

1R-426-281

# WORKPLANS

Date:

3-16-12

# Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

RECEIVED OCD

2012 MAR 20 A 10:55

CERTIFIED MAIL  
RETURN RECEIPT NO. 7011 2000 0002 0285 5070

**March 16<sup>th</sup>, 2012**

**Mr. Edward Hansen**

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

**RE: Further Investigation Report and Corrective Action Plan (CAP) for  
Soils  
Rice Operating Company – BD SWD System  
BD G-23 EOL (1R426-281): UL/G sec. 23 T22S R37E  
(formerly BD B-23 EOL)**

Mr. Hansen:

RICE Operating Company (ROC) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site in the BD Salt Water Disposal (SWD) system. The site was previously referred to as the BD B-23 EOL. However, GIS mapping shows the site to be located within unit letter G. To reflect the geographical location of the site, the name has been changed to the BD G-23 EOL. All correspondences will reference BD G-23 EOL.

ROC is the service provider (agent) for the BD 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.

**Background and Previous Work**

The site is located approximately 4 miles southeast of Eunice, New Mexico at UL/G sec. 23 T22S R37E as shown on the Site Location Map (Figure 1). Groundwater at this site is located at a depth of approximately 59 +/- feet.

In 2010, ROC initiated work on the former BD G-23 EOL junction box. The former junction box was located on an active battery pad and contained a boot. The site was delineated using a backhoe to form a 25 ft x 10 ft x 12 ft deep excavation and soil samples were screened at regular intervals for both hydrocarbons and chlorides. From the excavation, the four-wall composite, the bottom composite and the backfill were taken to a commercial laboratory for analysis. Laboratory tests of the four-wall composite

showed a chloride reading of 3,320 mg/kg, and gasoline range organics (GRO) and diesel range organics (DRO) readings of non-detect. The bottom composite showed a chloride laboratory reading of 9,520 mg/kg and GRO and DRO readings of non-detect. The soil was blended on site and a sample taken to a commercial laboratory for analysis. Laboratory analysis of the blended backfill showed a chloride reading of 4,560 mg/kg and GRO and DRO readings of non-detect. The blended backfill was returned to the excavation to 5 ft below ground surface (bgs). At 5-4 ft bgs, a 1 foot clay layer was installed and a clay compaction test was performed on March 1<sup>st</sup>, 2010. The remaining backfill was exported to a NMOCD approved facility for disposal and the excavation was backfilled with clean, imported soil to ground surface.

The area was contoured to the surrounding landscape, seeded, and an identification plate was placed on the surface of the site to mark its location for future environmental considerations. NMOCD was notified of potential groundwater impact on August 4<sup>th</sup>, 2010, and a junction box disclosure report was submitted to NMOCD with all the 2010 junction box closures and disclosures.

### **Initial ICP Investigative Results and Recommendations**

As part of the Investigation and Characterization Plan approved by NMOCD on May 19<sup>th</sup>, 2011, six soil bores (SB-1 through SB-6) were advanced through the former junction box site on May 23<sup>rd</sup>, 2011 and June 6<sup>th</sup>, 2011. RECS personnel field tested the soil for chlorides and screened in the field with a photo-ionization detector (PID). Representative samples from the bores were taken to a commercial laboratory for confirmation of chloride and hydrocarbon field numbers. All the soil bores had laboratory chloride values that decreased with depth. SB-1 had chloride results that decreased from 8,200 mg/kg at 15 ft bgs to 160 mg/kg at 55 ft bgs; SB-2 had values of 1,420 mg/kg at 20 ft bgs, 112 mg/kg at 30 ft bgs and 304 mg/kg at 40 ft bgs; SB-3 had values of 5,300 mg/kg at the surface, 1,760 mg/kg at 5 ft bgs and 336 mg/kg at 55 ft bgs; SB-4 has values of 12,800 mg/kg at 15 ft bgs and 4,000 mg/kg at 55 ft bgs; SB-5 had values of 10,200 mg/kg at 20 ft bgs and 544 mg/kg at 50 ft bgs; and SB-6 had values of 2,560 mg/kg at 15 ft bgs and 192 mg/kg at 30 ft bgs. GRO readings were non-detect in all soil bores. DRO readings were also non-detect at all depths in all soil bores except for SB-2 at 30 ft bgs where the DRO reading was 26.9 mg/kg. This sample was analyzed for BTEX and returned results of 0.113 mg/kg for benzene, 0.132 mg/kg for toluene, 0.119 mg/kg for ethyl-benzene and 0.499 mg/kg for xylene.

Based on the initial delineation results, RECS submitted an ICP Report with the following recommendation to NMOCD on July 15<sup>th</sup>, 2011 which was approved on September 20<sup>th</sup>, 2011: ROC would delineate groundwater quality surrounding the former junction box through the installation of a near source monitoring well.

On January 31<sup>st</sup>, 2012, RECS personnel were on site to install a near-source monitor well (MW-1) (Figure 2). Samples were only taken for lithology as the well was being advanced (Appendix B). The well was then sampled on February 20<sup>th</sup>, 2012 and returned a chloride value of 860 mg/L, a TDS value of 1,970 mg/L and a BTEX value of

non-detect (Appendix C). ROC will continue sampling the monitor well quarterly to determine groundwater quality at the site. Additional monitoring wells may be required to fully delineate groundwater quality at this site.

### **Corrective Action Plan for Soils**

ROC proposes to excavate the site to dimensions of 36 ft x 29 ft and properly seat a 20-mil, reinforced poly liner at approximately 4 ft bgs. The liner will cover the existing clay layer at 5-4 ft bgs measuring 10 ft x 25 ft. The soils placed above the liner will have a laboratory chloride reading no greater than 500 mg/kg and a field PID measurement below 100 ppm. Excavated soil will be evaluated for use as backfill and any soils requiring disposal will be properly disposed of at a NMOCD approved facility. The excavation will be capped with caliche since the site is located on an active battery lease pad (Appendix A) and seeding of the site will not be necessary.

After the corrective actions to the soils are completed and the monitor well has been sampled sufficiently to determine groundwater quality, ROC will submit a report detailing the soils remediation and a path forward to address groundwater quality.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-9174 or me if you have any questions or wish to discuss the site.

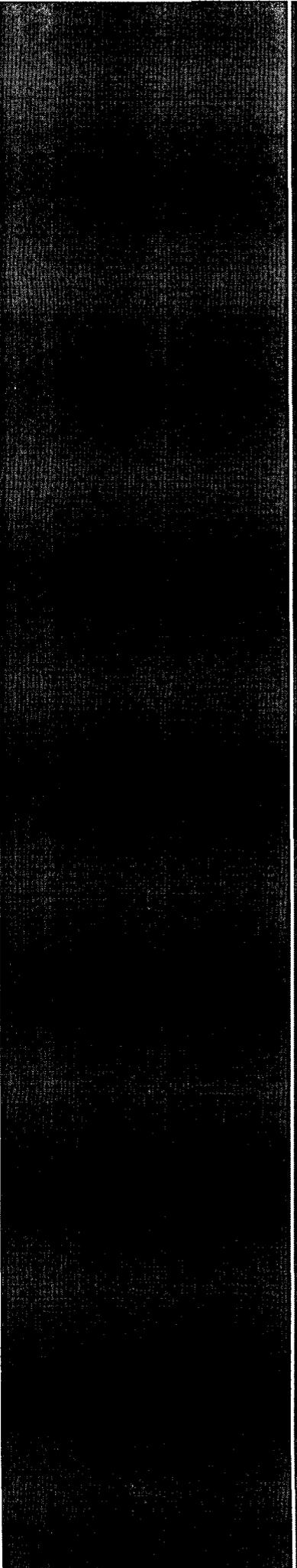
Sincerely,



Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

#### Attachments:

- Figure 1 – Site Map
- Figure 2 – Soil Bore and MW Installation and Proposed Liner
- Appendix A – Site Photo
- Appendix B – Soil Bore and Monitor Well Installation Logs
- Appendix C – Monitor Well Sampling Lab



# Figures

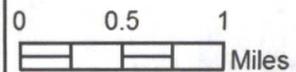
**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

# Site Map



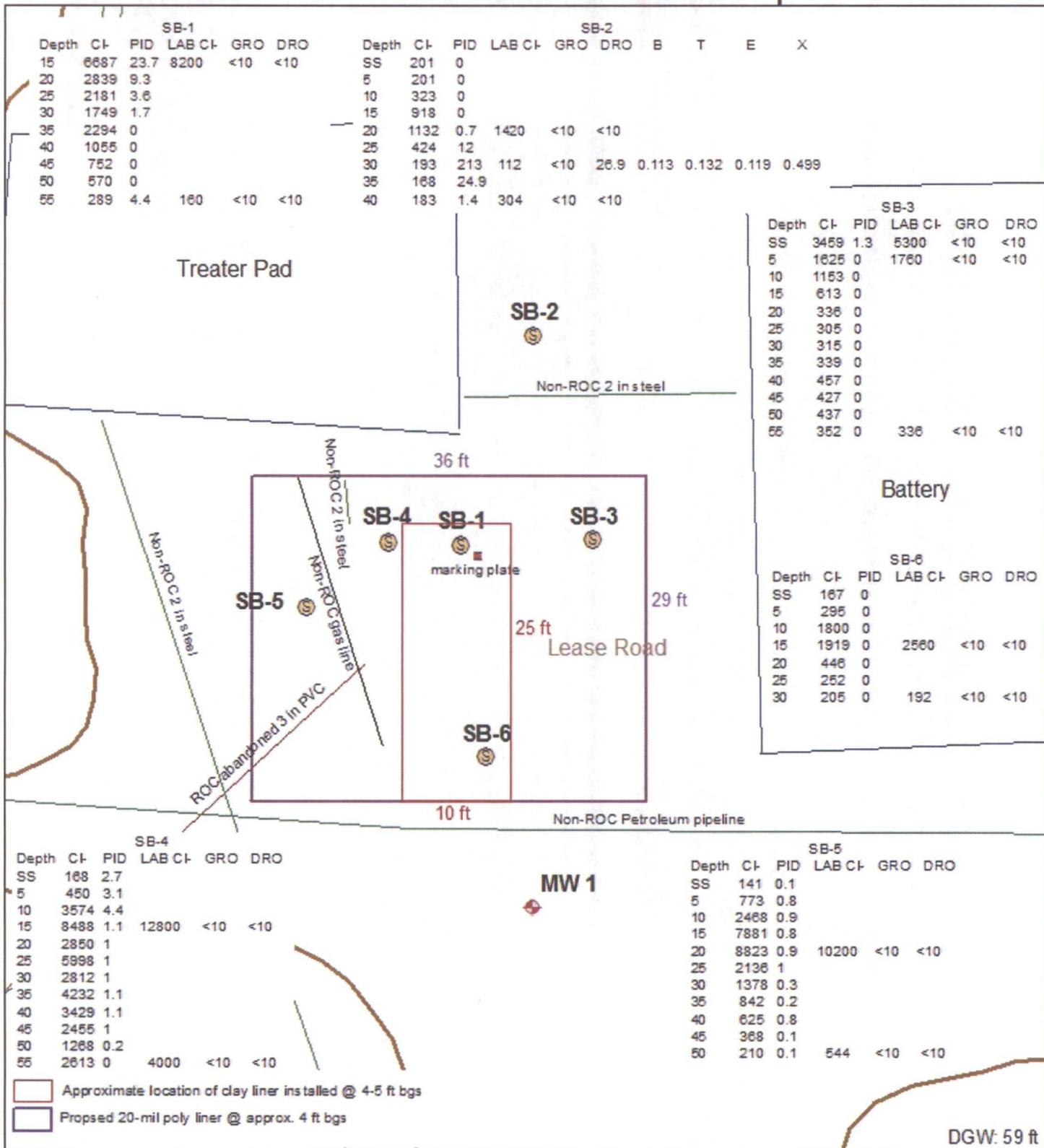
**BD G-23 EOL**  
LEGALS: UL/G sec. 23  
T22S R37E  
NMOCD Case # : 1R426-281

Figure 1

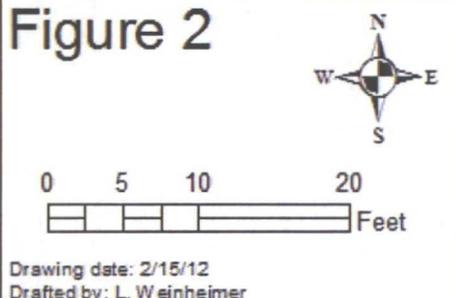


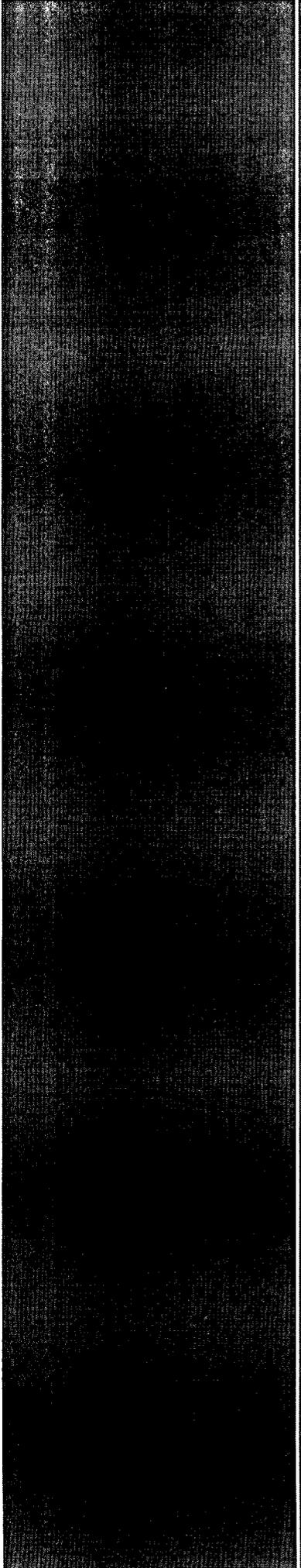
Drawing date: 5.2.11  
Drafted by: L. Weinheimer

# Soil Bore and MW Installation and Proposed Liner



**BD G-23 EOL**  
 NMOCD Case # : 1R426-281  
 LEGALS: UL/G sec. 23  
 T22S R37E





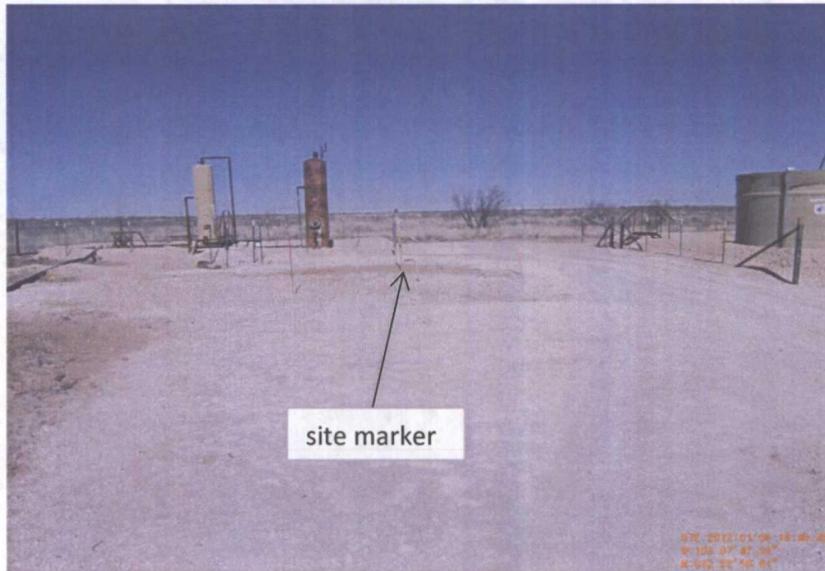
# Appendix A

Site Photo

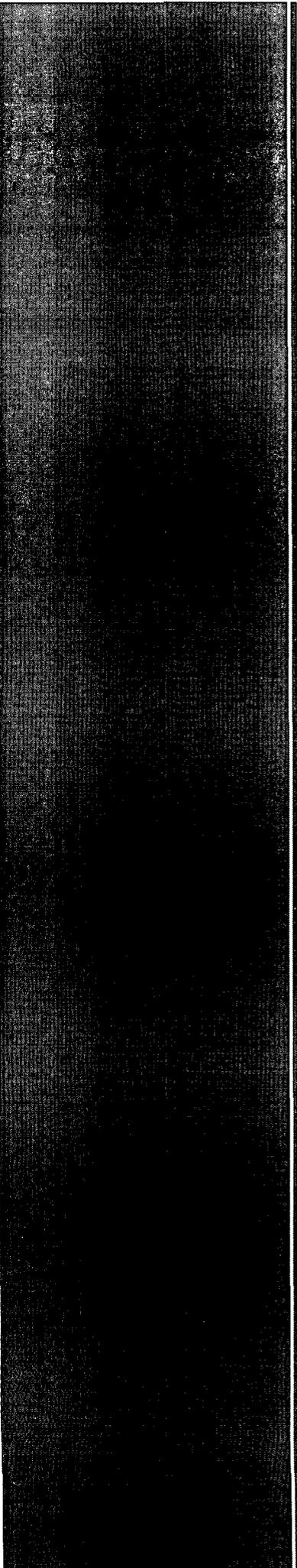
**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

# BD G-23 EOL (1R426-281)

UL/G, Sec 23, T-22S, R-37E



BD G-23 EOL in relation to the surrounding facility, facing northwest 1/6/2012



# Appendix B

## Soil Bore and Monitor Well Installation Logs

**RICE Environmental Consulting and Safety (RECS)**

P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

**Logger:** Jordan Woodfin  
**Driller:** Harrison & Cooper, Inc.  
**Drilling Method:** Air rotary  
**Start Date:** 5/23/2011  
**End Date:** 5/23/2011



**Project Name:** BD G-23 EOL  
**Well ID:** SB-1  
**Project Consultant:** RECS

**Comments:** Located 1 ft northwest of the former junction box site.  
 All samples were from cuttings.  
**DRAFTED BY:** L. Weinheimer  
 TD = 55 ft      GW = 59 ft

**Location:** UL/G sec. 23 T22S R37E  
**Lat:** 32°22'51.532"N  
**Long:** 103°7'47.412"W  
**County:** Lea  
**State:** NM

| Depth (feet) | chloride field tests | LAB                            | PID  | Description                                   | Lithology | Well Construction |
|--------------|----------------------|--------------------------------|------|---|-----------|-------------------|
| 15 ft        | 6687                 | Cl- 8200<br>GRO <10<br>DRO <10 | 23.7 | Tan very fine silt with some sand and caliche |           |                   |
| 20 ft        | 2839                 |                                | 9.3  |   |           |                   |
| 25 ft        | 2181                 |                                | 3.6  |   |           |                   |
| 30 ft        | 1749                 |                                | 1.7  | Red to tan very fine silty sand               |           |                   |
| 35 ft        | 2294                 |                                | 0    |   |           | bentonite seal    |
| 40 ft        | 1055                 |                                | 0    |   |           |                   |
| 45 ft        | 752                  |                                | 0    |   |           |                   |
| 50 ft        | 570                  |                                | 0    | Tan to white very fine silty sand             |           |                   |
| 55 ft        | 289                  | Cl- 160<br>GRO <10<br>DRO <10  | 4.4  | Red very fine sand                            |           |                   |

**Logger:** Jordan Woodfin  
**Driller:** Harrison & Cooper, Inc.  
**Drilling Method:** Air rotary  
**Start Date:** 5/23/2011  
**End Date:** 5/23/2011



**Project Name:** BD G-23 EOL  
**Well ID:** SB-2  
**Project Consultant:** RECS

**Comments:** Located 20 ft north-north-west of the former junction box site. All samples were from cuttings.  
**DRAFTED BY:** L. Weinheimer  
 TD = 40 ft      GW = 59 ft

**Location:** UL/B sec. 23 T22S R37E  
**Lat:** 32°22'51.719"N      **County:** Lea  
**Long:** 103°7'47.336"W      **State:** NM

| Depth (feet) | chloride field tests | LAB      | PID  | Description                                  | Lithology | Well Construction |
|--------------|----------------------|----------|------|--|-----------|-------------------|
|              |                      |          |      | White very fine silty sand with caliche      |           |                   |
| SS           | 201                  |          | 0    |  |           |                   |
|              |                      |          |      | Tan very fine silty sand                     |           |                   |
| 5 ft         | 201                  |          | 0    |  |           |                   |
|              |                      |          |      |  |           |                   |
| 10 ft        | 323                  |          | 0    |  |           |                   |
|              |                      |          |      |  |           |                   |
| 15 ft        | 918                  |          | 0    |  |           |                   |
|              |                      |          |      |  |           |                   |
| 20 ft        | 1132                 | CI-1420  | 0.7  |  |           | bentonite seal    |
|              |                      | GRO <10  |      |  |           |                   |
|              |                      | DRO <10  |      |  |           |                   |
| 25 ft        | 424                  |          | 12   | Red fine silty sand                          |           |                   |
|              |                      |          |      |  |           |                   |
| 30 ft        | 193                  | CI-112   | 213  |  |           |                   |
|              | B 0.113    T 0.132   | GRO <10  |      |  |           |                   |
|              | E 0.119    X 0.499   | DRO 26.9 |      | Tan to red very fine silty sand              |           |                   |
| 35 ft        | 168                  |          | 24.9 |  |           |                   |
|              |                      |          |      |  |           |                   |
| 40 ft        | 183                  | CI-304   | 1.4  | Tan well consolidated fine sand with caliche |           |                   |
|              |                      | GRO <10  |      |  |           |                   |
|              |                      | DRO <10  |      |  |           |                   |



| Depth (feet) | chloride field tests | LAB     | PID | Description        | Lithology | Well Construction |
|--------------|----------------------|---------|-----|--------------------|-----------|-------------------|
|              |                      |         |     |                    |           |                   |
| 40 ft        | 457                  |         | 0   |                    |           |                   |
|              |                      |         |     |                    |           |                   |
| 45 ft        | 427                  |         | 0   |                    |           |                   |
|              |                      |         |     |                    |           |                   |
|              |                      |         |     | Red very fine sand |           |                   |
| 50 ft        | 437                  |         | 0   |                    |           |                   |
|              |                      |         |     |                    |           |                   |
| 55 ft        | 352                  | Cl-336  | 0   |                    |           |                   |
|              |                      | GRO <10 |     |                    |           |                   |
|              |                      | DRO <10 |     |                    |           |                   |



| Depth (feet) | chloride field tests | LAB     | PID | Description                     | Lithology   | Well Construction   |
|--------------|----------------------|---------|-----|---------------------------------|---|---|
| 40 ft        | 3429                 |         | 1.1 | Tan very fine sand with caliche |  |  |
|              |                      |         |     |                                 |   |   |
| 45 ft        | 2455                 |         | 1   |                                 |   |   |
|              |                      |         |     |                                 |   |   |
| 50 ft        | 1268                 |         | 0.2 |                                 |   |   |
|              |                      |         |     |                                 |   |   |
| 55 ft        | 2613                 | CI-4000 | 0   |                                 |   |   |
|              |                      | GRO <10 |     |                                 |   |   |
|              |                      | DRO <10 |     |                                 |   |   |



| Depth (feet) | chloride field tests | LAB     | PID | Description                          | Lithology   | Well Construction   |
|--------------|----------------------|---------|-----|--------------------------------------|---|---|
| 40 ft        | 625                  |         | 0.8 | Light brown medium sand with caliche |  |  |
|              |                      |         |     |                                      |   |   |
| 45 ft        | 368                  |         | 0.1 |                                      |   |   |
|              |                      |         |     | Tan very fine sand                   |  |  |
|              |                      |         |     |                                      |   |   |
| 50 ft        | 210                  | Cl-544  | 0.1 |                                      |   |   |
|              |                      | GRO <10 |     |                                      |   |   |
|              |                      | DRO <10 |     |                                      |   |   |



**Logger:** Kyle Norman  
**Driller:** Harrison & Cooper, Inc.  
**Drilling Method:** Mud rotary  
**Start Date:** 1/31/2012  
**End Date:** 1/31/2012

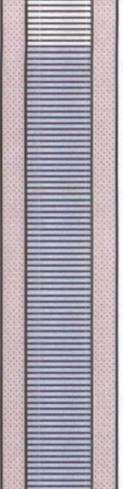
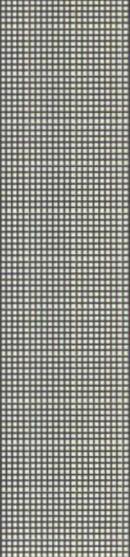
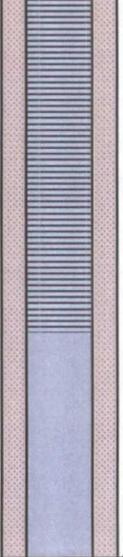


**Project Name:** BD G-23 EOL  
**Well ID:** MW-1  
**Project Consultant:** RECS

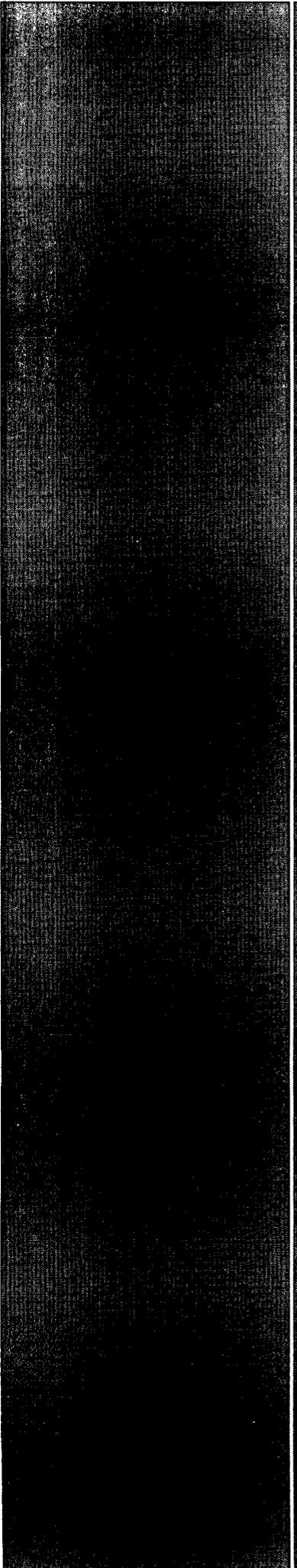
**Comments:** Located 32 ft south of the site marking plate. The well was not sampled as it was being installed.  
**DRAFTED BY:** L. Weinheimer  
 TD = 105 ft      GW = 59 ft

**Location:** UL/G sec. 23 T22S R37E  
**Lat:** 32°22'51.206"N      **County:** Lea  
**Long:** 103°7'47.346"W      **State:** NM

| Depth (feet) | Chloride field tests | LAB | PID | Description                | Lithology | Well Construction            |
|--------------|----------------------|-----|-----|----------------------------|-----------|------------------------------|
| SS           |                      |     |     | RED SAND                   |           |                              |
| 5 ft         |                      |     |     | TAN SAND WITH SOME CALICHE |           |                              |
| 10 ft        |                      |     |     | RED SAND WITH SOME CALICHE |           |                              |
| 15 ft        |                      |     |     | TAN SAND WITH SOME CALICHE |           | 4 in PVC<br>} bentonite seal |
| 20 ft        |                      |     |     |                            |           |                              |
| 25 ft        |                      |     |     |                            |           |                              |
| 30 ft        |                      |     |     |                            |           |                              |
| 35 ft        |                      |     |     |                            |           |                              |
| 40 ft        |                      |     |     |                            |           |                              |
| 45 ft        |                      |     |     |                            |           |                              |
| 50 ft        |                      |     |     |                            |           |                              |
| 55 ft        |                      |     |     |                            |           |                              |

| Depth (feet) | Chloride field tests | LAB | PID | Description          | Lithology  | Well Construction  |
|--------------|----------------------|-----|-----|----------------------|--|--|
| 60 ft        |                      |     |     | RED SANDY CLAY       |   |   |
| 65 ft        |                      |     |     |                      |  |  |
| 70 ft        |                      |     |     |                      |  |  |
| 75 ft        |                      |     |     |                      |  |  |
| 80 ft        |                      |     |     |                      |  |  |
| 85 ft        |                      |     |     | YELLOWISH SANDY CLAY |  |  |
| 90 ft        |                      |     |     |                      |  |  |
| 95 ft        |                      |     |     |                      |  |  |
| 100 ft       |                      |     |     |                      |  |  |
| 105 ft       |                      |     |     |                      |  |  |

sand  
pack



# Appendix C

Monitor Well Sampling Lab

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 5630 Hobbs, NM 88241  
Phone 575.393.4411 Fax 575.393.0293

March 01, 2012

Hack Conder  
Rice Operating Company  
112 W. Taylor  
Hobbs, NM 88240

RE: BD G-23 EOL

Enclosed are the results of analyses for samples received by the laboratory on 02/23/12 12:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

|                  |                              |
|------------------|------------------------------|
| Method EPA 552.2 | Haloacetic Acids (HAA-5)     |
| Method EPA 524.2 | Total Trihalomethanes (TTHM) |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)  |

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 Rice Operating Company  
 Hack Conder  
 112 W. Taylor  
 Hobbs NM, 88240  
 Fax To: (575) 397-1471

|                   |                                    |                     |                |
|-------------------|------------------------------------|---------------------|----------------|
| Received:         | 02/23/2012                         | Sampling Date:      | 02/20/2012     |
| Reported:         | 03/01/2012                         | Sampling Type:      | Water          |
| Project Name:     | BD G-23 EOL                        | Sampling Condition: | Cool & Intact  |
| Project Number:   | NONE GIVEN                         | Sample Received By: | Celey D. Keene |
| Project Location: | T22S R37E SEC23 G ~ LEA COUNTY, NM |                     |                |

**Sample ID: MONITOR WELL #1 (H200477-01)**

| BTEX 8021B     |        | mg/L            |            | Analyzed By: AP |       |            |               |      |           |  |
|----------------|--------|-----------------|------------|-----------------|-------|------------|---------------|------|-----------|--|
| Analyte        | Result | Reporting Limit | Analyzed   | Method Blank    | BS    | % Recovery | True Value QC | RPD  | Qualifier |  |
| Benzene*       | <0.001 | 0.001           | 02/27/2012 | ND              | 0.050 | 101        | 0.0500        | 6.76 |           |  |
| Toluene*       | <0.001 | 0.001           | 02/27/2012 | ND              | 0.052 | 104        | 0.0500        | 6.98 |           |  |
| Ethylbenzene*  | <0.001 | 0.001           | 02/27/2012 | ND              | 0.053 | 106        | 0.0500        | 6.60 |           |  |
| Total Xylenes* | <0.003 | 0.003           | 02/27/2012 | ND              | 0.163 | 108        | 0.150         | 7.07 |           |  |

*Surrogate: 4-Bromofluorobenzene (PIE) 105 % 70.7-118*

| Chloride, SM4500Cl-B |            | mg/L            |            | Analyzed By: AP |     |            |               |      |           |  |
|----------------------|------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte              | Result     | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| Chloride*            | <b>860</b> | 4.00            | 02/28/2012 | ND              | 100 | 100        | 100           | 3.92 |           |  |

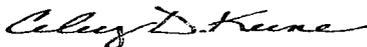
| Sulfate 375.4 |             | mg/L            |            | Analyzed By: HM |      |            |               |      |           |  |
|---------------|-------------|-----------------|------------|-----------------|------|------------|---------------|------|-----------|--|
| Analyte       | Result      | Reporting Limit | Analyzed   | Method Blank    | BS   | % Recovery | True Value QC | RPD  | Qualifier |  |
| Sulfate*      | <b>90.5</b> | 10.0            | 02/28/2012 | ND              | 18.5 | 92.5       | 20.0          | 2.74 |           |  |

| TDS 160.1 |             | mg/L            |            | Analyzed By: HM |     |            |               |      |           |  |
|-----------|-------------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|--|
| Analyte   | Result      | Reporting Limit | Analyzed   | Method Blank    | BS  | % Recovery | True Value QC | RPD  | Qualifier |  |
| TDS*      | <b>1970</b> | 5.00            | 02/24/2012 | ND              | 239 | 99.6       | 240           | 2.59 |           |  |

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

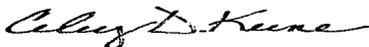
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



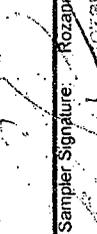
---

Celey D. Keene, Lab Director/Quality Manager

# Cardinal Laboratories, Inc.

101 East Merland - Hobbs, New Mexico 88240  
 Tel (575) 393-2326  
 Fax (575) 393-2478

**Company Name:** RICE Operating Company  
**Project Manager:** Hack Conder  
**Address:** 122 W Taylor Street - Hobbs, New Mexico 88240  
**Phone #:** (575) 393-9174  
**Fax #:** (575) 393-9174  
**Project #:** BD G-23 EOL

**Project Location:** T22S R37E Sec23 G ~ Lea County New Mexico  
**Sampler Signature:** Rozanne Johnson (575)631-9310  


| LAB #                                | FIELD CODE      | Sample Condition | # CONTAINERS | MATRIX |      |     |        | PRESERVATIVE METHOD |                  |                    |                                | SAMPLING           |             |
|--------------------------------------|-----------------|------------------|--------------|--------|------|-----|--------|---------------------|------------------|--------------------|--------------------------------|--------------------|-------------|
|                                      |                 |                  |              | WATER  | SOIL | AIR | SLUDGE | HCL (2 40ml VOA)    | HNO <sub>3</sub> | NaHSO <sub>4</sub> | H <sub>2</sub> SO <sub>4</sub> | ICE (1-1Lier HDPE) | DATE (2012) |
| (LAB USE ONLY)<br>A-200477<br>A-C 01 | Monitor Well #1 | G                | 3            | X      |      |     |        | 2                   |                  |                    | 1                              | 2-20               | 15:20       |

**Requisitioned by:** Rozanne Johnson  
**Date:** 2-23-2012  
**Time:** 2:56  
**Received by:** [Signature]  
**Date:** 2/23/12  
**Time:** 12:55  
**Checked By:** [Signature] (Initials) cph  
**Sample Condition:** Cool  Yes  No  
 Intact  Yes  No  
**Delivered By:** (Circle One) Sampler - UPS - Bus - Other: #26

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**  
 LAB Order ID # \_\_\_\_\_

**ANALYSIS REQUEST**  
 (Circle or Specify Method No.)

|  |   |
|--|---|
| TPH 418.1/TX1005 / TX1005 Extended (C35)                           |   |
| PAH 8270C  |   |
| Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7                   |   |
| TCLP Metals Ag As Ba Cd Cr Pb Se Hg                                |   |
| TCLP Volatiles   |   |
| TCLP Semi Volatiles  |   |
| TCLP Pesticides  |   |
| RCI  |   |
| GC/MS Vol. 8260B/624   |   |
| GC/MS Semi. Vol. 8270C/625   |   |
| PCBs 8082/608  |   |
| Pesticides 8081A/608   |   |
| BOD, TSS, pH   |   |
| Moisture Content   |   |
| Anions (Cl, SO <sub>4</sub> , CO <sub>3</sub> , HCO <sub>3</sub> ) |   |
| Cations (Ca, Mg, Na, K)  |   |
| Sulfates (SO <sub>4</sub> )  |   |
| Total Dissolved Solids   | X |
| Chlorides  | X |

**REMARKS:**  
 Phone Results: Yes No  
 Fax Results: Yes No  
 Additional Fax Number: \_\_\_\_\_  
 Email Results to: hconder@riceswd.com  
 rozanne@valornet.com  
 kione@riceswd.com  
 rozanne@valornet.com