AP - 060

STAGE 1 REPORT

DATE:

12-28-2006

AP-60

Stage 1 Report
12-28-06

RICE

Operating Company

EWE K-33-1
1OR427-92
Stage 1
Final Investigation Report

RECEIVED
JAN 10 2007
Per

Whole Earth Environmental
2103 Arbor Cove
Katy, TX 77494
281.394.2050
whearth@msn.com

Whole Earth Environmental, Inc.
2103 Arbor Cove
Katy, Tx. 77494
281.394.2050
whearth@msn.com

`December 28, 2006

NMOCD
1220 So. Saint Francis Dr
Sante Fe, NM 87505

RECEIVED
JAN 10 2007
Per EA

Attn: Ed Hansen

Dear Mr. Hansen:

Enclosed, please find a copy of the Stage I Final Investigation Report for the Rice Operating Company's EWE K-33-1 site also carried on your records as 10R427-92 and AP-60.

In accordance with our investigation plan, we advanced delineation wells both up and down-gradient from the seep site and discovered that the chlorides appear to have faded to background levels across the entire site. We are proposing to continue to monitor the location to confirm the results for a total of consecutive quarters before requesting final closure.

If you've any questions or comments, please do not hesitate to call.

Warmest personal regards,

Mike Griffin
President
Whole Earth Environmental, Inc.

1. Executive Summary

The subject site is related to a junction box on the EME salt water disposal system, operated by Rice Operating Company (ROC). The site is located in the NE ¼ of the SW ¼ Section 33, Township 19 South, Range 37 East, south of the town of Monument, New Mexico. The disposal system transports produced water from oil and gas leases to a permitted well for disposal by subsurface injection.

Identification of soil impact occurred during line replacement performed as part of the approved Junction Box Upgrade Program. Soil investigation at the K-33-1 junction box was initiated in September, 2001with a backhoe by excavating a series of trenches around Junction Box K-33-1 to depths of up to 18' below ground surface (bgs) and soil borings to 22' bgs. A second soil investigation was conducted on February 14, 2005 to obtain background concentrations and delineate the areal extent of potential contamination.

A water monitor well was advanced at a location approximately 35' southeast of the K-33-1 junction box on November 3, 2001. Two additional delineation wells were advanced on October 6, 2006, developed and tested in accordance with NMOCD specifications. (Copies of all boring logs are included within the Exhibits section of this report). Water samples were obtained from the wells each quarter and consistently display elevated chloride concentrations and non-detectable concentrations of BTEX. The depth to water at the site is recorded to be 32' bgs. The soil investigation conducted on February 14, 2005 indicated minor lateral movement of chlorides away from the junction boxes; the plumes appear to be nearly vertical in geometry. The lack of any hydrocarbons within the water samples and the consistent chloride values measured both up and down-gradient from the leak source indicate that the constituents of concern have attenuated to background concentrations.

2. Chronology of Events

Initial delineation began in November, 2001 and was performed as part of the Junction Box Upgrade Program. Soil samples were collected and analyzed in the field for chlorides. A monitor well was advanced on January, 2002 to a depth of 42' bgs, and soil samples were collected and submitted for laboratory analysis for BTEX and chlorides. The monitor well has been sampled quarterly since installation and a Monitor Well Report has been submitted annually. On May 5, 2005, the site was designated as falling under Rule 19 and was given a Case Number of 1R0427-93 and AP-60. An investigation Work Plan was submitted to the NMOCD on March 23, 2005. A complete chronology table is included within the Exhibits section of this report.

3. Background

Identification of soil impacts occurred during line replacement being performed as part of the approved Junction Box Upgrade Program. Soil borings, excavations and a monitor well have been installed at the site, and the monitor well has been sampled quarterly since installation.

4. Geology and Hydrogeology

4.1 Regional and Local Geology

The subject site lies in south central Lea County southeast of the city of Monument, New Mexico within the Eunice Plain. The topography is unremarkable sloping gently at an average dip of 10' per mile. An estimated 80% of Southern Lea County is covered by sand. Shin oak, bear grass, and burr grass dominate the areas of sand cover. Elsewhere, the vegetation is gramma grass, burr grass and mesquite. The primary land use in the area is the grazing of cattle however extensive oil and gas exploration and productivities are found in abundance.

4.2 Regional and Local Hydrogeology

The Ogallala Formation is the principal source of groundwater in the subject area. Depth to groundwater in Lea County ranges from approximately 12 to approximately 300 feet bgs. The Ogallala consists of predominately course fluvial conglomerate and sandstone and fine-grained Eolian siltstone and clay. Where present in the subject area, the Ogallala unconformably overlies Triassic redbeds. The regional groundwater gradient is to the east / southeast. Depth to groundwater at the subject site is approximately 32' bgs. Subsurface geology in the subject area consists of seven feet of fine grained sand underlain by calichi to a depth of approximately 22 feet bgs.

5. Subsurface Soils

Three separate sub surface investigations have been conducted at the site. The first was conducted for Rice Operating by ETGI of Hobbs, New Mexico and consisted of a series of nine individual holes or trenches radiating from the original location of the K-33-1 junction box and extending to maximum depths of 14' bgs. The investigation revealed the presence of elevated chloride levels within the soil throughout the tested vertical horizon. Extensive excavation and disposal of the soils surrounding the junction box was undertaken concurrent with this initial investigation activity.

The second site investigation was conducted by Whole Earth Environmental on February 14, 2005 and consisted of a series of thirteen vertical excavations to depths of 20' bgs. Soil samples were analyzed in the field by Rice Operating Company environmental testing specialists. This testing revealed that the contamination was limited to the areas immediately surrounding the old junction box. A final series of analyses were obtained for the soils within the vadose zone above MW-2 to demonstrate that the soils above the background well were unaffected by surface contamination.

6. Groundwater Quality

The groundwater quality at the site was investigated through the installation of three monitor wells.

6.1 Monitoring Program

Monitor Well No. 1 (MW-1) was installed on November 3, 2001. The well is situated approximately 35 feet southeast (down-gradient) of the junction box. Two additional monitor wells were constructed on October 6, 2006. The first (MW-2) was located approximately 200 feet northwest of MW-1. MW-3 was advanced at an approximate distance of 170 feet southeast of MW-1. All wells were developed in accordance with NMOCD specifications and tested for the presence and concentrations of BTEX testing using USEPA Method 8021B and inorganic compounds (total alkalinity, total dissolved solids, sulfate, calcium magnesium, sodium and potassium) using USEPA Methods 310, 300, 160.1 and 6010B.

6.2 Hydrocarbons in Groundwater

No free phase hydrocarbons have been detected in groundwater. In twenty consecutive sampling events, no BTEX constituents have been detected in any of the wells.

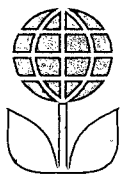
6.3 Other Constituents of Concern

Concentrations of inorganic compounds including chlorides, TDS, sulfate and sodium are elevated in all groundwater samples collected from the monitoring wells.

7. Recommendations and Conclusions

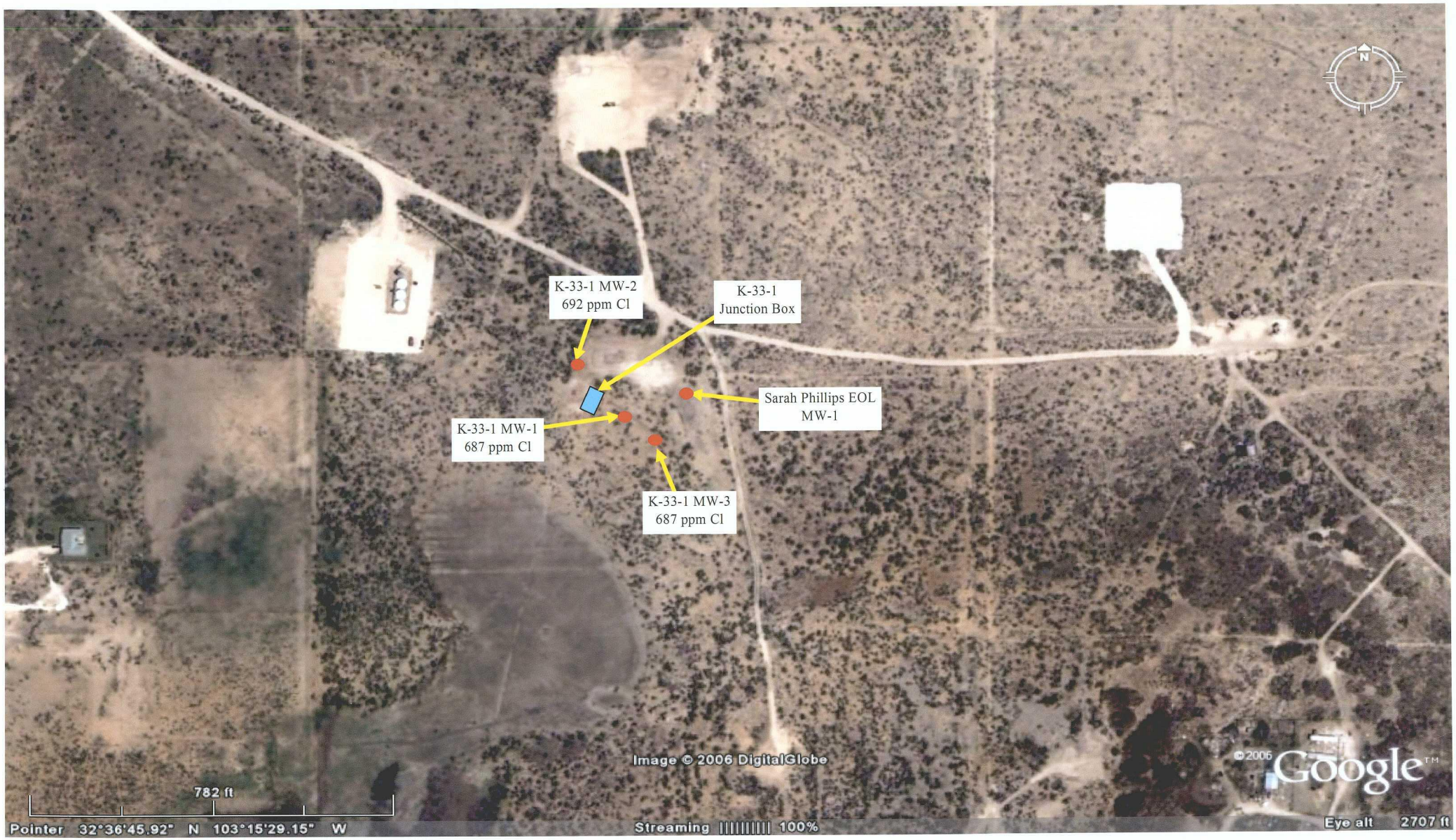
The October 24, 2006 laboratory analytical results for the three monitoring wells clearly demonstrate that the affected area adjacent to the leak source has naturally attenuated to background concentrations for all COC's. No additional remediation of the area is indicated. We request that we be able to continue to demonstrate that the site poses no environment threat by sampling each monitor well for an additional three quarters until we achieve four consecutive quarters of similar results. The results of the Stage I Abatement Plan indicate that no additional remediation is required, therefore a Stage 2 Abatement plan is not necessary. If quarterly sampling results are consistent with this

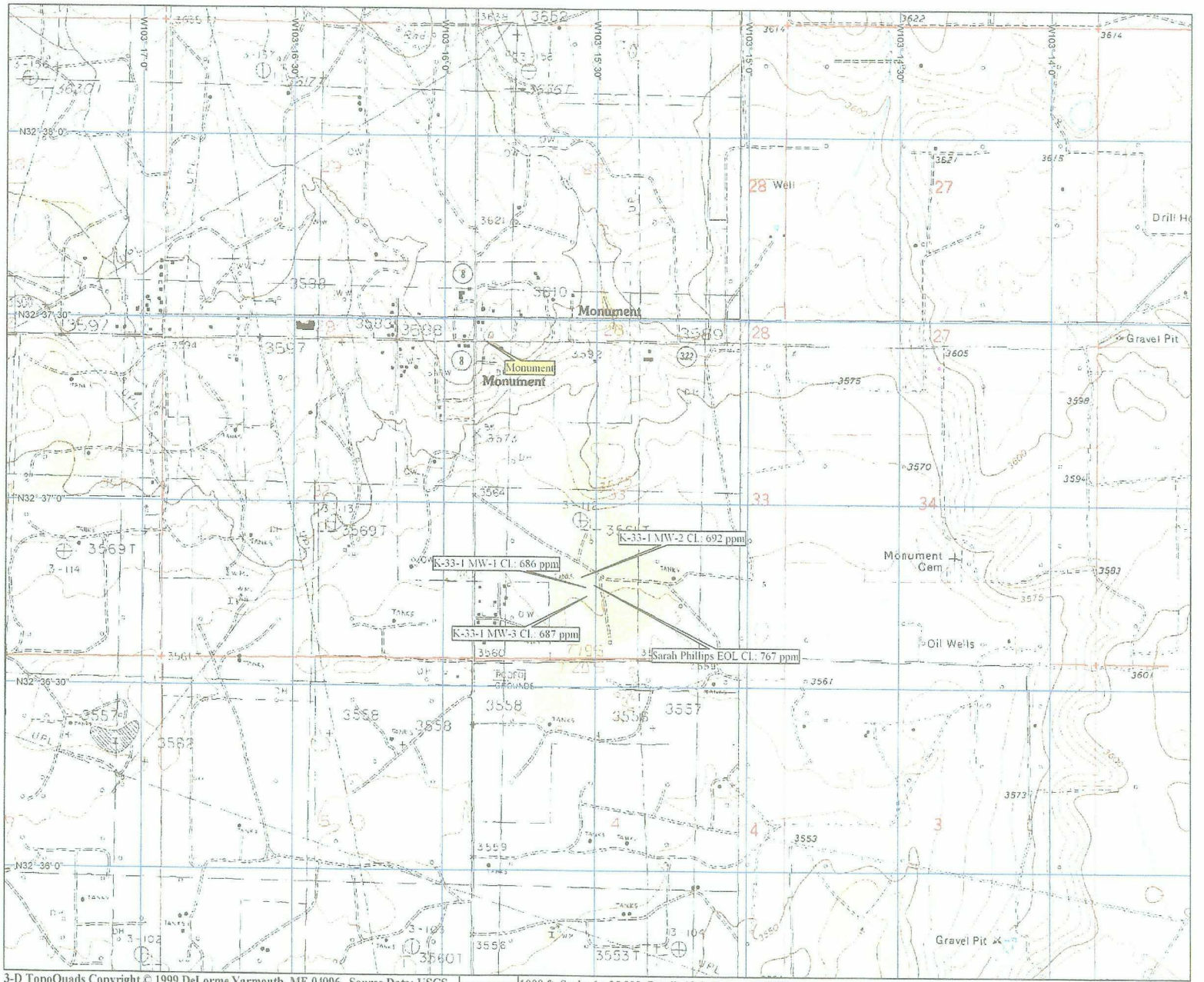
conclusion, a final report will be submitted with a request for final closure in the third quarter of 2007.



Exhibits Index

1. Satellite Photo of Location
2. USGS 7.5' Map
3. Chronology of major Events
4. Geocoordinate Survey of Well Locations
5. Boring Logs of All Monitoring Wells
6. Bailing Logs of All Monitoring Wells (Example)


K-33-1 MW-2
692 ppm Cl
K-33-1
Junction Box
Sarah Phillips EOL
MW-1
K-33-1 MW-1
687 ppm Cl
K-33-1 MW-3
687 ppm Cl
Image © 2006 DigitalGlobe
© 2006 Google
782 ft
Pointer 32°36'45.92" N 103°15'29.15" W
Streaming 100%
Eye alt 2707 ft

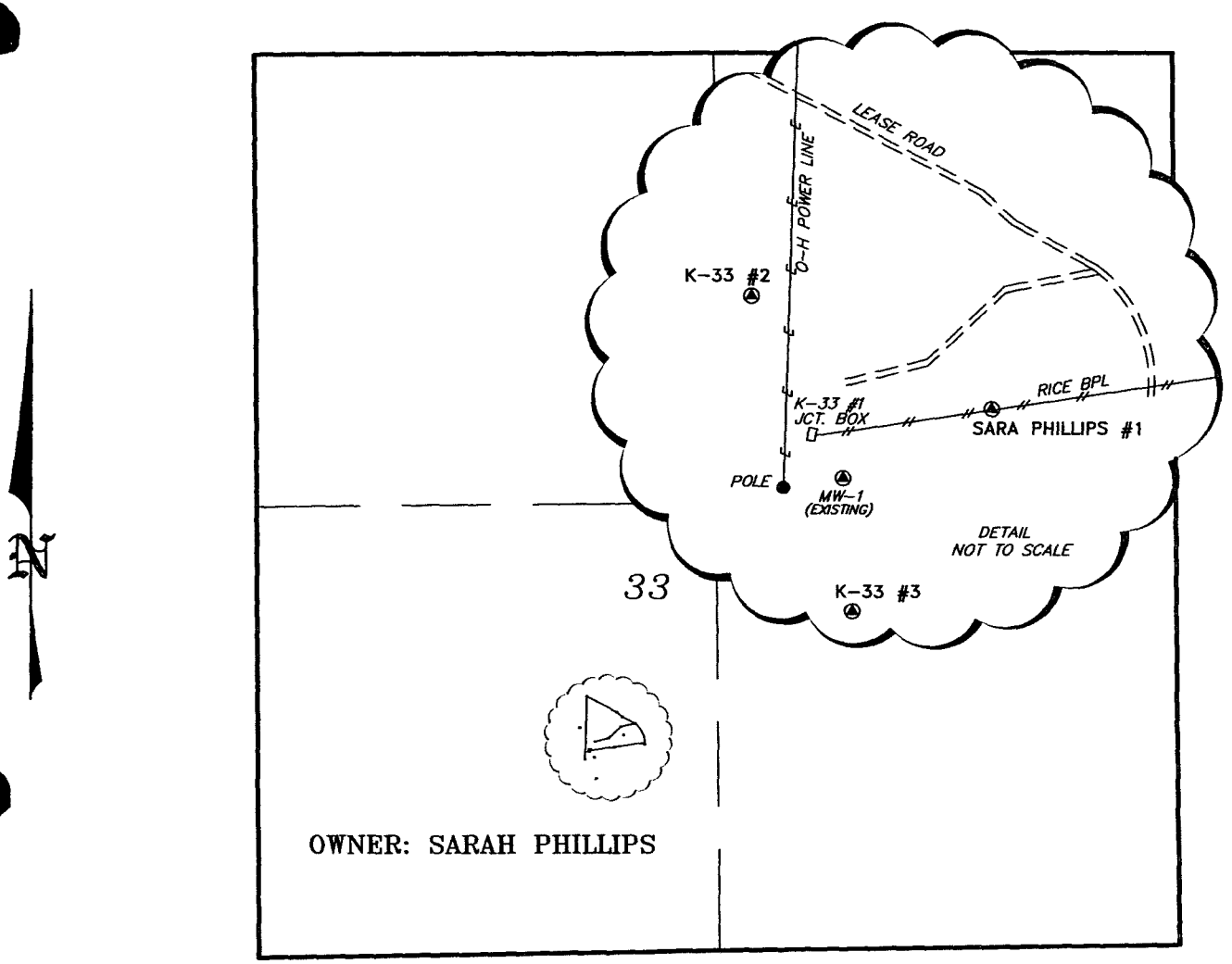


1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

Chronology of Major Events

1. **September 20, 2001** – Discovery of contamination at the junction box site. Notification to the NMOCD via standard Junction Box Disclosure Form.
2. **September 28, 2001** - Excavated approximately fifty cubic yards of chloride contaminated soils and transported to commercial disposal.
3. **November 20, 2001** – ROC submitted Junction Box Upgrade Work Plan to NMOCD.
4. **December 11, 2001** – NMOCD approves above Work Plan
5. **January, 2002** – Installation of MW-1.
6. **November 5, 2003** – Initial soil characterization by ETGI to determine lateral spread of contamination.
7. **January 19, 2005** – ROC submits 2004 Monitor Well Report/Sampling Summary to NMOCD
8. **March 23, 2005** – Whole Earth Environmental submits Investigation & Characterization Plan to NMOCD
9. **November 20, 2005** – Letter from ROC to NMOCD outlining additional delineation steps to be employed on the project.
10. **January 19, 2006** – Submitted evidence of public notification and Stage 1 Investigation Plan to NMOCD. Approved the same day and given designation as AP-**60**
11. **October 5, 2006** – Installation of Monitor Wells 2 and 3.
12. **December, 2006** – Submitted final Stage 1 Investigation Plan to NMOCD.

SECTION 33, TOWNSHIP 19 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



NEW MEXICO STATE PLANE COORDINATES (NAD83)
TOP CASING

NOTE:
ELEVATIONS ARE ON BLACK MARK
ON NORTH SIDE OF PVC CASING.

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	TOP CASING	GROUND
SARA PHILLIPS #1	588405.631	872331.319	N 32°36'46.7"	W 103°15'30.2"	3563.07'	3560.80'
K-33 #1	588339.470	872191.720	N 32°36'46.1"	W 103°15'31.8"	3563.86'	3560.50'
K-33 #2	588512.766	872105.535	N 32°36'47.8"	W 103°15'32.8"	3562.84'	3560.15'
K-33 #3	588213.537	872201.136	N 32°36'44.8"	W 103°15'31.7"	3562.87'	3560.75'

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES, N.M. P.S. No. 7977
TEXAS R.P.L.S. No. 5074

80 0 80 160 FEET

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

RICE OPERATING COMPANY

REF: MONITOR WELLS

MONITOR WELLS LOCATED IN
SECTION 33, TOWNSHIP 19 SOUTH, RANGE 37 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 17231	Drawn By: K. GOAD		
Date: 10-18-2006	Disk: KJG – RC17231.DWG	Survey Date: VARIES	Sheet 1 of 1 Sheets

Atkins Engineering Associates, Inc.
2904 W. 2nd St., Roswell, NM 88202-3156

LOG OF BORING Rice EME, K33-1 TH

Rice Operating Co.
122 W. Taylor
Hobbs, New Mexico 88240

Contact: Donnie Anderson

Job#: RICENGI.AIR.01

Date	: 10-03-01	Site Location	: South Monument
Drill Start	: 1530	Auger Type	: Hollow Stem
Drill End	: 1630	Logged By	: Mort Bates
Boring Location	: S. Monument 1mi & E ½ mi		

Depth in Feet	GRAPHIC	USCS	Samples ppm CV	DESCRIPTION	Lab	
0		SP	400	Sand, tan, loose, damp		
5						
10			650	Caliche, white, firm, dry		
				Caliche w/ sand, tan, loose, damp		Bentonite
15			800			
		SP	750	Sand, tan, loose, damp		
20		SP	700	Sand w/ sandstone, tan, loose, damp		
			1600			
25				Total depth 22'		

10-05-2001 C:\MITECH48\RICENGI\AIR\01\k33-1.bor

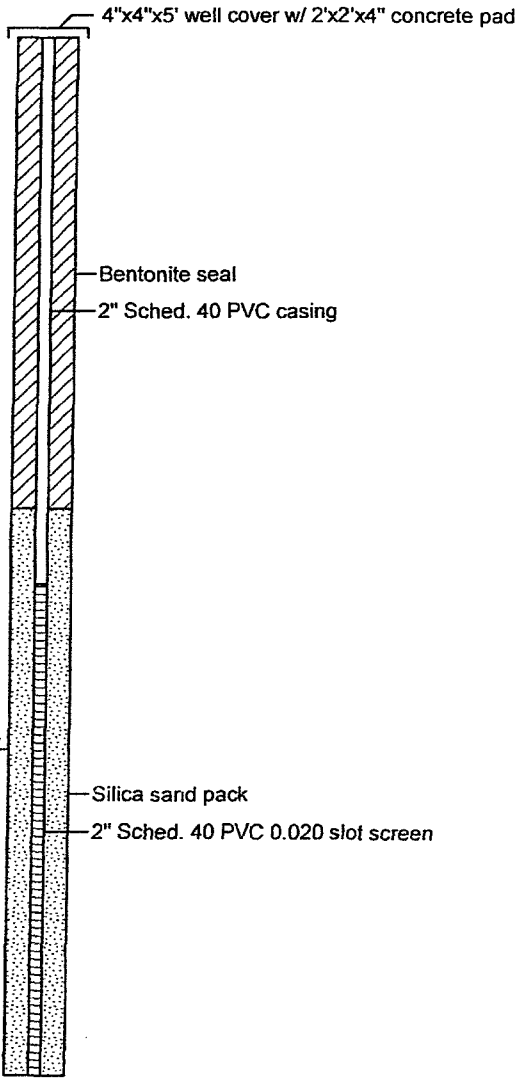
ATKINS ENGINEERING ASSOCIATES, INC.
Professional Engineering Land Surveying
Water Resources Environmental Science

Log of Boring K-33 SE Monitor Well

Rice Operating Co.
122 West Taylor
Hobbs, NM 88240
Contact: Mike Griffin
Job#: RICEWEL.DRL.06

Date	: 10-06-06	Auger Type	: 4¼ Hollow Stem
Drill Start	: 1145	Logged By	: Mort Bates
Drill End	: 0230		
Boring Location	: SE of K-33-1		
Site Location	: EME K-33-1, Monument, NM		

Depth in Feet	GRAPHIC	USCS	DESCRIPTION
0		CL	Silty clay, loose, brown, dry
5		CL	Sandy clay w/ caliche, loose, tan, dry
10		CL	Sandy clay, loose, tan, dry
15			
20			
25		CL	Sandy clay w/ caliche, loose, tan, dry
30		SM	Silty sand, soft, light tan, wet
35			
40		CL	Clay, stiff, reddish tan, wet.
45			Total depth 42' Water level 28.70'
50			



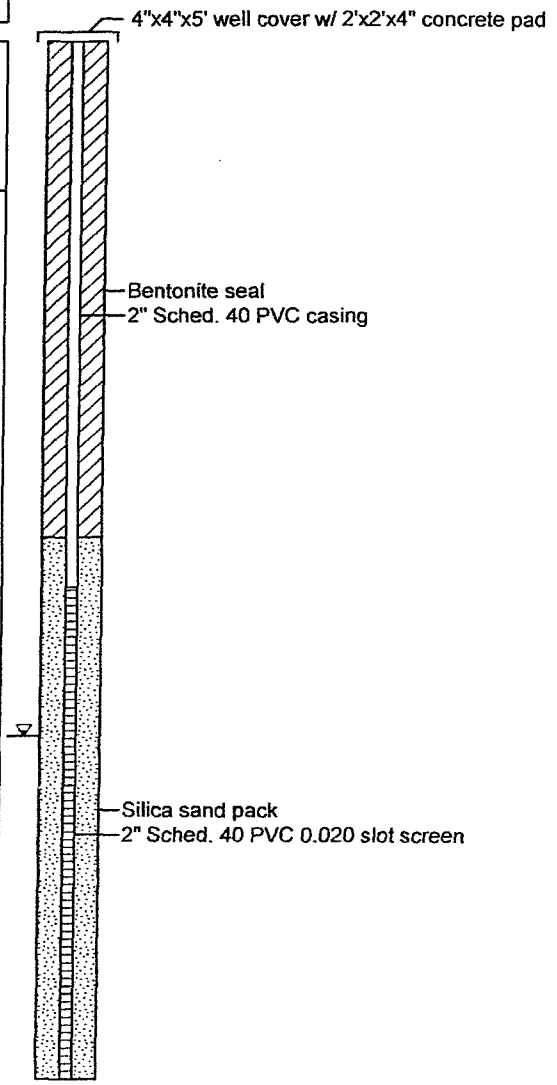
ATKINS ENGINEERING ASSOCIATES, INC.
Professional Engineering Land Surveying
Water Resources Environmental Science

Log of Boring K-33-1 NW Monitor Well

Rice Operating Co.
122 West Taylor
Hobbs, NM 88240
Contact: Mike Griffin
Job#: RICEWEL.DRL.06

Date	: 10-05-06	Auger Type	: 4¼ Hollow Stem
Drill Start	: 1400	Logged By	: Mort Bates
Drill End	: 1700		
Boring Location	: NW of Sarah Phillips EOL		
Site Location	: EME K-33-1, Monument, NM		

Depth in Feet	GRAPHIC	USCS	DESCRIPTION
0		CL	Silty clay, loose, brown, dry
5			
10		CL	Sandy clay w/ caliche, firm, light tan, dry
15			
20			
25		SM	Silty sand, loose, tan, damp
30		SM	Silty sand, soft, light tan, wet
35			
40		CL	Clay, stiff, reddish tan, wet.
45			Total depth 42' Water level 28.0'
50			



WELL DEVELOPMENT LOG

Company RICE Operating Company

Well ID EME K-33-1 MW#3 Date Well Drilled

Date Started 10/10/2006

Date Completed 10/10/2006

Field Personnel Rozanne Johnson

Development Method: Over pumping with alternate pumping rates to minimize the creation of sediment bridging.

WELL INFORMATION

Description of Measuring Point (MP): The casing lip, indicated by a black mark.

Depth of Well Below MP, ft:	45.68
Depth to Water Below MP, ft:	30.66
Water Column in Well, ft:	15.02
Gallons in Well Column	2.40

FIELD PARAMETERS

Time	Casing Volume	Conductivity/ms	Temperature/C	pH	TDS/ppm	ORP/MV	Drawdown/ft
13:30	Start Pumping						0.00
13:32	2 Gallons	Silt and Sand					1.83
13:34	4 Gallons	Silt and Sand					1.92
13:36	6 Gallons	3.30	19.6	7.39	2495	40	2.00
INCREASED RATE							
13:38	9 Gallons	3.31	19.1	7.36	2510	41	3.01
13:40	12 Gallons	3.33	19.0	7.34	2521	43	3.11
13:42	15 Gallons	3.32	18.8	7.29	2522	48	3.12
13:44	18 Gallons	3.33	18.8	7.28	2522	47	3.15
13:46	21 Gallons	3.33	18.8	7.28	2525	49	3.16
DECREASE RATE							
13:48	23 Gallons	3.33	18.8	7.26	2528	48	2.85
13:50	25 Gallons	3.33	18.8	7.26	2527	49	2.46
13:52	27 Gallons	3.33	18.7	7.26	2528	51	2.08
13:54	29 Gallons	3.33	18.7	7.25	2528	51	1.89
13:56	31 Gallons	3.33	18.7	7.25	2528.00	50	1.88
LET WELL RECOVER							
13:56							1.88
13:57							1.11
13:58							0.84
14:00							0.08

Comments: The well responded to the increased and decreased pumping rates with the pump set approximately 1 ft from bottom. 31 gallons of water was displaced from the well bore which would be approximately 12 well column volumes. The well pumped a clear, odorless stream of water with the exception of when the pump was started or the rate was increased, the water then turned turbid with sand, but cleared. The well will be sampled at a latter date for Major cations, anions, TDS and BTEX.

Arc Environmental, LLC ~ P. O. Box 1772 ~ Lovington, New Mexico 88260 (505) 631-9310 rozanne@valornet.com

WELL DEVELOPMENT LOG

Company RICE Operating Company

Well ID EME K-33-1 MW#2 Date Well Drilled

Date Started 10/10/2006

Date Completed 10/10/2006

Field Personnel Rozanne Johnson

Development Method: Over pumping with alternate pumping rates to minimize the creation of sediment bridging.

WELL INFORMATION

Description of Measuring Point (MP): The casing lip, indicated by a black mark.

Depth of Well Below MP, ft:	44.18
Depth to Water Below MP, ft:	30.48
Water Column in Well, ft:	13.70
Gallons in Well Column	2.19

FIELD PARAMETERS

Time	Casing Volume	Conductivity/ms	Temperature/C	pH	TDS/ppm	ORP/MV	Drawdown/ft
16:12	Start Pumping						0.00
16:14	2 Gallons	Silt and Sand					1.62
16:16	4 Gallons	Silt and Sand					1.78
16:18	6 Gallons	3.18	19.4	7.20	2380	-41	1.79
INCREASED RATE							
16:20	9 Gallons	3.18	19.4	7.12	2387	53	2.59
16:22	12 Gallons	3.18	19.4	7.12	2389	56	2.70
16:24	15 Gallons	3.18	19.3	7.11	2390	62	2.75
16:26	18 Gallons	3.18	19.3	7.10	2394	78	2.76
16:28	21 Gallons	3.18	19.2	7.10	2395	75	2.76
DECREASE RATE							
16:30	23 Gallons	3.18	19.2	7.10	2394	56	2.05
16:32	25 Gallons	3.18	19.2	7.09	2393	54	1.89
16:34	27 Gallons	3.18	19.2	7.10	2394	50	1.80
16:36	29 Gallons	3.18	19.2	7.10	2394	47	1.78
LET WELL RECOVER							
16:36							1.78
16:37							1.03
16:38							0.69
16:40							0.09

Comments: The well responded to the increased and decreased pumping rates with the pump set approximately 1 ft from bottom.

31 gallons of water was displaced from the well bore which would be approximately 13 well column volumes.

The well pumped a clear, odorless stream of water with the exception of when the pump was started or the rate was increased, the water then turned turbid with sand, but cleared.

The well will be sampled at a latter date for Major cations, anions, TDS and BTEX.

Arc Environmental, LLC ~ P. O. Box 1772 ~ Lovington, New Mexico 88260 (505) 631-9310 rozanne@valornet.com

WELL DEVELOPMENT LOG

Company RICE Operating Company

Well ID EME Sarah Phillips MW#1 Date Well Drilled

Date Started 10/10/2006

Date Completed 10/10/2006

Field Personnel Rozanne Johnson

Development Method: Over pumping with alternate pumping rates to minimize the creation of sediment bridging.

WELL INFORMATION

Description of Measuring Point (MP): The casing lip, indicated by a black mark.

Depth of Well Below MP, ft:	45.42
Depth to Water Below MP, ft:	30.77
Water Column in Well, ft:	14.65
Gallons in Well Column	2.34

FIELD PARAMETERS

Time	Casing Volume	Conductivity/ms	Temperature/C	pH	TDS/ppm	ORP/MV	Drawdown/ft
15:08	Start Pumping						0.00
15:10	2 Gallons	Silt and Sand with Strong Odor					0.98
15:12	4 Gallons	Silt and Sand with Strong Odor					1.23
15:14	6 Gallons	3.18	19.4	7.20	2380	-41	1.56
INCREASED RATE							
15:16	9 Gallons	3.18	19.4	7.12	2387	53	2.08
15:18	12 Gallons	3.18	19.4	7.12	2389	56	2.16
15:20	15 Gallons	3.18	19.3	7.11	2390	62	2.29
15:22	18 Gallons	3.18	19.3	7.10	2394	78	2.38
15:24	21 Gallons	3.18	19.2	7.10	2395	75	2.46
DECREASE RATE							
15:26	23 Gallons	3.18	19.2	7.10	2394	56	1.87
15:28	25 Gallons	3.18	19.2	7.09	2393	54	1.62
15:30	27 Gallons	3.18	19.2	7.10	2394	50	1.60
15:32	29 Gallons	3.18	19.2	7.10	2394	47	1.59
15:34	31 Gallons	3.18	19.2	7.10	2394	48	1.60
15:36	33 Gallons	3.18	19.2	7.10	2395	47	1.62
LET WELL RECOVER							
15:36							1.62
15:37							0.87
15:38							0.38
15:40							0.10

Comments: The well responded to the increased and decreased pumping rates with the pump set approximately 1 ft from bottom. 33 gallons of water was displaced from the well bore which would be approximately 14 well column volumes. The well pumped a clear, odorless stream of water with the exception of when the pump was started or the rate was increased, the water then turned turbid with sand, but cleared. Well discharge had a strong odor. The well will be sampled at a latter date for Major cations, anions, TDS and BTEX.

Arc Environmental, LLC ~ P. O. Box 1772 ~ Lovington, New Mexico 88260 (505) 631-9310 rozanne@valornet.com

Procedures

This section contains copies of the individual field testing and sample collection procedures employed on this project.

QP-77

WHOLE EARTH ENVIRONMENTAL
QUALITY PROCEDURE

Procedure for Obtaining Soil Samples for Transportation to a Laboratory

Completed By: Approved By: Effective Date: / /

1.0 Purpose

This procedure outlines the methods to be employed when obtaining soil samples to be taken to a laboratory for analysis.

2.0 Scope

This procedure is to be used when collecting soil samples intended for ultimate transfer to a testing laboratory.

3.0 Preliminary

3.1 Obtain sterile sampling containers from the testing laboratory designated to conduct analyses of the soil. The shipment should include a Certificate of Compliance from the manufacturer of the collection bottle or vial and a Serial Number for the lot of containers. Retain this Certificate for future documentation purposes.

3.2 If collecting TPH, BTEX, RCRA 8 metals, cation / anions or O&G, the sample jar may be a clear 4 oz. container with Teflon lid. If collecting PAH's, use an amber 4 oz. container with Teflon lid.

4.0 Chain of Custody

4.1 Prepare a Sample Plan. The plan will list the number, location and designation of each planned sample and the individual tests to be performed on the sample. The sampler will check the list against the available inventory of appropriate sample collection bottles to insure against shortage.

4.2 Transfer the data to the Laboratory Chain of Custody Form. Complete all sections of the form except those that relate to the time of delivery of the samples to the laboratory.

4.3 Pre-label the sample collection jars. Include all requested information except time of collection. (Use a fine point Sharpie to insure that the ink remains on the label). Affix the labels to the jars.

5.0 Sampling Procedure

5.1 Go to the sampling point with the sample container. If not analyzing for ions or metals, use a trowel to obtain the soil. Do not touch the soil with your bare hands. Use new latex gloves with each sample to help minimize any cross-contamination. Try to avoid collecting rocks or vegetation.

5.2 Pack the soil tightly into the container leaving the top slightly domed. Screw the lid down tightly. Enter the time of collection onto the sample collection jar label.

5.3 Place the sample directly on ice for transport to the laboratory.

5.4 Complete the Chain of Custody form to include the collection times for each sample. Deliver all samples to the laboratory.

6.0 Documentation

6.1 The testing laboratory shall provide the following minimum information:

A. Client, Project and sample name.
B. Signed copy of the original Chain of Custody Form including data on the time the sample was received by the lab.
C. Results of the requested analyses
D. Test Methods employed
E. Quality Control methods and results

QP-78

WHOLE EARTH ENVIRONMENTAL
QUALITY PROCEDURE

Procedure for Obtaining Water Samples (Cased Wells) Using Enviro-Tech ES-60 Pump

Completed By: Approved By: Effective Date: / /

1.0 Purpose

This procedure outlines the methods to be employed in obtaining water samples from cased monitoring wells.

2.0 Scope

This procedure shall be used for developed, cased water monitoring wells. It is not to be used for standing water samples such as ponds or streams.

3.0 Preliminary

3.1 Obtain sterile sampling containers from the testing laboratory designated to conduct analyses of the water. The shipment should include a Certificate of Compliance from the manufacturer of the collection bottle or vial and a Serial Number for the lot of containers. Retain this Certificate for future documentation purposes.

3.2 The following table shall be used to select the appropriate sampling container, preservative method and holding times for the various elements and compounds to be analyzed.

Compound to be Analyzed	Sample Container Size	Sample Container Description	Cap Requirements	Preservative	Maximum Hold Time
BTEX	40 ml.	VOA Container	Teflon Lined	HCl	7 days
TPH	1 liter	clear glass	Teflon Lined	HCl	28 days
PAH	1 liter	clear glass	Teflon Lined	Ice	7 days
Cation / Anion	1 liter	clear glass	Teflon Lined	None	48 Hrs.
Metals	1 liter	HD polyethylene	Any Plastic	Ice / HNO_3	28 Days
TDS	300 ml.	clear glass	Any Plastic	Ice	7 Days

4.0 Chain of Custody

4.1 Prepare a Sample Plan. The plan will list the well identification and the individual tests to be performed at that location. The sampler will check the list against the available inventory of appropriate sample collection bottles to insure against shortage.

4.2 Transfer the data to the Laboratory Chain of Custody Form. Complete all sections of the form except those that relate to the time of delivery of the samples to the laboratory.

4.3 Pre-label the sample collection jars. Include all requested information except time of collection. (Use a fine point Sharpie to insure that the ink remains on the label). Affix the labels to the jars.

5.0 Bailing Procedure

5.1 Identify the well from the site schematics. Place pre-labeled jar(s) next to the well. Remove the bolts from the well cover and place the cover with the bolts nearby. Remove the plastic cap from the well bore by first lifting the metal lever and then unscrewing the entire assembly.

5.2 Lower the ES-60 pump into the monitor well bore taking care to insure that the pump and first 10' of hose and cable does not touch the ground or become cross-contaminated by contact with anything containing hydrocarbon residues. When the pump reaches the bottom of the well bore you will feel the hose and cable assembly go slack. Lift the pump a minimum distance of 18" above the bottom of the well bore and clamp the hose assembly to the top of the well bore by means of vice grips. (Take care to insure that the vice grips are adjusted so as not to "choke" the hose.

5.3 Attach the electrical cable leads to an automobile battery and begin pumping the well bore. If the pump does not bring fluid to the surface within one minute, disconnect the electrical leads, and re-connect for four seconds three times to remove air cavitation.

5.4 The pump has a minimum volume of 2.8 gallons per minute at 60'. Purge the well by pumping for a minimum of 10 minutes before taking a sample.

6.0 Sampling Procedure

6.1 Once the well has been bailed in accordance with 5.2 of this procedure, a sample may be decanted into the appropriate sample collection jar directly from the bailer. The collection jar should be filled to the brim. Once the jar is sealed, turn the jar over to detect any bubbles that may be present. Add additional water to remove all bubbles from the sample container.

6.2 Note the time of collection on the sample collection jar with a fine Sharpie.
6.3 Place the sample directly on ice for transport to the laboratory. The preceding table shows the maximum hold times between collection and testing for the various analyses.
6.4 Complete the Chain of Custody form to include the collection times for each sample. Deliver all samples to the laboratory.

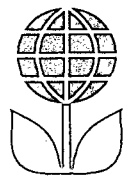
7.0 Decontamination

7.1 After removing the pump from the well, use an aerosol spray pump bottle filled with denatured isopropyl alcohol to clean the pump and first 10' of the cable and hose assembly. Rinse the sprayed portion with distilled water to remove the alcohol and dry with a clean rag. Discard the rag after each use. During transport, the pump assembly should be carried in a 2" PVC protective sleeve.

8.0 Documentation

8.1 The testing laboratory shall provide the following minimum information:

A. Client, Project and sample name.
B. Signed copy of the original Chain of Custody Form including data on the time the sample was received by the lab.
C. Results of the requested analyses
D. Test Methods employed
E. Quality Control methods and results



Laboratory Analytical Results

This section contains a copy the chain of custody, laboratory analytical results and quality control information for soil and water samples processed during this project.

Rice Operating Company
EME Junction K-33-1
NMOCD Case 1RO 427-92 AP-60
Unit 'K', Sec. 33, T19S, R37E

MW #	Depth to Water (Ft.)	Total Depth (Ft.)	Well Volume (Gal.)	Volume (gal.)	Sample Date	Chlorides	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylene	Sulfate
1	36.90	41.00	0.70	2.00	01/10/02	872	2,635	<0.002	<0.002	<0.002	<0.006	344
1	36.88	40.78	0.62	2.90	05/13/02	860	2,680	<1.00	<1.00	<1.00	<2.00	346
1	37.20	40.79	0.57	1.75	08/12/02	913	2,510	<0.001	<0.001	<0.001	<0.002	292
1	37.11	40.77	0.59	1.75	10/31/02	842	2,530	<0.001	<0.001	<0.001	<0.002	310
1	37.10	40.77	0.58	1.70	02/27/03	877	2,070	<0.001	<0.001	<0.001	0.001	305
1	31.10	41.20	1.62	4.80	05/22/03	904	2,350	<0.001	<0.001	<0.001	<0.002	264
1	37.29	40.04	0.44	1.32	08/21/03	975	2,550	<0.001	<0.001	<0.001	<0.002	274
1	37.40	40.78	0.54	1.60	11/19/03	869	2,470	<0.001	<0.001	<0.001	<0.002	282
1	37.40	40.75	0.54	1.60	02/18/04	844	2,192	<0.002	<0.002	<0.002	<0.006	43
1	37.30	40.75	0.55	2.00	05/26/04	840	2,008	<0.002	<0.002	<0.002	<0.006	113
1	37.12	41.00		2.00	09/02/04	904	2,510	<0.001	<0.001	<0.001	<0.001	304
1	32.91	41.00		4.05	12/21/04	550	2,640	<0.001	<0.001	<0.001	<0.001	216
1					02/11/05	582						
1					05/01/05	1,030						
1					08/30/05	1,180	2,790	<0.001	<0.001	<0.001	<0.001	
1	32.15	41.00	1.40	5.00	10/19/05	961	2,670	<0.001	<0.001	<0.001	<0.001	276
1	31.10	41.00	1.60	6.00	01/18/06	1,000	2,480	<0.001	<0.001	<0.001	<0.001	264
1	31.10	41.00	1.60	6.00	04/18/06	805	2,290	<0.001	<0.001	<0.001	<0.001	207
1	31.73	41.00	1.50	8.00	07/17/06	988	2,085	<0.001	<0.001	<0.001	<0.001	298
1					10/24/06	686	1,910	<0.001	<0.001	<0.001	<0.001	283
1					12/19/06			<0.001	<0.001	<0.001	<0.001	
2					10/24/06	692	1,900	<0.001	<0.001	<0.001	<0.001	237
3					10/24/06	687	2,100	<0.001	<0.001	<0.001	<0.001	306

All concentrations are in mg/L

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: DONNIE ANDERSON
122 W. TAYLOR
HOBBS, NM 88240
FAX TO:

Receiving Date: 01/11/02
Reporting Date: 01/16/02
Project Owner: RICE OPERATING CO.
Project Name: K-33-1
Project Location: NOT GIVEN

Sampling Date: 01/10/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		01/16/02	01/15/02	01/15/02	01/15/02	01/15/02	01/15/02
H6430-1	R011002K331MW	210	372	126	24.4	4003	349
Quality Control		NR	55.0	48.6	5.27	1489	NR
True Value QC		NR	50.0	50.0	5.00	1413	NR
% Recovery		NR	110	97.2	105	105	NR
Relative Percent Difference		NR	0	6.0	0	0.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		01/15/02	01/15/02	01/15/02	01/15/02	01/15/02	01/15/02
H6430-1	R011002K331MW	872	344	0	426	7.17	2635
Quality Control		1040	52.66	NR	984	7.00	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		104	105	NR	98.4	100	NR
Relative Percent Difference		1.0	0.6	NR	2.7	0.1	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

1-16-02
Date

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: DONNIE ANDERSON
122 W. TAYLOR
HOBBS, NM 88240
FAX TO:

Receiving Date: 01/11/02
Reporting Date: 01/12/02
Project Owner: RICE OPERATING CO.
Project Name: K-33-1
Project Location: NOT GIVEN

Sampling Date: 01/10/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE	01/11/02	01/11/02	01/11/02	01/11/02
H6430-1 R011002K331MW	<0.002	<0.002	<0.002	<0.006
Quality Control	0.100	0.104	0.108	0.314
True Value QC	0.100	0.100	0.100	0.300
% Recovery	99.9	104	108	105
Relative Percent Difference	1.6	2.8	2.2	1.9

METHOD: EPA SW-846 8260

Chemist

1/12/02
Date

Cardinal Laboratories Inc.

2111 Beechwood, Abilene, TX 79603
915-673-7001 Fax 915-673-7020

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

Company Name	Rice Operating Company
Project Manager	Donnie Anderson
Address	122 West Taylor
City, State, Zip	Hobbs, NM, 88240
Phone#/Fax#	505-393-9174
Project #/Owner	Rice Operating Company
Project Name	
Project Location	K-33-1
Sampler Name	Bradley Blevins

Bill To

Environmental Plus Inc
P.O. Box 1558
Eunice NM, 88231

Analysis Request

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX	TDS	Anions & Cations
H04301	Roll002 K331 MW	G	1	X							X		1-10	11:40		X	X
	Roll002 K331 MW	G	2	X							X		1-10	11:45	X		

Sampler Relinquished: Bradley Blevins
Date: 1-11-02
Time: 2:25

Relinquished By:
Date:
Time: 4:10

Received By:

Received By: (lab staff) Amy Hill

Delivered by Sampler

Sample Cool & Intact
Yes No

Checked By:

Fax Results To Pat McCasland 505-394-2601 & Donnie Anderson 505-397-1471

REMARKS:

Atkins Engineering Associates, Inc. 2904 W. 2nd St., Roswell, NM 88202-3156	LOG OF BORING Rice EME, K33-1 TH (Page 1 of 1)

Rice Operating Co. 122 W. Taylor Hobbs, New Mexico 88240	Date	: 10-03-01	Site Location : South Monument
	Drill Start	: 1530	Auger Type : Hollow Stem
	Drill End	: 1630	Logged By : Mort Bates
Contact: Donnie Anderson	Boring Location	: S. Monument 1mi & E ½ mi	
Job#: RICENGI.AIR.01			

Depth in Feet	GRAPHIC	USCS	Samples ppm CV	DESCRIPTION	Lab
0		SP	600	Sand, tan, loose, damp	
5					
10			850	Caliche, white, firm, dry	
15			800	Caliche w/ sand, tan, loose, damp	
20		SP	750	Sand, tan, loose, damp	
		SP	700 1000	Sand w/ sandstone, tan, loose, damp	
25				Total depth 22'	

Bentonite

10-05-2001 C:\MTECH\GI\RICENGI\AIR01\K33-1.bor

ANALYTICAL REPORT

Prepared for:

DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242

Project: K-33-1

Order#: G0203354

Report Date: 05/17/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242
505-397-1471

Order#: G0203354
Project:
Project Name: K-33-1
Location: EME SWD

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.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0203354-01	MW 1	WATER	5/13/02 10:10	5/15/02 10:00	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** See COC

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242

Order#: G0203354
Project:
Project Name: K-33-1
Location: EME SWD

Lab ID: 0203354-01
Sample ID: MW 1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0001724-02		5/15/02 17:14	1	1	CK	8021B

Parameter	Result µg/L	RL
Benzene	**<1.00**	1.00
Ethylbenzene	**<1.00**	1.00
Toluene	**<1.00**	1.00
p/m-Xylene	**<1.00**	1.00
o-Xylene	**<1.00**	1.00

Approval: Celey D. Keene 5/18/02
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.

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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242

Order#: G0203354
Project:
Project Name: K-33-1
Location: EME SWD

Lab ID: 0203354-01
Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	292	mg/L	1	2.0	310.1	5/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.1	310.1	5/15/02	SB
Chloride	860	mg/L	1	5.00	9253	5/16/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.1	310.1	5/15/02	SB
SULFATE, 375.4	346	mg/L	12.5	6.25	375.4	5/17/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	266	mg/L	50	0.500	6010B	5/16/02	SM
Magnesium	106	mg/L	50	0.050	6010B	5/16/02	SM
Potassium	15.4	mg/L	10	0.500	6010B	5/16/02	SM
Sodium	303	mg/L	50	0.500	6010B	5/16/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2680	mg/L	1	5.0	160.1	5/15/02	SB

Approval: Raland K Tuttle 5-19-02
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

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203354

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/L	0001724-02			<1.00		
Ethylbenzene-µg/L	0001724-02			<1.00		
Toluene-µg/L	0001724-02			<1.00		
p/m-Xylene-µg/L	0001724-02			<1.00		
o-Xylene-µg/L	0001724-02			<1.00		
CONTROL WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-µg/L	0001724-03		100	115	115.%	
Ethylbenzene-µg/L	0001724-03		100	114	114.%	
Toluene-µg/L	0001724-03		100	112	112.%	
p/m-Xylene-µg/L	0001724-03		200	225	112.5%	
o-Xylene-µg/L	0001724-03		100	113	113.%	
CONTROL DUP WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-µg/L	0001724-04		100	114	114.%	0.9%
Ethylbenzene-µg/L	0001724-04		100	110	110.%	3.6%
Toluene-µg/L	0001724-04		100	109	109.%	2.7%
p/m-Xylene-µg/L	0001724-04		200	225	112.5%	0.%
o-Xylene-µg/L	0001724-04		100	112	112.%	0.9%
LCS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-µg/L	0001724-05		100	115	115.%	
Ethylbenzene-µg/L	0001724-05		100	112	112.%	
Toluene-µg/L	0001724-05		100	109	109.%	
p/m-Xylene-µg/L	0001724-05		200	226	113.%	
o-Xylene-µg/L	0001724-05		100	111	111.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0203354

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0001737-01			<2.00		
Carbonate Alkalinity-mg/L	0001738-01			<0.10		
Chloride-mg/L	0001733-01			<5.00		
Hydroxide Alkalinity-mg/L	0001739-01			<0.10		
SULFATE, 375.4-mg/L	0001741-01			<0.50		
DUPLICATE WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0203354-01	292		293		0.3%
Carbonate Alkalinity-mg/L	0203354-01	0		<0.10		0.%
Hydroxide Alkalinity-mg/L	0203354-01	0		<0.10		0.%
SULFATE, 375.4-mg/L	0203355-01	610		610		0.%
MS WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L	0203354-01	860	500	1360	100.%	
MSD WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L	0203354-01	860	500	1360	100.%	0.%
SRM WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0001737-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L	0001738-04		0.05	0.0496	99.2%	
Chloride-mg/L	0001733-04		5000	5050	101.%	
Hydroxide Alkalinity-mg/L	0001739-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L	0001741-04		50	49.9	99.8%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0203354

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0001725-02			<0.010		
Magnesium-mg/L	0001725-02			<0.001		
Potassium-mg/L	0001725-02			<0.050		
Sodium-mg/L	0001725-02			<0.010		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0203354-01	266		264		0.8%
Magnesium-mg/L	0203354-01	106		106		0.%
Potassium-mg/L	0203354-01	15.4		14.8		4.%
Sodium-mg/L	0203354-01	303		308		1.6%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0001725-05		2	1.99	99.5%	
Magnesium-mg/L	0001725-05		2	2.06	103.%	
Potassium-mg/L	0001725-05		2	1.77	88.5%	
Sodium-mg/L	0001725-05		2	1.91	95.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203354

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0001731-01			<5.00		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0203354-01	2680		2760		2.9%

Environmental Lab of Texas, Inc.

12600 West ... East
Odessa, Texas ...763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: DONNIE ANDERSON

Company Name: RICE OPERATING COMPANY

Company Address: 122 W. TAYLOR

City/State/Zip: HOBBS, NEW MEXICO, 88240

Telephone No: (505) 393-9174

Fax No: (505)397-1471

Sampler Signature: Kristin Farris

Project Name: K-33-1

Project #:

Project Loc: EME SWD

PO #: 716

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TDS / CL / ~~SAR / EC~~	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030							RUSH TAT (Pre-Schedule)	Standard TAT
0203354-01	MW 1	5-13-02	10:15 am	1								✓				✓															
↓ -02	MW 1	5-13-02	10:10 am	2	✓		✓					✓											✓								

TCLP:
TOTAL:

Special Instructions: Major cations & Anions / FAX Results to K. Farris

Relinquished by:	Date	Time	Received by:	Date	Time
Kristin Farris	5-14-02	4:30 pm			
D Haynes	5-15-02	10:00 Am	Received by ELOT: [signature]	5-15-02	10:00

Sample Containers Intact? Y N

Temperature Upon Receipt:

Laboratory Comments: -0.5°C - 40mL glass
18.5°C - L HDPE

ANALYTICAL REPORT

Prepared for:

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Project:	K-33-1
PO#:	510
Order#:	G0204197
Report Date:	08/21/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0204197
Project:
Project Name: K-33-1
Location: EME SWD

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.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0204197-01	MW 1	WATER	8/12/02 12:00	8/12/02 20:05	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** 4.0 C

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204197
Project:
Project Name: K-33-1
Location: EME SWD

Lab ID: 0204197-01
Sample ID: MW 1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002915-02		8/21/02 12:39	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	**<0.001**	0.001
Ethylbenzene	**<0.001**	0.001
Toluene	**<0.001**	0.001
p/m-Xylene	**<0.001**	0.001
o-Xylene	**<0.001**	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	**110%**	**73**	**115**
Bromofluorobenzene	**99%**	**72**	**110**

Approval: Raland K Tuttle 8-22-02
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.

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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204197
Project:
Project Name: K-33-1
Location: EME SWD

Lab ID: 0204197-01
Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	279	mg/L	1	2.00	310.1	8/13/02	CK
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/13/02	CK
Chloride	913	mg/L	1	5.00	9253	8/13/02	CK
Hydroxide Alkalinity	< 0.10	mg/L	1	0.10	310.1	8/13/02	CK
SULFATE, 375.4	292	mg/L	5	2.5	375.4	8/14/02	MB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	378	mg/L	100	1.0	6010B	8/14/02	SM
Magnesium	110	mg/L	100	0.10	6010B	8/14/02	SM
Potassium	15.0	mg/L	10	0.50	6010B	8/14/02	SM
Sodium	280	mg/L	100	1.0	6010B	8/14/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2510	mg/L	1	5.0	160.1	8/13/02	CK

Approval: Raland K Tuttle 8-22-02
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

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204197

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0002915-02			<0.001		
Ethylbenzene-mg/L	0002915-02			<0.001		
Toluene-mg/L	0002915-02			<0.001		
p/m-Xylene-mg/L	0002915-02			<0.001		
o-Xylene-mg/L	0002915-02			<0.001		
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0204268-01	0	0.1	0.095	95.%	
Ethylbenzene-mg/L	0204268-01	0	0.1	0.097	97.%	
Toluene-mg/L	0204268-01	0	0.1	0.099	99.%	
p/m-Xylene-mg/L	0204268-01	0	0.2	0.201	100.5%	
o-Xylene-mg/L	0204268-01	0	0.1	0.094	94.%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0204268-01	0	0.1	0.099	99.%	4.1%
Ethylbenzene-mg/L	0204268-01	0	0.1	0.101	101.%	4.%
Toluene-mg/L	0204268-01	0	0.1	0.103	103.%	4.%
p/m-Xylene-mg/L	0204268-01	0	0.2	0.210	105.%	4.4%
Xylene-mg/L	0204268-01	0	0.1	0.100	100.%	6.2%
LCM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0002915-05		0.1	0.104	104.%	
Ethylbenzene-mg/L	0002915-05		0.1	0.107	107.%	
Toluene-mg/L	0002915-05		0.1	0.106	106.%	
p/m-Xylene-mg/L	0002915-05		0.2	0.222	111.%	
o-Xylene-mg/L	0002915-05		0.1	0.106	106.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0204197

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0002801-01			<2.00		
Carbonate Alkalinity-mg/L	0002801-01			<0.10		
Chloride-mg/L	0002793-01			<5.00		
Hydroxide Alkalinity-mg/L	0002801-01			< 0.10		
SULFATE, 375.4-mg/L	0002811-01			<0.5		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0204196-01	360		358		0.6%
Carbonate Alkalinity-mg/L	0204196-01	0		<0.10		0.%
Hydroxide Alkalinity-mg/L	0204196-01	0		< 0.10		0.%
SULFATE, 375.4-mg/L	0204195-01	141		143		1.4%
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0204137-01	56.7	100	152	95.3%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0204137-01	56.7	100	156	99.3%	2.6%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0002801-04		0.05	0.0575	115.%	
Carbonate Alkalinity-mg/L	0002801-04		0.05	0.0575	115.%	
Chloride-mg/L	0002793-04		5000	4870	97.4%	
Hydroxide Alkalinity-mg/L	0002801-04		0.05	0.0575	115.%	
SULFATE, 375.4-mg/L	0002811-04		50	48.8	97.6%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0204197

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0002810-02			< 0.010		
Magnesium-mg/L	0002810-02			<0.001		
Potassium-mg/L	0002810-02			<0.05		
Sodium-mg/L	0002810-02			<0.01		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0204137-02	35.6		34.7		2.6%
Magnesium-mg/L	0204137-02	10.5		10.2		2.9%
Potassium-mg/L	0204137-02	3.02		3.1		2.6%
Sodium-mg/L	0204137-02	47.9		48.3		0.8%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0002810-05		2	2.06	103.%	
Magnesium-mg/L	0002810-05		2	2.18	109.%	
Potassium-mg/L	0002810-05		2	1.77	88.5%	
Sodium-mg/L	0002810-05		2	1.79	89.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204197

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0002822-01			<5.00		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0204197-01	2510		2640		5.%

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris
Company Name: Rice Operating
Company Address: 122 W Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9074 Fax No: (505) 397-1471
Sampler Signature: Kristin Farris

Project Name: K-33-1
Project #:
Project Loc: EME SWD
PO #: 510

LAB # (lab use only): 020497

FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TDS TCLP / TOTAL	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Anions	Cations	RUSH TAT (Pre-Schedule)	Standard TAT
01 MW 1	081202	12:00	1						X		X				X								✓	✓		
MW 1	081202	12:00	2	X		X					X											X				

Special Instructions:
Major Ions

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 4.0°C
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
K. Farris	081202	1700			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
[signature]	8/12/02	20:05	[signature]	8/13/02	2005

ANALYTICAL REPORT

Prepared for:

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Project:	jct. K-33-1
PO#:	510
Order#:	G0204904
Report Date:	11/06/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0204904
Project: None Given
Project Name: jct. K-33-1
Location: EME

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.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0204904-01	MW 1	WATER	10/31/02 13:15	10/31/02 18:30	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** 3.5 C

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204904
Project: None Given
Project Name: jct. K-33-1
Location: EME

Lab ID: 0204904-01
Sample ID: MW 1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003617-02		11/1/02	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	**<0.001**	0.001
Ethylbenzene	**<0.001**	0.001
Toluene	**<0.001**	0.001
p/m-Xylene	**<0.001**	0.001
o-Xylene	**<0.001**	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	92%	80	120
Bromofluorobenzene	92%	80	120

Approval: Raland K Tuttle 11-07-02
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.

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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0204904
Project: None Given
Project Name: jct. K-33-1
Location: EME

Lab ID: 0204904-01
Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	307	mg/L	1	2.00	310.1	11/2/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/2/02	SB
Chloride	842	mg/L	1	5.00	9253	11/5/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/2/02	SB
SULFATE, 375.4	310	mg/L	5	2.5	375.4	11/6/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	239	mg/L	100	1.0	6010B	11/6/02	SM
Magnesium	114	mg/L	100	0.10	6010B	11/6/02	SM
Potassium	14.9	mg/L	10	0.50	6010B	11/6/02	SM
Sodium	260	mg/L	100	1.0	6010B	11/6/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2530	mg/L	1	5.0	160.1	11/4/02	TAL

Approval: Raland K Tuttle 11-07-02
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

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204904

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0003617-02			<0.001		
Ethylbenzene-mg/L	0003617-02			<0.001		
Toluene-mg/L	0003617-02			<0.001		
p/m-Xylene-mg/L	0003617-02			<0.001		
o-Xylene-mg/L	0003617-02			<0.001		
CONTROL WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0003617-03		0.1	0.096	96.%	
Ethylbenzene-mg/L	0003617-03		0.1	0.099	99.%	
Toluene-mg/L	0003617-03		0.1	0.098	98.%	
p/m-Xylene-mg/L	0003617-03		0.2	0.208	104.%	
o-Xylene-mg/L	0003617-03		0.1	0.101	101.%	
CONTROL DUP WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0003617-04		0.1	0.100	100.%	4.1%
Ethylbenzene-mg/L	0003617-04		0.1	0.103	103.%	4.%
Toluene-mg/L	0003617-04		0.1	0.102	102.%	4.%
p/m-Xylene-mg/L	0003617-04		0.2	0.218	109.%	4.7%
o-Xylene-mg/L	0003617-04		0.1	0.106	106.%	4.8%
RM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0003617-05		0.1	0.104	104.%	
Ethylbenzene-mg/L	0003617-05		0.1	0.109	109.%	
Toluene-mg/L	0003617-05		0.1	0.107	107.%	
p/m-Xylene-mg/L	0003617-05		0.2	0.230	115.%	
o-Xylene-mg/L	0003617-05		0.1	0.110	110.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0204904

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0003610-01			<2.00		
Carbonate Alkalinity-mg/L	0003611-01			<0.10		
Chloride-mg/L	0003640-01			<5.00		
Hydroxide Alkalinity-mg/L	0003612-01			<0.10		
SULFATE, 375.4-mg/L	0003652-01			<0.50		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0204904-01	307		308		0.3%
Carbonate Alkalinity-mg/L	0204904-01	0		<0.10		0.%
Hydroxide Alkalinity-mg/L	0204904-01	0		<0.10		0.%
SULFATE, 375.4-mg/L	0204904-01	310		314		1.3%
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0204904-01	842	500	1340	99.6%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0204904-01	842	500	1350	101.6%	0.7%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0003610-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L	0003611-04		0.05	0.0496	99.2%	
Chloride-mg/L	0003640-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L	0003612-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L	0003652-04		50	49.3	98.6%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0204904

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0003651-02			<0.010		
Magnesium-mg/L	0003651-02			<0.001		
Potassium-mg/L	0003651-02			<0.050		
Sodium-mg/L	0003651-02			<0.010		
CONTROL WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0003651-03		2	1.99	99.5%	
Magnesium-mg/L	0003651-03		2	2.17	108.5%	
Potassium-mg/L	0003651-03		2	1.97	98.5%	
Sodium-mg/L	0003651-03		2	1.92	96.%	
CONTROL DUP WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0003651-04		2	2.04	102.%	2.5%
Magnesium-mg/L	0003651-04		2	2.24	112.%	3.2%
Potassium-mg/L	0003651-04		2	1.93	96.5%	2.1%
Sodium-mg/L	0003651-04		2	1.88	94.%	2.1%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0003651-05		2	2.04	102.%	
Magnesium-mg/L	0003651-05		2	2.24	112.%	
Potassium-mg/L	0003651-05		2	1.93	96.5%	
Sodium-mg/L	0003651-05		2	1.88	94.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204904

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0003650-01			<5.0		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0204904-01	2530		2540		0.4%

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris
Company Name: RICE Operating
Company Address: 122 W. Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505)393-9174
Fax No: (505)397-1471
Sampler Signature: Kristin Farris

Project Name: jct. K-33-1
Project #:
Project Loc: EME
PO #: 510

LAB # (lab use only) 0204904	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TDS / CL / ~~BTEX~~	TOTAL: TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RUSH TAT (Pre-Schedule)	Standard TAT
01	MW 1	10/31/02	1315	1						X		X				X									
02	MW 1	10/31/02	1315	2	X		X					X											X		
																1									

Special Instructions:
Major anions/cations.

Relinquished by:	Date	Time	Received by:	Date	Time
K. Farris	10-31	1530			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
[signature]	10/31/02	18:30	[signature]	10-31-02	1830

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
Rec 3.5°C
2/40mL VOA
1/L PLASTIC

ANALYTICAL REPORT

Prepared for:

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Project: K-33-1

PO#:

Order#: G0305837

Report Date: 03/04/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0305837
Project:
Project Name: K-33-1
Location: EME

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.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0305837-01	MW 1	WATER	2/27/03	2/27/03 19:36	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** -2 C

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris		Order#:	G0305837
Rice Operating		Project:	
122 W. Taylor		Project Name:	K-33-1
Hobbs, NM 88240		Location:	EME

Lab ID: 0305837-01
Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	284	mg/L	1	2.00	310.1	2/28/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	2/28/03	SB
Chloride	877	mg/L	1	5.00	9253	2/28/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	2/28/03	SB
SULFATE, 375.4	305	mg/L	5	2.5	375.4	2/28/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	267	mg/L	100	1.0	6010B	2/28/03	SM
Magnesium	96.5	mg/L	10	0.010	6010B	2/28/03	SM
Potassium	14.7	mg/L	10	0.50	6010B	2/28/03	SM
Sodium	290	mg/L	100	1.0	6010B	2/28/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2070	mg/L	1	5.0	160.1	2/28/03	TAL

Approval: Raland K Tuttle 3-04-03
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

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0305837
Project:
Project Name: K-33-1
Location: EME

Lab ID: 0305837-01
Sample ID: MW 1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004817-02		3/3/03 16:48	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	**<0.001**	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	90%	80	120

Approval: Raland K Tuttle 3-04-03
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.

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

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305837

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0004817-02			<0.001		
Toluene-mg/L	0004817-02			<0.001		
Ethylbenzene-mg/L	0004817-02			<0.001		
p/m-Xylene-mg/L	0004817-02			<0.001		
o-Xylene-mg/L	0004817-02			<0.001		
CONTROL WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0004817-03		0.1	0.100	100.%	
Toluene-mg/L	0004817-03		0.1	0.101	101.%	
Ethylbenzene-mg/L	0004817-03		0.1	0.100	100.%	
p/m-Xylene-mg/L	0004817-03		0.2	0.206	103.%	
o-Xylene-mg/L	0004817-03		0.1	0.099	99.%	
CONTROL DUP WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0004817-04		0.1	0.095	95.%	5.1%
Toluene-mg/L	0004817-04		0.1	0.095	95.%	6.1%
Ethylbenzene-mg/L	0004817-04		0.1	0.094	94.%	6.2%
p/m-Xylene-mg/L	0004817-04		0.2	0.193	96.5%	6.5%
o-Xylene-mg/L	0004817-04		0.1	0.094	94.%	5.2%
RM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0004817-05		0.1	0.093	93.%	
Toluene-mg/L	0004817-05		0.1	0.095	95.%	
Ethylbenzene-mg/L	0004817-05		0.1	0.094	94.%	
p/m-Xylene-mg/L	0004817-05		0.2	0.194	97.%	
o-Xylene-mg/L	0004817-05		0.1	0.094	94.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0305837

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0004788-01			<2.00		
Carbonate Alkalinity-mg/L	0004789-01			<0.10		
Chloride-mg/L	0004796-01			<5.00		
Hydroxide Alkalinity-mg/L	0004792-01			<0.10		
SULFATE, 375.4-mg/L	0004795-01			<0.50		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0305831-27	186		185		0.5%
Carbonate Alkalinity-mg/L	0305831-27	0		<0.10		0.%
Hydroxide Alkalinity-mg/L	0305831-27	0		<0.10		0.%
SULFATE, 375.4-mg/L	0305820-01	98.2		96.0		2.3%
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0305831-27	137	250	386	99.6%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0305831-27	137	250	381	97.6%	1.3%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
rbonate Alkalinity-mg/L	0004788-04		0.05	0.0496	99.2%	
arbonate Alkalinity-mg/L	0004789-04		0.05	0.0496	99.2%	
Chloride-mg/L	0004796-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L	0004792-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L	0004795-04		50	50.8	101.6%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0305837

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0004785-02			<0.010		
Magnesium-mg/L	0004785-02			<0.001		
Potassium-mg/L	0004785-02			<0.050		
Sodium-mg/L	0004785-02			<0.010		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0305820-01	104		106		1.9%
Magnesium-mg/L	0305820-01	16.3		16.0		1.9%
Potassium-mg/L	0305820-01	6.67		6.58		1.4%
Sodium-mg/L	0305820-01	67.1		68.6		2.2%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0004785-05		2	2.08	104.%	
Magnesium-mg/L	0004785-05		2	2.20	110.%	
Potassium-mg/L	0004785-05		2	1.76	88.%	
Sodium-mg/L	0004785-05		2	1.73	86.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0305837

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0004809-01			<5.0		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0305837-01	2070		2120		2.4%

Environmental Lab of Texas, Inc.

12600 W[illegible] East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris
Company Name: RICE Operating
Company Address: 122 W. Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174
Fax No: (505) 397-1471
Sampler Signature: Joe [signature]

Project Name: K-33-1
Project #:
Project Loc: EME
PO #:

Lab #: 0305837

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Ice	HNO_3	HCl (2) 40ml glass	NaOH	H_2SO_4	None (1) L HDPE	Other (Specify)	Water	Sludge	Soil	Other (specify):	TDS / Anions Cations	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RUSH TAT (Pre-Schedule)	Standard TAT
01	MW 1	2-27-03		1								X				X									
02	MW 1	2-27-03		2	X		X					X											X		

Special Instructions: TDS, Anions & Cations

Relinquished by:	Date	Time	Received by:	Date	Time
Joe [signature]	2-27-03	1630			
[signature]	2-27-03	19:36	Received by ELOT: [signature]	2-27-03	1936

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments: -2 °C

ANALYTICAL REPORT

Prepared for:

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Project:	K-33-1
PO#:	510
Order#:	G0306569
Report Date:	05/28/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0306569
Project:
Project Name: K-33-1
Location: E.M.E

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.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0306569-01	MW1	WATER	5/22/03 14:04	5/22/03 20:10	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** 4.0 C

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0306569
Project:
Project Name: K-33-1
Location: E.M.E

Lab ID: 0306569-01
Sample ID: MW1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0005645-02		5/27/03 13:03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	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	95%	80	120
Bromofluorobenzene	87%	80	120

Approval: Raland K Tuttle 5-29-03
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.

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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris		Order#:	G0306569
Rice Operating		Project:	
122 W. Taylor		Project Name:	K-33-1
Hobbs, NM 88240		Location:	E.M.E

Lab ID: 0306569-01
Sample ID: MW1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	277	mg/L	1	2.00	310.1	5/23/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	5/23/03	SB
Chloride	904	mg/L	1	5.00	9253	5/23/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	5/23/03	SB
SULFATE, 375.4	264	mg/L	5	2.5	375.4	5/23/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	209	mg/L	100	1.0	6010B	5/28/03	SM
Magnesium	91.1	mg/L	10	0.010	6010B	5/28/03	SM
Potassium	15.3	mg/L	10	0.50	6010B	5/28/03	SM
Sodium	271	mg/L	100	1.0	6010B	5/28/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2350	mg/L	1	5.0	160.1	5/27/03	CK

Approval: Raland K Tuttle 5-29-03
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

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0306569

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0005645-02			<0.001		
Toluene-mg/L	0005645-02			<0.001		
Ethylbenzene-mg/L	0005645-02			<0.001		
p/m-Xylene-mg/L	0005645-02			<0.001		
o-Xylene-mg/L	0005645-02			<0.001		
CONTROL WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0005645-03		0.1	0.103	103.%	
Toluene-mg/L	0005645-03		0.1	0.099	99.%	
Ethylbenzene-mg/L	0005645-03		0.1	0.090	90.%	
p/m-Xylene-mg/L	0005645-03		0.2	0.185	92.5%	
o-Xylene-mg/L	0005645-03		0.1	0.086	86.%	
CONTROL DUP WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0005645-04		0.1	0.097	97.%	6.%
Toluene-mg/L	0005645-04		0.1	0.094	94.%	5.2%
Ethylbenzene-mg/L	0005645-04		0.1	0.086	86.%	4.5%
p/m-Xylene-mg/L	0005645-04		0.2	0.178	89.%	3.9%
o-Xylene-mg/L	0005645-04		0.1	0.084	84.%	2.4%
SRM WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0005645-05		0.1	0.104	104.%	
Toluene-mg/L	0005645-05		0.1	0.101	101.%	
Ethylbenzene-mg/L	0005645-05		0.1	0.091	91.%	
p/m-Xylene-mg/L	0005645-05		0.2	0.187	93.5%	
o-Xylene-mg/L	0005645-05		0.1	0.085	85.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0306569

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0005639-01			<2.00		
Carbonate Alkalinity-mg/L	0005638-01			<0.10		
Chloride-mg/L	0005640-01			<5.00		
Hydroxide Alkalinity-mg/L	0005637-01			<0.10		
SULFATE, 375.4-mg/L	0005636-01			<0.50		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0306564-01	176		177		0.6%
Carbonate Alkalinity-mg/L	0306564-01	0		<0.10		0.%
Hydroxide Alkalinity-mg/L	0306564-01	0		<0.10		0.%
SULFATE, 375.4-mg/L	0306564-01	874		900		2.9%
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0306564-01	496	500	984	97.6%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0306564-01	496	500	993	99.4%	0.9%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0005639-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L	0005638-04		0.05	0.0496	99.2%	
Chloride-mg/L	0005640-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L	0005637-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L	0005636-04		50	51.30	102.6%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0306569

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0005651-02			<0.010		
Magnesium-mg/L	0005651-02			<0.001		
Potassium-mg/L	0005651-02			<0.050		
Sodium-mg/L	0005651-02			<0.010		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0306564-01	311		313		0.6%
Magnesium-mg/L	0306564-01	87.2		88.7		1.7%
Potassium-mg/L	0306564-01	11.1		11.5		3.5%
Sodium-mg/L	0306564-01	321		325		1.2%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0005651-05		2	1.99	99.5%	
Magnesium-mg/L	0005651-05		2	2.14	107.%	
Potassium-mg/L	0005651-05		2	1.75	87.5%	
Sodium-mg/L	0005651-05		2	2.14	107.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306569

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0005649-01			<5.00		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0306569-01	2350		2360		0.4%

[illegible] Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris

Company Name: RICE Operating

Company Address: 122 W. Taylor

City/State/Zip: Hobbs, NM 88240

Telephone No: (505) 393-9174

Fax No: (505) 397-1471

Sampler Signature: Israel Juarez

Project Name: K-33-1

Project #:

Project Loc: E.M.E.

PO #: 510

0306569

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers (1 HDPE)	Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Water	Sludge	Soil	Other (specify):	TDS / Anions + Cations	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030							RUSH TAT (Pre-Schedule)	Standard TAT
01	MW1	5-22-03	2:04	1	X					X		X				X															
	~~MW1~~	~~5-22-03~~	~~2:04~~	~~2~~	~~X~~		~~X~~					~~X~~											X	Add as per C. Haynes 5/23							

Preservative / Matrix / Analyze For: TCLP: TOTAL:

(JM) 2/40ml glass w/HCl, Ice

Special Instructions: Major anions + Cations, TDS

Relinquished by:	Date	Time	Received by:	Date	Time
Israel Juarez	5-22-03	2:04			
C. Haynes	5-22	20:10	Received by ELOT: Ral. [illegible]	5-22-03	2010

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments: 4.0°C

ANALYTICAL REPORT

Prepared for:

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Project:	K-33-1
PO#:	S10
Order#:	G0307303
Report Date:	08/27/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0307303
Project:
Project Name: K-33-1
Location: EME

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.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0307303-01	MW1	WATER	8/21/03 12:06	8/25/03 9:03	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** 4.5 C

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0307303
Project:
Project Name: K-33-1
Location: EME

Lab ID: 0307303-01
Sample ID: MW1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0006638-02		8/25/03	1	1	JMM	8021B

Parameter	Result mg/L	RL
Benzene	**<0.001**	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	**119%**	**80**	**120**
Bromofluorobenzene	**107%**	**80**	**120**

Approval: Celey D. Keene 08/27/03
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.

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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris		**Order#:**	**G0307303**
Rice Operating		**Project:**	
122 W. Taylor		**Project Name:**	**K-33-1**
Hobbs, NM 88240		**Location:**	**EME**

Lab ID: 0307303-01
Sample ID: MW1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	240	mg/L	2	4.0	310.1	8/25/03	SB
Carbonate Alkalinity	< 0.20	mg/L	2	0.20	310.1	8/25/03	SB
Chloride	975	mg/L	1	5.00	9253	8/27/03	SB
Hydroxide Alkalinity	< 0.20	mg/L	2	0.20	310.1	8/25/03	SB
SULFATE, 375.4	274	mg/L	5	2.5	375.4	8/26/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	251	mg/L	100	1.0	6010B	8/26/03	SM
Magnesium	89.8	mg/L	10	0.010	6010B	8/26/03	SM
Potassium	26.0	mg/L	10	0.50	6010B	8/26/03	SM
Sodium	422	mg/L	100	1.0	6010B	8/26/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2550	mg/L	1	5.0	160.1	8/25/03	TAL

Approval: Celey D. Keene 08/27/03
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#: G0307303

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0006638-02			<0.001		
Toluene-mg/L	0006638-02			<0.001		
Ethylbenzene-mg/L	0006638-02			<0.001		
p/m-Xylene-mg/L	0006638-02			<0.001		
o-Xylene-mg/L	0006638-02			<0.001		
CONTROL WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0006638-03		0.1	0.111	111.%	
Toluene-mg/L	0006638-03		0.1	0.114	114.%	
Ethylbenzene-mg/L	0006638-03		0.1	0.105	105.%	
p/m-Xylene-mg/L	0006638-03		0.2	0.222	111.%	
o-Xylene-mg/L	0006638-03		0.1	0.100	100.%	
DUPLICATE WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0307295-06	0		<0.001		0.%
Toluene-mg/L	0307295-06	0		<0.001		0.%
Ethylbenzene-mg/L	0307295-06	0		<0.001		0.%
p/m-Xylene-mg/L	0307295-06	0		<0.001		0.%
o-Xylene-mg/L	0307295-06	0		<0.001		0.%
LCS WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0006638-05		0.1	0.109	109.%	
Toluene-mg/L	0006638-05		0.1	0.114	114.%	
Ethylbenzene-mg/L	0006638-05		0.1	0.104	104.%	
p/m-Xylene-mg/L	0006638-05		0.2	0.227	113.5%	
o-Xylene-mg/L	0006638-05		0.1	0.104	104.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0307303

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0006617-01			<2.00		
Carbonate Alkalinity-mg/L	0006618-01			<0.10		
Chloride-mg/L	0006640-01			<5.00		
Hydroxide Alkalinity-mg/L	0006619-01			<0.10		
SULFATE, 375.4-mg/L	0006634-01			<0.50		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0307300-01	500		502		0.4%
Carbonate Alkalinity-mg/L	0307300-01	0		< 0.20		0.%
Hydroxide Alkalinity-mg/L	0307300-01	0		< 0.20		0.%
SULFATE, 375.4-mg/L	0307300-01	4.9		5.00		2.%
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0307300-01	2060	1000	3050	99.%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0307300-01	2060	1000	3070	101.%	0.7%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
rbonate Alkalinity-mg/L	0006617-04		0.05	0.0496	99.2%	
bonate Alkalinity-mg/L	0006618-04		0.05	0.0496	99.2%	
Chloride-mg/L	0006640-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L	0006619-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L	0006634-04		50	50.7	101.4%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0307303

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0006632-01			<0.010		
Magnesium-mg/L	0006632-01			<0.001		
Potassium-mg/L	0006632-01			<0.050		
Sodium-mg/L	0006632-01			<0.010		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0307300-01	78.1		77.3		1.1%
Magnesium-mg/L	0307300-01	30.4		29.8		2.%
Potassium-mg/L	0307300-01	5.82		4.95		16.2%
Sodium-mg/L	0307300-01	1150		1160		0.9%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0006632-04		2	2.05	102.5%	
Magnesium-mg/L	0006632-04		2	2.04	102.%	
Potassium-mg/L	0006632-04		2	1.73	86.5%	
Sodium-mg/L	0006632-04		2	1.73	86.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307303

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0006633-01			<5.0		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0307303-01	2550		2830		10.4%

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Faccis
Company Name: RICE Operating
Company Address: 122 W. Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature:

Project Name: K-33-1
Project #:
Project Loc: EME
PO #: 510

LAB # (lab use only) 030703	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TDS/Cl/SAR/EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RUSH TAT (Pre-Scheduled)	Standard TAT
01	MW 1	8/21/03	12:06	1						X		X				X									
	MW 1	8/21/03	12:06	2	X		X					X											X		

Special Instructions:
Major anions & cations; TDS

Relinquished by:	Date	Time	Received by:	Date	Time
Israel Ivarra	8/21/03	2:09		8/21/03	5:00
	Date	Time	Received by ELOT:	Date	Time
	8/25/03	0900	Ryan Anderson	8/25/03	0903

Sample Containers Intact? (Y) N
Temperature Upon Receipt:
Laboratory Comments:
4.5°C
40 mL VOA
1 CLHDPE

ANALYTICAL REPORT

Prepared for:

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Project:	K-33-1
PO#:	510
Order#:	G0307984
Report Date:	11/25/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0307984
Project:
Project Name: K-33-1
Location: EME

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.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0307984-01	MW-1	WATER	11/19/03 15:00	11/19/03 19:40	See COC	See COC

Lab Testing: **Rejected:** No **Temp:** 4.0 C

8021B/5030 BTEX
Anions
Cations
Total Dissolved Solids (TDS)

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0307984
Project:
Project Name: K-33-1
Location: EME

Lab ID: 0307984-01
Sample ID: MW-1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0007531-02		11/22/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	**<0.001**	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	91%	80	120

Approval: Celey D. Keene 11/25/03
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.

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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris		**Order#:**	**G0307984**
Rice Operating		**Project:**	
122 W. Taylor		**Project Name:**	**K-33-1**
Hobbs, NM 88240		**Location:**	**EME**

Lab ID: 0307984-01
Sample ID: MW-1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	250	mg/L	1	2.00	310.1	11/20/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/20/03	SB
Chloride	869	mg/L	1	5.00	325	11/20/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/20/03	SB
SULFATE, 375.4	282	mg/L	5	2.5	375.4	11/24/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	239	mg/L	100	1.0	6010B	11/21/03	SM
Magnesium	86.9	mg/L	10	0.010	6010B	11/21/03	SM
Potassium	13.2	mg/L	10	0.50	6010B	11/21/03	SM
Sodium	269	mg/L	100	1.0	6010B	11/21/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2470	mg/L	1	5.0	160.1	11/20/03	SB

Approval: Celey D. Keene 11/25/03
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

Anions

Order#: G0307984

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L	0007510-01			<2.00		
Carbonate Alkalinity-mg/L	0007512-01			<0.10		
Chloride-mg/L	0007516-01			<5.00		
Hydroxide Alkalinity-mg/L	0007514-01			<0.10		
SULFATE, 375.4-mg/L	0007546-01			<0.50		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0307979-01	468		466		0.4%
Carbonate Alkalinity-mg/L	0307979-01	0		<0.10		0.%
Hydroxide Alkalinity-mg/L	0307979-01	0		<0.10		0.%
SULFATE, 375.4-mg/L	0307979-01	20.9		21.6		3.3%
MS WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0307979-01	1930	500	2430	100.%	
MSD WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/L	0307979-01	1930	500	2420	98.%	0.4%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Bicarbonate Alkalinity-mg/L	0007510-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L	0007512-04		0.05	0.0496	99.2%	
Chloride-mg/L	0007516-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L	0007514-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L	0007546-04		50	49.0	98.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307984

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L	0007531-02			<0.001		
Toluene-mg/L	0007531-02			<0.001		
Ethylbenzene-mg/L	0007531-02			<0.001		
p/m-Xylene-mg/L	0007531-02			<0.001		
o-Xylene-mg/L	0007531-02			<0.001		
CONTROL WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0007531-03		0.1	0.096	96.%	
Toluene-mg/L	0007531-03		0.1	0.092	92.%	
Ethylbenzene-mg/L	0007531-03		0.1	0.091	91.%	
p/m-Xylene-mg/L	0007531-03		0.2	0.182	91.%	
o-Xylene-mg/L	0007531-03		0.1	0.090	90.%	
CONTROL DUP WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0007531-04		0.1	0.101	101.%	5.1%
Toluene-mg/L	0007531-04		0.1	0.097	97.%	5.3%
Ethylbenzene-mg/L	0007531-04		0.1	0.092	92.%	1.1%
p/m-Xylene-mg/L	0007531-04		0.2	0.183	91.5%	0.5%
Xylene-mg/L	0007531-04		0.1	0.087	87.%	3.4%
RM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/L	0007531-05		0.1	0.099	99.%	
Toluene-mg/L	0007531-05		0.1	0.094	94.%	
Ethylbenzene-mg/L	0007531-05		0.1	0.091	91.%	
p/m-Xylene-mg/L	0007531-05		0.2	0.181	90.5%	
o-Xylene-mg/L	0007531-05		0.1	0.087	87.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0307984

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L	0007495-02			<0.010		
Magnesium-mg/L	0007495-02			<0.001		
Potassium-mg/L	0007495-02			<0.050		
Sodium-mg/L	0007495-02			<0.010		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0307979-01	81		81.6		0.7%
Magnesium-mg/L	0307979-01	20.1		19.9		1.%
Potassium-mg/L	0307979-01	7.1		7.25		2.1%
Sodium-mg/L	0307979-01	1290		1280		0.8%
SRM WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Calcium-mg/L	0007495-05		2	1.76	88.%	
Magnesium-mg/L	0007495-05		2	2.17	108.5%	
Potassium-mg/L	0007495-05		2	1.93	96.5%	
Sodium-mg/L	0007495-05		2	2.21	110.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307984

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0007518-01			<5.00		
DUPLICATE WATER	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Total Dissolved Solids (TDS)-mg/L	0307979-01	3590		3600		0.3%

...Environmental Lab of Texas, Inc.
12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris
Company Name: RICE Operating
Company Address: 122 W. Taylor
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174
Fax No: (505) 397-1471
Sampler Signature: Israel Juarez

Project Name: K-33-1
Project #:
Project Loc: EME
PO #: 510

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TDS / Cl / SAR / EC	TOTAL: TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RUSH TAT (Pre-Schedule)	Standard TAT
C307984																									
01	MW1	11-19-03	5:00	1						X		X				X									
	MW1	11-19-03	5:00	2	X		X					X											X		

Special Instructions:
Major Anions, Cations TDS

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments:
Lic 4°C

Relinquished by:	Date	Time	Received by:	Date	Time
Israel Juarez	11-19-03	3:00			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
C Haynes	11/19/03	19:40	Rec'd 4°C	11-19-03	1940

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 02/18/04
Reporting Date: 02/20/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: EME K-33-1

Sampling Date: 02/18/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		02/18/04	02/18/04	02/18/04	02/18/04
H8466-1	EME K-33-1 MW 1	<0.002	<0.002	<0.002	<0.006
Quality Control		0.094	0.096	0.099	0.304
True Value QC		0.100	0.100	0.100	0.300
% Recovery		94.1	96.0	99.0	101
Relative Percent Difference		1.9	5.1	2.5	0.4

METHOD: EPA SW-846 8260

Chemist

2/20/04
Date

H8466B.XLS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 02/18/04
Reporting Date: 02/20/04
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: EME K-33-1

Sampling Date: 02/18/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	02/19/04	02/19/04	02/19/04	02/19/04	02/19/04	02/19/04
H8466-1 EME K-33-1 MW 1	240	251	89	3.03	3702	286
Quality Control	NR	59	42	5.17	1322	NR
True Value QC	NR	50	50	5.00	1413	NR
% Recovery	NR	118	85	103	93.6	NR
Relative Percent Difference	NR	1.7	2.3	1.0	0.7	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	02/19/04	02/19/04	02/19/04	02/19/04	02/19/04	02/20/04
H8466-1 EME K-33-1 MW 1	844	43	0	349	7.28	2192
Quality Control	1010	53.65	NR	1007	7.04	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	101	107	NR	101	101	NR
Relative Percent Difference	2.0	1.5	NR	1.1	0.3	1.4
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

2/20/04
Date

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

Company Name: RICE Operating	**BILL TO**
Project Manager: Kristin Farris	P.O. #:
Address: 122 W. Taylor	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: (505) 393-9174 Fax #: (505) 397-1471	Address:
Project #: Project Owner:	City:
Project Name:	State: Zip:
Project Location: EME K-33-1	Phone #:
Sampler Name: K. Farris	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cations	Anions	TDS	BTEX							
H8466	EME K-33-1 MW1	G	1	X							X		2/18/04	12:15	X	X	X								
	EME K-33-1 MW1	G	2	X						X	X		2/18/04	12:15				X							

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished: Kristin Farris	Date:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Time:		Fax Result: ☐ Yes ☐ No Add'l Fax #:
	Date: 2/18/04	Received By: (Lab Staff) Burgess A. Cooke	REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Time:	Sample Condition Cool: ☒ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

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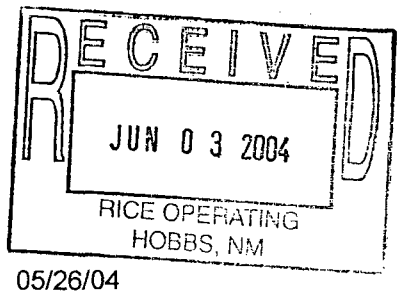

ANALYTICAL RESULTS FOR
RICE OPERATING
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 05/26/04
Reporting Date: 05/28/04
Project Number: NOT GIVEN
Project Name: EME K-33-1 MW
Project Location: NOT GIVEN

Sampling Date: 05/26/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GR
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		05/27/04	05/27/04	05/27/04	05/27/04
H8741-1	K-33-1 M.W.	<0.002	<0.002	<0.002	<0.006
Quality Control		0.098	0.099	0.088	0.256
True Value QC		0.100	0.100	0.100	0.300
% Recovery		97.9	98.9	87.7	85.4
Relative Percent Difference		7.4	5.0	1.8	3.6

METHOD: EPA SW-846 8260

Chemist

5/28/04
Date

H8741BXLS

CARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 05/26/04
Reporting Date: 05/28/04
Project Number: NOT GIVEN
Project Name: EME K-33-1 MW
Project Location: NOT GIVEN

Sampling Date: 05/26/04
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		05/27/04	05/27/04	05/27/04	05/27/04	05/27/04	05/27/04
H8741-1	K-33-1 M.W.	338	240	52	8.57	3536	260
Quality Control		NR	50	55	4.58	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	100	110	91.6	93.6	NR
Relative Percent Difference		NR	0	0	7.2	0.7	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		05/27/04	05/27/04	05/27/04	05/27/04	05/27/04	05/28/04
H8741-1	K-33-1 M.W.	840	113	0	317	7.14	2008
Quality Control		1010	48.21	NR	1007	6.95	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		101	96.4	NR	101	99.3	NR
Relative Percent Difference		2.0	6.2	NR	1.1	1.6	1.4
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

5/28/04
Date

H8741

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240

(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Company Name: RICE Operating	**BILL TO**
Project Manager: Kristin Farris	P.O. #:
Address: 122 W. Taylor	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: (505) 393-9174 Fax #: (505) 397-1471	Address:
Project #: Project Owner:	City:
Project Name: EME K-33-1 M.W.	State: Zip:
Project Location:	Phone #:
Sampler Name: K. Farris	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cations	Anions	TDS	BTEX							
H8741-1	K-33-2 M.W.	G	1	X							X		5/26	9:45am	✓	✓	✓								
	K-33-1 M.W.	G	2	X						X	X		5/26	9:45				✓							

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished: Kristin Farris	Date:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time:		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date: 05/26/2004	Received By: (Lab Staff)	REMARKS:
	Time: 3:20P		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

ENVIRONMENTAL LAB OF
12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

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

Project: Jct. K-33-1/510
Project Number: Jct. K-33-1/510
Location: Rice Operating/EME

Lab Order Number: 4I03014

Report Date: 09/19/04

ARCADIS	Project: Jct. K-33-1/510	Fax: (432) 687-5401
1004 N. Big Spring Street	Project Number: Jct. K-33-1/510	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	09/19/04 11:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	4I03014-01	Water	09/02/04 13:00	09/03/04 14:40

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4I03014-01) Water									
Benzene	ND	0.00100	mg/L	1	EI41004	09/08/04	09/08/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*107 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.5 %*	*80-120*		"	"	"	"	

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General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4I03014-01) Water									
Carbonate Alkalinity	ND	0.100	mg/L	1	EI41608	09/03/04	09/03/04	EPA 310.2M	
Bicarbonate Alkalinity	**236**	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	**904**	5.00	"	"	EI40805	09/07/04	09/07/04	EPA 325.3M	
Total Dissolved Solids	**2510**	5.00	"	"	EI41607	09/09/04	09/09/04	EPA 160.1	
Sulfate	**304**	2.50	"	5	EI41312	09/10/04	09/10/04	EPA 375.4	

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4103014-01) Water									
Calcium	**239**	1.00	mg/L	100	EI41506	09/15/04	09/15/04	EPA 6010B	
Magnesium	**120**	0.100	"	"	"	"	"	"	
Potassium	**15.7**	0.500	"	10	"	"	"	"	
Sodium	**291**	1.00	"	100	"	"	"	"	

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI41004 - EPA 5030C (GC)										
Blank (EI41004-BLK1)				Prepared & Analyzed: 09/08/04						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*23.4*		*ug/l*	*20.0*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*18.3*		*"*	*20.0*		*91.5*	*80-120*			
LCS (EI41004-BS1)				Prepared: 09/08/04 Analyzed: 09/10/04						
Benzene	93.0		ug/l	100		93.0	80-120			
Toluene	95.0		"	100		95.0	80-120			
Ethylbenzene	95.1		"	100		95.1	80-120			
Xylene (p/m)	196		"	200		98.0	80-120			
Xylene (o)	104		"	100		104	80-120			
Surrogate: a,a,a-Trifluorotoluene	*16.7*		*"*	*20.0*		*83.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*18.6*		*"*	*20.0*		*93.0*	*80-120*			
LCS Dup (EI41004-BSD1)				Prepared: 09/08/04 Analyzed: 09/10/04						
Benzene	96.3		ug/l	100		96.3	80-120	3.49	20	
Toluene	99.4		"	100		99.4	80-120	4.53	20	
Ethylbenzene	99.5		"	100		99.5	80-120	4.52	20	
Xylene (p/m)	206		"	200		103	80-120	4.98	20	
Xylene (o)	105		"	100		105	80-120	0.957	20	
Surrogate: a,a,a-Trifluorotoluene	*18.0*		*"*	*20.0*		*90.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*21.9*		*"*	*20.0*		*110*	*80-120*			
Calibration Check (EI41004-CCV1)				Prepared & Analyzed: 09/08/04						
Benzene	94.3		ug/l	100		94.3	80-120			
Toluene	95.8		"	100		95.8	80-120			
Ethylbenzene	102		"	100		102	80-120			
Xylene (p/m)	207		"	200		104	80-120			
Xylene (o)	105		"	100		105	80-120			
Surrogate: a,a,a-Trifluorotoluene	*23.0*		*"*	*20.0*		*115*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*18.6*		*"*	*20.0*		*93.0*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI41004 - EPA 5030C (GC)										
Matrix Spike (EI41004-MS1)	**Source: 4I07001-01**			Prepared: 09/08/04		Analyzed: 09/10/04				
Benzene	97.5		ug/l	100	ND	97.5	80-120			
Toluene	101		"	100	ND	101	80-120			
Ethylbenzene	97.8		"	100	ND	97.8	80-120			
Xylene (p/m)	203		"	200	ND	102	80-120			
Xylene (o)	102		"	100	ND	102	80-120			
Surrogate: a,a,a-Trifluorotoluene	*17.2*		*"*	*20.0*		*86.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*20.9*		*"*	*20.0*		*104*	*80-120*			
Matrix Spike Dup (EI41004-MSD1)	**Source: 4I07001-01**			Prepared: 09/08/04		Analyzed: 09/10/04				
Benzene	99.0		ug/l	100	ND	99.0	80-120	1.53	20	
Toluene	101		"	100	ND	101	80-120	0.00	20	
Ethylbenzene	99.6		"	100	ND	99.6	80-120	1.82	20	
Xylene (p/m)	201		"	200	ND	100	80-120	1.98	20	
Xylene (o)	100		"	100	ND	100	80-120	1.98	20	
Surrogate: a,a,a-Trifluorotoluene	*16.5*		*"*	*20.0*		*82.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*19.3*		*"*	*20.0*		*96.5*	*80-120*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI40805 - General Preparation (WetChem)										
Blank (EI40805-BLK1)				Prepared & Analyzed: 09/07/04						
Chloride	ND	5.00	mg/L							
Matrix Spike (EI40805-MS1)		**Source: 4I07001-06**		Prepared & Analyzed: 09/07/04						
Chloride	1670	5.00	mg/L	500	1170	100	90-110			
Matrix Spike Dup (EI40805-MSD1)		**Source: 4I07001-06**		Prepared & Analyzed: 09/07/04						
Chloride	1660	5.00	mg/L	500	1170	98.0	90-110	0.601	20	
Reference (EI40805-SRM1)				Prepared & Analyzed: 09/07/04						
Chloride	4960		mg/L	5000		99.2	80-120			
Batch EI41312 - General Preparation (WetChem)										
Blank (EI41312-BLK1)				Prepared & Analyzed: 09/10/04						
Sulfate	ND	0.500	mg/L							
Calibration Check (EI41312-CCV1)				Prepared & Analyzed: 09/10/04						
Sulfate	48.9		mg/L	50.0		97.8	80-120			
Duplicate (EI41312-DUP1)		**Source: 4I03010-01**		Prepared & Analyzed: 09/10/04						
Sulfate	76.4	0.500	mg/L		74.6			2.38	20	
Batch EI41607 - Filtration Preparation										
Blank (EI41607-BLK1)				Prepared & Analyzed: 09/09/04						
Total Dissolved Solids	ND	5.00	mg/L							

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI41607 - Filtration Preparation										
Duplicate (EI41607-DUP1)		**Source: 4I03010-01**		Prepared & Analyzed: 09/09/04						
Total Dissolved Solids	1610	5.00	mg/L		1640			1.85	20	
Batch EI41608 - General Preparation (WetChem)										
Blank (EI41608-BLK1)				Prepared & Analyzed: 09/03/04						
Carbonate Alkalinity	ND	0.100	mg/L							
Bicarbonate Alkalinity	ND	2.00	"							
Hydroxide Alkalinity	ND	0.100	"							
Duplicate (EI41608-DUP1)		**Source: 4I03010-01**		Prepared & Analyzed: 09/03/04						
Carbonate Alkalinity	0.00	0.100	mg/L		0.00				20	
Bicarbonate Alkalinity	444	2.00	"		446			0.449	20	
Hydroxide Alkalinity	0.00	0.100	"		0.00				20	
Reference (EI41608-SRM1)				Prepared & Analyzed: 09/03/04						
Carbonate Alkalinity	0.0501		mg/L	0.0500		100	80-120			

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI41506 - General Preparation (Metals)										
Blank (EI41506-BLK1)				Prepared & Analyzed: 09/15/04						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Blank (EI41506-BLK2)				Prepared & Analyzed: 09/15/04						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EI41506-CCV1)				Prepared & Analyzed: 09/15/04						
Calcium	2.03		mg/L	2.00		102	85-115			
Magnesium	2.04		"	2.00		102	85-115			
Potassium	1.75		"	2.00		87.5	85-115			
Sodium	1.79		"	2.00		89.5	85-115			
Calibration Check (EI41506-CCV2)				Prepared & Analyzed: 09/15/04						
Calcium	1.93		mg/L	2.00		96.5	85-115			
Magnesium	2.02		"	2.00		101	85-115			
Potassium	1.76		"	2.00		88.0	85-115			
Sodium	1.77		"	2.00		88.5	85-115			
Duplicate (EI41506-DUP1)	**Source: 4I03009-01**			Prepared & Analyzed: 09/15/04						
Calcium	281	1.00	mg/L		280			0.357	20	
Magnesium	110	0.100	"		111			0.905	20	
Potassium	8.18	0.500	"		8.31			1.58	20	
Sodium	359	1.00	"		365			1.66	20	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EI41506 - General Preparation (Metals)										
Duplicate (EI41506-DUP2)	**Source: 4I10015-01**			Prepared & Analyzed: 09/15/04						
Calcium	20.2	0.100	mg/L		20.2			0.00	20	
Magnesium	28.4	0.0100	"		28.6			0.702	20	
Potassium	16.4	0.500	"		16.6			1.21	20	
Sodium	103	0.100	"		103			0.00	20	

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. Tuttle Date: 9-18-04

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Biezugbe, Lab Tech.

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

Client: Archadis

Date/Time: 9-3-04

Order #: 4I03014-01

Initials: AT

Sample Receipt Checklist

Temperature of container/cooler?	(Yes)	No	3.5 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	Yes	No	(Not present)
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	(Yes)	No	Not Applicable

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

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ARCADIS GERAGHTY & MILLER

Laboratory Task Order No./P.O. No. ______

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Number/Name Jct K-33-1 / 510

Project Location Rice Operating / EME

Laboratory Env. Lab of TX

Project Manager Kristin Farris Pope

Sampler(s)/Affiliation SCG / ARCADIS

ANALYSIS / METHOD / SIZE

Sample ID/Location	Matrix	Date/~~Time~~ Sampled	Time ~~Lab ID~~	(2) 40 ml Voa BTEX HCl	(1) L plastic Major anions/cations TDS Neat					Remarks	Total
MW-1	L	9/2/04	1300	2	1					4I030 K-01	3

Sample Matrix: L = Liquid; S = Solid; A = Air

Rec 35°C

Total No. of Bottles/Containers: 3

Relinquished by: Sandra [illegible]	Organization: ARCADIS	Date 9/3/04	Time 1440	Seal Intact? Yes No (N/A)
Received by: Kaluck Jo	Organization: Env. Lab of Texas	Date 9/3/04	Time 1440	
Relinquished by:	Organization:	Date / /	Time	Seal Intact? Yes No N/A
Received by:	Organization:	Date / /	Time	

Special Instructions/Remarks: * Please email analysis to Kristin enviro@leaco.net

Delivery Method: ☒ In Person ☐ Common Carrier ______ (SPECIFY) ☐ Lab Courier ☐ Other ______ (SPECIFY)

AG 05 0587

RONMENTAL
LAB OF
600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Sharon Hall

ARCADIS

1004 N. Big Spring Street

Midland, TX 79701

Project: ~~Jct. K-33-1~~/510

Project Number: Jct. K-33-1/510

Location: Rice Operating/ EME

Lab Order Number: 4L22006

Report Date: 12/30/04

ARCADIS	Project: Jct. K-33-1/510	Fax: (432) 687-5401
1004 N. Big Spring Street	Project Number: Jct. K-33-1/510	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	12/30/04 15:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	4L22006-01	Water	12/21/04 09:15	12/21/04 18:00

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

ARCADIS	Project: Jct. K-33-1/510	Fax: (432) 687-5401
1004 N. Big Spring Street	Project Number: Jct. K-33-1/510	**Reported:**
Midland TX, 79701	Project Manager: Sharon Hall	12/30/04 15:52

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4L22006-01) Water									
Benzene	ND	0.00100	mg/L	1	EL43006	12/29/04	12/29/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*96.2 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*98.6 %*		*80-120*	"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4L22006-01) Water									
Total Alkalinity	**270**	2.00	mg/L	1	EL42907	12/29/04	12/29/04	EPA 310.2M	
Chloride	**550**	5.00	"	"	EL42908	12/29/04	12/29/04	EPA 325.3M	
Total Dissolved Solids	**2640**	5.00	"	"	EL42301	12/22/04	12/23/04	EPA 160.1	
Sulfate	**216**	2.50	"	5	EL42909	12/29/04	12/29/04	EPA 375.4	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4L22006-01) Water									
Calcium	**145**	1.00	mg/L	100	EL42212	12/22/04	12/22/04	EPA 6010B	
Magnesium	**87.2**	0.100	"	"	"	"	"	"	
Potassium	**13.3**	0.500	"	10	"	"	"	"	
Sodium	**159**	1.00	"	100	"	"	"	"	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL43006 - EPA 5030C (GC)										
Blank (EL43006-BLK1)				Prepared & Analyzed: 12/29/04						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*100*		*ug/l*	*100*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*91.9*		"	*100*		*91.9*	*80-120*			
LCS (EL43006-BS1)				Prepared & Analyzed: 12/29/04						
Benzene	86.8		ug/l	100		86.8	80-120			
Toluene	85.1		"	100		85.1	80-120			
Ethylbenzene	86.6		"	100		86.6	80-120			
Xylene (p/m)	191		"	200		95.5	80-120			
Xylene (o)	92.9		"	100		92.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	*117*		"	*100*		*117*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*95.1*		"	*100*		*95.1*	*80-120*			
Calibration Check (EL43006-CCV1)				Prepared & Analyzed: 12/29/04						
Benzene	89.5		ug/l	100		89.5	80-120			
Toluene	89.6		"	100		89.6	80-120			
Ethylbenzene	91.8		"	100		91.8	80-120			
Xylene (p/m)	201		"	200		100	80-120			
Xylene (o)	99.5		"	100		99.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	*115*		"	*100*		*115*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*95.0*		"	*100*		*95.0*	*80-120*			
Matrix Spike (EL43006-MS1)	**Source: 4L22001-05**			Prepared & Analyzed: 12/29/04						
Benzene	90.0		ug/l	100	ND	90.0	80-120			
Toluene	91.6		"	100	ND	91.6	80-120			
Ethylbenzene	91.4		"	100	ND	91.4	80-120			
Xylene (p/m)	201		"	200	ND	100	80-120			
Xylene (o)	95.8		"	100	ND	95.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*118*		"	*100*		*118*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*102*		"	*100*		*102*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL43006 - EPA 5030C (GC)										
Matrix Spike Dup (EL43006-MSD1)	**Source: 4L22001-05**			Prepared & Analyzed: 12/29/04						
Benzene	93.0		ug/l	100	ND	93.0	80-120	3.28	20	
Toluene	94.6		"	100	ND	94.6	80-120	3.22	20	
Ethylbenzene	92.4		"	100	ND	92.4	80-120	1.09	20	
Xylene (p/m)	201		"	200	ND	100	80-120	0.00	20	
Xylene (o)	95.6		"	100	ND	95.6	80-120	0.209	20	
Surrogate: a,a,a-Trifluorotoluene	*118*		"	*100*		*118*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*102*		"	*100*		*102*	*80-120*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL42301 - 413.1										
Blank (EL42301-BLK1)				Prepared: 12/22/04 Analyzed: 12/23/04						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EL42301-DUP1)	**Source: 4L21010-01**			Prepared: 12/22/04 Analyzed: 12/23/04						
Total Dissolved Solids	590	5.00	mg/L		567			3.98	20	
Batch EL42907 - General Preparation (WetChem)										
Blank (EL42907-BLK1)				Prepared & Analyzed: 12/29/04						
Total Alkalinity	ND	2.00	mg/L							
Duplicate (EL42907-DUP1)	**Source: 4L22002-01**			Prepared & Analyzed: 12/29/04						
Total Alkalinity	181	2.00	mg/L		182			0.551	20	
Reference (EL42907-SRM1)				Prepared & Analyzed: 12/29/04						
Carbonate Alkalinity	0.0501		mg/L	0.0500		100	80-120			
Batch EL42908 - General Preparation (WetChem)										
Blank (EL42908-BLK1)				Prepared & Analyzed: 12/29/04						
Chloride	ND	5.00	mg/L							
Matrix Spike (EL42908-MS1)	**Source: 4L21010-01**			Prepared & Analyzed: 12/29/04						
Chloride	390	5.00	mg/L	250	155	94.0	80-120			
Matrix Spike Dup (EL42908-MSD1)	**Source: 4L21010-01**			Prepared & Analyzed: 12/29/04						
Chloride	394	5.00	mg/L	250	155	95.6	80-120	1.02	20	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL42908 - General Preparation (WetChem)										
Reference (EL42908-SRM1)				Prepared & Analyzed: 12/29/04						
Chloride	4960		mg/L	5000		99.2	80-120			
Batch EL42909 - General Preparation (WetChem)										
Blank (EL42909-BLK1)				Prepared & Analyzed: 12/29/04						
Sulfate	ND	0.500	mg/L							
Calibration Check (EL42909-CCV1)				Prepared & Analyzed: 12/29/04						
Sulfate	48.9		mg/L	50.0		97.8	80-120			
Duplicate (EL42909-DUP1)		**Source: 4L21010-01**		Prepared & Analyzed: 12/29/04						
Sulfate	96.6	1.00	mg/L		99.8			3.26	20	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL42212 - 6010B/No Digestion										
Blank (EL42212-BLK1)				Prepared & Analyzed: 12/22/04						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EL42212-CCV1)				Prepared & Analyzed: 12/22/04						
Calcium	2.10		mg/L	2.00		105	85-115			
Magnesium	2.12		"	2.00		106	85-115			
Potassium	2.03		"	2.00		102	85-115			
Sodium	1.82		"	2.00		91.0	85-115			
Duplicate (EL42212-DUP1)	**Source: 4L21010-01**			Prepared & Analyzed: 12/22/04						
Calcium	55.1	0.100	mg/L		57.3			3.91	20	
Magnesium	13.2	0.0100	"		13.0			1.53	20	
Potassium	12.5	0.500	"		13.2			5.45	20	
Sodium	105	1.00	"		112			6.45	20	

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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: Celey D. Keene Date: 12/30/2004

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

ARCADIS GERAGHTY & MILLER Laboratory Task Order No./[redacted]No. _____ **CHAIN-OF-CUSTODY RECORD** Page 1 of 1

Project Number/Name Jct. K-B3-1/510

Project Location Rice Operating /EMG

Laboratory Environmental Lab of Texas

Project Manager Kristin Farris Pope

Sampler(s)/Affiliation GC/ARCADIS

Sample ID/Location	Matrix	Date/~~Time~~ Sampled	Time Lab ID	ANALYSIS / METHOD / SIZE: (2)40ml VOA BTEX 8021B HCl	(1) L plastic major anions/cations TDS Neat					Remarks	Total
mw-1	L	12.21.04	0915	2	1					462200(6-01)	3

Sample Matrix: L = Liquid; S = Solid; A = Air

Total No. of Bottles/Containers: 3

Relinquished by: [redacted]	Organization: ARCADIS	Date 12/21/04	Time 1800	Seal Intact?	
Received by: [redacted]	Organization: Env. Lab of Tx	Date 12/21/04	Time 1800	Yes No (N/A)	
Relinquished by:	Organization:	Date / /	Time	Seal Intact?	
Received by:	Organization:	Date / /	Time	Yes No N/A	

Special Instructions/Remarks: 1.0°C on ice

Delivery Method: ☒ In Person ☐ Common Carrier _____ (SPECIFY) ☐ Lab Courier ☐ Other _____ (SPECIFY)

AG 05-0597

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

Client: Arcadis

Date/Time: 12-21-04 @ 1800

Order #: 4L22006

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	~~Yes~~	No	1.0 · C
Shipping container/cooler in good condition?	~~Yes~~	No	
Custody Seals intact on shipping container/cooler?	Yes	No	~~Not present~~
Custody Seals intact on sample bottles?	Yes	No	~~Not present~~
Chain of custody present?	~~Yes~~	No	
Sample Instructions complete on Chain of Custody?	~~Yes~~	No	
Chain of Custody signed when relinquished and received?	~~Yes~~	No	
Chain of custody agrees with sample label(s)	~~Yes~~	No	
Container labels legible and intact?	~~Yes~~	No	
Sample Matrix and properties same as on chain of custody?	~~Yes~~	No	
Samples in proper container/bottle?	~~Yes~~	No	
Samples properly preserved?	~~Yes~~	No	
Sample bottles intact?	~~Yes~~	No	
Preservations documented on Chain of Custody?	~~Yes~~	No	
Containers documented on Chain of Custody?	~~Yes~~	No	
Sufficient sample amount for indicated test?	~~Yes~~	No	
All samples received within sufficient hold time?	~~Yes~~	No	
VOC samples have zero headspace?	~~Yes~~	No	Not Applicable

Other observations:

_____

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Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

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Corrective Action Taken:

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ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Mike Griffin

WHOLE EARTH ENVIRONMENTAL

2103 Arbor Cove

Katy, TX 77494

Project: K-33-1

Project Number: None Given

Location: Monument

Lab Order Number: 5B17006

Report Date: 02/22/05

WHOLE EARTH ENVIRONMENTAL	Project: K-33-1	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	02/22/05 08:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
K-33-1 MW-1	5B17006-01	Water	02/11/05 14:30	02/17/05 09:00

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

WHOLE EARTH ENVIRONMENTAL	Project: K-33-1	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	02/22/05 08:43

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
K-33-1 MW-1 (5B17006-01) Water									
Chloride	**582**	10.0	mg/L	20	EB52108	02/19/05	02/19/05	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB52108 - General Preparation (WetChem)										
Blank (EB52108-BLK1)				Prepared & Analyzed: 02/19/05						
Chloride	ND	0.500	mg/L							
LCS (EB52108-BS1)				Prepared & Analyzed: 02/19/05						
Chloride	9.68		mg/L	10.0		96.8	80-120			
LCS Dup (EB52108-BSD1)				Prepared & Analyzed: 02/19/05						
Chloride	8.57		mg/L	10.0		85.7	80-120	12.2	20	
Calibration Check (EB52108-CCV1)				Prepared & Analyzed: 02/19/05						
Chloride	9.47		mg/L	10.0		94.7	80-120			
Duplicate (EB52108-DUP1)	**Source: 5B16010-01**			Prepared & Analyzed: 02/19/05						
Chloride	853	25.0	mg/L		822			3.70	20	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

WHOLE EARTH ENVIRONMENTAL	Project: K-33-1	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	02/22/05 08:43

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 Tuttle Date: 2/22/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

ENVIRONMENTAL LAB OF
12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Mike Griffin
WHOLE EARTH ENVIRONMENTAL
2103 Arbor Cove
Katy, TX 77494

Project: K-33-1
Project Number: None Given
Location: Monument, NM

Lab Order Number: 5E02018

Report Date: 05/04/05

WHOLE EARTH ENVIRONMENTAL	Project: K-33-1	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	05/04/05 16:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	5E02018-01	Water	05/01/05 12:10	05/02/05 14:45

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (5E02018-01) Water									
Chloride	**1030**	25.0	mg/L	50	EE50408	05/03/05	05/03/05	EPA 300.0	

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE50408 - General Preparation (WetChem)										
Blank (EE50408-BLK1)				Prepared & Analyzed: 05/03/05						
Chloride	ND	0.500	mg/L							
LCS (EE50408-BS1)				Prepared & Analyzed: 05/03/05						
Chloride	10.7		mg/L	10.0		107	80-120			
Calibration Check (EE50408-CCV1)				Prepared & Analyzed: 05/03/05						
Chloride	10.2		mg/L	10.0		102	80-120			
Duplicate (EE50408-DUP1)		**Source: 5E02018-01**		Prepared & Analyzed: 05/03/05						
Chloride	1020	25.0	mg/L		1030			0.976	20	

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 Tuttle Date: 5-05-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas, Inc.

12600 West I-20 East
Odessa, Texas 79763
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: _____ Project Name: K-33-1

Company Name: Whole Earth Environmental, Inc. Project #: _____

Company Address: 2103 Arbor Cove Project Loc: Monument, NM

City/State/Zip: Katy, Tx. 77494 PO #: _____

Telephone No: 281.394.2050 Fax No: (281) 394.2051

Sampler Signature: M. Clift

SEO 2018

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TDS / CL / SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se (TCLP)	Volatiles	Semivolatiles	BTEX 8021B/5030	Chlorides	RUSH TAT (Pre-Schedule)	Standard TAT
-01	MW-1	5-1-05	12:10	1						X		X												X		

Special Instructions:
Invoice Rice Oper. Copy of results to Rice & Whole Earth.

Sample Containers Intact? (Y) N
Temperature Upon Receipt: 1.5°C
Laboratory Comments:
4oz glass on ice w/ label/seal
Seal on cooler

Relinquished by:	Date	Time	Received by:	Date	Time
M. Clift	5-2-05	2:45			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Jamie McMurrey	05-02-05	1445

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Kristen Farris-Pope
Rice Operating Company
122 W Taylor Street
Hobbs, NM, 88240

Report Date: August 9, 2006

Work Order: 6072144

Project Location: Lea County, New Mexico
Project Name: EME Junction K-33-1
Project Number: EME Junction K-33-1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
96141	Monitor Well #1	Water	2006-07-17	12:15	2006-07-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 96141 - Monitor Well #1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	28340	Date Analyzed:	2006-07-26	Analyzed By:	LJ
Prep Batch:	24777	Sample Preparation:	2006-07-25	Prepared By:	LJ

Parameter	Flag	RL Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**276**	mg/L as CaCo3	1	4.00
Total Alkalinity		**276**	mg/L as CaCo3	1	4.00

Sample: 96141 - Monitor Well #1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	28277	Date Analyzed:	2006-07-24	Analyzed By:	MT
Prep Batch:	24759	Sample Preparation:	2006-07-24	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.00100	mg/L	1	0.00100
Toluene		<0.00100	mg/L	1	0.00100
Ethylbenzene		<0.00100	mg/L	1	0.00100
Xylene		<0.00100	mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0954	mg/L	1	0.100	95	66.2 - 127.7
4-Bromofluorobenzene (4-BFB)	[1]	0.0584	mg/L	1	0.100	58	70.6 - 129.2

Sample: 96141 - Monitor Well #1

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	28357	Date Analyzed:	2006-07-26	Analyzed By:	TP
Prep Batch:	24749	Sample Preparation:	2006-07-24	Prepared By:	TS

Parameter	Flag	RL Result	Units	Dilution	RL
Dissolved Calcium		**261**	mg/L	10	0.500
Dissolved Potassium		**20.6**	mg/L	1	1.00
Dissolved Magnesium		**109**	mg/L	10	1.00
Dissolved Sodium		**288**	mg/L	10	1.00

Sample: 96141 - Monitor Well #1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	28782	Date Analyzed:	2006-08-02	Analyzed By:	WB
Prep Batch:	25167	Sample Preparation:	2006-08-02	Prepared By:	WB

[1] BFB surrogate recovery outside normal limits. ICV/CCV and TFT surrogate recovery show the method to be in control.

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**988**	mg/L	100	0.500
Sulfate		**298**	mg/L	10	0.500

Sample: 96141 - Monitor Well #1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	28406	Date Analyzed:	2006-07-27	Analyzed By:	SM
Prep Batch:	24850	Sample Preparation:	2009-07-26	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**2085**	mg/L	5	10.00

Method Blank (1) QC Batch: 28277

QC Batch:	28277	Date Analyzed:	2006-07-24	Analyzed By:	MT
Prep Batch:	24759	QC Preparation:	2006-07-24	Prepared By:	MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000255	mg/L	0.001
Toluene		<0.000210	mg/L	0.001
Ethylbenzene		<0.000317	mg/L	0.001
Xylene		<0.000603	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0949	mg/L	1	0.100	95	76.1 - 117
4-Bromofluorobenzene (4-BFB)		0.0633	mg/L	1	0.100	63	58.5 - 118

Method Blank (1) QC Batch: 28340

QC Batch:	28340	Date Analyzed:	2006-07-26	Analyzed By:	LJ
Prep Batch:	24777	QC Preparation:	2006-07-25	Prepared By:	LJ

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 28357

QC Batch:	28357	Date Analyzed:	2006-07-26	Analyzed By:	TP
Prep Batch:	24749	QC Preparation:	2006-07-24	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		0.132	mg/L	0.5
Dissolved Potassium		1.08	mg/L	1
Dissolved Magnesium		<0.704	mg/L	1
Dissolved Sodium		0.836	mg/L	1

Method Blank (1) QC Batch: 28406

QC Batch: 28406 Date Analyzed: 2006-07-27 Analyzed By: SM
Prep Batch: 24850 QC Preparation: 2006-07-26 Prepared By: SM

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 28782

QC Batch: 28782 Date Analyzed: 2006-08-02 Analyzed By: WB
Prep Batch: 25167 QC Preparation: 2006-08-02 Prepared By: WB

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0181	mg/L	0.5
Sulfate		<0.0485	mg/L	0.5

Duplicates (1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ
Prep Batch: 24777 QC Preparation: 2006-07-25 Prepared By: LJ

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	110	108	mg/L as CaCo3	1	2	12.6
Total Alkalinity	110	108	mg/L as CaCo3	1	2	11.5

Duplicates (1)

QC Batch: 28406 Date Analyzed: 2006-07-27 Analyzed By: SM
Prep Batch: 24850 QC Preparation: 2006-07-26 Prepared By: SM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	768.0	928.0	mg/L	2	19	17.2

Laboratory Control Spike (LCS-1)

QC Batch: 28277
Prep Batch: 24759

Date Analyzed: 2006-07-24
QC Preparation: 2006-07-24

Analyzed By: MT
Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.109	mg/L	1	0.1	0	109	
Toluene	0.108	mg/L	1	0.1	0	108	
Ethylbenzene	0.109	mg/L	1	0.1	0	109	
Xylene	0.322	mg/L	1	0.3	0	107.333	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.104	mg/L	1	0.1	0	109		4.7	20
Toluene	0.103	mg/L	1	0.1	0	108		4.7	20
Ethylbenzene	0.101	mg/L	1	0.1	0	109		7.6	20
Xylene	0.306	mg/L	1	0.3	0	107.333		5.1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.101	mg/L	1	0.100	101	101	81.8 - 114
4-Bromofluorobenzene (4-BFB)	0.112	0.111	mg/L	1	0.100	112	111	72.7 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 28357
Prep Batch: 24749

Date Analyzed: 2006-07-26
QC Preparation: 2006-07-24

Analyzed By: TP
Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	51.7	mg/L	1	50	0	103.4	
Dissolved Potassium	50.8	mg/L	1	50	0	101.6	
Dissolved Magnesium	51.5	mg/L	1	50	0	103	
Dissolved Sodium	50.5	mg/L	1	50	0	101	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	51.7	mg/L	1	50	0	103.4		0	20
Dissolved Potassium	49.3	mg/L	1	50	0	101.6		3	20
Dissolved Magnesium	49.8	mg/L	1	50	0	103		3.4	20
Dissolved Sodium	48.6	mg/L	1	50	0	101		3.8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 28782
Prep Batch: 25167

Date Analyzed: 2006-08-02
QC Preparation: 2006-08-02

Analyzed By: WB
Prepared By: WB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12.2	mg/L	1	12.5	0	97.6	
Sulfate	12.5	mg/L	1	12.5	0	100	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12.3	mg/L	1	12.5	0	97.6		0.8	20
Sulfate	12.5	mg/L	1	12.5	0	100		0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 96149

QC Batch: 28277 | Date Analyzed: 2006-07-24 | Analyzed By: MT
Prep Batch: 24759 | QC Preparation: 2006-07-24 | Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.107	mg/L	1	0.100	<0.000255	107	70.9 - 126
Toluene	0.105	mg/L	1	0.100	<0.000210	105	70.8 - 125
Ethylbenzene	0.106	mg/L	1	0.100	<0.000317	106	74.8 - 125
Xylene	0.311	mg/L	1	0.300	<0.000603	104	75.7 - 126

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[2]	NA	mg/L	1	0.100	<0.000255	0	70.9 - 126	200	20
Toluene	[3]	NA	mg/L	1	0.100	<0.000210	0	70.8 - 125	200	20
Ethylbenzene	[4]	NA	mg/L	1	0.100	<0.000317	0	74.8 - 125	200	20
Xylene	[5]	NA	mg/L	1	0.300	<0.000603	0	75.7 - 126	200	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[6]	0.101	NA	mg/L	1	0.1	101	0	73.6 - 121
4-Bromofluorobenzene (4-BFB)	[7]	0.110	NA	mg/L	1	0.1	110	0	81.8 - 114

Matrix Spike (MS-1) Spiked Sample: 96142

QC Batch: 28357 | Date Analyzed: 2006-07-26 | Analyzed By: TP
Prep Batch: 24749 | QC Preparation: 2006-07-24 | Prepared By: TS

[2]RPD is out of range because a matrix spike duplicate was not prepared.
[3]RPD is out of range because a matrix spike duplicate was not prepared.
[4]RPD is out of range because a matrix spike duplicate was not prepared.
[5]RPD is out of range because a matrix spike duplicate was not prepared.
[6]RPD is out of range because a matrix spike duplicate was not prepared.
[7]RPD is out of range because a matrix spike duplicate was not prepared.

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	[8]	884	mg/L	1	50.0	863	42	68.4 - 138
Dissolved Potassium		110	mg/L	1	50.0	67.3	85	82 - 129
Dissolved Magnesium		496	mg/L	1	50.0	438	116	61.2 - 135
Dissolved Sodium	[9]	2200	mg/L	1	50.0	2180	40	81.8 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	[10]	884	mg/L	1	50.0	863	42	68.4 - 138	0	20
Dissolved Potassium		111	mg/L	1	50.0	67.3	87	82 - 129	1	20
Dissolved Magnesium		491	mg/L	1	50.0	438	106	61.2 - 135	1	20
Dissolved Sodium	[11]	2200	mg/L	1	50.0	2180	40	81.8 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 96141

QC Batch: 28782 | Date Analyzed: 2006-08-02 | Analyzed By: WB
Prep Batch: 25167 | QC Preparation: 2006-08-02 | Prepared By: WB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	2210	mg/L	100	12.5	988	98	25.4 - 171
Sulfate	1580	mg/L	100	12.5	298	102	0 - 677

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	2200	mg/L	100	12.5	988	97	25.4 - 171	0	20
Sulfate	1550	mg/L	100	12.5	298	100	0 - 677	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 28277 | Date Analyzed: 2006-07-24 | Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Toluene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Ethylbenzene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Xylene		mg/L	0.300	0.314	105	85 - 115	2006-07-24

[8]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[9]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[10]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[11]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Standard (CCV-1)

QC Batch: 28277 Date Analyzed: 2006-07-24 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.107	107	85 - 115	2006-07-24
Toluene		mg/L	0.100	0.105	105	85 - 115	2006-07-24
Ethylbenzene		mg/L	0.100	0.106	106	85 - 115	2006-07-24
Xylene		mg/L	0.300	0.311	104	85 - 115	2006-07-24

Standard (ICV-1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2006-07-26

Standard (CCV-1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2006-07-26

Standard (ICV-1)

QC Batch: 28357 Date Analyzed: 2006-07-26 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	50.7	101	90 - 110	2006-07-26
Dissolved Potassium		mg/L	50.0	52.0	104	90 - 110	2006-07-26
Dissolved Magnesium		mg/L	50.0	49.6	99	90 - 110	2006-07-26
Dissolved Sodium		mg/L	50.0	50.9	102	90 - 110	2006-07-26

Standard (CCV-1)

QC Batch: 28357 Date Analyzed: 2006-07-26 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	48.7	97	90 - 110	2006-07-26
Dissolved Potassium		mg/L	50.0	47.4	95	90 - 110	2006-07-26
Dissolved Magnesium		mg/L	50.0	47.2	94	90 - 110	2006-07-26

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		mg/L	50.0	47.3	95	90 - 110	2006-07-26

Standard (ICV-1)

QC Batch: 28406 Date Analyzed: 2006-07-27 Analyzed By: SM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1056	106	90 - 110	2006-07-27

Standard (CCV-1)

QC Batch: 28406 Date Analyzed: 2006-07-27 Analyzed By: SM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1075	108	90 - 110	2006-07-27

Standard (ICV-1)

QC Batch: 28782 Date Analyzed: 2006-08-02 Analyzed By: WB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.4	99	90 - 110	2006-08-02
Sulfate		mg/L	12.5	12.7	102	90 - 110	2006-08-02

Standard (CCV-1)

QC Batch: 28782 Date Analyzed: 2006-08-02 Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.2	98	90 - 110	2006-08-02
Sulfate		mg/L	12.5	12.4	99	90 - 110	2006-08-02

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Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

185 McCutcheon Way, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6072144

Company Name: RICE Operating Company	Phone #: (505)393-9174
Address: (Street, City, Zip) 122 W Taylor Street - Hobbs, New Mexico 88240	Fax #: (505) 397-1471
Contact Person: Kristin Farris - Pope, Project Scientist	kpope@riceswd.com
Invoice to: (If different from above)	
Project #: None Given	Project Name: EME Junction K-33-1
Project Location: Lea County - New Mexico	Sampler Signature: Rozanne Johnson (505)631-9310 rozanne@valornet.com

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO_3	$NaHSO_4$	H_2SO_4	ICE	NONE	SAMPLING: DATE 2006	TIME	MTBE 8021B/602	BTEX 8021B/602	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	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SSSSO4, CO3, HCO3)	Total Dissolved Solids		Turn Around Time if different from standard	Hold
96141	Monitor Well #1	2	40 ml	X				X				X		7-17	12:15		X																			
	Monitor Well #1	1	1L	X								X		7-17	12:15																	X	X	X			

Relinquished by: Rozanne Johnson	Date: 7-20-06	Time: 800	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received at Laboratory by: Megan McCol 7-21-06 1105

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of COC

LAB USE ONLY
Intact (Y) N
Headspace Y N
Temp 5.0 °
Log-in Review MM

REMARKS:
☐ check if special reporting limits needed

Carrier # Bus GI 1690177159

ENVIRONMENTAL LAB OF
[illegible] West I-20 East, Odessa, Texas 79765

Analytical Report

Prepared for:

Mike Griffin

WHOLE EARTH ENVIRONMENTAL

2103 Arbor Cove

Katy, TX 77494

Project: K-33-1 NW

Project Number: None Given

Location: Monument, NM

Lab Order Number: 6J12008

Report Date: 10/23/06

WHOLE EARTH ENVIRONMENTAL
2103 Arbor Cove
Katy TX, 77494

Project: K-33-1 NW
Project Number: None Given
Project Manager: Mike Griffin

Fax: (281) 394-2051

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
K-33-1@ 5'	6J12008-01	Soil	10/06/06 00:00	10-12-2006 14:40
K-33-1@ 10'	6J12008-02	Soil	10/06/06 00:00	10-12-2006 14:40
K-33-1@ 15'	6J12008-03	Soil	10/06/06 00:00	10-12-2006 14:40
K-33-1@ 20'	6J12008-04	Soil	10/06/06 00:00	10-12-2006 14:40
K-33-1@ 25'	6J12008-05	Soil	10/06/06 00:00	10-12-2006 14:40
K-33-1@ 28'	6J12008-06	Soil	10/06/06 00:00	10-12-2006 14:40

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

ent: Whole Earth

me: 10/12/06 2:40

b ID #: 6J12008

tials: CK

Sample Receipt Checklist

					Client Initials
	Temperature of container/ cooler?	Yes	No	21.0 °C	
	Shipping container in good condition?	Yes	No		
	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
	Chain of Custody present?	Yes	No		
	Sample instructions complete of Chain of Custody?	Yes	No		
	Chain of Custody signed when relinquished/ received?	Yes	No		
	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
	Container label(s) legible and intact?	Yes	No	Not Applicable	
10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
11	Containers supplied by ELOT?	Yes	No		
12	Samples in proper container/ bottle?	Yes	No	See Below	
13	Samples properly preserved?	Yes	No	See Below	
14	Sample bottles intact?	Yes	No		
15	Preservations documented on Chain of Custody?	Yes	No		
16	Containers documented on Chain of Custody?	Yes	No		
17	fficient sample amount for indicated test(s)?	Yes	No	See Below	
18	ll samples received within sufficient hold time?	Yes	No	See Below	
19	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

ontact: _____ Contacted by: _____ Date/ Time: _____

egarding: _____

_____

orrective Action Taken:

_____

_____

_____

heck all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

WHOLE EARTH ENVIRONMENTAL
2103 Arbor Cove
Katy TX, 77494

Project: K-33-1 NW
Project Number: None Given
Project Manager: Mike Griffin

Fax: (281) 394-2051

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
K-33-1@ 5' (6J12008-01) Soil									
Chloride	ND	20.0	mg/kg Wet	2	EJ61414	10/20/06	10/21/06	SW 846 9253	
Specific Conductance (EC)	**287**	20.0	umhos/cm	"	EJ61205	10/12/06	10/12/06	EPA 9050A	
K-33-1@ 10' (6J12008-02) Soil									
Chloride	**21.3**	20.0	mg/kg Wet	2	EJ61414	10/20/06	10/21/06	SW 846 9253	
Specific Conductance (EC)	**631**	20.0	umhos/cm	"	EJ61205	10/12/06	10/12/06	EPA 9050A	
K-33-1@ 15' (6J12008-03) Soil									
Chloride	**21.3**	20.0	mg/kg Wet	2	EJ61414	10/20/06	10/21/06	SW 846 9253	
Specific Conductance (EC)	**584**	20.0	umhos/cm	"	EJ61205	10/12/06	10/12/06	EPA 9050A	
K-33-1@ 20' (6J12008-04) Soil									
Chloride	ND	20.0	mg/kg Wet	2	EJ61414	10/20/06	10/21/06	SW 846 9253	
Specific Conductance (EC)	**310**	20.0	umhos/cm	"	EJ61205	10/12/06	10/12/06	EPA 9050A	
K-33-1@ 25' (6J12008-05) Soil									
Chloride	**74.4**	20.0	mg/kg Wet	2	EJ61414	10/20/06	10/21/06	SW 846 9253	
Specific Conductance (EC)	**492**	20.0	umhos/cm	"	EJ61205	10/12/06	10/12/06	EPA 9050A	
K-33-1@ 28' (6J12008-06) Soil									
Chloride	**189**	20.0	mg/kg Wet	2	EJ61414	10/20/06	10/21/06	SW 846 9253	
Specific Conductance (EC)	**1030**	20.0	umhos/cm	"	EJ61205	10/12/06	10/12/06	EPA 9050A	

WHOLE EARTH ENVIRONMENTAL
2103 Arbor Cove
Katy TX, 77494

Project: K-33-1 NW
Project Number: None Given
Project Manager: Mike Griffin

Fax: (281) 394-2051

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61205 - Water Extraction										
Calibration Check (EJ61205-CCV1)				Prepared & Analyzed: 10/12/06						
Specific Conductance (EC)	1400		umhos/cm	1410		99.3	80-120			
Duplicate (EJ61205-DUP1)		Source: 6J12008-01		Prepared & Analyzed: 10/12/06						
Specific Conductance (EC)	283	20.0	umhos/cm		287			1.40	20	
Batch EJ61414 - Water Extraction										
Blank (EJ61414-BLK1)				Prepared: 10/14/06 Analyzed: 10/21/06						
Chloride	ND	20.0	mg/kg Wet							
LCS (EJ61414-BS1)				Prepared: 10/14/06 Analyzed: 10/21/06						
Chloride	91.5	5.00	mg/kg Wet	100		91.5	80-120			
Matrix Spike (EJ61414-MS1)		Source: 6J12008-01		Prepared: 10/19/06 Analyzed: 10/21/06						
Chloride	510	20.0	mg/kg Wet	500	0.00	102	80-120			
Matrix Spike Dup (EJ61414-MSD1)		Source: 6J12008-01		Prepared: 10/19/06 Analyzed: 10/21/06						
Chloride	521	20.0	mg/kg Wet	500	0.00	104	80-120	2.13	20	
Reference (EJ61414-SRM1)				Prepared: 10/14/06 Analyzed: 10/21/06						
Chloride	50.0	5.00	mg/kg Wet	50.0		100	80-120			

WHOLE EARTH ENVIRONMENTAL
2103 Arbor Cove
Katy TX, 77494

Project: K-33-1 NW
Project Number: None Given
Project Manager: Mike Griffin

Fax: (281) 394-2051

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. Tuttle Date: 10/23/2006

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.

Environmental Lab of Texas, Inc.

00 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: M. Griffin
Company Name: Whole Earth Environmental, Inc.
Company Address: 2103 Arbor Cove
City/State/Zip: Katy, TX 77494
Telephone No: 281.394.2050
Fax No: 281.394.2051
Sampler Signature:

Project Name: K-33-1 NW
Project #:
Project Loc: Monument, NM
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP: TDS / CL / SAR / EC	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Chlorides	S.A.R.	E.C.	pH	RUSH TAT (Pre-Schedule)	Standard TAT
-01	K-33-1 @ 5'	10/06/06		1						X				X										X		X			
-02	K-33-1 @ 10'	10/06/06		1						X				X										X		X			
-03	K-33-1 @ 15'	10/06/06		1						X				X										X		X			
-04	K-33-1 @ 20'	10/06/06		1						X				X										X		X			
-05	K-33-1 @ 25'	10/06/06		1						X				X										X		X			
-06	K-33-1 @ 28'	10/06/06		1						X				X										X		X			

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt: 2.0 C
Laboratory Comments: 4 tubes

Relinquished by:	Date	Time	Received by:	Date	Time
M. Griffin	7/31/2006				
UPS	10/12/06	2:00	Received by ELOT	10/12/06	2:45

ENVIRONMENTAL LAB OF
[illegible]

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: EME Jct. K-33-1

Project Number: None Given

Location: T19S-R37E-Sec33K, Lea Co., NM

Lab Order Number: 6J12016

Report Date: 10/24/06

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6J12016-01	Water	10/12/06 10:15	10-12-2006 16:00
Monitor Well #2	6J12016-02	Water	10/12/06 09:05	10-12-2006 16:00
Monitor Well #3	6J12016-03	Water	10/12/06 11:10	10-12-2006 16:00

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Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. K-33-1
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6J12016-01) Water									
Benzene	ND	0.00100	mg/L	1	EJ61608	10/16/06	10/16/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*85.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.5 %*	*80-120*		"	"	"	"	
Monitor Well #2 (6J12016-02) Water									
Benzene	**0.00340**	0.00100	mg/L	1	EJ61608	10/16/06	10/16/06	EPA 8021B	
Toluene	**0.00405**	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.2 %*	*80-120*		"	"	"	"	
Monitor Well #3 (6J12016-03) Water									
Benzene	ND	0.00100	mg/L	1	EJ61608	10/16/06	10/16/06	EPA 8021B	
Toluene	**J [0.000862]**	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*84.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.0 %*	*80-120*		"	"	"	"	

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6J12016-01) Water									
Total Alkalinity	**292**	2.00	mg/L	1	EJ61311	10/13/06	10/13/06	EPA 310.1M	
Chloride	**686**	25.0	"	50	EJ61403	10/19/06	10/19/06	EPA 300.0	
Total Dissolved Solids	**1910**	10.0	"	1	EJ61404	10/14/06	10/15/06	EPA 160.1	
Sulfate	**283**	25.0	"	50	EJ61403	10/19/06	10/19/06	EPA 300.0	
Monitor Well #2 (6J12016-02) Water									
Total Alkalinity	**285**	2.00	mg/L	1	EJ61311	10/13/06	10/13/06	EPA 310.1M	
Chloride	**692**	12.5	"	25	EJ61403	10/19/06	10/19/06	EPA 300.0	
Total Dissolved Solids	**1900**	10.0	"	1	EJ61404	10/14/06	10/15/06	EPA 160.1	
Sulfate	**237**	12.5	"	25	EJ61403	10/19/06	10/19/06	EPA 300.0	
Monitor Well #3 (6J12016-03) Water									
Total Alkalinity	**306**	2.00	mg/L	1	EJ61311	10/13/06	10/13/06	EPA 310.1M	
Chloride	**687**	25.0	"	50	EJ61403	10/19/06	10/19/06	EPA 300.0	
Total Dissolved Solids	**2100**	10.0	"	1	EJ61404	10/14/06	10/15/06	EPA 160.1	
Sulfate	**296**	25.0	"	50	EJ61403	10/19/06	10/19/06	EPA 300.0	

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6J12016-01) Water									
Calcium	**209**	4.05	mg/L	50	EJ61604	10/13/06	10/16/06	EPA 6010B	
Magnesium	**99.6**	1.80	"	"	"	"	"	"	
Potassium	**15.2**	0.600	"	10	"	"	"	"	
Sodium	**246**	2.15	"	50	"	"	"	"	
Monitor Well #2 (6J12016-02) Water									
Calcium	**213**	4.05	mg/L	50	EJ61604	10/13/06	10/16/06	EPA 6010B	
Magnesium	**106**	1.80	"	"	"	"	"	"	
Potassium	**14.2**	0.600	"	10	"	"	"	"	
Sodium	**250**	2.15	"	50	"	"	"	"	
Monitor Well #3 (6J12016-03) Water									
Calcium	**231**	4.05	mg/L	50	EJ61604	10/13/06	10/16/06	EPA 6010B	
Magnesium	**108**	1.80	"	"	"	"	"	"	
Potassium	**16.1**	0.600	"	10	"	"	"	"	
Sodium	**261**	2.15	"	50	"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. K-33-1
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61608 - EPA 5030C (GC)										
Blank (EJ61608-BLK1)				Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*32.4*		*ug/l*	*40.0*		*81.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.9*		*"*	*40.0*		*84.8*	*80-120*			
LCS (EJ61608-BS1)				Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	0.0482	0.00100	mg/L	0.0500		96.4	80-120			
Toluene	0.0428	0.00100	"	0.0500		85.6	80-120			
Ethylbenzene	0.0413	0.00100	"	0.0500		82.6	80-120			
Xylene (p/m)	0.0853	0.00100	"	0.100		85.3	80-120			
Xylene (o)	0.0409	0.00100	"	0.0500		81.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.7*		*ug/l*	*40.0*		*91.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.8*		*"*	*40.0*		*107*	*80-120*			
Calibration Check (EJ61608-CCV1)				Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	50.4		ug/l	50.0		101	80-120			
Toluene	43.5		"	50.0		87.0	80-120			
Ethylbenzene	41.4		"	50.0		82.8	80-120			
Xylene (p/m)	81.9		"	100		81.9	80-120			
Xylene (o)	40.3		"	50.0		80.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*33.7*		*"*	*40.0*		*84.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.0*		*"*	*40.0*		*87.5*	*80-120*			
Matrix Spike (EJ61608-MS1)	**Source: 6J12016-01**			Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	0.0518	0.00100	mg/L	0.0500	ND	104	80-120			
Toluene	0.0462	0.00100	"	0.0500	ND	92.4	80-120			
Ethylbenzene	0.0424	0.00100	"	0.0500	ND	84.8	80-120			
Xylene (p/m)	0.0932	0.00100	"	0.100	ND	93.2	80-120			
Xylene (o)	0.0432	0.00100	"	0.0500	ND	86.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.6*		*ug/l*	*40.0*		*94.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.6*		*"*	*40.0*		*99.0*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61608 - EPA 5030C (GC)										
Matrix Spike Dup (EJ61608-MSD1)	**Source: 6J12016-01**			Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	0.0500	0.00100	mg/L	0.0500	ND	100	80-120	3.92	20	
Toluene	0.0424	0.00100	"	0.0500	ND	84.8	80-120	8.58	20	
Ethylbenzene	0.0453	0.00100	"	0.0500	ND	90.6	80-120	6.61	20	
Xylene (p/m)	0.0807	0.00100	"	0.100	ND	80.7	80-120	14.4	20	
Xylene (o)	0.0412	0.00100	"	0.0500	ND	82.4	80-120	4.74	20	
Surrogate: a,a,a-Trifluorotoluene	*33.8*		*ug/l*	*40.0*		*84.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.7*		*"*	*40.0*		*86.8*	*80-120*			

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. K-33-1
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61311 - General Preparation (WetChem)										
Blank (EJ61311-BLK1)				Prepared & Analyzed: 10/13/06						
Total Alkalinity	ND	2.00	mg/L							
Carbonate Alkalinity	ND	0.100	"							
Bicarbonate Alkalinity	ND	2.00	"							
Hydroxide Alkalinity	ND	0.100	"							
LCS (EJ61311-BS1)				Prepared: 10/13/06 Analyzed: 10/20/06						
Bicarbonate Alkalinity	196	2.00	mg/L	200		98.0	85-115			
Duplicate (EJ61311-DUP1)	**Source: 6J12011-01**			Prepared & Analyzed: 10/13/06						
Total Alkalinity	238	2.00	mg/L		242			1.67	20	
Reference (EJ61311-SRM1)				Prepared & Analyzed: 10/13/06						
Total Alkalinity	250		mg/L	250		100	90-110			
Batch EJ61403 - General Preparation (WetChem)										
Blank (EJ61403-BLK1)				Prepared & Analyzed: 10/19/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EJ61403-BS1)				Prepared & Analyzed: 10/19/06						
Sulfate	9.55	0.500	mg/L	10.0		95.5	80-120			
Chloride	9.62	0.500	"	10.0		96.2	80-120			
Calibration Check (EJ61403-CCV1)				Prepared & Analyzed: 10/19/06						
Sulfate	10.1		mg/L	10.0		101	80-120			
Chloride	10.5		"	10.0		105	80-120			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61403 - General Preparation (WetChem)										
Duplicate (EJ61403-DUP1)	**Source: 6J12011-01**			Prepared & Analyzed: 10/19/06						
Sulfate	291	25.0	mg/L		308			5.68	20	
Chloride	1430	25.0	"		1430			0.00	20	
Duplicate (EJ61403-DUP2)	**Source: 6J12016-02**			Prepared & Analyzed: 10/19/06						
Sulfate	236	12.5	mg/L		237			0.423	20	
Chloride	690	12.5	"		692			0.289	20	
Matrix Spike (EJ61403-MS1)	**Source: 6J12011-01**			Prepared & Analyzed: 10/19/06						
Sulfate	781	25.0	mg/L	500	308	94.6	80-120			
Chloride	2040	25.0	"	500	1430	122	80-120			S-07
Matrix Spike (EJ61403-MS2)	**Source: 6J12016-02**			Prepared & Analyzed: 10/19/06						
Sulfate	476	12.5	mg/L	250	237	95.6	80-120			
Chloride	979	12.5	"	250	692	115	80-120			
Batch EJ61404 - Filtration Preparation										
Blank (EJ61404-BLK1)				Prepared: 10/14/06 Analyzed: 10/15/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EJ61404-DUP1)	**Source: 6J12011-01**			Prepared: 10/14/06 Analyzed: 10/15/06						
Total Dissolved Solids	3380	10.0	mg/L		3260			3.61	5	
Duplicate (EJ61404-DUP2)	**Source: 6J12016-02**			Prepared: 10/14/06 Analyzed: 10/15/06						
Total Dissolved Solids	1850	10.0	mg/L		1900			2.67	5	

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61604 - 6010B/No Digestion										
Blank (EJ61604-BLK1)				Prepared: 10/13/06 Analyzed: 10/16/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EJ61604-CCV1)				Prepared: 10/13/06 Analyzed: 10/16/06						
Calcium	1.99		mg/L	2.00		99.5	85-115			
Magnesium	2.20		"	2.00		110	85-115			
Potassium	1.94		"	2.00		97.0	85-115			
Sodium	1.79		"	2.00		89.5	85-115			
Duplicate (EJ61604-DUP1)	**Source: 6J12001-04**			Prepared: 10/13/06 Analyzed: 10/16/06						
Calcium	0.426	0.0810	mg/L		0.427			0.234	20	
Magnesium	0.432	0.0360	"		0.422			2.34	20	
Potassium	0.596	0.0600	"		0.582			2.38	20	
Sodium	0.890	0.0430	"		0.866			2.73	20	

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Notes and Definitions

S-07	Recovery outside Laboratory historical or method prescribed limits.
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. Tuttle Date: 10/24/2006

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.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: EME Junction K-33-1
Project Number:
Project Loc: T19S-R37E-Sec33K, Lea County NM
PO Number:

LAB # (lab use only) 6/1/2016	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl (2) 40 ml glass vials	NaOH	H2SO4	None (1) 1 Liter HDPE	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids			RUSH TAT (Pre-Schedule)	Standard TAT
-01	Monitor Well #1	10/12/2006	10:15	3	X		2			1		X					X	X					X			X				X
-02	Monitor Well #2	10/12/2006	9:05	3	X		2			1		X					X	X					X			X				X
-03	Monitor Well #3	10/12/2006	11:10	3	X		2			1		X					X	X					X			X				X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com; mfranks@riceswd.com
rozanne@valornet.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt:

Laboratory Comments:
2.0

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	10/12/06	4:00			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Dawn Cox	10/12/06	4:00

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Rice DP.

/ Time: 10/12/16 4:00

ID #: 6,5120 16

ils: CH

Sample Receipt Checklist

				Client Initials
Temperature of container/ cooler?	Yes	No	2.0 °C	
Shipping container in good condition?	Yes	No		
Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
Chain of Custody present?	Yes	No		
Sample instructions complete of Chain of Custody?	Yes	No		
Chain of Custody signed when relinquished/ received?	Yes	No		
Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
Container label(s) legible and intact?	Yes	No	Not Applicable	
) Sample matrix/ properties agree with Chain of Custody?	Yes	No		
1 Containers supplied by ELOT?	Yes	No		
2 Samples in proper container/ bottle?	Yes	No	See Below	
3 Samples properly preserved?	Yes	No	See Below	
4 Sample bottles intact?	Yes	No		
5 Preservations documented on Chain of Custody?	Yes	No		
6 Containers documented on Chain of Custody?	Yes	No		
7 Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
8 All samples received within sufficient hold time?	Yes	No	See Below	
9 VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

ontact: _____ Contacted by: _____ Date/ Time: _____

egarding: _____

_____

Corrective Action Taken:

_____

_____

_____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

ENVIRONMENTAL LAB OF
[illegible]

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: EME Jct. K-33-1

Project Number: None Given

Location: T19S R37E Sec. 33 K- Lea County, NM

Lab Order Number: 6L07009

Report Date: 12/19/06

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #3	6L07009-01	Water	12/06/06 15:45	12-07-2006 10:50

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #3 (6L07009-01) Water									
Benzene	ND	0.00100	mg/L	1	EL61404	12/14/06	12/18/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*98.5 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.0 %*		*80-120*	"	"	"	"	

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Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. K-33-1
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL61404 - EPA 5030C (GC)										
Blank (EL61404-BLK1)				Prepared & Analyzed: 12/14/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*45.2*		*ug/l*	*40.0*		*113*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.5*		"	*40.0*		*86.2*	*80-120*			
LCS (EL61404-BS1)				Prepared & Analyzed: 12/14/06						
Benzene	0.0423	0.00100	mg/L	0.0500		84.6	80-120			
Toluene	0.0430	0.00100	"	0.0500		86.0	80-120			
Ethylbenzene	0.0426	0.00100	"	0.0500		85.2	80-120			
Xylene (p/m)	0.0962	0.00100	"	0.100		96.2	80-120			
Xylene (o)	0.0469	0.00100	"	0.0500		93.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.6*		*ug/l*	*40.0*		*94.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.8*		"	*40.0*		*82.0*	*80-120*			
Calibration Check (EL61404-CCV1)				Prepared: 12/14/06 Analyzed: 12/15/06						
Benzene	54.4		ug/l	50.0		109	80-120			
Toluene	55.1		"	50.0		110	80-120			
Ethylbenzene	59.3		"	50.0		119	80-120			
Xylene (p/m)	116		"	100		116	80-120			
Xylene (o)	58.7		"	50.0		117	80-120			
Surrogate: a,a,a-Trifluorotoluene	*47.9*		"	*40.0*		*120*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.0*		"	*40.0*		*100*	*80-120*			
Matrix Spike (EL61404-MS1)	**Source: 6L05006-10**			Prepared: 12/14/06 Analyzed: 12/18/06						
Benzene	0.0402	0.00100	mg/L	0.0500	ND	80.4	80-120			
Toluene	0.0407	0.00100	"	0.0500	ND	81.4	80-120			
Ethylbenzene	0.0487	0.00100	"	0.0500	ND	97.4	80-120			
Xylene (p/m)	0.0853	0.00100	"	0.100	ND	85.3	80-120			
Xylene (o)	0.0444	0.00100	"	0.0500	ND	88.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.6*		*ug/l*	*40.0*		*81.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.7*		"	*40.0*		*96.8*	*80-120*			

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL61404 - EPA 5030C (GC)										
Matrix Spike Dup (EL61404-MSD1)	**Source: 6L05006-10**			Prepared: 12/14/06 Analyzed: 12/18/06						
Benzene	0.0422	0.00100	mg/L	0.0500	ND	84.4	80-120	4.85	20	
Toluene	0.0446	0.00100	"	0.0500	ND	89.2	80-120	9.14	20	
Ethylbenzene	0.0464	0.00100	"	0.0500	ND	92.8	80-120	4.84	20	
Xylene (p/m)	0.102	0.00100	"	0.100	ND	102	80-120	17.8	20	
Xylene (o)	0.0513	0.00100	"	0.0500	ND	103	80-120	14.8	20	
Surrogate: a,a,a-Trifluorotoluene	*38.2*		*ug/l*	*40.0*		*95.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.7*		*"*	*40.0*		*94.2*	*80-120*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

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. Tuttle Date: 12/19/2006

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.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505)631-9310 e-mail: rozanne@valornet.com

Project Name: EME Junction K-33-1
Project #:
Project Loc: T19S R37E Sec33 K ~ Lea County New Mexico
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 0612078

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl (2) 40 ml glass vials	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles (BTEX-N 8260)	Semivolatiles	TOTAL: BTEX 8021B/5030or BTEX 8260 X	RCI	N.O.R.M.	Total Dissolved Solids	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	Monitor Well #3			12/6/2006	15:45		2	X		2						GW									X					X

Special Instructions:
Please email to : kpope@riceswd.com mfranks@riceswd.com rozanne@valornet.com
Bill to Roz per Roz

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	12-7-06	10:50			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				12/7/06	10:50

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: ~2.0 °C
not frozen

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice Op.

Date/ Time: 12/7/11 10:50

Lab ID #: 11L071009

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	-2.0 °C	
#2	Shipping container in good condition?	~~Yes~~	No		
#3	Custody Seals intact on shipping container/ cooler?	~~Yes~~	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	~~Yes~~	No	Not Present	
#5	Chain of Custody present?	~~Yes~~	No		
#6	Sample instructions complete of Chain of Custody?	~~Yes~~	No		
#7	Chain of Custody signed when relinquished/ received?	~~Yes~~	No		
#8	Chain of Custody agrees with sample label(s)?	~~Yes~~	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	~~Yes~~	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	~~Yes~~	No		
#11	Containers supplied by ELOT?	~~Yes~~	No		
#12	Samples in proper container/ bottle?	~~Yes~~	No	See Below	
#13	Samples properly preserved?	~~Yes~~	No	See Below	
#14	Sample bottles intact?	~~Yes~~	No		
#15	Preservations documented on Chain of Custody?	~~Yes~~	No		
#16	Containers documented on Chain of Custody?	~~Yes~~	No		
#17	Sufficient sample amount for indicated test(s)?	~~Yes~~	No	See Below	
#18	All samples received within sufficient hold time?	~~Yes~~	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	~~Yes~~	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event