AP -

# **STAGE 1 & 2** REPORTS (Plugging) DATE: 7-

### ARCADIS

Sent Certified Mail Return Receipt No. 7002 2410 0001 5813 3982

Mr. Ed Hansen New Mexico Energy, Minerals, & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 S. St. Francis Drive Santa Fe, New Mexico 87505

Subject:

#### MONITOR WELL PLUGGING REPORT **EME A-20** Unit A, SEC. 20, T22S, R37E NMOCD CASE # AP-43

Mr. Hansen:

On behalf of Rice Operating Company (ROC), ARCADIS U.S., Inc. (ARCADIS) respectfully submits this Monitor Well Plugging Report for the above-referenced site per NMOCD's April 17, 2012 notification that the remediation plans are terminated in accordance with 19.15.30.19.B NMAC, and request for well plugging. Wells MW-1, MW-2, MW-3 and MW-4 were plugged on April 25, 2012 with a 1-3% bentonite/concrete slurry and three foot concrete cap. The monitoring well plugging reports and photo documentation are attached. Recovery well (RW-1) will be maintained so that it can be used in the future for groundwater recovery if necessary. Up-gradient MW-5 will continue to be periodically sampled to monitor regional groundwater quality.

ROC acknowledges they have met the requirements of 19.15.30.19 NMAC, the NMOCD terminated the remediation plans (AP-43) on April 17, 2012 in accordance with 19.15.30.19.B and no further actions are warranted.

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 Parties, who provide all operating capital on a percentage ownership/usage basis.

If you have any questions please contact Hack Conder at (575) 393-9174.

Sincerely, ARCADIS U.S.

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ARCADIS U.S., Inc. 1004 North Big Spring Street Suite 300 Midland Texas 79701 Tel 432 687 5400 Fax 432 687 5401 www.arcadis-us.com

Environmental

Date: June 7, 2012

> Contact: Sharon E. Hall

Phone: 432 687-5400

Email shall@arcadis-us.com

Our ref: MT000857.0001

Mr. Ed Hansen June 7, 2012

Shan E Hall

Sharon E. Hall Associate Vice President

Copies: Hack Conder, ROC

Attachments: Monitor Well Plugging Reports

Use or disclosure of information contained on this sheet is subject to the restriction and disclaimer located on the signature page of this document.

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Drilling & Pump Professionals

Ph: (806) 866-4026

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hcidrill.com

### Plugging Report

| Client            | Rice Operating            |
|-------------------|---------------------------|
| Contractor        | Harrison & Cooper         |
| Date Completed    | 4/25/2012                 |
| Site              | EME A-20                  |
| Well ID           | MW-1                      |
| Casing Diameter   | 2″                        |
| Well Depth        | 38'                       |
| Casing Material   | PVC                       |
| Plugging Material | Portland/Bentonite Slurry |
| Slurry Interval   | 3'-38'                    |
| Cement Interval   | 0'-3'                     |
|                   |                           |

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Email (Lara Weinheimer; Katie Jones)

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### **Plugging Report**

| Client            | Rice Operating            |  |
|-------------------|---------------------------|--|
| Contractor        | Harrison & Cooper         |  |
| Date Completed    | 4/25/2012                 |  |
| Site              | EME A-20                  |  |
| Well ID           | MW-2                      |  |
| Casing Diameter   | 2"                        |  |
| Well Depth        | 33'                       |  |
| Casing Material   | PVC                       |  |
| Plugging Material | Portland/Bentonite Slurry |  |
| Slurry Interval   | 3'-33'                    |  |
| Cement Interval   | 0'-3'                     |  |
|                   |                           |  |

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### **Plugging Report**

| Client            | Rice Operating            |
|-------------------|---------------------------|
| Contractor        | Harrison & Cooper         |
| Date Completed    | 4/25/2012                 |
| Site              | EME A-20                  |
| Well ID           | MW-3                      |
| Casing Diameter   | 2″                        |
| Well Depth        | 33'                       |
| Casing Material   | PVC                       |
| Plugging Material | Portland/Bentonite Slurry |
| Slurry Interval   | 3'-33'                    |
| Cement Interval   | 0'-3'                     |

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#### **Plugging Report**

| Client            | Rice Operating            |  |
|-------------------|---------------------------|--|
| Contractor        | Harrison & Cooper         |  |
| Date Completed    | 4/25/2012                 |  |
| Site              | EME A-20                  |  |
| Well ID           | MW-4                      |  |
| Casing Diameter   | 2″                        |  |
| Well Depth        | 33'                       |  |
| Casing Material   | PVC                       |  |
| Plugging Material | Portland/Bentonite Slurry |  |
| Slurry Interval   | 3'-33'                    |  |
| Cement Interval   | 0'-3'                     |  |
|                   |                           |  |

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#### **EME A-20** Unit A, Section 20, T-20-S, R-37-E



Pulling MW-1, facing northwest

4/25/12



Plug and abandon MW-1 completed



Plugging MW-2 with 1-3% bentonite/concrete slurry and 3 ft concrete cap 4/25/12



Plugging MW-1 with 1-3% bentonite/concrete slurry and 3 ft concrete cap 4/25/12



Pulling MW-2, facing north

4/25/12



Plug and abandon MW-2 completed 4/25/12



Pulling MW-3, facing northeast 4/25/12



Plug and abandon MW-3 completed 4/25/12



Plugging MW-3 with 1-3% bentonite/concrete slurry and 3 ft concrete cap 4/25/12



Pulling MW-4, facing south

4/25/12



Plugging MW-4 with 1-3% bentonite/concrete slurry and 3 ft concrete cap 4/25/12



Plug and abandon MW-4 completed 4/25/12