

1R - 427-172

# WORKPLANS

DATE:

8-20-08



Infrastructure, buildings, environment, communications

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Mr. Edward J. Hansen  
New Mexico Oil Conservation Division  
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Subject:  
Additional Site Investigation  
NMOCD Case # 1R427-172  
Eunice Monument Eumont (EME) SWD Gaither Boot  
T19S, R36E, Section 34, Unit I, Eunice, Lea County, New Mexico

Date:  
20 August 2008

Dear Mr. Hansen,

Contact:  
Sharon Hall

In response to your email dated August 12, 2008, I respectfully submit, on behalf of Rice Operating Company (ROC), this additional site investigation work plan. As reported in the Notice of Groundwater Impact submitted on July 14, 2008, as part of ROC's Junction Box Replacement program, the junction at this site was eliminated and replaced with poly pipe bypassing 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.

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## BACKGROUND

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. Chloride concentrations are known to be elevated regionally in this area near Monument.

Part of a bigger picture

Notice of Groundwater Impact was submitted to NMOCD on July 14, 2008. In an email dated August 12, 2008 NMOCD requested additional investigation at the site. The additional site investigation work plan as requested by NMOCD follows.

**ADDITIONAL SITE INVESTIGATION**

An upgradient monitor well will be drilled at the site. The proposed location of the monitor well is 30 feet northwest of the former junction box location. The purpose of drilling this well is to identify if upgradient chloride impacts are present. Elevated chloride concentrations have been reported in this area since the 1950's.

If the background quality of the upgradient monitor well is similar to the downgradient well analytical results, a chloride mass removal work plan will be submitted to NMOCD. The work plan will include an estimation of chloride mass that may have impacted this site and a plan for the removal of the estimated chloride mass. The method of treatment or disposal will be included in the work plan.

It is understood that if the chloride concentration of the upgradient well is not similar to that of the downgradient well (i.e. not similarly elevated) an Abatement Plan may be required. ROC will submit the groundwater analytical results of the sample collected from the upgradient well with recommendations to submit a chloride mass removal work plan or an Abatement Plan.

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 Hack Conder or me.

Best Regards,

ARCADIS U.S, Inc.

*Sharon E. Hall*

Sharon E. Hall  
Associate Vice President

Copies: Hack Conder- Rice Operating Company