clear No odor

October 30, 2015

KATIE JONES

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD H-35 SWD

Enclosed are the results of analyses for samples received by the laboratory on 10/26/15 13:44.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

Rice Operating Company
KATIE JONES
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received: 10/26/2015
Reported: 10/30/2015
Project Name: BD H-35 SWD
Project Number: NONE GIVEN
Project Location: T22S R37E SEC35 H-LEA CTY., NM

Sampling Date: 10/21/2015
Sampling Type: Water
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

Sample ID: MONITOR WELL #1 (H502784-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	5800	4.00	10/29/2015	ND	104	104	100	0.00	
Sulfate 375.4		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	621	125	10/28/2015	ND	19.5	97.3	20.0	4.77	
TDS 160.1		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	11000	5.00	10/30/2015	ND	516	97.9	527	3.68	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

101 East Marland • Hobbs, NM 88240
Tel: (575) 393-2326
Fax: (575) 393-2476

Cardinal Laboratories, Inc.

Company Name RICE Operating Company	BILL TO Company RICE Operating Company	PO#
Project Manager Katie Jones	Address 122 W Taylor Street ~ Hobbs, New Mexico 88240	(Street, City, Zip)
Address 122 W Taylor Street ~ Hobbs, New Mexico 88240	Phone# (575) 393-9174	Fax# (575)397-1471
Phone # (575) 393-9174	Fax # (575) 397-1471	

Project # _____ Project Name: BD H-35 SWD
Project Location: T2S R37E Sec35 H ~ Lea County New Mexico
Sampler Signature: Roseanne Johnson (576) 631-0310

[illegible]

Relinquished by: <u>Bethanne Johnson</u>	Date: <u>10/22/2015</u>	Time: <u>13:43</u>	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by: <u>Laboratory Staff</u>	Date:	Time:
Delivered By: (Circle One)	Sample Condition		CHECKED BY:		
<input checked="" type="radio"/> Sampler - <input type="radio"/> UPS - <input type="radio"/> Bus - <input type="radio"/> Other:	Conf Intact Yes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>		(Initials) <u>CSH</u> <u>CSH</u>		

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #

ANALYSIS REQUEST

(Circle or Specify Method No.)

	MTBE 8021B/602	
	BTEX 8021B/602	
	TPH 418.1/TX1005 / TX1005 Extended (C35)	
	PAH 8270C	
	Total Metals Ag As Ba Cd Cr Pb Se Hg 8010B/200.7	
	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
	TCLP Volatiles	
	TCLP Semi Volatiles	
	TCLP Pesticides	
	RCI	
	GC/MS Vol. 8260B/624	
	GC/MS Semi. Vol. 8270C/625	
	PCB's 8082/608	
	Pesticides 8081A/608	
	BOD, TSS, pH	
	Moisture Content	
	Anions (Cl, SO ₄ , CO ₃ , HCO ₃)	
	Cations (Ca, Mg, Na, K)	
	Sulfates (SO ₄)	x
	Total Dissolved Solids	x
	Chlorides	x
	Turn Around Time ~ 24 Hours	

Phone Results	Yes	No
Fax Results	Yes	No Additional Fax Number

REMARKS:

Email Results: kjones@riceswd.com
rozanne11@windstream.net