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WORK PLANS

DATE: 5-22-07



Highlander Environmental Corp. Work

CERTIFIED MAIL RETURN RECIEPT NO. 7005 1160 0005 3780 6498

May 22, 2007

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

RE: CORRECTIVE ACTION PLAN (CAP) A-2-1 JUNCTION BOX, EME SWD SYSTEM UNIT "A", SEC. 2, T20S, R36E LEA COUNTY, NEW MEXICO

Mr. Price:

RICE Operating Company (ROC) has retained Highlander Environmental Corp. (Highlander) to address potential environmental concerns at the above-referenced site. ROC is the service provider (agent) for the Eunice Monument Eumont (EME) SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Environmental projects of this magnitude require System Partner AFE approval and work begins as funds are received. In general, project funding is not forthcoming until NMOCD approves the work plan. Therefore, your timely review of this submission is requested.

For all environmental projects, ROC will choose a path forward that:

- protects public health,
- provides the greatest net environmental benefit,
- complies with NMOCD Rules, and
- is supported by good science.

Each site shall have three submissions or a combination of:

- 1. An <u>Investigation and Characterization Plan</u> (ICP) is a proposal for data gathering and site characterization and assessment.
- 2. Upon evaluating the data and results from the ICP, a recommended remedy is submitted in this <u>Corrective Action Plan</u> (CAP).

5-22-07

3. Finally, after implementing the remedy, a <u>Closure Report</u> with final documentation will be submitted.

1.0 BACKGROUND & PREVIOUS WORK

As part of the ROC Junction Box Upgrade Workplan, starting on February 26, 2004, the junction box was moved 85 feet to the west. The former junction box site was investigated vertically and horizontally with a backhoe. Test trenches were placed 10 feet in each direction from the source and showed a decline in chloride concentrations with depth to below 250 mg/L at 14 feet bgs. The Site was excavated with dimensions of approximately 20 feet x 20 feet x 12 feet. TPH impact was noted to a depth of at least 12 feet below ground surface (bgs). The bottom hole chloride concentration was 659 mg/kg at 12 feet, and a 4-wall composite sample had a concentration of 915 mg/kg. Regional groundwater information indicates that the depth to groundwater is approximately 50 feet bgs.

The excavated soil was blended onsite and replaced into the excavation to a depth of 6 feet bgs. At 6 feet bgs, a compacted clay barrier was installed to inhibit further hydrocarbon and chloride migration. The remaining soils were backfilled on top of the clay barrier and contoured to the surrounding surface. On June 2, 2004, a hollow-stem auger unit was utilized to conduct one soil boring at the former junction box site. The soil boring was advanced to a total depth of 30 feet bgs. A bottom hole sample (shown as 35 feet bgs) was collected from the borehole and exhibited a TPH concentration of 242.5 mg/kg and a chloride concentration of 688 mg/kg. The site was disclosed to the NMOCD as a potential groundwater impact site on June 29, 2005. Additionally, ROC submitted a Junction Box Disclosure Report to the NMOCD dated July 1, 2005.

On September 29, 2006, ROC submitted the ICP to Mr. Wayne Price of the NMOCD-Santa Fe office for review. Mr. Price granted approval of the ICP in a letter dated October 4, 2006.

Between October 11 through October 13, 2006, Highlander personnel were onsite to oversee the installation of three monitor wells (MW-1 through MW-3) along with five soil borings (SB-2 through SB-6) within, up, and down gradient of the release area. The affected area measured approximately 45 feet by 75 feet. Soil samples were collected every 5 feet, utilizing a split spoon sampler, and field screened for chlorides. In addition, collected samples were placed into laboratory supplied containers and delivered to the laboratory under chain-of-custody control for chloride analysis by EPA method 300.0, along with select samples for BTEX and TPH utilizing EPA analysis method 8021B and 8015M, respectively. The split spoons were decontaminated between samples utilizing an Alconox© and deionized water wash followed by a deionized water rinse. Copies of laboratory analyses and chain-of-custody documentation are included in Appendix A. The monitor well locations are shown on Figure 2. The soil boring logs and monitor well completion diagrams are included in Appendix B. The results of the sampling are summarized in Table 1.

Referring to Table 1, with the exception of SB-2, residual chloride impact to subsurface soils was less than 1,000 mg/kg except near the saturated zone where chloride concentrations increase to near or slightly greater than 1,000 mg/kg.



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Following installation of the monitor wells, the wells were gauged and developed by handbailing to remove fine grain sediment disturbed during drilling and to ensure collection of representative groundwater samples. Water removed from the wells was disposed of in the EME SWD system. Upon development of the monitor wells, personnel were onsite on November 6, 2006 to collect representative groundwater samples from each of the monitor wells, place the samples within laboratory supplied containers and submit to the laboratory under chain-of-custody control for chloride and BTEX analysis by EPA Method 300.0 and 602/8021B, respectively. The gauging data is summarized in Table 2, while the results of the sampling are summarized in Table 3

Referring to Table 3, groundwater concentrations in all three monitor wells had elevated chloride levels ranging from 7,970 mg/L in MW-3 (downgradient) to 10,100 mg/L in MW-1 (source) and MW-2 (upgradient). In addition, TDS ranged from 20,400 mg/L in MW-3 to 23,600 mg/L in MW-2. BTEX concentrations were elevated in monitor well MW-1, but remained below the New Mexico Water Quality Control Commission standards. No BTEX was reported in monitor wells MW-2 and MW-3. Subsequent sampling on February 13, 2007 indicated that benzene concentrations have exceeded the NMWQCC standards of 0.005 mg/L in MW-1.

In comparing the chloride concentration analysis data from the EME A-2-1 with other water quality in the area, specifically the ROC EME D-1, it appears the chloride concentrations at the site are consistent with regional groundwater in the area. The EME D-1 data indicates the TDS ranges from 7,910 mg/Kg to 12,900 mg/kg in areas located outside the initial release area. A likely source for the elevated regional chloride concentrations is the up gradient abandoned Climax Chemical facility located approximately 2,600 feet north of the site. The site has had verified elevated chloride impacts to the groundwater since 1981.

Measurable PSH (several inches) was detected in monitor well MW-1 after installation of the well in November 2006. Since January 2007, absorbent sock recovery has been the preferred method of product recovery. Product thicknesses have declined to a sheen since January 2007 with negligible amounts of PSH recovered. The monitor well is gauged on a monthly basis and the absorbent sock replaced, as needed. The gauging data and PSH recovery for monitor well MW-1 is included in Table 4.

2.0 COLLECTED REGIONAL HYDROGEOLOGIC DATA

Groundwater was encountered at approximately 43 feet bgs in the three installed monitor wells. The regional groundwater gradient in the area is towards the southeast.

3.0 EVALUATION

When evaluating any proposed remedy or investigative work, ROC will confirm that there is a reasonable relationship between the benefits created by the proposed remedy or assessment and the economic and social costs. In evaluating the documented levels of chlorides within the soil, it was determined that an unconsolidated clay barrier be placed within the impacted zone in order to prevent further vertical migration of the chlorides into the surrounding soils.

4.0 **PROPOSED REMEDY**

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Since a previous clay barrier was placed within the impacted area during the initial excavation of the junction box upgrade and in light of the ICP sample results, it doesn't appear that the residual chlorides and hydrocarbons in the vicinity of MW-1 will leach into the surrounding groundwater. However, with the elevated levels of chlorides in SB-2, ROC proposes extending the existing clay liner to encompass the area surrounding the soil boring. Upon completion of the extension of the clay liner, ROC proposes preparation and revegetation of the surface soils in order to provide an infiltration barrier. See proposed revegetation area on Figure 3. Based on the visual inspection and subsurface drilling, the area of the former junction box to be revegetated is approximately 75 feet by 45 feet.

In addition, ROC will continue quarterly sampling and monthly PSH recovery from MW-1, and Annual Report submittals for the site.

If you require any additional information or have any questions or comments, please call.



Highlander Environmental Corp.

Jeffrey Kmolle Jeffrey Kindley, P.G.

Jeffrey Kindley, P.G. Senior Environmental Geologist

cc: ROC Edward Hansen-NMOCD

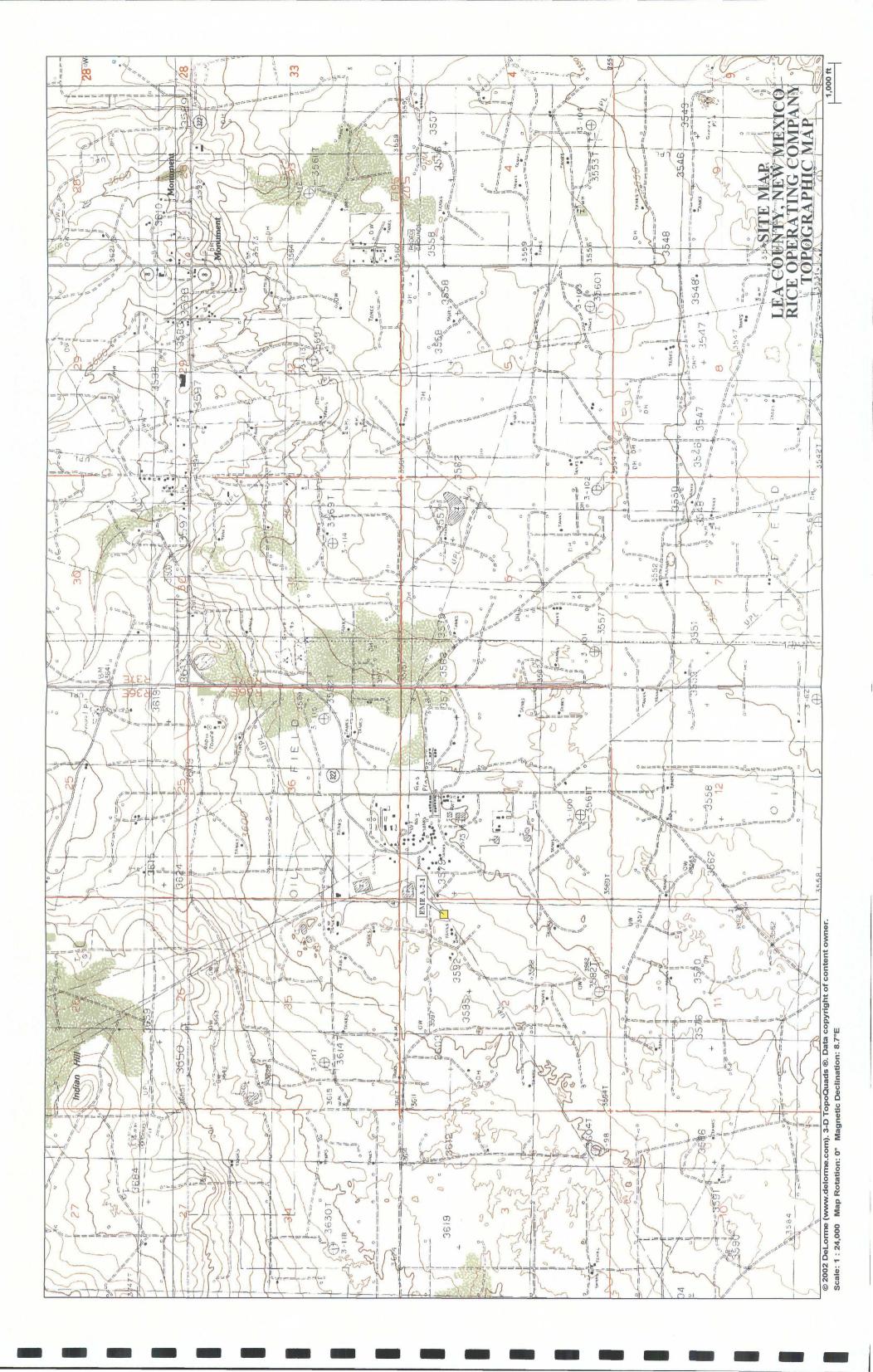
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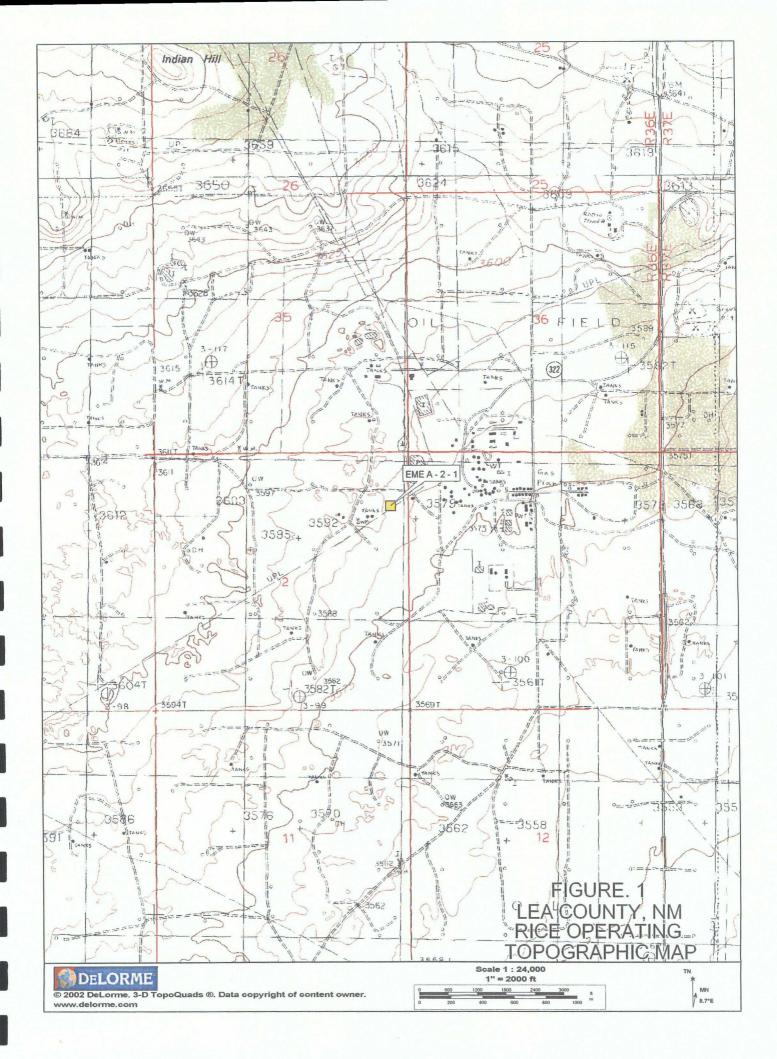


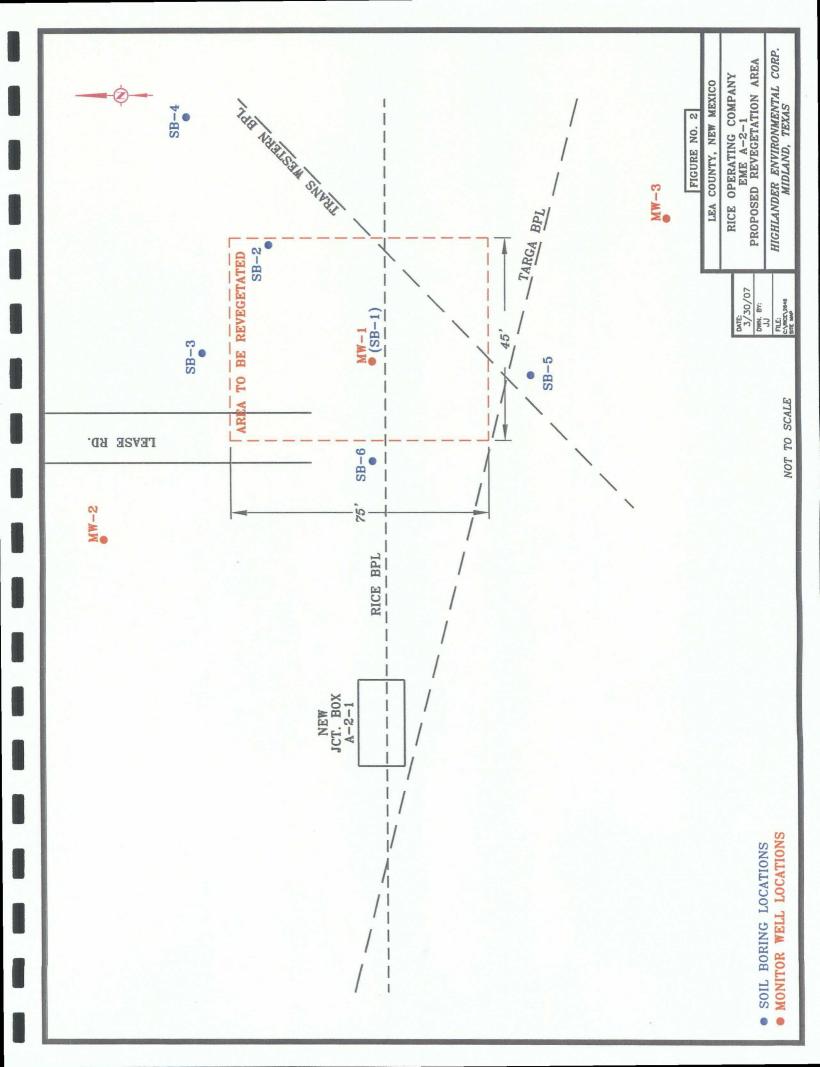
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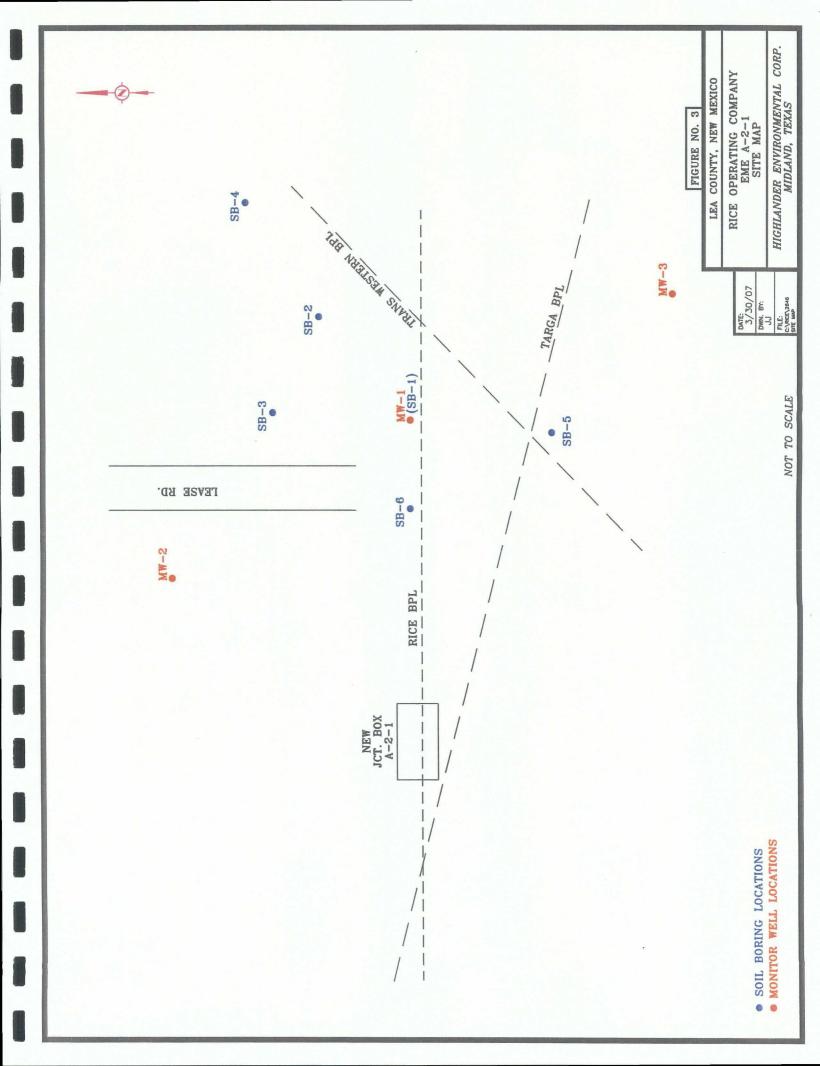
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FIGURES











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Table 1Rice OperatingSoils Analytical Results

EME A-2-1

Lea County, New Mexico

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	Total	728	9,970	3,300	NA	NA	NA	<10.0	<10.0	20.5	NA	NA	NA	NA	<10.0	NA	NA	NA	NA	NA	NA	<10.0	NA	NA	NA
mg/kg).	C-28-C35	45	640	188	NA	NA	NA	<10.0	<10.0	<10.0	NA	NA	NA	NA	<10.0	NA	NA	NA	NA	NA	NA	<10.0	NA	NA	NA
TPH (mg/kg)	C12-C28	469	5,770	2,220	NA	NA	NA	<10.0	· <10.0	20.5	NA	NA	NA	NA	<10.0	NA	NA	NA	NA	NA	NA	<10.0	NA	NA	NA
	C6-C12	214	3,560	895	NA	NA	NA	<10.0	<10.0	<10.0	NA	NA	NA	NA	<10.0	NA	NA	NA	NA	NA	NA	<10.0	NA	NA	NA
Chlorides	Lab (mg/kg)	266	349	277	42.5	63.8	596	2,980	6,170	5,320	2,770	5,530	3,300	2,340	85.1	330	404	425	362	234	383	21.3	553	851	596
Chlorides	Field (mg/kg) Lab (mg/kg)	537	483	445	502	508	511	3,989	4,129	2,229	4,098	3,444	2,705	2,351	207	303	496	374	530	410	510	196	518	554	513
Total BTEX	(mg/kg)	4.977	14.613	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Xylenes	(mg/kg)	2.163	9.27	NA	NA	NA	NA	NA	NA	NA ·	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	(mg/kg)	1.61	4.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	(mg/kg)	0.983	0.736	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	(mg/kg)	0.374	0.147	NA	NA	ΝA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sample	Depth (ft)	8-10'	13-15'	18-20'	23-25'	28-30'	33-35'	3-5'	8-10'.	13-15'	18-20'	23-25'	28-30'	33-35'	3-5'	8-10'	13-15'	18-20'	23-25'	28-30'	33-35'	3-5'	8-10'	13-15'	18-20'
Date	Sampled	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/1.1/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06	10/11/06
Sample	D. D.	SB-1 (MW-1)	SB-2	SB-3	SB-4	SB-4	SB-4	SB-4																	

Table 1

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Rice Operating

Soils Analytical Results

EME A-2-1

Lea County, New Mexico

Sample	Date 🗸	Sample	Benzene	Toluene	Sample Date Sample Benzene Toluene Ethylbenzene	Total Xylenes Total BTEX	Total BTEX	Chlorides	Chlorides	A Star Star Star) Hal	TPH (mg/kg)	
D. T. MD. C. M	Sampled	Sampled [Depth(ft)] (mg/kg)) (mg/kg)	(mg/kg).	(mg/kg).	(mg/kg)	📝 (mg/kg)	Field (mg/kg)	Lab (mg/kg)	C6-C12	C12-C28	C12-C28 C-28-C35	Total
SB-4	10/11/06	23-25'	NA	NA	NA	NA	NA	261	, 553	NA	NA	NA	NA
SB-4	10/11/06	28-30'	NA	NA	NA	NA	NA	516	638	NA	NA	NA	NA
SB-4	10/11/06	33-35'	NA	NA	NA	NA	NA	692	915	NA	NA	NA	NA
SB-5	10/11/06	3-5'	NA	NA	NA	NA	NA	86	<20.0	<10.0	<10.0	<10.0	<10.0
SB-5	10/11/06	8-10'	NA	NA	NA	NA	NA	170	42.5	NA	NA	NA	NA
SB-5	10/11/06	13-15'	NA	NA	NA	NA	NA	221	21.3	NA	NA	NA	NA
SB-5	10/11/06	18-20'	NA	NA	NA	NA	NA	324	223	NA	NA	NA	NA
SB-5	10/11/06	23-25'	NA	NA	NA	NA	NA	366 .	362	NA	ŇA	NA	NA
SB-5	10/11/06	28-30'	NA	NA	NA	NA	NA	374	479	NA	NA	NA	NA
SB-5	10/11/06	33-35'	NA	NA	NA	NA	NA	480	1,000	26.8	202.0	36.7	266
SB-6	10/11/06	3-5'	NA	NA	NA	NA	NA	250	223	<10.0	<10.0	<10.0	<10.0
SB-6	10/11/06	8-10'	NA	NA	NA	NA	NA	381	447	NA	NA	NA	NA
SB-6	10/11/06	13-15'	NA	NA	NA	NA	NA	58	723	NA	NA	NA	NA
SB-6	10/11/06	18-20'	NA	NA	NA	NA	NA	365	11.7	NA	NA	NA	NA
SB-6	10/11/06	23-25'	NA	NA	NA	NA	NA	235	277	NA	NA	NA	NA
SB-6	10/11/06	28-30'	NA	NA	NA	NA	NA	333	277	NA	NA	NA	NA
SB-6	10/11/06	33-35'	NA	NA	NA	NA	NA	605	117	NA	NA	NA	ŇA
NA - Not Analyzed		ND - Not detected	ed	- - -									

NA - Not Analyzed ND - Not detected

Table 2 Rice Operating Groundwater Gauging Data jct. A-2-1 Lea County, New Mexico

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			Date	Top of Casing	다 없는 다 날 때 안 많을 것 같아요.	Water Level	Groundwater
	Monitor Well	Date Gauged	of Well Installation	Elevation (ft)	of Well (bgs in ft)	Belòw TOC (ft)	Elevation (ft)
6 73	MW-1	11/06/06	10/11/06	3,588.50	53.76	38.13	3550.37
権が	MW-2	11/06/06	10/13/06	3,587.86	48.65	36.45	3551.41
	MW-3	11/06/06	10/13/06	3,586.49	47.38	37.12	3549.37

Table 3

Rice Operating Groundwater Sample Analysis

EME jct A-2-1

Lea County, New Mexico

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	Sample ID	Date Sampled	Benzene (mg/L)	Tolueñe (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Total BTEX (mg/L)	Chlorides (mg/L)	Sulfate - (mg/L)	' TDS (mg/L)
100000	MW-1	11/01/06	0.00331	0.00158	0.00337	0.03418	0.04244	8,460	6,780	22,800
		02/13/07	0.0692	0.00526	0.0313	0.0404	0.14616	10,100	8,190	17,900
	MW-2	11/01/06	<0.001	<0.001	<0.001	< 0.001	< 0.001	8,680	6,960	23,600
9		02/13/07	<0.001	< 0.001	<0.001	< 0.001	< 0.001	10,100	7,990	20,300
5	MW-3	11/01/06	<0.001	<0.001	<0.001	<0.001	<0.001	7,970	5,950	20,400
		02/13/07	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	9,820	6,050	23,600



APPENDIX A

Boring/Well:MW-1Project Number:2646Client:Rice EngineeringSite Location:EME jct. A-2-1Location:Lea County, New MexicoTotal Depth50Date Installed:10/11/06

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DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
8-10	537	680	Dark brown hydrocarbon stained sand
13-15	483	640	Dark brown hydrocarbon stained sand
18-20	445	450	Dark brown hydrocarbon stained sand
23-25	502	370	Dark brown hydrocarbon stained sand
28-30	508	420	Dark brown hydrocarbon stained sand
33-35	511	840	Dark brown hydrocarbon stained sand
38-40	50	950	Dark brown hydrocarbon stained sand (wet)
43-45	0		Tan brown clay
48-50	0		Tan brown clay

Boring completed at 50 feet bgs

Groundwater encountered at 39 feet

Boring/Well:	MW-2
Project Number:	2646
Client:	Rice Engineering
Site Location:	EME jct. A-2-1
Location:	Lea County, New Mexico
Total Depth	46
Date Installed:	10/13/06

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DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	1	88	Tan brown fine grain sand
8-10	2	587	Tan brown fine grain sand
13-15	1	480	Tan calcareous fine grain sand
18-20	0	511	Tan calcareous fine grain sand
23-25	2	481	Tan calcareous fine grain sand
28-30	0	782	Tan/buff calcareous fine grain sand
33-35	1	1131	Tan calcareous fine grain sand
38-40	0		Tan calcareous fine grain sand
43-45	0		Tan calcareous fine grain sand

Boring completed at 46 feet bgs

Groundwater encountered at 36 feet

Boring/Well:MW-3Project Number:2646Client:Rice EngineeringSite Location:EME jct. A-2-1Location:Lea County, New MexicoTotal Depth46Date Installed:10/13/06

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DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	4	184	Tan brown fine grain sand
8-10	7	270	Tan brown fine grain sand
13-15	7	338	Tan calcareous fine grain sand
18-20	4	648	Tan calcareous fine grain sand
23-25	6	513	Tan calcareous fine grain sand
28-30	6	630	Tan calcareous fine grain sand
33-35	5	618	Tan calcareous fine grain sand
38-40	0		Tan calcareous fine grain sand
43-45	0		Tan calcareous fine grain sand

Boring completed at 46 feet bgs

Groundwater encountered at 36 feet

Boring/Well:	SB-2
Project Number:	2646
Client:	Rice Engineering
Site Location:	EME jct. A-2-1
Location:	Lea County, New Mexico
Total Depth	38
Date Installed:	10/11/06

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DEPTH (in feet)	ονΜ	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	6	3989	Tan brown find grain sand
8-10	4	4129	Buff/tan calcareous fine grain sand
13-15	3	2229	Tan/buff calcareous fine grain sand
18-20	3	4098	Tan/buff calcareous fine grain sand
23-25	1	3444	Tan calcareous fine grain sand
28-30	1	2705	Tan calcareous fine grain sand
33-35	4	2351	Tan calcareous fine grain sand

Boring completed at 38 feet bgs Groundwater encountered at 38 feet

Boring/Well:	SB-3
Project Number:	2646
Client:	Rice Engineering
Site Location:	EME jct. A-2-1
Location:	Lea County, New Mexico
Total Depth	38
Date Installed:	10/11/06

DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	0	207	Tan brown find grain sand
8-10	0	303	Tan calcareous fine grain sand
13-15	0	496	Tan calcareous fine grain sand
18-20	0	374	Tan fine grain sand
23-25	0	530	Tan fine grain sand
28-30	0	410	Tan fine grain sand
33-35	0	510	Tan fine grain sand

Boring completed at 38 feet bgs

Groundwater encountered at 38 feet

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Boring/Well:SB-4Project Number:2646Client:Rice EngineeringSite Location:EME jct. A-2-1Location:Lea County, New MexicoTotal Depth38Date Installed:10/11/06

DEPTH (in feet)	ΟνΜ	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	0	196	Tan brown find grain sand
8-10	0	518	Tan calcareous fine grain sand
13-15	0	554	Tan calcareous fine grain sand
18-20	0	513	Tan calcareous fine grain sand
23-25	0	261	Tan calcareous fine grain sand
28-30	· 0	516	Tan calcareous fine grain sand
33-35	0	692	Tan calcareous fine grain sand

Boring completed at 38 feet bgs

Groundwater encountered at 38 feet

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Boring/Well:	SB-5
Project Number:	2646
Client:	Rice Engineering
Site Location:	EME jct. A-2-1
Location:	Lea County, New Mexico
Total Depth	38
Date Installed:	10/11/06

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DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	0	86	Tan brown clayey fine grain sand
8-10	0	170	Tan/buff calcareous fine grain sand
13-15	0	221	Tan/buff calcareous fine grain sand
18-20	0	324	Tan calcareous fine grain sand
23-25	0	366	Tan calcareous fine grain sand
28-30	0	374	Tan calcareous fine grain sand
33-35	29	480	Dark tan/brown fine grain sand with hydrocarbon staining and odor

Boring completed at 38 feet bgs

Groundwater encountered at 38 feet

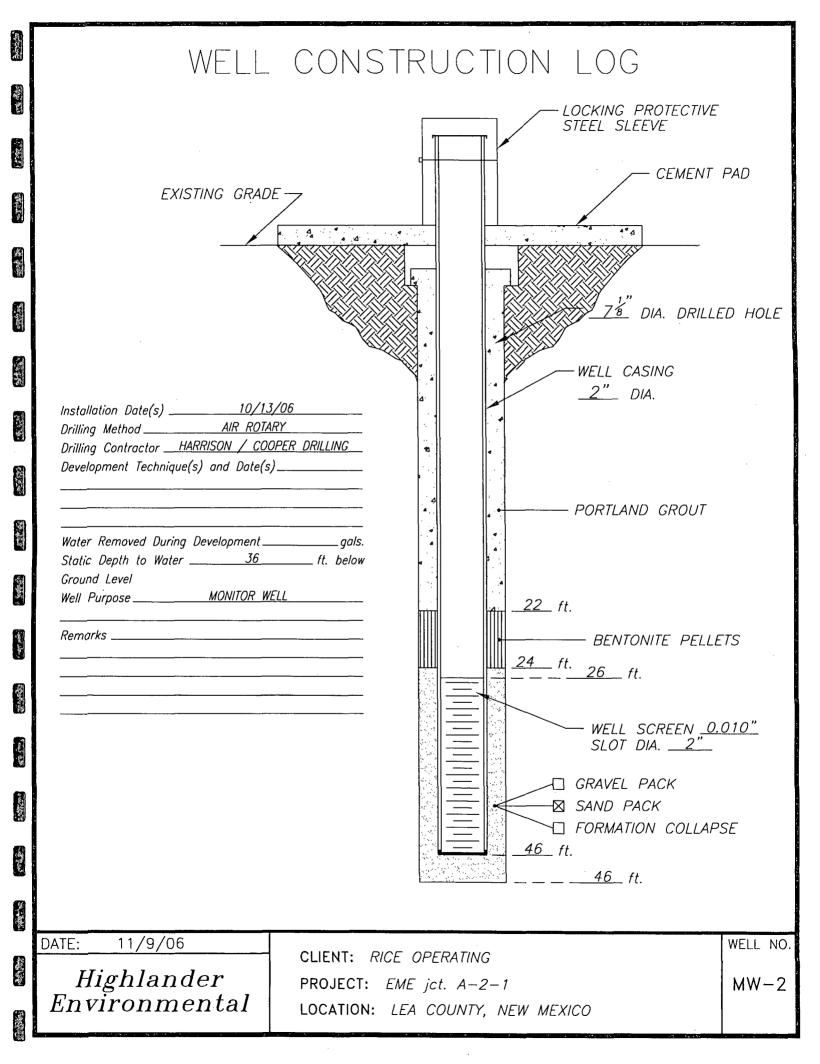
Boring/Well:SB-6Project Number:2646Client:Rice EngineeringSite Location:EME jct. A-2-1Location:Lea County, New MexicoTotal Depth37Date Installed:10/12/06

DEPTH (in feet)	OVM	CHLORIDES (in mg/Kg)	SAMPLE DESCRIPTION
3-5	0	250	Tan brown fine grain sand
8-10	0	381	Tan brown fine grain sand
13-15	0	58	Tan/brown large grained sand intermixed with clay
18-20	0	365	Tan calcareous fine grain sand
23-25	0	235	Tan calcareous fine grain sand
28-30	0	333	Tan calcareous fine grain sand
33-35	0	605	Tan calcareous fine grain sand

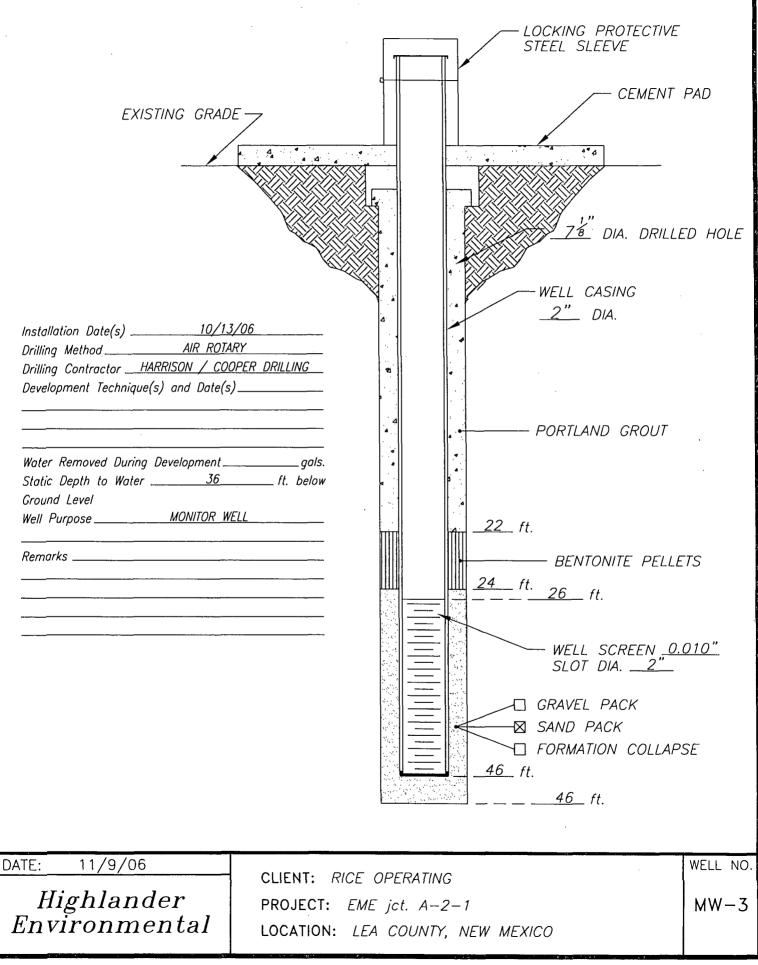
Boring completed at 37 feet bgs

Groundwater encountered at 37 feet

	WFI I	CONSTRUCTION LOG	99 <mark></mark>
		LOCKING PROTECTIVE	
		CEMENT	PAD
	EXISTING GRADE	7	
		Z ¹ " DIA. DRILLE	D HOLE
Josef Barto		WELL CASING	
AREA IN	Installation Date(s) 10/11/0 Drilling Method AIR ROTAR Drilling Contractor HARRISON / COOP	<u>06</u> <u>Y</u>	
	Development Technique(s) and Date(s)		
N 89 16-0	Water Removed During Development		
(Dr. M.	Static Depth to Water <u>39</u> Ground Level Well Purpose <u>MONITOR WEL</u>		
يوني يو يو. موروع	Remarks	BENTONITE PELLE	TS
al contract		<u>28ft</u>	
Second V.		WELL SCREEN <u>O.C</u> SLOT DIA. <u>2</u>	<u>010"</u>
		GRAVEL PACK	
W.W.		= - 50 ft.	
and the			
	DATE: 11/9/06	CLIENT: RICE OPERATING	WELL NO.
	Highlander Environmental	PROJECT: EME jct. A-2-1 LOCATION: LEA COUNTY, NEW MEXICO	MW-1



WELL CONSTRUCTION LOG



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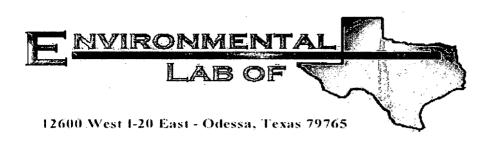
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Analytical Report

Prepared for:

Tim Reed Highlander Environmental Corp. 1910 N. Big Spring St. Midland, TX 79705

> Project: Rice/ A-2-1 Project Number: 2646 Location: None Given

Lab Order Number: 6J13019

Report Date: 11/29/06

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Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705	Project: Rice/ A-2-1 Project Number: 2646 Project Manager: Tim Reed	F	ax: (432) 682-3946							
ANALYTICAL REPORT FOR SAMPLES										
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Receive						
SB-1 8-10'	6J13019-01	Soil	10/11/06 00:00	10-13-2006 16						
SB-1 13-15'	6J13019-02	Soil	10/11/06 00:00	10-13-2006 16						
SB-1 18-20'	6J13019-03	Soil	10/11/06 00:00	10-13-2006 16						
SB-1 23-25'	6J13019-04	Soil	10/11/06 00:00	10-13-2006 16						
SB-1 28-30'	6J13019-05	Soil	10/11/06 00:00	10-13-2006 16						
SB-1 33-35'	6J13019-06	Soil	10/11/06 00:00	10-13-2006 16						
SB-2 3-5'	6J13019-07	Soil	10/11/06 00:00	10-13-2006 16						
SB-2 8-10'	6J13019-08	Soil	10/11/06 00:00	10-13-2006 16						
SB-2 13-15'	6J13019-09	Soil	10/11/06 00:00	10-13-2006 16						
SB-2 18-20'	6J13019-10	Soil	10/11/06 00:00	10-13-2006 16						
SB-2 23-25'	6J13019-11	Soil	10/11/06 00:00	10-13-2006 10						
SB-2 28-30'	6J13019-12	Soil	10/11/06 00:00	10-13-2006 1						
SB-2 33-35'	6J13019-13	Soil	10/11/06 00:00	10-13-2006 1						
SB-3 3-5'	6J13019-14	Soil	10/11/06 00:00	10-13-2006 1						
SB-3 8-10'	6J13019-15	Soil	10/11/06 00:00	10-13-2006 1						
SB-3 13-15'	6J13019-16	Soil	10/11/06 00:00	10-13-2006 1						
SB-3 18-20'	6J13019-17	Soil	10/11/06 00:00	10-13-2006 1						
SB-3 23-25'	6J13019-18	Soil	. 10/11/06 00:00	10-13-2006 1						
SB-3 28-30'	6J13019-19	Soil	10/11/06 00:00	10-13-2006 1						
SB-3 33-35'	6J13019-20	Soil	10/11/06 00:00	10-13-2006 1						
SB-4 3-5'	6J13019-21	Soil	10/11/06 00:00	10-13-2006 1						
SB-4 8-10'	6J13019-22	Soil	10/11/06 00:00	10-13-2006 1						
SB-4 13-15'	6J13019-23	Soil	10/11/06 00:00	10-13-2006 1						
SB-4 18-20'	6J13019-24	Soil	10/11/06 00:00	10-13-2006 1						
SB-4 23-25'	6J13019-25	Soil	10/11/06 00:00	10-13-2006 1						
SB-4 28-30'	6J13019-26	Soil	10/11/06 00:00	10-13-2006 1						
SB-4 33-35'	6J13019-27	Soil	10/11/06 00:00	10-13-2006 1						
SB-5 3-5'	6J13019-28	Soil	10/11/06 00:00	10-13-2006 1						
SB-5 8-10'	6J13019-29	Soil	10/11/06 00:00	10-13-2006 1						
SB-5 13-15'	6J13019-30	Soil	10/11/06 00:00	10-13-2006 1						
SB-5 18-20'	6J13019-31	Soil	10/11/06 00:00	10-13-2006 1						
SB-5 23-25'	6J13019-32	Soil	10/11/06 00:00	10-13-2006 1						
SB-5 28-30'	6J13019-33	Soil	10/11/06 00:00	10-13-2006 1						
SB-5 33-35'	6 J 13019-34	Soil	10/11/06 00:00	10-13-2006 1						

Page 1 of 19

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Highlander Environmental Corp.	Project: Rice/ A-2-1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2646	
Midland TX, 79705	Project Manager: Tim Reed	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-6 3-5'	6J13019-35	Soil	10/11/06 00:00	10-13-2006 16:20
SB-6 8-10'	6J13019-36	Soil	10/11/06 00:00	10-13-2006 16:20
SB-6 13-15'	6J13019-37	Soil	10/11/06 00:00	10-13-2006 16:20
SB-6 18-20'	6J13019-38	Soil	10/11/06 00:00	10-13-2006 16:20
SB-6 23-25'	6J13019-39	Soil	10/11/06 00:00	10-13-2006 16:20
SB-6 28-30'	6J13019-40	Soil	10/11/06 00:00	10-13-2006 16:20
SB-6 33-35'	6J13019-41	Soil	10/11/06 00:00	10-13-2006 16:20

Environmental Lab of Texas

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Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705

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Project: Rice/A-2-1 Project Number: 2646 Project Manager: Tim Reed

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB-1 8-10' (6J13019-01) Soil									
Benzene	0.374	0.0250	mg/kg dry	25	EJ61406	10/14/06	10/16/06	EPA 8021B	
Toluene	0.983	0.0250	н		"	н	"	"	
Ethylbenzene	1.61	0.0250	u	"	п	n	н	н	
Xylene (p/m)	1.59	0.0250	и	н		"	U U		
Xylene (0)	0.573	0.0250	"	"	"	"	u.	u	
Surrogate: a,a,a-Trifluorotoluene		149 %	80-1	20	"	"	"	"	S-
Surrogate: 4-Bromofluorobenzene		146 %	80-1	20	"	"	"	"	<i>S</i> -
Carbon Ranges C6-C12	214	10.0	mg/kg dry	1	EJ61502	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	469	10.0	n		"	11	п	и	
Carbon Ranges C28-C35	45.0	10.0	"	н	"	н	0	u	
Total Hydrocarbons	728	10.0	11		п	**	н		
Surrogate: 1-Chlorooctane		94.4 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		79.8 %	70-1	30	"	"	"	"	
SB-1 13-15' (6J13019-02) Soil									
Benzene	0.147	0.0250	mg/kg dry	25	EJ61406	10/14/06	10/16/06	EPA 8021B	
Toluene	0.736	0.0250		н	11	н	••	••	
Ethylbenzenc	4.46	0.0250		u.	"	"	**	**	
Xylene (p/m)	8.28	0.0250	"	*1	n	n	'n	"	
Xylene (0)	0.990	0.0250	**	"	•	"	н		
Surrogate: a,a,a-Trifluorotoluene		152 %	80-1	20	"	n	п	"	S
Surrogate: 4-Bromofluorobenzene		178 %	80-1	20	"	"	"	"	S
Carbon Ranges C6-C12	732	10.0	mg/kg dry	1	EJ61502	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	1590	10.0	п	н	11	н	"	"	
Carbon Ranges C28-C35	157	10.0	ч	н	n	n	11	"	
Total Hydrocarbons	2480	10.0	n	п	н	n	"	н	
Surrogate: 1-Chlorooctane		118 %	70-1	30	"	"	"	и	
Surrogate: 1-Chlorooctadecane		81.4 %	70-1	30	n	"	"	"	
SB-1 23-25' (6J13019-04) Soil	·								
Carbon Ranges C6-C12	3560	50.0	mg/kg dry	5	EJ61503	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	5770	50.0	u	"	"	U	"	11	
Carbon Ranges C28-C35	640	50.0	u.	н	11	ч	и	"	
Total Hydrocarbons	9970	50.0	u	11	11			"	
Surrogate: 1-Chlorooctane		35.8 %	70-1	130	"	"	"	"	S
Surrogate: 1-Chlorooctadecane		19.3 %	70-1	130	"	"	"	"	S

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705	Project: Rice/ A-2-1 ' Project Number: 2646 Project Manager: Tim Reed					Fax: (432) 682-3946						
			ganics b						<u> </u>			
	Environmental Lab of Texas											
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note			
SB-1 33-35' (6J13019-06) Soil												
Carbon Ranges C6-C12	895	10.0	mg/kg dry	1	EJ61503	10/15/06	10/16/06	EPA 8015M				
Carbon Ranges C12-C28	2220	10.0	п	*1	н		11	n				
Carbon Ranges C28-C35	188	10.0	**	"	н	"	п	n				
Total Hydrocarbons	3300	10.0		н		**	п	n				
Surrogate: I-Chlorooctane		121 %	70-1	30	н	. <i>n</i>	"	n				
Surrogate: 1-Chlorooctadecane		85.6 %	70-130		"	n	"	"				
SB-2 3-5' (6J13019-07) Soil												
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EJ61503	10/15/06	10/16/06	EPA 8015M				
Carbon Ranges C12-C28	ND	10.0	"	"	"	и	н	"				
Carbon Ranges C28-C35	ND	10.0	"	"	"	0	"	n				
Total Hydrocarbons	ND	10.0	"	"	н		"					
Surrogate: 1-Chlorooctane		84.6 %	70-1	30	"	"	"	"				
Surrogate: 1-Chlorooctadecane		74.2 %	70-1	30	"	"		n				
SB-2 8-10' (6J13019-08) Soil					_							
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EJ61503	10/15/06	10/16/06	EPA 8015M				
Carbon Ranges C12-C28	ND	10.0	"	**	n	"	п					
Carbon Ranges C28-C35	ND	10.0	n	**	0		. "	"				
Total Hydrocarbons	ND	10.0	н	**	"	"	".	**				
Surrogate: 1-Chlorooctane		83.8 %	70-1	30	п	"	"	"				
Surrogate: 1-Chlorooctadecane		72.6 %	70-1	30	"	"	"	"				
SB-2 13-15' (6J13019-09) Soil			•									
Carbon Ranges C6-C12	J [5.61]	10.0	mg/kg dry	1	EJ61503	10/15/06	10/16/06	EPA 8015M				
Carbon Ranges C12-C28	20.5	10.0	н	"	"	"		**				
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	15				
Total Hydrocarbons	20.5	10.0	"	"	"	11	"	"				
Surrogate: 1-Chlorooctane		91.0 %	70	130	"	"	"	"				
Surrogate: 1-Chlorooctadecane		78.6 %	70-,	130	"	"	n	"				

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Page 4 of 19

Highlander Environmental Corp.	F	Fax: (432) 682-3946							
1910 N. Big Spring St.		-	umber: 264						
Midland TX, 79705		Project M	anager: Tim	Reed					_
			ganics by						
		Environ	mental La	ab of Te	xas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB-3 3-5' (6J13019-14) Soil				· · · -	_			<u>.</u>	
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EJ61503	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	'n	ч	"	"	11	н	
Carbon Ranges C28-C35	ND	10.0	н	"	"		п	" н	
Total Hydrocarbons	ND	10.0	n	н	н	*	11	п	
Surrogate: 1-Chlorooctane		85.6 %	70-1	30	"	"	"	'n	
Surrogate: 1-Chlorooctadecane		. 78.4 %	70-130		"	"	"	"	
SB-4 3-5' (6J13019-21) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	l	EJ61503	10/15/06	10/16/06	EPA 8015M	2
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	н	n	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"		
Total Hydrocarbons	ND	10.0	"	••	"	н	н	**	
Surrogate: 1-Chlorooctane		87.0 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		75.8 %	70-1	30	. "	"	"	II	
SB-5 3-5' (6J13019-28) Soil									
Carbon Ranges C6-C12	ND	10.0	ıng/kg dry	1	EJ61503	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	н	"	**	н	"	51	
Carbon Ranges C28-C35	ND	10.0	н	и	"	"	н	н	
Total Hydrocarbons	ND	10.0	"	н	н		и	ч	
Surrogate: 1-Chlorooctane		90.6 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		78.6 %	70-1	30	"	"	"	H	
SB-5 33-35' (6J13019-34) Soil									
Carbon Ranges C6-C12	26.8	10.0	mg/kg dry	1	EJ61503	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	202	10.0	"	"	11	"	н	**	
Carbon Ranges C28-C35	36.7	10.0		"	**	n	n	н	
Total Hydrocarbons	266	10.0	"	11	11	"	"	H.	
Surrogate: 1-Chlorooctane		90.0 %	70-1	30	n	"	"	"	
Surrogate: 1-Chlorooctadecane		78.2 %	70-1	130	"	"	"	"	

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Page 5 of 19

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705

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Project: Rice/ A-2-1 Project Number: 2646 Project Manager: Tim Reed . Fax: (432) 682-3946

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-6 3-5' (6J13019-35) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EJ61503	10/15/06	10/16/06	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	н	н	"	н	"	
Carbon Ranges C28-C35	ND	10.0	11	"	u	"	11	"	
Total Hydrocarbons	ND	10.0	n	н	н	"	"		
Surrogate: 1-Chlorooctane		83.8 %	70-1	30	n	"	"	"	
Surrogate: 1-Chlorooctadecane		73.0 %	70-1	30	n	"	"	**	

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 6 of 19

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General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
SB-1 8-10' (6J13019-01) Soil									
Chloride	266	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
% Moisture	13.0	0.1	%	I	EJ61601	10/13/06	10/16/06	% calculation	
SB-1 13-15' (6J13019-02) Soil									
Chloride	349	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
% Moisture	13.7	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-1 18-20' (6J13019-03) Soil									
Chloride	277	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-1 23-25' (6J13019-04) Soil									
Chloride	42.5	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
% Moisture	15.5	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-1 28-30' (6J13019-05) Soil									
Chloride	63.8	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-1 33-35' (6J13019-06) Soil									
Chloride	596 ·	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
% Moisture	13.8	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-2 3-5' (6J13019-07) Soil									
Chloride	2980	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
% Moisture	15.4	0.1	%	ì	EJ61601	10/13/06	10/16/06	% calculation	
SB-2 8-10' (6J13019-08) Soil		-							
Chloride	6170	20.0	ıng/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
% Moisture	13.0	0.1	%	1	EJ61601	10/13/Q6	10/16/06	% calculation	
SB-2 13-15' (6J13019-09) Soil									
Chloride	5320	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
% Moisture	7.9	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	

Environmental Lab of Texas

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General Chemistry Parameters by EPA / Standard Methods

		Environ	mental L	ab of Te	xas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB-2 18-20' (6J13019-10) Soil								· · · · · · · · · · · · · · · · · · ·	
Chloride	2770	20.0	mg/kg Wet	2	EJ62016 ·	10/20/06	10/22/06	SW 846 9253	
SB-2 23-25' (6J13019-11) Soil								•	
Chloride	5530	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-2 28-30' (6J13019-12) Soil		0							
Chloride	3300	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-2 33-35' (6J13019-13) Soil									
Chloride	2340	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-3 3-5' (6J13019-14) Soil									
Chloride	85.1	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
% Moisture	11.6	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-3 8-10' (6J13019-15) Soil									
Chloride	330	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-3-13-15' (6J13019-16) Soil									
Chloride	404	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-3 18-20' (6J13019-17) Soil									
Chloride	425	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-3 23-25' (6J13019-18) Soil									
Chloride	362	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-3 28-30' (6J13019-19) Soil									
Chloride	234	20.0	ıng/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	

Environmental Lab of Texas

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Project Manager: Tim Reed

General Chemistry Parameters by EPA / Standard Methods

		Environ	mental L	ab of Te	exas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SB-3 33-35' (6J13019-20) Soil									
Chloride	383	20.0	mg/kg Wet	2	EJ62016	10/20/06	10/22/06	SW 846 9253	
SB-4 .3-5' (6J13019-21) Soil									
Chloride	21.3	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
% Moisture	6.7	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-4 8-10' (6J13019-22) Soil									-
Chloride	553	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-4 13-15' (6J13019-23) Soil									
Chloride	851	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-4 18-20' (6J13019-24) Soil									
Chloride	596	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	x
SB-4 23-25' (6J13019-25) Soil									
Chloride	553	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-4 28-30' (6J13019-26) Soil									
Chloride	638	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-4 33-35' (6J13019-27) Soil									
Chloride	915	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-5 3-5' (6J13019-28) Soil									
Chloride	ND	20.0	ıng/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
% Moisture	11.9	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-5 8-10' (6J13019-29) Soil									
Chloride	42.5	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	

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General Chemistry Parameters by EPA / Standard Methods

		Environ	mental L	ab of Te	xas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
SB-5 13-15' (6J13019-30) Soil									
Chloride	21.3	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-5 '18-20' (6J13019-31) Soil									
Chloride	223	20.0	ıng/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-5 23-25' (6J13019-32) Soil									
Chloride	362	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-5 28-30' (6J13019-33) Soil					-				
Chloride	479	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-5 33-35' (6J13019-34) Soil							-		
Chloride	1000	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
% Moisture	17.6	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-6 3-5' (6J13019-35) Soil	<u>.</u>								
Chloride	223	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
% Moisture	18.6	0.1	%	1	EJ61601	10/13/06	10/16/06	% calculation	
SB-6 8-10' (6J13019-36) Soil	······								
Chloride	447	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-6 13-15' (6J13019-37) Soil									
Chloride	723	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-6 18-20' (6J13019-38) Soil									
Chloride	117	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-6 23-25' (6J13019-39) Soil						<u> </u>			
Chloride	277	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	

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General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB-6 28-30' (6J13019-40) Soil									
Chloride	277	20.0	mg/kg Wet	2	EJ62017	10/20/06	10/22/06	SW 846 9253	
SB-6 33-35' (6J13019-41) Soil									
Chloride	117	20.0	mg/kg Wet	2	EJ61414	10/20/06	10/21/06	SW 846 9253	

Project: Rice/ A-2-1 Project Number: 2646 Project Manager: Tim Reed

Organics by GC - Quality Control

Environmental Lab of Texas

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

Batch EJ61406 - EPA 5030C (GC)

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Blank (EJ61406-BLK1)				Prepared: 10	/14/06 A	nalyzed: 10	/15/06	
Benzene	ND	0.0250	mg/kg wet					
Toluene	ND	0.0250	"					
Ethylbenzene	ND	0.0250	"					
Xylene (p/m)	ND	0.0250	"					
Xylene (o)	NÐ	0.0250						
Surrogate: a,a,a-Trifluorotoluene	32.1		ugʻkg	40.0		80.2	80-120	
Surrogate: 4-Bromofluorobenzene	32.5		"	40.0		81.2	80-120	
LCS (EJ61406-BS1)				Prepared &	Analyzed:	10/14/06		
Benzene	1.14	0.0250	mg/kg wet	1.25		91.2	80-120	
Toluene	1.03	0.0250	"	1.25		82.4	80-120	
Ethylbenzene	1.14	0.0250	"	1.25		91.2	80-120	
Xylene (p/m)	2.03	0.0250		2.50		81.2	80-120	
Xylene (o)	1.04	0.0250	н	1.25		83.2	80-120	<i>'</i>
Surrogate: a,a,a-Trifluorotoluene	32.5		ug kg	40.0		81.2	80-120	
Surrogate: 4-Bromofluorohenzene	33.7		"	40.0		84.2	80-120	
Calibration Check (EJ61406-CCV1)				Prepared: 10)/14/06 A	nalyzed: 10)/15/06	
Benzene	0.0444	,	mg/kg wet	0.0500		88.8	80-120	
Toluene	0.0412		**	0.0500		82.4	80-120	
Ethylbenzene	0.0413		11	0.0500		82.6	80-120	
Xylene (p/m)	0.0826		11	0.100		82.6	80-120	
Xylene (0)	0.0419		"	0.0500		83.8	80-120	
Surrogate: a,a,a-Trifluorotoluene	33.0		ug kg	40.0		82.5	80-120	
Surrogate: 4-Bromofluorobenzene	34.8		"	40.0		87.0	80-120	
Matrix Spike (EJ61406-MS1)	Sour	ce: 6J13005	-05	Prepared: 10	0/14/06 A	nalyzed: 10)/15/06	
Benzene	1.35	0.0250	mg/kg dry	1.48	ND	91.2	80-120	
Toluene	1.24	0.0250	n	1.48	ND	83.8	80-120	
Ethylbenzene	1.46	0.0250		1.48	ND	98.6	80-120	
Xylene (p/m)	2.50	0.0250	"	2.96	ND	84.5	80-120	
Xylene (0)	1.27	0.0250	ч	1.48	ND	85.8	80-120	
Surrogate: a,a,a-Trifluorotoluene	34.4		ug/kg	40.0		86.0	80-120	•
Surrogate: 4-Bromofluorohenzene	40.4		"	40.0		101	80-120	

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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 EJ61406 - EPA 5030C (GC)

Matrix Spike Dup (EJ61406-MSD1)	Sour	ce: 6J13005	-05	Prepared: 1	0/14/06 A	nalyzed: 10	0/16/06		
Benzene	1.34	0.0250	mg/kg dry	1.48	ND	90.5	80-120	0.770	20
Toluene	1.25	0.0250	n	1.48	ND	84.5	80-120	0.832	20
Ethylbenzene	1.41	0.0250	н	1.48	ND	95.3	80-120	3.40	20
Xylene (p/m)	2.58	0.0250	u	2.96	ND	87.2	80-120	3.15	20
Xylene (o)	1.22	0.0250	n	1.48	ND	82.4	80-120	4.04	20
Surrogate: a,a,a-Trifluorotoluene	33.2		ug/kg	40.0		83.0	80-120		
Surrogate: 4-Bromofluorobenzene	39.2		"	40.0		98.0	80-120		

Batch EJ61502 - Solvent Extraction (GC)

Blank (EJ61502-BLK1)		Prepared & Analyzed:	: 10/15/06	
Carbon Ranges C6-C12	ND	10.0 mg/kg wet		
Carbon Ranges C12-C28	ND	10.0 "		
Carbon Ranges C28-C35	ND	10.0 "		
Total Hydrocarbons	ND	10.0 "		
Surrogate: 1-Chlorooctane	45.3	mg/kg 50.0	90.6	70-130
Surrogate: 1-Chlorooctadecane	41.1	" 50.0	82.2	70-130
LCS (EJ61502-BS1)		Prepared & Analyzed	: 10/15/06	

LC3 (EJ01302-D31)				repareu & Ana	Tyzeu. 10/15/00			
Carbon Ranges C6-C12	486	10.0	mg/kg wet	500	97.2	75-125		
Carbon Ranges C12-C28	474	10.0	*	500	94.8	75-125		
Carbon Ranges C28-C35	ND	10.0	**	0.00		75-125		
Total Hydrocarbons	960	10.0	**	1000	96.0	75-125		
Surrogate: 1-Chlorooctane	58.0		mg/kg	50.0	116	70-130		
Surrogate: 1-Chlorooctadecane	43.7		"	50.0	87.4	70-130		
Calibration Check (EJ61502-CCV1)				Prepared: 10/15/	/06 Analyzed: 10)/16/06		
Carbon Ranges C6-C12	203		mg/kg	250	81.2	80-120		
Carbon Ranges C12-C28	237		"	250	94.8	80-120		
Total Hydrocarbons	440			500	88.0	80-120		
Surrogate: 1-Chlorooctane	47.8		n	50.0	95.6	70-130	····.	
Surrogate: 1-Chlorooctadecane	38.4		"	50.0	76.8	70-130		

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Project: Rice/ A-2-1 Project Number: 2646 Project Manager: Tim Reed

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 EJ61502 - Solvent Extraction (GC)

Matrix Spike (EJ61502-MS1)	Source	e: 6J13015	-01	Prepared: 1	0/15/06 A	nalyzed: 10)/16/06			
Carbon Ranges C6-C12	527	10.0	mg/kg dry	567	ND	92,9	75-125			
Carbon Ranges C12-C28	507	10.0	"	567	ND	89.4	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1030	10.0	н	1130	ND	91.2	75-125			
Surrogate: 1-Chlorooctane	56.9		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	43.3		"	50.0		86.6	70-130			
Matrix Spike Dup (EJ61502-MSD1)	Sourc	e: 6J13015	-01	Prepared: 1	0/15/06 A	nalyzed: 10	0/16/06			
Carbon Ranges C6-C12	525	10.0	mg/kg dry	567	ND	92.6	75-125	0.380	20	
Carbon Ranges C12-C28	513	10.0	н	567	ND	90.5	75-125	1.18	20	
Carbon Ranges C28-C35	ND	10.0	n	0.00	ND		75-125		20	
Total Hydrocarbons	1040	10.0	м	1130	ND	92.0	75-125	0.966	20	
Surrogate: 1-Chlorooctane	57.1		mg/kg	50.0		114	70-130			

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Batch EJ61503 - Solvent Extraction (GC)

Surrogate: 1-Chlorooctadecane

Blank (EJ61503-BLK1)				Prepared: 10/15/	06 Analyzed: 10)/16/06	
Carbon Ranges C6-C12	ND ·	10.0	mg/kg wet				
Carbon Ranges C12-C28	ND	10.0					
Carbon Ranges C28-C35	ND	10.0	"				
Total Hydrocarbons	ND	10.0	n				
Surrogate: 1-Chlorooctane	47.4		mg kg	50.0	94.8	70-130	
Surrogate: 1-Chlorooctadecane	42.9		"	50.0	85.8	70-130	
LCS (EJ61503-BS1)				Prepared: 10/15/	06 Analyzed: 10	0/16/06	
Carbon Ranges C6-C12	487	10.0	mg/kg wet	500	97.4	75-125	
Carbon Ranges C12-C28	477	10.0	11	500	95.4	75-125	
Carbon Ranges C28-C35	ND	10.0	"	0.00		75-125	
Total Hydrocarbons	964	10.0	н	1000	96.4	75-125	
Surrogate: 1-Chlorooctane	58.6		mgʻkg	50.0	117	70-130	
Surrogate: 1-Chlorooctadecane	44.4		"	50.0	88.8	70-130	

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Project: Rice/ A-2-1 Project Number: 2646 Project Manager: Tim Reed

Organics by GC - Quality Control

Environmental Lab of Texas

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

Batch EJ61503 - Solvent Extraction (GC)

Calibration Check (EJ61503-CCV1)				Prepared: 1	0/15/06 A	nalyzed: 10)/16/06			
Carbon Ranges C6-C12	201		mg/kg	250		80.4	80-120			
Carbon Ranges C12-C28	240		н	250		96.0	80-120			
Total Hydrocarbons	441			500		88.2	80-120			
Surrogate: 1-Chlorooctane	53.2		"	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	40.4		н	50.0		80.8	70-130			
Matrix Spike (EJ61503-MS1)	Source	e: 6J13019	-08	Prepared: 1	0/15/06 A	nalyzed: 10	0/16/06			
Carbon Ranges C6-C12	574	10.0	ıng/kg dry	575	ND	99.8	75-125			
Carbon Ranges C12-C28	572	10.0	11	575	ND	99.5	75-125			
Carbon Ranges C28-C35	ND	10.0	0	0.00	ND		75-125			
Total Hydrocarbons	1150	10.0	н	1150	ND	100	75-125			
Surrogate: 1-Chlorooctane	59.5		mg/kg	50.0		119	70-130			
Surrogate: 1-Chlorooctadecane	43.7		"	50.0		87.4	70-130			
Matrix Spike Dup (EJ61503-MSD1)	Sourc	e: 6J13019	-08	Prepared: 1	0/15/06 A	nalyzed: 10	0/16/06			
Carbon Ranges C6-C12	554	10.0	mg/kg dry	575	ND	96.3	75-125	3.55	20	
Carbon Ranges C12-C28	535	10.0	11	575	ND	93.0	75-125	6.68	20	
Carbon Ranges C28-C35	ND	10.0		0.00	ND		75-125		20	
Total Hydrocarbons	1090	10.0	"	1150	ND	94.8	75-125	5.36	20	
Surrogate: 1-Chlorooctane	58.3		mg·kg	50.0		117	70-130			
Surrogate: 1-Chlorooctadecane	43.7		"	50.0		87.4	70-130			

Environmental Lab of Texas

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1910 N. Big Spring St.			umber: 264							
Midland TX, 79705			anager: Tim							
General Cl	nemistry Paran	neters by	y EPA / S	Standard	l Metho	ods - Qua	lity Con	trol		
	· • •	Environi	nental L	ab of Te	xas					
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EJ61414 - Water Extraction										
Blank (EJ61414-BLK1)				Prepared:	10/14/06	Analyzed: 1	0/21/06			
Chloride	ND	20.0	mg/kg Wet							
LCS (EJ61414-BS1)				Prepared:	10/14/06	Analyzed: 1	0/21/06			
Chloride	91.5	5.00	mg/kg Wet	100		91.5	80-120			
Matrix Spike (EJ61414-MS1)	Sourc	e: 6J12008	-01	Prepared:	10/19/06	Analyzed: 1	0/21/06			
Chloride	510	20.0	mg/kg Wet	500	0.00	102	80-120			
Matrix Spike Dup (EJ61414-MSD1)	Sourc	e: 6J12008	-01	Prepared:	10/19/06	Analyzed: I	0/21/06			
Chloride	521	20.0	mg/kg Wet	500	0.00	104	80-120	2.13	20	
Reference (EJ61414-SRM1)				Prepared:	10/14/06	Analyzed: 1	0/21/06			
Chloride	50.0	5.00	mg/kg Wet	50.0		100	80-120			
Batch EJ61601 - General Preparation (I	Prep)									
Blank (EJ61601-BLK1)				Prepared:	10/13/06	Analyzed: 1	0/16/06		, <u>.</u>	
% Solids	100		%							
Duplicate (EJ61601-DUP1)	Sourc	e: 6J13004	I-01	Prepared:	10/13/06	Analyzed: I	0/16/06			
% Solids	74.4		%		74.5			0.134	20	
Duplicate (EJ61601-DUP2)	Sourc	e: 6J13017	-06	Prepared:	10/13/06	Analyzed: 1	0/16/06			
% Solids	90.4		%		89.9			0.555	20	
Duplicate (EJ61601-DUP3)	Sourc	e: 6J13021	1-05	Prepared:	10/13/06	Analyzed: 1	0/16/06			
% Solids	89.8		%		90.8	-		1.11	20	

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Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705	X	Project Nu	roject: Rice umber: 264 inager: Tim	6					Fax: (432)	682-3946
General Ch	emistry Para	meters by	y EPA / S	Standard	I Methoo	ds - Qua	lity Cont	trol		
		Environn	nental L	ab of Te	xas					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61601 - General Preparation (P	rep)									
Duplicate (EJ61601-DUP4)	Sour	ce: 6J14001	-02	Prepared:	10/13/06 A	nalyzed: 10)/16/06			
% Solids	85.1		%		85.1			0.00	20	
Blank (EJ62016-BLK1) Chloride	ND	20.0	mg/kg Wet			.nalyzed: 10				
LCS (EJ62016-BS1)				Prepared:	10/20/06 A	nalyzed: 10)/22/06	_		
Chloride	92.5	5.00	mg/kg Wet	100		92.5	80-120			
Matrix Spike (EJ62016-MS1)	Sour	ce: 6J13019	-13	Prepared:	10/20/06 A	nalyzed: 10)/22/06			
Chloride	2870	20.0	mg/kg Wet	500	2340	106	80-120			
Matrix Spike Dup (EJ62016-MSD1)	Sour	ce: 6J13019	-13	Prepared:	10/20/06 A	nalyzed: 10)/22/06			
Chloride	2870	20.0	mg/kg Wet	500	2340	106	80-120	0.00	20	
Reference (EJ62016-SRM1)				Prepared:	10/20/06 A	nalyzed: 10)/22/06			
Chloride	50.0		mg/kg	50.0		100	80-120			
Batch EJ62017 - Water Extraction										
Blank (EJ62017-BLK1)				Prepared:	10/20/06 A	nalyzed: 10	0/22/06			
Chloride	ND	20.0	mg/kg Wet							
LCS (EJ62017-BS1)				Prepared:	10/20/06 A	Analyzed: 10	0/22/06			
Chloride	91,5	5.00	mg/kg Wet	100		91.5	80-120			

Environmental Lab of Texas

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 17 of 19

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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 EJ62017 - Water Extraction				1					
Matrix Spike (EJ62017-MS1)	Sour	ce: 6J13019-33	Prepared:	10/20/06 A	nalyzed: 10)/22/06			
Chloride	978	20.0 mg/kg Wet	500	479	99.8	80-120			
Matrix Spike Dup (EJ62017-MSD1)	Sour	ce: 6J13019-33	Prepared:	10/20/06 A	nalyzed: 10)/22/06			
Chloride	989	20.0 mg/kg Wet	500	479	102	80-120	1.12	20	
Reference (EJ62017-SRM1)			Prepared:	10/20/06 A	nalyzed: 10	0/22/06			
Chloride	51.0	mg/kg	50.0		102	80-120			· · · ·

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705

Project Manager: Tim Reed Notes and Definitions

Project Number: 2646

Project: Rice/ A-2-1

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

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 Julies

11/29/2006

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.

Date:

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

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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

Page 19 of 19

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0 . EX	d Chain of Custody	ENVIRONMENTAL	Big Spring St. Taves 79705	2040 7	SITE MANAGER: Tim Reed		SAMPLE IDENTIFICATION	- (01.8	(m. E) -	(a.a.) -	(23, 25) -	(28-30) -	(33-35) -	(3-5) -	(8-10)-	(₁₈ -16) –	-(0	13/06 RECEIVED BY: (Eignature)	RECEIVED BY: (Lignatura)	PEREVED ET. (Strature)	RECEIVED BY: (S	Z R-Hater A-d
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· · ·	Analysis			(432) 682-4559	CLENT NAKE: R ite Ener	PROJECT NO.	LAB LD. NUMBER NUMBER	ichel john			Ī,						TD katillow	erusensten BY: (Sinasura)	RELITION AND BY: (Signature)	RELINCUTERED BY: (Signaturo)	RECEIVING LABORATORY: ADDRESS: OTTY: UMEAS A	NOI

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۲	and unain	ENVIRONMENTAL	N. Big Spring	nd, Texas 79705	SITE MANAGER:	I The Reed		SAMPLE IDENTIFICATION	- (32,32) -] _		1		1	}			(34.35) -	10/12/06 1		RECEIVE	Ty- RECEIVED	ZIP:	[]
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	ADALYSIS A	HCHLANDER		(432) 682-4559	CLIENT NAME:	Ria Enginerination	2.3	LAB ID. NUZBER ACIO		17, holais						1 K minice	19 (10)	-72 Interior	REITHOUSTERN BY: (SETATION	RELINQUERED BY: (Signature)	(evatanges) 37: (Signatura)	ORATORY:	ADDRACO: UTT:	CONDITION FHEN REC

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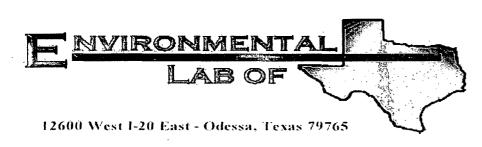
Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

ent:	Highlander
aite/ Time: -	40/13/06 A:20
b ID # :	(0513017
tiais:	U/L, '

Sample Receipt Checklist

	· · · · · · · · · · · · · · · · · · ·			Client Ini	tials
	Temperature of container/ cooler?	Yes	No	2,0 °C	
<u>`</u>	Shipping container in good condition?	(TES	No		
3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
m!	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
1	Chain of Custody present?	CL93	No		
(M);	Sample instructions complete of Chain of Custody?	2695	No		
,	Chain of Custody signed when relinquished/ received?	1/BB	No		
3	Chain of Custody agrees with sample label(s)?	Fes	No	ID written on Cont./ Lid	
3 <u>-</u> Э	Container label(s) legible and intact?	(es	No	Not Applicable	
10	Sample matrix/ properties agree with Chain of Custody?	1 XOS	No		
1 1	Containers supplied by ELOT?	Yes	No		
12	Samples in proper container/ bottle?	(Yes	No	See Below	
13	Samples properly preserved?	Yes	No	See Below	
14		Yes	No		
15	Preservations documented on Chain of Custody?	, Yes	No		
16	Containers documented on Chain of Custody?	Xes	No		
17	Sufficient sample amount for indicated test(s)?	Yeş	No	See Below	}
12	All samples received within sufficient hold time?	Yes	No	See Below	
12	VOC samples have zero headspace?	(TR)	No	Not Applicable	

Variance Documentation 1 ontact: Contacted by: Date/ Time: Regarding: Corrective Action Taken; 1045 Check all that Apply: See attached e-mail/ fax Client understands and would like to proceed with analysis 19. Car Cooling process had begun shortly after sampling event [[]]



Analytical Report

Prepared for:

Tim Reed Highlander Environmental Corp. 1910 N. Big Spring St. Midland, TX 79705

Project: Rice/ A-2-1 Project Number: 2646 Location: Monument, NM

Lab Order Number: 6J16005

Report Date: 10/23/06

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Highlander Environmental Corp.	Project: Rice/ A-2-1	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 2646	
Midland TX, 79705	Project Manager: Tim Reed	

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ANALYTICAL REPORT FOR SAMPLES

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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2 3-5	6J16005-01	Soil	10/13/06 00:00	10-16-2006 15:15
MW-2 8-10	6116005-02	Soil	10/13/06 00:00	10-16-2006 15:15
MW-2 13-15	6J16005-03	Soil	10/13/06 00:00	10-16-2006 15:15
MW-2 18-20	6J16005-04	Soil	10/13/06 00:00	10-16-2006 15:15
MW-2 23-25	6J16005-05	Soil	10/13/06 00:00	10-16-2006 15:15
MW-2 28-30	6J16005-06	Soil	10/13/06 00:00	10-16-2006 15:1:
MW-2 33-35	6J16005-07	Soil	10/13/06 00:00	10-16-2006 15:1:
MW-3 3-5	6J16005-08	Soil	10/13/06 00:00	10-16-2006 15:1:
MW-3 8-10	6J16005-09	Soil	10/13/06 00:00	10-16-2006 15:1:
MW-3 13-15	6J16005-10	Soil	10/13/06 00:00	10-16-2006 15:1:
MW-3 18-20	6J16005-11	Soil	10/13/06 00:00	10-16-2006 15:1
MW-3 23-25	6J16005-12	Soil	10/13/06 00:00	10-16-2006 15:1
MW-3 28-30	6J16005-13	Soil	10/13/06 00:00	10-16-2006 15:1
MW-3 33-35	6J16005-14	Soil	10/13/06 00:00	10-16-2006 15:1

Page 1 of 9

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705		Project N	Project: Rice/ umber: 2646 anager: Tim F					Fax: (432)	682-3946
		Oı	rganics by	GC					
		Environ	mental La	b of Te	xas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
MW-2 3-5 (6J16005-01) Soil									
Carbon Ranges C6-C10	ND	10.0	mg/kg dry	1	EJ61704	10/17/06	10/17/06	EPA 8015B	
Carbon Ranges >C10-C28	ND	10.0	U.	ü	"	**	n		
Total Carbon Range C6-C28	ND	10.0	n	н	"	"		"	
Surrogate: I-Chlorooctane		95.8 %	70-130	0	v	"	"	"	,
Surrogate: I-Chlorooctadecane		88.0 %	70-130	0	"	"	"	п	
MW-2 8-10 (6J16005-02) Soil									
Carbon Ranges C6-C10	ND	10.0	mg/kg dry	1	EJ61704	10/17/06	10/17/06	EPA 8015B	
Carbon Ranges >C10-C28	ND	10.0	11	"	u	н	"	u	
Total Carbon Range C6-C28	ND	10.0	11	**	"	н	"	"	
Surrogate: 1-Chlorooctane		97.2 %	70-13	0	"	"	"	"	
Surrogate: 1-Chlorooctadecane		90.4 %	70-13	0	"	"	"	"	
MW-2 33-35 (6J16005-07) Soil									
Carbon Ranges C6-C10	ND	10.0	mg/kg dry	I	EJ61704	10/17/06	10/17/06	EPA 8015B	
Carbon Ranges >C10-C28	ND	10.0	*1	"		"	н	u .	
Total Carbon Range C6-C28	ND	10.0	ц	и	n	u	"	н	
Surrogate: 1-Chlorooctane		95.4 %	70-13	0	"	n	"	и	
Surrogate: 1-Chlorooctadecane		84.8 %	70-13	0	"	"	"	"	
MW-3 3-5 (6J16005-08) Soil									
Carbon Ranges C6-C10	ND	10.0	mg/kg dry	1	EJ61704	10/17/06	10/17/06	EPA 8015B	
Carbon Ranges >C10-C28	ND	10.0	"		п	tr	"	n	
Total Carbon Range C6-C28	ND	10.0	11	"	*1	**	II	н	
Surrogate: 1-Chlorooctane		94.8 %	70-13	0	"	"	"	п	
Surrogate: 1-Chlorooctadecane		85.8 %	70-13	0	"	"	"	"	
MW-3 8-10 (6J16005-09) Soil									
Carbon Ranges C6-C10	ND	10.0	mg/kg dry	1	EJ61704	10/17/06	10/17/06	EPA 8015B	
Carbon Ranges >C10-C28	ND	10.0	"	"		"	"	ч	
Total Carbon Range C6-C28	ND	10.0	"	**	п	**	н	19	
Surrogate: 1-Chlorooctane		95.0 %	70-13	0	"	"	"	n	
Surrogate: 1-Chlorooctadecane		84.8 %	70-13	0	"	"	"	<i>u</i> .	

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Project: Rice/A-2-1 Project Number: 2646 Project Manager: Tim Reed Fax: (432) 682-3946

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 33-35 (6J16005-14) Soil								· · · · · · · · · · · · · · · · · · ·	
Carbon Ranges C6-C10	ND	10.0	mg/kg dry	1	EJ61704	10/17/06	10/17/06	EPA 8015B	
Carbon Ranges >C10-C28	ND	10.0	11	**	н	н	н.,	"	
Total Carbon Range C6-C28	ND	10.0	н	"	н .	**	"	".	
Surrogate: 1-Chlorooctane		94.8 %	70-1.	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		85.6 %	70-1.	30	"	"	"	11	

Environmental Lab of Texas

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General Chemistry Parameters by EPA / Standard Methods

		Environ	mental L	ab of Te	exas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-2 3-5 (6J16005-01) Soil									
Chloride	ND	20.0	mg/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
% Moisture	9.0	0.1	%	1	EJ61701	10/16/06	10/17/06	% calculation	
MW-2 8-10 (6J16005-02) Soil									
Chloride	808	20.0	mg/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
% Moisture	9.4	0.1	%	I	EJ61701	10/16/06	10/17/06	% calculation	
MW-2 13-15 (6J16005-03) Soil		1787144							
Chloride	723	20.0	mg/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
MW-2 18-20 (6J16005-04) Soil									
Chloride	638	20.0	mg/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
MW-2 23-25 (6J16005-05) Soil									
Chloride	702	20.0	mg/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
MW-2 28-30 (6J16005-06) Soil									
Chloride	1020	20.0	ıng/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
MW-2 33-35 (6J16005-07) Soil	<u> </u>								
Chloride	1490	20.0	mg/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
% Moisture	18.4	0.1	%	t	EJ61701	10/16/06	10/17/06	% calculation	
MW-3 3-5 (6J16005-08) Soil									
Chloride	ND	20.0	mg/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
% Moisture	22.6	0.1	%	I	EJ61701	10/16/06	10/17/06	% calculation	
MW-3 8-10 (6J16005-09) Soil	·····								
Chloride	ND	20.0	ıng/kg Wet	2	EJ62018	10/20/06	10/22/06	SW 846 9253	
% Moisture	20.0	0.1	%	1	EJ61701	10/16/06	10/17/06	% calculation	

Environmental Lab of Texas

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General Chemistry Parameters by EPA / Standard Methods

		Environ	mental L	ab of Te	exas				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 13-15 (6J16005-10) Soil									
Chloride	266	20.0	mg/kg Wet	2	EJ61705	10/16/06	10/17/06	SW 846 9253	
MW-3 18-20 (6J16005-11) Soil									
Chloride	213	20.0	mg/kg Wet	2	EJ61705	10/16/06	10/17/06	SW 846 9253	
MW-3 23-25 (6J16005-12) Soil	s								
Chloride	617	20.0	mg/kg Wet	2	EJ61705	10/16/06	10/17/06	SW 846 9253	
MW-3 28-30 (6J16005-13) Soil									
Chloride	545	20.0	mg/kg Wet	2	EJ61705	10/16/06	10/17/06	SW 846 9253	
MW-3 33-35 (6J16005-14) Soil									
Chloride	815	20.0	mg/kg Wet	2	EJ61705	10/16/06	10/17/06	SW 846 9253	
% Moisture	15.4	0.1	%	I	EJ61701	10/16/06	10/17/06	% calculation	

Environmental Lab of Texas

Highlander Environmental Corp. 1910 N. Big Spring St. Midland TX, 79705

Project: Rice/ A-2-1 Project Number: 2646 Project Manager: Tim Reed

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 EJ61704 - Solvent Extraction (GC)										
Blank (EJ61704-BLK1)				Prepared &	Analyzed:	10/17/06				
Carbon Ranges C6-C10	ND	10.0	mg/kg wet							
Carbon Ranges >C10-C28	ND	10.0	0							
Total Carbon Range C6-C28	ND	10.0	"							
Surrogate: 1-Chlorooctane	45.8		mg/kg	50.0		91.6	70-130			
Surrogate: 1-Chlorooctadecane	43.4		"	50.0		86.8	70-130			
LCS (EJ61704-BS1)				Prepared &	Analyzed:	10/17/06				
Carbon Ranges C6-C10	486	10.0	mg/kg wet	500		97.2	75-125		····.	
Carbon Ranges >C10-C28	400	10.0	•	500		80.0	75-125			
Total Carbon Range C6-C28	886	10.0	11	1000		88.6	75-125			
Surrogate: 1-Chlorooctane	56.4		mg/kg	50.0		113	70-130			
Surrogate: 1-Chlorooctadecane	43.5		"	50.0		87.0	70-130			ĩ
Calibration Check (EJ61704-CCV1)				Prepared &	& Analyzed:	10/17/06				
Carbon Ranges C6-C10	200		mg/kg	250		80.0	80-120			
Carbon Ranges >C10-C28	245		н	250		98.0	80-120			
Total Carbon Range C6-C28	445			500		89.0	80-120			
Surrogate: 1-Chlorooctane	49.3		51	50.0		98.6	70-130			
Surrogate: 1-Chlorooctadecane	40.6		"	50.0		81.2	70-130			
Matrix Spike (EJ61704-MS1)	Sou	rce: 6J16005	-01	Prepared &	k Analyzed	10/17/06				
Carbon Ranges C6-C10	578	10.0	mg/kg dry	549	ND	105	75-125			
Carbon Ranges >C10-C28	484	10.0	"	549	ND	88.2	75-125			
Total Carbon Range C6-C28	1060	10.0	"	1100	ND	96.4	75-125			
Surrogate: 1-Chlorooctane	60,3		mgʻkg	50.0		121	70-130			
Surrogate: 1-Chlorooctadecane	46.5		"	50.0		93.0	70-130			
Matrix Spike Dup (EJ61704-MSD1)	Sou	rce: 6J16005	5-01	Prepared &	& Analyzed	10/17/06				
Carbon Ranges C6-C10	547	10.0	mg/kg dry	549	ND	99.6	75-125	5,51	20	
Carbon Ranges >C10-C28	444	10.0		549	ND	80.9	75-125	8.62	20	
Total Carbon Range C6-C28	991	10.0		1100	ND	90.1	75-125	6.73	20	
Surrogate: 1-Chlorooctane	56.8		mg/kg	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	42.8		"	50.0		85.6	70-130			

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

			-							
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ61701 - General Preparation (Prep)										
Blank (EJ61701-BLK1)				Prepared:	10/16/06	Analyzed: 10	0/17/06	,		
% Solids	100		%							
Duplicate (EJ61701-DUP1)	Sou	rce: 6J16003-	01	Prepared:	10/16/06	Analyzed: 1	0/17/06	· .		
% Solids	93.3		%		93.9			0.641	20	
Duplicate (EJ61701-DUP2)	Sou	rce: 6J16008-	02	Prepared:	10/16/06	Analyzed: 1	0/17/06			
% Solids	86.3		%		84.9			1.64	20	
Batch EJ61705 - Water Extraction										_
Blank (EJ61705-BLK1)				Prepared:	10/16/06	Analyzed: 1	0/17/06			
Chloride	ND	10.0	mg/kg Wet							
LCS (EJ61705-BS1)				Prepared:	10/16/06	Analyzed: 1	0/17/06			
Chloride	92.5	5.00	mg/kg Wet	100		92.5	80-120			
Matrix Spike (EJ61705-MS1)	Sou	irce: 6J16008-	-01	Prepared:	10/16/06	Analyzed: 1	0/17/06			
Chloride	340	10.0	mg/kg Wet	250	117	89.2	80-120			
Matrix Spike Dup (EJ61705-MSD1)	Sou	irce: 6J16008-	-01	Prepared:	10/16/06	Analyzed: I	0/17/06			
Chloride	340	20.0	mg/kg Wet	250	117	89.2	80-120	0.00	20	
Reference (EJ61705-SRM1)				Prepared:	10/16/06	Analyzed: 1	0/17/06			
Chloride	55.3	2.00 mg/mg/	mg/kg	50.0		111	80-120			
Batch EJ62018 - Water Extraction										
Blank (EJ62018-BLK1)				Prepared:	10/20/06	Analyzed: 1	0/22/06			
Chloride	ND	20.0	mg/kg Wet							

Environmental Lab of Texas

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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 EJ62018 - Water Extraction										
LCS (EJ62018-BS1)				Prepared: 1	0/20/06 A	nalyzed: 10	0/22/06			
Chloride .	93.6	5.00	mg/kg Wet	100		93.6	80-120			
Matrix Spike (EJ62018-MS1)	Sourc	e: 6J13018	-01	Prepared: I	0/20/06 A	nalyzed: 10)/22/06			
Chloride	1190	20.0	mg/kg Wet	500	681	102	80-120			
Matrix Spike Dup (EJ62018-MSD1)	Sourc	e: 6J13018	-01	Prepared:	0/20/06 A	nalyzed: 10)/22/06			
Chloride	1210	20.0	mg/kg Wet	500	681	106	80-120	1.67	20	
Reference (EJ62018-SRM1)				Prepared:	10/20/06 A	nalyzed: 10)/22/06			
Chloride	51.0		mg/kg	50.0		102	80-120			

Environmental Lab of Texas

Highland	er Environmental Corp.		Project:	Rice/ A-2-1		Fax: (432) 682-394
	Big Spring St.		Project Number:			
/idland 1	ΓX, 79705		Project Manager:	Tim Reed		
			Notes and De	finitions		
DET	Analyte DETECTED					
ND	Analyte NOT DETEC	TED at or above the reporting limit				
NR	Not Reported					
iry	Sample results reporte	d on a dry weight basis				
RPD	Relative Percent Diffe	rence				
LCS	Laboratory Control Sp	ike				
MS	Matrix Spike					
Dup	Duplicate					
		·				
Repor	t Approved By:	Raland K	Juit	Date:	10/23/2006	
Celey	d K. Tuttle, Lab Mana D. Keene, Lab Direc Allen, QA Officer	ager tor, Org. Tech Director	LaTasha Co	Murrey, Inorg. ornish, Chemist chez, Lab Tech	t	

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

Environmental Lab of Texas

information that is privileged and confidential.

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The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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

Page 9 of 9

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CLIENT NAME:	E. Crei veren	K,				SITE	SITE MANAGER	R: Reed			NEKZ		592 SERG	PRESERVATIVE METHOD	TVE		ton si	84 64		R	20/002	39/0156		CEPION			
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	Necora	CRP.		(432) 682-3946	PRESERVATIVE METHOD	(N/A	NONE ICE HAO3 HCT KITKEURD (Date: Time:	Dato: Winner	Date:		15 J	RELAPKS:
	-64	ENVIRO	1910 N. Big Spring St. Widland, Texas 79705	Fax	SITE MANAGER: Tim fersd	(marine kinn)	TIFICATION	(02-3) (18-20)		- ·	1~				Date:	Data: <u>17/15/0(s</u> RECEIVED BY: (Signature)	Date: Date: RECEIVED BY: (Signature)	A X KON	<u>zer</u> <u>zer</u> <u>mrs. 101 6 80</u> <u>mrs.</u>	A-Atr Snite
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Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

	El. CA
Client:	Highlander
Date/ Time:	010/16/06 3:15
_ab ID # :	(5160
nitials:	CK

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Sample Receipt Checklist

の問題					Client Initia	ls
	#1	Temperature of container/ cooler?	Yes	No	3.0 °C]
69D	#2·	Shipping container in good condition?	YES	No		Ţ
	# <u>2</u> #3 #A	Custody Seals intact on shipping container/ cooler?	Yes	No	And Present]
	#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	1
	#5	Chain of Custody present?	Yes	No		1
	#6 #7	Sample instructions complete of Chain of Custody?	YES	No		1
霄	#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	٦
	#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
	#10	Sample matrix/ properties agree with Chain of Custody?	Yes,	No		٦
	#11	Containers supplied by ELOT?	Yes	No		7
	#12	Samples in proper container/ bottle?	Yes	No	See Below	٦
	#13	Samples properly preserved?	Yes	No	See Below	٦
	#14	Sample bottles intact?	Yes	No		٦
20	#15	Preservations documented on Chain of Custody?	Yes	No		
	#16	Containers documented on Chain of Custody?	res	No		٦
8	#17	Sufficient sample amount for indicated test(s)?	Yes.	No	See Below	٦
3	#18	All samples received within sufficient hold time?	Yes	No	See Below	٦
	#19	VOC samples have zero headspace?	(Yes)	No	Not Applicable	-

Variance Documentation

See.	Contact:	 Contacted by:	Date/ Time:
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£. 24. 18. 18.	Corrective Action Taken:		
2.7.2		 · · · · · · · · · · · · · · · · · · ·	
	Check all that Apply:	See attached e-mail/ fax Client understands and would like to proceed with and Cooling process had begun shortly after sampling eve	