

1R - 427-168

REPORTS

DATE:

6-10-10



Infrastructure, buildings, environment, communications

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2010 JUN 15 A 11: 59

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New Mexico Oil Conservation Division
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Santa Fe, New Mexico 87505

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www.arcadis-us.com

Certified Mail Receipt No. 7002 2410 0001 5813 0103

Subject:

Corrective Action Plan Report and Termination Request
Eunice Monument Eumont (EME) Jct. F-18, NMOCD Case #1R 427-168
T20S, R37E, Section 18, Unit F, Eunice, Lea County, New Mexico

Date:

June 10, 2010

Mr. Hansen,

Contact:

Sharon Hall

RICE Operating Company (ROC) has retained ARCADIS to address potential environmental concerns at the above-referenced site. ROC is the service provider (agent) for the Eunice Monument Eumont (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 Parties, who provide all operating capital on a percentage ownership/usage basis.

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SITE HISTORY AND BACKGROUND

ROC disclosed potential groundwater impact at the site to New Mexico Oil Conservation Division (NMOCD) via e-mail on October 19, 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 Workplan.

The junction box F-18 was eliminated and replaced with poly line that bypasses this junction. Initial delineation began on August 16, 2004 and was completed on August 24, 2004 with a backhoe by trenching to 12 feet below ground surface (bgs). An area of 25 x 15 x 12 ft-deep was excavated and backfilled with blended soils to a depth 6 feet bgs. A one-foot thick compacted clay barrier was installed to inhibit downward chloride migration. The excavated area was then backfilled with the remaining blended excavated soil. The disturbed surface has been seeded with a blend of native vegetation and monitored for growth.

Based on the results of the soil sampling analytical results, elevated chloride concentrations were found to be present at the subject site.

Part of a bigger picture

On behalf of ROC, ARCADIS submitted an Investigation Characterization Plan (ICP) to NMOCD on July 6, 2007. The ICP was approved by NMOCD on August 6, 2007 and proposed three tasks:

- Task 1- Collect Regional Hydrogeologic Data
- Task 2- Evaluate Concentrations of Constituents of Concern in Soil and Groundwater
- Task 3-Evaluate Potential Flux from the Vadose Zone to Groundwater

ICP INVESTIGATION RESULTS

Five soil borings were drilled at the site on March 5, 2009. The soil boring locations are shown on the attached figure.

Laboratory and field chloride analysis confirmed that chloride concentrations in soil decline at depth in SB-1, SB-2, SB-3, SB-4 and SB-5. Overall, chloride concentrations in soil samples collected from these borings declined to concentrations of 720 mg/kg, 441 mg/kg, 201 mg/kg, 360 mg/kg and 229 mg/kg, respectively.

Corrective Action Plan and Approval

On October 21, 2009 we submitted a Corrective Action Plan (CAP) that proposed extending the existing infiltration barrier as shown in the attached figure. The infiltration barrier proposed was a 20-mil poly liner that measures approximately 40 feet by 47 feet. Soils above the liner were to be replaced in a manner to support native vegetation and the site seeded with native grasses.

NMOCD approved the CAP on October 26, 2009. NMOCD's approval requested that ROC blend soils (if necessary) on the northern and eastern portions of the liner installation at the 5 feet to 12 feet below ground surface (bgs) interval to a chloride concentration of no more than 300 milligrams per kilogram.

Corrective Action Plan Activities

ROC conducted the approve CAP activities from February 1 through April 8, 2010. A summary of activities follows:

- 2/1/10 and 2/2/10- excavated to 47'X40'X5' area. Excavated backfill stockpiled on location and blended on site.
- 2/2/10- collected a 12 point blended backfill composite along with an imported backfill composite for lab analysis.

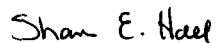
- 2/4/10 and 2/5/10- continued excavation to the north and east from 5' to 12' bgs. Approximately 358 yards of excavated soil was disposed of at an approved facility (Sundance).
- 2/9/10- site backfilled to 5' bgs with the blended backfill (lab result; $Cl^- = 64$ mg/kg) and 20-mil poly liner was installed. Began backfilling above liner with clean imported soil (lab result; $Cl^- = <16$ mg/kg).
- 2/10/10 through 2/12/10- continue backfilling site with clean imported soil to ground surface. Approximately 348 yards of clean soil were imported.
- 3/9/10- hay was blended into 48 yards of imported soil stockpiled and contoured to the surrounding area.
- 3/17/10 and 3/18/10- silk netting was installed around the excavation.
- 4/8/10- site seeded with a blend of native vegetation

Photographs of the CAP activities are attached. ROC continues to monitor the revegetation of the site.

The approved CAP activities are complete at this site. ROC acknowledges they have met the requirements of 19.15.29 NMAC and respectfully request Termination of this regulatory file. If you have any questions or require additional information please call Hack Conder at (575) 393-9174.

Very Truly Yours,

ARCADIS U.S., Inc.



Sharon E. Hall
Associate Vice President

Copies:

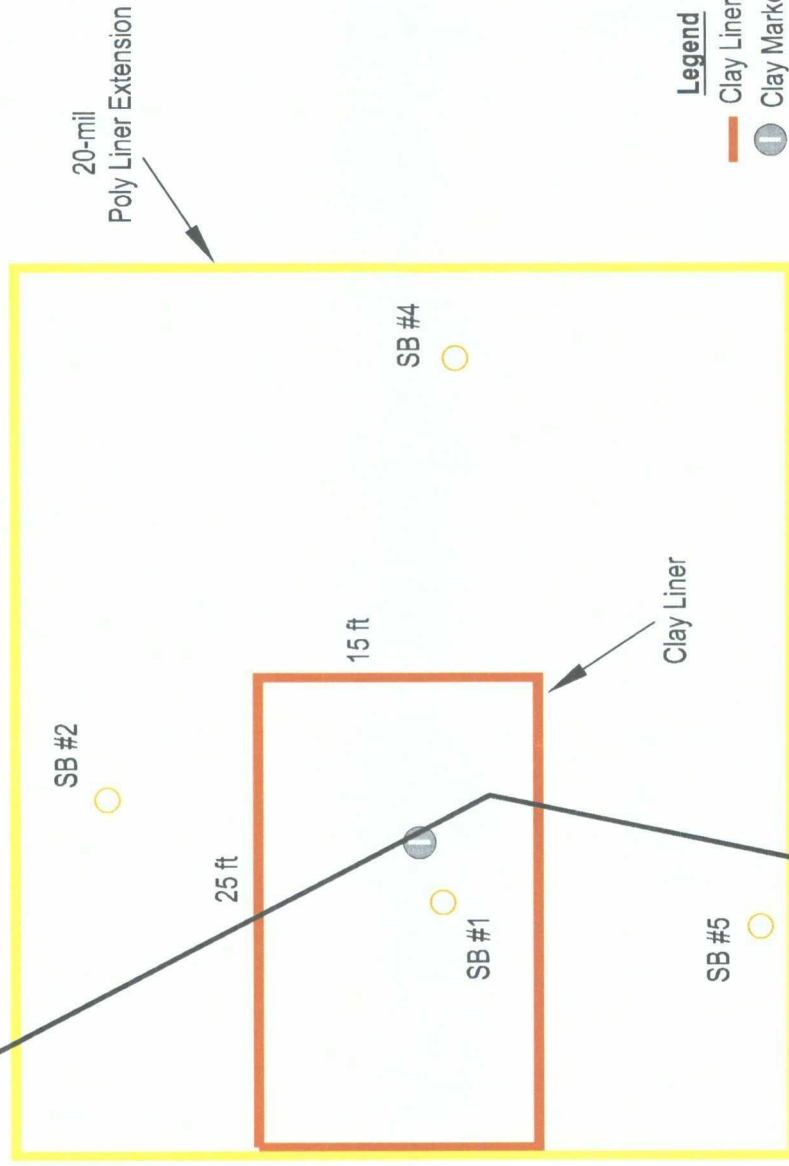
Hack Conder- Rice Operating Company

Attachments:

Figure showing infiltration barrier, Photographs, Blended Backfill Laboratory Report

EME Jct. F-18

T20S R37E



Legend

- Clay Liner
- Clay Marker
- Soil Bores
- Active ROC Line
- Poly Liner Extension

Area Manager
S. FISCHER

Project Manager
S. HALL

Task Manager
TSK/MGR

Technical Review
DPL



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RICE OPERATING COMPANY
EUNICE MONUMENT EUMONT (EME) JCT. F-18
INFILTRATION BARRIER
EXTENSION
Eunice, Lea County, New Mexico

Project Number

MT000911.0001

Drawing Date

9/16/09

Figure

1



Excavating EME Jct. F-18



Final excavation to 5 ft BGS and 12 ft BGS on the North and East portion of the site



Placement of the liner



Backfilling the site



Site after being backfilled



Seeding the site



Tilling the seed into the soil



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ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 02/03/10
Reporting Date: 02/04/10
Project Owner: NOT GIVEN
Project Name: EME JCT F-18
Project Location: NOT GIVEN


Analysis Date: 02/03/10
Sampling Date: 02/02/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: HM


LAB NO.	SAMPLE ID	Cl ⁻ (mg/kg)
H19206-1	IMPORTED FILL	< 16
H19206-2	BLENDED BACKFILL 12 PT COMPOSITE	64
Quality Control		510
True Value QC		500
% Recovery		102
Relative Percent Difference		< 0.1

METHOD: Standard Methods

4500-Cl⁻B

Note: Analyses performed on 1:4 w/v aqueous extracts.


Chemist


Date

H19206 Rice

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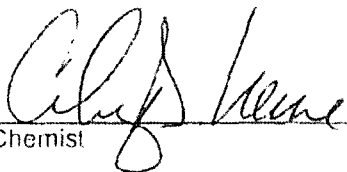
ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
122 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 02/03/10
Reporting Date: 02/04/10
Project Number: NOT GIVEN
Project Name: EME JCT F-18
Project Location: NOT GIVEN

Sampling Date: 02/02/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: AB

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (C ₁₀ -C ₂₈) (mg/kg)
		02/04/10	02/04/10
H19206-2	BLENDED BACKFILL 12 PT COMPOSITE	<10.0	17.4
Quality Control		515	430
True Value QC		500	500
% Recovery		103	86.0
Relative Percent Difference		0.6	1.7

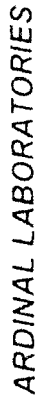
METHODS: TPH GRO & DRO: EPA SW-846 8015 M. Reported on wet weight.


Chemist


Date

H19206 T RICE

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-6476

072#

EME Jct. F-18 (1R 427-168)

