

1R - 427-172

**GENERAL
CORRESPONDENCE**

YEAR(S):

2008

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Tuesday, August 12, 2008 4:35 PM
To: 'Hack Conder'
Cc: Price, Wayne, EMNRD; 'Marvin Burrows'
Subject: Workplans for 1R427-09, 1R426-09, 1R428-76, and 1R427-172

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has determined after reviewing your Notification of Groundwater Impact for each of the following four sites:

- 1) Rice EME L-6 Boot
Unit L, Section 6, T20S, R37E
Lea County, New Mexico
OCD Case #1R0427-09
- 2) Rice BD H-19
Unit H, Section 19, T21S, R37
Lea County, New Mexico
OCD Case #1R0426-09
- 3) Rice Hobbs Jct. M-4
Unit M, Section 4, T19S, R38E
Lea County, New Mexico
OCD Case #1R0428-76
- 4) Rice EME Gaither Boot
Unit I, Section 34, T19S, R36E
Lea County, New Mexico
OCD Case #1R0427-172

that the Rice Operating Company (ROC) must submit for each of the four sites a separate corrective action workplan in accordance with OCD Rule 116 (19.15.3.116 NMAC) to remediate the ground water contamination at each of these sites. The workplans must include a schedule for immediate implementation of groundwater remediation and source control. The workplans must be submitted to the OCD Santa Fe Office within 30 days.

Specifically, the workplan for the Rice EME L-6 Boot site must include that an estimation of the chloride mass that has contaminated the groundwater by the release at the Rice EME L-6 Boot Site and a plan for the removal of that chloride mass from the groundwater. An existing groundwater monitoring well may be used for this purpose. Also, please propose a treatment and / or disposal method for that chloride mass.

Also, for the Rice EME Gaither Boot additional site investigation must be performed at the site; i.e., an upgradient groundwater monitoring well must be installed at the site to determine the regional background groundwater quality. If the background quality is similar to the downgradient well sample results, then the workplan must include that an estimation of the chloride mass that has contaminated the

8/12/2008

groundwater by the release at the Rice EME Gaither Boot Site and a plan for the removal of that chloride mass from the groundwater. An existing groundwater monitoring well may be used for this purpose. Also, please propose a treatment and / or disposal method for that chloride mass. *[However, if the background quality is not similar to the downgradient well sample results, then an Abatement Plan may be required. Therefore, please submit the analytical results for the upgradient well to the OCD prior to submitting the workplan. Additional time for submittal of the workplan for this site may be requested.]*

ROC should submit one paper copy and an electronic copy on CD for each of the workplans and for all future workplans and/or reports for each of the sites. Please be sure to include the current corresponding OCD Case # on each of the respective workplans. If you have any questions regarding this matter, please call me at (505) 476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau



Infrastructure, buildings, environment, communications

RECEIVED

2008 JUL 16 PM 1 41

ARCADIS U.S., Inc.

1004 N. Big Spring Street
Suite 300

Midland Texas 79701

Tel 432.687.5400

Fax 432.687.5401

www.arcadis-us.com

Mr. Edward J. Hansen
New Mexico Oil Conservation Division
1220 So. Saint Francis Drive
Santa Fe, New Mexico 87505

Certified Mail Receipt No. 7002 2410 0001 5813 3654

Subject:

Notice of Ground Water Impact

NMOCD Case # 1R427-172

Eunice Monument Eumont (EME) SWD Gaither Boot

T19S, R36E, Section 34, Unit I, Eunice, Lea County, New Mexico

Date:

14 July 2008

Dear Mr. Hansen,

Contact:

Sharon Hall

Phone:

432 687-5400

Email:

shall@arcadis-us.com

Respectfully submitted on behalf of Rice Operating Company's is this notice of groundwater impact. (ROC) As part of ROC's Junction Box Replacement program the junction at this site was eliminated and replaced with poly piping that bypasses this junction. Initial delineation began on September 23, 2004 and was completed on October 18, 2004 with a backhoe by trenching to 12 feet below ground surface (bgs). Based on the results of the soil sampling analytical results, elevated chloride and hydrocarbon concentrations are present at the subject site.

ROC disclosed potential groundwater impact at the site to the New Mexico Oil Conservation Division (NMOCD) via e-mail on November 8, 2004. A disclosure report was submitted to NMOCD with all of the ROC 2004 Junction Box Reports in March 2005 per the ROC Junction Box Upgrade Work Plan.

An investigation and characterization plan was submitted to the NMOCD on July 17, 2007 and approved August 13, 2007. Five soil borings were installed at the site. Based on chloride analysis a near-source monitor well was installed at the site. After proper development the well was sampled on April 17, 2008. Laboratory analysis indicates that chloride and total dissolved solids (TDS) concentrations exceed the New Mexico Water Quality Control Commission standards with concentrations of 3,280 and 6,740 milligrams per liter, respectively. Elevated chloride concentrations are known to be elevated regionally in this area near Monument.

ROC will drill additional monitor wells at this site to delineate the extent of impacts to groundwater. ROC will continue to monitor the groundwater at this site by collecting ground water samples for laboratory analysis quarterly. The results will be

Part of a bigger picture

ARCADIS

Ed Hansen
July 14, 2008

informally reported to NMOCD until April 1, 2009. Thereafter, annual reports will be submitted to NMOCD if warranted by the data.

ROC is the service provider (agent) for the EME Salt Water Disposal System and has no ownership of any portion of the pipelines, wells or facilities. The EME System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Environmental remediation projects of this magnitude require System Partner AFE approval and work begins as funds are received.

If you have any questions or concerns regarding this please do not hesitate to contact Marvin Burrows or me.

Best Regards,

ARCADIS U.S, Inc.

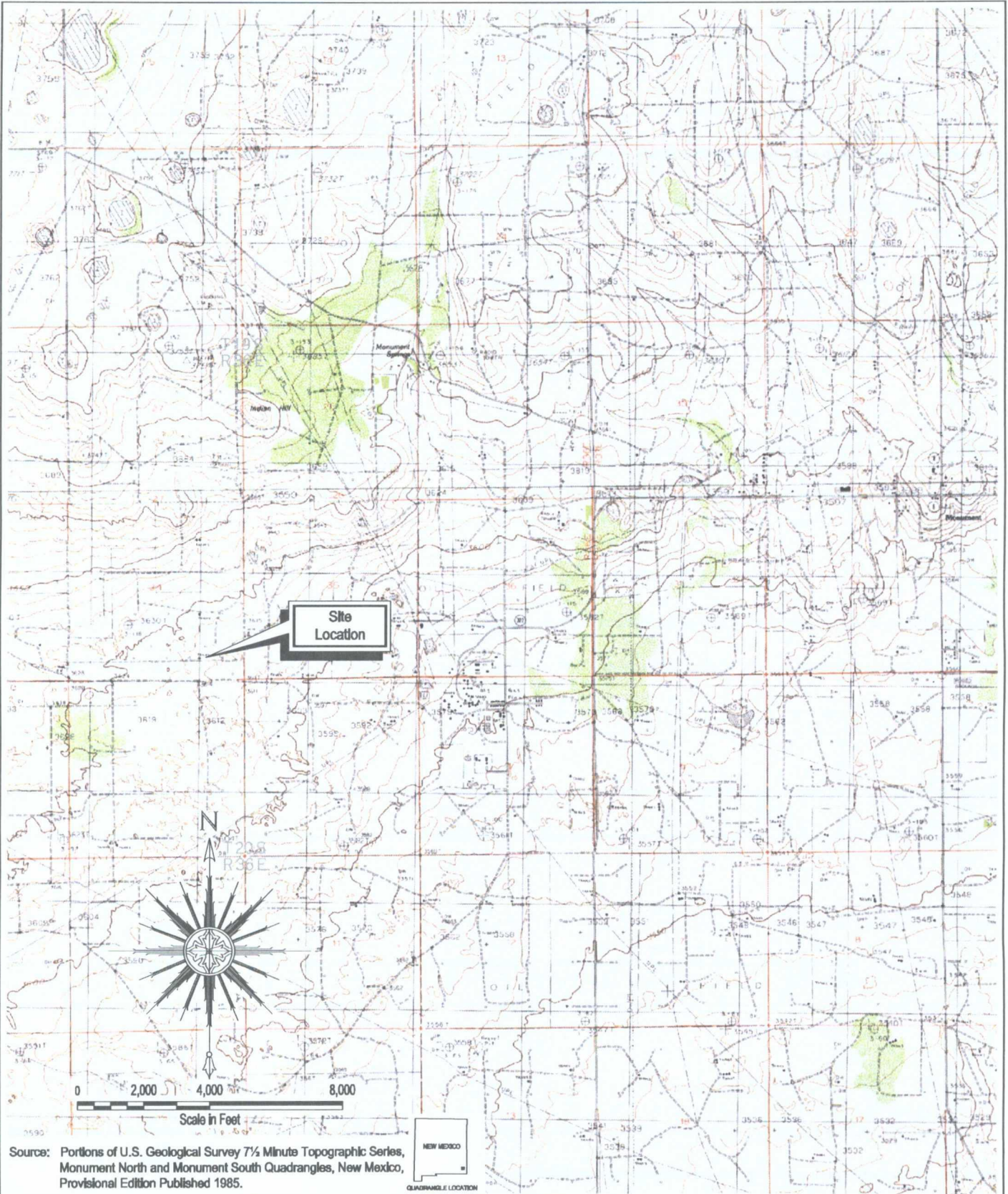
Sharon E. Hall


Sharon E. Hall
Associate Vice President

Copies:
Marvin Burrows- Rice Operating Company

Attachment:

Ground water laboratory results
Site Map



<p>Area Manager A. Schmidt</p> <p>Project Manager S. Hall</p> <p>Task Manager R. Nanny</p> <p>Technical Review S. Tischer</p>	 <p>1004 North Big Spring Street Suite 300 Midland, TX 79701-3383 Tel: 432-687-5400 Fax: 432-687-5401 www.arcadis-us.com</p>	<p>Rice Operating Company Eunice Monument Eumont (EME) SWD System – Gaither Boot</p> <p>Site Location Map</p> <p>Lea County, New Mexico</p>	<p>Project Number MT000910.0001</p> <p>Drawing Date 27 November 2006</p> <p>Figure 1</p>
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ARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 04/21/08
Reporting Date: 04/25/08
Project Number: NOT GIVEN
Project Name: EME GAITHER BOOT
Project Location: T19S-R36E-SEC34 I~LEA COUNTY, NM

Sampling Date: 04/17/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM/KS

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:	04/25/08	04/24/08	04/24/08	04/25/08	04/24/08	04/22/08
H14686-1 MONITOR WELL #1	1,230	621	206	13.4	10,600	152
Quality Control	NR	51.3	52.5	4.56	1,431	NR
True Value QC	NR	50.0	50.0	4.00	1,413	NR
% Recovery	NR	103	105	114	101	NR
Relative Percent Difference	NR	1.4	4.9	13.1	0.1	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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	Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	04/21/08	04/22/08	04/22/08	04/22/08	04/22/08	04/21/08
H14686-1 MONITOR WELL #1	3,280	306	0	185	7.03	6,740
Quality Control	500	26.0	NR	976	6.91	NR
True Value QC	500	25.0	NR	1000	7.00	NR
% Recovery	100	104	NR	97.6	98.7	NR
Relative Percent Difference	< 0.1	13.6	NR	2.4	2.0	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Kristin Suparto
Chemist

04/25/08
Date

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ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR ST.
HOBBS, NM 88240
FAX TO: (575) 397-1471

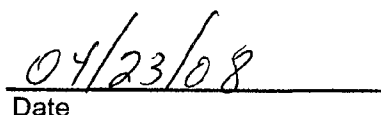
Receiving Date: 04/21/08
Reporting Date: 04/22/08
Project Owner: NOT GIVEN
Project Name: EME GAITHER BOOT
Project Location: T19S-R36E-SEC34 I ~ LEA CO., NM

Sampling Date: 04/17/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: AB

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		04/21/08	04/21/08	04/21/08	04/21/08
H14686-1	MONITOR WELL #1	<0.001	<0.001	<0.001	<0.003
Quality Control		0.088	0.086	0.084	0.264
True Value QC		0.100	0.100	0.100	0.300
% Recovery		87.7	85.6	83.6	87.9
Relative Percent Difference		11.4	8.0	5.6	7.1

METHOD: EPA SW-846 8021B


Chemist


Date

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101 East Marland - Hobbs, New Mexico 88240
Tel (575) 393-2326
Fax (575) 393-2476

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

Company Name:

RICE Operating Company

BILL TO Company:

RICE Operating Company

PO#

Project Manager:

Kristin Farris-Pope, Project Scientist

Address:

122 W Taylor Street ~ Hobbs, New Mexico 88240

Address: (Street, City, Zip)

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:
EME Gaither Boot

Project Location:

T19S-R36E-Sec34 ~ Lea County - New Mexico

Sample Signature:

Rozanne Johnson (575) 631-9310
rozanne@valmet.com

LAB #

(LAB USE ONLY)

FIELD CODE

H141680-1 Monitor Well #1

G

3

X

WATER

SOIL

AIR

SLUDGE

2

HCL (2 40ml VOA)

HNO₃

NaHSO₄

H₂SO₄

1

ICE (1-1 Liter HDPE)

NONE

DATE (2008)

TIME

4-17

9:20

MTBE 8021B/602

X

BTEX 8021B/602

TPH 418.1/TX1005 / TX1005 Extended (C35)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/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

Cations (Ca, Mg, Na, K)

X

Anions (Cl, SO₄, CO₃, HCO₃)

X

Total Dissolved Solids

X

Chlorides

Turn Around Time ~ 24 Hours

Relinquished by: Rozanne Johnson
Date: 4-21-08 Time: 13:25

Received by: Rozanne Johnson
Date: 4/21/08 Time: 13:26

Relinquished by: Date: Time:

Phone Results: Yes No
Fax Results: Yes No

REMARKS:

Additional Fax Number:

Delivered By: (Circle One)

Sample Condition

Cool Intact

CHECKED BY: (Initials)

Sample - UPS - Bus - Other:

Email Results to: kpope@riceswd.com

lweinheimer@riceswd.com

rozanne@valmet.com

Hansen, Edward J., EMNRD

From: Hall, Sharon [Sharon.Hall@arcadis-us.com]
Sent: Monday, March 24, 2008 12:58 PM
To: Hansen, Edward J., EMNRD; Williams, Chris, EMNRD
Cc: Price, Wayne, EMNRD; Lara Weinheimer
Subject: ROC Drilling Next week

I wanted to let you know that we will be drilling a monitor well at the ROC Gaither Boot site on April 2nd. The legal description for the site is Unit I, Section 34, Township 19S, Range 36E. The NMOCD case # is 1R0427-17~~2~~. Please let me know if you have any questions. Regards, Sharon

Sharon E. Hall PG, REM
Site Evaluation Department Manager
ARCADIS G&M Inc
1004 N. Big Spring Street, Suite 300
Midland, Texas 79701
ph: 432 687-5400
fax:432 687-5401

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