

AP - 49

**STAGE 1 & 2  
REPORTS**

**DATE:**

Dec. 29, 2003



## *Highlander Environmental Corp.*

*Midland, Texas*

December 29, 2003

Ms. Kristin Farris  
Rice Operating Company  
122 West Taylor  
Hobbs, New Mexico 88240

**Re: Monitor Well Sampling, Rice Operating Company, Justis Saltwater Disposal System, SWD Well #H-2, Unit H, Section 2, T-26-S, R-37-E, Lea County, New Mexico**

Dear Ms. Farris:

This letter details the sampling of three (3) Rice Operating Company (Rice) monitor wells at the Justis Saltwater Disposal System, SWD Well #H-2, Unit H, Section 2, T-26-S, R-37-E, Lea County, New Mexico (Site).

Highlander has been retained by Rice to purge and sample the three Site monitor wells on a quarterly basis. On December 16, 2003, Highlander personnel traveled to the location. Prior to sampling, the wells were gauged for static water levels. Using total depth measurements obtained during prior monitoring, accurate purging volumes were calculated.

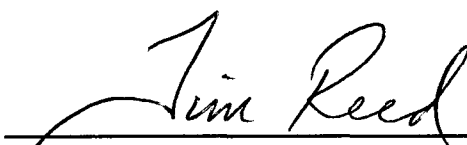
At the time of sampling, all monitor well caps were opened and water level measurements were taken from the top of the casing. The measurements were taken to the nearest 0.01 feet. Each well was purged using a portable submersible pump. Approximately three casing volumes of water were purged from each well prior to sampling. Between wells, the pump and associated tubing were washed with a laboratory grade detergent and rinsed with deionized water. Water level measurements and purge volumes for the monitor wells are shown in Table 1. Analytical data is summarized in Table 2.

Groundwater samples were collected as soon as possible after the groundwater returned to its static level. Each well was inspected for the presence of phase-separated hydrocarbons (PSH).

Groundwater samples were collected using clean disposable polyethylene bailers and disposable line. The samples were transferred into labeled and preserved containers provided by the laboratory. All of the samples were delivered under proper chain-of-custody control

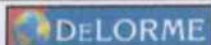
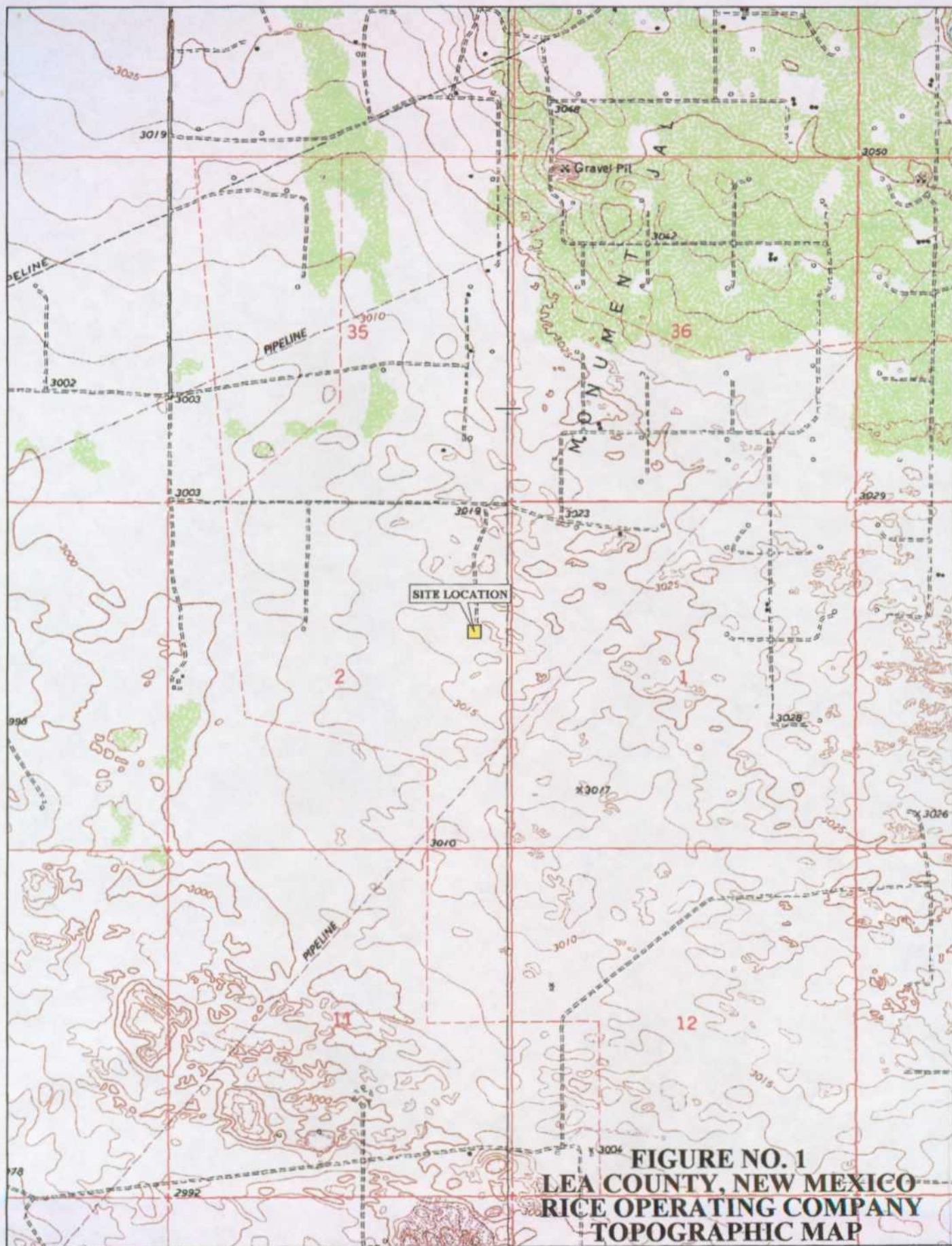
to Environmental Labs of Texas, Inc., Odessa, Texas. The groundwater samples were analyzed for major anions, by methods 310.1, 9253 and 375.4, cations by method 6010B, Total Dissolved Solids (TDS) by method 160.1 and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) by method EPA 8021B. Copies of the laboratory analyses are enclosed in Appendix A.

Respectfully Submitted,  
HIGHLANDER ENVIRONMENTAL CORP.

  
\_\_\_\_\_  
Timothy M. Reed, P.G.  
Vice President

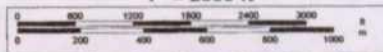


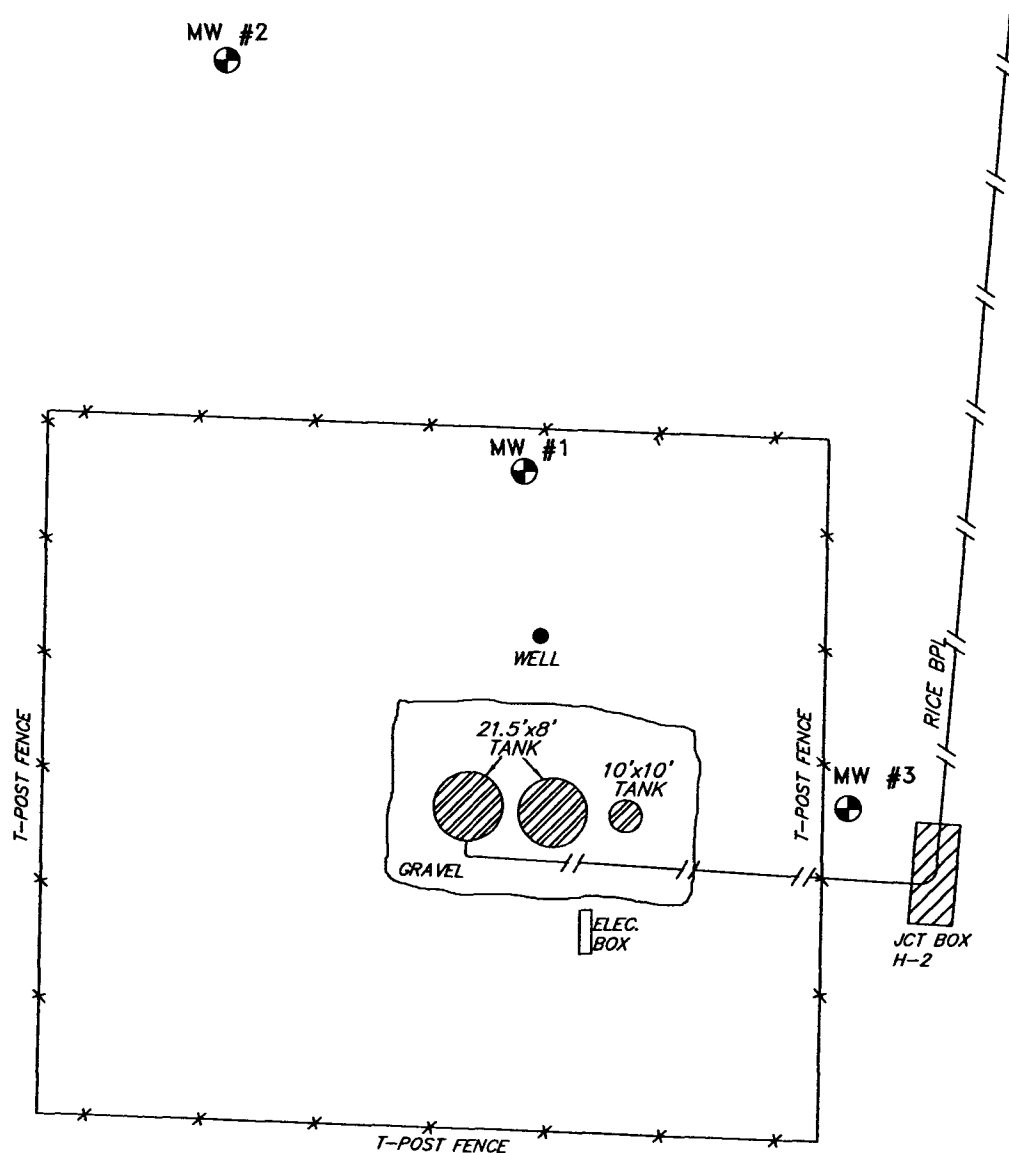
## FIGURES



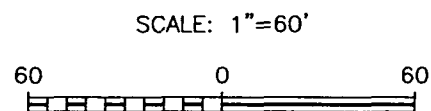
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Scale 1 : 24,000  
1" = 2000 ft





| WELL# | ELEVATION                        |
|-------|----------------------------------|
| MW #1 | 3024.25' (TOP PVC 4' ABOVE GRND) |
| MW #2 | 3023.03' (TOP STEEL LID)         |
| MW #3 | 3020.13' (TOP BRASS CAP)         |



MONITOR WELL LOCATION

DATE:  
8/27/03  
DWG. BY:  
JDA  
FILE:  
C:\P000\SITE MAP  
8-03

FIGURE NO. 2

LEA COUNTY, NEW MEXICO  
RICE OPERATING COMPANY

SITE MAP

HIGHLANDER ENVIRONMENTAL CORP.  
MIDLAND, TEXAS

## TABLES

Table 1

Rice Operating Co.  
Justis SWD #H-2  
Sample Analysis

| MW#  | Sample Date | Total Depth (TOC)<br>(feet) | Depth to Water (TOC)<br>(feet) | Purge Volume<br>(gallons) |
|------|-------------|-----------------------------|--------------------------------|---------------------------|
| MW-1 | 8/16/2002   | 137                         | 116.20                         | 66                        |
|      | 11/12/2002  | 144*                        | 123.32                         | 60                        |
|      | 2/13/2003   | 144*                        | 122.95                         | 70                        |
|      | 5/20/2003   | 144*                        | 123.34                         | 70                        |
|      | 9/16/2003   | 144*                        | 122.94                         | 70                        |
|      | 12/16/2003  | 144*                        | 123.19                         | 70                        |
| MW-2 | 8/16/2002   | 142                         | 121.85                         | 25                        |
|      | 11/12/2002  | 142                         | 122.10                         | 25                        |
|      | 2/13/2003   | 142                         | 121.71                         | 25                        |
|      | 5/20/2003   | 142                         | 122.08                         | 25                        |
|      | 9/16/2003   | 142                         | 121.70                         | 25                        |
|      | 12/16/2003  | 142                         | 122.00                         | 30                        |
| MW-3 | 8/16/2003   | 133                         | 118.68                         | 20                        |
|      | 11/12/2002  | 133                         | 118.90                         | 25                        |
|      | 2/13/2003   | 133                         | 118.53                         | 25                        |
|      | 5/20/2003   | 133                         | 118.87                         | 25                        |
|      | 9/16/2003   | 133                         | 118.53                         | 25                        |
|      | 12/16/2003  | 133                         | 118.79                         | 30                        |

\* Denotes new TD measurement due to monitor well pipe extension

**Table 2**  
**Rice Operating Co.**  
**Justis SWD #H-2**  
**Sample Analysis**

| MW#       | Sample Date | Chloride | TDS  | Benzene | Toluene | Ethyl Benzene | Total Xylenes |
|-----------|-------------|----------|------|---------|---------|---------------|---------------|
| MW-1 (5") | 3/1/2002    | 301      | 971  | -       | -       | -             | -             |
|           | 6/10/2002   | 173      | -    | 0.001   | 0.008   | 0.01          | 0.066         |
|           | 8/16/2002   | 111      | 619  | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 11/12/2002  | 257      | 971  | <0.001  | 0.001   | <0.001        | <0.001        |
|           | 2/13/2003   | 97.5     | 647  | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 5/20/2003   | 102      | 682  | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 9/16/2003   | 594      | 1920 | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 12/16/2003  | 81.5     | 587  | 0.013   | <0.001  | <0.001        | <0.001        |
| MW-2      | 3/1/2002    | 700      | 1780 | -       | -       | -             | -             |
|           | 5/23/2002   | 904      | 2710 | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 8/16/2002   | 1040     | 3390 | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 11/12/2002  | 1130     | 2600 | 0.002   | 0.003   | <0.001        | <0.002        |
|           | 2/13/2003   | 1110     | 2780 | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 5/20/2003   | 1130     | 3600 | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 9/16/2003   | 1070     | 3540 | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 12/16/2003  | 1230     | 2490 | 0.032   | 0.003   | <0.001        | <0.001        |
| MW-3      | 3/1/2002    | 37.2     | 561  | -       | -       | -             | -             |
|           | 5/16/2002   | 35.4     | 570  | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 8/16/2002   | 93.1     | 631  | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 11/12/2002  | 97.5     | 688  | 0.030   | 0.014   | 0.002         | 0.003         |
|           | 2/13/2003   | 102      | 666  | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 5/20/2003   | 168      | 885  | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 9/16/2003   | 204      | 568  | <0.001  | <0.001  | <0.001        | <0.001        |
|           | 12/16/2003  | 40.8     | 517  | 0.013   | <0.001  | <0.001        | <0.001        |

NOTE: - denotes not analyzed

**APPENDIX A**

**Analytical Results**

# ANALYTICAL REPORT

## Prepared for:

IKE TAVAREZ  
HIGHLANDER ENVIRONMENTAL CORP.  
1910 N. BIG SPRING STREET  
MIDLAND, TX 79705

**Project:** Rice Operating/ Justis SWD H-2

**PO#:**

**Order#:** G0308187

**Report Date:** 12/23/2003

## Certificates

US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

HIGHLANDER ENVIRONMENTAL CORP.  
1910 N. BIG SPRING STREET  
MIDLAND, TX 79705  
682-3946

Order#: G0308187  
Project: 1863  
Project Name: Rice Operating/ Justis SWD H-2  
Location: Lea Co., NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

| <u>Lab ID:</u>               | <u>Sample :</u>     | <u>Matrix:</u> | <u>Date / Time</u><br><u>Collected</u> | <u>Date / Time</u><br><u>Received</u> | <u>Container</u> | <u>Preservative</u> |
|------------------------------|---------------------|----------------|----------------------------------------|---------------------------------------|------------------|---------------------|
| 0308187-01                   | MW-1                | WATER          | 12/16/03<br>10:45                      | 12/16/03<br>16:05                     | See COC          | See COC             |
|                              | <u>Lab Testing:</u> |                | Rejected: No                           | Temp: 8.0 C                           |                  |                     |
|                              | 8021B/5030 BTEX     |                |                                        |                                       |                  |                     |
|                              | Anions              |                |                                        |                                       |                  |                     |
|                              | Cations             |                |                                        |                                       |                  |                     |
| Total Dissolved Solids (TDS) |                     |                |                                        |                                       |                  |                     |
| 0308187-02                   | MW-2                | WATER          | 12/16/03<br>11:35                      | 12/16/03<br>16:05                     | See COC          | See COC             |
|                              | <u>Lab Testing:</u> |                | Rejected: No                           | Temp: 8.0 C                           |                  |                     |
|                              | 8021B/5030 BTEX     |                |                                        |                                       |                  |                     |
|                              | Anions              |                |                                        |                                       |                  |                     |
|                              | Cations             |                |                                        |                                       |                  |                     |
| Total Dissolved Solids (TDS) |                     |                |                                        |                                       |                  |                     |
| 0308187-03                   | MW-3                | WATER          | 12/16/03<br>12:30                      | 12/16/03<br>16:05                     | See COC          | See COC             |
|                              | <u>Lab Testing:</u> |                | Rejected: No                           | Temp: 8.0 C                           |                  |                     |
|                              | 8021B/5030 BTEX     |                |                                        |                                       |                  |                     |
|                              | Anions              |                |                                        |                                       |                  |                     |
|                              | Cations             |                |                                        |                                       |                  |                     |
| Total Dissolved Solids (TDS) |                     |                |                                        |                                       |                  |                     |

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

IKE TAVAREZ  
HIGHLANDER ENVIRONMENTAL CORP.  
1910 N. BIG SPRING STREET  
MIDLAND, TX 79705

Order#: G0308187  
Project: 1863  
Project Name: Rice Operating/ Justis SWD H-2  
Location: Lea Co., NM

Lab ID: 0308187-01

Sample ID: MW-1

### 8021B/5030 BTEX

| Method       | Date            | Date            | Sample        | Dilution      |                |               |
|--------------|-----------------|-----------------|---------------|---------------|----------------|---------------|
| <u>Blank</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Amount</u> | <u>Factor</u> | <u>Analyst</u> | <u>Method</u> |
| 0007790-02   |                 | 12/20/03        | 1             | 1             | CK             | 8021B         |

| Parameter    | Result<br>mg/L | RL    |
|--------------|----------------|-------|
| Benzene      | 0.013          | 0.001 |
| Toluene      | <0.001         | 0.001 |
| Ethylbenzene | <0.001         | 0.001 |
| p/m-Xylene   | <0.001         | 0.001 |
| o-Xylene     | <0.001         | 0.001 |

| Surrogates         | % Recovered | QC Limits (%) |     |
|--------------------|-------------|---------------|-----|
| aaa-Toluene        | 96%         | 80            | 120 |
| Bromofluorobenzene | 89%         | 80            | 120 |

Lab ID: 0308187-02

Sample ID: MW-2

### 8021B/5030 BTEX

| Method       | Date            | Date            | Sample        | Dilution      |                |               |
|--------------|-----------------|-----------------|---------------|---------------|----------------|---------------|
| <u>Blank</u> | <u>Prepared</u> | <u>Analyzed</u> | <u>Amount</u> | <u>Factor</u> | <u>Analyst</u> | <u>Method</u> |
| 0007790-02   |                 | 12/20/03        | 1             | 1             | CK             | 8021B         |

| Parameter    | Result<br>mg/L | RL    |
|--------------|----------------|-------|
| Benzene      | 0.032          | 0.001 |
| Toluene      | 0.003          | 0.001 |
| Ethylbenzene | <0.001         | 0.001 |
| p/m-Xylene   | <0.001         | 0.001 |
| o-Xylene     | <0.001         | 0.001 |

| Surrogates         | % Recovered | QC Limits (%) |     |
|--------------------|-------------|---------------|-----|
| aaa-Toluene        | 84%         | 80            | 120 |
| Bromofluorobenzene | 80%         | 80            | 120 |

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

IKE TAVAREZ  
HIGHLANDER ENVIRONMENTAL CORP.  
1910 N. BIG SPRING STREET  
MIDLAND, TX 79705

Order#: G0308187  
Project: 1863  
Project Name: Rice Operating/ Justis SWD H-2  
Location: Lea Co., NM

Lab ID: 0308187-03

Sample ID: MW-3

### 8021B/5030 BTEX

| Method<br>Blank | Date<br>Prepared | Date<br>Analyzed | Sample<br>Amount | Dilution<br>Factor | Analyst | Method |
|-----------------|------------------|------------------|------------------|--------------------|---------|--------|
| 0007790-02      |                  | 12/20/03         | 1                | 1                  | CK      | 8021B  |

| Parameter    | Result<br>mg/L | RL    |
|--------------|----------------|-------|
| Benzene      | 0.013          | 0.001 |
| Toluene      | <0.001         | 0.001 |
| Ethylbenzene | <0.001         | 0.001 |
| p/m-Xylene   | <0.001         | 0.001 |
| o-Xylene     | <0.001         | 0.001 |

| Surrogates         | % Recovered | QC Limits (%) |     |
|--------------------|-------------|---------------|-----|
| aaa-Toluene        | 85%         | 80            | 120 |
| Bromofluorobenzene | 80%         | 80            | 120 |

Approval:

Raland K. Tuttle  
Raland K. Tuttle, Lab Director, QA Officer  
Celey D. Keene, Org. Tech. Director  
Jeanne McMurrey, Inorg. Tech. Director  
Sandra Biezugbe, Lab Tech.  
Sara Molina, Lab Tech.

12-23-03  
Date

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

IKE TAVAREZ  
HIGHLANDER ENVIRONMENTAL CORP.  
1910 N. BIG SPRING STREET  
MIDLAND, TX 79705

Order#: G0308187  
Project: 1863  
Project Name: Rice Operating/ Justis SWD H-2  
Location: Lea Co., NM

Lab ID: 0308187-01

Sample ID: MW-1

### Anions

| Parameter              | Result | Units | Dilution<br>Factor | RL   | Method | Date<br>Analyzed | Analyst |
|------------------------|--------|-------|--------------------|------|--------|------------------|---------|
| Bicarbonate Alkalinity | 170    | mg/L  | 1                  | 2.00 | 310.1  | 12/17/03         | SB      |
| Carbonate Alkalinity   | <0.10  | mg/L  | 1                  | 0.10 | 310.1  | 12/17/03         | SB      |
| Chloride               | 81.5   | mg/L  | 1                  | 5.00 | 9253   | 12/17/03         | SB      |
| Hydroxide Alkalinity   | <0.10  | mg/L  | 1                  | 0.10 | 310.1  | 12/17/03         | SB      |
| SULFATE, 375.4         | 180    | mg/L  | 1                  | 0.5  | 375.4  | 12/18/03         | SB      |

### Cations

| Parameter | Result | Units | Dilution<br>Factor | RL    | Method | Date<br>Analyzed | Analyst |
|-----------|--------|-------|--------------------|-------|--------|------------------|---------|
| Calcium   | 72.3   | mg/L  | 10                 | 0.10  | 6010B  | 12/17/03         | SM      |
| Magnesium | 30.7   | mg/L  | 10                 | 0.010 | 6010B  | 12/17/03         | SM      |
| Potassium | 9.61   | mg/L  | 1                  | 0.050 | 6010B  | 12/17/03         | SM      |
| Sodium    | 83.7   | mg/L  | 10                 | 0.10  | 6010B  | 12/17/03         | SM      |

### Test Parameters

| Parameter                    | Result | Units | Dilution<br>Factor | RL  | Method | Date<br>Analyzed | Analyst |
|------------------------------|--------|-------|--------------------|-----|--------|------------------|---------|
| Total Dissolved Solids (TDS) | 587    | mg/L  | 1                  | 5.0 | 160.1  | 12/17/03         | KKA     |

Lab ID: 0308187-02

Sample ID: MW-2

### Anions

| Parameter              | Result | Units | Dilution<br>Factor | RL   | Method | Date<br>Analyzed | Analyst |
|------------------------|--------|-------|--------------------|------|--------|------------------|---------|
| Bicarbonate Alkalinity | 130    | mg/L  | 1                  | 2.00 | 310.1  | 12/17/03         | SB      |
| Carbonate Alkalinity   | <0.10  | mg/L  | 1                  | 0.10 | 310.1  | 12/17/03         | SB      |
| Chloride               | 1230   | mg/L  | 1                  | 5.00 | 9253   | 12/17/03         | SB      |
| Hydroxide Alkalinity   | <0.10  | mg/L  | 1                  | 0.10 | 310.1  | 12/17/03         | SB      |
| SULFATE, 375.4         | 202    | mg/L  | 1                  | 0.5  | 375.4  | 12/18/03         | SB      |

### Cations

| Parameter | Result | Units | Dilution<br>Factor | RL   | Method | Date<br>Analyzed | Analyst |
|-----------|--------|-------|--------------------|------|--------|------------------|---------|
| Calcium   | 343    | mg/L  | 100                | 1.0  | 6010B  | 12/17/03         | SM      |
| Magnesium | 170    | mg/L  | 100                | 0.10 | 6010B  | 12/17/03         | SM      |
| Potassium | 15.8   | mg/L  | 10                 | 0.50 | 6010B  | 12/17/03         | SM      |
| Sodium    | 182    | mg/L  | 100                | 1.0  | 6010B  | 12/17/03         | SM      |

### Test Parameters

| Parameter                    | Result | Units | Dilution<br>Factor | RL  | Method | Date<br>Analyzed | Analyst |
|------------------------------|--------|-------|--------------------|-----|--------|------------------|---------|
| Total Dissolved Solids (TDS) | 2490   | mg/L  | 1                  | 5.0 | 160.1  | 12/17/03         | KKA     |

RL = Reporting Limit N/A = Not Applicable

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# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

IKE TAVAREZ  
HIGHLANDER ENVIRONMENTAL CORP.  
1910 N. BIG SPRING STREET  
MIDLAND, TX 79705

Order#: G0308187  
Project: 1863  
Project Name: Rice Operating/ Justis SWD H-2  
Location: Lea Co., NM

Lab ID: 0308187-03  
Sample ID: MW-3

### Anions

| Parameter              | Result | Units | Dilution<br>Factor | RL   | Method | Date<br>Analyzed | Analyst |
|------------------------|--------|-------|--------------------|------|--------|------------------|---------|
| Bicarbonate Alkalinity | 164    | mg/L  | 1                  | 2.00 | 310.1  | 12/17/03         | SB      |
| Carbonate Alkalinity   | <0.10  | mg/L  | 1                  | 0.10 | 310.1  | 12/17/03         | SB      |
| Chloride               | 40.8   | mg/L  | 1                  | 5.00 | 9253   | 12/17/03         | SB      |
| Hydroxide Alkalinity   | <0.10  | mg/L  | 1                  | 0.10 | 310.1  | 12/17/03         | SB      |
| SULFATE, 375.4         | 204    | mg/L  | 1                  | 0.5  | 375.4  | 12/18/03         | SB      |

### Cations

| Parameter | Result | Units | Dilution<br>Factor | RL    | Method | Date<br>Analyzed | Analyst |
|-----------|--------|-------|--------------------|-------|--------|------------------|---------|
| Calcium   | 52.7   | mg/L  | 10                 | 0.10  | 6010B  | 12/17/03         | SM      |
| Magnesium | 25.7   | mg/L  | 10                 | 0.010 | 6010B  | 12/17/03         | SM      |
| Potassium | 7.69   | mg/L  | 10                 | 0.50  | 6010B  | 12/17/03         | SM      |
| Sodium    | 88.5   | mg/L  | 10                 | 0.10  | 6010B  | 12/17/03         | SM      |

### Test Parameters

| Parameter                    | Result | Units | Dilution<br>Factor | RL  | Method | Date<br>Analyzed | Analyst |
|------------------------------|--------|-------|--------------------|-----|--------|------------------|---------|
| Total Dissolved Solids (TDS) | 517    | mg/L  | 1                  | 5.0 | 160.1  | 12/17/03         | KKA     |

Approval:

*Raland K. Tuttle* 12-23-03

Raland K. Tuttle, Lab Director, QA Officer

Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

RL = Reporting Limit

N/A = Not Applicable

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# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0308187

|                   |       |            |                     |                    |                   |                     |      |
|-------------------|-------|------------|---------------------|--------------------|-------------------|---------------------|------|
| <b>BLANK</b>      |       |            |                     |                    |                   |                     |      |
|                   | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Benzene-mg/L      |       | 0007790-02 |                     |                    | <0.001            |                     |      |
| Toluene-mg/L      |       | 0007790-02 |                     |                    | <0.001            |                     |      |
| Ethylbenzene-mg/L |       | 0007790-02 |                     |                    | <0.001            |                     |      |
| p/m-Xylene-mg/L   |       | 0007790-02 |                     |                    | <0.001            |                     |      |
| o-Xylene-mg/L     |       | 0007790-02 |                     |                    | <0.001            |                     |      |
| <b>MS</b>         |       |            |                     |                    |                   |                     |      |
|                   | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Benzene-mg/L      |       | 0308191-01 | 0.002               | 0.1                | 0.091             | 89.%                |      |
| Toluene-mg/L      |       | 0308191-01 | 0                   | 0.1                | 0.097             | 97.%                |      |
| Ethylbenzene-mg/L |       | 0308191-01 | 0                   | 0.1                | 0.096             | 96.%                |      |
| p/m-Xylene-mg/L   |       | 0308191-01 | 0                   | 0.2                | 0.195             | 97.5%               |      |
| o-Xylene-mg/L     |       | 0308191-01 | 0                   | 0.1                | 0.098             | 98.%                |      |
| <b>MSD</b>        |       |            |                     |                    |                   |                     |      |
|                   | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Benzene-mg/L      |       | 0308191-01 | 0.002               | 0.1                | 0.092             | 90.%                | 1.1% |
| Toluene-mg/L      |       | 0308191-01 | 0                   | 0.1                | 0.099             | 99.%                | 2.%  |
| Ethylbenzene-mg/L |       | 0308191-01 | 0                   | 0.1                | 0.098             | 98.%                | 2.1% |
| p/m-Xylene-mg/L   |       | 0308191-01 | 0                   | 0.2                | 0.201             | 100.5%              | 3.%  |
| o-Xylene-mg/L     |       | 0308191-01 | 0                   | 0.1                | 0.100             | 100.%               | 2.%  |
| <b>SRM</b>        |       |            |                     |                    |                   |                     |      |
|                   | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Benzene-mg/L      |       | 0007790-05 |                     | 0.1                | 0.104             | 104.%               |      |
| Toluene-mg/L      |       | 0007790-05 |                     | 0.1                | 0.090             | 90.%                |      |
| Ethylbenzene-mg/L |       | 0007790-05 |                     | 0.1                | 0.086             | 86.%                |      |
| p/m-Xylene-mg/L   |       | 0007790-05 |                     | 0.2                | 0.172             | 86.%                |      |
| o-Xylene-mg/L     |       | 0007790-05 |                     | 0.1                | 0.085             | 85.%                |      |

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

### Anions

Order#: G0308187

|                             |       |            |                     |                    |                   |                     |      |
|-----------------------------|-------|------------|---------------------|--------------------|-------------------|---------------------|------|
| <b>BLANK</b>                |       |            |                     |                    |                   |                     |      |
|                             | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Bicarbonate Alkalinity-mg/L |       | 0007759-01 |                     |                    | <2.00             |                     |      |
| Carbonate Alkalinity-mg/L   |       | 0007760-01 |                     |                    | <0.10             |                     |      |
| Chloride-mg/L               |       | 0007757-01 |                     |                    | <5.00             |                     |      |
| Hydroxide Alkalinity-mg/L   |       | 0007761-01 |                     |                    | <0.10             |                     |      |
| SULFATE, 375.4-mg/L         |       | 0007767-01 |                     |                    | <0.50             |                     |      |
| <b>DUPLICATE</b>            |       |            |                     |                    |                   |                     |      |
|                             | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Bicarbonate Alkalinity-mg/L |       | 0308187-01 | 170                 |                    | 172               |                     | 1.2% |
| Carbonate Alkalinity-mg/L   |       | 0308187-01 | 0                   |                    | <0.10             |                     | 0.0% |
| Hydroxide Alkalinity-mg/L   |       | 0308187-01 | 0                   |                    | <0.10             |                     | 0.0% |
| SULFATE, 375.4-mg/L         |       | 0308187-01 | 180                 |                    | 178               |                     | 1.1% |
| <b>MS</b>                   |       |            |                     |                    |                   |                     |      |
|                             | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Chloride-mg/L               |       | 0308190-01 | 74.4                | 200                | 273               | 99.3%               |      |
| <b>MSD</b>                  |       |            |                     |                    |                   |                     |      |
|                             | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Chloride-mg/L               |       | 0308190-01 | 74.4                | 200                | 269               | 97.3%               | 1.5% |
| <b>SRM</b>                  |       |            |                     |                    |                   |                     |      |
|                             | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Bicarbonate Alkalinity-mg/L |       | 0007759-04 |                     | 0.05               | 0.0496            | 99.2%               |      |
| Carbonate Alkalinity-mg/L   |       | 0007760-04 |                     | 0.05               | 0.0496            | 99.2%               |      |
| Chloride-mg/L               |       | 0007757-04 |                     | 5000               | 4960              | 99.2%               |      |
| Hydroxide Alkalinity-mg/L   |       | 0007761-04 |                     | 0.05               | 0.0496            | 99.2%               |      |
| SULFATE, 375.4-mg/L         |       | 0007767-04 |                     | 50                 | 48.7              | 97.4%               |      |

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

### Cations

Order#: G0308187

| <b>BLANK</b>     |       | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
|------------------|-------|------------|---------------------|--------------------|-------------------|---------------------|------|
|                  | WATER |            |                     |                    |                   |                     |      |
| Calcium-mg/L     |       | 0007752-02 |                     |                    | <0.010            |                     |      |
| Magnesium-mg/L   |       | 0007752-02 |                     |                    | <0.001            |                     |      |
| Potassium-mg/L   |       | 0007752-02 |                     |                    | <0.050            |                     |      |
| Sodium-mg/L      |       | 0007752-02 |                     |                    | <0.010            |                     |      |
| <b>DUPLICATE</b> |       | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
|                  | WATER |            |                     |                    |                   |                     |      |
| Calcium-mg/L     |       | 0308187-01 | 72.3                |                    | 72.6              |                     | 0.4% |
| Magnesium-mg/L   |       | 0308187-01 | 30.7                |                    | 30.6              |                     | 0.3% |
| Potassium-mg/L   |       | 0308187-01 | 9.61                |                    | 9.63              |                     | 0.2% |
| Sodium-mg/L      |       | 0308187-01 | 83.7                |                    | 85.2              |                     | 1.8% |
| <b>SRM</b>       |       | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
|                  | WATER |            |                     |                    |                   |                     |      |
| Calcium-mg/L     |       | 0007752-05 |                     | 2                  | 1.80              | 90.0%               |      |
| Magnesium-mg/L   |       | 0007752-05 |                     | 2                  | 2.15              | 107.5%              |      |
| Potassium-mg/L   |       | 0007752-05 |                     | 2                  | 1.92              | 96.0%               |      |
| Sodium-mg/L      |       | 0007752-05 |                     | 2                  | 2.15              | 107.5%              |      |

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

### Test Parameters

Order#: G0308187

|                                   |       |            |                     |                    |                   |                     |      |
|-----------------------------------|-------|------------|---------------------|--------------------|-------------------|---------------------|------|
| <b>BLANK</b>                      | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Total Dissolved Solids (TDS)-mg/L |       | 0007765-01 |                     |                    | <5.00             |                     |      |
| <b>DUPLICATE</b>                  | WATER | LAB-ID #   | Sample<br>Concentr. | Spike<br>Concentr. | QC Test<br>Result | Pct (%)<br>Recovery | RPD  |
| Total Dissolved Solids (TDS)-mg/L |       | 0308187-03 | 517                 |                    | 544               |                     | 5.1% |

# Analysis Request and Chain of Custody Record

## HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.  
Midland, Texas 79705

(915) 682-4559

Fax (915) 682-3946

| CLIENT NAME:    |          | SITE MANAGER: |        | PRESERVATIVE METHOD   |      | NUMBER OF CONTAINERS | FILTERED (Y/N) | HCL | HNO3 | ICE | NONE |
|-----------------|----------|---------------|--------|-----------------------|------|----------------------|----------------|-----|------|-----|------|
| PROJECT NAME:   |          | PROJECT NO.:  |        | SAMPLE IDENTIFICATION |      |                      |                |     |      |     |      |
| LAB I.D. NUMBER | DATE     | TIME          | MATRIX | COMP.                 | GRAB |                      |                |     |      |     |      |
| -01             | 12/16/03 | 1045          | W      | 1                     | MW-1 | 3                    |                | 1   | 1    | 1   |      |
| -02             | 12/16/03 | 1135          | W      | 1                     | MW-2 | 3                    |                | 1   | 1    | 1   |      |
| -03             | 12/16/03 | 1230          | W      | 1                     | MW-3 | 3                    |                | 1   | 1    | 1   |      |

| RELINQUISHED BY: (Signature)            |  | Date:                                                   | Time:  | RECEIVED BY: (Signature) | Date:    | Time:   |
|-----------------------------------------|--|---------------------------------------------------------|--------|--------------------------|----------|---------|
| <i>[Signature]</i>                      |  | 12/16/03                                                | 4:00pm | <i>[Signature]</i>       | 12-16-03 | 11:00am |
| RELINQUISHED BY: (Signature)            |  | Date:                                                   | Time:  | RECEIVED BY: (Signature) | Date:    | Time:   |
| RELINQUISHED BY: (Signature)            |  | Date:                                                   | Time:  | RECEIVED BY: (Signature) | Date:    | Time:   |
| RECEIVING LABORATORY: <i>Enviro Lab</i> |  | STATE:                                                  | ZIP:   | DATE:                    | TIME:    |         |
| ADDRESS:                                |  |                                                         |        |                          |          |         |
| CONTACT:                                |  |                                                         |        |                          |          |         |
| SAMPLE CONDITION WHEN RECEIVED:         |  | MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other |        |                          |          |         |
| REMARKS: 8.00C 1LHDPE 40mLUA            |  |                                                         |        |                          |          |         |