1R - 426 - 02

# GENERAL CORRESPONDENCE

YEAR(S): 2006



2006 JUN 14 PM 12 52

Wayne Price New Mexico Oil Conservation Division Director, Environmental Bureau 1220 So. Saint Francis Drive Santa Fe, New Mexico 87505

Sent Certified Return Receipt # 7002 2410 0001 5812 9688

Subject:

Rice Operating Company Blinebry-Drinkard Junction Box Sites K-27-1 and K-27-N, Proposed Monitor Wells

Dear Wayne:

On behalf of Rice Operating Company (ROC), ARCADIS is respectfully notifying you of our intent to drill two additional monitor wells at each of the above-referenced locations. We also request your approval to combine these two sites into one site due to their close proximity to each other (Figure 1). The combined sites will be known as the K-27 sites.

Based on the evaluation of the monitor well data for these sites further delineation of groundwater impacts is necessary before developing and submitting a corrective action plan. As indicated in the annual reports for these sites submitted in March 2006, soils were excavated at each site, a 20-mil plastic liner installed at a depth of 3 feet below ground surface and the excavation backfilled and contoured. While soil impacts have been addressed, elevated concentrations of chlorides and total dissolved solids are detected in the monitor well at each site. ARCADIS proposes to install two additional monitoring wells at each of the former junction box locations for a total of four additional monitoring wells at the combined K-27 site (Figure 2). The monitor wells will be constructed, developed and sampled in accordance with United States Environmental Protection Agency and New Mexico Oil Conservation Division standards. It is our intent to drill these wells in conjunction with other drilling scheduled to begin on May 30, 2006.

ARCADIS G&M, 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: 12 June 2006

Contact: Sharon E. Hall

Phone: 432 687-5400

Email: shall@arcadis-us.com

Our ref; MT000834

Imagine the result

## ARCADIS

Mr. Wayne Price 12 June 2006

Your consideration of and concurrence with this request is appreciated. If you have any questions or comments please call me at (432) 687-5400 or Kristin Farris Pope at (505) 393-9174 or contact us via e-mail.

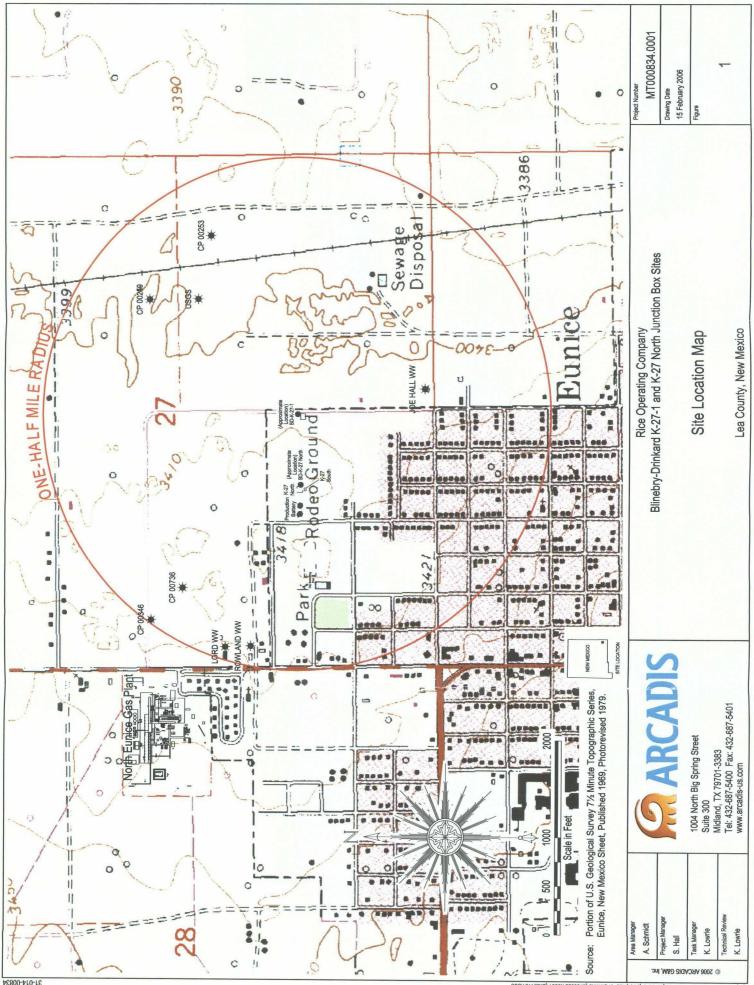
Sincerely,

ARCADIS G&M, Inc. Sharn- E. Hall Sharon E. Hall Site Evaluation Department Manager

Copies: Kristin Farris Pope- ROC

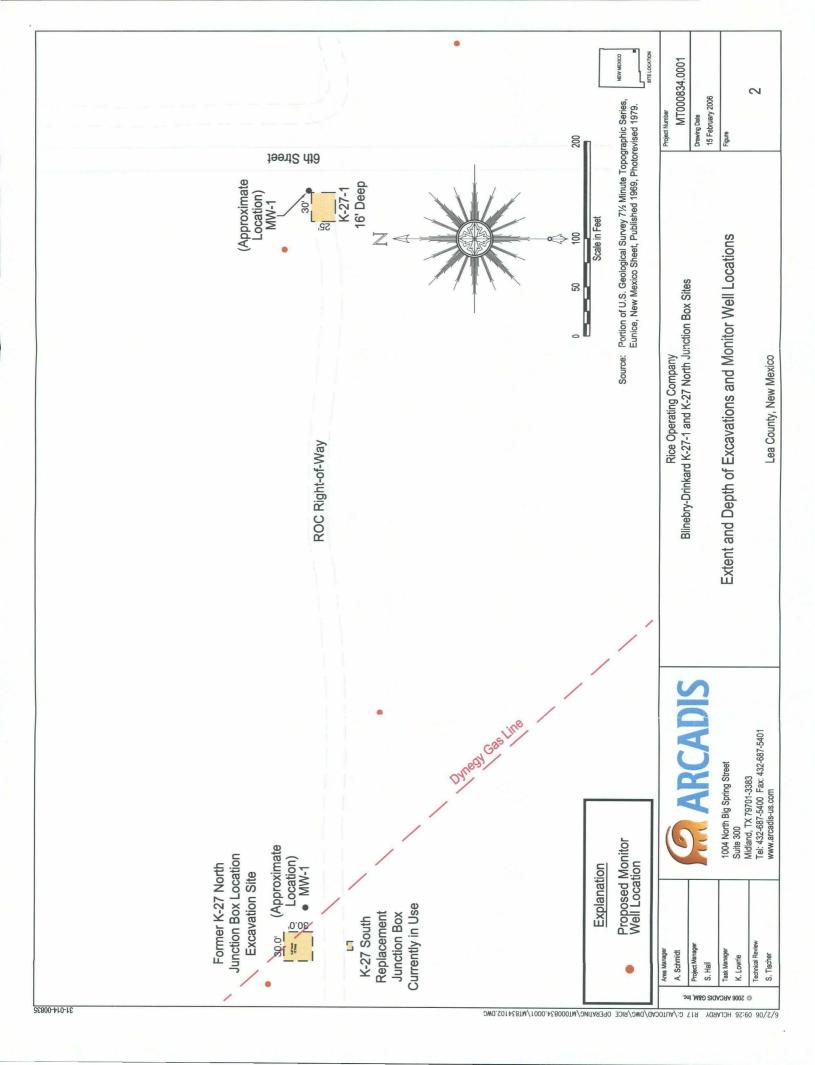
Attachments: Figures 1 and 2

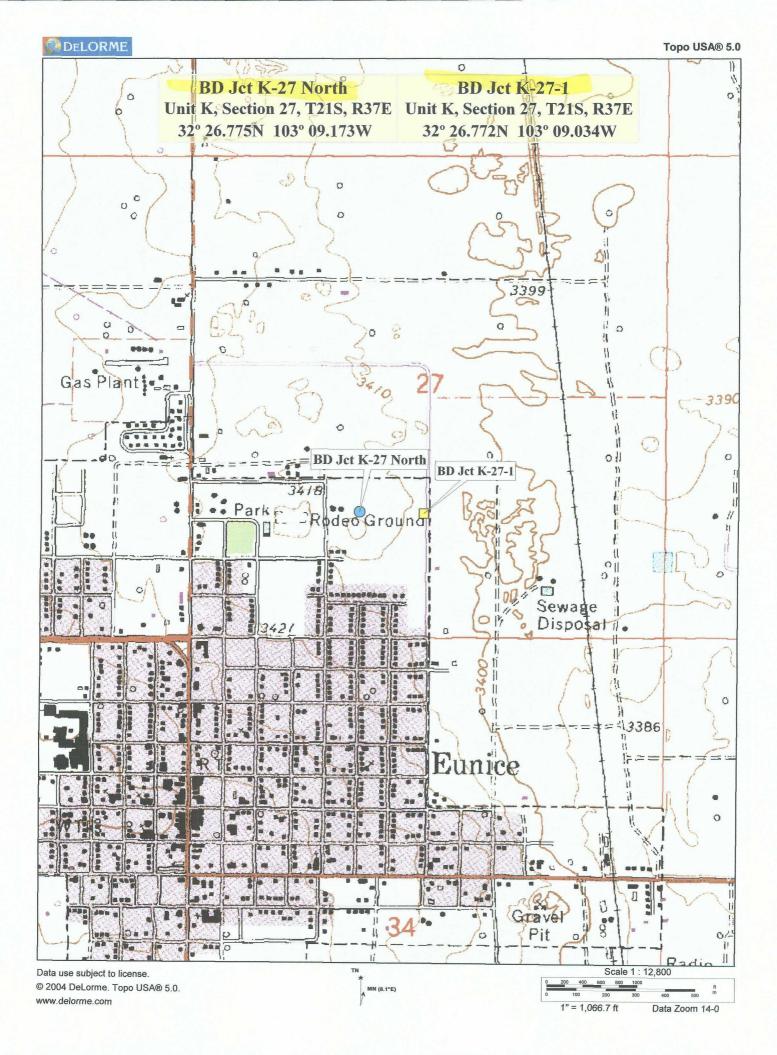
G:VAPROJECT/Rice OpenMT834.01/Combined sites request/K-27 MW request.doc



5/2/06 08:33 HCLARDY R17 C:\AUTOCAD/DWG/RICE OPERATING/M

31-014-00834







Infrastructure, buildings, environment communications PIN 1 32

Wayne Price New Mexico Oil Conservation Division 1220 So. Saint Francis Drive Santa Fe, New Mexico 87505

Certified Mail Return Receipt # 7002 2410 0001 5812 9640

Subject:

Rice Operating Company Blinebry-Drinkard K-27-North Junction Box Site, Eunice, New Mexico 2005 Annual Report Submittal

Dear Mr. Price,

On behalf of Rice Operating Company, ARCADIS G&M, Inc. respectfully submits this 2005 Annual Report for the Blinebry-Drinkard K-27-North Junction Box Site located in Eunice, New Mexico. The report details the 2005 Annual Report activities and results.

If you have any questions or require additional information please contact me at (432) 687-5400 or Carolyn Haynes at (505) 393-9174.

Sincerely,

ARCADIS G&M, Inc.

Shan E. Neel

Sharon E. Hall Site Evaluation Department Manager

Copies:

Kristin Farris Pope - Rice Operating Company, Hobbs, New Mexico Chris Williams - NMOCD District I Office, Hobbs, New Mexico

Attachment: Report

Part of a bigger picture

ARCADIS G&M, Inc. 1004 N. Big Spring Street Suite 300 Midland Texas 79701 Tel 432.687.5400 Fax 432.687.5401 www.arcadis-us.com

Date: 17 March 2006

Contact: Sharon Hall

Phone: (432) 687-5400

Email: shall@arcadis-us.com

Our ref: MT000834.0001.00001

**RICE** Operating Company

122 West Taylor • Hobbs, New Mexico 88240 Phone: (505)393-9174 • Fax: (505) 397-1471

#### CERTIFIED MAIL RETURN RECEIPT NO. 7002 2410 0000 4940 2081

July 14, 2005

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

#### RE: NOTIFICATION OF GROUNDWATER IMPACT BD JCT. K-27 NORTH UNIT 'K', SEC. 27, T21S, R37E

Mr. Anderson:

Rice Operating Company (ROC) hereby notifies the Director of the NMOCD, Environmental Bureau of groundwater impact in accordance with NM Rule 116. The remediation of this site may be subject to New Mexico Rule 19 procedures.

ROC is the service provider (operator) for the Blinebry-Drinkard (BD) Salt Water Disposal System and has no ownership of any portion of the pipelines, wells, or facilities. The BD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

The K-27 North junction box site was first investigated in April of 2003 under the NMOCD-approved Junction Box Upgrade Work Plan. Delineation activities suggested potential groundwater impact for which notice was submitted to NMOCD on June 2, 2003. On April 1, 2004 the consulting firm of Arcadis G&M, Inc. (Arcadis) of Midland, Texas submitted an Investigation Work Plan to further characterize the site and address potential groundwater concerns. NMOCD approved this work plan on November 18, 2004.

Environmental remediation 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. Because this Work Plan was approved late in the calendar year, funding for this project was assigned to the 2005 AFE,

which was approved by System Partners in March of 2005. At the time of approval, a drilling rig was scheduled for the soonest availability.

A delineation soil bore was initiated on May 9, 2005 where groundwater was encountered at 43 feet and a 2-inch monitoring well was installed to a depth of 52 feet as chloride impact was indicated by field tests. The well was sampled pursuant to NMOCD guidelines by Arcadis on June 27, 2005. Environmental Lab of Texas performed the analysis. Quarterly sampling of this monitoring well will continue.

Please accept this notification for the above-referenced site. Should you have any questions or concerns regarding this site, please do not hesitate to contact me.

RICE OPERATING COMPANY

Knistin Fairis Pope

Kristin Farris Pope Project Scientist

cc: LBG, CDH, Arcadis G&M, file,

Mr. Chris Williams NMOCD, District 1 Office 1625 N. French Drive Hobbs, NM 88240

enclosures: groundwater analysis, well log, location map

| C.   | B  |   |  |   |  |             |                    | WELL LOG   | WELL NO.<br>BD K 27-N   |
|--|--|---|--|---|--|-------------|--------------------|--|---|
| ARC  | ते र्<br>ADIS  |   | 1004 N.  | Bia Sprij   | na St  | Suite 3(    | 0 Midlan           | d, TX 79701-3383 Tel: 432/687-5400 Fax: 432/687-5401   | Page 1 of 2   |
| PROJEC<br>CLIENT<br>PROJEC<br>SITE LC<br>DRILLIN<br>DRILLIN<br>SAMPL<br>DATE E<br>DRILLEI<br>LOGGE | T NUM<br>NAME:<br>T NAME<br>CT NAM<br>CATION<br>NG CO:<br>NG MET<br>JG MET<br>BEGUN:<br>R:<br>E<br>R:<br>E | BER:<br>E:<br>J:<br>HOD:<br>OD:<br>Bo Atk | MT0008<br>Rice Ope<br>Junction<br>Lea Cou<br>White D<br>Rotary/A<br>Split Spo<br>5/9/05<br>ins | i34.0001<br>erating<br>Boxes Ir<br>nty, New<br>nty, New<br>rilling Co<br>sir<br>pon/Shov<br>ELE | vestig<br>/ Mexic<br>/ Mexic<br>ompan<br>/el<br>DATE<br>EVATIC | ation<br>co | ETED:<br>.):<br>): | STATIC WATER LEVEL: MEAS. PT.: T.O.C.  | DATE:<br>TOTAL DEPTH: -50.0<br>I' x 6" Concrete Slab<br><u>DEPTHS</u><br>-28.0' to Surface<br>-32.0' to -28.0'<br>-49.0' to -32.0'<br>-34.0' to 2.00'<br><br>-49.0' to -34.0'<br>-50.0' to -49.0' |
| DEPTH  | SAMPLED<br>SAMPLING METHOD   | ANALYZED                                  | MOISTURE   | RECOVERY  | PID READING  | CHLORIDES   | FITHOLOGY          | DESCRIPTION  | WELL  |
| -10  | Shove  | 21  |  |   | 5.0  | 407         |                    | SAND 2.5 YR 5/8 red, fine grained to very fine grained, angular to subangular, loose, well so argillaceous, moist.   | orted,  |
| -15 -20 -20 -20 -20 -20 -20 -20 -20 -20 -20  | Shove  |   |  |   | 1.6  | 634         |                    | SAND 2.5 YR 8/2 pinkish white, fine grained, subrounded, well sorted, 70% SAND, 30% CA<br>2.5 YR 8/1 white, dry, firm.<br>SAND 5 YR 7/6 reddish yellow, fine grained, well rounded, well sorted, very soft, dry, 85% S<br>15% CALICHE, 10 YR 8/1 white, firm, interbedded or as nodules, becoming moist at -38.0'. |   |

| K  | Ø   |  |   |  |  |   |           |           | WELL LOG   |  | NELL NO.            |
|--|---|--|---|--|--|---|-----------|-----------|--|--|---------------------|
| ARC  | CAD   | ⊠  -<br>IS   | 1   | 004 N.   | Big Sprir  | ng St.  | Suite 30  | 0, Midlan | d, TX 79701-3383 Tel: 432/687-5400 Fax: 432/687-5401   | P                                      | age 2 of 2          |
| PROJE<br>CLIEN<br>PROJE<br>SITE LO<br>DRILLI<br>DRILLI<br>SAMP<br>DATE<br>DRILLE<br>LOGG | ECT NE<br>IT NAM<br>ECT NA<br>OCAT<br>ING C<br>ING M<br>PLE MI<br>BEGU<br>ER:<br>5ER: | UMBE<br>ME:<br>ION:<br>O:<br>METHC<br>ETHOI<br>JN:<br>Bo<br>R. I | R<br>Ju<br>Le<br>DD: R<br>DD: R<br>D: S<br>5<br>Atkir<br>_ang | ice Ope<br>unction<br>ea Cour<br>ea Cour<br>Vhite Dr<br>otary/A<br>plit Spo<br>/9/05 | Boxes In<br>hty, New<br>hty, New<br>rilling Co<br>ir<br>ion/Shov<br>ELE<br>ELE | vestig<br>/ Mexic<br>/ Mexic<br>ompany<br>//<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/<br>/ | :o<br>:o  | ):<br>.): | STATIC WATER LEVEL: — MEAS. PT.: T.O.C.<br>HOLE SIZE(S): 7-7/8"<br>SURFACE COMPLETION: 8" Locking Steel Sleeve; 4' x<br>TYPES<br>GROUT TYPE: Portland Cement<br>SEAL TYPE: Bentonite Chips<br>SCREEN PACK: 8/16 Sand<br>CASING TYPE: 4" Diameter Sch. 40 PVC Blank<br> | -28<br>-32<br>-49<br>-34<br>-34<br>-49 |                     |
| DEPTH  | SAMPLED   | SAMPLING METHOD  | ANALYZED  | MOISTURE   | RECOVERY   | PID READING   | CHLORIDES | ΓΙΙΗΟΓΟϾλ | DESCRIPTION  | 07                                     | WELL<br>INSTALLATIC |
| -25  |   |  |   |  |  |   |           |           |  |  |                     |
| -30 -  |   | ihovel   |   |  |  | 2.2   | 1438      |           |  |  |                     |
| -35 —  |   | 5hovel   |   |  |  | 0.3   | 3236      |           |  |  |                     |
| -  | ۲<br>۲<br>۲   | ihovel   |   |  |  | 1.5   | 605       |           |  |  |                     |
| -40 -<br>-   |   | plit<br>poon   | 1   |  |  | 1.2   | 476       |           | SANDSTONE 5 YR 5/6 yellowish red, fine grained, subrounded, well sorted, friable, well to  | pecame                                 |                     |
|  |   | ihovel   |   |  |  | 1.5   | 221       |           | wet at -43.0'  |  |                     |
| -45  | <u> </u>  | Shovel   |   |  |  | NR  | NR        |           | SANDSTONE 5 YR 7/4 pink, fine grained to medium grained, well rounded to subrounded to firm with CALICHE cement, wet.  | I, very soft                           |                     |



# Analytical Report

Prepared for:

Sharon Hall ARCADIS 1004 N. Big Spring Street Midland, TX 79701

Project: MT000834.0001 Project Number: MT000834.0001 Location: Rice Operating BD-K-27 North

Lab Order Number: 5F28001

Report Date: 07/11/05

| ARCADIS                   | Project: MT000834.0001        | Fax: (432) 687-5401 |
|---------------------------|-------------------------------|---------------------|
| 1004 N. Big Spring Street | Project Number: MT000834.0001 | Reported:           |
| Midland TX, 79701         | Project Manager: Sharon Hall  | 07/11/05 10:36      |

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID            | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|----------------------|---------------|--------|----------------|----------------|
| BD K-27 North MW-001 | 5F28001-01    | Water  | 06/27/05 12:25 | 06/27/05 17:30 |

ARCADIS 1004 N. Big Spring Street Midland TX, 79701

#### Project: MT000834.0001 Project Number: MT000834.0001 Project Manager: Sharon Hall

Fax: (432) 687-5401

**Reported:** 07/11/05 10:36

#### Organics by GC

#### **Environmental Lab of Texas**

| Analyte                             | Result | Reporting<br>Limit | Units    | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-------------------------------------|--------|--------------------|----------|----------|---------|----------|----------|-----------|-------|
| BD K-27 North MW-001 (5F28001-01) V | Vater  |                    | <u> </u> |          |         |          |          |           |       |
| Benzene                             | ND     | 0.00100            | mg/L     | 1        | EF53021 | 06/30/05 | 06/30/05 | EPA 8021B |       |
| Toluene                             | ND     | 0.00100            | "        | "        |         | 11       | "        | "         |       |
| Ethylbenzene                        | ND     | 0.00100            |          | "        |         | "        | "        | 11        |       |
| Xylene (p/m)                        | ND     | 0.00100            | n        | "        | "       | "        | "        | и         |       |
| Xylene (o)                          | ND     | 0.00100            | u        | "        | 11      | "        | "        | "         |       |
| Surrogate: a,a,a-Trifluorotoluene   |        | 90.1 %             | 80-12    | 0        | "       | "        | "        | "         |       |
| Surrogate: 4-Bromofluorobenzene     |        | 86.7 %             | 80-12    | 0        | "       | "        | "        | "         |       |

Environmental Lab of Texas

#### Project: MT000834.0001 Project Number: MT000834.0001 Project Manager: Sharon Hall

#### General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas**

| Analyte                          | Result  | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method     | Notes |
|----------------------------------|---------|--------------------|-------|----------|---------|----------|----------|------------|-------|
| BD K-27 North MW-001 (5F28001-01 | ) Water |                    |       |          |         |          |          |            |       |
| Total Alkalinity                 | 260     | 2.00               | mg/L  | 1        | EF53015 | 06/30/05 | 06/30/05 | EPA 310.2M |       |
| Chloride                         | 1060    | 25.0               | "     | 50       | EF53026 | 06/30/05 | 06/30/05 | EPA 300.0  |       |
| Total Dissolved Solids           | 2760    | 5.00               | "     | 1        | EF53006 | 06/30/05 | 07/01/05 | EPA 160.1  |       |
| Sulfate                          | 422     | 25.0               | "     | 50       | EF53026 | 06/30/05 | 06/30/05 | EPA 300.0  |       |

Environmental Lab of Texas

| <u> </u>                  |                 |                 |                     |
|---------------------------|-----------------|-----------------|---------------------|
| ARCADIS                   | Project         | MT000834.0001   | Fax: (432) 687-5401 |
| 1004 N. Big Spring Street | Project Number  | : MT000834.0001 | Reported:           |
| Midland TX, 79701         | Project Manager | Sharon Hall     | 07/11/05 10:36      |
|                           |                 |                 |                     |

#### Total Metals by EPA / Standard Methods

#### **Environmental Lab of Texas**

| Analyte                           | Result | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method    | Notes |
|-----------------------------------|--------|--------------------|-------|----------|---------|----------|----------|-----------|-------|
| BD K-27 North MW-001 (5F28001-01) | water  | ·····              |       |          | -       |          |          |           |       |
| Calcium                           | 229    | 0.500              | mg/L  | 50       | EF52903 | 06/29/05 | 06/29/05 | EPA 6010B |       |
| Magnesium                         | 109    | 0.0500             |       | "        | "       | n        | "        | "         |       |
| Potassium                         | 13.3   | 0.500              |       | 10       | "       | "        | "        | . **      |       |
| Sodium                            | 494    | 0.500              | "     | 50       | **      | n        | п        | "         |       |

Environmental Lab of Texas

|                   | Project Number: MT000834.0001                                 | Reported:      |
|-------------------|---|----------------|
| Midland TX, 79701 | Project Manager: Sharon Hall Organics by GC - Quality Control | 07/11/05 10:36 |
|                   | Environmental Lab of Texas                                    |                |

| Analyte                           | Result | Limit         | Units | Level       | Result     | %REC        | Limits  | RPD | Limit                   | Notes |
|-----------------------------------|--------|---------------|-------|-------------|------------|-------------|---------|-----|-------------------------|-------|
| Batch EF53021 - EPA 5030C (GC)    |        |               |       |             |            |             |         |     |                         |       |
| Blank (EF53021-BLK1)              |        |               |       | Prepared &  | Analyzed:  | 06/30/05    |         |     |                         |       |
| Benzene                           | ND     | 0.00100       | mg/L  |             |            |             |         |     |                         |       |
| Toluene                           | ND     | 0.00100       | ".    |             |            |             |         |     |                         |       |
| Ethylbenzene                      | ND     | 0.00100       | **    |             |            |             |         |     |                         |       |
| Xylene (p/m)                      | ND     | 0.00100       | 17    |             |            |             |         |     |                         |       |
| Xylene (0)                        | ND     | 0.00100       | **    |             |            |             |         |     |                         |       |
| Surrogate: a,a,a-Trifluorotoluene | 87.4   |               | ug/l  | 100         |            | 87.4        | 80-120  |     |                         |       |
| Surrogate: 4-Bromofluorobenzene   | 82.8   |               | "     | 100         |            | 82.8        | 80-120  |     |                         |       |
| LCS (EF53021-BS1)                 |        |               |       | Prepared &  | Analyzed:  | 06/30/05    |         |     |                         |       |
| Benzene                           | 117    |               | ug/l  | 100         |            | 117         | 80-120  |     |                         |       |
| Toluene                           | 108    |               | **    | 100         |            | 108         | 80-120  |     |                         |       |
| Ethylbenzene                      | 106    |               | "     | 100         |            | 106         | 80-120  |     |                         |       |
| Xylene (p/m)                      | 185    |               | "     | 200         |            | 92.5        | 80-120  |     |                         |       |
| Xylene (o)                        | 91.0   |               | "     | 100         |            | 91.0        | 80-120  |     |                         |       |
| Surrogate: a,a,a-Trifluorotoluene | 113    |               | "     | 100         |            | 113         | 80-120  |     |                         |       |
| Surrogate: 4-Bromofluorobenzene   | 119    |               | "     | 100         |            | 119         | 80-120  |     |                         |       |
| Calibration Check (EF53021-CCV1)  |        |               |       | Prepared: ( | )6/30/05 A | nalyzed: 07 | //01/05 |     |                         |       |
| Benzene                           | 92.5   |               | ug/l  | 100         |            | 92.5        | 80-120  |     |                         |       |
| Toluene                           | 85.4   |               | "     | 100         |            | 85.4        | 80-120  |     |                         |       |
| Ethylbenzene                      | 91.2   |               | **    | 100         |            | 91.2        | 80-120  |     |                         |       |
| Xylene (p/m)                      | 163    |               | 11    | 200         |            | 81.5        | 80-120  |     |                         |       |
| Xylene (o)                        | 84.4   |               | "     | 100         |            | 84.4        | 80-120  |     |                         |       |
| Surrogate: a,a,a-Trifluorotoluene | 91.8   |               | "     | 100         | - <u>-</u> | 91.8        | 80-120  |     |                         |       |
| Surrogate: 4-Bromofluorobenzene   | 109    |               | "     | 100         |            | 109         | 80-120  |     |                         |       |
| Matrix Spike (EF53021-MS1)        | Sou    | rce: 5F29004- | 02    | Prepared &  | Analyzed:  | 06/30/05    |         |     |                         |       |
| Benzene                           | 99.6   |               | ug/l  | 100         | ND         | 99.6        | 80-120  |     | T I I MAR HE HE HE HE H |       |
| Toluene                           | 91.8   |               | "     | 100         | ND         | 91.8        | 80-120  |     |                         |       |
| Ethylbenzene                      | 95.1   |               | 17    | 100         | ND         | 95.1        | 80-120  |     |                         |       |
| Xylene (p/m)                      | 165    |               | 11    | 200         | ND         | 82.5        | 80-120  |     |                         |       |
| Xylene (o)                        | 86.7   |               | n     | 100         | ND         | 86.7        | 80-120  |     |                         |       |
| Surrogate: a,a,a-Trifluorotoluene | 98.2   |               | "     | 100         |            | 98.2        | 80-120  |     |                         |       |
| Surrogate: 4-Bromofluorobenzene   | 119    |               | "     | 100         |            | 119         | 80-120  |     |                         |       |

Environmental Lab of Texas

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|---------------------------|-------------------------------|---------------------|
| ARCADIS                   | Project: MT000834.0001        | Fax: (432) 687-5401 |
| 1004 N. Big Spring Street | Project Number: MT000834.0001 | Reported:           |
| Midland TX, 79701         | Project Manager: Sharon Hall  | 07/11/05 10:36      |

#### **Organics by GC - Quality Control**

**Environmental Lab of Texas** 

| Analyte                               | Result | Reporting<br>Limit Units | Spike<br>Level | Source<br>Result | %REC       | %REC<br>Limits | RPD  | RPD<br>Limit | Notes |
|---------------------------------------|--------|--------------------------|----------------|------------------|------------|----------------|------|--------------|-------|
| · · · · · · · · · · · · · · · · · · · |        | Linit Onits              | Level          | Kesun            | /BREC      |                |      |              | Notes |
| Batch EF53021 - EPA 5030C (GC)        |        |                          |                |                  |            |                |      |              |       |
| Matrix Spike Dup (EF53021-MSD1)       | Sour   | ce: 5F29004-02           | Prepared &     | & Analyzed:      | : 06/30/05 |                |      |              |       |
| Benzene /                             | 103    | ug/l                     | 100            | ND               | 103        | 80-120         | 3.36 | 20           |       |
| Toluene                               | 96.3   | "                        | 100            | ND               | 96.3       | 80-120         | 4.78 | 20           |       |
| Ethylbenzene                          | 101    | "                        | 100            | ND               | 101        | 80-120         | 6.02 | 20           |       |
| Xylene (p/m)                          | 176    | "                        | 200            | ND               | 88.0       | 80-120         | 6.45 | 20           |       |
| Xylene (o)                            | 92.2   | "                        | 100            | ND               | 92.2       | 80-120         | 6.15 | 20           |       |
| Surrogate: a,a,a-Trifluorotoluene     | 102    | "                        | 100            |                  | 102        | 80-120         |      |              |       |
| Surrogate: 4-Bromofluorobenzene       | 117    | "                        | 100            |                  | 117        | 80-120         |      |              |       |

Environmental Lab of Texas

| ARCADIS  |                              | Рг                 | oject: M | T000834.000    | 1                |                |                |       | Fax: (432)   | 687-5401 |
|--|------------------------------|--------------------|----------|----------------|------------------|----------------|----------------|-------|--------------|----------|
| 1004 N. Big Spring Street                                  |                              | Project Nu         | mber: M  | T000834.000    | 1                |                |                |       | Repo         | rted:    |
| Midland TX, 79701  | Project Manager: Sharon Hall |                    |          |                |                  | 07/11/05 10:36 |                |       |              |          |
| General  | Chemistry Para               | ameters by         | EPA /    | Standard       | l Method         | ls - Qua       | lity Con       | trol  |              |          |
|  |                              | Environm           | ental l  | Lab of Tex     | xas              |                |                |       |              |          |
| Analyte  | Result                       | Reporting<br>Limit | Units    | Spike<br>Level | Source<br>Result | %REC           | %REC<br>Limits | RPD   | RPD<br>Limit | Notes    |
| Batch EF53006 - Filtration Preparat                        | ion                          |                    |          |                |                  |                |                |       |              |          |
| Blank (EF53006-BLK1)                                       |                              |                    |          | Prepared: (    | 06/30/05 Ai      | nalyzed: 07    | /01/05         |       |              |          |
| Total Dissolved Solids                                     | ND                           | 5.00               | mg/L     |                |                  |                |                |       |              |          |
| Duplicate (EF53006-DUP1)                                   | Sou                          | rce: 5F29010-      | 01       | Prepared: (    | 06/30/05 Ai      | nalyzed: 07    | /01/05         |       |              |          |
| Total Dissolved Solids                                     | 7110                         | 10.0               | mg/L     |                | 7230             |                |                | 1.67  | 20           |          |
| Batch EF53015 - General Preparatio<br>Blank (EF53015-BLK1) | n (WetChem)                  | <u> </u>           |          | Prepared &     | z Analyzed:      | 06/30/05       |                |       |              |          |
| Total Alkalinity   | ND                           | 2.00               | mg/L     |                |                  |                |                |       |              |          |
| Duplicate (EF53015-DUP1)                                   | Sou                          | irce: 5F28001-     | 01       | Prepared &     | z Analyzed:      | 06/30/05       |                |       |              |          |
| Total Alkalinity   | 261                          | 2.00               | mg/L     |                | 260              |                |                | 0.384 | 20           |          |
| Reference (EF53015-SRM1)                                   |                              |                    |          | Prepared &     | k Analyzed:      | 06/30/05       |                |       |              |          |
| Bicarbonate Alkalinity                                     | 230                          |                    | mg/L     | 200            |                  | 115            | 80-120         |       |              |          |
| Batch EF53026 - General Preparatio                         | on (WetChem)                 |                    |          |                |                  |                |                |       |              |          |
| Blank (EF53026-BLK1)                                       |                              |                    |          | Prepared &     | 2 Analyzed:      | 06/30/05       |                |       |              |          |
| Chłoride   | ND                           | 0.500              | mg/L     |                |                  |                |                |       |              |          |
| Sulfate  | ND                           | 0.500              | "        |                |                  |                |                |       |              |          |
| LCS (EF53026-BS1)  |                              |                    |          | Prepared &     | k Analyzed:      | 06/30/05       |                |       |              |          |
| Sulfate  | 10.7                         |                    | mg/L     | 10.0           |                  | 107            | 80-120         |       |              |          |
| Chloride   | 11.5                         |                    | "        | 10.0           |                  | 115            | 80-120         |       |              |          |

Environmental Lab of Texas

| ARCADIS                   | Project:         | MT000834.0001 | Fax: (432) 687-5401 |
|---------------------------|------------------|---------------|---------------------|
| 1004 N. Big Spring Street | Project Number:  | MT000834.0001 | Reported:           |
| Midland TX, 79701         | Project Manager: | Sharon Hall   | 07/11/05 10:36      |

#### General Chemistry Parameters by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

|  |          | Reporting   |       | Spike      | Source      |          | %REC   |      | RPD   |       |
|--|----------|-------------|-------|------------|-------------|----------|--------|------|-------|-------|
| Analyte                                | Result   | Limit       | Units | Level      | Result      | %REC     | Limits | RPD  | Limit | Notes |
| Batch EF53026 - General Preparation (N | VetChem) |             |       |            |             |          |        |      |       |       |
| Calibration Check (EF53026-CCV1)       |          |             |       | Prepared & | Analyzed:   | 06/30/05 |        |      |       |       |
| Chloride                               | 11.5     |             | mg/L  | 10.0       |             | 115      | 80-120 |      |       | _     |
| Sulfate                                | 9.95     |             | "     | 10.0       |             | 99.5     | 80-120 |      |       |       |
| Duplicate (EF53026-DUP1)               | Sourc    | e: 5F29013- | 01    | Prepared & | z Analyzed: | 06/30/05 |        |      |       |       |
| Chloride                               | 87.8     | 2.50        | mg/L  |            | 85.3        |          |        | 2.89 | 20    |       |
| Sulfate                                | 75.3     | 2.50        | "     |            | 73.5        |          |        | 2.42 | 20    |       |

Environmental Lab of Texas

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| ARCADIS                   | Project:         |
|---------------------------|------------------|
| 1004 N. Big Spring Street | Project Number:  |
| Midland TX, 79701         | Project Manager: |

#### Project: MT000834.0001 ject Number: MT000834.0001 ect Manager: Sharon Hall

**Reported:** 07/11/05 10:36

#### Total Metals by EPA / Standard Methods - Quality Control

#### **Environmental Lab of Texas**

|                                    |           | Reporting     |       | Spike      | Source      |          | %REC   |       | RPD   |       |
|------------------------------------|-----------|---------------|-------|------------|-------------|----------|--------|-------|-------|-------|
| Analyte                            | Result    | Limit         | Units | Level      | Result      | %REC     | Limits | RPD   | Limit | Notes |
| Batch EF52903 - 6010B/No Digestion | . <u></u> |               |       |            |             |          |        |       |       |       |
| Blank (EF52903-BLK1)               |           |               | •     | Prepared & | 2 Analyzed: | 06/29/05 |        |       |       |       |
| Calcium                            | ND        | 0.0100        | mg/L  |            |             |          |        |       |       |       |
| Magnesium                          | ND        | 0.00100       | 0     |            |             |          |        |       |       |       |
| Potassium                          | ND        | 0.0500        | п     |            |             |          |        |       |       |       |
| Sodium                             | ND        | 0.0100        | "     |            |             |          |        |       |       |       |
| Calibration Check (EF52903-CCV1)   |           |               |       | Prepared & | 2 Analyzed: | 06/29/05 |        |       |       |       |
| Calcium                            | 1.90      |               | mg/L  | 2.00       |             | 95.0     | 85-115 |       |       |       |
| Magnesium                          | 2.01      |               | "     | 2.00       |             | 100      | 85-115 |       |       |       |
| Potassium                          | 1.90      |               | "     | 2.00       |             | 95.0     | 85-115 |       |       |       |
| Sođium                             | 1.90      |               | "     | 2.00       |             | 95.0     | 85-115 |       |       |       |
| Duplicate (EF52903-DUP1)           | Sou       | rce: 5F28001- | 01    | Prepared & | Analyzed:   | 06/29/05 |        |       |       |       |
| Calcium                            | 222       | 0.500         | mg/L  |            | 229         |          |        | 3.10  | 20    |       |
| Magnesium                          | 105       | 0.0500        | "     |            | 109         |          |        | 3.74  | 20    |       |
| Potassium                          | 13.2      | 0.500         | 11    |            | 13.3        |          |        | 0.755 | 20    |       |
| Sodium                             | 489       | 0.500         | "     |            | 494         |          |        | 1.02  | 20    |       |

Environmental Lab of Texas

| ARCADIS                   |
|---------------------------|
| 1004 N. Big Spring Street |
| Midland TX, 79701         |

07/11/05 10:36

Notes and Definitions

| DET | Analyte DETECTED                                     |
|-----|--|
| ND  | Analyte NOT DETECTED at or above the reporting limit |
| NR  | Not Reported   |
| dry | Sample results reported on a dry weight basis        |
| RPD | Relative Percent Difference                          |
| LCS | Laboratory Control Spike                             |
| MS  | Matrix Spike   |
| Dup | Duplicate  |
|     |  |

Report Approved By:

Raland K Junts

7/11/2005

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer Jeanne Mc Murrey, Inorg. Tech Director LaTasha Cornish, Chemist Sandra Sanchez, Lab Tech.

Date:

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

| ARCADIS GERAGHTY & WILLER Laboratory Task  | ry Task Order No./P.O. No.  | CHAIN-OF-CUSTODY RECORD  | RECORD Page 1 of   |
|--|---|--------------------------|--|
| Project Number/Name <u>MT000834,0001</u><br>Deviant Location Rice Operating RN 8-27 A <sup>P</sup> |   | ANALYSIS / METHOD / SIZE |  |
| Xas  |   |                          |  |
| Project Manager <u>Sharon Hall</u>   |   |                          |  |
| Sampler(s)/Affiliation_ <u>ARCADIS</u>   | . 40-   |                          |  |
| Date/XNX-Sampled   | TIME THE SEA STATES   |                          | Remarks Total  |
| GO.LC.N 7 40   | ñ   |                          | * see attracted c-mail 3   |
|  |   |                          | 5-11-E   |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
|  |   |                          |  |
| Sample Matrix: L = Liquid; S = Soliter A = I   | Air   |                          | Total No. of Bottles/  |
|  | ation:  | 5                        | 1750 Seal  |
| Received by: Rolling Colling   | Organization: 200   | Date @ 16/10             | Time ( 200 N/A   |
| by:  | Organization:   | Date 1 1                 | Seal Inta  |
|  | Organization:   | Date ///                 | Time Yes No N/A  |
| Special Instructions/Remarks: / n.g.v  |   |                          |  |
|  |   |                          | a na Antonio a mandra a mandra a francasa a francasa a francasa a francasa a francasa a mandra da casa da casa |
| Delivery Method: Mo Person   | Common Carrier  | lah Courier              | []Other  |
|  | Additional and a second and as second and a |                          | SPECIFY AG 05 0553   |

### Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

| Olient:   | Madis   |
|-----------|---------|
| Date/Time | 6-27-05 |
| Order #:  | 5F28001 |
| loitie's: | 15 NT   |

1.4

#### Sample Receipt Checklist

| Temperature di container:codier?                          | 1 (15) NO 1 - 1.0 C         |
|---|-----------------------------|
| Shipping container/cooler in good condition?              | I Ces I No I                |
| Custody Seals Intact on shipping container/cooler?        | ME Not present              |
| Custody Seals intact on sample bottles?                   | (Tes) No   Not cresent      |
| Chain of custody present?                                 | I Cas I No I                |
| Semple Instructions complete on Chain of Oustody?         | (Tes) No 1                  |
| Chain of Custody signed when relinquished and received?   | (Tes) No 1                  |
| Chain of oustedy agrees with sample label(s)              | No I                        |
| Conteiner labels legible and intact?                      | ICTEXI No I                 |
| Sample Matrix and properties same as on chain of custody? | Cras_I No I                 |
| Samcies in procer container/optile?                       | Vie No                      |
| Samples property preserved?                               | Cas A No                    |
| Sample poines interfi                                     | Carl No                     |
| Preservations documented on Ohain of Custom/?             | Var No 1                    |
| Containers documented on Chain of Custody?                | Case No                     |
| Sufficient sample amount for incloated test?              | Mar No I                    |
| Al samples received within sufficient hold time?          |                             |
| VOC serncies have zero heedscace?                         | (Yes) / No / Not Applicable |

Other observations:

| Contact Person:<br>Regarding: | Variance Documentation:<br>Date/Time: | _ Contacted by: |
|-------------------------------|---------------------------------------|-----------------|
|                               |                                       |                 |
| Corrective Action Taken:      |                                       |                 |
|                               |                                       |                 |
|                               |                                       |                 |
|                               |                                       |                 |
|                               |                                       |                 |

DELORME

