AP 65

# ANNUAL MONITORING REPORT

YEAR(S): 2006



#### CERTIFIED MAIL RETURN RECIEPT NO. 7099 3400 0017 1737 2268



February 6, 2007

Mr. Edward Hansen New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau 1220 S. St. Francis Drive Santa Fe, New Mexico 87504 RECEIVED

FEB - 9 2007

Environmental Bureau
Oil Conservation Division

RE:

2006 ANNUAL GROUNDWATER MONITORING REPORT

**EME M-9 SWD SITE** 

T20S, R37E, SECTION 9, UNIT LETTER M STAGE 1 ABATEMENT PLAN NO.: AP-65

Mr. Hansen:

On behalf of Rice Operating Company (ROC), Trident Environmental takes this opportunity to submit the 2006 Annual Monitoring Well Report for the EME M-9 SWD Site located in the Eunice-Monument-Eumont (EME) Salt Water Disposal (SWD) System.

The Redwood Tank Closure Report for the EME M-9 SWD Facility was submitted to the NMOCD on November 4, 2002. So far work has included replacement of the redwood tanks and five associated junction boxes, backfilling of the excavated area with remediated soil and a clay liner, extensive site assessment sampling, installation of five groundwater monitoring wells, and quarterly sampling of five monitoring wells and one abandoned water well. Groundwater monitoring activities have been conducted quarterly since April 8, 2002. The Stage 1 Abatement Plan (AP-65) for this site was verbally approved by the NMOCD on March 30, 2006. One cross-gradient (MW-5) monitoring well was installed at the site on April 12, 2006. Analysis for BTEX concentrations has been suspended as approved by Wayne Price on May 19, 2006 (approval communication attached) since each component of BTEX has been below the laboratory method detection limit of 0.001 mg/L at this site since it began in 2002. A Stage 1 Final Investigation Report will be forthcoming to incorporate the findings described above.

ROC is the service provider (agent) 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 at (432) 638-8740 or Kristin Farris Pope at (505) 393-9174.

Sincerely

Gilbert J. Van Deventer, PG, REM

cc: CDH, KFP, file

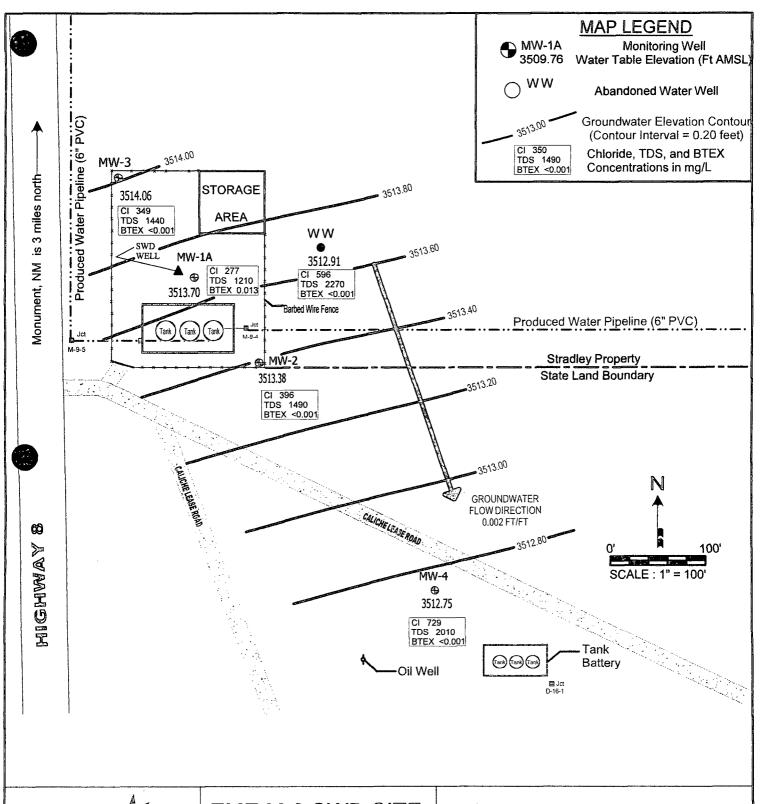
enclosures: maps, table, graphs, laboratory analytical reports, and correspondence

# ATTACHMENT A

Site Maps

Table

Graphs



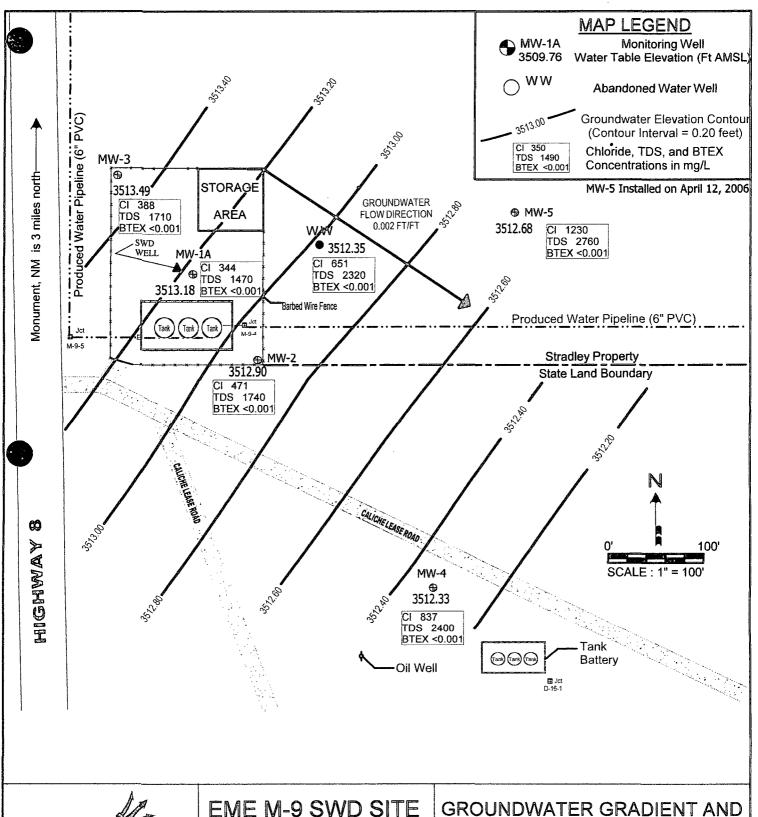


# EME M-9 SWD SITE

T20S-R37E-Section 9 - Unit M

RICE Operating Company

GROUNDWATER GRADIENT AND CHLORIDE, TDS, & BTEX CONCENTRATION MAP FEBRUARY 14, 2006

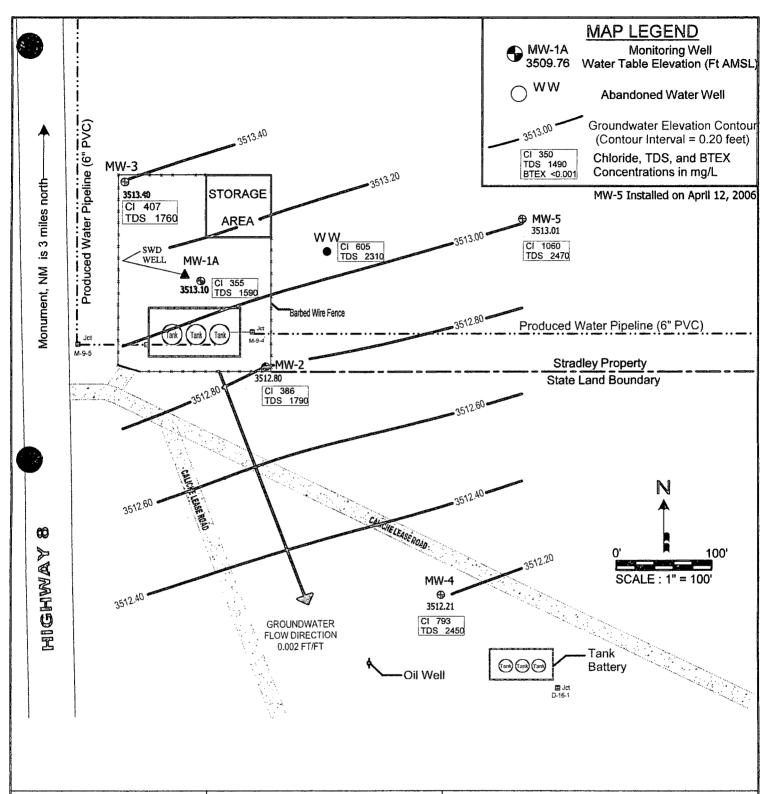




T20S-R37E-Section 9 - Unit M

RICE Operating Company

GROUNDWATER GRADIENT AND CHLORIDE, TDS, & BTEX CONCENTRATION MAP MAY 15, 2006



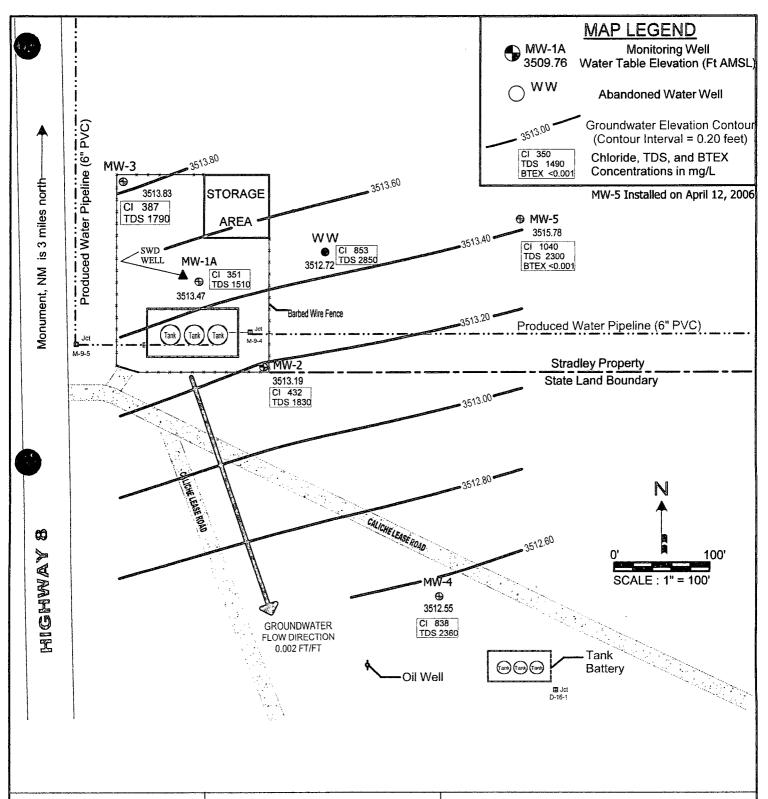


## EME M-9 SWD SITE

T20S-R37E-Section 9 - Unit M

RICE Operating Company

GROUNDWATER GRADIENT AND CHLORIDE, TDS, & BTEX CONCENTRATION MAP AUGUST 30, 2006





## EME M-9 SWD SITE

T20S-R37E-Section 9 - Unit M

RICE Operating Company

GROUNDWATER GRADIENT AND CHLORIDE, TDS, & BTEX CONCENTRATION MAP NOVEMBER 29, 2006

Table 1

			Summar	y of Groundwa	ater Samplir	g Results			
Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylen (mg/L
	04/08/02			348	1512	< 0.002	< 0.002	< 0.002	< 0.00
MW-1	05/13/02	21.02		354	1540	< 0.001	< 0.001	< 0.001	< 0.00
	08/20/02	22.45		376	1517	< 0.002	< 0.002	< 0.002	< 0.00
	10/28/02	19.10	3510.69	372	1470	< 0.001	< 0.001	< 0.001	< 0.00
	02/28/03	18.48	3511.31	372	1500	0.002	0.002	0.002	0,003
	05/16/03	19.00	3510.79	390	1470	0.001	< 0.001	< 0.001	0.001
	08/22/03	19.38	3510.41	372	1470	0.002	< 0.001	< 0.001	< 0.00
	10/30/03	19.57 19.41	3510.22 3510.38	346	1530	< 0.001 0.001	< 0.001	< 0.001	< 0.00
	02/20/04 05/05/04	17.76	3510.38	337 337	1390 1400	0.001	< 0.001 < 0.001	< 0.001 < 0.001	< 0.00
	08/11/04	18.27	3511.52	390	1690	0.003	< 0.001	< 0.001	< 0.00
MW-1A	11/10/04	17.23	3512.56	390	1740	0.003	< 0.001	< 0.001	< 0.00
	02/08/05	15.90	3513.89	304	1500	0.003	< 0.001	< 0.001	0.00
	05/02/05	20.03	3509.76	329	1450	< 0.001	< 0.001	< 0.001	< 0.00
	08/11/05	16.61	3513.18	286	1480	< 0.001	< 0.001	< 0.001	< 0.00
	11/29/05	16.28	3513.51	283	1340	< 0.001	< 0.001	< 0.001	< 0.00
	02/14/06	16.09	3513.70	277	1210	0.002	0.002	0.003	0.000
	05/15/06	16.23	3513.56	344	1470	< 0.001	< 0.001	< 0.001	< 0.00
	08/30/06	16.69	3513.10	355	1590				
	11/29/06	16.32	3513.47	351	1510				
	08/22/03	21.45	3510.07	603	2060	< 0.001	< 0.001	< 0.001	< 0.00
	10/30/03	21.61	3509.91	709	2300	< 0.001	< 0.001	< 0.001	< 0.00
	02/20/04	21.44	3510.08	478	1800	< 0.001	< 0.001	< 0.001	< 0.00
	05/05/04	19.67	3511.85	328	1460	< 0.001	< 0.001	< 0.001	< 0.00
	08/11/04	20.26	3511.26	461	1770	< 0.001	< 0.001	< 0.001	< 0.00
	11/10/04 02/08/05	19 13 17.80	3512.39 3513.72	346 311	1610 1390	< 0.001 < 0.001	< 0.001 < 0.001	< 0.001 < 0.001	< 0.00 < 0.00
MW-2	05/02/05	21.94	3509.58	295	1390	< 0.001	< 0.001	< 0.001	< 0.00
	08/11/05	18.62	3512.90	476	1840	< 0.001	< 0.001	< 0.001	< 0.00
	11/29/05	18.24	3513.28	391	1630	< 0.001	< 0.001	< 0.001	< 0.00
	02/14/06	18.14	3513.38	396	1490	< 0.001	< 0.001	< 0.001	< 0.00
	05/15/06	18.23	3513.29	471	1740	< 0.001	< 0.001	< 0.001	< 0.00
	08/30/06	18.72	3512.80	386	1790				
	11/29/06	18.33	3513.19	432	1830				
	08/22/03	21.68	3510.76	319	. 1590	< 0.001	< 0.001	< 0.001	< 0.00
	10/30/03	21.86	3510.58	328	1740	< 0.001	< 0.001	< 0.001	< 0.00
	02/20/04	21.70	3510.74	337	1550	< 0.001	< 0.001	< 0.001	< 0.00
	05/05/04	20.10	3512.34	328	1530	< 0.001	< 0.001	< 0.001	< 0.00
	08/11/04	20.62	3511.82	337	1560	< 0.001	< 0.001	< 0.001	< 0.00
	11/10/04	19.61	3512.83	337	1600	< 0.001	< 0.001	< 0.001	< 0.00
MW-3	02/08/05	18.26	3514.18	312	1450	< 0.001	< 0.001	< 0.001	< 0.00
	05/02/05	22.38 18.95	3510.06	329	1510	< 0.001 < 0.001	< 0.001	< 0.001	< 0.00
	08/11/05 11/29/05	18.43	3513.49 3514.01	300 296	1480 1510	< 0.001	< 0.001 < 0.001	< 0.001 < 0.001	< 0.00 < 0.00
	02/14/06	18.38	3514.01	349	1440	< 0.001	< 0.001	< 0.001	< 0.00
	05/15/06	18.50	3513.94	388	1710	< 0.001	< 0.001	< 0.001	< 0.00
	08/30/06	19.04	3513.40	407	1760				
	11/29/06	18.61	3513.83	387	1790				
	02/20/04	22.61	3509.47	585	1820	< 0.001	< 0.001	< 0.001	< 0.00
	05/05/04	20.77	3511.31	549	1760	< 0.001	< 0.001	< 0.001	< 0.00
	08/11/04	21.28	3510.80	567	1770	< 0.001	< 0.001	< 0.001	< 0.00
	11/10/04	20.21	3511.87	514	1790	< 0.001	< 0.001	< 0.001	< 0.00
	02/08/05	18.90	3513.18	520	1670	< 0.001	< 0.001	< 0.001	< 0.00
MW-4	05/02/05	22.99	3509.09	591	1790	< 0.001	< 0.001	< 0.001	< 0.00
	08/11/05	19.75	3512,33	571	1830	< 0.001	< 0.001	< 0.001	< 0.00
	11/29/05	19.40	3512.68	614	1850	< 0.001	< 0.001	< 0.001	< 0.00
	02/14/06	19.33	3512.75	729	2010	< 0.001	< 0.001	< 0.001	< 0.00
	05/15/06 08/30/06	19.40	3512.68 3512.21	837	2400	< 0.001	< 0.001	< 0.001	< 0.00
	11/29/06	19.87 19.53	3512.21	793 838	2450 2360				
	05/15/06	21.10	3513.55	1230	2760	< 0.001	< 0.001	< 0.001	< 0.00
MW-5	08/30/06	21.64	3513.01	1060	2470	< 0.001	< 0.001	< 0.001	< 0.00
	11/29/06	21.22	3513.43	1040	2300	< 0.001	< 0.001	< 0.001	< 0.00
	08/22/03	21.09	3509.37						
	10/30/03	20.25	3510.21	284	1150	< 0.001	< 0.001	< 0.001	0.002
	02/20/04	20.07	3510.39	292	1100	< 0.001	< 0.001	< 0.001	0.00
	05/14/04	18.29	3512.17	266	1040	< 0.001	< 0.001	< 0.001	< 0.00
	08/11/04	18.92	3511.54	266	1810	< 0.001	< 0.001	< 0.001	< 0.00
	11/10/04	17.82	3512.64	284	959	< 0.001	< 0.001	< 0.001	< 0.00
ww	02/08/05	16.41	3514.05	395	1180	< 0.001	< 0.001	< 0.001	< 0.00
	05/02/05	20.54	3509.92	866	2470	< 0.001	< 0.001	< 0.001	< 0.00
	08/11/05	18.11	3512.35	751	2900	< 0.001	< 0.001	< 0.001	< 0.00
	11/29/05	17.60	3512.86	558	2490	< 0.001	< 0.001	< 0.001	< 0.00
	02/14/06	17.55	3512.91	594 651	2270	< 0.001	< 0.001	< 0.001	< 0.00
	05/15/06 08/30/06	17.58 18.10	3512.88 3512.36	651 605	2320 2310	< 0.001	< 0.001	< 0.001	< 0.00
			3512.36	853	2850				
	11/29/06	17.74							

WQCC Standards 20 1000 0.01 0.02

Total Dissolved Soilds (TDS), chloride, and BTEX concentrations listed in milligrams per liter (mg/L)

Analyses performed by Cardinal Labs, Hobbs, NM (1995-1998) and Environmental Lab of Texas, Odessa, TX (1999-2003).

BTEX analyses for monitoring wells MW-1A, MW-2, MW-3, and MW-4, and water well WW were suspended since approved by NMOCD on May 19, 2006.

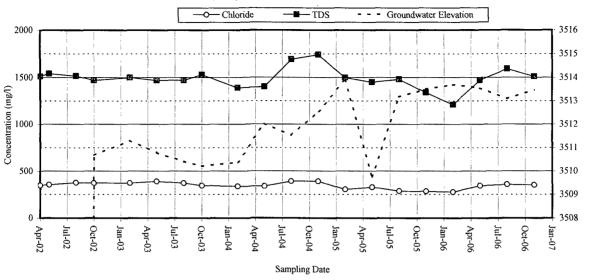
Values in boldface type indicate concentrations exceed New Mexico Water Quality Commission (WQCC) standards.

AMSL - Above Mean Sea Level; BTOC - Below Top of Casing

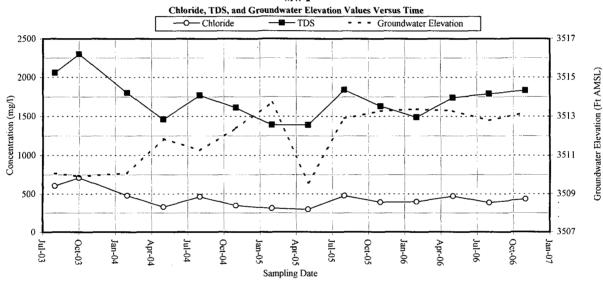
Elevations and state plane coordinates surveyed by Basin Surveys, Hobbs, NM.

Groundwater Elevation (Ft AMSL)

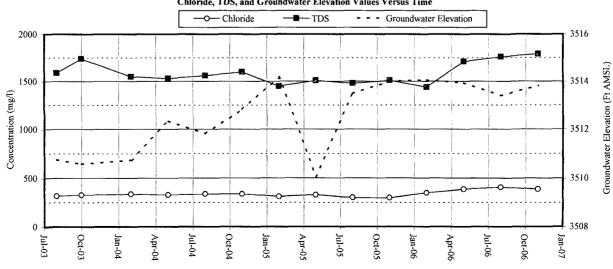
MW-1A
Chloride, TDS, and Groundwater Elevation Values Versus Time



MW-2



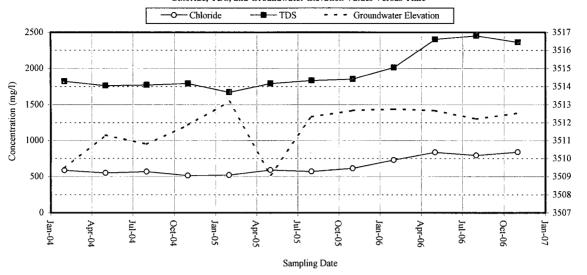
MW-3 Chloride, TDS, and Groundwater Elevation Values Versus Time



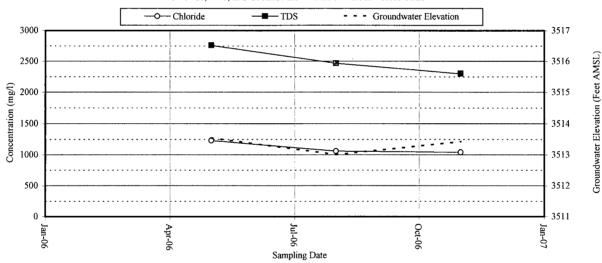
Sampling Date

Groundwater Elevation (Ft AMSL)

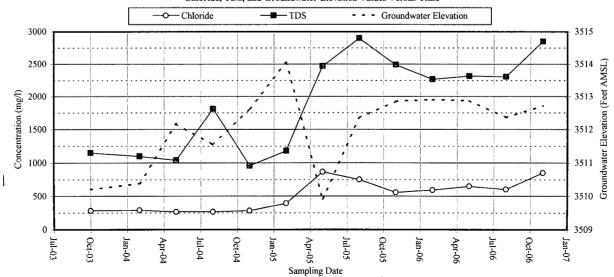
 $\label{eq:MW-4} MW-4$  Chloride, TDS, and Groundwater Elevation Values Versus Time



MW-5 Chloride, TDS, and Groundwater Elevation Values Versus Time



Water Well
Chloride, TDS, and Groundwater Elevation Values Versus Time

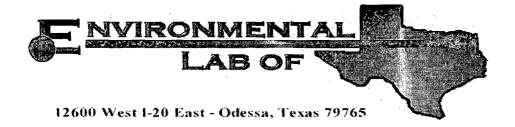


# ATTACHMENT B

Laboratory Analytical Reports

And

Chain of Custody Documentation



# Analytical Report

#### **Prepared for:**

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

Project: EME M-9 SWD
Project Number: None Given
Location: Lea County

Lab Order Number: 6B16006

Report Date: 02/28/06

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1 A	6B16006-01	Water	02/14/06 11:35	02/16/06 08:05
Monitor Well #2	6B16006-02	Water	02/14/06 09:00	02/16/06 08:05
Monitor Well #3	6B16006-03	Water	02/14/06 10:30	02/16/06 08:05
Monitor Well #4	6B16006-04	Water	02/14/06 13:45	02/16/06 08:05
Water Well	6B16006-05	Water	02/14/06 12:30	02/16/06 08:05

Project: EME M-9 SWD
Project Number: None Given

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

#### Organics by GC Environmental Lab of Texas

Ameliate	n. 1	Reporting	T.T'r						
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Monitor Well #1 A (6B16006-01) Water									
Benzene	0.00174	0.00100	mg/L	1	EB62210	02/22/06	02/22/06	EPA 8021B	
Toluene	0.00238	0.00100	**	"	n	"		n .	
Ethylbenzene	0.00330	0.00100	11	"	n	"	"	н	
Xylene (p/m)	0.00592	0.00100	"	"	n	"	"	"	
Xylene (o)	ND	0.00100	11	"	"	u .	H	**	
Surrogate: a.a,a-Trifluorotoluene		89.8 %	80-	120	,,	n	"	"	
Surrogate: 4-Bromofluorobenzene		83.5 %	80-	120	"	"	"	"	
Monitor Well #2 (6B16006-02) Water									
Benzene	ND	0.00100	mg/L	1	EB62210	02/22/06	02/22/06	EPA 8021B	
Toluene	ND	0.00100		н	11	11	"	**	
Ethylbenzene	ND	0.00100	ti.	Ħ	"	"	"	Ħ	
Xylene (p/m)	ND	0.00100	н	**	11	"	**	"	
Xylene (o)	ND	0.00100		11	**	**	**	n	
Surrogate: a,a,a-Trifluorotoluene		86.2 %	80-	120	"	"	"	"	
rogate: 4-Bromofluorobenzene		82.5 %	80-	120	"	"	"	"	
Monitor Well #3 (6B16006-03) Water									
Benzene	ND	0.00100	mg/L	1	EB62210	02/22/06	02/22/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	n	"	
Ethylbenzene	ND	0.00100	**	n	н	n	Ħ	"	
Xylene (p/m)	ND	0.00100	**	n	n	n	**	**	
Xylene (o)	ND	0.00100	**	11	Ħ	n	*	11	
Surrogate: a,a,a-Trifluorotoluene		89.0 %	80	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.0 %	80	120	n	"	"	n	
Monitor Well #4 (6B16006-04) Water									
Benzene	ND	0.00100	mg/L	1	EB62210	02/22/06	02/23/06	EPA 8021B	
Toluene	ND	0.00100	**	"	n	n	**	11	
Ethylbenzene	ND	0.00100	**	"	n	n	"	js.	
Xylene (p/m)	ND	0.00100	**	"	**	"	"	"	
Xylene (o)	ND	0.00100	**	"	41		"	**	
Surrogate: a.a,a-Trifluorotoluene		88.8 %	80	120	"	,,	"	"	70.111111111
Surrogate: 4-Bromofluorobenzene		88.2 %	80	120	"	"	n	"	

Project: EME M-9 SWD

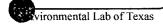
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported: 02/28/06 09:46

#### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Water Well (6B16006-05) Water									
Benzene	ND	0.00100	mg/L	1	EB62210	02/22/06	02/23/06	EPA 8021B	
Toluene	ND	0.00100	11	"	"	11	"	"	
Ethylbenzene	ND	0.00100	11	11	"	"	n	n	
Xylene (p/m)	ND	0.00100	11	11	"	"	н	n	
Xylene (o)	ND	0.00100	11	19	"	"	n	**	
Surrogate: a,a,a-Trifluorotoluene		88.0 %	80-12	0	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.2 %	80-12	0	"	"	"	"	



Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

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

Analyte	Result	Reporting Limit	Units	Dilusia	Deed	D	A 1		XI.
Monitor Well #1 A (6B16006-01) Water	Result	Citili	Ollits	Dilution	Batch	Prepared	Analyzed	Method	Note
,	204	2.00			•		- WAS 18 18 18 18 18 18 18 18 18 18 18 18 18	ED 4 010 114	
Total Alkalinity	304	2.00	mg/L	1	EB62205	02/23/06	02/23/06	EPA 310.1M	
Chloride	277	10.0		20	EB61712	02/17/06	02/20/06	EPA 300.0	
Total Dissolved Solids	1210	5.00	"	1	EB61713	02/16/06	02/17/06	EPA 160.1	
Sulfate	284	10.0	n	20	EB61712	02/17/06	02/20/06	EPA 300.0	
Monitor Well #2 (6B16006-02) Water									
Total Alkalinity	305	2.00	mg/L	1 -	EB62205	02/23/06	02/23/06	EPA 310.1M	
Chloride	396	10.0	"	20	EB61712	02/17/06	02/20/06	EPA 300.0	
Total Dissolved Solids	1490	5.00		1	EB61713	02/16/06	02/17/06	EPA 160.1	
Sulfate	333	10.0	"	20	EB61712	02/17/06	02/20/06	EPA 300.0	
Monitor Well #3 (6B16006-03) Water									
Total Alkalinity	232	2.00	mg/L	1	EB62205	02/23/06	02/23/06	EPA 310.1M	
Chloride	349	10.0	"	20	EB61712	02/17/06	02/20/06	EPA 300.0	
Total Dissolved Solids	1440	5.00	."	1	EB61713	02/16/06	02/17/06	EPA 160.1	
fate	341	10.0	n	20	EB61712	02/17/06	02/20/06	EPA 300.0	
Monitor Well #4 (6B16006-04) Water									
Total Alkalinity	242	2.00	mg/L	1	EB62205	02/23/06	02/23/06	EPA 310.1M	
Chloride	729	12.5	"	25	EB61712	02/17/06	02/20/06	EPA 300.0	
Total Dissolved Solids	2010	5.00	**	1	EB61713	02/16/06	02/17/06	EPA 160.1	
Sulfate	378	12.5	11	25	EB61712	02/17/06	02/20/06	EPA 300.0	
Water Well (6B16006-05) Water									
Total Alkalinity	235	2.00	mg/L	1	EB62205	02/23/06	02/23/06	EPA 310.1M	
Chloride	594	12.5		25	EB61712	02/17/06	02/20/06	EPA 300.0	
Total Dissolved Solids	2270	5.00	"	1	EB61713	02/16/06	02/17/06	EPA 160.1	
Sulfate	668	12.5	n	25	EB61712	02/17/06	02/20/06	EPA 300.0	

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

# **Total Metals by EPA / Standard Methods**

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Monitor Well #1 A (6B16006-01) Water									
Calcium	109	0.500	mg/L	50	EB61708	02/16/06	02/17/06	EPA 6010B	
Magnesium	54.3	0.0100	"	10	u	"	**	R	
Potassium	8.74	0.500	"	"	"	"	11	16	
Sodium	251	0.500	H	50	"	**	"	"	
Monitor Well #2 (6B16006-02) Water									
Calcium	133	0.500	mg/L	50	EB61708	02/16/06	02/17/06	EPA 6010B	
Magnesium	53.7	0.0100	"	10	n	**	"	11	
Potassium	9.36	0.500	"	"	"	"	**	**	
Sodium	269	0.500	"	50	"	"	"	"	
Monitor Well #3 (6B16006-03) Water									
Calcium	130	0.500	mg/L	50	EB61708	02/16/06	02/17/06	EPA 6010B	
Magnesium	52.7	0.0100	11	10	н	"	**	и	
Potassium	6.01	0.500	H	11	11	11	n	H	
dium	249	0.500	"	50	"	11	**	"	
Monitor Well #4 (6B16006-04) Water									
Calcium	160	0.500	mg/L	50	EB61708	02/16/06	02/17/06	EPA 6010B	
Magnesium	91.0	0.0500	**	"	"	n n	**	**	
Potassium	9.71	0.500	H	10	"	u	n	**	
Sodium	559	2.00	Ħ	200	"	11	11	**	
Water Well (6B16006-05) Water									
Calcium	131	0.500	mg/L	50	EB61708	02/16/06	02/17/06	EPA 6010B	
Magnesium	83.0	0.0500	,,	"	"	. п	D.	"	
Potassium	11.1	0.500	**	10	11	и	**	**	
Sodium	545	2.00	**	200	11		11	"	

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

#### Organics by GC - Quality Control Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EB62210 - EPA 5030C (GC)		····								
Blank (EB62210-BLK1)				Prepared &	: Analyzed:	02/22/06				
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	н							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	n							
Surrogate: a,a,a-Trifluorotoluene	33.2		ug/l	40.0		83.0	80-120			
Surrogate: 4-Bromofluorobenzene	32.2		n	40.0		80.5	80-120			
LCS (EB62210-BS1)				Prepared: (	)2/22/06 A	nalyzed: 02	2/23/06			
Benzene	0.0461	0.00100	mg/L	0.0500		92.2	80-120			
Toluene	0.0509	0.00100	"	0.0500		102	80-120			
Ethylbenzene	0.0576	0.00100	"	0.0500		115	80-120			
Xylene (p/m)	0.120	0.00100	rr	0.100		120	80-120			
Xylene (o)	0.0597	0.00100	"	0.0500		119	80-120			
Surrogate: a,a,a-Trifluorotoluene	38.0		ug/l	40.0		95.0	80-120			
Surrogate: 4-Bromofluorobenzene	42.7		"	40.0		107	80-120			
ibration Check (EB62210-CCV1)				Prepared: (	)2/22/06 A	nalyzed: 02	2/23/06			
Denzene	45.5		ug/l	50.0		91.0	80-120			
Toluene	50.4		**	50.0		101	80-120			
Ethylbenzene	56.9		*	50.0		114	80-120			
Xylene (p/m)	118		"	100		118	80-120			
Xylene (o)	58.5		n	50.0		117	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.1	<u></u>	n	40.0		97.8	80-120			
Surrogate: 4-Bromofluorobenzene	42.7		n	40.0		107	80-120			
Matrix Spike (EB62210-MS1)	Sou	rce: 6B16005-	01	Prepared: 0	)2/22/06 A	nalyzed: 02	/23/06			
Benzene	0.0463	0.00100	mg/L	0.0500	ND	92.6	80-120			
Toluene	0.0511	0.00100	"	0.0500	ND	102	80-120			
Ethylbenzene	0.0576	0.00100	"	0.0500	ND	115	80-120			
Xylene (p/m)	0.119	0.00100	**	0.100	ND	119	80-120			
Xylene (o)	0.0596	0.00100	"	0.0500	ND	119	80-120			
Surrogate: a,a,a-Trifluorotoluene	38.1		ug/l	40.0		95.2	80-120			
Surrogate: 4-Bromofluorobenzene	41.4		"	40.0		104	80-120			

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

#### Organics by GC - Quality Control Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Matrix Spike Dup (EB62210-MSD1)	Sou	rce: 6B16005-	01	Prepared: 0	2/22/06 A	nalyzed: 02	2/23/06		
Benzene	0.0467	0.00100	mg/L	0.0500	ND	93.4	80-120	0.860	20
Toluene	0.0508	0.00100	11	0.0500	ND	102	80-120	0.00	20
Ethylbenzene	0.0561	0.00100	"	0.0500	ND	112	80-120	2.64	20
Xylene (p/m)	0.116	0.00100	**	0.100	ND	116	80-120	2.55	20
Xylene (o)	0.0580	0.00100	"	0.0500	ND	116	80-120	2.55	20
Surrogate: a,a,a-Trifluorotoluene	36.8		ug/l	40.0		92.0	80-120		
Surrogate: 4-Bromofluorobenzene	38.6		"	40.0		96.5	80-120		



Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EB61712 - General Preparation (Wet	Chem)									
Blank (EB61712-BLK1)				Prepared: (	02/17/06 A	nalyzed: 02	2/20/06			
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	**							
LCS (EB61712-BS1)				Prepared: (	02/17/06 A	nalyzed: 02	2/20/06			
Sulfate	8.36		mg/L	10.0		83.6	80-120			
Chloride	8.58		"	10.0		85.8	80-120			
Calibration Check (EB61712-CCV1)				Prepared: (	02/17/06 A	nalyzed: 02	2/20/06			
Sulfate	8.95		mg/L	10.0		89.5	80-120			
Chloride	8.88		"	10.0		88.8	80-120			
Duplicate (EB61712-DUP1)	Sou	rce: 6B16004-	01	Prepared: (	)2/17/06 A	nalyzed: 02	2/20/06			
Sulfate	149	5.00	mg/L		149			0.00	20	
Chloride	189	5.00	"		189			0.00	20	
Batch EB61713 - General Preparation (Wet	Chem)									
Blank (EB61713-BLK1)				Prepared: (	)2/16/06 Aı	nalyzed: 02	/17/06			
total Dissolved Solids	ND	5.00	mg/L							
duplicate (EB61713-DUP1)	Sou	rce: 6B16004-	01	Prepared: (	02/16/06 A	/17/06				
Total Dissolved Solids	918	5.00	mg/L		958			4.26	5	
Duplicate (EB61713-DUP2)	Sou	rce: 6B16005-	02	Pranarad: (	12/16/06 A	nalyzed: 02	/17/06			
Dupiicate (EBOT/13-DOT 2)	504	icc. obiooos-	02	r repared.	12/10/00 A	naiyzed. 02	/1//00			

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EB62205 - General Preparatio	on (WetChem)									
Blank (EB62205-BLK1)				Prepared &	Analyzed:	02/23/06				
Total Alkalinity	ND	2.00	mg/L							
LCS (EB62205-BS1)				Prepared &	Analyzed:	02/23/06				
Bicarbonate Alkalinity	207	2.00	mg/L	200		104	85-115			
Duplicate (EB62205-DUP1)	Sou	rce: 6B16004-	01	Prepared &	Analyzed:	02/23/06				
Total Alkalinity	273	2.00	mg/L		278			1.81	20	
Reference (EB62205-SRM1)				Prepared &	z Analyzed:	02/23/06				
Total Alkalinity	97.0		mg/L	100		97.0	90-110			

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 02/28/06 09:46

#### 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 EB61708 - 6010B/No Digestion										
Blank (EB61708-BLK1)				Prepared: (	02/16/06 A	nalyzed: 02	/17/06			
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	**							
Potassium	ND	0.0500	. 41							
Sodium	ND	0.0100	"							
Calibration Check (EB61708-CCV1)				Prepared: (	02/16/06 A	nalyzed: 02	/17/06			
Calcium	2.28		mg/L	2.00		114	85-115			
Magnesium	2.04		"	2.00		102	85-115			
Potassium	1.92		"	2.00		96.0	85-115			
Sodium	2.06		"	2.00		103	85-115			
Duplicate (EB61708-DUP1)	Sou	rce: 6B16007-	03	Prepared: (	02/16/06 A	nalyzed: 02	/17/06			
Calcium	428	0.500	mg/L		429			0.233	20	
Magnesium	168	0.0500	**		176			4.65	20	
Potassium	17.9	0.500	"		18.8			4.90	20	
Sodium	1440	2.00	н		1450			0.692	20	



Project Number: EME M-9 SWD
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Reported:
02/28/06 09:46

#### **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 Khul

Date:

2/28/2006

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.

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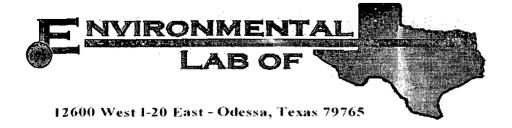
Phone: 432-563-1800 Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

TAT bisbrista (Subschedule) TAT HSUR Custody Seals: Conginers (Cooley Temperature 11... × SDIIOR DRAIOSSIM IERO Sample Containers Intact? Laboratory Comments: Analyze For Project Loc: Lea County 0608\B1508 X3TE Project Name: EME M-9 SWD Metals: As Ag Ba Cd Cr Pb Hg Se TCLP: TOTAL: ₩ ₩ Project #; Anions (Cl. 504, CO3, HCO3) Cations (Ca, Mg, Na, K) Time 10:9 8001 8001 M2108 1,814:H9T Other (specify): PLEASE Email RESULTS TO: kpriceswd@valornet.com & mfranks@riceswd.com Matrix 3/14/01 Sindge Date × Office (Specify) None (1) 1 Liter HDPE Preservative 'os'H ax No: (505) 397-1471 НОВИ HCI (S) 40 ml diass vials 3 2 C) N N CONH × n ო ന e) ო No. of Containers 11:35 10:30 13:45 12:30 9:00 Time Sampled kpriceswd@valornet.com 2/14/2006 2/14/2006 2/14/2006 2/14/2006 2/14/2008 Date Sampled Received Sampler Signature: Rozanne Johnson (505) 631-9310 ⊒i. city/state/Zip: Hobbs, New Mexico 88240 2/14/06 6:00 company Name RICE Operating Company Email: rozanne@valornet.com Company Address: 122 W. Taylor Street Project Manager: Kristín Farris Pope FIELD CODE Telephone No: (505) 393-9174 Monitor Well #1A Monitor Well #2 Monitor Well #3 Monitor Well #4 Water Well Special Instructions: AB # (lab use only)

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

lie Rict, OD				
lete/Time: 2/10/00 8-05				
Order#: UBILOOG				
nitials:				
Sample Receipt	Checkli	ist	<del>-</del>	
Temperature of container/cooler?	Yes	No I	0.5 01	
Shipping contained cooler in good condition?	(४६० ।	No		
Dustody Seals Intaction shipping container/cooler?	1 XES	No	Not present	
Custody Seals intact on sample bottles?	¥≥s	ol4	Not present	
Chain of custody present?	1 yes	No	1	
Sample Instructions complete on Chain of Custody?	<b>₹</b> ₹\$	No	i	
Chain of Custody signed when relinquished and received?	冶影	No 1	j	
Chain of custody agrees with sample label(s)	1 X25	No		
Container labels legible and intact?	(FE)	Na		
Sample Matrix and properties same as on chain of custody?	<del>⊁e</del> ş	No I		
Samcles in procer container/bottle?	(Y)	No I		
Samples properly preserved?	≱es			
Sample bottles intact?	100	No I		
Preservations documented on Chain of Custody?	(Fig. )			
Containers documented on Chain of Custody?		No		
Sufficient sample amount for indicated test?		No I		
All cies received within sufficient hold time?	Tes	No I		
VOC samples have zero headspace?	1 XES	No I	Not Applicable	
Other coservations:				
Variance Documontation Person: Date/Time: Regarding:			Contacted by: _	,
Corrective Action Taken:				
		<del></del>		
	· · · · · · · · · · · · · · · · · · ·			



# Analytical Report

#### **Prepared for:**

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

Project: EME M-9 SWD
Project Number: None Given
Location: Lea County

Lab Order Number: 6E18012

Report Date: 05/26/06

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1A	6E18012-01	Water	05/15/06 11:00	05/18/06 12:00
Monitor Well #2	6E18012-02	Water	05/15/06 10:05	05/18/06 12:00
Monitor Well #3	6E18012-03	Water	05/15/06 09:00	05/18/06 12:00
Monitor Well #4	6E18012-04	Water	05/15/06 12:05	05/18/06 12:00
Monitor Well #5	6E18012-05	Water	05/15/06 13:20	05/18/06 12:00
Water Well	6E18012-06	Water	05/15/06 15:00	05/18/06 12:00

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

# Organics by GC Environmental Lab of Texas

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Monitor Well #1A (6E18012-01) Water									
Benzene	ND	0.00100	mg/L	1	EE62101	05/21/06	05/22/06	EPA 8021B	
Toluene	ND	0.00100	"	H	n	"	•	11	
Ethylbenzene	ND	0.00100	"	Ħ	н	"	"	n	
Xylene (p/m)	ND	0.00100	"	11	**	n	•	11	
Xylene (o)	ND	0.00100	"	,,	**	"	"	0	
Surrogate: a,a,a-Trifluorotoluene		112 %	80-12	0	"	"	n	n	
Surrogate: 4-Bromofluorobenzene		80.8 %	80-12	0	"	"	n	n	
Monitor Well #2 (6E18012-02) Water									
Benzene	ND	0.00100	mg/L	1	EE62101	05/21/06	05/22/06	EPA 8021B	
Toluene	ND	0.00100	**	11	"	"	"	n	
Ethylbenzene	ND	0.00100	**	11	"	**	**	u	
Xylene (p/m)	ND	0.00100	"	II	"	**	"	11	
Xylene (o)	ND	0.00100	11	"	"	**	**	**	
Surrogate: a,a,a-Trifluorotoluene		105 %	80-12	0	"	"	n	rr .	
rrogate: 4-Bromofluorobenzene		80.2 %	80-12	0	n	"	"	"	
Monitor Well #3 (6E18012-03) Water									
Benzene	ND	0.00100	mg/L	1	EE62101	05/21/06	05/22/06	EPA 8021B	
Toluene	ND	0.00100	п	**	11	#	**	11	
Ethylbenzene	ND	0.00100	"	"	**	11	11	n	
Xylene (p/m)	ND	0.00100	n.	11	**	D	**	11	
Xylene (o)	ND	0.00100	"	"	**	n	н	"	
Surrogate: a,a,a-Trifluorotoluene		112 %	80-12	0	"	"	и	n	
Surrogate: 4-Bromofluorobenzene		86.8 %	80-12	0	"	"	"	n	
Monitor Well #4 (6E18012-04) Water									
Benzene	ND	0.00100	mg/L	1	EE62101	05/21/06	05/22/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	n	#	n	
Ethylbenzene	ND	0.00100	"	"		n	n	11	
Xylene (p/m)	ND	0.00100	"	"	"	n	"	11	
Xylene (o)	ND	0.00100	11	**	n	"	"	"	
Surrogate: a,a.a-Trifluorotoluene	-	114 %	80-12	0	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.0 %	80-12	0	"	"	"	"	

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

#### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #5 (6E18012-05) Water									
Benzene	ND	0.00100	mg/L	1	EE62101	05/21/06	05/22/06	EPA 8021B	
Toluene	ND	0.00100	n	H	**	#	"	и	
Ethylbenzene	ND	0.00100	"	11	**	"	"	11	
Xylene (p/m)	ND	0.00100	"	и	n n	u	"	11	
Xylene (o)	ND	0.00100	**	н	11	11	**	"	
Surrogate: a,a,a-Trifluorotoluene		98.5 %	80-1	120	"	"	"	"	-
Surrogate: 4-Bromofluorobenzene		86.0 %	80-1	120	"	,,	"	#	
Water Well (6E18012-06) Water									
Benzene	ND	0.00100	mg/L	1	EE62101	05/21/06	05/22/06	EPA 8021B	
Toluene	ND	0.00100	**	"	Ħ	11	**	11	
Ethylbenzene	ND	0.00100	ŧŧ	n	11	"	н	11	
Xylene (p/m)	ND	0.00100	11	"	,,	"	n	11	
Xylene (o)	ND	0.00100	**	"	n	51	**	"	
Surrogate: a,a,a-Trifluorotoluene		116%	80-1	120	"	"	"	"	
rogate: 4-Bromofluorobenzene		82.2 %	80-1	120	"	"	"	"	

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

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

Analyte	Result	Reporting Limit	Units	D'I d'	D I	D 1	A *	No. 4	3.7
	resuit	Lunit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Monitor Well #1A (6E18012-01) Water				<del></del>					
Total Alkalinity	280	2.00	mg/L	1	EE62220	05/22/06	05/22/06	EPA 310.1M	
Chloride	344	10.0	"	20	EE62205	05/22/06	05/22/06	EPA 300.0	
Total Dissolved Solids	1470	5.00	**	1	EE61919	05/18/06	05/18/06	EPA 160.1	
Sulfate	304	10.0	Ħ	20	EE62205	05/22/06	05/22/06	EPA 300.0	
Monitor Well #2 (6E18012-02) Water									
Total Alkalinity	316	2.00	mg/L	1	EE62220	05/22/06	05/22/06	EPA 310.1M	
Chloride	471	12.5	"	25	EE62205	05/22/06	05/22/06	EPA 300.0	
Total Dissolved Solids	1740	5.00	**	1	EE61919	05/18/06	05/18/06	EPA 160.1	
Sulfate	379	12.5	11	25	EE62205	05/22/06	05/22/06	EPA 300.0	
Monitor Well #3 (6E18012-03) Water									
Total Alkalinity	200	2.00	mg/L	1	EE62220	05/22/06	05/22/06	EPA 310.1M	
Chloride	388	10.0	"	20	EE62205	05/22/06	05/22/06	EPA 300.0	
Total Dissolved Solids	1710	5.00	"	1	EE61919	05/18/06	05/18/06	EPA 160.1	
ifate	371	10.0	11	20	EE62205	05/22/06	05/22/06	EPA 300.0	
Monitor Well #4 (6E18012-04) Water									
Total Alkalinity	246	2.00	mg/L	i	EE62220	05/22/06	05/22/06	EPA 310.1M	
Chloride	837	12.5	**	25	EE62205	05/22/06	05/22/06	EPA 300.0	
Total Dissolved Solids	2400	5.00	**	1	EE61919	05/18/06	05/18/06	EPA 160.1	
Sulfate	439	12.5	**	25	EE62205	05/22/06	05/22/06	EPA 300.0	
Monitor Well #5 (6E18012-05) Water									
Total Alkalinity	246	2.00	mg/L	ì	EE62220	05/22/06	05/22/06	EPA 310.1M	
Chloride	1230	25.0	"	50	EE62205	05/22/06	05/22/06	EPA 300.0	
Total Dissolved Solids	2760	5.00	**	1	EE61919	05/18/06	05/18/06	EPA 160.1	
Sulfate	314	25.0	"	50	EE62205	05/22/06	05/22/06	EPA 300.0	
Water Well (6E18012-06) Water					<u> </u>				
Total Alkalinity	278	2.00	mg/L	1	EE62220	05/22/06	05/22/06	EPA 310.1M	_
Chloride	651	12.5	"	25	EE62205	05/22/06	05/22/06	EPA 300.0	
Total Dissolved Solids	2320	5.00	n	1	EE61919	05/18/06	05/18/06	EPA 160.1	
Sulfate	617	12.5	"	25	EE62205	05/22/06	05/22/06	EPA 300.0	

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Monitor Well #1A (6E18012-01) Water									
Calcium	111	0.500	mg/L	50	EE61926	05/19/06	05/19/06	EPA 6010B	
Magnesium	56.5	0.0100	п	10	"	11	11	11	
Potassium	12.9	0.500	11	**	"	**	u	n	
Sodium	271	0.500	"	50	ft	**	n	я	
Monitor Well #2 (6E18012-02) Water									
Calcium	158	0.500	mg/L	50	EE61926	05/19/06	05/19/06	EPA 6010B	
Magnesium	59.5	0.0100	**	10	#1	"	"	"	
Potassium	11.2	0.500	"	"	**	"	u	O.	
Sodium	329	0.500	"	50	"	**	н	я	
Monitor Well #3 (6E18012-03) Water									
Calcium	149	0.500	mg/L	50	EE61926	05/19/06	05/19/06	EPA 6010B	
Magnesium	55.6	0.0100	"	10	"	"	**	п	
Potassium	6.62	0.500	**	**	**	**	n n	"	
dium	297	0.500	n	50	**	2.0	"	"	
Monitor Well #4 (6E18012-04) Water									
Calcium	188	0.500	mg/L	50	EE61926	05/19/06	05/19/06	EPA 6010B	
Magnesium	104	0.0500	**	"	**	**	11	"	
Potassium	11.0	0.500	11	10	**	n	"	"	
Sodium	444	0.500	"	50	11	11	и	n	
Monitor Well #5 (6E18012-05) Water									
Calcium	202	0.500	mg/L	50	EE61926	05/19/06	05/19/06	EPA 6010B	
Magnesium	99.6	0.0500	"	n	"	11	**	H	
Potassium	13.1	0.500	"	10	"	"	"	Ħ	
Sodium	542	. 1.00	11	100	"	"	и	"	
Water Well (6E18012-06) Water									
Calcium	158	0.500	mg/L	50	EE61926	05/19/06	05/19/06	EPA 6010B	
Magnesium	93.0	0.0500	н	"	n	"	11	"	
Potassium	10.8	0.500	11	10	n	"	n	u	
Sodium	503	0.500	**	50	11	"	n	**	

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

#### 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 EE62101 - EPA 5030C (GC)							•			
Blank (EE62101-BLK1)	***************************************			Prepared &	: Analyzed:	05/21/06				
Benzene	ND	0.00100	mg/L							
Toluene	NĐ	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	42.9		ug/l	40.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	32.2		"	40.0		80.5	80-120			
LCS (EE62101-BS1)				Prepared &	: Analyzed:	05/21/06				
Benzene	0.0415	0.00100	mg/L	0.0500	<u> </u>	83.0	80-120			
Toluene	0.0421	0.00100	**	0.0500		84.2	80-120			
Ethylbenzene	0.0463	0.00100	"	0.0500		92.6	80-120			
Xylene (p/m)	0.102	0.00100	"	0.100		102	80-120			
Xylene (o)	0.0504	0.00100	"	0.0500		101	80-120			
Surrogate: a,a,a-Trifluorotoluene	42.7		ug/l	40.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	36.2		"	40.0		90.5	80-120			
libration Check (EE62101-CCV1)				Prepared &	: Analyzed:	05/21/06				
Benzene	44.3		ug/l	50.0		88.6	80-120			
Toluene	44.3		11	50.0		88.6	80-120			
Ethylbenzene	55.3		"	50.0		111	80-120			
Xylene (p/m)	99.1		11	100		99.1	80-120			
Xylene (o)	49.1		"	50.0		98.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	44.6		"	40.0		112	80-120			
Surrogate: 4-Bromofluorobenzene	34.8		"	40.0		87.0	80-120			
Matrix Spike (EE62101-MS1)	Sou	rce: 6E17005-	01	Prepared: 0	5/21/06 A	nałyzed: 05	/22/06			
Benzene	0.0444	0.00100	mg/L	0.0500	ND	88.8	80-120			
Toluene	0.0454	0.00100	11	0.0500	ND	90.8	80-120			
Ethylbenzene	0.0488	0.00100	**	0.0500	ND	97.6	80-120			
Xylene (p/m)	0.108	0.00100	"	0.100	ND	108	80-120			
Xylene (o)	0.0531	0.00100	"	0.0500	ND	106	80-120			
Surrogate: a,a,a-Trifluorotoluene	45.5		ug/l	40.0	<u> </u>	114	80-120			
Surrogate: 4-Bromofluorobenzene	36.9		"	40.0		92.2	80-120			

Surrogate: a,a,a-Trifluorotoluene

Surrogate: 4-Bromofluorobenzene

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

## 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 EE62101 - EPA 5030C (GC)										
Matrix Spike Dup (EE62101-MSD1)	Sour	ce: 6E17005-	01	Prepared: 0	)5/21/06 A	nalyzed: 05	/22/06			
Benzene	0.0439	0.00100	mg/L	0.0500	ND	87.8	80-120	1.13	20	
Toluene	0.0447	0.00100	**	0.0500	ND	89.4	80-120	1.55	20	
Ethylbenzene	0.0481	0.00100	"	0.0500	ND	96.2	80-120	1.44	20	
Xylene (p/m)	0.107	0.00100	11	0.100	ND	107	80-120	0.930	20	
Xylene (o)	0.0521	0.00100	"	0.0500	ND	104	80-120	1.90	20	

ug/l

40.0

40.0

116

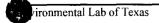
83.5

80-120

80-120

46.4

33.4



Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

#### 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
Allalyte	Resun	- Cum	Cilits	Level	Resuit	70KEC	Limits	KPD	Limit	Notes
Batch EE61919 - Filtration Preparation										
Blank (EE61919-BLK1)				Prepared &	k Analyzed:	05/18/06				
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EE61919-DUP1)	Sour	rce: 6E18012-	01	Prepared &	k Analyzed:	05/18/06				
Total Dissolved Solids	1420	5.00	mg/L		1470			3.46	5	
Batch EE62205 - General Preparation (W	letChem)									
Blank (EE62205-BLK1)	conomy			Prepared &	Analyzed:	05/22/06			.,	
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	11							
LCS (EE62205-BS1)				Prepared &	k Analyzed:	05/22/06				
Chloride	10.1		mg/L	10.0		101	80-120			
Sulfate	8.20		н	10.0		82.0	80-120			
Calibration Check (EE62205-CCV1)				Prepared &	k Analyzed:	05/22/06				
Sulfate	9.63		mg/L	10.0		96.3	80-120			
Chloride	10.1		u	10.0		101	80-120			
plicate (EE62205-DUP1)	Sou	rce: 6E18012-	01	Prepared &	ż Analyzed:	05/22/06				
floride	343	10.0	mg/L		344			0.291	20	
Sulfate	307	10.0	n		304			0.982	20	
Duplicate (EE62205-DUP2)	Sour	rce: 6E18015-	01	Prepared &	k Analyzed:	05/22/06				
Sulfate	50.3	10.0	mg/L	-	50.6			0.595	20	
Chloride	415	10.0	, n		412			0.726	20	



Project: EME M-9 SWD

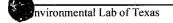
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

#### 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 EE62205 - General Preparation	ı (WetChem)									
Matrix Spike (EE62205-MS1)	Sour	ce: 6E18012-	01	Prepared &	2 Analyzed:	05/22/06				
Chloride	565	10.0	mg/L	200	344	110	80-120			
Sulfate	465	10.0	"	200	304	80.5	80-120			
Matrix Spike (EE62205-MS2)	Sour	ce: 6E18015-	01	Prepared &	Analyzed:	05/22/06				
Sulfate	200	10.0	mg/L	200	50.6	74.7	80-120	-		S-07
Chloride	654	10.0	"	200	412	121	80-120			S-03
Batch EE62220 - General Preparation Blank (EE62220-BLK1)	i (weichen)			Prepared &	Analyzed:	05/22/06				
Total Alkalinity	ND	2.00	mg/L	Prepared &	Analyzed:	05/22/06				
LCS (EE62220-BS1)			Ü	Prepared &	Analyzed:	05/22/06				
Bicarbonate Alkalinity	214	2.00	mg/L	200		107	85-115			
Duplicate (EE62220-DUP1)	Sour	ce: 6E18012-	01	Prepared &	Analyzed:	05/22/06				
Total Alkalinity	279	2.00	mg/L		280			0.358	20	
Reference (EE62220-SRM1)				Prepared &	z Analyzed:	05/22/06				
tal Alkalinity	96.0		mg/L	100		96.0	90-110			-



Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

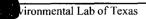
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**Reported:** 05/26/06 13:35

## **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 EE61926 - 6010B/No Digestion										
Blank (EE61926-BLK1)				Prepared &	Analyzed:	05/19/06				
Calcium	ND	0.0100	mg/L				<del></del>		<del></del> -	
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EE61926-CCV1)				Prepared &	z Analyzed:	05/19/06				
Calcium	2.30		mg/L	2.00		115	85-115			
Magnesium	2.21		"	2.00		110	85-115			
Potassium	1.80		"	2.00		90.0	85-115			
Sodium	1.81		11	2.00		90.5	85-115			
Duplicate (EE61926-DUP1)	Sou	rce: 6E18012-	01	Prepared &	z Analyzed:	05/19/06				
Calcium	111	0.500	mg/L		111			0.00	20	
Magnesium	58.3	0.0100	"		56.5			3.14	20	
Potassium	12.2	0.500	n		12.9			5.58	20	
Sodium .	266	0.500	н		271			1.86	20	



Project Number: EME M-9 SWD
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Reported:** 05/26/06 13:35

#### **Notes and Definitions**

S-07 Recovery outside Laboratory historical or method prescribed limits. DET Analyte DETECTED Analyte NOT DETECTED at or above the reporting limit ND NR Not Reported dry Sample results reported on a dry weight basis Relative Percent Difference RPD LCS Laboratory Control Spike MS Matrix Spike Duplicate Dup

	Raland K July		
Report Approved By:	Racanchi	Date:	5/26/2006

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.

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.



hone: 432-563-1800 Fax: 432-563-1713

kpope@riceswd.com Company Name RICE Operating Company Project Manager: Kristin Farris Pope

city/state/Zip: Hobbs, New Mexico 88240

Telephone No: (505) 393-9174

company Address: 122 W. Taylor Street

Fax No: (505) 397-1471

Lea County

Project Loc:

₩ 0

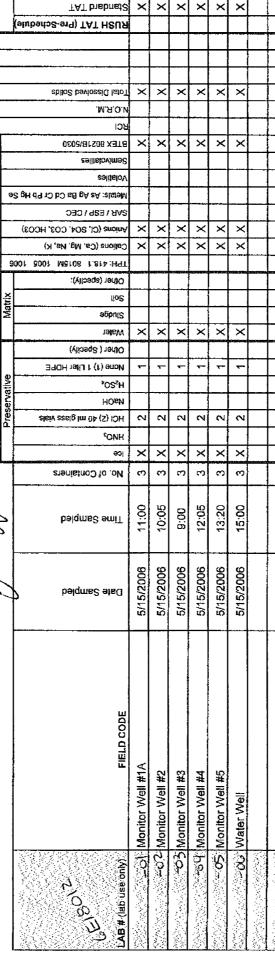
Project #:

Project Name: EME M-9 SWD

Sampler Signature: Rozanne Johnson (505) 631-9310

Email: rozanne@yalornet.com

TCLP: TOTAL:



Custody Seals: Containers / Coole Temperature Upon Receipt Sample Containers Intact? aboratory Comments Labels on container? 6:0 Time PLEASE Email RESULTS TO: kpope@riceswd.com & mfranks@riceswd.com 20/21/2 Received by: 6:00 Special Instructions:

33 Time

12:00

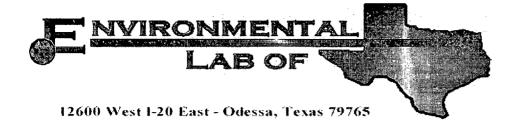
elinguished by



CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

ient Rice Operating Co.	
sterrime: 05-18-06 @12.00	
rder #: 6E18012	
itials: JMM	·
Sample F	Receipt Checklist
:mperature of container/cooler?	Yes) No 1.0 C
ripping container/cooler in good condition?	YES NO
istody Seals intact on shipping container/cooler?	(Yes) No Not present
istody Seals intact on sample bottles?	(Yes) No Not present
nain of custody present?	(es) No
imple Instructions complete on Chain of Custody?	(es) No
nain of Custody signed when relinquished and receive	d? (PED) No
rain of custody agraes with sample label(s)	(Yes) No
intainer labels legible and intact?	(YES) NO
imple Matrix and properties same as on chain of custo	ody? Yes No
imoles in proper container/bottle?	(res No
imples properly preserved?	Kes No
imple bottles intact?	(Yes) No
eservations documented on Chain of Custody?	(ES) No
ontainers documented on Chain of Custody?	(ES) NO
ifficient sample amount for indicated test?	(res) No
I samples received within sufficient hold time?	(res) No
DC samples have zero headspace?	Yes No Not Applicable
the oservations:	
ontact Person: Date/Time egarding:	e: Contacted by:
orrective Action Taken:	
·	
<del></del> -	
	· · · · · · · · · · · · · · · · · · ·



# Analytical Report

#### Prepared for:

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

Project: EME M-9 SWD

Project Number: None Given

Location: T22S-R37E-Sec15E, Lea County, NM

Lab Order Number: 6H31006

Report Date: 09/06/06

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1A	6Н31006-01	Water	08/30/06 09:15	08-31-2006 10:15
Monitor Well #2	6H31006-02	Water	08/30/06 10:20	08-31-2006 10:15
Monitor Well #3	6Н31006-03	Water	08/30/06 11:15	08-31-2006 10:15
Monitor Well #4	6Н31006-04	Water	08/30/06 12:05	08-31-2006 10:15
Monitor Well #5	6Н31006-05	Water	08/30/06 13:35	08-31-2006 10:15
Water Well	6Н31006-06	Water	08/30/06 15:25	08-31-2006 10:15

Fax: (505) 397-1471

Project: EME M-9 SWD

Project Number: None Given
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 #5 (6H31006-05) Water									
Benzene	ND	0.00100	mg/L	1	EH63104	08/31/06	08/31/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	#	"	n	
Ethylbenzene	ND	0.00100	n	11	"	11	**	P .	
Xylene (p/m)	ND	0.00100	n	"	"	"	11	rr .	
Xylene (o)	ND	0.00100	11	11	**	"	"	и	
Surrogate: a,a,a-Trifluorotoluene		106 %	80-12	0	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.0 %	80-12	0	"	"	"	"	



Fax: (505) 397-1471

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Monitor Well #1A (6H31006-01) Water	<del></del>			Direction	Daten	. repaired	Analyzou	Mediod	
Fotal Alkalinity	316	2.00	mg/L	ı	EH63107	08/31/06	08/31/06	EPA 310.1M	
Chloride	355	12.5	"	25	EH63108	08/31/06	08/31/06	EPA 300.0	
Total Dissolved Solids	1590	10.0	"	1	EI60503	08/31/06	09/05/06	EPA 160.1	
Sulfate	372	12.5	"	25	EH63108	08/31/06	08/31/06	EPA 300.0	
Monitor Well #2 (6H31006-02) Water									
Total Alkalinity	340	8.00	mg/L	4	EH63107	08/31/06	08/31/06	EPA 310.1M	
Chloride	386	12.5	11	25	EH63108	08/31/06	08/31/06	EPA 300.0	
Total Dissolved Solids	1790	10.0	"	1	EI60503	08/31/06	09/05/06	EPA 160.1	
Sulfate	515	12.5	"	25	EH63108	08/31/06	08/31/06	EPA 300.0	
Monitor Well #3 (6H31006-03) Water									
Total Alkalinity	244	2.00	mg/L	1	EH63107	08/31/06	08/31/06	EPA 310.1M	
Chloride	407	12.5	"	25	EH63108	08/31/06	08/31/06	EPA 300.0	
Total Dissolved Solids	1760	10.0	"	1	EI60503	08/31/06	09/05/06	EPA 160.1	
ulfate	533	12.5	"	25	EH63108	08/31/06	08/31/06	EPA 300.0	
Monitor Well #4 (6H31006-04) Water									
Total Alkalinity	246	2.00	mg/L	1	EH63107	08/31/06	08/31/06	EPA 310.1M	
Chloride	793	25.0	Ħ	50	EH63108	08/31/06	08/31/06	EPA 300.0	
Total Dissolved Solids	2450	10.0		1	EI60503	08/31/06	09/05/06	EPA 160.1	
Sulfate	570	25.0	"	50	EH63108	08/31/06	08/31/06	EPA 300.0	
Monitor Well #5 (6H31006-05) Water									
Total Alkaliníty	274	2.00	mg/L	1	EH63107	08/31/06	08/31/06	EPA 310.1M	
Chloride	1060	25.0	11	50	EH63108	08/31/06	08/31/06	EPA 300.0	
Total Dissolved Solids	2470	10.0	"	1	EI60503	08/31/06	09/05/06	EPA 160.1	
Sulfate	298	25.0	"	50	EH63108	08/31/06	08/31/06	EPA 300.0	
Water Well (6H31006-06) Water									
Total Alkalinity	240	2.00	mg/L	1	EH63107	08/31/06	08/31/06	EPA 310.1M	
Chloride	605	25.0	15	50	EH63108	08/31/06	08/31/06	EPA 300.0	
Total Dissolved Solids	2310	10.0	11	1	EI60503	08/31/06	09/05/06	EPA 160.1	
Sulfate	739	25.0	"	50	EH63108	08/31/06	08/31/06	EPA 300.0	

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyto	Danile	Reporting	I Inia-	<b></b> .		n .			
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
Monitor Well #1A (6H31006-01) Water				<del></del>					
Calcium	122	4.05	mg/L	50	EH63111	08/31/06	08/31/06	EPA 6010B	
Magnesium	64.6	0.360	"	10	н	"	**	"	
Potassium	10.6	0.600	n	"	n	"	•	**	
Sodium	260	2.15	"	50	tt	"	93	"	
Monitor Well #2 (6H31006-02) Water									
Calcium	142	4.05	mg/L	50	EH63111	08/31/06	08/31/06	EPA 6010B	
Magnesium	54.3	0.360	11	10	"	"	н	11	
Potassium	11.0	0.600	"	"	н	"	**	11	
Sodium	341	2.15	"	50	n	"	v	"	
Monitor Well #3 (6H31006-03) Water									
Calcium	162	4.05	mg/L	50	ЕН63111	08/31/06	08/31/06	EPA 6010B	
Magnesium	61.7	0.360	u	10	**	н	**	11	
Potassium	6.22	0.600	"	31	"	"	**	**	
odium	289	2.15	n	50	11	"	H.	"	
Monitor Well #4 (6H31006-04) Water									
Calcium	209	4.05	mg/L	50	ЕН63111	08/31/06	08/31/06	EPA 6010B	
Magnesium	120	1.80	"	"	"	"	11	11	
Potassium	10.6	0.600	"	10	**	"	u u	11	
Sodium	427	2.15	n	50	**	"	**	11	
Monitor Well #5 (6H31006-05) Water									
Calcium	197	4.05	mg/L	50	ЕН63111	08/31/06	08/31/06	EPA 6010B	
Magnesium	102	1.80	"	**	а	11	11	11	
Potassium	11.6	0.600	"	10	"	n	11	11	
Sodium	532	2.15	n	50	**	н	11	и	
Water Well (6H31006-06) Water									
Calcium	132	4.05	mg/L	50	ЕН63111	08/31/06	08/31/06	EPA 6010B	
Magnesium	93.1	1.80	n	**	**	Ħ	"	п	
Potassium	9.80	0.600	n	10	**	"	**	11	
Sodium	492	2.15	"	50	11	**	**	11	

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

#### Organics by GC - Quality Control Environmental Lab of Texas

Andrea	Daniel	Reporting	11-34-	Spike	Source	WREC	%REC	222	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EH63104 - EPA 5030C (GC)										
Blank (EH63104-BLK1)				Prepared &	: Analyzed:	08/31/06				
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	n							
Surrogate: a,a,a-Trifluorotoluene	39.0		ug/l	40.0		97.5	80-120			
Surrogate: 4-Bromofluorobenzene	36.9		"	40.0		92.2	80-120			
LCS (EH63104-BS1)				Prepared &	: Analyzed:	08/31/06				
Benzene	0.0489	0.00100	mg/L	0.0500		97.8	80-120			
Toluene	0.0518	0.00100	**	0.0500		104	80-120			
Ethylbenzene	0.0507	0.00100	n	0.0500		101	80-120			
Xylene (p/m)	0.119	0.00100	11	0.100		119	80-120			
Xylene (o)	0.0574	0.00100	"	0.0500		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	43.5		ug/l	40.0		109	80-120			
Surrogate: 4-Bromofluorobenzene	47.5		"	40.0		119	80-120			
libration Check (EH63104-CCV1)				Prepared &	: Analyzed:	08/31/06				
izene	51.7		ug/l	50.0		103	80-120			
Toluene	54.4		n	50.0		109	80-120			
Ethylbenzene	52.4		**	50.0		105	80-120			
Xylene (p/m)	109		**	100		109	80-120			
Xylene (o)	52.8		"	50.0		106	80-120			
Surrogate: a,a.a-Trifluorotoluene	44.9		"	40.0		112	80-120			
Surrogate: 1-Bromofluorobenzene	39.8		"	40.0		99.5	80-120			
Matrix Spike (EH63104-MS1)	Sou	rce: 6H31005-	03	Prepared &	: Analyzed:	08/31/06				
Benzene	0.0511	0.00100	mg/L	0.0500	ND	102	80-120			
Toluene	0.0537	0.00100	**	0.0500	ND	107	80-120			
Ethylbenzene	0.0500	0.00100	**	0.0500	ND	100	80-120			
Xylene (p/m)	0.118	0.00100	"	0.100	ND	118	80-120			
Xylene (o)	0.0564	0.00100	"	0.0500	ND	113	80-120			
Surrogate: a,a,a-Trifluorotoluene	43.9		ug/l	40.0		110	80-120			
Surrogate: 4-Bromofluorobenzene	46.1		"	40.0		115	80-120			

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

#### Organics by GC - Quality Control

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Matrix Spike Dup (EH63104-MSD1)	Sour	ce: 6H31005-	-03	Prepared &	Analyzed:	08/31/06			
Benzene	0.0513	0.00100	mg/L	0.0500	ND	103	80-120	0.976	20
Toluene	0.0536	0.00100	**	0.0500	ND	107	80-120	0.00	20
Ethylbenzene	0.0511	0.00100	"	0.0500	ND	102	80-120	1.98	20
Xylene (p/m)	0.112	0.00100		0.100	ND	112	80-120	5.22	20
Xylene (o)	0.0531	0.00100		0.0500	ND	106	80-120	6.39	20
Surrogate: a,a,a-Trifluorotoluene	43.9		ug/l	40.0		110	80-120		
Surrogate: 4-Bromofluorohenzene	46.1		"	40.0		115	80-120		

Project: EME M-9 SWD

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	Source	%REC	%REC	DDD	RPD Limit	Mati
Analyte	Result	Limi	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EH63107 - General Preparation (	WetChem)	···								
Blank (EH63107-BLK1)				Prepared &	: Analyzed:	08/31/06				
Total Alkalinity	ND	2.00	mg/L							
LCS (EH63107-BS1)				Prepared &	: Analyzed:	08/31/06				
Bicarbonate Alkalinity	186	2.00	mg/L	200		93.0	85-115			
Duplicate (EH63107-DUP1)	Sour	се: 6Н29001-	02	Prepared &	: Analyzed:	08/31/06				
Total Alkalinity	136	2.00	mg/L		140			2.90	20	
Reference (EH63107-SRM1)				Prepared &	: Analyzed:	08/31/06				
Total Alkalinity	252		mg/L	250		101	90-110			
Blank (EH63108-BLK1)				Prepared &	. Analyzed	08/31/06				
	ND	0.500	mg/L	Prepared &	Analyzed:	08/31/06				
Chloride	ND ND	0.500 0.500	mg/L	Prepared &	: Analyzed:	08/31/06				
Chloride Sulfate			-		: Analyzed:	-				
Chloride Sulfate LCS (EH63108-BS1)			-			-	80-120			
Chloride Sulfate LCS (EH63108-BS1)	ND	0.500		Prepared &		08/31/06	80-120 80-120			
Chloride Sulfate LCS (EH63108-BS1) Sulfate Noride	ND 10.6	0.500	mg/L	Prepared & 10.0 10.0		08/31/06 106 107				
Chloride Sulfate  LCS (EH63108-BS1) Sulfate Noride Calibration Check (EH63108-CCV1)	ND 10.6	0.500	mg/L	Prepared & 10.0 10.0	: Analyzed:	08/31/06 106 107				
Chloride Sulfate LCS (EH63108-BS1) Sulfate Loride Calibration Check (EH63108-CCV1) Sulfate	ND 10.6 10.7	0.500	mg/L	Prepared & 10.0 10.0 Prepared &	: Analyzed:	08/31/06 106 107 08/31/06	80-120			
Chloride Sulfate  LCS (EH63108-BS1) Sulfate Noride Calibration Check (EH63108-CCV1) Sulfate Chloride	10.6 10.7 11.0 10.8	0.500	mg/L " mg/L "	Prepared & 10.0 10.0 Prepared & 10.0 10.0	: Analyzed:	08/31/06 106 107 08/31/06 110 108	80-120 80-120			
Blank (EH63108-BLK1) Chloride Sulfate LCS (EH63108-BS1) Sulfate Noride Calibration Check (EH63108-CCV1) Sulfate Chloride Duplicate (EH63108-DUP1) Chloride	10.6 10.7 11.0 10.8	0.500 0.500 0.500	mg/L " mg/L "	Prepared & 10.0 10.0 Prepared & 10.0 10.0	Analyzed: Analyzed:	08/31/06 106 107 08/31/06 110 108	80-120 80-120	0.720	20	

Project: EME M-9 SWD

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EH63108 - General Preparation (We	tChem)	<del></del>								
Duplicate (EH63108-DUP2)	Sour	·ce: 6H31006-	-02	Prepared &	z Analyzed:	08/31/06				
Chloride	386	12.5	mg/L		386			0.00	20	
Sulfate	516	12.5	11		515			0.194	20	
Matrix Spike (EH63108-MS1)	Sour	ce: 6H31002-	-01	Prepared &	Analyzed:	08/31/06				
Sulfate	2000	100	mg/L	2000	ND	100	80-120			
Chloride .	6290	100	n	2000	4180	106	80-120			
Matrix Spike (EH63108-MS2)	Sour	·ce: 6H31006-	-02	Prepared &	Analyzed:	08/31/06				
Sulfate	777	12.5	mg/L	250	515	105	80-120	-		
Chloride	654	12.5	"	250	386	107	80-120			
Batch E160503 - Filtration Preparation										·
Blank (EI60503-BLK1)				Prepared: (	08/30/06 A	nalyzed: 09	0/05/06			
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EI60503-DUP1)	Sour	rce: 6H30007-	-01	Prepared: (	08/30/06 A	nalyzed: 09	0/05/06			
Total Dissolved Solids	2770	10.0	mg/L		2820			1.79	5	
plicate (E160503-DUP2)	Sour	rce: 6H31005-	-04	Prepared: (	08/31/06 A	nalyzed: 09	0/05/06			
al Dissolved Solids	3360	10,0	mg/L		3400			1.18	5	

Project: EME M-9 SWD

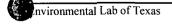
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

#### 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	Motor
Analyte	Kesuit	Talliti	Omis	Levei	Result	70KEC	Lillins	KrD		Notes
Batch EH63111 - 6010B/No Digestion										
Blank (EH63111-BLK1)				Prepared &	Analyzed:	08/31/06				
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	**							
Sodium	ND	0.0430	. "							
Calibration Check (EH63111-CCV1)				Prepared &	Analyzed:	08/31/06				
Calcium	2.23		mg/L	2.00		112	85-115			
Magnesium	2.25		"	2.00		112	85-115			
Potassium	1.72		11	2.00		86.0	85-115			
Sodium	1.83		"	2.00		91.5	85-115			
Duplicate (EH63111-DUP1)	Sou	rce: 6H30007-	01	Prepared &	Analyzed:	08/31/06				
Calcium	11.8	0.810	mg/L		12.5			5.76	20	
Magnesium	5.41	0.360	"		4.96			8.68	20	
Potassium	6.31	0.600	**		6.38			1.10	20	
Sodium	908	10.8	**		857			5.78	20	



Project: EME M-9 SWD

Project Number: None Given
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 Khul

Date: 9/6/2006

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.

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

Fax: (505) 397-1471

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: EME M-9 SWD

Project #:

Project Loc: T22S-R37E-Sec15E, Lea County NM

# Od

Fax No: (505) 397-1471

Sampler Signature: Rozanne Johnson (505) 631-9310

Email: rozanne@valornet.com

city/State/Zip: Hobbs, New Mexico 88240

Telephone No: (505) 393-9174

Phone: 432-563-1800 Fax: 432-563-1713

Project Manager: Kristin Farris Pope

company Name RICE Operating Company

Company Address: 122 W. Taylor Street

kpope@riceswd.com

Received by:

Time

8/3/08

PLEASE Email RESULTS TO: kpope@riceswd.com & mfranks@riceswd.com

Special Instructions

James Johnson Received by El, 10.15 6:30

Date 8/31/01

equished by

2/31/09

5.8

Time

× ×

> 11:15 12:05 13:35 15:25

10:20 9:15

8/30/2006 8/30/2006 8/30/2006 8/30/2006 8/30/2006 8/30/2006

FIELD CODE

Monitor Well #1A

Monitor Well #3 Monitor Well #4 Monitor Well #5

Water Well

Monitor Well #2

× × ×

×

N

Sample Containers Intact

Labels on container?

Laboratory Comments

Analyze For

nions (CI, SO4, CO3, HCO3)

Matala: As Ag Ba Cd Cr Pb Hg Se TCLP Cations (Ca, Mg, Na, K)

PH: 418,1 8015M 1005 1006 Officer (specify):

IJξ 0E09/81Z08 XELE

lios

aßpnys мэрем

\*os\*h

HOEN

ONH 90)

Other (Specify) None (1) 1 Liter HDPE

HCI (2) 40 ml glass vials

No. of Containers

Time Sampled

Date Sampled

TAT brebnet2

(Stuberlo&-eng) TAT H2UR

otal Dissolved Solids

×

Custody Seals Contamers (Cooler

Temperature Uport Receip

## Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

life, Or.			
Date/ Time: 8/31/00 10:15			
Lab ID#: (0HB) OOG			·
Initials:			•
minute.			
Sample Receipt	Checklist		•
			Client Initials
#1 Temperature of container/ cooler?	Yes	No	['O ,C
#2 Shipping container in good condition?	<b>₹</b>	No	
#3 Custody Seals intact on shipping container/ cooler?	<del>≱9</del> s	No	Not Present
#4 Custody Seals intact on sample bottles/ container?	¥€\$	No	Not Present
#5 Chain of Custody present?	) Es	No	
#6 Sample instructions complete of Chain of Custody?	1 Ages	No	
#7 Chain of Custody signed when relinquished/ received?	<b>Kes</b>	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?	(Fes	No	
#12 Samples in proper container/ bottle?	Nes	No	See Below
#13 Samples properly preserved?	Yes	No	See Below
#14 Sample bottles intact?	Yes	No	
#15 Preservations documented on Chain of Custody?	Marie Control	No	·
#1 ontainers documented on Chain of Custody?	/Yes	No	
#1 Sufficient sample amount for indicated test(s)?	(Pes	No	See Below
#18 All samples received within sufficient hold time?	(Ye)s	No	See Below
#19 VOC samples have zero headspace?	(Fes	No	Not Applicable
Variance Docu	mentation		
Contact: Contacted by:			Date/ Time:
Regarding:			
Corrective Action Taken:			
Check all that Apply:  See attached e-mail/ fax  Client understands and wou	id like to pro	ceed with	n analysis
Cooling process had begun			<del>-</del>



# Analytical Report

#### **Prepared for:**

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

Project: EME M-9 SWD

Project Number: None Given

Location: T20S-R37E-Sec.9M, Lea County, NM

Lab Order Number: 6L01009

Report Date: 12/08/06

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1A	6L01009-01	Water	11/29/06 11:40	12-01-2006 12:50
Monitor Well #2	6L01009-02	Water	11/29/06 11:00	12-01-2006 12:50
Monitor Well #3	6L01009-03	Water	11/29/06 10:10	12-01-2006 12:50
Monitor Well #4	6L01009-04	Water	11/29/06 08:45	12-01-2006 12:50
Monitor Well #5	6L01009-05	Water	11/29/06 09:25	12-01-2006 12:50
Water Well	6L01009-06	Water	11/29/06 13:30	12-01-2006 12:50

Project: EME M-9 SWD

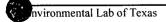
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

#### Organics by GC

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #5 (6L01009-05) Water								•	
Benzene	ND	0.00100	mg/L	1	EL60103	12/01/06	12/04/06	EPA 8021B	
Toluene	ND	0.00100	11	#1	"	"	"	**	
Ethylbenzene	ND	0.00100	11	Ħ	**	"		"	
Xylene (p/m)	ND	0.00100	11	**	"	"		11	
Xylene (o)	ND	0.00100	11	n	"	"	"	**	
Surrogate: a,a,a-Trifluorotoluene		106 %	80-12	0	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.2 %	80-12	0	"	"	n	n	



Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

## General Chemistry Parameters by EPA / Standard Methods

#### **Environmental Lab of Texas** Reporting Analyte Result Units Limit Dilution Batch Prepared Analyzed Method Notes Monitor Well #1A (6L01009-01) Water Total Alkalinity 362 2.00 mg/L EPA 310.1M ì EL60408 12/05/06 12/05/06 Chloride 351 12.5 EPA 300.0 25 EL60409 12/04/06 12/04/06 **Total Dissolved Solids** 1510 10.0 EPA 160.1 1 EL60406 12/04/06 12/05/06 Sulfate 391 12.5 EPA 300.0 25 EL60409 12/04/06 12/04/06 Monitor Well #2 (6L01009-02) Water **Total Alkalinity** 336 EPA 310.1M 2.00 mg/L 1 EL60408 12/05/06 12/05/06 Chloride 432 12.5 EPA 300.0 25 EL60409 12/04/06 12/04/06 **Total Dissolved Solids** 1830 10.0 EPA 160.1 1 EL60406 12/04/06 12/05/06 Sulfate 506 EPA 300.0 12.5 25 EL60409 12/04/06 12/04/06 Monitor Well #3 (6L01009-03) Water **Total Alkalinity** 282 2.00 mg/L 1 EPA 310.1M EL60408 12/05/06 12/05/06 Chloride 387 12.5 EPA 300.0 25 EL60409 12/04/06 12/04/06 **Total Dissolved Solids** 1790 10.0 EPA 160.1 1 EL60406 12/04/06 12/05/06 EPA 300.0 ulfate 558 12.5 25 EL60409 12/04/06 12/04/06 Monitor Well #4 (6L01009-04) Water **Total Alkalinity** 264 2.00 mg/L EPA 310.1M 1 EL60408 12/05/06 12/05/06 Chloride 838 25.0 EPA 300.0 50 EL60409 12/04/06 12/04/06 **Total Dissolved Solids** 2360 10.0 EPA 160.1 1 EL60406 12/05/06 12/04/06 Sulfate 695 25.0 EPA 300,0 50 EL60409 12/04/06 12/04/06 Monitor Well #5 (6L01009-05) Water **Total Alkalinity** EPA 310.1M 290 2.00 mg/L 1 EL60408 12/05/06 12/05/06 EPA 300.0 Chloride 1040 25.0 50 EL60409 12/04/06 12/04/06 **Total Dissolved Solids** 2300 10.0 EPA 160.1 1 EL60406 12/05/06 12/04/06 EPA 300.0 Sulfate 301 25.0 EL60409 50 12/04/06 12/04/06 Water Well (6L01009-06) Water **Total Alkalinity** 304 EPA 310.1M 2.00 mg/L EL60408 12/05/06 12/05/06 1 Chloride 853 25.0 50 EL60409 12/04/06 12/04/06 EPA 300.0

**Total Dissolved Solids** 

Sulfate

12/04/06

12/04/06

12/05/06

12/04/06

EPA 160.1 EPA 300.0

1

50

EL60406

EL60409

10.0

25.0

2850

879

Project: EME M-9 SWD

Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Monitor Well #1A (6L01009-01) Water				Dilution	Daten	riepaied	Anaryzed	ivietiod	NOU
Calcium	130	4.05	mg/L	50	EL60403	12/04/06	12/04/06	EPA 6010B	
Magnesium	78.8	1.80	"	"	" "	12/04/00	12/04/00	"	
Potassium	11.4	0.600	**	10	**	11	11	**	
Sodium	332	2.15	"	50	11	"	"	"	
Monitor Well #2 (6L01009-02) Water									
Calcium	161	4.05	mg/L	50	EL60403	12/04/06	12/04/06	EPA 6010B	
Magnesium	56.9	1.80	"	"	н	n	n	"	
Potassium	15.0	0.600	**	10	11	"	Ħ	11	
Sodium	380	4.30	**	100	Ħ	**	"	"	
Monitor Well #3 (6L01009-03) Water									
Calcium	173	4.05	mg/L	50	EL60403	12/04/06	12/04/06	EPA 6010B	
<b>1</b> agnesium	58.0	1.80	"	n	н	11	и	11	
Potassium	7.00	0.600	**	10	"	и	"	11	
Sedium	341	4.30	"	100	n	**	11:	"	
Monitor Well #4 (6L01009-04) Water									_
Calcium	232	4.05	mg/L	50	EL60403	12/04/06	12/04/06	EPA 6010B	
<b>1</b> agnesium	132	1.80	**	"	"	n	n	**	
otassium	13.2	0.600	H	10	"	**	"	u	
odium	545	4.30	"	100	11	**	n	11	
Monitor Well #5 (6L01009-05) Water									
Calcium	194	4.05	mg/L	50	EL60403	12/04/06	12/04/06	EPA 6010B	
<b>A</b> agnesium	105	1.80	"	"	**	"	"	н	
Potassium	13.0	0.600	"	10	"	**	n	11	
odium	555	4.30		100	u	n	"	"	
Vater Well (6L01009-06) Water					· · ·				·- <u></u>
Calcium	212	4.05	mg/L	50	EL60403	12/04/06	12/04/06	EPA 6010B	
Magnesium	135	1.80	**	H	"	**	"	n	
Potassium	14.4	0.600	"	10	"	n	11	"	
Sodium	614	4.30	"	100	11	H	H	"	

Project: EME M-9 SWD

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 EL60103 - EPA 5030C (GC)	1110111	Zam		20,01		70000	<u>.</u>			1,0103
				D: 1.1	2/01/07	1 1 10	10.110.6			
Blank (EL60103-BLK1)				Prepared: 1	2/01/06 Ai	nalyzed: 12	./04/06			
Benzene	ND	0.00100	mg/L							
Γoluene	ND	0.00100	51							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	51							
Surrogate: a,a,a-Trifluorotoluene	47.9		ug/l	40.0		120	80-120			
Surrogate: 4-Bromofluorobenzene	44.8		n	40.0		112	80-120			
LCS (EL60103-BS1)				Prepared: 1	2/01/06 A	nalyzed: 12	/05/06			
Benzene	0.0458	0.00100	mg/L	0.0500		91.6	80-120			
Toluene	0.0442	0.00100	"	0.0500		88.4	80-120			
Ethylbenzene	0.0497	0.00100		0.0500		99.4	80-120			
Xylene (p/m)	0.0860	0.00100	"	0.100		86.0	80-120			
Xylene (o)	0.0419	0.00100	n	0.0500		83.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.8	-	ug/l	40.0		99.5	80-120			-
Surrogate: 4-Bromofluorobenzene	39.2		"	40.0		98.0	80-120			
libration Check (EL60103-CCV1)				Prepared: 1	2/01/06 Aı	nalvzed: 12	/05/06			
zénzene	44.9		ug/l	50.0		89.8	80-120			
Toluene	43.7		"	50.0		87.4	80-120			
Ethylbenzene	44.2		**	50.0		88.4	80-120			
Xylene (p/m)	85.4		" .	100		85.4	80-120			
Xylene (o)	43.4		11	50.0		86.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	41.7		"	40.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	34.0		"	40.0		85.0	80-120			
Matrix Spike (EL60103-MS1)	Sou	ırce: 6L01009-	05	Prepared: 1	2/01/06 Ai	nalyzed: 12	/05/06			
Benzene	0.0440	0.00100	mg/L	0.0500	ND	88.0	80-120			
Toluene	0.0425	0.00100	"	0.0500	ND	85.0	80-120			
Ethylbenzene	0.0502	0.00100	"	0.0500	ND	100	80-120			
Xylene (p/m)	0.0849	0.00100	**	0.100	ND	84.9	80-120			
Xylene (o)	0.0408	0.00100	"	0.0500	ND	81.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.4		ug/l	40.0		98.5	80-120			
Surrogate: 4-Bromofluorobenzene	35.9		"	40.0		89.8	80-120			

Project: EME M-9 SWD

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 EL60103 - EPA 5030C (GC)										
Matrix Spike Dup (EL60103-MSD1)	Sou	rce: 6L01009-	05	Prepared: 1	.2/01/06 A	nalyzed: 12	/04/06			
Benzene	0.0502	0.00100	mg/L	0.0500	ND	100	80-120	12.8	20	
Toluene	0.0509	0.00100	n	0.0500	ND	102	80-120	18.2	20	
Ethylbenzene	0.0569	0.00100	n	0.0500	ND	114	80-120	13.1	20	
Xylene (p/m)	0.0980	0.00100	11	0.100	ND	98.0	80-120	14.3	20	
Xylene (o)	0.0408	0.00100	"	0.0500	ND	81.6	80-120	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	47.1		ug/l	40.0		118	80-120			
Surrogate: 4-Bromofluorohenzene	43.2		"	40.0		108	80-120			



Project: EME M-9 SWD

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
Allalyte	Kesuit	Limit	Oints	LCVCI	Result	70KLC	Limits	- KID	- Dillit	TVOICS
Batch EL60406 - Filtration Preparation										
Blank (EL60406-BLK1)				Prepared:	12/04/06 A	nalyzed: 12	/05/06			
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EL60406-DUP1)	Sou	rce: 6K30013	-01	Prepared:	12/04/06 A	nalyzed: 12	/05/06			
Total Dissolved Solids	2260	10.0	mg/L		2280			0.881	20	
Duplicate (EL60406-DUP2)	Sou	rce: 6L01009-	-03	Prepared: 1	12/04/06 A	nalyzed: 12	/05/06			
Total Dissolved Solids	1640	10.0	. mg/L		1790			8.75	20	
D + 1 E1 (0 100 C	<b>C</b>									
	Chem)	<u></u>		Prenared &	Analyzed:	12/05/06		<u>,=</u>		
Blank (EL60408-BLK1)	Chem)	2.00	mg/L	Prepared &	z Analyzed:	12/05/06				
Blank (EL60408-BLK1) Total Alkalinity		2.00	mg/L		z Analyzed:					
Blank (EL60408-BLK1) Fotal Alkalinity LCS (EL60408-BS1)		2.00	mg/L				85-115			
Blank (EL60408-BLK1)  Total Alkalinity  LCS (EL60408-BS1)  Bicarbonate Alkalinity	ND 192		mg/L	Prepared &		12/05/06	85-115			
Blank (EL60408-BLK1)  Total Alkalinity  LCS (EL60408-BS1)  Bicarbonate Alkalinity  Duplicate (EL60408-DUP1)	ND 192	2.00	mg/L	Prepared &	ż Analyzed	12/05/06	85-115	0.531	20	
Batch EL60408 - General Preparation (Wet Blank (EL60408-BLK1) Total Alkalinity  LCS (EL60408-BS1) Bicarbonate Alkalinity  Duplicate (EL60408-DUP1) Total Alkalinity  Reference (EL60408-SRM1)	ND 192 <b>Sou</b>	2.00 rce: 6L01007-	mg/L -01	Prepared & 200 Prepared &	ż Analyzed: ż Analyzed	12/05/06 96.0 12/05/06	85-115	0.531	20	

Batch EL60409 -	General	Preparation	(WetChem)
-----------------	---------	-------------	-----------

Blank (EL60409-BLK1)				Prepared & Analyzed: 12/04/06	
Chloride	ND	0.500	mg/L		_
Sulfate	ND	0.500	**		



Chloride

Project: EME M-9 SWD

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL60409 - General Preparation (	WetChem)									
LCS (EL60409-BS1)				Prepared &	& Analyzed:	12/04/06				
Sulfate	10.5	0.500	mg/L	10.0		105	80-120			
Chloride	10.1	0.500	"	10.0		101	80-120			
Calibration Check (EL60409-CCV1)				Prepared &	& Analyzed:	12/04/06				
Sulfate	9.69		mg/L	10.0		96.9	80-120			
Chloride	10.8		**	10.0		108	80-120			
Duplicate (EL60409-DUP1)	Sou	rce: 6L01007-	-01	Prepared &	k Analyzed:	12/04/06				
Sulfate	85.1	50.0	mg/L		86.2			1.28	20	
Chloride	2480	50.0	"		2440			1.63	20	
Duplicate (EL60409-DUP2)	Sour	rce: 6L01009-	-04	Prepared &	k Analyzed:	12/04/06				
Sulfate	680	25.0	mg/L		695			2.18	20	
Chloride	825	25.0	**		838			1.56	20	
Matrix Spike (EL60409-MS1)	Sour	rce: 6L01007-	-01	Prepared &	ż Analyzed:	12/04/06				
Sulfate	1030	50.0	mg/L	1000	86.2	94.4	80-120			
Chloride	3640	50.0	"	1000	2440	120	80-120			
atrix Spike (EL60409-MS2)	Sour	rce: 6L01009-	-04	Prepared &	k Analyzed:	12/04/06				
Sulfate	1170	25.0	mg/L	500	695	95.0	80-120			

1400

500

838

112

80-120

Project: EME M-9 SWD

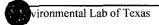
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

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

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL60403 - 6010B/No Digestion										
Blank (EL60403-BLK1)				Prepared &	Analyzed:	12/04/06				
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	**							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	n							
Calibration Check (EL60403-CCV1)				Prepared &	Analyzed:	12/04/06				
Calcium	2.10		mg/L	2.00		105	85-115			
Magnesium	2.13		"	2.00		106	85-115			
Potassium	1.76		**	2.00		88.0	85-115			
Sodium	2.03		"	2.00		102	85-115			
Duplicate (EL60403-DUP1)	Sou	rce: 6L01007-	01	Prepared &	Analyzed:	12/04/06				
Calcium	446	4.05	mg/L		460			3.09	20	
Magnesium	213	1.80	**		227			6.36	20	
Potassium	20.7	0.600	**		18.6			10.7	20	
Sodium	1020	10.8	11		922			10.1	20	



Project: EME M-9 SWD

Project Number: None Given Project Manager: Kristin Farris-Pope

#### **Notes and Definitions**

DET Analyte DETECTED

Analyte NOT DETECTED at or above the reporting limit ND

NR Not Reported

Sample results reported on a dry weight basis dry

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike Duplicate

Dup

Report Approved By:

Raland KJull

Date:

12/8/2006

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.

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.

Fax: (505) 397-1471

# En Conmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Odessa, Texas 79765 12600 West I-20 East

Phone: 432-563-1800 Fax: 432-563-1713

Sample Containers Infact? FedEx Lone Star NPDES RUSH TAT (Pre-Schedule) 24, 48, 72 hrs ပ္ Project Loc: T20S-R37E-Sec9M ~ Lea County New Mexico 0 Total Dissolved Solids × × × TRRP M.R.Q.V Ξ SCI Labels on container(s) Custody seals on container(s) Custody seals on cooler(s) by Sample A Client Rep. 7. Temperature Upon Receipt: VOCs Free of Headspace? BTEX 6021B/5030 or BTEX 8260 Laboratory Comments Sample Hand Delivered Project Name: EME M-9 SWD X Standard Metals: As Ag Ba Cd Cr Pb Hg Se TCLP TOTAL PAR LESE LOEC Anions (Cl. SO4, Alkelinity) М # × Project #: Cations (Ca, Mg, Na, K) × Report Format: 12.50 9001 XT 2001 XT Hall Time Time 89108 W3108 1.814 :HaJ 7 Specify Other Š გ 8 ĕ \_გ ĕ 12/11/20 ogbul2 • J& 1916W grijkinig • WG Date Date Other ( Specify) rozanne@valornet.com None (1) 1 Liter HDPE ٣ rozanne@valornet.com OZSZEN HOEN (505) 397-1471 'OS<sup>z</sup>H HC! (2) 40 ml glass vials N EONH ce 3 etal #. of Containers benetliR blei e-mail: Fax No: 10:10 11:00 13:30 11:40 mfranks@riceswd.com 8:45 9:25 Time Sampled kpope@riceswd.com 11/29/2006 11/29/2006 11/29/2006 11/29/2006 11/29/2006 11/29/2006 Received by: Received by: Date Sampled Ending Depth Hobbs, New Mexico 88240 250 RICE Operating Company Ē ime Rozanne Johnson (505)631-9310 թեմասան ընդա kpope@riceswd.com 122 W. Taylor Street Kristin Farris Pope Date (505) 393-9174 FIELD CODE Please email to: 0 Sampler Signature: Company Address: Project Manager: Monitor Well #1A Company Name Monitor Well #3 Monitor Well #5 Monitor Well #2 Monitor Well #4 Telephone No: City/State/Zip: Water Well Special Instructions: Relinquished by: Relinquished by ORDER #: (tab use only) (lab use only)

TAT bisbnet2

## Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

2000 Do.				
Date/ Time: 12/1/00 12:50				
.ab ID#: (0L0)009				
<del></del>				
nitials: CK				
Sample Receipt (	Checklist		Client I	nitiale
Temperature of container/ cooler?	Yes	No	2,0 °C	THUMIS
2 Shipping container in good condition?	Yes	No		
3 Custody Seals intact on shipping container/ cooler?	(es)	No	Not Present	
4 Custody Seals intact on sample bottles/ container?	(es	No	Not Present	
5 Chain of Custody present?	(es	No		
6 Sample instructions complete of Chain of Custody?	)Xes	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?	Y/es	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?	(es	No	See Below	
13 Samples properly preserved?	Yes	No	See Below	
14 Sample bottles intact?	Xes.	No		
15 Preservations documented on Chain of Custody?	Yes	No		
16 Containers documented on Chain of Custody?	Yes	No		
1 fishing inflicient 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?	(Es	No	Not Applicable	
Variance Docum Contact: Contacted by:	nentation		Date/ Time:	
Regarding:				
regarding.				
Corrective Action Taken:				
		<del></del>		<del></del>
		<del></del>		
Check all that Apply:  See attached e-mail/ fax  Client understands and would  Cooling process had begun s			•	

## ATTACHMENT C

NMOCD Correspondence

From: "Price, Wayne, EMNRD" <wayne.price@state.nm.us>
To: "Gilbert Van Deventer" <qilbertvandeventer@cox.net>

Cc: "Carolyn Haynes" <cdhriceswd@valornet.com>; "Kristin Farris Pope"

<kpope@riceswd.com>

Subject: RE: Suspension of BTEX at certain sites

Date: Friday, May 19, 2006 4:47 PM

OCD hereby approves of the request with the following condition:

1. If oil is present, or conditions change that BTEX may be found then the approval is rescinded.

2. This approval is included in all reports.

Please be advised that NMOCD approval of this plan does not relieve the owner/operator of Responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

From: Gilbert Van Deventer [mailto:gilbertvandeventer@cox.net]

Sent: Friday, May 19, 2006 3:33 PM

To: Price, Wayne, EMNRD

Cc: Carolyn Haynes; Kristin Farris Pope

Subject: Re: Suspension of BTEX at certain sites

The constituents of concern are chlorides and TDS.

Gilbert J. Van Deventer, PG, REM, NMCS

Trident Environmental Work/Mobile: 432-638-8740

Fax: 413-403-9968 Home: 432-682-0727

---- Original Message ----

From: Price, Wayne, EMNRD <mailto:wayne.price@state.nm.us>

To: gil@rthicksconsult.com

Cc: Carolyn Haynes <mailto:cdhriceswd@valornet.com> ; Kristin

Farris Pope <mailto:kpope@riceswd.com>

Sent: Friday, May 19, 2006 1:22 PM

Subject: RE: Suspension of BTEX at certain sites

What are the constituents of concern?

From: Gil Van Deventer [mailto:gil@rthicksconsult.com]

Sent: Friday, April 21, 2006 9:16 AM

To: Price, Wayne, EMNRD

Cc: Carolyn Haynes; Kristin Farris Pope Subject: Suspension of BTEX at certain sites

Wayne, I just wanted to clarify an issue on some of these Stage 1 and 2 Abatement Plans where we propose suspension of sampling and analyzing for BTEX.

In the NMOCD-approved Stage 1 and 2 Abatement Plan for the EME M-9 SWD site we proposed that "Analysis for BTEX concentrations will be suspended, as each component of BTEX has been below the laboratory method detection limit of 0.001 mg/L since August 22, 2003 (10 consecutive quarters)."

The same goes for the EME P-6 Release site and its two montoring wells. In the approved Stage 1-2 plan we state: "Analysis for BTEX concentrations should be suspended, as there has been no indication of dissolved hydrocarbons since the groundwater monitoring program began in January 2002 (13 consecutive quarters)." My understanding that the local Hobbs Office is also reviewing this abatement plan.

The same situation would apply to the BD J-26 Junction Box site but we are still within the 30-day public comment period and plan approval by OCD will take a little time after that. In the Stage 1-2 abatement plan for J-26 we state that we will do the following:

Collect depth to water measurements and ground water samples for chloride and TDS analysis from the on site monitoring wells (MW-1, MW-2, MW-3) and area water wells (WW-1, WW-5, WW-8, WW-12, WW-19, WM #138, WM #220, and Wallach #914) on a quarterly frequency.

With the J-26 site we don't specifically state that we will "suspend BTEX analysis" but that is the intention. Each component of BTEX has been below the laboratory method detection limit of 0.001 mg/L at this site since it began in 2002 (15 quarters).

Please confirm if you are in agreement with the suspension of BTEX sampling on any of these sites as we are about to initiate the second quarter sampling.

Thanks, Gil

Gilbert J. Van Deventer

R. T. Hicks Consultants, Ltd.

1909 Brunson Ave, Midland TX 79701-6924

432-638-8740 (Office/Mobile) - 413-403-9968 (Fax) - 432-682-0727 (Home)