

1R - 426-101

# REPORTS

DATE:

9-20-12



Infrastructure, environment, buildings

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Mr. Ed Hansen  
New Mexico Energy, Minerals, & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87505

ARCADIS U.S.  
1004 North Big Spring Street  
Suite 300  
Midland  
Texas 79701  
Tel 432 687 5400  
Fax 432 687 5401  
[www.arcadis-us.com](http://www.arcadis-us.com)

Environmental

Subject:

**Termination Request  
Blinebry-Drinkard (BD) H-14  
T22S, R37E, Section 14, Unit H, Eunice, Lea County, New Mexico  
NMOCD Case # 1R426-101**

Date:  
September 20, 2012

Mr. Hansen:

Contact:  
Sharon E. Hall

On behalf of Rice Operating Company (ROC), ARCADIS U.S., Inc. (ARCADIS) respectfully submits this Termination Request for the above-referenced site.

Phone:  
432 687-5400

NMOCD approved ROC's Corrective Action Plan (CAP) and subsequent addendums on April 4, 2011. The CAP called for soil removal to a depth of five to six feet below ground surface, backfilling with clean soil and seeding of the site. It also proposed an estimation of the chloride mass that may have contributed to groundwater impact at the former junction box location, and a plan for the removal of that chloride mass. The approved chloride mass estimation and plan for removal is as follows:

Email:  
[sharon.hall@arcadis-us.com](mailto:sharon.hall@arcadis-us.com)

ROC proposed, and NMOCD approved, utilizing the existing groundwater recovery system located at the BD O-23 and BD O-23-1 vent locations to recover an estimated 1,941 kilograms (kg) of chloride mass. Removed groundwater would be utilized for pipeline and well maintenance.

Our ref:  
MT000914.0001

As of September 17, 2012, a total of 2,065 barrels of groundwater and 2,109 kg of chloride had been recovered from the four recovery wells located at the BD O-23 vent and BD O-23-1 vent locations. A total of 865 barrels of groundwater and 1,169 kg of chloride were recovered from BD O-23 vent (432.5 barrels were removed from MW-1R and 432.5 barrels were removed RW-2). With a chloride concentration of 7,100 mg/L in MW-1R, approximately 488 kg of chloride were removed and with a chloride concentration of 9,900 mg/L in RW-2, approximately 681 kg were removed. A total of 1,200 barrels of groundwater and 940 kg of chloride were recovered from BD O-23-1 vent (600 barrels were removed from MW-1R and 600 barrels were removed RW-2). With a chloride concentration of 4,350 mg/L in MW-1R, approximately 415 kg of chloride were removed and with a chloride concentration of 5,500 mg/L in RW-2, approximately 525 kg were removed. (See attached laboratory reports and chloride mass removal record.)

Site soils were excavated according to the CAP and a 58x84 ft clay barrier was installed from 7 to 6 ft bgs. The excavation was backfilled with clean soil and the site was then seeded with native vegetation. An Initial CAP Report was submitted to NMOCD on August 1, 2011 and approved by NMOCD on September 20, 2011, which granted soil closure.

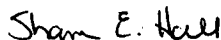
Upon NMOCD approval of this Termination Request, monitoring wells MW-1 and MW-3 will be plugged using a cement grout with 1 to 3% bentonite and a 3 ft cap of cement. The up-gradient well (MW-2) will remain open to monitor up-gradient background concentrations in the area.

ROC has met all abatement requirements in accordance with 19.15.29 NMAC, and respectfully requests termination of the regulatory file for this site.

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 request for site termination. If you have any questions please contact Hack Conder at (575) 393-9174.

Sincerely,  
ARCADIS



Sharon E. Hall  
Associate Vice President

Copies:  
Hack Conder, ROC

Attachments:  
Laboratory Report  
Chloride Mass Removal Record

August 22, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD O-23 VENT

Enclosed are the results of analyses for samples received by the laboratory on 08/16/12 15:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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).

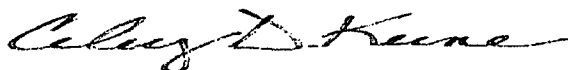
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 08/16/2012  
Reported: 08/22/2012  
Project Name: BD O-23 VENT  
Project Number: NONE GIVEN  
Project Location: T21S R37E SEC23 O-LEA CTY., NM

Sampling Date: 08/16/2012  
Sampling Type: Water  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: MONITOR WELL 1-R (H201922-01)**

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	7100	4.00	08/17/2012	ND	100	100	100	8.33	

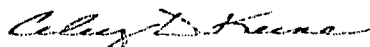
**Sample ID: RECOVERY WELL 2 (H201922-02)**

Chloride, SM4500CI-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	9900	4.00	08/17/2012	ND	100	100	100	8.33	

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

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**Cardinal Laboratories****\*=Accredited Analyte**

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**Celey D. Keene, Lab Director/Quality Manager**

**CARDINAL 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

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

Company Name: <u>Rice</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																																	
Project Manager: Hack Conder				P.O. #:				<div>Chlorides TPH 8015 M BTEX Texas TPH Complete Cations/Anions TDS</div>																																	
Address:				Company:																																					
City: Hobbs State: NM Zip: 88240				Attn:																																					
Phone #: Fax #:				Address:																																					
Project #: Project Owner:				City:																																					
Project Name:				State: Zip:																																					
Project Location: <u>RR 0-23 West</u>				Phone #:																																					
Sampler Name: Kyle Norman				Fax #:																																					
FOR LAB USE ONLY		Lab I.D.		Sample I.D.		GRAB OR COMPOUND		MATRIX		PRESERV.		SAMPLING																													
						# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE		ICE / COOL		OTHER:		DATE		TIME													
		H201922																								8-16-12		16:00													
		1 MW 1R																								8-16-12		16:05													
		2 RW 2																																							
		</																																							

August 22, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD O-23-1

Enclosed are the results of analyses for samples received by the laboratory on 08/16/12 15:40.

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Sincerely,



Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

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

Received:	08/16/2012	Sampling Date:	08/16/2012
Reported:	08/22/2012	Sampling Type:	Water
Project Name:	BD O-23-1	Sampling Condition:	** (See Notes)
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	T21S R37E SEC23 O-LEA CTY., NM		

**Sample ID: MW 1-R (H201923-01)**

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	4350	4.00	08/17/2012	ND	100	100	100	8.33	

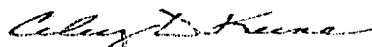
**Sample ID: RW-2 (H201923-02)**

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	5500	4.00	08/17/2012	ND	100	100	100	8.33	

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Celey D. Keene, Lab Director/Quality Manager

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

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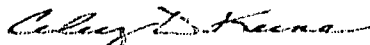
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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

# 26

# Record of Groundwater Withdrawal

Site Name: BD H-14 (1R426-101)

## O-23 vent

Date	Fluid Hauled (bbls)		Lab	Comments	Date	Fluid Hauled (bbls)		Lab	Comments
8/16/2012			7,100	MW-1R	8/16/2012			9,900	RW-2
8/20/2012	40			Started Pumping	8/20/2012	40			Started Pumping
8/23/2012	50				8/23/2012	50			
8/24/2012	12.5				8/24/2012	12.5			
8/27/2012	45				8/27/2012	45			
8/30/2012	65				8/30/2012	65			
8/31/2012	15				8/31/2012	15			
Total for August	227.5	bbls	Total kg of Chloride	256.8042281	Total for August	227.5	bbls	Total kg of Chloride	358.079135
	9555	gallons	removed			9555	gallons	removed	
9/4/2012	65				9/4/2012	65			
9/6/2012	25				9/6/2012	25			
9/7/2012	20				9/7/2012	20			
9/10/2012	30				9/10/2012	30			
9/11/2012	30				9/11/2012	30			
9/17/2012	35				9/17/2012	35			
Total for September	205	bbls	Total kg of Chloride	231.4060078	Total for September	205	bbls	Total kg of Chloride	322.6647151
	8610	gallons	removed			8610	gallons	removed	
Total for MW-1R	432.5	bbls	Total kg of Chloride	488.2102359	Total for Project RW-2	432.5	bbls	Total kg of Chloride	680.7438501
	18165		removed from MW-1R			18165		removed from RW-2	
Total Removed from O-23 vent	865	bbls	Total kg of Chloride	1168.954086					
			removed from O-23 vent						

**Record of Groundwater Withdrawal**  
**Site Name: BD H-14 (1R426-101)**

**O-23-1 vent**

Date	Fluid Hauled (bbls)		Lab	Comments	Date	Fluid Hauled (bbls)		Lab
8/16/2012			4,350	MW-1R	8/16/2012			5,500
8/20/2012	65			Started Pumping	8/20/2012	65		S
8/23/2012	65				8/23/2012	65		
8/24/2012	20				8/24/2012	20		
8/27/2012	65				8/27/2012	65		
8/30/2012	60				8/30/2012	60		
8/31/2012	30				8/31/2012	30		
Total for August	305	bbls	Total kg of Chloride	210.9363935	Total for August	305	bbls	Total kg of Chloride
	12810	gallons	removed			12810	gallons	removed
9/4/2012	65				9/4/2012	65		
9/6/2012	40				9/6/2012	40		
9/7/2012	40				9/7/2012	40		
9/10/2012	60				9/10/2012	60		
9/11/2012	35				9/11/2012	35		
9/17/2012	55				9/17/2012	55		
Total for September	295	bbls	Total kg of Chloride	204.0204462	Total for September	295	bbls	Total kg of Chloride
	12390	gallons	removed			12390	gallons	removed
Total for Project	600	bbls	Total kg of Chloride	414.9568398	Total for Project	600	bbls	Total kg of Chloride
	25200		removed from MW-1R			25200		removed from RW-2
Total Removed from O-23-1 vent	1200	bbls	Total kg of Chloride	939.614913				
			removed from O-23-1 vent					
Total for BD H-14	2065 bbls		Total kg of Chloride	2108.569				
			removed					

**Record of Groundwater Withdrawal**  
**Site Name: BD H-14 (1R426-101)**

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**Comments**

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RW-2

Started Pumping

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266.7011872

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257.956886

524.6580733

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