1R-427-306

APPROVALS

YEAR(S): 20/3

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD

Sent: Tuesday, July 16, 2013 1:33 PM

To: Hack Conder (hconder@riceswd.com)

Cc: Leking, Geoffrey R, EMNRD; Laura Pena (Ipena@riceswd.com); Katie Jones

<kjones@riceswd.com> (kjones@riceswd.com); Scott Curtis (scurtis@riceswd.com)

Subject: Remediation Plan (1R427-306) Termination - ROC EME Jct J-8 Site

RE: Termination Request

for the Rice Operating Company's

EME Jct J-8 Site

Unit Letter J, Section 8, T20S, R37E, NMPM, Lea County, New Mexico

Remediation Plan (1R427-306) Termination

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received Rice Operating Company's report and request to close the above-referenced site, dated June 27, 2013 (received July 1, 2013). The report is acceptable to the OCD.

The above-referenced report, submitted in accordance with 19.15.29 NMAC (Rule 29; formally, Rule 116), indicates that Rice Operating Company has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R427-306) is terminated in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen Hydrologist Environmental Bureau

RICE Operating Company RECEIVED OCD

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

CERTIFIED MAIL RETURN RECEIPT NO. 7007 2560 0000 4569 8890

June 27, 2013

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

RE: Termination Request

EME Jct. J-8 (1R427-306): UL/J, Sec. 8, T20S, R37E RICE Operating Company – Eunice Monument Eumont SWD System

Mr. Hansen:

Rice Operating Company (ROC) is the service provider (agent) for the EME Saltwater Disposal (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.

Background

In 2009, ROC initiated work on the former J-8 junction box. The site is located in UL/J, Sec. 8, T20S, R37E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 34 +/- feet. The site was delineated using a backhoe to collect soil samples at regular intervals, creating a 25x15x12 ft deep excavation. Each sample was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in low chloride concentrations similar to background concentrations. The excavated soil was blended on site and representative composite samples of the excavation walls, bottom and remediated backfill were sent to a commercial for analysis of chloride and TPH, resulting in a 4-wall chloride concentration of 128 mg/kg, a gasoline range organics (GRO) concentration below detectable limits and a diesel range organics (DRO) concentration of 32.6 mg/kg. The bottom composite resulted in a chloride concentration of 80 mg/kg, a GRO concentration below detectable limits and a DRO concentration of 76.2 mg/kg. The blended backfill resulted in a chloride concentration of 224 mg/kg, a GRO concentration below detectable limits and a DRO concentration of 774 mg/kg. A total of 192 yards of blended backfill was hauled to a NMOCD approved facility. The excavation was backfilled with the clean imported soil to ground surface and contoured to the surrounding area. On 12/18/2009, the site was seed with a blend of native vegetation. A junction box is no longer needed at the site.

On 4/18/2013, RECS personnel were on site to conduct surface restoration. Imported top soil was used to promote vegetative growth. A sample of the imported top soil was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in low concentrations of chloride and a PID reading of 2.0 ppm. A representative sample was taken to a commercial laboratory for analysis of chloride, resulting in a concentration below detectable limits. On 4/25/2013, soil amendments were added to the site and the site was seeded with a blend of native vegetation. Vegetation will act as an evapotranspiration barrier that will also inhibit the downward migration of chlorides and hydrocarbons. Plants capture water through their roots and so reduce the amount of water infiltrating below the root zone.

The junction box site location map, area map, final report, photodocumentation, laboratory analysis, PID sheet, chloride graph, revegetation form, laboratory analysis, PID sheet and seeding photodocumentation are attached.

Recommendations

Site investigation demonstrates that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate groundwater in excess of NMOCD standards. This site meets the requirements of the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). As such, ROC request termination of the regulatory file, or similar closure status.

Please contact me at (575) 393-9174 if you have any questions or wish to discuss this site. Thank you for your time and consideration.

Sincerely,

RICE Operating Company

Hack Conder

Environmental Manager

enclosures

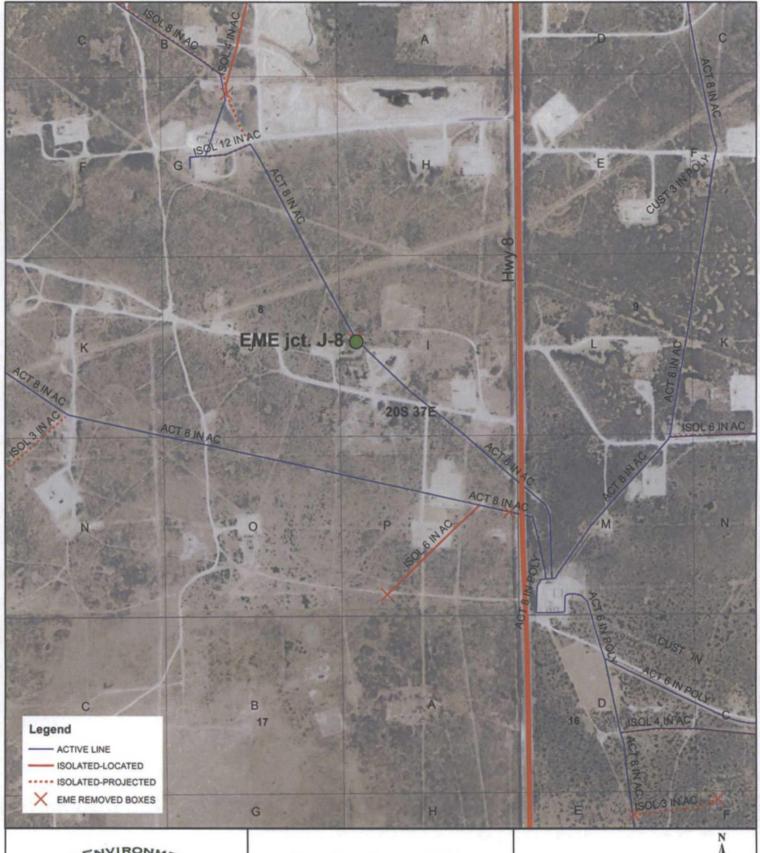


RICE *Operating Company* (ROC) 112 West Taylor Hobbs, NM 88240

Phone: (575) 393-9174 Fax: (575) 397-1471

Site Location Map 19 24 195 38E 195 37E 195 36E Monument Rd. MONUMENT, NM Childress Rd. **EME Jct J-8** 20S 38E 20S 37E 20S 36E Tuffy Cooper Rd a Hwy 175 21S 37E 21S 36E EME Jct. J-8 (1R427-306)2 CONSULTING & SAFETY, Miles **UL/J SECTION 8** T20S, R37E LEA COUNTY, NM Drawing date: 5/3/13

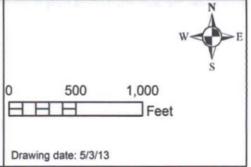
Area Map





EME Jct. J-8 (1R427-306)

> UL/J SECTION 8 T20S, R36E LEA COUNTY, NM



Junction Box Report

RICE Operating Company (ROC)

112 West Taylor Hobbs, NM 88240 Phone: (575) 393-9174 Fax: (575) 397-1471

RICE OPERATING COMPANY JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNT	Y SOX DIN	MENSIONS - FE	ET
Eunice Monument Eumont (EME)	Jct. J-8	J	8	208	37E	Lea	Longth .	eliminated	Dipth
								dimanatia	
LAND TYPE: B	LM	STATE	FEE LA	NDOWNER	Jimmie T. C	Cooper etux l	Betty B OTHER		
Depth to Ground	dwater	34	feet	NMOCI	D SITE AS	SESSMEN	NT RANKING SC	ORE: 4	0*
Date Started	9/14/	2009	Date Cor	mpleted	11/6/2009	900	D Witness	no	
Soil Excavated	167	cubic ya	ards Exc	avation Le	ngth 25	5 w	idth 15	Depth 12	feet
Soil Disposed	192	cubic ya	ards Off	site Facility	C and C	Landfarm	Location	Monument	, NM
INAL ANALYTIC	CAL RES	SULTS:	Samp	le Date 9	0/24/2009, 10/	/02/2009	Sample Dep	th1	2 ft
Procure 5-point cor sidewalls. TPH a approved lab a	nd Chloride nd testing	e laborator procedures	y test results s pursuant to	o NMOCD g	by using a uidelines.	n	CHLORI	DE FIELD TE	STS
Sample Location	PID (fie	1000	RO g/kg	DRO mg/kg	Chlorid mg/kg		LOCATION	DEPTH	mg/kg
4-WALL COMP.	0.2		10.0	32.6	128		4-wall comp.	n/a	145
воттом сомр.	17.9		10.0	76.2	80		bottom comp.	12'	147
BLENDED BACKFIL	L 77.0	<	10.0	774	224		blended backfill	n/a	204
							background	6"	208
eneral Description	of Remed	ial Action	This junction	n was eliminat	ted during th	е		3'	148
peline replacement/upg	rade program	n. After the	former junction	on box was re	moved, an			4"	170
vestigation was conduc	ted using a l	backhoe to d	collect soil san	nples at regul	ar intervals			5'	179
oducing a 25x15x12-ft-	deep excava	tion. Field	data suggest t	he site is low	in organic		vertical	6'	170
pors and chloride cond	centrations a	re similar to	that of the bac	ckground. Re	presentative		delineation of	T	169
mposite samples were	collected fro	m the excav	vation walls, b	ottom, and ble	ended		the junction	8'	147
cavated soil. The repr	esentative sa	amples were	analyzed by	a commercial	laboratory		(source)	9'	150
chloride and TPH, wh	nich confirme	d low conce	ntrations. The	e blended bac	kfill was	-		10"	222
uled to an OCD appro	ved facility.	The site was	backfilled wit	th clean impor	rted soil and			11'	142
ntoured to the surroun	ding area. C	On 12/18/09,	site was seed	ded with a ble	nd of native		ĺ	12'	144
getation and is expecte	ed to return t	o a producti	ve capacity at	a normal rate	h.				
Abandon windmill 460	ft. southeast	and a monit	or well 157 ft.	southeast					
	enclosures	photos, lak	results, PID	(field) screen	ings, chloride	curve			
					- 20-24				
I HEREB	Y CERTIFY	THAT TH		ATION ABO			OMPLETE TO TH	HE BEST OF	MY
TE SUPERVISOR	Jordan Woo	odfin SI	GNATURE	01/	an Wo	nef	COMPANY	RICE OPERATI	NG COMPA
REPORT ASSEMBLED BY L	arry Bruce Ba	aker Jr.	INITIAL_	ZBB		V			
ROJECT LEADER	arry Bruce Ba	aker Jr. SI	GNATURE	Larry	Poruce	2 Bake	A. DATE	2-8	-10

EME Junction J-8

Unit J, Section 8, T20S, R37E



Site prior to delineation

9/14/2009



Backfilling excavation 11/05/2009

Site complete

12/18/2009



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: JORDAN WOODFIN 122 W. TAYLOR HOBBS, NM 88240

Receiving Date: 09/24/09
Reporting Date: 09/30/09
Project Number: NOT GIVEN
Project Name: EME JCT J-8
Project Location: EME JCT J-8

Sampling Date: 09/24/09
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: CK
Analyzed By: AB/HM

LAB NUMBER SAMPLE ID

GRO DRO (C_6-C_{10}) (> $C_{10}-C_{28}$) CI* (mg/kg) (mg/kg) (mg/kg)

ANALYSIS DATE	09/29/09	09/29/09	09/25/09
H18327-1 5PT BTM COMP	<10.0	76.2	80
H18327-2 4 WALL COMP	<10.0	32.6	128
Quality Control	509	505	500
True Value QC	500	500	500
% Recovery	102	101	100
Relative Percent Difference	0.6	1.6	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI': Std. Methods 4500-CI'B *Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.

Chemist

COPY

Date

H18327 TCL RICE



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

(5/5) 393-2326 Fax (5/		A STATE OF THE STA	rageU_		
Company Name: RICE OPERA	-	BILL TO	ANALYSIS REQUEST		
Project Manager: JUZPAN WA	DOF /W	P.O. #:			
Address: 122 W TAYCUR		Company:			
City: 4 5385 State	04288:diz WA	Attn:			
Phone #: 353 - 9/74 Fax #:		Address:	_		
	ct Owner:	City:	_		
Project Name: COBBOOCO	BERE EME SCT J-	State: Zip:			
P *Location: EME JCT,	J-8	Phone #:			
Name: JORDAN WOO	DEN	Fax #:			
Pu. Ja USE ONLY	MATRI	X PRESERV. SAMPLING			
	R R				
	ERS ATE		1 3 4 4 -		
Lab I.D. Sample I.D.	ADW WA	H H			
11 10000	(G)RAB OR (C)O # CONTAINERS GROUNDWATEI WASTEWATER SOIL	SLUDGE OTHER: ACID/BASE ICE / COOL OTHER:	CIT		
H18327-			E		
1 5pt Btm Comp 2 C wall comp	CILY	k 9-24-09	168111111		
4Cl wall comp	CIIX	X			
2100.440					
		music or too shall be limited to the amount see by the see			
analyses. All claims including in the for negligence and any other cause whatso service. In no every shall Common the habite for incidental or consequental damage.	ages, incl. day without find allow business intercu	stons, loss of use, or how of grades immented by court for more	The Charles of the Control of the Co		
Sampler Relinquished: Date:	24 - 37 Received By:	Phone	Result: D No Add'l Phone #:		
To and sulla loop - of Time:	24-07	Fax Re REMAR	RKS.		
TORDAN MODIFIN Time: Relinquished By: Date.	I Branius (Pur)		EMAIL RESULTS TO		
Reinquisned by:	4 Ja Received By:	. 0	TIMESTALO PICOSUDION		
Time;	35 (WW/19)		10000FIX & 2000		
Delivered By: (Circle One)	Tomp. Sample Co	indition CHECKED BY:	CC JPURVIC @ RICESUD CON		
Sampler - UPS - Bus - Other:	¢ool) Int	Yes AM	C, BBACEIZO RICESWD. 100		
	IV No I	No WA			

[†] Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240 PHONE: (575) 393-9174 FAX: (575) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

		ACCURA	CY: +/- 2%			
FLI. DAT	E: 7-1-09		MITTER READING	G ACCURACY: 100		
LOT NO : 924503			EXPIRATION DATE: 7-5-12			
	GAS CO	MPOSITION: ISOBUTY	LENE 100PPM / AI	R: BALANCE		
Χ	X Model: PGM 7300 Serial No: 590-000504			Model: PGM 7600	Serial No: 110-01367	
	Model: PGM 7300 Serial No: 590-000508		Model: PGM 7600	Serial No: 110-013744		
	Model: PGM 7300	Serial No: 590-000183		Model: PGM 7600	Serial No: 110-023920	

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
EME	J-8	J	8	T20S	R37E

SAMPLEID	PID	SAMPLE ID	PID
HORFH WALL	0	& WALL COMP	0.2
South War	0		
EAST WALL	0	Set BAM COMP.	17.9
WEST VALL	1.5		
			1
		CORV	
		1	

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE Jordan Coulf

DATE: 4-09



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: JORDAN WOODFIN 122 W. TAYLOR HOBBS, NM 88240

Receiving Date: 10/02/09 Reporting Date: 10/06/09

Project Number: NOT GIVEN

Project Name: EME JCT J-8
Project Location: EME JCT J-8

Sampling Date: 10/02/09

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: ML Analyzed By: AB/HM

GRO DRO

(C₆-C₁₀) (>C₁₀-C₂₈)

CI*

LAB NUMBER SAMPLE ID

(mg/kg) (mg/kg) (mg/kg)

ANALYSIS DATE	10/05/09	10/05/09	10/05/09
H18402-1 BLENDED BACKFILL	<10.0	774	224
	0		-
Quality Control	493	499	500
True Value QC	500	500	500
% Recovery	98.6	99.8	100
Relative Percent Difference	2.9	8.6	<0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CIB *Analysis performed on a 1:4 w:v aqueous extract. Reported on wet weight.

Chemist

10/07/09

(575) 393-2326 Fax (575) 393-2476		Pageof
Company Name: PICE OPERATING	BILL TO	ANALYSIS REQUEST
Project Manager: TERNAN WUNTER-	P.O. #:	
Address: 127 W TAYLOR	Company:	
City: 10885 State: 1/11/ Zip: 8826/0	Attn:	
Phone #: 373-9/74 Fax #:	Address:	
Project #: Project Owner:	City:	
Project Name: EME X7 J-8	State: Zip:	
Project Location: EME JCT J-8	Phone #:	
Name: JORDAN WODEN	Fax #:	13
Lab I.D. Sample I.D. Sample I.D. Soll Soll Soll Soll Soll Soll Soll Sol	PRESERV. SAMPLING OLIVERY OLIVERY DATE TIME PORTOR OLIVERY O	
Refinquished By: Date: Received By:	this of partial will so days at a move of the application of the appli	E No Add'I Phone #: No Add'I Phone #: FURDIDE IN RESULTS TO SPURIS @ RICESWO. COM SPURIS @ RICESWO. COM
Delivered Bv: (Circle One) Sampler - UPS - Bus - Other: Temp. Sample Cond Cool Intact Ves DY No 1	es Mass	JENEUS @ ZCESWO. COL BBAKER

RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240 PHONE: (575) 393-9174 FAX: (575) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

			Check h	Model Number:				
Mo	odel: PGM 7300	Serial No.	: 590-000183		Model: PGM 7600	Serial No: 110-023920		
	odel: PGM 7300	Serial No.	: 590-000508		Model: PGM 7600	Serial No: 110-013744		
X Mo	odel: PGM 7300	Serial No.	: 590-000504		Model: PGM 7600	Serial No: 110-013676		
1.0'T NO : 9245		NV17 (CS1 110)	W. ISOBOT I	EXPIRATION DATE				
	LOT NO : 924503			EXPIRATION DATE: 7-5-12				
FILL DATE: 7-	1-09			METER READING	ACCURACY: 100			
			ACCURAC	CY: +/- 2%				
CVCTE	A DINC	TION	LINITE	SECTION	TOWN SITE	DANCE		

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
EME	J-8	J	8	T20S	R37E

SAMPLE ID	PID	SAMPLE ID	PID
Blended Backfil	(7)		
	-		-
		CATTO	

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATUE!

Irdan Woodl

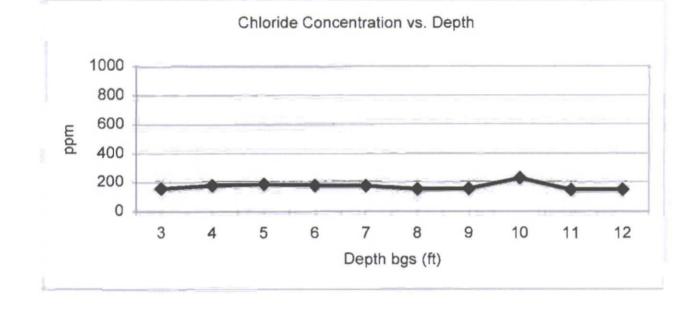
DATE: 10-2-09

EME Junction J-8

Unit 'J', Sec. 8, T20S, R37E

Backhoe samples at the junction (source)

Depth bgs (ft)	[Clf] ppm
3	148
4	170
5	179
6	170
7	169
8	147
9	150
10	222
11	142
12	144



Groundwater = 34 ft.



RICE Operating Company (ROC)

112 West Taylor Hobbs, NM 88240 Phone: (575) 393-9174 Fax: (575) 397-1471



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

Fax: (575) 393-4411

REVEGETATION FORM

Site name:	EME Jct. J-	8					
U/L J	Section 8	Township T-20-S	Range R-37-E	County Lea	Latitude N32*34.150"	Lo W103*15.34	ngitude 10"
Contact Name	: Hack Cor						
Email:	hconder@ri						
Site size:	6,000	square feet	Map detail	of site attach	ied 🗆		
Additional inf	formation:						
2. Soils	*Do not	rip caliche subsoii	ls; caliche rocks by	ought to the st	urface by ripping sha	ll be removed.	
Salvaged from	n site 🛛 Bi	oremediated	Imported	⊠ Bl	ended 🛛	Depth (in):	
Texture: San	ndy De	escribe soil & su	bsoil: T	an Sand			
Soil prep meth	nods: Rip	Depth(in): Dis	c Dep	th (in): 3" R	ollerpack	
Date complete 11/6/2009	ed:						
1110/2009							
3. Bioreme	ediation						
Fertilizer			Ha			04 7 10 0	ant or
			па	УШ		Other 🔀 12 Bag	s of Bio Nhanc
			ria	УШ			s of Bio Nhanc ag of Manure
Type: Lbs/acre:			na	УП		Describe: 1 B	ag of Manure ags of Potting
Type: Lbs/acre:	*Attach	seed bag tags to th			ain the site name and	Describe: 1 B 6 B Soi	ag of Manure ags of Potting
Type:	the same of the sa	seed bag tags to the		tags shall cont	ain the site name and ea Co. Mix, 6 lbs. tts and 6 lbs. Blue	Describe: 1 B 6 B Soi	ags of Potting
Type: Lbs/acre: 4. Seeding Custom seed i	the same of the sa	cribed mix	nis form. Seed bag	tags shall cont e: 6 lbs. L Side On	ea Co. Mix, 6 lbs.	Describe: 1 B 6 B Soi	ag of Manure ags of Potting
Type: Lbs/acre: 4. Seeding Custom seed to Broadcast Method: Med	mix Pres	cribed mix	sis form. Seed bag Seed mix name	e: 6 lbs. L Side Or Grama	ea Co. Mix, 6 lbs.	Describe: 1 B 6 B Soi	ag of Manure ags of Potting
Type: Lbs/acre: 4. Seeding Custom seed in Broadcast Method: Med Soil condition Photos attached	chanical Seeder s during seeding	cribed mix	sis form. Seed bag Seed mix name	e: 6 lbs. L Side On Grama	ea Co. Mix, 6 lbs. tts and 6 lbs. Blue	Describe: 1 B 6 B Soi	ag of Manure ags of Potting
A. Seeding Custom seed in Broadcast Method: Mechod: M	chanical Seeder s during seeding	g: Dry	sis form. Seed bag Seed mix name	e: 6 lbs. L Side On Grama	ea Co. Mix, 6 lbs. tts and 6 lbs. Blue	Describe: 1 B 6 B Soi	ag of Manure ags of Potting
Type: Lbs/acre: 4. Seeding Custom seed in Broadcast Method: Med Soil condition Photos attache Number of ph	chanical Seeder s during seeding ed otos:	g: Dry 🖂 Observations:	Damp V	e: 6 lbs. L Side Or Grama Vet S Tilled into	ea Co. Mix, 6 lbs. tts and 6 lbs. Blue	Describe: 1 B 6 B Soi	ag of Manure ags of Potting I 4/25/2013



April 22, 2013

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: EME JCT. J-8

Enclosed are the results of analyses for samples received by the laboratory on 04/19/13 11:05.

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/ga/lab accredited certif.html.

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

Rice Operating Company

Hack Conder 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

04/19/2013

Sampling Date:

04/18/2013

Reported:

04/22/2013

Sampling Type:

Soil

Project Name:

EME JCT. J-8

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: IMPORTED TOP SOIL (H300931-01)

Chloride, SM4500Cl-B

Chloride

Analyzed By: DW

Result

Analyzed

Method Blank

BS

% Recovery

True Value QC

RPD

Qualifier

Analyte

<16.0

Reporting Limit 16.0

04/22/2013

ND

432

108

400

3.77

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 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 dam 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.

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



ND

Notes and Definitions

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

Analyte NOT DETECTED at or above the reporting limit

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine

ARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Project Manager: Hack Conder						P.O. #:					ANALYSIS REQUEST														
																12 -			100		1				
Address:						Company:				ν	S								1						
City: Hobbs State: NM Zip: 88240						Attn:								6											
Phone #: Fax #: Project #: Project Owner: Project Name: Project Location: EME JC1, J-8						Address: City: State: Zip: Phone #:										- F									
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Sampler Name:	Kyle Norman							Fax #:				Chlorides	1 2	BI	Xa	Ö	F								
FOR LAB USE ONLY				1	MA	TRI	X		PRE	ESE	RV.	SAMPLI	NG .	O	0	100	le.	te							
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAIN	GROUNDWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	V				Compl							
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enalyses. All claims including service. In no event shall C	nd Demages. Cerdinal's liability and client's exclusive reme- ng those for negligence and any other cause whatsoever sh ardinal be liable for incidental or consequental damages, in ng out of or related to the performance of services hereund	all be deem	d waiv	red unless tation, but	made i	n writin	ng and tions, k	recei	use, o	Cardi or loss	nal w	ithin 30 days after	r completion of the	e applical	ble						i.				
Relinquished By				ved B			de						Phone Result REMARKS	sult: t:	□ Ye		No No		Phone Fax #:	#:			-		
Religiquished By: Date: Repeived By: Time:					email Knorn				email results: zconder@rice-ecs.com (norman@rice-ecs.com; lpena@riceswd.com (jones@riceswd.com; Bbaker@rice-ecs.com;																
Delivered By: (Circle One) Sample Condi Cool Intact ☐ Yes ☐ Yes ☐ No ☐ N					ict/	Aldiffals) hoons														com					

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393 4476



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: 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				
	ON: ISOBUTYI	ENE 100PPM / AIR: I				
LOT NO : HAL-248-100-1		EXPIRATION DATE:	7/01/2015			
ACCURACY: +/- 2%	READING AC	CCURACY: 99.9 PPM				
	CO	MPANY				
		Rice				
SITE	UNIT	SECTION	TOWN SHIP	RANGE		
EME Jet. J-8	1	8	T-20-S	R-37-E		
SAMPLE ID	PID	SA	PID			
Cooper Pit Top Soil	2					

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE: Phyle Na

DATE: 4-18-2013

EME Jct. J-8 (1R427-306)

Unit Letter J, Section 8, T20S, R37E



Site prior to seeding, facing north







Spreading amendments, facing north

4/25/2013



Seeding site, facing east

4/25/2013

Site completed, facing north

4/25/2013