

AP - 60

**ANNUAL  
MONITORING REPORT**

**YEAR(S):**

2004

# **RICE** *Operating Company*

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

CERTIFIED MAIL  
RETURN RECEIPT NO. 7002 2410 0000 4940 1749

January 19, 2005

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

**RE: 2004 MONITOR WELL REPORT/SAMPLING SUMMARY  
JUNCTION K-33-1, EME SWD SYSTEM  
UNIT 'K', SEC. 33, T19S, R37E  
NMOCD CASE #1R0427-92**

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the 2004 Monitor Well Report for the EME K-33-1 junction box site located in the Eunice Monument Eumont (EME) Salt Water Disposal (SWD) System. One monitoring well was installed in 2002 during the delineation of a junction box. This well is sampled quarterly pursuant to NMOCD guidelines. In 2004, ROC and Arcadis G&M, Inc. of Midland, Texas sampled the well. In 2005, Whole Earth Environmental, Inc. (Whole Earth) of Houston will sample the well and Environmental Lab of Texas of Odessa will continue to conduct analytical tests of the water samples.

Whole Earth has been contracted by ROC to address groundwater concerns at this. NMOCD may expect the submission of an Investigation & Characterization Plan (ICP) this year.

ROC is the service provider (operator) for the EME Salt Water Disposal System and has no ownership of any portion of pipeline, well, or facility. The EME SWD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

Thank you for your consideration concerning this annual summary of groundwater monitoring information. If you have any questions, do not hesitate to contact me.

RICE OPERATING COMAPANY

*Kristin Farris Pope*

Kristin Farris Pope  
Project Scientist

enclosures:      Summary table & graph  
                         Analytical results  
                         map

cc: LBG, CDH, Whole Earth, file, Rob Roy Industries,

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

**EME jct. K-33-1**  
unit 'K', Sec. 33, T19S, R37E

NMOCD Case #1R0427-92

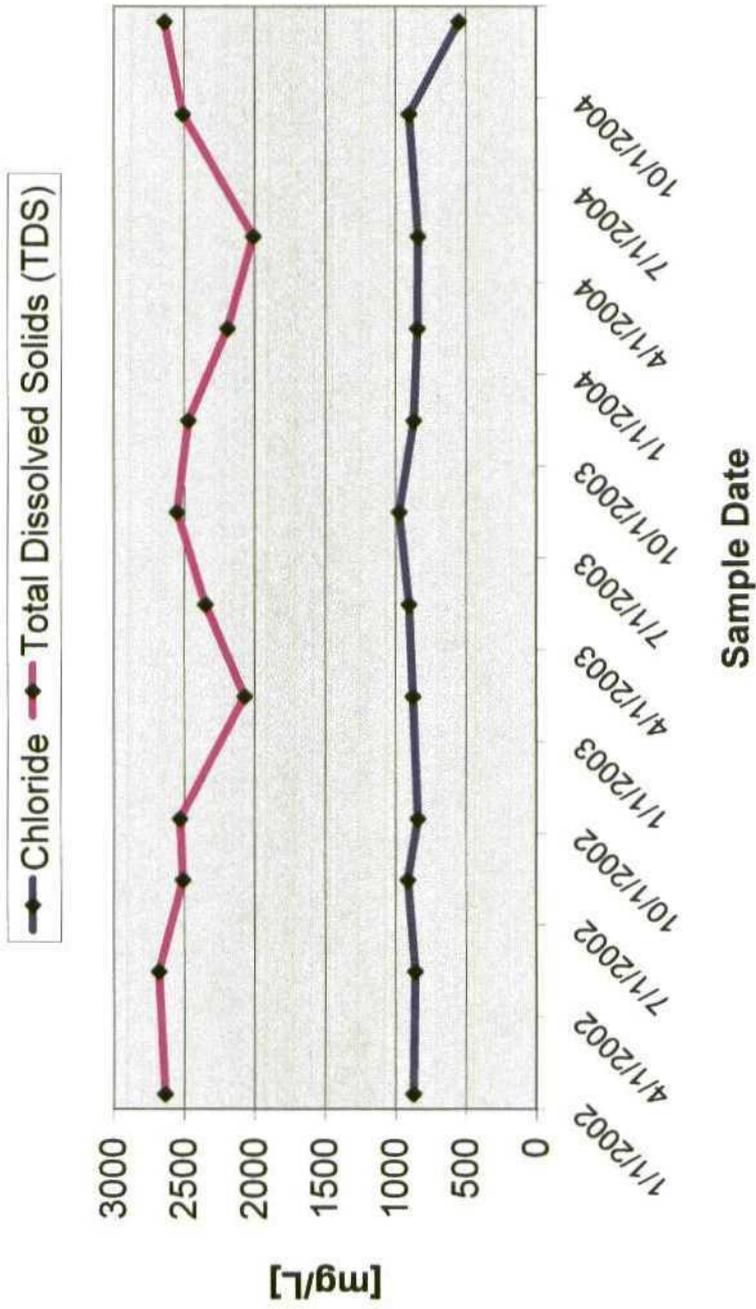
**RICE Operating Company**  
Monitor Well Data Sheet

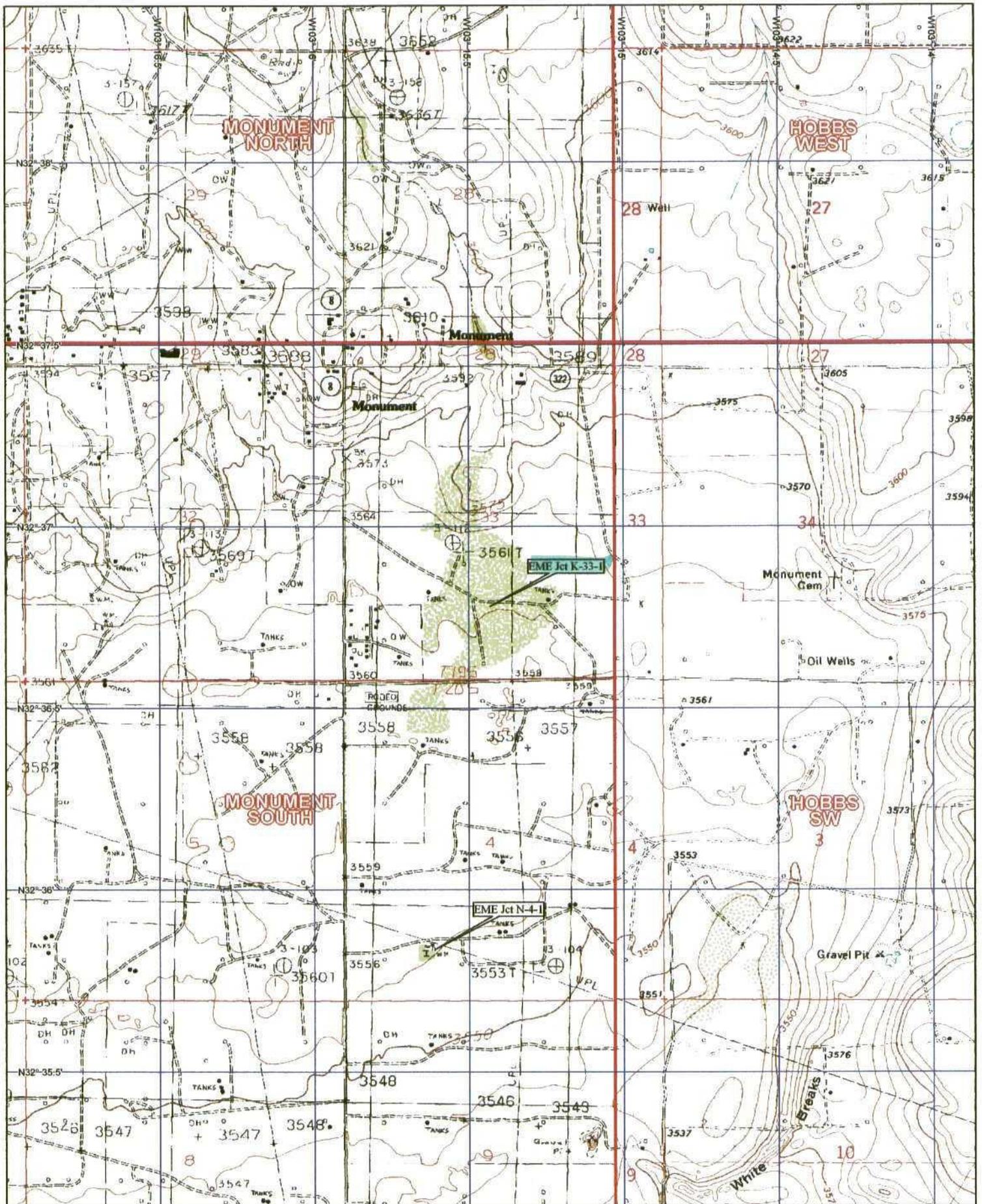
All concentrations are in mg/L

MW #	DEPTH TO WATER *	(ft)		(gal)				CI <sup>-</sup>	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	COMMENTS
		TOTAL DEPTH	WELL VOLUME	VOLUME PURGED	SAMPLE DATE									
1	36.90	41.00	0.700	2.00	01/10/02	872	2635	<0.002	<0.002	<0.002	<0.002	<0.006		
1	36.88	40.78	0.624	2.90	05/13/02	860	2680	<1.00	<1.00	<1.00	<1.00	<2.00		
1	37.20	40.79	0.574	1.75	08/12/02	913	2510	<0.001	<0.001	<0.001	<0.001	<0.002		
1	37.11	40.77	0.586	1.75	10/31/02	842	2530	<0.001	<0.001	<0.001	<0.001	<0.002		
1	37.10	40.77	0.580	1.70	02/27/03	877	2070	<0.001	<0.001	<0.001	<0.001	0.001		
1	31.10	41.20	1.616	4.80	05/22/03	904	2350	<0.001	<0.001	<0.001	<0.001	<0.002		
1	37.29	40.04	0.440	1.32	08/21/03	975	2550	<0.001	<0.001	<0.001	<0.001	<0.002		
1	37.40	40.78	0.540	1.60	11/19/03	869	2470	<0.001	<0.001	<0.001	<0.001	<0.002		
1	37.40	40.75	0.540	1.60	02/18/04	844	2192	<0.002	<0.002	<0.002	<0.002	<0.006		
1	37.30	40.75	0.550	2.00	05/26/04	840	2008	<0.002	<0.002	<0.002	<0.002	<0.006		
1	37.12	41.00	XXX	2.00	09/02/04	904	2510	<0.001	<0.001	<0.001	<0.001	<0.001	clear	
1	32.91	41.00	XXX	4.05	12/21/04	550	2640	<0.001	<0.001	<0.001	<0.001	<0.001		

\* Depth to water measured from top of casing  
Casing is 3.021 ft

### EME Jct. K-33-1 Monitor Well







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

*Bryant J. Cooke*  
 Chemist

*2/20/04*  
 Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. H8466B.XLS Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



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 ( $\mu$ S/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /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
----------	-------------	-----------	------	-------	-------

	Cl <sup>-</sup> (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (mg/L)	pH (s.u.)	TDS (mg/L)	
ANALYSIS DATE:		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

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

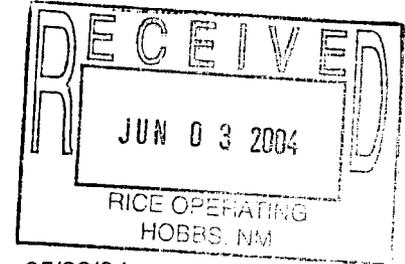




PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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: 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

*Bryson J. Cook*  
 Chemist

5/28/04  
 Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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 ( $\mu$ S/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /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	
	Cl <sup>-</sup> (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (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

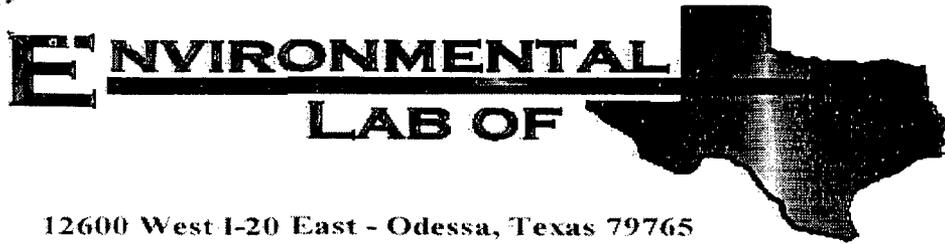
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
----------	-------------	-------	-------	-------	-------	-------

Chemist

Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.





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  
1004 N. Big Spring Street  
Midland TX. 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401  
Reported:  
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

ARCADIS  
 1004 N. Big Spring Street  
 Midland TX, 79701

Project: Jct. K-33-1/510  
 Project Number: Jct. K-33-1/510  
 Project Manager: Sharon Hall

Fax: (432) 687-5401  
**Reported:**  
 09/19/04 11:53

**Organics by GC  
 Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (4103014-01) Water</b>									
Benzene	ND	0.00100	mg/L	1	E141004	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	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		107 %	80-120		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.5 %	80-120		"	"	"	"	

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
09/19/04 11:53

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (4103014-01) Water</b>									
Carbonate Alkalinity	ND	0.100	mg/L	1	EI41608	09/03/04	09/03/04	EPA 310.2M	
<b>Bicarbonate Alkalinity</b>	<b>236</b>	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
<b>Chloride</b>	<b>904</b>	5.00	"	"	EI40805	09/07/04	09/07/04	EPA 325.3M	
<b>Total Dissolved Solids</b>	<b>2510</b>	5.00	"	"	EI41607	09/09/04	09/09/04	EPA 160.1	
<b>Sulfate</b>	<b>304</b>	2.50	"	5	EI41312	09/10/04	09/10/04	EPA 375.4	

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
09/19/04 11:53

**Total Metals by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (4103014-01) Water</b>									
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	"	"	"	"	

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
09/19/04 11:53

**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	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	23.4		ug/l	20.0		117	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	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			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	16.7		"	20.0		83.5	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	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	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	18.0		"	20.0		90.0	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	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			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	23.0		"	20.0		115	80-120			
<i>Surrogate: 4-Bromofluorobenzene</i>	18.6		"	20.0		93.0	80-120			

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
09/19/04 11:53

**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			

ARCADIS  
 1004 N. Big Spring Street  
 Midland TX, 79701

Project: Jct. K-33-1/510  
 Project Number: Jct. K-33-1/510  
 Project Manager: Sharon Hall

Fax: (432) 687-5401  
 Reported:  
 09/19/04 11:53

**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							
------------------------	----	------	------	--	--	--	--	--	--	--

ARCADIS  
 1004 N. Big Spring Street  
 Midland TX, 79701

Project: Jct. K-33-1/510  
 Project Number: Jct. K-33-1/510  
 Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
 09/19/04 11:53

**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**

<b>Duplicate (EI41607-DUP1)</b>		<b>Source: 4I03010-01</b>			<b>Prepared &amp; Analyzed: 09/09/04</b>					
Total Dissolved Solids	1610	5.00	mg/L		1640			1.85	20	

**Batch EI41608 - General Preparation (WetChem)**

<b>Blank (EI41608-BLK1)</b>		<b>Prepared &amp; Analyzed: 09/03/04</b>								
Carbonate Alkalinity	ND	0.100	mg/L							
Bicarbonate Alkalinity	ND	2.00	"							
Hydroxide Alkalinity	ND	0.100	"							

<b>Duplicate (EI41608-DUP1)</b>		<b>Source: 4I03010-01</b>			<b>Prepared &amp; Analyzed: 09/03/04</b>					
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

<b>Reference (EI41608-SRM1)</b>		<b>Prepared &amp; Analyzed: 09/03/04</b>								
Carbonate Alkalinity	0.0501		mg/L	0.0500		100	80-120			

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
09/19/04 11:53

**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	

ARCADIS  
 1004 N. Big Spring Street  
 Midland TX, 79701

Project: Jct. K-33-1/510  
 Project Number: Jct. K-33-1/510  
 Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
 09/19/04 11:53

**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	

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
09/19/04 11:53

### 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.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

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

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

Client: Archadis  
 Date/Time: 9-3-04  
 Order #: 4J03014 -01  
 Initials: AT

**Sample Receipt Checklist**

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

Other observations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Variance Documentation:**

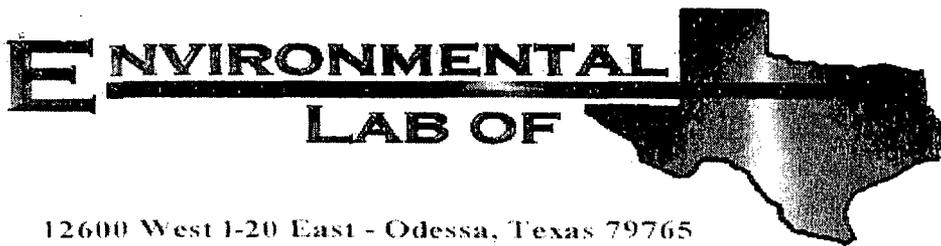
Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_  
 Regarding:

\_\_\_\_\_  
 \_\_\_\_\_

Corrective Action Taken:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_





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: 4L22006

Report Date: 12/30/04

ARCADIS 1004 N. Big Spring Street Midland TX, 79701	Project: Jct. K-33-1/510 Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall	Fax: (432) 687-5401 <b>Reported:</b> 12/30/04 12:18
---	---	---

**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

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
12/30/04 12:18

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (4L22006-01) Water</b>									
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: <i>a,a,a</i> -Trifluorotoluene		96.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	80-120		"	"	"	"	

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401  
**Reported:**  
12/30/04 12:18

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

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

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
12/30/04 15:08

**Total Metals by EPA / Standard Methods  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (4L22006-01) Water</b>									
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	"	"	"	"	

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401  
**Reported:**  
12/30/04 12:18

**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			

ARCADIS  
 1004 N. Big Spring Street  
 Midland TX, 79701

Project: Jct. K-33-1/510  
 Project Number: Jct. K-33-1/510  
 Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
 12/30/04 12:18

**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			

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
12/30/04 12:18

**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

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:  
12/30/04 12:18

**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
<b>Batch EL42908 - General Preparation (WetChem)</b>										
<b>Reference (EL42908-SRM1)</b> Prepared & Analyzed: 12/29/04										
Chloride	4960		mg/L	5000		99.2	80-120			
<b>Batch EL42909 - General Preparation (WetChem)</b>										
<b>Blank (EL42909-BLK1)</b> Prepared & Analyzed: 12/29/04										
Sulfate	ND	0.500	mg/L							
<b>Calibration Check (EL42909-CCV1)</b> Prepared & Analyzed: 12/29/04										
Sulfate	48.9		mg/L	50.0		97.8	80-120			
<b>Duplicate (EL42909-DUP1)</b> Source: 4L21010-01 Prepared & Analyzed: 12/29/04										
Sulfate	96.6	1.00	mg/L		99.8			3.26	20	

ARCADIS  
 1004 N. Big Spring Street  
 Midland TX, 79701

Project: Jct. K-33-1/510  
 Project Number: Jct. K-33-1/510  
 Project Manager: Sharon Hall

Fax: (432) 687-5401  
**Reported:**  
 12/30/04 12:18

**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	

ARCADIS  
1004 N. Big Spring Street  
Midland TX, 79701

Project: Jct. K-33-1/510  
Project Number: Jct. K-33-1/510  
Project Manager: Sharon Hall

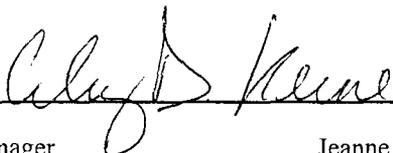
Fax: (432) 687-5401

Reported:  
12/30/04 12:18

### 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:



Date:

12/30/04

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 Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

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

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

Other observations:

---



---



---

### Variance Documentation:

Contact Person: - \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted by: \_\_\_\_\_

Regarding:

---



---

Corrective Action Taken:

---



---



---



---



---



---

