1R - <u>425-26</u>

GENERAL CORRESPONDENCE

YEAR(S): 2007



Vac_Statel_P_EOL_ICP_05_04_07_lpg.pdf (3.1MB)

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

Texerra

May 4th, 2007

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 Rice Operating Company – Vacuum SWD State P EOL T 17S R 35E Section 26 Unit A

Sent via E-mail and U.S. Certified Mail w/ Return Receipt 7006 0100 0001 2438 3838

Dear Mr. Hansen:

RICE Operating Company (ROC) has retained L. Peter Galusky, Jr. Ph.D. to address potential environmental concerns at the above-referenced site. ROC is the service provider (agent) for the Vacuum 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 Partners, who provide all operating capital on a percentage ownership/usage basis. Environmental projects of this magnitude require System Partner AFE approval, and work begins as funds are received. In general, project funding is not forthcoming until NMOCD approves the work plan. Therefore, your timely review of this submission would be greatly appreciated.

For all such environmental projects, ROC will choose a path forward that:

- protects public health,
- provides the greatest net environmental benefit,
- complies with NMOCD Rules, and
- is supported by good science.

Each site shall generally have three submissions, as described below:

- 1. An <u>Investigation and Characterization Plan</u> (ICP) is proposed for data gathering and site characterization and assessment.
- 2. Upon evaluating the data and results from the ICP, a recommended remedy will be submitted in a <u>Corrective Action Plan</u> (CAP) if this is warranted.
- 3. Finally, after implementing the remedy, a <u>Closure Report</u> with final documentation will be submitted.

Background and Previous Work

The site is located approximately one mile north/northeast of the intersection of Lea County Roads 50 and 53, approximately 4 miles east of Buckeye (Figure 1). The topography is gently sloping toward the southeast. Soils on the site are mapped (as KO) in the Lea County Soil Survey as belonging to the Kimbrough gravelly loam soil series. These are characterized by gravelly loam to a depth of approximately 6 inches, and this is underlain by several feet of calcium indurated caliche. Groundwater is estimated to occur at a depth of approximately 55+/- feet, occurring in unconsolidated Tertiary alluvium of the Ogallala Formation .

As part of the abandonment and closure of the Vacuum SWD system, Rice Operating Company (ROC) investigated soils beneath the former wood junction box at the Mobil P EOL location; (See Appendix A: Rice Junction Box Disclosure Report). Beginning on August 2nd, 2005, the wood junction box was removed and soils were sampled using a trackhoe, creating a 30 by 20 by 12 ft deep excavation. Potential organic contaminants were ruled out, based upon low (< 10 ppm) PID readings throughout the sampled area and depth. However, chloride concentrations increased with depth from 290 ppm at the surface to 2189 ppm at 12 ft. The excavated soil was blended on site and then returned to the hole up to 6 ft below ground surface, where a one foot thick clay barrier was installed. The remaining fill was then placed on top of the clay. Some additional, clean fill was imported to provide enough material to fill the excavation to the ground surface (allowing some overage for settling). The disturbed surface was seeded with a native vegetation mix on April 24th, 2006. A photographic chronology of these activities is provided in Appendix B. OCD was notified that this site has potential for groundwater impacts.

The surface (ecological) impact of this release was relatively small. However, as the potential for groundwater contamination exists, further evaluation is warranted for chlorides, the constituent of concern. Therefore, ROC proposes additional investigative work, as outlined in the Investigation and Characterization Plan (ICP) below, to more definitively evaluate the extent of contamination caused by the release, and to then evaluate the potential for groundwater degradation. Yet, it should be noted that the source of this impact is historical. There is no longer a threat of continued, compounded impact at this site as the former junction box has been removed and the Vacuum SWD system closed.

Proposed Work Elements

- 1. Summarize information and data collected by ROC to date.
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If the evaluation demonstrates that residual constituents pose no threat to ground water quality, then only a surface restoration plan will be proposed to OCD. If, as a result of this work, it is believed that this produced water leak does pose a present or future risk of impacting groundwater quality, then a corrective action plan (CAP) will be developed and proposed to OCD.

I appreciate the opportunity to work with you and your staff on this project. Please call either myself, at the number below, or Kristin Farris Pope (ROC) at 505-393-9174, if you have any questions or wish to discuss these matters.

Thank you for your consideration.

Sincerely,

L. Peter (**Pete**) Galusky, Jr. Ph.D., P.G. *Principal*

Texerra

505 N. Big Spring, Suite 404 Midland, Texas 70701 Tel: 432-634-9257 E-mail: <u>lpg@texerra.com</u> Web site: www.texerra.com

cc: CDH, KFP, file Attachments: site location map







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Appendix	A٠	 Junction 	Box	Disclosure	e Re	port	
		Ave					

BOX LOCATION SWD SYSTEM JUNGTION UNIT SECTION TOWNSHIF ANGE COUNTY BOX DIMENSIONS - FEET Vacuum Mobil IP EQL A 26 17S 33E Lea Long IM Width Depth LAND TYPE: BLM STATE X FEE LANDOWNER OTHER OTHER Depth to Groundwater 50 test NMOCD SITE ASSESSMENT RANKING SCORE: 20 Date Started 8/2/2005 Date Completed 4/20/2006 NMOCD Witness no Soil Excavated 267 code: yards Excavation Location n/a FINAL ANALYTICAL RESULTS: Sample Date 3/27/2006 Sample Depth 12.1t Fonat composite sample of bottom and 4-point composite sample of excavation advessed as and testing procedures pursuant to NMOCD guidelines. CHLORIDE FIELD TESTS General Description of Remedial Action: This junction box was addressed as and in the field trach. 10 1733 gate was advineated using a trached to tolest an amples at regular intervals, producing a 12 148 12266		RICE OPERATING COMPANY JUNCTION BOX DISCLOSURE* REPORT									
SWD SYSTEM JUNCTION UNIT SECTION TOWNSHIF DANGE COUNTY EXX DMEMSIONS - FEET Vacuum Mobil 'P EOL A 26 17S 35E Lea System Abandoned-no box LAND TYPE: BLM											
Vacuum Mobil P EOL A 26 17S 35E Lea Length Windth Depth LNND TYPE: BLM STATE		SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUN	ITY BOX DI	MENSIONS - FE	ΕΤ
LAND TYPE: BLMSTATE_XFEE LANDOWNER OTHER Depth to Groundwater 50 level NMOCD SITE ASSESSMENT RANKING SCORE: 20 Date Started 872/2005 Date Completed 4/20/2006 NMOCD Witness no Soil Excavated 267 cubic yards Offsite Facility r/a Location n/a Soil Excavated 267 cubic yards Offsite Facility r/a Location n/a FiNAL ANALYTICAL RESULTS: Sample Date 3/27/2006 Sample Depth 12 ft F-point composite sample of bottom and 4-point composite sample of excavation advenation to NMOCD guidelines. CHLORIDE FIELD TESTS Sample PDI GRO DBQ Ghards MAUL COMP 0.1 <10.0		Vacuum	Mobil 'P' EOL	A	26	17S	35E	Lea	Length	Width [Depth
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Appendix B – Photo chronology.



Junction box prior to excavation: 7/11/2005



Beginning delineation with trackhoe: 8/2/2005



Collecting soil samples from excavation: 3/23/2006



Final 30 x 20 x 12 ft deep excavation



Installing clay barrier at 6 ft: 4/13/2006



Identification plate to mark former junction site and clay barrier below.



Seeding disturbed area at backfilled site: 4/24/2006



Print - Close Window

- Date: Fri, 20 Apr 2007 12:49:26 -0700 (PDT)
- From: "L. Peter Galusky, Jr. P.E." < lpg@texerra.com>
- Subject: Mobil P EOL T 17S R 35E Section 26 Unit A
- To: "Edward J. Hansen" <edwardj.hansen@state.nm.us>

CC: "Carolyn Haynes" <chaynes@riceswd.com>, "Kristin Pope" <kpope@riceswd.com>

Dear Mr. Hansen:

Please find enclosed an Investigation and Characterization Plan for the Mobil P EOL site in the Vacuum SWD in Lea County. As Rice is anxious to proceed with this work, I would be most grateful for your review of this Plan at your earliest convenience.

Please do not hesitate to contact me if you have any questions or need additional information.

2 HARD COPT EXCLOSES

Sincerely,

Pete G.

Attachments

Files:

Vac_Mobil_P_EOL_ICP_04_20_07_lpg.pdf (3.2MB)

RECEIVED

APR 2 7 2007 Environmental Bureau Oil Conservation Division

http://b4.mail.yahoo.com/ym/texerra.com/ShowLetter?box=Inbox&MsgId=2320 3656785... 4/20/2007

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

Texerra

April 20th, 2007

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Texerra

505 N. Big Spring, Suite 404 Midland, Texas 70701 Tel: 432-634-9257 E-mail: <u>lpg@texerra.com</u> Web site: www.texerra.com

cc: CDH, KFP, file Attachments: site location map





Mobil P EOL

Texerra

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		11	RICE OP			N Y PORT			
		50							
				BOX LOCAT	TION				
SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX D	MENSIONS	- FEET
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Depth to Grour Date Started	ndwater 8/2/20	50 05	feet Date Cor	NMOCD	SITE ASSI 4/20/2006	ESSMENT I	RANKING S	CORE:	20 no
Soil Excavated	267	cubic yan	ds Exc	avation Le	ngth30	Width	20	Depth	12
Soil Disposed	0	cubic yan	ds Off	fsite Facility	n	/a	Location		n/a
ΝΔΙ ΔΝΔΙ Υ			Somel	- Data	0.07.0		Comple De		104

Appendix A - Junction Box Disclosure Report

5-point composite sample of bottom and 4-point composite sample of excavation sidewalls. TPH and chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample	<u>PID</u>	<u>GRO</u>	DRO	<u>Chloride</u>
Location	ppm	mg/kg	mg/kg	mg/kg
4-WALL COMP.	0.1	<10.0	<10.0	1480
BOTTOM COMP.	0.1	<10.0	<10.0	1750
REMED. BACKFILL	0.1	<10.0	<10.0	1950

General Description of Remedial Action: This junction box was addressed as part of the abandonment of the Vacuum SWD system. After the box lumber was removed, the site was delineated using a trackhoe to collect soil samples at regular intervals, producing a 30 x 20 x 12-ft-deep excavation. Chloride and organic vapors were measured in the field for each sample. All PID readings yielded very low concentrations (<10 ppm), however, chloride concentrations increased with depth. The excavated soil was blended on site and then returned to the hole up to 6 ft BGS where a 1-ft-thick clay barrier was installed. The remaining

LOCATION DEPTH (ft) ppm 290 3 4 299 5 686 6 709 delineation 7 872 trench at 8 1286 junction 9 1601 10 1733 11 1999 12 2189 4-wall comp. n/a 1050 1554 bottom comp. 12 backfill comp n/a 1404

CHLORIDE FIELD TESTS

Denth

12 ft

feet

fill was placed on top of the clay. Additional fill was needed so clean, imported fill was used to backfill the remainder of the excavation. An identification plate was placed on the surface of the site to mark the location of the former junction for future environmental consideration and the presence of the clay below. The disturbed surface was seeded with a blend of native vegetation on 4/24/2006 and is expected to return to productive capacity at a normal rate. On 4/3/2006, OCD was notified of potential groundwater impact at this site. ROC has retained

the consultant, L. Peter Galusky Jr., Ph.D. to address environmental concerns at this site.

enclosures: photos, lab results, PID field screenings, cl- graph, excavation cross-section

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SITE SUPERVISOR Jorge	Hernandez SIGNATURE	not available	COMPANY	RICE Operating Company
REPORT ASSEMBLED BY	Kristin Farris Pope	SIGNATURE		

Appendix B – Photo chronology.



Junction box prior to excavation: 7/11/2005



Beginning delineation with trackhoe: 8/2/2005



Collecting soil samples from excavation: 3/23/2006



Final 30 x 20 x 12 ft deep excavation



Installing clay barrier at 6 ft: 4/13/2006



Identification plate to mark former junction site and clay barrier below.



Seeding disturbed area at backfilled site: 4/24/2006