# BD O-29-1 vent 2013

**DISCLOSURE** 

# RICE OPERATING COMPANY JUNCTION BOX DISCLOSURE\* REPORT

**BOX LOCATION** 

	SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY		ISIONS - FEE				
	Blinebry-Drinkard	O-29-1 vent	0	29	228	38E	Lea	Length 4' V	Vidth 4' H	eight 2'			
L	(BD)	0 20 1 4011	Ŭ			002		Elin	ninated				
L	AND TYPE:	BLM	STATE	_ FEE LAI	NDOWNER	D.I	K. Boyd	OTHER					
	Depth to Grou	ndwater	124	feet	NMOCI	D SITE ASS	SESSMEN	T RANKING SCO	RE: (	)			
	Date Started	 I 6/20/	/2013	- Date Coi	mpleted	7/26/2013	OCI	) Witness	no				
				-	·								
,	Soil Excavated	400.0	cubic ya	rds Exc	avation Le	ngth30	Wid	th <u>30</u> De	epth12	feet			
	Soil Disposed	648	cubic ya	rds Of	site Facility	Sundance	e Services	Location	Eunice, N	<u>M</u>			
FIEL	D SOURCE	E RESUL	TS:	Sample		7/9/2013, 7/2 7/25/20		Sample Depth	12	! ft			
Pro	cure 5-point co	mposite sar	nple of bott	om and 4-pc	int composi	te sample o	f						
	dewalls. TPH a	and Chloride	laboratory	test results	completed b	y using an		CHLORIDE	FIELD TES	STS			
	Commis	DID (6.	J#)	RO I	DRO	Chlorida							
	Sample Location	PID (fie		g/kg	mg/kg	Chlorides mg/kg	<b>'</b>	LOCATION	DEPTH	mg/kg			
4-	WALL COMP.	10.3	, <	10	28.4	1,120		4 wall comp.	n/a	1,585			
ВС	TTOM COMP.	. 4.3	<	:10	<10	1,220		bottom comp.	12'	852			
8 pt C	omp Blended Bac					800	8	pt Comp Blended Backfill	n/a	1,108			
	BLOWSAND	3.9				16			2'	928			
	TOPSOIL					<16			4'	669			
								15' east of the	6'	696			
General Description of Remedial Action:     This junction box was eliminated during     former jct. box     8'     945       the pipeline replacement/upgrade program     After the former junction box was removed     10'     748													
the pipeline replacement/upgrade program. After the former junction box was removed, 10' 748													
an investigation was conducted using a backhoe to collect soil samples at regular intervals producing a 30x30x12 ft deep excavation. Chloride field tests performed on each													
								ing a PID which yield					
								re sent to a commer					
								D approved disposa		· · · · · · · · · · · · · · · · · · ·			
								ner was properly sea					
								s padding. A sample					
		***						p shelf was excavate blended on site, an					
								was returned to the	· · · · · · · · · · · · · · · · · · ·				
								d plastic liner was in					
								the excavation was					
								eded with a blend of					
								as notified of potent					
on 2/13		·		·									
				Additiona	l evaluation	is <b>LOW</b> prid	ority.						
		Enclosures:	site location ma					ride graph, excavation di	agram, and rev	egetation forr			
THER	REBY CERTIFY	THAT THE	INFORMA	TION ABOV	E IS TRUE . BELIEF		LETE TO	THE BEST OF M	Y KNOWLE	DGE AND			
D.	EDORT			$\setminus$		//	,		. Fm. d	-1 C !!!			
	EPORT MBLED BY	Laura Flore	es SIC	MATURE	AllRA		Ores	COMPANY	Environment & Safe				
	JPERVISOR	Dyllan Yarbro		SNATURE	N	ot Available			Environment & Safe	al Consultin			
	<del></del>				1/ /. A	1			3-3-14				
PROJE	CT LEADER	Kyle Norma This site is a "		SNATURE	aced on a prior	ritized list of s	imilar sites	DATE for further consideration					

Site Map

21837E	EUNICE	35	36 NA	176 31	11S 38E	33
4	3	2	1	6	5	4
9	10	1/	12	7	8	9
16 201 NM 207	15	14 peo	13	18	17 228 38E	16
21	n	Drinkard Road	24 Vivian	19 Lane	20	21
28		26	25	30	29 BD 0	28 -29-1 Vent
33	34	35	<b>36</b> Source, Est Getmapping	<b>31</b> 1, Digital Glober, Geoffye, 1, Aerogydd, 1911, 1974au	32 Feursal, bana juses salago, and insens U	33 ABA ar Community



BD 0-29-1 Vent

UL/O Section 29 T-22-S R-38-E



0	3,000	6,000
H		Feet

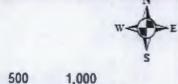
Drawing date: January 15, 2014 Drafted by: C. Ursanic Area Map





BD 0-29-1 Vent

UL/O Section 29 T-22-S R-38-E



0 500 1,000

HHH Feet

Drawing date: January 15, 2014

Drafted by: C. Ursanic

# **BD 0-29-1 vent**

Unit O, Section 29, T22S, R38E



Site prior to excavation, facing east

6.20.13



Digging Vertical, facing north

6.20.13



Collecting sample, facing northeast

6.20.13



Cleaning out excavation, facing north

7.3.1



Exporting Soil, facing east

7.16.13



Importing in blow sand, facing north

7.19.13



Installed 30' x 30', 20 mil reinforced poly, facing southeast 7.19.13



Backfilling excavation, facing southeast

7.24.13



Padding above 2<sup>nd</sup> 20 mil reinforced Liner, facing North 7.25.13



Importing Top Soil, facing south

7.26.13



Seeding site, facing east

8.1.13



Final photo, facing east

8.1.13



July 18, 2013

KYLE NORMAN
Rice Operating Company
112 W. Taylor
Hobbs, NM 88240

RE: BD O-29-1 VENT

Enclosed are the results of analyses for samples received by the laboratory on 07/15/13 10:02.

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 <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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.

Wite South

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,

Mike Snyder

Organic Supervisor



# Analytical Results For:

Rice Operating Company KYLE NORMAN 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

07/15/2013

Reported:

07/18/2013

Project Name:

BD O-29-1 VENT

Project Number: Project Location: NONE GIVEN NOT GIVEN

Sampling Date:

07/09/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

### Sample ID: 4 WALL COMP (H301646-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	07/17/2013	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	07/17/2013	ND	202	101	200	3.31	
DRO >C10-C28	28.4	10.0	07/17/2013	ND	207	104	200	3.24	
Surrogate: 1-Chlorooctane	81.4	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	85.1	% 63.6-15	4						

## Sample ID: BOTTOM 5 PT COMP (H301646-02)

Chloride, SM4500CI-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	07/17/2013	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	07/17/2013	ND	202	101	200	3.31	
DRO >C10-C28	<10.0	10.0	07/17/2013	ND	207	104	200	3.24	
Surrogate: 1-Chlorooctane	87.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	92.8	% 63.6-15	· 4						

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 whatsoever 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 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 relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

mile South

Mike Snyder, Organic Supervisor



### **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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Whe South

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL 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

company value.	* RICE Operating						Š	ANALYSIS	S REQUES	JEST		
Project Manager:	r: Kyle Norman		P.O. #:									,
Address: 112 W. Taylor	W. Taylor		Company:			<del></del>	. St					
City: Hobbs	State: NM	Zip: 88240	Attn:				<u> </u>					
Phone #:	Fax#:		Address:				iuk					
Project #:	Project Owner:	ir.	City:			<u> </u>						
Project Name:			State: Zip:									
Project Location:	11 BD 0-29-1 Vart		Phone #:		bin 08	(3.	T S	SC				
Sampler Name:	Dyllan Yarbrough		Fax#:									
FOR LAB USE ONLY	İ	MATRIX	PRESERV. SAMPLING	ING				-				
Lab I.D.	Sample I.D.	OMPB OR (C)OMP COUTDINERS SOUNDWATER SATEWATER SIL L	тнек : Sidybase: Ther :			<u> </u>	Comple	aidinaa				
7	0 1211 A 120 CO	0 0s ~ W 5	0	S COLO	T	+	+			+		
7	La Composition			3	*		-					
1	Soften Sp. Conspirer		1 1/10/13	1,0,25	\ \ \							
	-											
						+	$\dashv$					
							-		+			
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Mates of successory ansing elinous had BV	arising poly for related to the performance of services hereunder by Cerdinal, regardless of whether such daim is based upon any of the above stated reasons of otherwise BY: ///	erdinal, regardless of whether such claim a	s based upon any of the above stated re	Phone Result:	ı	S N	Add	Add'l Phone #:	#			
	7/15/13	110		Fax Result:	□ Yes	1 1	Add.	Add'l Fax #:				
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elingurshed By:	Date:	Received By:		email results	sults							
	Time:	•		knorma	n@rice	ecs.cc	m;h(	sonde	r@rice	knorman@rice-ecs.com;hconder@rice-ecs.com;	П;	
Delivered By: (Circle One)	(Circle One)	Sample Condition	on CHECKED BY:	Lweinn	elmer@	rice-ec	S.CO	m, kje	nes@	Lweinneimer@rice-ecs.com; kjones@riceswa.com;	con,	<del></del>
Sampler - UPS -	- Bus - Other:	N Constitution of the season o	N. Company	Lpena(	griceswa	1.com	ayar	proug		Lpena@riceswa.com;dyarbrougn@rice-ecs.com	E	
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-24/6

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# RICE ENVIRONMENTAL CONSULTING & SAFETY

122 West Taylor Hobbs, NM 88240 PHONE: (505) 393-9174 FAX: (505) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

CK. MODEL NO. X	MODEL: PGM 7300 MODEL: PGM 7300 MODEL: PGM 7320 MODEL: PGM 7300	SERIAL SERIAL SERIAL	NO: 590-000508 NO: 590-000504 NO: 592-903318 NO: 590-000183	RALANCE	
LOT NO: HAL-248-		JN. 130B011	EXPIRATION DATE:		
		ER READING	ACCURACY: 100		
		ACCURAG	CY:+/-2%		
		CO	MPANY		
		RICE	OPERATING		
SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	O-29-1 vent	0	29	228	38E
	MDV D VD	T			
	MPLE ID	PID	SA	MPLE ID	PID
4-WALL	COMPOSITE	10.3			
BOTTON	M COMPOSITE	4.3			
	700				
· · · · · · · · · · · · · · · · · · ·					
	-				
				19.00	
_	75 75 75 75				
I ver	rify that I have calibrated the	e above instrum	nent in accordance to the	e manufacture operation manu	ıal.
SIGNATURE:		Not availa	ble	DATE:	7/9/2013



July 24, 2013

**KYLE NORMAN** 

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD O-29-1 VENT

Enclosed are the results of analyses for samples received by the laboratory on 07/23/13 11:03.

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 <a href="https://www.tceq.taxas.gov/field/qa/lab\_accred-certif.htm">www.tceq.taxas.gov/field/qa/lab\_accred-certif.htm</a>!.

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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.

Celeg & 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



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

### Analytical Results For:

Rice Operating Company KYLE NORMAN 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

07/23/2013

Reported:

07/24/2013

Project Name: Project Number: BD O-29-1 VENT NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

07/23/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

### Sample ID: 8 PT COMP (H301718-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	07/23/2013	ND	416	104	400	0.00	

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine





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RPD Relative Percent Difference

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

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Celey D. Keine

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

FAX (325)673-7020
FAX (
ĭ
(325) 673-7001
393-2476
FAX (505)
393-2326
(502)

Company Name:	e: RICE Operating								.0		BICLITO					4	ANALYSIS	SIS	REC	REQUEST	<u> -</u>			
Project Manage	Project Manager: Kyle Norman						P.C	P.O. #:				_	_	<u> </u>		-	<del> </del>		$\vdash$				L	Γ
Address: 112 W. Taylor	W. Taylor						ខិ	Company:	<u>-</u>								S							
city: Hobbs	State: NM	Zip: 8824	3824	9			Attn:	<u>بر</u>				· · · · · ·					uoi							<del></del>
Phone #:	Fax#:						Adc	Address	ii								U\				•			
Project #:	Project Owner:						City:	٠.							1.1		<del>/</del> /S			<del>,,,,.</del>				
Project Name:							State:	ě		Zip:		9												
Project Location:	n: 60 0-29-1 Vert	i i					Phc	Phone #:	<u>,,,</u>			oin	108	( <del>3</del> .		L S		SC						
Sampler Name:	Sampler Name: Dyllan Yarbrough				-		Fax #:	**				ηl						 						
FOR LAB USE ONLY			-		MATRIX	×	Ī	PRE	PRESERV	Ļ	SAMPLING	10					Э							
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Lab I.D.	Sample I.D.	) ЯО 8 ІЗИІАТ	AWGN	EWATE		3E	٤:					····					wo:		******	·· <del>··</del> , , ··				
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Lweinheimer@rice-ecs.com; kjones@riceswd.com; knorman@rice-ecs.&orh;hconder@rice-ecs.com; Lpena@riceswd.com;dyarbrough@rice-ecs.com Phone Result: | Yes | | No | Addil Phone #: Fax Result: | Yes | | No | Addil Fax #: REMARKS: | | | email results KED BY: Time: Sampler - UPS - Bus - Other: Delivered By: (Circle One)

575-942.864

 $\dagger$  Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2876  $\pm$  5 +

# RICE ENVIRONMENTAL CONSULTING & SAFETY

122 West Taylor Hobbs, NM 88240 PHONE: (505) 393-9174 FAX: (505) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

CK. MODEL NO. X  LOT NO: HAL-248-	100-1	SERIAL SERIAL SERIAL ON: ISOBUTY	NO: 590-000508 NO: 590-000504 NO: 592-903318 NO: 590-000183 LENE 100PPM / AIR: EXPIRATION DATE: GACCURACY: 100		
		CO	MPANY		
		RICE	OPERATING		
SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	O-29-1 vent	0	29	228	38E
SA	MPLE ID	PID	SA SA	MPLE ID	PID
	Г. СОМР.	6.4	0.1	THE IS	110
		1			
I ver SIGNATURE:	ify that I have calibrated the	e above Instrum	ent in accordance to the	e manufacture operation manu  DATE:	7/23/2013



July 24, 2013

KYLE NORMAN
Rice Operating Company
112 W. Taylor
Hobbs, NM 88240

RE: BD O-29-1 VENT

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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.

Celeg & Keine

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Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

## Analytical Results For:

Rice Operating Company KYLE NORMAN 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

07/23/2013

Reported:

07/24/2013

Project Name:

BD O-29-1 VENT

Project Number: Project Location: NONE GIVEN

Sampling Date:

07/23/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: BLOWSAND (H301719-01)

Chloride, SM4500Cl-B

ma/ka

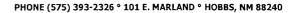
Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/23/2013	ND	432	108	400	3.77	

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remady 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 waved unless made in writing and received by Clardinal within thirty (30) days after competent 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 clardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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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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Celey & Kune

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

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(505) 393-2326 FAX (505) 393-2476 (	
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company name:	RICE Operating					`	ANALYSIS	IS REQUEST	ST	
Project Manager	Project Manager: Kyle Norman		P.O. #:							
Address: 112 W. Taylor	W. Taylor		Company:				SI			
city: Hobbs	State: NM	Zip: 88240	Attn:				uo			
Phone #:	Fax#:		Address:				in/			
Project #:	Project Owner:	ï	City:			Н	//S			
Project Name:			State: Zip:	ام	91	d.			A-4	
Project Location:	: DD 8-29-1 Vest		Phone #:	oin.	(3.	LS	oite SC			
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FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLING		-  d	( <del>)</del>	ə:			
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Delivered By: (Circle One)	(Circle One)	Sample Condition	on CHECKED BY:	Lweinner	Lweinheimer@rice-ecs.com; kjones@riceswd.com;	ecs.	com; kj	Jones@ric	eswd.cor	. <u>.</u>
Sampler - UPS - Bus - Other:	Bus - Other:	No No	7	-pena@	Lperia@riceswa.com;uyarbrougn@rice-ecs.com	S. S.	aroron	ign@rice-e	SCS.COIII	

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

# RICE ENVIRONMENTAL CONSULTING & SAFETY

122 West Taylor Hobbs, NM 88240 PHONE: (505) 393-9174 FAX: (505) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

CK. MODEL NO. X	MODEL: PGM 7300 MODEL: PGM 7300 MODEL: PGM 7320 MODEL: PGM 7300	SERIAL SERIAL	NO: 590-000508 NO: 590-000504 NO: 592-903318 NO: 590-000183		
		ON: ISOBUTY	LENE 100PPM / AIR:		
LOT NO: HAL-248-	100-1		EXPIRATION DATE	: 7/1/2015	
	MET	ER READING	ACCURACY: 100		
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SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
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I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE:	Not available	DATE:	7/23/2013
***************************************			



July 29, 2013

KYLE NORMAN

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD O-29-1 VENT

Enclosed are the results of analyses for samples received by the laboratory on 07/25/13 16:00.

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 <a href="https://www.tceq.texas.gov/fieldiga/lab\_accred\_certif.html">www.tceq.texas.gov/fieldiga/lab\_accred\_certif.html</a>.

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.

Celeg & 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



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

### Analytical Results For:

Rice Operating Company

KYLE NORMAN 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

07/25/2013

Reported:

07/29/2013

Project Name:

BD O-29-1 VENT NONE GIVEN

Project Number: Project Location:

NOT GIVEN

Sampling Date:

07/25/2013

Sampling Type:

Soil

Sampling Condition:

\*\* (See Notes)

Sample Received By:

Jodi Henson

## Sample ID: TOP SOIL (H301755-01)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/29/2013	ND	400	100	400	3.92	

Cardinal Laboratories \*=Accredited Analyte

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RPD Relative Percent Difference

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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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# **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST** ARDINAL LABORATORIES 101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

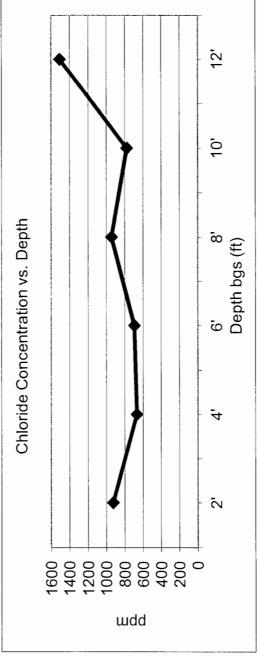
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		7	7	,									

# **BD 0-29-1 vent** Unit 'O', Sec. 29, T22S, R38E

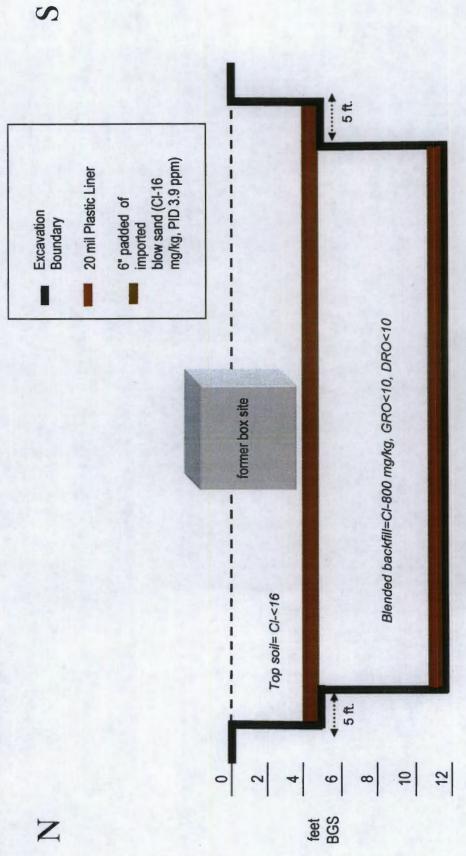
Backhoe samples at 15 ft. east of the junction (source)

[CI] ppm	876	699	969	945	8//	1509
Depth bgs (ft)	2'	4'	.9	8'	10,	12'



Groundwater = 124 ft

# **Excavation Cross-Section**



5 Pt. Bottom Composite = Cl- 1220 mg/kg, GRO <10, DRO <10

30 ft.



PO Box 5630 Hobbs, NM 88241 Phone: (575) 393-4411 Fax: (575) 393-0293

# **VEGETATION FORM**

	mation									
Site name:	BD O-	29-1 vent								
U/L		Section	To	ownship	Range	Со	unty La	titude	Longitu	de
0		29	l .	22S	38E	I	ea N 32°	21'32.347"	W 103° 4'46	5.107"
Contact Name:	Hack (	Conder						··· - · · · · · · · · · · · · · · · · ·		
Email:	heone	ler@rice-ecs.com								
Site size:	130'X1	22'=15,860 SQFT						***************************************		
2. Soils		*Do	not rip cali	che subsoils; calic	he rocks brough	to the surface by rig	oping shall be removed.			
Salvaged from sit	te	Bioremediated	Х	Imported		Blended	Depth (in	)		
Texture:		Top Soil		Descri	be soil & subso	il: Light brow	n fine sand		<del></del>	
Soil prep method	s:	Rip	1	Depth (in)		Disc X	6" Depth (in	n)	Rollerpa	ck
Date completed:		7/26/2013					<del>*************************************</del>			
Fertilizer			Ha	У			Other	1 D		X
3. Bioremediatio			H:	V			Other			ΙÝ
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Lbs/acre:							Describe. 50	bgs Residir	Hance, 15 bgs	
							potting mix, 2 bags	•	Hance, 15 bgs	
4. Seeding Custom Seed Mix		*Attach seed bag tags to X Prescribed Mix	this form.	Seed bag tags shall			1	•	We will see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that the see that t	
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# RICE Operating Company

122 West Taylor • Hobbs, New Mexico 88240 Phone: (575) 393-9174 • Fax: (575) 397-1471

April 1, 2014

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

RE: JUNCTION BOX UPGRADE REPORT for 2013

BD SWD SYSTEM Lea County, New Mexico

Mr. Lowe:

Rice Operating Company (ROC) takes this opportunity to submit the Junction Box Upgrade results for the year 2013. Enclosed is a list of the completed junction boxes and their respective closure/disclosure dates. These boxes are located in the Blinebry-Drinkard (BD) Salt Water Disposal (SWD) System located in the vicinity of Eunice, New Mexico.

ROC completed 12 junction boxes in 2013. Junction box upgrades in 2014 will be conducted in conjunction with scheduled pipeline replacements.

Enclosed are the 2008 results (17 sites evaluated with 22 sampling locations) from the PID/BTEX study described in the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). A third-party analysis, conducted by Peter Galusky, Jr. Ph.D. of Texerra, concluded from the data collected thus far that field-composited values tend to produce slightly higher BTEX numbers above the point at which BTEX concentrations become significant. This is likely due to the fact that BTEX is volatile and quickly biodegradable. This analysis was submitted to NMOCD on March 12, 2009. An appropriate number of sample sites could not be obtained to conduct a 2013 BTEX comparison analysis. Peter Galusky, Jr. Ph.D. of Texerra also compared ROC's 2013 chloride field tests to chloride laboratory analyses; the analysis is also enclosed. The study of this data continues to validate the accuracy of the chloride field tests employed by ROC.

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

Replacement/closure projects of this magnitude require System Party AFE approval and work begins as funds are received.

Thank you for your consideration of this Junction Box Upgrade Report for 2013.

RICE OPERATING COMPANY

Hack Conder

**Environmental Manager** 

enclosures as stated

cc: SC, file, Mr

Mr. Geoffrey Leking NMOCD, District I Office 1625 N. French Drive

Hobbs, NM 88240

Rice Operating Company BD SWD System Junction Box Upgrade Project 2013 Completed Boxes

	r i sa a na andronas de	Leg	ei Dei	senip	tion			Kan Palk	
	Jet Box Name	Unit	Sec	T	R	Completion Date	OCD Assessment Score	Report Statue	Case Number
1	G-29 EOL	G	29	225	38E	1/7/2014	0	Disclosure	
2	Jct. G-31	G	31	22\$	38E	1/7/2014	20	Disclosure	
3	JCT. M-29	M	29	225	38E	11/1/2013	0	Disclosure	
4	JCT. N-29	N	29	225	38E	9/11/2013	0	Disclosure	
5	JCT. N-30	N	30	228	38E	8/19/2013	10	Disclosure	
6	O-29-1 VENT	0	29	22\$	38E	7/26/2013	0	Disclosure	
7	O-30 VENT	0	30	<b>22S</b>	38E	11/6/2013	10	Disclosure	
8	Jct. P-14	P	14	22S	37E	8/21/2012	10	Disclosure	
9	J-29 Vent	J	29	22\$	38E	n/a	0	Closure	
10	J-30 EOL	J	30	225	38E	10/22/2013	10	Closure	
11	JCT. J-29	J	29	225	38E	n/a	0	Closure	
12	M-28 EOL	M	28	22\$	38E	11/5/2013	0	Closure	

# L. Peter Galusky, Jr. Ph.D., P.G.

# **Texerra**

505 N Big Spring, Suite 404 Midland, Texas 79701 Tel: 432-634-9257 E-mail: lpg@texerra.com

March 10<sup>th</sup>, 2009

Mr. Brad Jones New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau 1220 S. St. Francis Drive Santa Fe, New Mexico 87504

Re: Comparison of Field versus Lab Compositing of BTEX soil samples

Rice Operating Company, Junction Box Upgrade Work Plan

Sent via Certified Mail w/ Return Receipt No. 7006 0100 0001 2438 3944

Dear Mr. Jones:

On behalf of Rice Operating Company (ROC) I am submitting the attached comparison and analysis of field versus laboratory soil compositing for soil BTEX samples. This is to address the question of whether it is better to mix multiple samples in the field or to do so in the laboratory in order to produce a composite, representative sample for analysis. This work was undertaken in support of ROC's Junction Box Upgrade Work Plan to ensure the quality of their field analysis program.

In brief, this work indicates that field compositing of soil samples generally gives rise to *slightly* higher BTEX values than does laboratory compositing of multiple samples. This is presumably due to the likelihood that field compositing and packaging of soil samples better preserves sample integrity. It would therefore appear that field compositing would represent the better method of procuring soil samples for subsequent analysis of BTEX.

Please call me if you have any questions or wish to discuss any of the details of this study.

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

Sincerely,

L. Peter Galusky, Jr. Ph.D.

Principal

Copy: Rice Operating Company,

Edward Hansen (NMOCD) sent certified mail w/ return receipt

No. 7006 0100 0001 2438 3937

Attachment: As noted, above.

# Rice Operating Company Comparison of Field Compositing versus Laboratory Compositing of Soil BTEX Samples<sup>1</sup>

The careful mixing of multiple soil samples is critical in order to produce a representative, composite sample from a respective study area (such as a excavation face or bottom). Field technicians typically take four or five "grab" samples from excavation walls and/or bottom and send each of these to a laboratory for analysis of the composite, or mixed, sample. It would be far simpler, however, to composite such samples in the field. This study was undertaken to determine if field compositing produced results substantially different than laboratory compositing for the analysis of BTEX. Data were provided by Rice Operating Company encompassing 22 sampling locations over the period of 2004 through 2008.

A comparison of lab-composited soil samples versus field-composited soil samples revealed a close correspondence for total BTEX between the two methods (Figure 1).

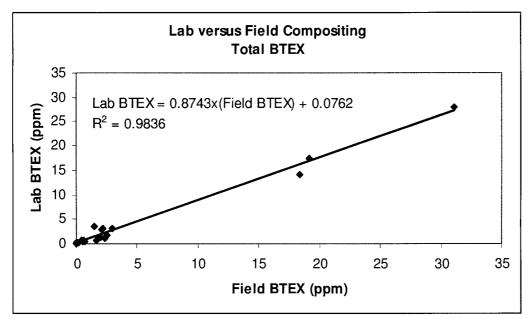


Figure 1 - Laboratory versus field-composited soil samples analyzed for BTEX.

The high R<sup>2</sup> value (0.9836) of the best-fit statistical regression line indicates a high degree of reliability in using the field-compositing method over the range of values observed. Below a "field-composited BTEX" value of 0.61 ppm the "lab-composited BTEX" values are slightly lower. However, above a field-composited BTEX value of 0.61 the lab-composited values run slightly lower. In other words, the field-composited values tended to produce slightly higher BTEX numbers above the point at which BTEX concentrations become significant.

There is a reason for this. BTEX is volatile and quickly biodegradable. The compositing and "packaging" of soil samples in the field minimize the handling and aeration that occur in the laboratory. Thus, field-composited soil samples lose less BTEX to evaporation and/or biodegradation prior to laboratory analysis. In other words, the field compositing and packaging of soil samples better preserves sample integrity, and for this reasons would appear to represent the better method of procuring soil samples for subsequent analysis of BTEX.

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<sup>&</sup>lt;sup>1</sup> Prepared 03-12-09 by L. Peter Galusky, Jr. of Texerra.

# L. Peter Galusky, Jr. Ph.D., P.G.

# Texerra LLC

20055 Laredo Lane Monument, CO 80132 Tel: 719-339-6791 E-mail: lpg@texerra.com

March 25th, 2014

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

Re: Comparison of 2013 Laboratory versus Field Measured Soil Chloride Values Rice Operating Company, Junction Box Upgrade Work Plan

Mr. Lowe:

The attached comparison and analysis of 2013 laboratory versus field measured soil chloride values is submitted in support of Rice Operating Company's (ROC's) Junction Box Upgrade Work Plan to ensure the quality of their field analysis program.

In brief, this work indicates that Rice's 2013 field chloride measurement efforts provided a reasonable qualitative approximation of the laboratory-measured (and presumed true) values.

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

Please call me if you have any questions or wish to discuss this study.

Sincerely,

L. Peter Galusky, Jr. Ph.D.

Principal

Copy: Glenn VonGonten, NMOCD; Rice Operating Company

Attachment: As noted, above.

# Rice Operating Company Comparison of Laboratory to Field Measured Soil Chloride Concentrations Based upon 2013 Field Data

A representative sample of 29 pairs of laboratory versus field measured soil chloride values was compared to determine how well field measurements matched laboratory measurements. It is assumed that laboratory measurements better represent the "true" values due to the controlled environment that a laboratory provides. A simple plot of the laboratory versus field measured soil chloride values is given below (Figure 1).

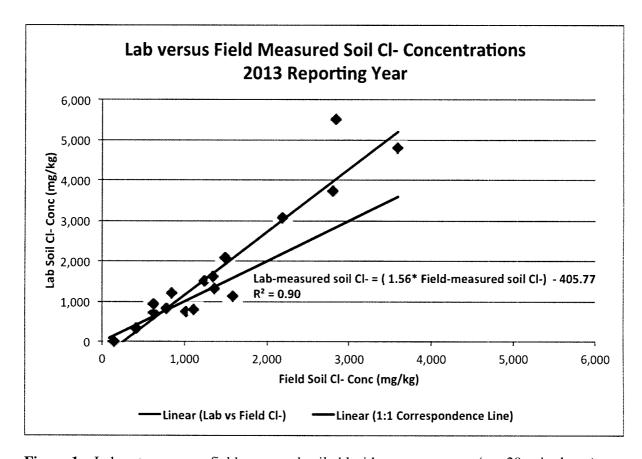


Figure 1 – Laboratory versus field measured soil chloride measurements (n = 29 paired sets).

A straight line fit to the data confirms a general linear trend over a wide range of soil chloride concentrations, and the R<sup>2</sup> value (0.90) indicates that field measurements provide a reliable approximation of laboratory-measured values. Based on the best-fit line of lab vs field measured values, field measured values overestimate lab measure values below a field measured value of 723 mg/kg and above this underestimate the lab-measured values. This is indicated in the graph where the (blue) best-fit line of lab vs field measured chlorides crosses the (black) line which would indicate a 1:1 correspondence.

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