

AP - 83

WORK PLAN

YEAR(S):

12-28-06

AP-83
Work Plan
12-28-06

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

Texerra

December 28th, 2006

2007 JAN 5 PM 1 01

Mr. Edward Hansen, Hydrologist
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
C-16(1) Leak EME Salt Water Disposal System
UL-C, Sec 16 T20S R37E
NMOCD Case Number: 1R0476**

Sent via U.S. Mail w/ Return Receipt No. 7005 0390 0002 9898 2648

Mr. Hansen:

Please find attached printed copies of our previous correspondence sent via e-mail. Please note that I have added the case number onto the cover of the ICP.

Per our previous correspondence we drilled this site December 12th, and will submit a report to your office in due course.

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

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: lpg@texerra.com
Web site: www.texerra.com

Copy: Kristin Pope, Rice Operating Company

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

Texerra

November 24th, 2006

Mr. Wayne Price

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
C-16(1) Leak EME Salt Water Disposal System – OCD No. 1R0476
UL-C, Sec 16 T20S R37E**

Sent via E-mail and U.S. Mail w/ Return Receipt No. 7005 0390 0002 2648

Mr. Price:

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 EME 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 Investigation and Characterization Plan (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 Corrective Action Plan (CAP) if this is warranted.
3. Finally, after implementing the remedy, a Closure Report with final documentation will be submitted.

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Background and Previous Work

Rice Operating Company (ROC) discovered an accidental discharge of produced water at the referenced location on October 12, 2005 (see attached road map). The source of the release was an asbestos-cement pipeline failure, releasing an estimated 35 bbls of produced water. The 4-inch diameter pipeline was replaced with a 4-foot segment of PVC pipe, thus minimizing the threat of future releases and compounded impact.

The surface area affected by this release was approximately 3,700 sq ft (less than 1/10th of an acre). Regional groundwater information indicates that the depth to groundwater is approximately 17 to 20 ft below ground surface at this location.

Soil sampling was undertaken by ROC on October 25th, 2005. The initial sampling and impact delineation encompassed the area of the release. Samples were taken from the surface to a depth of 3 to 4 feet, using a hand auger, and analyzed for chlorides and organics using field titration and a portable PID, respectively. A subset of samples was sent to a commercial laboratory for verification of field results. A second round of soil sampling was undertaken using a backhoe on November 18th, 2005, where soils were sampled to depths of 12 to 14 ft at locations indicated during the previous investigation. Soils were analyzed for chlorides and organics as noted previously.

As part of the emergency response procedure, approximately 120 cu yds of chloride-contaminated soil material from the upper 6 inches of the affected area was removed. This material was taken to the Sundance Disposal facility in Eunice, NM in February, 2006. The site was regraded to original contours, using clean soil material as backfill.

The following scope of work is proposed to provide definitive and sufficient information for the development of a Corrective Action Plan and/or Closure Request.

Proposed Work Elements

1. Summarize information and data collected by ROC to date.
2. Summarize additional, publicly available regional and local hydrological information.
3. Complete the vertical and lateral delineation of soil chloride concentrations, and prepare three-dimensional graphics to illustrate the horizontal and vertical extent of contamination.
4. If warranted, install monitor wells sufficient to determine up-gradient, zone-of-release and down-gradient groundwater chloride concentrations. [All monitoring wells will be constructed (with the annular space sealed with a cement/bentonite mix) per NM Dept. Environment standards].
5. Evaluate the risk of groundwater impact in light of the information obtained.

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

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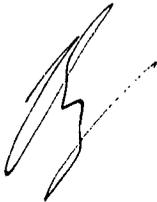
of impacting groundwater quality, then a corrective action plan (CAP) will be developed and proposed to OCD.

It should be noted that since this release is approximately 400 feet west of a subsequent release (C-16-2) on the same pipeline, that the field investigation will be conducted in conjunction with that for C-16-2, to optimize the locations of any monitor wells which may be installed.

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,



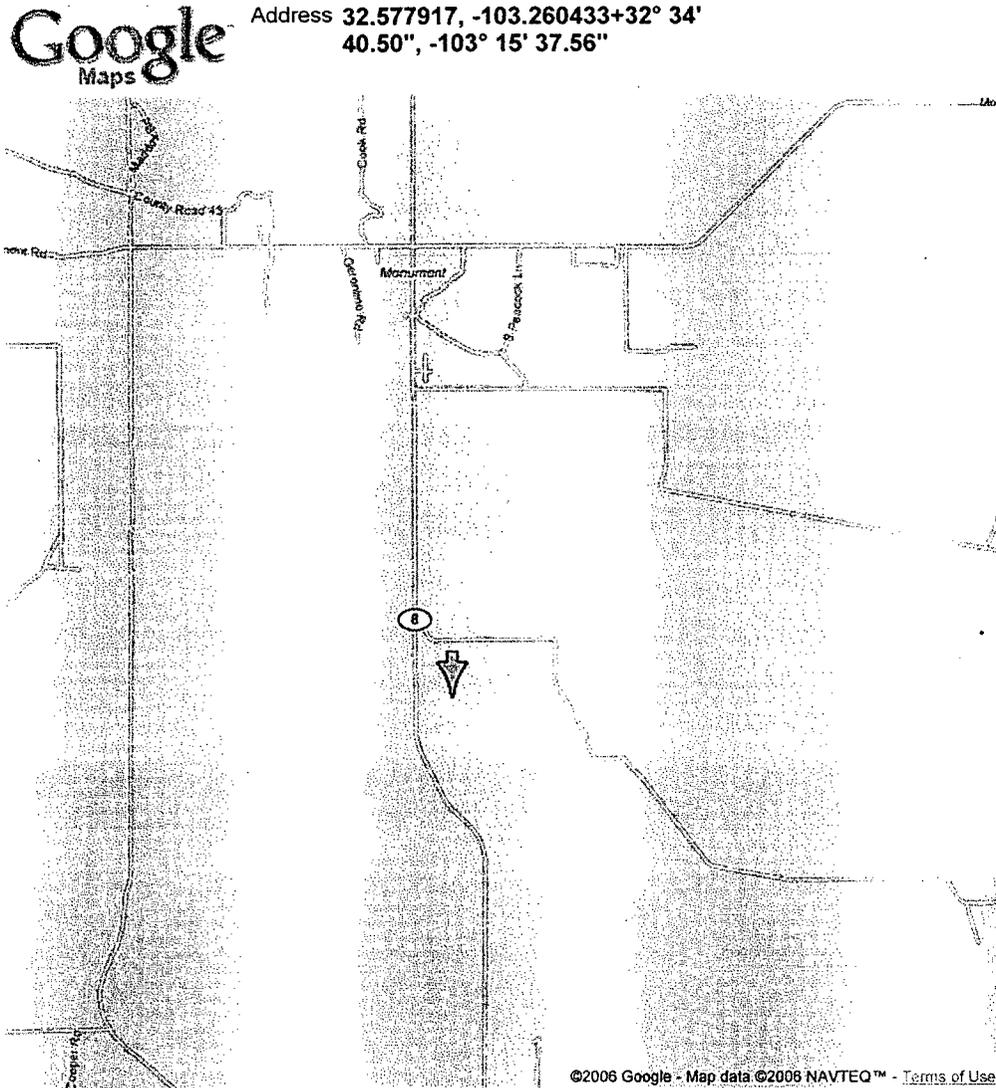
L. Peter (**Pete**) Galusky, Jr. Ph.D., P.G.
Principal

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

cc: CDH, KFP, file

attachments: site location map, C-141



Directions:

- Starting in Monument at the intersection of Hwys 8 and 322, travel south on Hwy 8 for 2.9 miles.
- Turn east on dirt road, going through a cattle guard.
- Take east (left) fork. Take 2nd lease road past drilling location, turning south for 500 ft.
- Release location is on west side of road.

GPS Coordinates:

Lat: 32 deg 34.674 minutes
Long: -103 deg 15.626 minutes

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised October 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: Rice Operating Company	Contact:
Address: 122 West Taylor	Telephone No.: 505-393-9174
Facility Name: EME	Facility Type: SWD Gathering line
Surface Owner: STATE leased to SW Cattle Co.	Mineral Owner: Lease No.:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	16	20S	37E					

Latitude: 32*34.675N Longitude: 103*15.626W

NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 35 bbls	Volume Recovered: 0
Source of Release: Pipeline	Date and Hour of Occurrence: 10/12/05	Date and Hour of Discovery: 10/12/05 4:30 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Jennifer Johnson	Date and Hour: 10/13/05 left message at 2:45 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse:	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* 4" AC Pipeline cracked, replaced with 4" PVC Pipeline		
Describe Area Affected and Cleanup Action Taken.* Approximately 3728 sq feet affected. Delineation results and work plan to follow.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature:	OIL CONSERVATION DIVISION	
Printed Name: Jennifer Johnson	Approved by District Supervisor:	
Title: Environmental and Field Technician	Approval Date:	Expiration Date:
E-mail Address: jjriceswd@valornet.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/14/05	Phone: 505-393-9174	

* Attach Additional Sheets If Necessary