1R - 425-38

Annual GW Mon. REPORTS

DATE:

2008

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Texerra

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Midland, Texas 79701
Tel: 432-634-9257; E-mail: lpg@texerra.com

December 31st, 2009

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

RE: Investigation and Characterization Plan Report & **Termination Request**
Rice Operating Company – Vacuum SWD System
VAC Jct. M-5 Unit M Sec 5 T18S R35E
NMOCD Case Number - 1R425-38

Sent via E-mail and U.S. Certified Mail w/ Return Receipt No. 7007 0710 0003 0305 3798

Dear Mr. Hansen:

On behalf of Rice Operating Company (ROC), Texerra submits this ICP Report and Termination Request for your consideration. ROC has completed the work outlined in the Investigation and Characterization Plan for this project. The site location is shown in Figure 1. The key findings of this work may be summarized as follows:

1- The depth to groundwater is 104 ft below ground surface.
2- The average soil chloride concentration among five borings encompassing the affected area was approximately 1,200 ppm in the upper 50 ft (Figure 2).
3- Petroleum hydrocarbons (using PID measurements) were not found in the soil (Figure 3).
4- Groundwater chloride concentrations from a near-source monitor well averaged approximately 380 ppm over four consecutive quarters in 2009 (Figure 4), which we believe is broadly consistent with regional background concentrations.
5- No petroleum hydrocarbons were detected in the groundwater samples (Figure 4).
6- Groundwater sulfate concentrations were below 50 ppm over the same period (Figure 4).

ROC installed a one-foot thick compacted clay barrier beneath the affected area upon removal of the former junction box, as documented in the Junction Box Disclosure Report of August 17th, 2007 (Figure 5). Further, ROC prepared the soil and reseeded with a natural vegetation mix in June, 2009 (Figures 6 & 7).

The risk of groundwater contamination from residual soil chlorides from this location is exceedingly low for the following reasons:

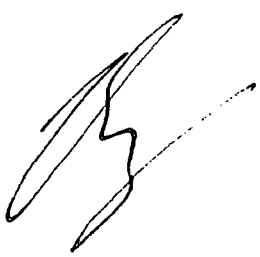
1. Groundwater is greater than 100 ft below the surface.
2. The clay barrier, noted above, will prevent downward migration of residual chlorides in the vadose zone.
3. The site is gradually becoming re-vegetated thus reducing the likelihood of downward flux of water or chlorides.

Texerra therefore respectfully requests that NMOCD grant this project "remediation termination" or a similar closure status.

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

We greatly appreciate your consideration of this request.

Sincerely,



L. Peter Galusky, Jr. Ph.D.

Copy: Rice Operating Company

Figure 1- VAC M-5 location on a USGS 1:100,000 topographic base map.

Soil Boring Log
Rice Operating Company
VAC SWD System **M-5 Jct**

Identification:	**Average of SB-1 through SB-5**
Location:	See map.
Date:	2/2/2009
Driller:	Harrison & Cooper, Inc. (Ken Cooper supervising)
Drill method:	Air rotary
Logged by:	L. Peter Galusky, Jr., Texerra
Total depth:	50 ft below ground surface
Screened interval:	n/a (no well installed)
Pipe diameter:	"

Depth (ft below ground surface)	Field Chloride Test (ppm)	Lab Chloride Test (ppm)	Field Avg Soil Chloride Conc (ppm)
-5	585		1,201
-10	784		1,201
-15	1,244		1,201
-20	1,450		1,201
-25	1,315	912	1,201
-30	1,313		1,201
-35	1,354		1,201
-40	1,324		1,201
-45	1,438		1,201
-50	1,207	1,540	1,201
avg	1,201		

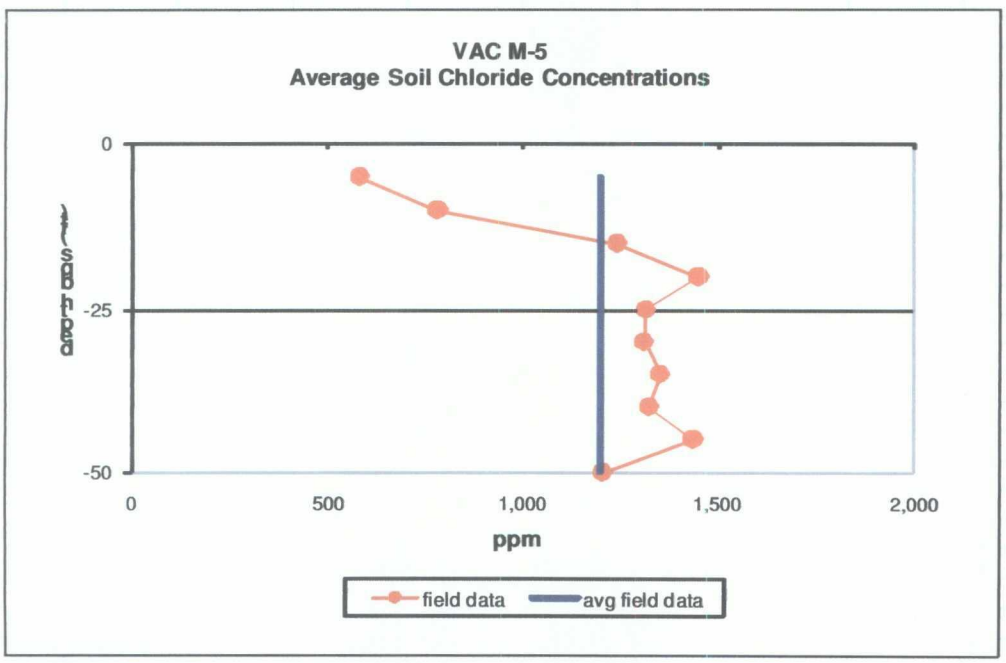
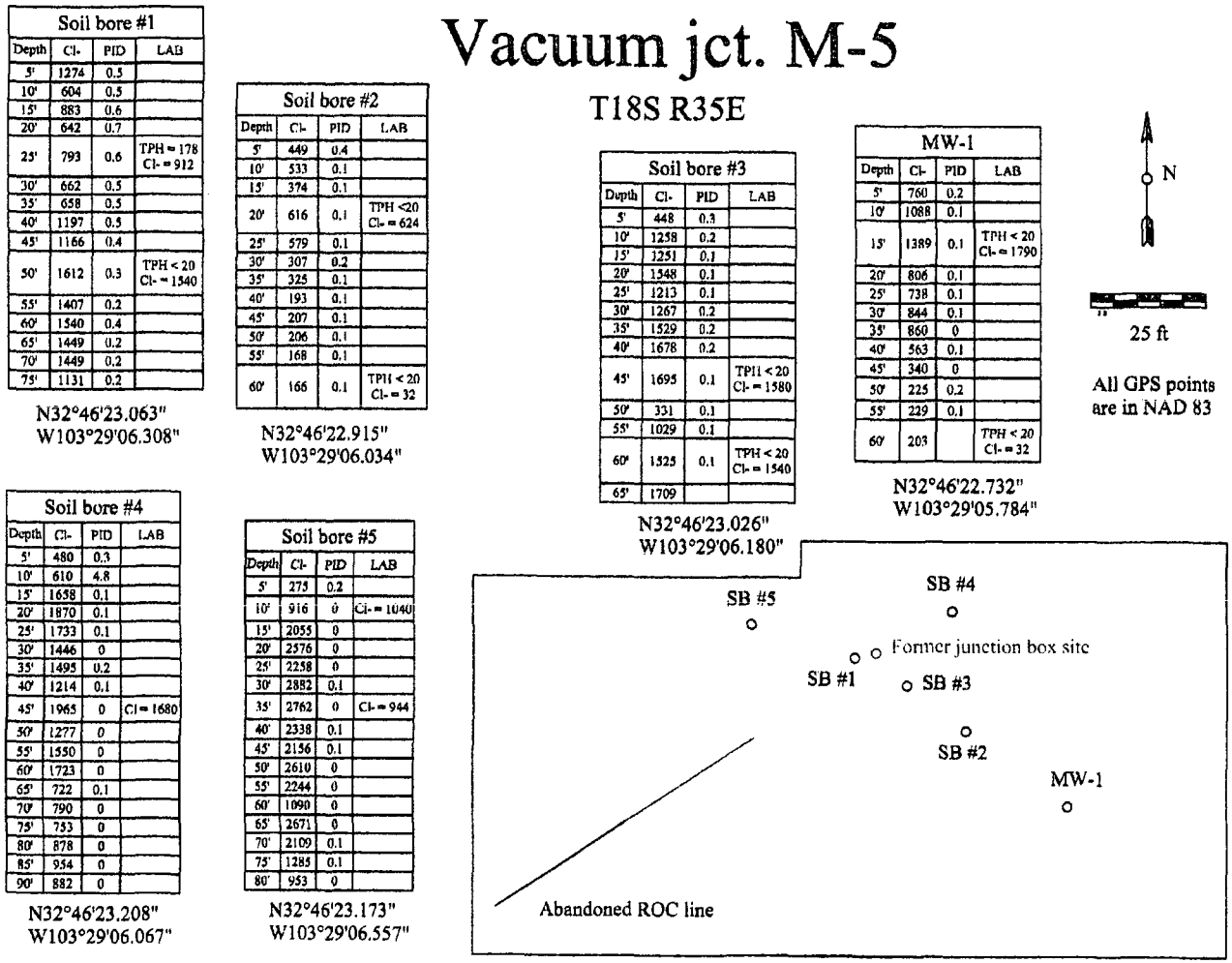


Figure 2 – VAC M-5 average field measured soil chloride concentrations

Figure 3 – Soil boring location map and field measured residual chlorides and petroleum hydrocarbons.



Rice Operating Company – VAC M-5

Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
3/3/2009	352	972	<0.001	<0.001	<0.001	<0.003	47
4/29/2009	368	851	<0.001	<0.001	<0.001	<0.003	44
8/7/2009	416	1,090	<0.001	<0.001	<0.001	<0.003	47
10/22/2009	380	1,030	<0.001	<0.001	<0.001	<0.003	45
Average	**379**						

Figure 4 – Groundwater quality measurements from a near-source monitor well (MW-1).

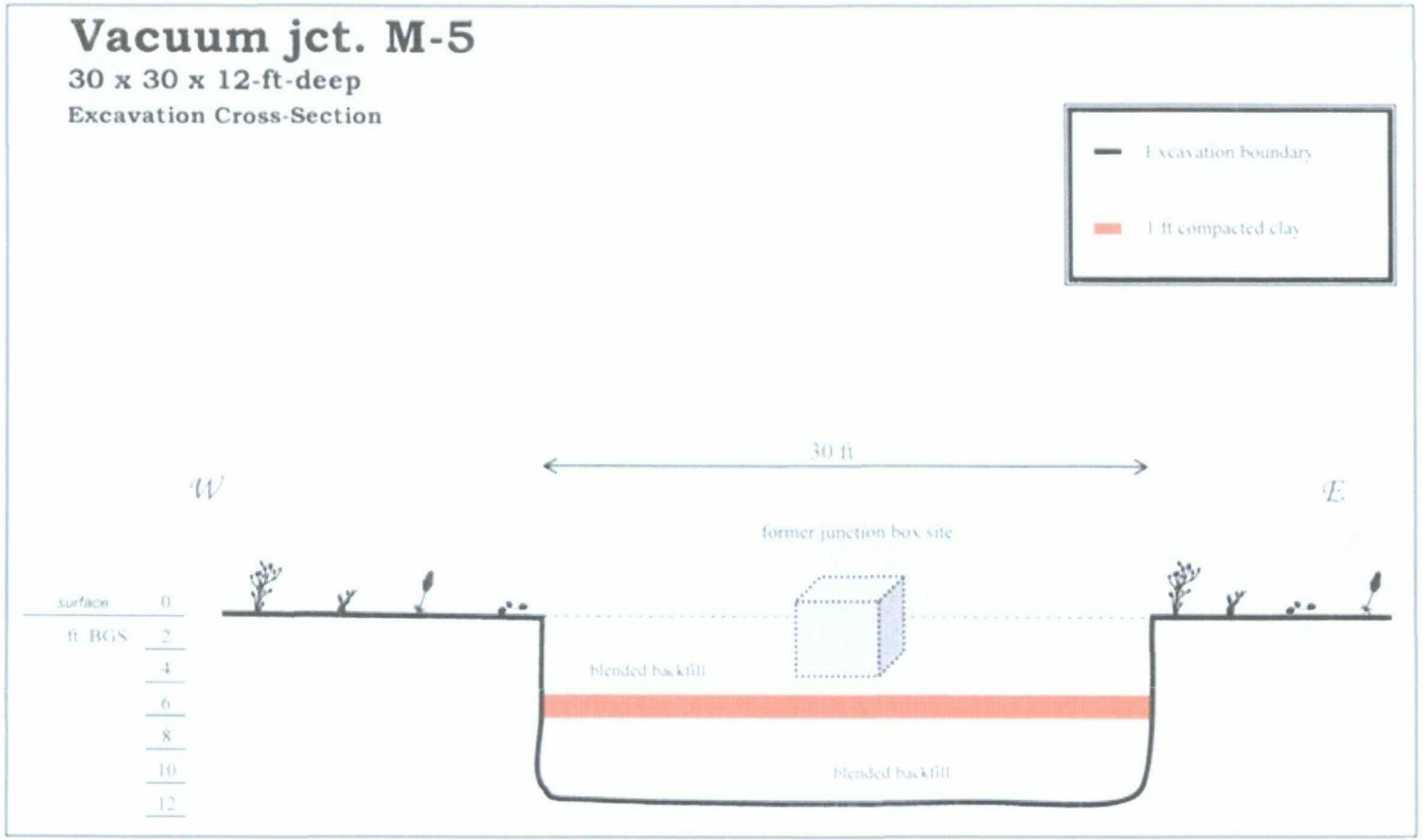


Figure 5 – VAC M-5 subsurface clay barrier schematic diagram.

Figure 6 – Reseeding of VAC M-5 June, 2009.

New Mexico State Land Office

Field Operations Division

(505) 827-5723	P.O. Box 1148	Santa Fe, NM 87504
(575) 392-8736	2702-D N. Grimes	Hobbs, NM 88240
(575) 885-1323	N. Canal, Suite B	Carlsbad, NM 88220
(575) 623-4979	1001 S. Atkinson	Roswell, NM 88210
(575) 763-0796	105 E. 6th St.	Clovis, NM 88101

REVEGETATION FORM

1. General Information

Site name: VACUUM M-5			Lease No.:			
U/L or Qtr/Qtr M	Section 5	Township 18S	Range 35E	County LEA	Latitude 25°46.380N	Longitude 103°29.076W
Company Name: RICE OPERATING				Contact Name: HACK CONDER		
Phone no.: (575) 393-9174			Email: hconder@riceswd.com			
Address: 122 W. TAYLOR HOBBS, NM 88240						
Spill / Release ☐ OCD Spill No. IR425-38		P&A Well ☐ API No.		Pit Closure ☐	Facility Closure ☒ Type: JUNCTION BOX	Other ☐
Site size:		acres	2500 square feet		Map detail of site attached ☐	
Additional information:						

3. Soils **Do not rip caliche subsoils; caliche rocks brought to the surface by ripping shall be removed.*

Salvaged from site ☐	Bioremediated ☐	Imported ☒	Blended ☐	Depth (in):	
Texture: SANDY/ ROCKY	Describe soil & subsoil: SANDY/ROCKY OVER CALICHE				
Soil prep methods:	Rip ☐ Depth(in):	Disc ☒ Depth (in): 6	Rollerpack ☐		
Date completed:	Photos attached ☒	Number of photos: 1			

4. Seeding **Attach seed bag tags to this form. Seed bag tags shall contain the site name and S-T-R.*

Custom seed mix ☒	Prescribed mix ☐	Seed mix name: LEA CO. MIX, BLUE GRAMA, OATS	Seeding date: 6/25/09
Is seed mix divided into submixes based on seed size?	Yes ☐ No ☒		
Drill Seeder ☐ Drill Type:	Broadcast ☒ Method: MANUAL BROADCAST SEEDER		Hydroseeding ☐
Soil conditions during seeding:	Dry ☒	Damp ☐	Wet ☐
Photos attached ☒ Number of photos: 1	Observations: SEED TILLED 2" AFTER PLANTING. USED 125 LBS LEA COUNTY MIX, 1 LB BLUE GRAMA, 2 LB HEAVY RECLEANED RACEHORSE OATS		

5. Additional Methods

Mulching ☐ Mulch type: Tons/acre:	Crimping ☐	Fertilizer ☒ Type: AMMONIUM SULFATE 21-0-0 Lbs/acre: 25 LBS TOTAL	Other ☐ Describe:
Photos attached ☐ Number of photos:	Observations:		

5. Certification I hereby certify that the information in this form and attachments is true and complete to the best of my knowledge and belief.

Name: TONY GRIECO	Title: ENVIRONMENTAL TECH	Date: 7/6/09
Signature:		

Version 20080925

Figure 7 – NM SLO reseeding form for VAC M-5.