

April 13, 2006

#### VIA CERTIFIED MAIL (CD)

Mr. Paul R. Sheeley Environmental Engineer State of New Mexico Oil Conservation Division 1625 North French Drive Hobbs, New Mexico 88240

Re: Spill Investigation Report and Remediation Plan, John H. Hendrix Corporation, Amanda Sims Tank Battery, Unit Letter I (NE/4, SE/4), Section 25, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Sheeley:

Larson and Associates, Inc. ("LA"), as consultant to John H. Hendrix Corporation ("JHHC"), submits the following report to the State of New Mexico Oil Conservation Division ("OCD"), which presents field and laboratory results of soil samples collected at the Amanda Sims Tank Battery ("Site") located in unit letter I ("NE/4, SE/4"), Section 25, Township 22 South, Range 37 East in Lea County, New Mexico. The latitude and longitude for the Site is North 32° 21' 38.65" and West 103° 06' 37.4". Contact information for JHHC is as follows:

Mr. Marvin Burrows
Production Manager
John H. Hendrix Corporation
1310 18<sup>th</sup> Street
Eunice, New Mexico 88231
(505) 394-2649
mburrows@valornet.com

#### Chronology

On January 16, 2006, an open-top tank was overfilled and resulted in a spill that involved approximately 4.5 barrels of crude oil and water. On January 17, 2006, Form C-141 was submitted to the OCD and is presented in Appendix A.

#### Setting

The Site is located approximately 4.75 miles southeast of Eunice, New Mexico, at an elevation of approximately 3,315 feet above mean sea level ("AMSL"). Monument Draw is located about 1,000 feet west of the Site and flows to the southeast. The area is covered with a thin layer of recent-age wind blown sand. The sand overlies the Ogallala

Mr. Paul R. Sheeley April 13, 2006 Page 2

formation (Tertiary) composed of unconsolidated to well-cemented sand and sandstone interstratified with clay, silt and gravel. The Ogallala formation overlies the Chinle formation (Triassic), also known as "red bed" and consists of mudstone, siltstone and sandstone. Records from the State of New Mexico, Office of the State Engineer report no wells east of Monument Draw in Section 25, Township 22 South, Range 37 East. No wells are located within 1,000 feet of the Site. Figure 1 presents a topographic map and well locations.

Recommended remediation action levels ("RRAL") were calculated for the Site, based on the following criteria published by the OCD ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"):

Ranking Criteria	Result	Ranking Score
Depth-to-Groundwater	50 to 100 feet	10
Wellhead Protection Area	No	0
Distance to Surface Water	>1000 Horizontal Feet	10
Body		
	<b>Total Score:</b>	20

The following RRAL are assigned to the leak based on the total ranking score (20):

Benzene 10 mg/kg
Total BTEX 50 mg/kg
TPH 100 mg/kg

#### Investigation

On January 26, 2006, LA personnel used a stainless steel hand auger to collect soil samples at four (4) locations (HA-1 through HA-4). The auger was advanced until caliche was encountered between approximately 1 and 4 feet below ground surface ("BGS"). Soil samples were collected every foot (i.e., 0' to 1', 1' to 2', etc.), placed in 4-ounce glass jars filled to near zero headspace, labeled, chilled in an ice chest, and delivered under chain of custody control to Environmental Lab of Texas, Inc. ("ELTI"), located at 12600 West I-20 East, Odessa, Texas. Eight (8) ounce glass samples jars were partially filled for headspace analysis and covered with a layer of aluminum foil before the lid was replaced. The headspace vapor concentration was measured using a calibrated RAE Instruments, Model 2000 Mini-RAE photoionization detector ("PID") after the samples had warmed to near ambient temperature. The borings were plugged with bentonite. The hand auger was cleaned between samples with a solution of potable water and laboratory detergent and rinsed with distilled water. Figure 2 presents a Site drawing and sample locations. Table 1 presents a summary of the headspace analysis.

All headspace reading exceeded 100 parts per million ('ppm"), therefore, the laboratory analyzed all samples for benzene, toluene, ethyl benzene and xylene Mr. Paul R. Sheeley

("BTEX") using method SW-846-8021B, total petroleum hydrocarbons ("TPH") using method SW-846-8015 for gasoline range organics ("GRO") and diesel range organics ("DRO"), and chloride by method SW-846-300. Table 1 presents a summary of the laboratory analysis. Appendix B presents the laboratory report. Appendix C presents photographs.

#### Results

Benzene exceeded the RRAL (10 mg/Kg) in the following samples: HA-1, 0' to 1' (21.1 mg/Kg) and HA-3, 0' to 1' (13.0 mg/Kg). BTEX exceeded the RRAL in the following samples: HA-1, 0' to 1' (590.5 mg/Kg), HA-1, 1' to 2' (136.94 mg/Kg), HA-2, 0' to 1' (217.8 mg/Kg), HA-3, 0' to 1' (403. 5 mg/Kg) and HA-4 (180.84 mg/Kg). TPH exceeded the RRAL in all samples, except HA-3, 3' to 3.5' (53.0 mg/Kg). Chloride was below the 250 mg/Kg in all samples, except HA-2, 3' to 4' (365 mg/Kg).

#### **Remediation Plan**

JHHC proposes to excavate soil from the affected area until benzene, BTEX and TPH are below the RRAL of 10 mg/Kg, 50 mg/Kg and 100 mg/kg, respectively. Additional soil samples will be collected at location HA-2 and analyzed for chloride to assess the vertical extent of the impact. The soil will be hauled to the JHHC centralized surface waste management facility (NM-02-0021) located northwest of Jal, New Mexico, and the excavation will be filled with clean soil. A final report will be submitted to OCD within 45 days following receipt of the laboratory analysis. Your approval of the remediation plan is requested. If you have questions, please call Mr. Marvin Burrows with **JHHC** (505)394-2649, myself at (432) 687-0901 email mburrows@valornet.com or Mark@LAEnvironmental.com. Sincerely,

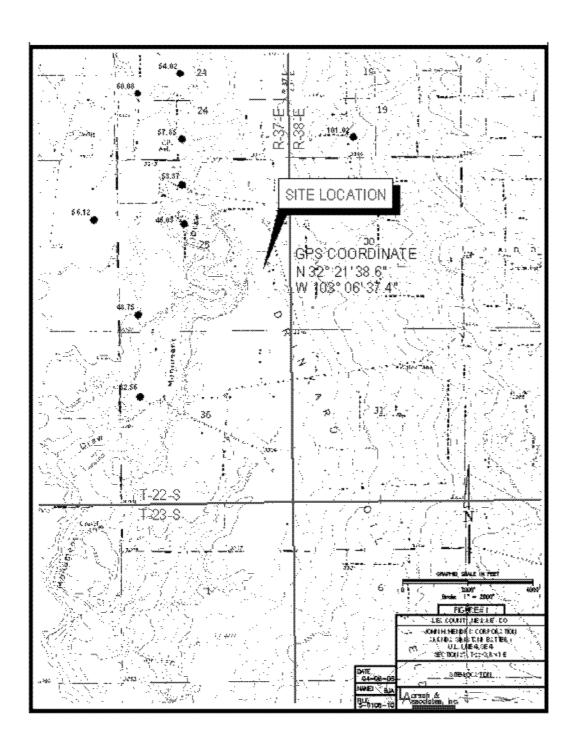
Larson and Associates, Inc.

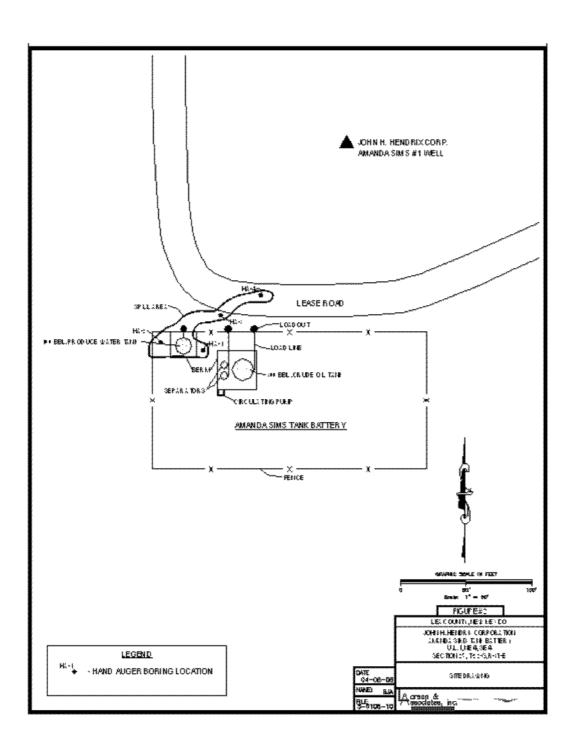
Mark J. Larson, P.G., C.P.G., C.G.W.P. Senior Project Manager/President

Encl

cc: Marvin Burrows/JHHC
Ron Westbrook/JHHC
Chris Williams/OCD – Hobbs
Wayne Price/OCD – Santa Fe

# FIGURES





### **TABLES**

Table 1
Summary of Headspace and Laboratory Analyses of Soil Samples
John H. Hendrix Corporation, Amanda Sims Tank Battery

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Sample	Sample	Sample Date	PID	Benzene	Total BTEX	GRO	DRO	HAL	Chloride
Location	Depth		(mdd)	(mg/kg)	(mg/kg)	C6-C12	>C12-C35	C6-C35	(mg/kg)
	(Feet BGS)					(mg/kg)	(mg/kg)	(mg/kg)	
RRAL (mg/Kg):	<b>:(g</b> ):			10	50			100	
HA - 1	0-1	01/26/06	2771	21.1	590.5	8170	11,700	19,870	5.45
	1-2	01/26/06	1998	47.4	136.94	1,300.0	1,780	3,080	5.49
	2-3	01/26/06	1510	0.0405	6.4875	58.7	130.0	188.7	6.29
	3-3.5	01/26/06	734	0.02	5.741	172.0	499	671	6.73
HA-2	0-1	90/97/10	2433	9.18	217.18	4,060	7,610	11,670	7.72
	1-2	01/26/06	924	1.27	18.04	7.86	85.8	184.5	40.3
	2-3	01/26/06	364	<0.0250	1.0055	8.79	\$16	583.8	194.0
	3-4	01/26/06	321	<0.0250	0.832	46	137	182.6	365.0
HA - 3	0-1	01/26/06	2582	13.0	403.5	162	59.4	221.4	6.57
	1-2	90/97/10	1217	0.211	18.651	220	487	707	689
	2-3	90/97/10	779	0.0336	2.5666	71.1	133	204.1	7.75
	3-3.5	01/26/06	384	0.0161	.7751	15.1	37.9	53.0	30.40
HA - 4	0-1	90/97/10	2155	4.94	180.84	2,740	13,300	16,040	5.68

Notes: Analysis performed by Environmental Lab of Texas, I. Ltd., Odessa, Texas
1. BGS:
2. TPH: Depth in feet below ground surface
2. TPH: Total petroleum hydrocarbons (Sum of DRO + GRO)
3. mg/Kg: Milligrams per kilogram
4. <. Less than method detection limit
5. PID: Photoionization detector
6. ppm: Parts per million

# APPENDIX A

## Form C-141

District.1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artosia, NM 88210 District III 1000 Rto Brazos Road, Azioc, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fc, NM 87505

#### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Co District O with

	R	elease N	otifica	tion and C	orrec	tive Act	tion		
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Surface Ow	ner Wir	nie K	enna	hn Mineral C	)wner			Leas	e No.
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John H. Hendrix, Corp. PO Box 910 Eunice, NM 88231 505-394-2649

1/17/06 Attn: Paul Sheeley OCD Hobbs, NM

#### Dear Paul:

Here is a form C-141 for a spill that we had on our Amanda Sims tank battery. Though the spill was less than 5 barrels and would not be considered reportable, Mark Larson advised that I send you a C-141 since we are going to do sampling and proceed with a cleanup (site is on Kennann land). Mark has visited the site, and we will be handling it as we would any other spill incident. We will keep you posted, and will be submitting documentation to you as we proceed.

Please call with any questions or concerns.

Sincerely,

Marvin Burrows

Prod. Mgr.

JHH, Corp., Eunice, NM

Cell: 505-390-9689

### APPENDIX B

## **Laboratory Report**



# **Analytical Report**

#### Prepared for:

Mark Larson Larson & Associates, Inc. P.O. Box 50685 Midland, TX 79710

Project: John Hendrix/ Amanda Sims TB
Project Number: 3-0108-10
Location: None Given

Lab Order Number: 6A26017

Report Date: 02/03/06

 Larson & Associates, Inc.
 Project:
 John Hendrix/ Amanda Sims TB
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number:
 3-0108-10
 Reported:

 Midland TX, 79710
 Project Manager:
 Mark Larson
 02/03/06 14:35

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-1 0-1	6A26017-01	Soil	01/26/06 10:16	01/26/06 16:08
HA-1 1-2	6A26017-02	Soil	01/26/06 10:25	01/26/06 16:08
HA-1 2-3	6A26017-03	Soil	01/26/06 10:33	01/26/06 16:08
HA-1 3-3.5	6A26017-04	Soil	01/26/06 10:44	01/26/06 16:08
HA-2 0-1	6A26017-05	Soil	01/26/06 10:58	01/26/06 16:08
HA-2 1-2	6A26017-06	Soil	01/26/06 11:10	01/26/06 16:08
HA-2 2-3	6A26017-07	Soil	01/26/06 11:25	01/26/06 16:08
HA-2 3-4	6A26017-08	Soil	01/26/06 11:40	01/26/06 16:08
HA-3 0-1	6A26017-09	Soil	01/26/06 12:07	01/26/06 16:08
HA-3 1-2	6A26017-10	Soil	01/26/06 12:17	01/26/06 16:08
HA-3 2-3	6A26017-11	Soil	01/26/06 12:26	01/26/06 16:08
HA-3 3-3.5	6A26017-12	Soil	01/26/06 12:32	01/26/06 16:08
HA-4 0-1	6A26017-13	Soil	01/26/06 12:45	01/26/06 16:08

Larson & Associates, Inc. P.O. Box 50685 Fax: (432) 687-0456 Project: John Hendrix/ Amanda Sims TB Project Number: 3-0108-10 Reported: 02/03/06 14:35 Midland TX, 79710 Project Manager: Mark Larson

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

		D-n					<del></del>	<del></del>	
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-1 0-1 (6A26017-01) Soil									
Benzene	21.1	2.00	mg/kg dry	2000	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	143	2.00	"	"		н	*	n	
Ethylbenzene	101	2.00	"	u	n	u	u	H	
Xylene (p/m)	228	2.00	4	**	и	n	13		
Xylene (0)	97.4	2.00	"		u	и	St.	н	
Surrogate: a,a,a-Trifluorotoluene		127 %	80-1	120	,,	,,	"	sr	S-04
Surrogate: 4-Bromofluorobenzene		102 %	80-1	120	η	.,	n	u .	
Gasoline Range Organics C6-C12	8170	20.0	mg/kg dry	2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	11700	20.0	11	n	"	*	17	u	
Total Hydrocarbon C6-C35	19900	20.0	11		4		я	11	
Surrogate: 1-Chlorooctane		106 %	70-	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		60.4 %	70-	130	n	rr	n	n	S-06
HA-1 1-2 (6A26017-02) Soil									
Benzene	4.44	0.250	mg/kg dry	250	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	30.0	0.250	11	n	и	u	**	ч	
Ethylbenzene	25.8	0.250	**	н	U	u	"	4	
Xylene (p/m)	55.1	0.250	**	11	**	u	It	п	
Xylene (o)	21.6	0.250			n	n	15	В	
Surrogate: a,a,a-Trifluorotoluene		147 %	80-	120	"	н	H	n	S-04
Surrogate: 4-Bromofluorobenzene		122 %	80-	120	#	#	n	n	S-04
Gasoline Range Organics C6-C12	1300	20.0	mg/kg dry	2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	1780	20.0		**	tr	**		er	
Total Hydrocarbon C6-C35	3080	20.0	ħ	**		"		#	
Surrogate: 1-Chlorooctane		67.4 %	70-	130	"	"	"	n	S-0
Surrogate: 1-Chlorooctadecane		62.0 %	70-	130	"	"	n	"	S-0
HA-1 2-3 (6A26017-03) Soil							_		
Benzene	J [0.0405]	0.0500	mg/kg dry	50	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.717	0.0500	tt	19		v	v	n	
Ethylbenzene	1.13	0.0500	19	"	п	u	u	•	
Xylene (p/m)	3.23	0.0500	U	15	и	tr	u	n	
Xylene (o)	1.37	0.0500	41	н	11	tr	U	29	
Surrogate: a,a,a-Trifluorotoluene		101 %	80-	120	в	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	80-	120	"	"	n	"	
Gasoline Range Organics C6-C12	58.7	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	130	10.0	н	"	"	Ħ	**	fl	
Total Hydrocarbon C6-C35	189	10.0		**	я	n	9	n	

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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Fax: (432) 687-0456 Larson & Associates, Inc. Project: John Hendrix/ Amanda Sims TB P.O. Box 50685 Project Number: 3-0108-10 Reported: Midland TX, 79710 Project Manager: Mark Larson 02/03/06 14:35

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-1 2-3 (6A26017-03) Soil	***************************************								
Surrogate: 1-Chlorooctane		119%	70-	130	EA63001	01/30/06	02/01/06	EPA 8015M	
Surrogate: 1-Chlorooctadecane		105 %	70-	130	"	"	*	,,	
HA-1 3-3.5 (6A26017-04) Soil									
Benzene	J [0.0200]	0.0250	mg/kg dry	25	EA63105	01/31/06	01/31/06	EPA 8021B	J
Toluene	0.561	0.0250	11	11	*	**	**	и	
Ethylbenzene	1.10	0.0250	11	19	*	u	**	n	
Xylene (p/m)	3.00	0.0250	u	11	"	"	*1	n	
Xylene (o)	1.06	0.0250	11	lr .	u	"	n	"	
Surrogate: a,a,a-Trifluorotoluene		109 %	80-	-120	**	н	15	**	
Surrogate: 4-Bromofluorobenzene		116%	80-	120	"	"	"	**	
Gasoline Range Organics C6-C12	172	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	499	10.0	11	**	**	**	31	u	
Total Hydrocarbon C6-C35	671	10.0	29	u	u	11		n n	
Surrogate: 1-Chlorooctane		119 %	70-	-130	,,	"	#	ы	
Surrogate: 1-Chlorooctadecane		107 %	70-	-130	n	"	"	"	
HA-2 0-1 (6A26017-05) Soil									
Benzene	9.18	0.500	mg/kg dry	500	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	44.3	0.500	*	n	**	n	**	и	
Ethylbenzene	40.7	0.500		u	tr	я	н	u	
Xylene (p/m)	88.3	0.500		**	**	u	н	u	
Xylene (0)	34.7	0.500	0	10	n	n	n	n	
Surrogate: a,a,a-Trifluorotoluene		145 %	80	-120	я	Ħ	u	n	S-04
Surrogate: 4-Bromofluorobenzene		124 %	80	-120	9	<b>33</b>	n	"	S-04
Gasoline Range Organics C6-C12	4060	20.0	mg/kg dry	, 2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	7610	20.0		H	и	n		Ħ	
Total Hydrocarbon C6-C35	11700	20.0	"	ti			"	11	
Surrogate: 1-Chlorooctane		79.6 %	70	-130	"	"	11	n	
Surrogate: 1-Chlorooctadecane		48.6 %	70	-130	,,	H	u	n	S-06

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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 Larson & Associates, Inc.
 Project:
 John Hendrix/ Amanda Sims TB
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number:
 3-0108-10
 Reported:

 Midland TX, 79710
 Project Manager:
 Mark Larson
 02/03/06 14:35

#### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-2 1-2 (6A26017-06) Soil									
Benzene	1.27	0.0250	mg/kg dry	25	EA63105	01/31/06	01/31/06	EPA 8021B	
Toluene	3.13	0.0250	"	#	n	n	ti .	н	
Ethylbenzene	3.14	0.0250			*	н	n	II.	
Xylene (p/m)	7.38	0.0250	и	ч		н	u	н	
Xylene (0)	3.12	0.0250	ir	#	51	W	В	H .	
Surrogate: a,a,a-Trifluorotoluene		770 %	80-	120	"	#	n	n	S-04
Surrogate: 4-Bromofluorobenzene		125 %	80-	120	"	r	"	n	S-04
Gasoline Range Organics C6-C12	98.7	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	85.8	10.0	9	u	19	n	11	и	
Total Hydrocarbon C6-C35	184	10.0		"	н		n	и	
Surrogate: 1-Chlorooctane		114%	70-	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-	130	н	"	"	"	
HA-2 2-3 (6A26017-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.0995	0.0250	n		11	æ	"	n	
Ethylbenzene	0.162	0.0250	n	u	**	**	"	17	
Xylene (p/m)	0.542	0.0250		**	9	н	#	11	
Xylene (0)	0.202	0.0250	u	11	0	п	ŧ	11	
Surrogate: a,a,a-Trifluorotoluene		104 %	80-	120	"	#	"	ır	
Surrogate: 4-Bromofluorobenzene		96.5 %	80-	120	*	"	n	"	
Gasoline Range Organics C6-C12	67.8	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	516	10.0		11		*	n	yr	
Total Hydrocarbon C6-C35	584	10.0		18	"		n	u	
Surrogate: 1-Chlorooctane		116 %	70-	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		107 %	70-	130	u	**	"	"	
HA-2 3-4 (6A26017-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.120	0.0250	o		**	u	*	в	
Ethylbenzene	0.142	0.0250		**		"	u	и	
Xylene (p/m)	0.428	0.0250		"	n	*		st .	
Xylene (o)	0.142	0.0250	ti	"	u	ıı ı	u		
Surrogate: a,a,a-Trifluorotoluene		103 %	80-	-120	"	**	"	#	
Surrogate: 4-Bromofluorobenzene		96.0 %	80-	-120	. 0	"	#	,,	
Gasoline Range Organics C6-C12	45.6	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	137	10.0	n	19	н	w	tt	**	
Total Hydrocarbon C6-C35	183	10.0	4		и	tr	"	v	

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.

Page 4 of 16

 Larson & Associates, Inc.
 Project: John Hendrix/ Amanda Sims TB
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number: 3-0108-10
 Reported:

 Midland TX, 79710
 Project Manager: Mark Larson
 02/03/06 14:35

#### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-2 3-4 (6A26017-08) Soil							_		
Surrogate: 1-Chlorooctane		123 %	70-	130	EA63001	01/30/06	02/01/06	EPA 8015M	
Surrogate: 1-Chlorooctadecane		109 %	70-	130	"	н	"	n	
HA-3 0-1 (6A26017-09) Soil									
Benzene	13.0	1.25	mg/kg dry	1250	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	94.8	1.25	"	,	"	,,	11	н	
Ethylbenzene	74.3	1.25	11	tt	4	u	11	н	
Xylene (p/m)	162	1.25	"		•	· ·	**	**	
Xylene (o)	59.4	1.25	н	u		11	1)	**	
Surrogate: a,a,a-Trifluorotoluene		127 %	80-	120	н	"	я	"	S-04
Surrogate: 4-Bromofluorobenzene		102 %	80-	120	"	"	n	"	
Gasoline Range Organics C6-C12	6150	20.0	mg/kg dry	2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	9680	20.0	0	16	н	n		u	
Total Hydrocarbon C6-C35	15800	20.0	19	13	h	tr	"	и	
Surrogate: 1-Chlorooctane		95.8 %	70-	130	"	"	21	"	
Surrogate: 1-Chlorooctadecane		50.6 %	70-	130	"	и	"	"	S-06
HA-3 1-2 (6A26017-10) Soil								_	
Benzene	0.211	0.0500	mg/kg dry	50	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	2.79	0.0500			u u	**	n	ti	
Ethylbenzene	3.58	0.0500	U	*		и	*	tt	
Xylene (p/m)	8.52	0.0500	U	u	n	п	н	H	
Xylene (o)	3.55	0.0500	u	w	n	n	n		
Surrogate: a,a,a-Trifluorotoluene		116%	80-	120	"	#	"	n	
Surrogate: 4-Bromofluorobenzene		126 %	80-	120	•	"	"	"	S-0-
Gasoline Range Organics C6-C12	220	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	487	10.0		n	10	**	0	u	
Total Hydrocarbon C6-C35	707	10.0		н	10	11	D	n	
Surrogate: 1-Chlorooctane		121 %	70-	130	"	"	,,	н	-
Surrogate: 1-Chlorooctadecane		113 %	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.

Page 5 of 16

Project: John Hendrix/ Amanda Sims TB Fax: (432) 687-0456 Larson & Associates, Inc. P.O. Box 50685 Project Number: 3-0108-10 Reported: Midland TX, 79710 Project Manager: Mark Larson 02/03/06 14:35

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

		EMAILOHU	ichtai L	40 01 1	CAAS				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-3 2-3 (6A26017-11) Soil									
Benzene	0.0336	0.0250	mg/kg dry	25	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.336	0.0250	11	n			n		
Ethylbenzene	0.463	0.0250	"	n	P	,	н	**	
Xylene (p/m)	1.29	0.0250	u	11	"	н	н	n	
Xylene (o)	0.444	0.0250		11	tr	*	и	н	
Surrogate: a,a,a-Trifluorotoluene		108 %	80-	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %	80-	120	n	"	"	n	
Gasoline Range Organics C6-C12	71.1	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	133	10.0	•	н		10	п	,	
Total Hydrocarbon C6-C35	204	10.0	**	#	**	**	"	н	
Surrogate: 1-Chlorooctane		129 %	70-	130	"	"	"	u	
Surrogate: 1-Chlorooctadecane		116%	70	130	"	"	n	"	
HA-3 3-3.5 (6A26017-12) Soil									
Benzene	J [0.0161]	0.0250	mg/kg dry	25	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.115	0.0250	"	н	41	19		п	
Ethylbenzene	0.137	0.0250	p	**	4	H	N	u	
Xylene (p/m)	0.393	0.0250	**	"		n	•	"	
Xylene (o)	0.114	0.0250		19		u u	10	ly .	
Surrogate: a,a,a-Trifluorotoluene		90.5 %	80-	120	"	17	"	n	
Surrogate: 4-Bromofluorobenzene		87.8 %	80-	120	"	"	"	#	
Gasoline Range Organics C6-C12	15.1	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	37.9	10.0	v	**		n	R		
Total Hydrocarbon C6-C35	53.0	10.0	11	D	n	"	10	11	
Surrogate: 1-Chlorooctane		118 %	70-	130	,,	n	n	0	
Surrogate: I-Chlorooctadecane		105 %	70-	130	n	"	"	"	
HA-4 0-1 (6A26017-13) Soil									
Benzene	4.94	0.500	mg/kg dry	500	EB60213	02/02/06	02/02/06	EPA 8021B	
Toluene	40.2	0.500			Ħ	'n	и	н	
Ethylbenzene	34.6	0.500	12		•	п	"	n	
Xylene (p/m)	74.1	0.500			**		n	n	
Xylene (o)	27.0	0.500	, "	n	19	0	11	n	
Surrogate: a,a,a-Trifluorotoluene		158 %	80-	120	"	"	"	"	S-0
Surrogate: 4-Bromofluorobenzene		141 %	8 <i>0</i> -	120	n	"	"	n	S-0
Gasoline Range Organics C6-C12	2740	20.0	mg/kg dry	2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	13300	20.0	, u	п	Ħ	R		11	
Total Hydrocarbon C6-C35	16000	20.0	"	u	11	*	n	н	

Environmental Lab of Texas

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Larson & Associates, Inc. P.O. Box 50685 Midland TX, 79710 Fax: (432) 687-0456 Project: John Hendrix/ Amanda Sims TB Project Number: 3-0108-10 Reported: 02/03/06 14:35 Project Manager: Mark Larson

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-4 0-1 (6A26017-13) Soil									
Surrogate: 1-Chlorooctane		75.8 %	70-	130	EA63001	01/30/06	02/01/06	EPA 8015M	
Surrogate: 1-Chlorooctadecane		59.0 %	70-	130	#	"	er	"	S-06



April 13, 2006

#### VIA CERTIFIED MAIL (CD)

Mr. Paul R. Sheeley Environmental Engineer State of New Mexico Oil Conservation Division 1625 North French Drive Hobbs, New Mexico 88240

Re: Spill Investigation Report and Remediation Plan, John H. Hendrix Corporation, Amanda Sims Tank Battery, Unit Letter I (NE/4, SE/4), Section 25, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Sheeley:

Larson and Associates, Inc. ("LA"), as consultant to John H. Hendrix Corporation ("JHHC"), submits the following report to the State of New Mexico Oil Conservation Division ("OCD"), which presents field and laboratory results of soil samples collected at the Amanda Sims Tank Battery ("Site") located in unit letter I ("NE/4, SE/4"), Section 25, Township 22 South, Range 37 East in Lea County, New Mexico. The latitude and longitude for the Site is North 32° 21' 38.65" and West 103° 06' 37.4". Contact information for JHHC is as follows:

Mr. Marvin Burrows
Production Manager
John H. Hendrix Corporation
1310 18<sup>th</sup> Street
Eunice, New Mexico 88231
(505) 394-2649
mburrows@valornet.com

#### Chronology

On January 16, 2006, an open-top tank was overfilled and resulted in a spill that involved approximately 4.5 barrels of crude oil and water. On January 17, 2006, Form C-141 was submitted to the OCD and is presented in Appendix A.

#### Setting

The Site is located approximately 4.75 miles southeast of Eunice, New Mexico, at an elevation of approximately 3,315 feet above mean sea level ("AMSL"). Monument Draw is located about 1,000 feet west of the Site and flows to the southeast. The area is covered with a thin layer of recent-age wind blown sand. The sand overlies the Ogallala

Mr. Paul R. Sheeley April 13, 2006 Page 2

formation (Tertiary) composed of unconsolidated to well-cemented sand and sandstone interstratified with clay, silt and gravel. The Ogallala formation overlies the Chinle formation (Triassic), also known as "red bed" and consists of mudstone, siltstone and sandstone. Records from the State of New Mexico, Office of the State Engineer report no wells east of Monument Draw in Section 25, Township 22 South, Range 37 East. No wells are located within 1,000 feet of the Site. Figure 1 presents a topographic map and well locations.

Recommended remediation action levels ("RRAL") were calculated for the Site, based on the following criteria published by the OCD ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"):

Ranking Criteria	Result	Ranking Score
Depth-to-Groundwater	50 to 100 feet	10
Wellhead Protection Area	No	0
Distance to Surface Water	>1000 Horizontal Feet	10
Body		
	<b>Total Score:</b>	20

The following RRAL are assigned to the leak based on the total ranking score (20):

Benzene 10 mg/kg
Total BTEX 50 mg/kg
TPH 100 mg/kg

#### Investigation

On January 26, 2006, LA personnel used a stainless steel hand auger to collect soil samples at four (4) locations (HA-1 through HA-4). The auger was advanced until caliche was encountered between approximately 1 and 4 feet below ground surface ("BGS"). Soil samples were collected every foot (i.e., 0' to 1', 1' to 2', etc.), placed in 4-ounce glass jars filled to near zero headspace, labeled, chilled in an ice chest, and delivered under chain of custody control to Environmental Lab of Texas, Inc. ("ELTI"), located at 12600 West I-20 East, Odessa, Texas. Eight (8) ounce glass samples jars were partially filled for headspace analysis and covered with a layer of aluminum foil before the lid was replaced. The headspace vapor concentration was measured using a calibrated RAE Instruments, Model 2000 Mini-RAE photoionization detector ("PID") after the samples had warmed to near ambient temperature. The borings were plugged with bentonite. The hand auger was cleaned between samples with a solution of potable water and laboratory detergent and rinsed with distilled water. Figure 2 presents a Site drawing and sample locations. Table 1 presents a summary of the headspace analysis.

All headspace reading exceeded 100 parts per million ('ppm"), therefore, the laboratory analyzed all samples for benzene, toluene, ethyl benzene and xylene Mr. Paul R. Sheeley

("BTEX") using method SW-846-8021B, total petroleum hydrocarbons ("TPH") using method SW-846-8015 for gasoline range organics ("GRO") and diesel range organics ("DRO"), and chloride by method SW-846-300. Table 1 presents a summary of the laboratory analysis. Appendix B presents the laboratory report. Appendix C presents photographs.

#### Results

Benzene exceeded the RRAL (10 mg/Kg) in the following samples: HA-1, 0' to 1' (21.1 mg/Kg) and HA-3, 0' to 1' (13.0 mg/Kg). BTEX exceeded the RRAL in the following samples: HA-1, 0' to 1' (590.5 mg/Kg), HA-1, 1' to 2' (136.94 mg/Kg), HA-2, 0' to 1' (217.8 mg/Kg), HA-3, 0' to 1' (403. 5 mg/Kg) and HA-4 (180.84 mg/Kg). TPH exceeded the RRAL in all samples, except HA-3, 3' to 3.5' (53.0 mg/Kg). Chloride was below the 250 mg/Kg in all samples, except HA-2, 3' to 4' (365 mg/Kg).

#### **Remediation Plan**

JHHC proposes to excavate soil from the affected area until benzene, BTEX and TPH are below the RRAL of 10 mg/Kg, 50 mg/Kg and 100 mg/kg, respectively. Additional soil samples will be collected at location HA-2 and analyzed for chloride to assess the vertical extent of the impact. The soil will be hauled to the JHHC centralized surface waste management facility (NM-02-0021) located northwest of Jal, New Mexico, and the excavation will be filled with clean soil. A final report will be submitted to OCD within 45 days following receipt of the laboratory analysis. Your approval of the remediation plan is requested. If you have questions, please call Mr. Marvin Burrows with **ЈННС** (505)394-2649, myself at (432) 687-0901 email mburrows@valornet.com or Mark@LAEnvironmental.com. Sincerely,

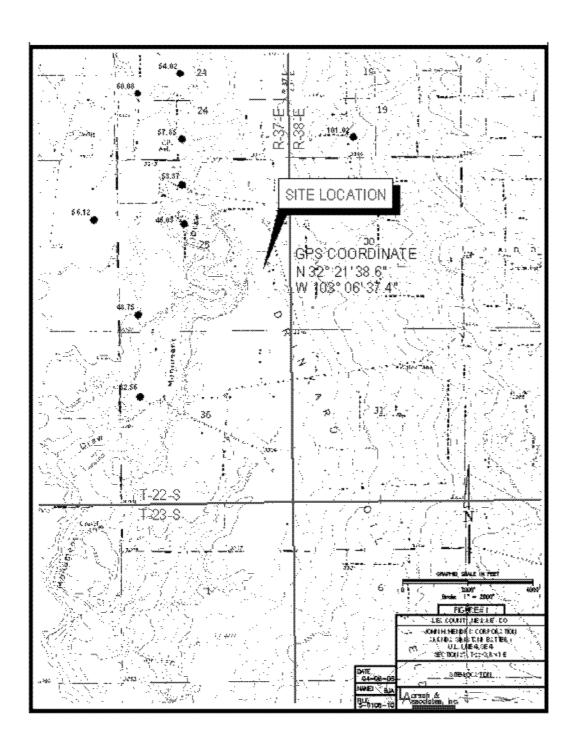
Larson and Associates, Inc.

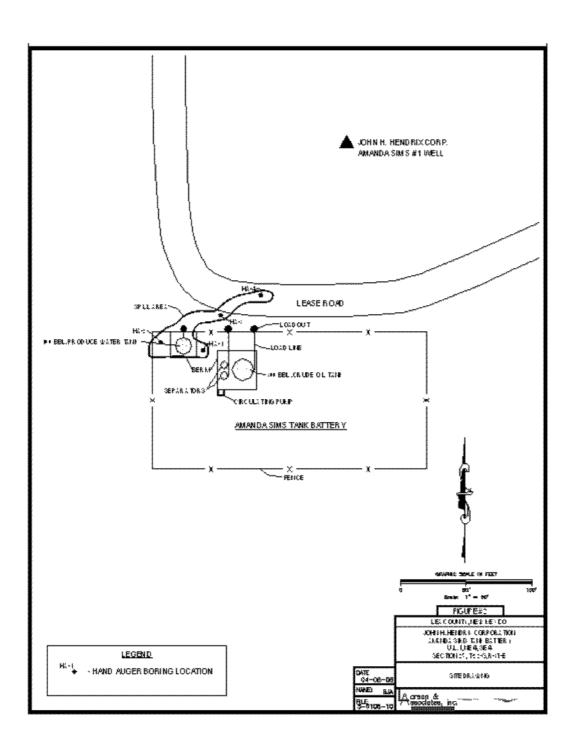
Mark J. Larson, P.G., C.P.G., C.G.W.P. Senior Project Manager/President

Encl

cc: Marvin Burrows/JHHC
Ron Westbrook/JHHC
Chris Williams/OCD – Hobbs
Wayne Price/OCD – Santa Fe

# FIGURES





### **TABLES**

Table 1
Summary of Headspace and Laboratory Analyses of Soil Samples
John H. Hendrix Corporation, Amanda Sims Tank Battery

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			T (* (* (* (* )	Lea County, New Mexico	Lea County, New Mexico	dumy transc	10 mm		Page 1 of 1
Sample	Sample	Sample Date	PID	Benzene	Total BTEX	GRO	DRO	TPH	Chloride
Location	Depth		(mdd)	(mg/kg)	(mg/kg)	C6-C12	>C12-C35	C6-C35	(mg/kg)
	(Feet BGS)					(mg/kg)	(mg/kg)	(mg/kg)	
RRAL (mg/Kg):	(g):			10	50			100	
HA - 1	0-1	01/26/06	2771	21.1	590.5	8170	11,700	19,870	5.45
	1-2	01/26/06	1998	47.4	136.94	1,300.0	1,780	3,080	5.49
	2-3	01/26/06	1510	0.0405	6.4875	58.7	130.0	188.7	6.29
	3-3.5	01/26/06	734	0.02	5.741	172.0	499	671	6.73
HA-2	0-1	90/97/10	2433	9.18	217.18	4,060	7,610	11,670	7.72
	1-2	01/26/06	924	1.27	18.04	7.86	85.8	184.5	40.3
	2-3	01/26/06	364	<0.0250	1.0055	8.79	516	583.8	194.0
	3-4	01/26/06	321	<0.0250	0.832	46	137	182.6	365.0
HA - 3	0-1	01/26/06	2582	13.0	403.5	162	59.4	221.4	6.57
	1-2	01/26/06	1217	0.211	18.651	220	487	707	689
	2-3	01/26/06	779	0.0336	2.5666	71.1	133	204.1	7.75
	3-3.5	01/26/06	384	0.0161	.7751	15.1	37.9	53.0	30.40
HA - 4	0-1	90/57/10	2155	4.94	180.84	2,740	13,300	16,040	5.68

Notes: Analysis performed by Environmental Lab of Texas, I. Ltd., Odessa, Texas
1. BGS:
2. TPH: Depth in feet below ground surface
2. TPH: Total petroleum hydrocarbons (Sum of DRO + GRO)
3. mg/Kg: Milligrams per kilogram
4. <. Less than method detection limit
5. PID: Photoionization detector
6. ppm: Parts per million

# APPENDIX A

## Form C-141

District.1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artosia, NM 88210 District III 1000 Rto Brazos Road, Azioc, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fc, NM 87505

#### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Co District O with

	R	elease N	otifica	tion and C	orrec	tive Act	tion			
				RATOR		Initia	Report I	Final Report		
Name of Co		Tohn h	. He	noriy, C	ORA C	ontact /	MARVIN	Burns	ens	
Address		x 910	Eunic	e himi 83	723/ I	elephone N	10.505-3	794-26	49	
Facility Nan	x An	14 n DA	Sim	SISATTO	F	acility Typ	TANK	BAHE	ny	
Surface Ow	ner Wir	nie K	enna	hn Mineral C	)wner			Leas	e No.	
				ION OF RE						
Unit Letter	Section	Township	Range	Feet from the	North/S	outh Line		East/West Lin		
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		Latitude		Longitu	ide(	SP51	N 38	102/m	ZeA 38.65	
			NATU	RE OF REL	EASE				m 37,4.	
Type of Rele		Her/	oil			Volume of	Release 4	RRL Volum	ie Recovered 3	
Source of Rel Was Immedia			TAN	<u> </u>		If YES, To	our of Occurrence	Date a	nd Hour of Disco	
was minicula	HE MODES C		s (Ng	Not Required	}	II 1E5, 10	Whom?	///	6106	
By Whom?						Date and H	lour —	-		
Was a Water	course Reac			1		If YES, Vo	hume Impacting t	he Watercourse.		
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health or the operations ha	environment ve failed to In addition	t. The accepta adequately in NMOCD ac	ence of a C vestigate a	:-14) report by the and remediate cont	e NMOCI	D marked as that pose a	"Final Report" d threat to ground crator of respons	ocs not relieve il water, surface w ibility for compl	rsuant to NMOCI cleases which may be operator of lial ater, human hoalt iance with any off	
Of ICCAI IAWS	and or regu	IALIUIIS.					Marvin Bu	ILLOM2		
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Signature; 6	uu	mu,	011	nous			<del>- John H. Hen</del>	NEW COLD		
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John H. Hendrix, Corp. PO Box 910 Eunice, NM 88231 505-394-2649

1/17/06 Attn: Paul Sheeley OCD Hobbs, NM

#### Dear Paul:

Here is a form C-141 for a spill that we had on our Amanda Sims tank battery. Though the spill was less than 5 barrels and would not be considered reportable, Mark Larson advised that I send you a C-141 since we are going to do sampling and proceed with a cleanup (site is on Kennann land). Mark has visited the site, and we will be handling it as we would any other spill incident. We will keep you posted, and will be submitting documentation to you as we proceed.

Please call with any questions or concerns.

Sincerely,

Marvin Burrows

Prod. Mgr.

JHH, Corp., Eunice, NM

Cell: 505-390-9689

### APPENDIX B

## **Laboratory Report**



# **Analytical Report**

#### Prepared for:

Mark Larson Larson & Associates, Inc. P.O. Box 50685 Midland, TX 79710

Project: John Hendrix/ Amanda Sims TB
Project Number: 3-0108-10
Location: None Given

Lab Order Number: 6A26017

Report Date: 02/03/06

 Larson & Associates, Inc.
 Project:
 John Hendrix/ Amanda Sims TB
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number:
 3-0108-10
 Reported:

 Midland TX, 79710
 Project Manager:
 Mark Larson
 02/03/06 14:35

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-1 0-1	6A26017-01	Soil	01/26/06 10:16	01/26/06 16:08
HA-1 1-2	6A26017-02	Soil	01/26/06 10:25	01/26/06 16:08
HA-1 2-3	6A26017-03	Soil	01/26/06 10:33	01/26/06 16:08
HA-1 3-3.5	6A26017-04	Soil	01/26/06 10:44	01/26/06 16:08
HA-2 0-1	6A26017-05	Soil	01/26/06 10:58	01/26/06 16:08
HA-2 1-2	6A26017-06	Soil	01/26/06 11:10	01/26/06 16:08
HA-2 2-3	6A26017-07	Soil	01/26/06 11:25	01/26/06 16:08
HA-2 3-4	6A26017-08	Soil	01/26/06 11:40	01/26/06 16:08
HA-3 0-1	6A26017-09	Soil	01/26/06 12:07	01/26/06 16:08
HA-3 1-2	6A26017-10	Soil	01/26/06 12:17	01/26/06 16:08
HA-3 2-3	6A26017-11	Soil	01/26/06 12:26	01/26/06 16:08
HA-3 3-3.5	6A26017-12	Soil	01/26/06 12:32	01/26/06 16:08
HA-4 0-1	6A26017-13	Soil	01/26/06 12:45	01/26/06 16:08

Larson & Associates, Inc. P.O. Box 50685 Fax: (432) 687-0456 Project: John Hendrix/ Amanda Sims TB Project Number: 3-0108-10 Reported: 02/03/06 14:35 Midland TX, 79710 Project Manager: Mark Larson

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

		D-n					<del></del>	<del></del>	
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-1 0-1 (6A26017-01) Soil									
Benzene	21.1	2.00	mg/kg dry	2000	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	143	2.00	"	"		н	*	n	
Ethylbenzene	101	2.00	"	u	n	u	u	H	
Xylene (p/m)	228	2.00	4	**	и	n	п		
Xylene (0)	97.4	2.00	"		u	и	St.	н	
Surrogate: a,a,a-Trifluorotoluene		127 %	80-1	120		n	"	11	S-04
Surrogate: 4-Bromofluorobenzene		102 %	80-1	120	η	.,	n	u .	
Gasoline Range Organics C6-C12	8170	20.0	mg/kg dry	2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	11700	20.0	11	n	"	*	17	u	
Total Hydrocarbon C6-C35	19900	20.0	11		4		я	11	
Surrogate: 1-Chlorooctane		106 %	70-	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		60.4 %	70-	130	n	rr	n	n	S-06
HA-1 1-2 (6A26017-02) Soil									
Benzene	4.44	0.250	mg/kg dry	250	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	30.0	0.250	11	n	и	u	**	ч	
Ethylbenzene	25.8	0.250	**	н	U	u	"	4	
Xylene (p/m)	55.1	0.250	n	11	**	u	It	п	
Xylene (o)	21.6	0.250			n	n	15	В	
Surrogate: a,a,a-Trifluorotoluene		147 %	80-	120	"	н	H	n	S-04
Surrogate: 4-Bromofluorobenzene		122 %	80-	120	#	#	n	n	S-04
Gasoline Range Organics C6-C12	1300	20.0	mg/kg dry	2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	1780	20.0		**	tr .	**		er	
Total Hydrocarbon C6-C35	3080	20.0	ħ	**		"		#	
Surrogate: 1-Chlorooctane		67.4 %	70-	130	"	"	"	n	S-0
Surrogate: 1-Chlorooctadecane		62.0 %	70-	130	"	#	n	"	S-0
HA-1 2-3 (6A26017-03) Soil							_		
Benzene	J [0.0405]	0.0500	mg/kg dry	50	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.717	0.0500	tt	19		v	v	n	
Ethylbenzene	1.13	0.0500	19	"	п	u	u	•	
Xylene (p/m)	3.23	0.0500	U	15	и	tr	u	n	
Xylene (o)	1.37	0.0500	41	н	11	tr	U	29	
Surrogate: a,a,a-Trifluorotoluene		101 %	80-	120	в	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	80-	120	"	"	n	"	
Gasoline Range Organics C6-C12	58.7	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	130	10.0	н	"	"	Ħ	**	fl	
Total Hydrocarbon C6-C35	189	10.0		**	я	n	9	n	

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Fax: (432) 687-0456 Larson & Associates, Inc. Project: John Hendrix/ Amanda Sims TB P.O. Box 50685 Project Number: 3-0108-10 Reported: Midland TX, 79710 Project Manager: Mark Larson 02/03/06 14:35

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-1 2-3 (6A26017-03) Soil	***************************************								
Surrogate: 1-Chlorooctane		119%	70-	130	EA63001	01/30/06	02/01/06	EPA 8015M	
Surrogate: 1-Chlorooctadecane		105 %	70-	130	"	"	*	,,	
HA-1 3-3.5 (6A26017-04) Soil									
Benzene	J [0.0200]	0.0250	mg/kg dry	25	EA63105	01/31/06	01/31/06	EPA 8021B	J
Toluene	0.561	0.0250	11	11	W	**	**	и	
Ethylbenzene	1.10	0.0250	11	19	*	u	11	n	
Xylene (p/m)	3.00	0.0250	u	11	"	"	*1	n	
Xylene (o)	1.06	0.0250	11	lr .	u	"	n	"	
Surrogate: a,a,a-Trifluorotoluene		109 %	80-	-120	**	я	11	**	
Surrogate: 4-Bromofluorobenzene		116%	80-	120	"	"	"	**	
Gasoline Range Organics C6-C12	172	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	499	10.0	11	**	**	#	31	u	
Total Hydrocarbon C6-C35	671	10.0	29	u	u	11		n n	
Surrogate: 1-Chlorooctane		119 %	70-	-130	,,	"	,,	ы	
Surrogate: 1-Chlorooctadecane		107 %	70-	-130	n	"	"	"	
HA-2 0-1 (6A26017-05) Soil									
Benzene	9.18	0.500	mg/kg dry	500	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	44.3	0.500	*	n	**	n	н	и	
Ethylbenzene	40.7	0.500		u	tr	n	**	u	
Xylene (p/m)	88.3	0.500		**	**	n		u	
Xylene (0)	34.7	0.500	0	10	n	n	"	n	
Surrogate: a,a,a-Trifluorotoluene		145 %	80	-120	я	tt	u	n	S-04
Surrogate: 4-Bromofluorobenzene		124 %	80	-120	9	<b>37</b>	n	"	S-04
Gasoline Range Organics C6-C12	4060	20.0	mg/kg dry	, 2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	7610	20.0		H	и	n	19	Ħ	
Total Hydrocarbon C6-C35	11700	20.0	"	ti			,	11	
Surrogate: 1-Chlorooctane		79.6 %	70	-130	"	"	11	n	
Surrogate: 1-Chlorooctadecane		48.6 %	70	-130	,,	H	"	n	S-06

Environmental Lab of Texas

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 Larson & Associates, Inc.
 Project:
 John Hendrix/ Amanda Sims TB
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number:
 3-0108-10
 Reported:

 Midland TX, 79710
 Project Manager:
 Mark Larson
 02/03/06 14:35

#### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-2 1-2 (6A26017-06) Soil									
Benzene	1.27	0.0250	mg/kg dry	25	EA63105	01/31/06	01/31/06	EPA 8021B	
Toluene	3.13	0.0250	"	#	n	n	ti .	н	
Ethylbenzene	3.14	0.0250			*	н	n	II.	
Xylene (p/m)	7.38	0.0250	и	ч		н	u	н	
Xylene (0)	3.12	0.0250	ir	#	51	W	В	H .	
Surrogate: a,a,a-Trifluorotoluene		770 %	80-	120	"	#	n	n	S-04
Surrogate: 4-Bromofluorobenzene		125 %	80-	120	"	r	"	n	S-04
Gasoline Range Organics C6-C12	98.7	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	85.8	10.0	9	u	19	n	11	и	
Total Hydrocarbon C6-C35	184	10.0		"	н		n	и	
Surrogate: 1-Chlorooctane		114%	70-	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		101 %	70-	130	н	"	"	"	
HA-2 2-3 (6A26017-07) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.0995	0.0250	n		11	æ	"	W	
Ethylbenzene	0.162	0.0250	n	u	**	**	"	17	
Xylene (p/m)	0.542	0.0250		**	9	н	#	11	
Xylene (0)	0.202	0.0250	u	11	0	п	ŧ	11	
Surrogate: a,a,a-Trifluorotoluene		104 %	80-	120	"	#	"	ır	
Surrogate: 4-Bromofluorobenzene		96.5 %	80-	120	*	"	n	"	
Gasoline Range Organics C6-C12	67.8	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	516	10.0		11		*	n	yr	
Total Hydrocarbon C6-C35	584	10.0		18	"		ħ	u	
Surrogate: 1-Chlorooctane		116 %	70-	130	"	"	"	"	
Surrogate: 1-Chlorooctadecane		107 %	70-	130	u	**	"	"	
HA-2 3-4 (6A26017-08) Soil									
Benzene	ND	0.0250	mg/kg dry	25	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.120	0.0250	o		**	u	*	в	
Ethylbenzene	0.142	0.0250		**		"	u	и	
Xylene (p/m)	0.428	0.0250		"	n	*		st .	
Xylene (o)	0.142	0.0250	ti	"	u	ıı ı	u		
Surrogate: a,a,a-Trifluorotoluene		103 %	80-	-120	"	**	"	#	
Surrogate: 4-Bromofluorobenzene		96.0 %	80-	-120	. 0	"	#	,,	
Gasoline Range Organics C6-C12	45.6	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	137	10.0	n	19	н	w	tt	**	
Total Hydrocarbon C6-C35	183	10.0	4		и	tr	"	v	

Environmental Lab of Texas

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 Larson & Associates, Inc.
 Project: John Hendrix/ Amanda Sims TB
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number: 3-0108-10
 Reported:

 Midland TX, 79710
 Project Manager: Mark Larson
 02/03/06 14:35

#### Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-2 3-4 (6A26017-08) Soil							_		
Surrogate: 1-Chlorooctane		123 %	70-	130	EA63001	01/30/06	02/01/06	EPA 8015M	
Surrogate: 1-Chlorooctadecane		109 %	70-	130	"	"	"	Ħ	
HA-3 0-1 (6A26017-09) Soil									
Benzene	13.0	1.25	mg/kg dry	1250	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	94.8	1.25	**	n	w	u	11	n	
Ethylbenzene	74.3	1.25	11	tr	11	u	11	н	
Xylene (p/m)	162	1.25	u	"		· ·	19	**	
Xylene (o)	59.4	1.25	н	u	ıı .	11	11	#	
Surrogate: a,a,a-Trifluorotoluene		127 %	80-	120	"	"	st	"	S-04
Surrogate: 4-Bromofluorobenzene		102 %	80-	120	"	"	n	"	
Gasoline Range Organics C6-C12	6150	20.0	mg/kg dry	2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	9680	20.0	D	u	н	п	"	u	
Total Hydrocarbon C6-C35	15800	20.0	19	19	lı	tr	ti	н	
Surrogate: 1-Chlorooctane		95.8 %	70-	130	"	"	20	,,	
Surrogate: 1-Chlorooctadecane		50.6 %	70-	130	"	и	"	"	S-06
HA-3 1-2 (6A26017-10) Soil								_	
Benzene	0.211	0.0500	mg/kg dry	50	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	2.79	0.0500		**	u u	**	rr	ti	
Ethylbenzene	3.58	0.0500	u	*		и	*	u	
Xylene (p/m)	8.52	0.0500	u	u		n	н	H	
Xylene (o)	3.55	0.0500	u	**	n	11	n		
Surrogate: a,a,a-Trifluorotoluene		116%	80-	120	"	#	"	"	
Surrogate: 4-Bromofluorobenzene		126 %	80-	-120	•	"	"	"	S-04
Gasoline Range Organics C6-C12	220	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	487	10.0	0	п	10	11	0	u	
Total Hydrocarbon C6-C35	707	10.0		н	10	11	0		
Surrogate: 1-Chlorooctane		121 %	70-	-130	"	n	,,	н	-
Surrogate: 1-Chlorooctadecane		113 %	70	-130	"	"	"	n,	

Environmental Lab of Texas

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Project: John Hendrix/ Amanda Sims TB Fax: (432) 687-0456 Larson & Associates, Inc. P.O. Box 50685 Project Number: 3-0108-10 Reported: Midland TX, 79710 Project Manager: Mark Larson 02/03/06 14:35

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

		EMAILOHU	ichtai L	40 01 1	CAAS				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-3 2-3 (6A26017-11) Soil									
Benzene	0.0336	0.0250	mg/kg dry	25	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.336	0.0250	11	n			n		
Ethylbenzene	0.463	0.0250	"	n	P	,	н	**	
Xylene (p/m)	1.29	0.0250	u	11	"	н	н	n	
Xylene (o)	0.444	0.0250		11	tr	*	и	н	
Surrogate: a,a,a-Trifluorotoluene		108 %	80-	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %	80-	120	n	"	"	n	
Gasoline Range Organics C6-C12	71.1	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	133	10.0	•	н		10	п	,	
Total Hydrocarbon C6-C35	204	10.0	**	#	**	**	"	н	
Surrogate: 1-Chlorooctane		129 %	70-	130	"	"	"	u	
Surrogate: 1-Chlorooctadecane		116%	70	130	"	"	n	"	
HA-3 3-3.5 (6A26017-12) Soil									
Benzene	J [0.0161]	0.0250	mg/kg dry	25	EA63105	01/31/06	02/01/06	EPA 8021B	
Toluene	0.115	0.0250	"	н	41	19		п	
Ethylbenzene	0.137	0.0250	p	**	4	ıı	N	u	
Xylene (p/m)	0.393	0.0250	**	"		n	•	"	
Xylene (o)	0.114	0.0250		19		u u	10	ly .	
Surrogate: a,a,a-Trifluorotoluene		90.5 %	80-	120	"	17	"	n	
Surrogate: 4-Bromofluorobenzene		87.8 %	80-	120	"	"	"	#	
Gasoline Range Organics C6-C12	15.1	10.0	mg/kg dry	1	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	37.9	10.0	v	**		n	R		
Total Hydrocarbon C6-C35	53.0	10.0	41	D	n	"	10		
Surrogate: 1-Chlorooctane		118 %	70-	130	,,	n	n	0	
Surrogate: I-Chlorooctadecane		105 %	70-	130	n	"	"	"	
HA-4 0-1 (6A26017-13) Soil									
Benzene	4.94	0.500	mg/kg dry	500	EB60213	02/02/06	02/02/06	EPA 8021B	
Toluene	40.2	0.500			Ħ	'n	и	н	
Ethylbenzene	34.6	0.500	12		•	п	"	n	
Xylene (p/m)	74.1	0.500			**		n	n	
Xylene (o)	27.0	0.500	, "	n	19	0	11	n	
Surrogate: a,a,a-Trifluorotoluene		158 %	80-	120	"	"	"	"	S-0
Surrogate: 4-Bromofluorobenzene		141 %	8 <i>0</i> -	120	n	"	"	n	S-0
Gasoline Range Organics C6-C12	2740	20.0	mg/kg dry	2	EA63001	01/30/06	02/01/06	EPA 8015M	
Diesel Range Organics >C12-C35	13300	20.0	, u	п	Ħ	R		11	
Total Hydrocarbon C6-C35	16000	20.0	"	u	11	*	n	н	

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Larson & Associates, Inc. P.O. Box 50685 Midland TX, 79710 Fax: (432) 687-0456 Project: John Hendrix/ Amanda Sims TB Project Number: 3-0108-10 Reported: 02/03/06 14:35 Project Manager: Mark Larson

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
HA-4 0-1 (6A26017-13) Soil									
Surrogate: 1-Chlorooctane		75.8 %	70-	130	EA63001	01/30/06	02/01/06	EPA 8015M	
Surrogate: 1-Chlorooctadecane		59.0 %	70-	130	#	"	er	"	S-06

Larson & Associates, Inc. P.O. Box 50685 Midland TX, 79710

Project: John Hendrix/ Amanda Sims TB

Project Number: 3-0108-10 Project Manager: Mark Larson Fax: (432) 687-0456 Reported: 02/03/06 14:35

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

<b>4</b> 1	Result	Reporting	Units						
Analyte	Result	Limit	Onus	Dilution	Batch	Prepared	Analyzed	Method	Note
HA-1 0-1 (6A26017-01) Soil				,					
Chloride	5.45	5.00	mg/kg	10	EA63007	01/31/06	01/31/06	EPA 300.0	
% Moisture	8.5	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-1 1-2 (6A26017-02) Soil									_
Chloride	5.49	5.00	mg/kg	10	EA63007	01/31/06	01/31/06	EPA 300.0	
% Moisture	12.8	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-1 2-3 (6A26017-03) Soil									
Chloride	6.29	5.00	mg/kg	10	EA63007	01/31/06	01/31/06	EPA 300.0	
% Moisture	10.1	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-1 3-3.5 (6A26017-04) Soil									
Chloride	6.73	5.00	mg/kg	10	EA63007	01/31/06	01/31/06	EPA 300.0	
% Moisture	10.7	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-2 0-1 (6A26017-05) Soil									
Chloride	7.72	5.00	mg/kg	10	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	11.9	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-2 1-2 (6A26017-06) Soil									
Chloride	40.3	10.0	mg/kg	20	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	14.0	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-2 2-3 (6A26017-07) Soil									
Chloride	194	10.0	mg/kg	20	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	13.8	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-2 3-4 (6A26017-08) Soil									
Chloride	365	10.0	mg/kg	20	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	14.3	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	

Environmental Lab of Texas

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Larson & Associates, Inc. P.O. Box 50685 Fax: (432) 687-0456 Project: John Hendrix/ Amanda Sims TB Project Number: 3-0108-10 Reported: Midland TX, 79710 Project Manager: Mark Larson 02/03/06 14:35

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
HA-3 0-1 (6A26017-09) Soil									
Chloride	6.57	5.00	mg/kg	10	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	10.8	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-3 1-2 (6A26017-10) Soil									
Chloride	68.9	5.00	mg/kg	10	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	12.6	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-3 2-3 (6A26017-11) Soil									
Chloride	7.75	5.00	mg/kg	10	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	13.2	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-3 3-3.5 (6A26017-12) Soil								_	
Chloride	30.4	5.00	mg/kg	10	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	13.3	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	
HA-4 0-1 (6A26017-13) Soil									
Chloride	5.68	5.00	mg/kg	10	EB60106	02/01/06	02/01/06	EPA 300.0	
% Moisture	11.9	0.1	%	1	EA63008	01/27/06	01/30/06	% calculation	

 Larson & Associates, Inc.
 Project:
 John Hendrix/ Amanda Sims TB
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number:
 3-0108-10
 Reported:

 Midland TX, 79710
 Project Manager:
 Mark Larson
 02/03/06 14:35

Black EA63001 - Solvent Extraction (GC)   Prepared: 01/30/06   Analyzed: 01/31/06	Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Casoline Range Organics C6-C12   ND   10.0   mg/kg wet	Batch EA63001 - Solvent Extraction	(GC)									
Diesel Range Organics > C12-C35   ND   10.0   "	Blank (EA63001-BLK1)				Prepared:	01/30/06	Analyzed	: 01/31/06			
Total Hydrocarbon C6-C35   ND   10.0   "	Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Surrogate: I-Chlorooctane	Diesel Range Organics >C12-C35	ND	10.0	11							
Surrogate: 1-Chlorooctadecame   54.6   " 50.0   109 70-130	Total Hydrocarbon C6-C35	ND	10.0	n							
Prepared: 01/30/06   Analyzed: 01/31/06	Surrogate: 1-Chlorooctane	49.1		mg/kg	50.0		98.2	70-130			
Gasoline Range Organics C6-C12	Surrogate: 1-Chlorooctadecane	54.6		"	50.0		109	70-130			
Diesel Range Organics > C12-C35   532   10.0   "   500   106   75-125	LCS (EA63001-BS1)				Prepared:	01/30/06	Analyzed	: 01/31/06			
Total Hydrocarbon C6-C35   1030   10.0 "   1000   103   75-125	Gasoline Range Organics C6-C12	494	10.0	mg/kg wet	500		98.8	75-125			
Surrogate: I-Chlorooctane   S6.3   mg/kg   S0.0   I13   70-130	Diesel Range Organics >C12-C35	532	10.0	W	500		106	75-125			
Surrogate: 1-Chlorooctadecane   58.0	Total Hydrocarbon C6-C35	1030	10.0	н	1000		103	75-125			
Calibration Check (EA63001-CCV1)         Prepared: 01/30/06 Analyzed: 02/01/06           Gasoline Range Organics C6-C12         481         mg/kg         500         96.2         80-120           Diesel Range Organics >C12-C35         528         " 500         106         80-120           Total Hydrocarbon C6-C35         1010         " 1000         101         80-120           Surrogate: 1-Chlorooctane         64.4         " 50.0         129         70-130           Surrogate: 1-Chlorooctadecane         56.6         " 50.0         113         70-130           Matrix Spike (EA63001-MS1)         Source: 6A26012-17         Prepared: 01/30/06         Analyzed: 01/31/06           Gasoline Range Organics C6-C12         464         10.0         mg/kg dry         503         ND         92.2         75-125           Diesel Range Organics C12-C35         548         10.0         " 503         83.7         92.3         75-125           Total Hydrocarbon C6-C35         1010         10.0         " 503         83.7         91.7         75-125           Surrogate: 1-Chlorooctane         63.7         mg/kg         50.0         127         70-130           Matrix Spike Dup (EA63001-MSD1)         Source: 6A26012-17         Prepared: 01/30/06         Analyzed: 01/31/	Surrogate: 1-Chlorooctane	56.3		mg/kg	50.0		113	70-130			***
Gasoline Range Organics C6-C12	Surrogate: I-Chlorooctadecane	58.0		n	50.0		116	70-130			
Diesel Range Organics >C12-C35         528         " 500         106         80-120           Total Hydrocarbon C6-C35         1010         " 1000         101         80-120           Surrogate: I-Chlorooctane         64.4         " 50.0         129         70-130           Surrogate: I-Chlorooctadecane         36.6         " 50.0         113         70-130           Matrix Spike (EA63001-MS1)         Source: 6A26012-17         Prepared: 01/30/06 Analyzed: 01/31/06         Analyzed: 01/31/06           Gasoline Range Organics C6-C12         464         10.0 mg/kg dry         503         ND         92.2         75-125           Diesel Range Organics C12-C35         548         10.0 " 503         83.7         92.3         75-125           Surrogate: 1-Chlorooctane         63.7         mg/kg         50.0         127         70-130           Surrogate: 1-Chlorooctane         56.7         " 50.0         113         70-130           Matrix Spike Dup (EA63001-MSD1)         Source: 6A26012-17         Prepared: 01/30/06 Analyzed: 01/31/06           Gasoline Range Organics C6-C12         446         10.0 mg/kg dry         50.0         113         70-130           Matrix Spike Dup (EA63001-MSD1)         Source: 6A26012-17         Prepared: 01/30/06 Analyzed: 01/31/06         20	Calibration Check (EA63001-CCV1)				Prepared:	01/30/06	Analyzed	1: 02/01/06			
Total Hydrocarbon C6-C35	Gasoline Range Organics C6-C12	481		mg/kg	500		96.2	80-120			
Surrogate: 1-Chlorooctane   64.4   "   50.0   129   70-130	Diesel Range Organics >C12-C35	528		#	500		106	80-120			
Surrogate: 1-Chlorooctadecane         54.9         50.0         129         70-130           Matrix Spike (EA63001-MS1)         Source: 6A26012-17         Prepared: 01/30/06 Analyzed: 01/31/06           Gasoline Range Organics C6-C12         464         10.0 mg/kg dry         503         ND         92.2         75-125           Diesel Range Organics C6-C12         464         10.0 mg/kg dry         503         83.7         92.3         75-125           Total Hydrocarbon C6-C35         1010         10.0 mg/kg         1010         83.7         91.7         75-125           Surrogate: 1-Chlorooctade         63.7 mg/kg         50.0         127 70-130         70-130           Matrix Spike Dup (EA63001-MSD1)         Source: 6A26012-17 Prepared: 01/30/06 Analyzed: 01/31/06         Analyzed: 01/31/06           Gasoline Range Organics C6-C12         446         10.0 mg/kg dry         503         ND         88.7         75-125         3.96         20           Diesel Range Organics >C12-C35         532         10.0 mg/kg         503         ND         88.7         75-125         3.96         20           Total Hydrocarbon C6-C35         978         10.0 mg/kg         50.0         129         70-130	Total Hydrocarbon C6-C35	1010		11	1000		101	80-120			
Matrix Spike (EA63001-MS1)         Source: 6A26012-17         Prepared: 01/30/06 Analyzed: 01/31/06           Gasoline Range Organics C6-C12         464         10.0 mg/kg dry         503         ND         92.2 75-125           Diesel Range Organics >C12-C35         548         10.0 "         503         83.7 92.3 75-125           Total Hydrocarbon C6-C35         1010         10.0 "         1010         83.7 91.7 75-125           Surrogate: 1-Chlorooctane         63.7 mg/kg         50.0 127 70-130           Surrogate: 1-Chlorooctadecane         56.7 "         50.0 113 70-130           Matrix Spike Dup (EA63001-MSD1)         Source: 6A26012-17 Prepared: 01/30/06 Analyzed: 01/31/06           Gasoline Range Organics C6-C12         446 10.0 mg/kg dry         503 ND 88.7 75-125 3.96 20           Diesel Range Organics >C12-C35         532 10.0 "         503 83.7 89.1 75-125 2.96 20           Total Hydrocarbon C6-C35         978 10.0 "         1010 83.7 88.5 75-125 3.22 20           Surrogate: 1-Chlorooctane         64.4 mg/kg         50.0 129 70-130	Surrogate: I-Chlorooctane	64.4		"	50.0		129	70-130			
Gasoline Range Organics C6-C12       464       10.0 mg/kg dry       503       ND       92.2 75-125         Diesel Range Organics >C12-C35       548       10.0 " 503 83.7 92.3 75-125         Total Hydrocarbon C6-C35       1010 10.0 " 1010 83.7 91.7 75-125         Surrogate: 1-Chlorooctane       63.7 mg/kg 50.0 127 70-130         Surrogate: 1-Chlorooctadecane       56.7 " 50.0 113 70-130         Matrix Spike Dup (EA63001-MSD1)       Source: 6A26012-17 Prepared: 01/30/06 Analyzed: 01/31/06         Gasoline Range Organics C6-C12       446 10.0 mg/kg dry 503 ND 88.7 75-125 3.96 20         Diesel Range Organics >C12-C35       532 10.0 " 503 83.7 89.1 75-125 2.96 20         Total Hydrocarbon C6-C35       978 10.0 " 1010 83.7 88.5 75-125 3.22 20         Surrogate: 1-Chlorooctane       64.4 mg/kg 50.0 129 70-130	Surrogate: 1-Chlorooctadecane	56.6		"	50.0		113	70-130			
Diesel Range Organics >C12-C35       548       10.0       "       503       83.7       92.3       75-125         Total Hydrocarbon C6-C35       1010       10.0       "       1010       83.7       91.7       75-125         Surrogate: 1-Chlorooctane       63.7       mg/kg       50.0       127       70-130         Surrogate: 1-Chlorooctadecane       56.7       "       50.0       113       70-130         Matrix Spike Dup (EA63001-MSD1)       Source: 6A26012-17       Prepared: 01/30/06       Analyzed: 01/31/06       □         Gasoline Range Organics C6-C12       446       10.0       mg/kg dry       503       NID       88.7       75-125       3.96       20         Diesel Range Organics >C12-C35       532       10.0       "       503       83.7       89.1       75-125       2.96       20         Total Hydrocarbon C6-C35       978       10.0       "       1010       83.7       88.5       75-125       3.22       20         Surrogate: 1-Chlorooctane       64.4       mg/kg       50.0       129       70-130       100       100       100       100       100       100       100       100       100       100       100       100       100	Matrix Spike (EA63001-MS1)	So	urce: 6A260	12-17	Prepared	: 01/30/06	Analyzed	i: 01/31/06			
Total Hydrocarbon C6-C35   1010   10.0 "   1010   83.7   91.7   75-125	Gasoline Range Organics C6-C12	464	10.0	mg/kg dry	503	ND	92.2	75-125			
Surrogate: 1-Chlorooctane         63.7         mg/kg         50.0         127         70-130           Surrogate: 1-Chlorooctadecane         56.7         " 50.0         113         70-130           Matrix Spike Dup (EA63001-MSD1)         Source: 6A26012-17         Prepared: 01/30/06         Analyzed: 01/31/06           Gasoline Range Organics C6-C12         446         10.0         mg/kg dry         503         ND         88.7         75-125         3.96         20           Diesel Range Organics >C12-C35         532         10.0         " 503         83.7         89.1         75-125         2.96         20           Total Hydrocarbon C6-C35         978         10.0         " 1010         83.7         88.5         75-125         3.22         20           Surrogate: 1-Chlorooctane         64.4         mg/kg         50.0         129         70-130	Diesel Range Organics >C12-C35	548	10.0	u	503	83.7	92.3	75-125			
Surrogate: 1-Chlorooctadecane         56.7         "         50.0         113         70-130           Matrix Spike Dup (EA63001-MSD1)         Source: 6A26012-17         Prepared: 01/30/06         Analyzed: 01/31/06	Total Hydrocarbon C6-C35	1010	10.0	v	1010	83.7	91.7	75-125			
Matrix Spike Dup (EA63001-MSD1)         Source: 6A26012-17         Prepared: 01/30/06 Analyzed: 01/31/06         Analyzed: 01/31/06           Gasoline Range Organics C6-C12         446         10.0 mg/kg dry         503         ND         88.7 75-125         3.96 20           Diesel Range Organics >C12-C35         532         10.0 "         503         83.7 89.1 75-125         2.96 20           Total Hydrocarbon C6-C35         978         10.0 "         1010 83.7 88.5 75-125         3.22 20           Surrogate: 1-Chlorooctame         64.4 mg/kg         50.0 129 70-130	Surrogate: 1-Chlorooctane	63.7		mg/kg	50.0		127	70-130			
Gasoline Range Organics C6-C12     446     10.0 mg/kg dry     503     NID     88.7 75-125     3.96     20       Diesel Range Organics >C12-C35     532     10.0 " 503     83.7 89.1 75-125     2.96     20       Total Hydrocarbon C6-C35     978     10.0 " 1010 83.7 88.5 75-125     3.22     20       Surrogate: 1-Chlorooctane     64.4 mg/kg     50.0 129 70-130	Surrogate: 1-Chlorooctadecane	56.7		"	50.0		113	70-130			
Diesel Range Organics >C12-C35         532         10.0         "         503         83.7         89.1         75-125         2.96         20           Total Hydrocarbon C6-C35         978         10.0         "         1010         83.7         88.5         75-125         3.22         20           Surrogate: I-Chlorooctane         64.4         mg/kg         50.0         129         70-130	Matrix Spike Dup (EA63001-MSD1)	So	urce: 6A260	012-17	Prepared	: 01/30/06	Analyze	d: 01/31/06	;		
Dieser Range Organics 2-C12-C33         352         10.0         303         63.7         69.1         73-123         2.96         20           Total Hydrocarbon C6-C35         978         10.0         "         1010         83.7         88.5         75-125         3.22         20           Surrogate: 1-Chlorocotane         64.4         mg/kg         50.0         129         70-130	Gasoline Range Organics C6-C12	446	10.0	mg/kg dry	503	ND	88.7	75-125	3.96	20	
Surrogate: 1-Chlorooctane 64.4 mg/kg 50.0 129 70-130	Diesel Range Organics >C12-C35	532	10.0		503	83.7	89.1	75-125	2.96	20	
	Total Hydrocarbon C6-C35	978	10.0	, "	1010	83.7	88.5	75-125	3.22	20	
Surrogate: 1-Chlorooctadecane 54.5 " 50.0 109 70-130	Surrogate: 1-Chlorooctane	64.4		mg/kg	50.0	-	129	70-130			************
	Surrogate: 1-Chlorooctadecane	54.5		,	50.0		109	70-130			

Project: John Hendrix/ Amanda Sims TB Fax: (432) 687-0456 Larson & Associates, Inc. P.O. Box 50685 Project Number: 3-0108-10 Reported: Midland TX, 79710 Project Manager: Mark Larson 02/03/06 14:35

	Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Penzene   ND   0.0250   mg/kg wet	Batch EA63105 - EPA 5030C (GC)					***************************************					
Toluene ND 0,0250 " Ethylbenzene ND 0,0250 " Xylene (o) ND 0,0250 " Xylene (o) ND 0,0250 "  Xylene (o) ND 0,0250 "  Surrogate: a,a,a-Trifluorotoluene 35.2 ug/kg 40.0 88.0 80-120  ***********************************	Blank (EA63105-BLK1)				Prepared	& Analyz	ed: 01/31/	06	_		
Ethylbenzene	Benzene	ND	0,0250	mg/kg wet							
No.   No.	Toluene	ND	0.0250	я							
ND   0.0250   "	Ethylbenzene	ND	0.0250								
Surrogate: a,a,a-Trifluorotoluene   35.2   ug/kg   40.0   88.0   80-120	Xylene (p/m)	ND	0.0250	u							
Surrogate: 4-Bromofluorobenzene   33.0	Xylene (o)	ND	0.0250	и							
Prepared & Analyzed: 01/31/06	Surrogate: a,a,a-Trifluorotoluene	35.2		ug/kg	40.0		88.0	80-120			***************************************
Benzene   1.32	Surrogate: 4-Bromofluorobenzene	33.0		"	40.0		82.5	80-120			
Toluene	LCS (EA63105-BS1)				Prepared	& Analyz	ed: 01/31/	06			
Ethylbenzene         1.46         0.0250         "         1.25         117         80-120           Xylene (p/m)         2.75         0.0250         "         2.50         110         80-120           Xylene (o)         1.45         0.0250         "         1.25         116         80-120           Surrogate: a,a,a-Trifluorotoluene         36.6         ug/kg         40.0         91.5         80-120           Surrogate: 4-Bromofluorobenzene         38.7         "         40.0         96.8         80-120           Calibration Check (EA63105-CCV1)         Prepared: 01/3 1/06         Analyzed: 02/01/06           Benzene         50.3         ug/kg         50.0         101         80-120           Tolluene         54.6         "         50.0         109         80-120           Xylene (p/m)         109         "         100         109         80-120           Xylene (p/m)         109         "         100         109         80-120           Xylene (o)         57.9         "         50.0         116         80-120           Xylene (o)         57.9         "         40.0         91.2         80-120           Matrix Spike (EA63105-MS1)	Benzene	1.32	0.0250	mg/kg wet	1.25		106	80-120		***************************************	
Xylene (p/m)   2.75   0.0250     2.50   110   80-120	Toluene	1.37	0.0250	и	1.25		110	80-120			
Xylene (o)   1.45   0.0250   "   1.25   116   80-120	Ethylbenzene	1.46	0.0250	#	1.25		117	80-120			
Surrogate: a,a,a-Trifluorotoluene   36.6   ug/kg   40.0   91.5   80-120	Xylene (p/m)	2.75	0.0250	**	2.50		110	80-120			
Surrogate: 4-Bromofluorobenzene         38.7         " 40.0         96.8         80-120           Calibration Check (EA63105-CCV1)         Prepared: 01/31/06 Analyzed: 02/01/06           Benzene         50.3         ug/kg         50.0         101         80-120           Toluene         54.6         " 50.0         109         80-120           Ethylbenzene         58.7         " 50.0         117         80-120           Xylene (p/m)         109         " 100         109         80-120           Xylene (o)         57.9         " 50.0         116         80-120           Surrogate: a,a,a-Trifluorotohuene         36.5         " 40.0         91.2         80-120           Surrogate: 4-Bromofluorobenzene         40.4         " 40.0         91.2         80-120           Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/31/06         Analyzed: 02/01/06           Benzene         1.18         0.0250         " 1.26         ND         93.7         80-120           Toluene         1.23         0.0250         " 1.26         ND         97.6         80-120           Ethylbenzene         1.31         0.0250         " 2.52         ND         98.8         80-120	Xylene (o)	1.45	0,0250	u,	1.25		116	80-120			
Calibration Check (EA63105-CCV1)         Prepared: 01/3 1/05         Analyzed: 02/01/06           Benzene         50.3         ug/kg         50.0         101         80-120           Toluene         54.6         " 50.0         109         80-120           Ethylbenzene         58.7         " 50.0         117         80-120           Xylene (p/m)         109         " 100         109         80-120           Xylene (o)         57.9         " 50.0         116         80-120           Surrogate: a,a,a-Trifluorotoluene         36.5         " 40.0         91.2         80-120           Surrogate: 4-Bromofluorobenzene         40.4         " 40.0         91.2         80-120           Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/3 1/06         Analyzed: 02/01/06           Benzene         1.18         0.0250         " 1.26         ND         93.7         80-120           Toluene         1.23         0.0250         " 1.26         ND         93.6         80-120           Kylene (p/m)         2.49         0.0250         " 2.52         ND         98.8         80-120           Xylene (o)         1.30         0.0250         " 1.26         ND         103	Surrogate: a,a,a-Trifluorotoluene	36.6		ug/kg	40.0		91.5	80-120	*****		
Benzene         50.3         ug/kg         50.0         101         80-120           Toluene         54.6         "         50.0         109         80-120           Ethylbenzene         58.7         "         50.0         117         80-120           Xylene (p/m)         109         "         100         109         80-120           Xylene (o)         57.9         "         50.0         116         80-120           Surrogate: a,a,a-Trifluorotohuene         36.5         "         40.0         91.2         80-120           Surrogate: 4-Bromofluorobenzene         40.4         "         40.0         91.2         80-120           Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/31/06         Analyzed: 02/01/06           Benzene         1.18         0.0250         mg/kg dry         1.26         ND         93.7         80-120           Toluene         1.23         0.0250         "         1.26         ND         97.6         80-120           Ethylbenzene         1.31         0.0250         "         1.26         ND         97.6         80-120           Xylene (p/m)         2.49         0.0250         "         2.52 <td< td=""><td>Surrogate: 4-Bromofluorobenzene</td><td>38.7</td><td></td><td>n</td><td>40.0</td><td></td><td>96.8</td><td>80-120</td><td></td><td></td><td></td></td<>	Surrogate: 4-Bromofluorobenzene	38.7		n	40.0		96.8	80-120			
Toluene         54.6         "         50.0         109         80-120           Ethylbenzene         58.7         "         50.0         117         80-120           Xylene (p/m)         109         "         100         109         80-120           Xylene (o)         57.9         "         50.0         116         80-120           Surrogate: a.a,a-Trifluorotaluene         36.5         "         40.0         91.2         80-120           Surrogate: 4-Bromofluorobenzene         40.4         "         40.0         10j         80-120           Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/31/06         Analyzed: 02/01/06           Benzene         1.18         0.0250 mg/kg dry         1.26         ND         93.7         80-120           Toluene         1.23         0.0250 mg/kg         1.26         ND         97.6         80-120           Ethylbenzene         1.31         0.0250 mg/kg         1.26         ND         104         80-120           Xylene (p/m)         2.49         0.0250 mg/kg         1.26         ND         98.8         80-120           Xylene (o)         1.30         0.0250 mg/kg         40.0         86.8         80-1	Calibration Check (EA63105-CCV1)				Prepared	: 01/31/06	Analyze	d: 02/01/0 <del>6</del>	j		
Ethylbenzene         58.7         " 50.0         117 80-120           Xylene (p/m)         109         " 100         109 80-120           Xylene (o)         57.9         " 50.0         116 80-120           Surrogate: a,a,a-Trifluorotoluene         36.5         " 40.0         91.2 80-120           Surrogate: 4-Bromofluorobenzene         40.4         " 40.0         101 80-120           Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/31/06 Analyzed: 02/01/06           Benzene         1.18         0.0250 mg/kg dry         1.26         ND 93.7         80-120           Toluene         1.23         0.0250 " 1.26         ND 97.6         80-120           Kylene (p/m)         2.49         0.0250 " 2.52         ND 98.8 80-120           Xylene (o)         1.30         0.0250 " 1.26         ND 103 80-120           Surrogate: a,a,a-Trifluorotoluene         34.7         ug/kg 40.0         86.8 80-120		50.3		ug/kg							
Xylene (p/m)         109         " 100         109 80-120           Xylenc (o)         57.9         " 50.0         116 80-120           Surrogate: a,a,a-Trifluorotohuene         36.5         " 40.0         91.2 80-120           Surrogate: 4-Bromofluorobenzene         40.4         " 40.0         101 80-120           Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/3 1/06 Analyzed: 02/01/06           Benzene         1.18         0.0250 mg/kg dry         1.26         ND 93.7         80-120           Toluene         1.23         0.0250 " 1.26         ND 97.6         80-120           Kylene (p/m)         2.49         0.0250 " 2.52         ND 98.8         80-120           Xylene (o)         1.30         0.0250 " 1.26         ND 103         80-120           Surrogate: a,a,a-Trifluorotohuene         34.7         ug/kg         40.0         86.8         80-120	Toluene	54.6		**	50.0		109	80-120			
Xylene (o)         57.9         "         50.0         116         80-120           Surrogate: a,a,a-Trifluorotoluene         36.5         "         40.0         91.2         80-120           Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/31/06 Analyzed: 02/01/06           Benzene         1.18         0.0250 mg/kg dry         1.26         ND         93.7         80-120           Toluene         1.23         0.0250 "         1.26         ND         97.6         80-120           Ethylbenzene         1.31         0.0250 "         1.26         ND         104         80-120           Xylene (p/m)         2.49         0.0250 "         2.52         ND         98.8         80-120           Xylene (o)         1.30         0.0250 "         1.26         ND         103         80-120           Surrogate: a,a,a-Trifluorotoluene         34.7         ug/kg         40.0         86.8         80-120	Ethylbenzene	58.7		11	50.0		117	80-120			
Surrogate: a,a,a-Trifluorotohuene   36.5   "   40.0   91.2   80-120	Xylene (p/m)	109		n	100		109	80-120			
Surrogate: 4,Bromofluorobenzene         40.4         "         40.0         91.2         80-120           Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/31/06         Analyzed: 02/01/06           Benzene         1.18         0.0250 mg/kg dry         1.26         ND         93.7         80-120           Toluene         1.23         0.0250 "         1.26         ND         97.6         80-120           Ethylbenzene         1.31         0.0250 "         1.26         ND         104         80-120           Xylene (p/m)         2.49         0.0250 "         2.52         ND         98.8         80-120           Xylene (o)         1.30         0.0250 "         1.26         ND         103         80-120           Surrogate: a,a,a-Trifluorotoluene         34.7         ug/kg         40.0         86.8         80-120	Xylene (o)	57.9		н	50.0		116	80-120			
Matrix Spike (EA63105-MS1)         Source: 6A26012-17         Prepared: 01/31/06 Analyzed: 02/01/06           Benzene         1.18         0.0250 mg/kg dry         1.26         ND         93.7         80-120           Toluene         1.23         0.0250 "         1.26         ND         97.6         80-120           Ethylbenzene         1.31         0.0250 "         1.26         ND         1.04         80-120           Xylene (p/m)         2.49         0.0250 "         2.52         ND         98.8         80-120           Xylene (o)         1.30         0.0250 "         1.26         ND         103         80-120           Surrogate: a,a,a-Trifluorotoluene         34.7         ug/kg         40.0         86.8         80-120	Surrogate: a,a,a-Trifluorotoluene	36.5		tr	40.0		91.2	80-120			
Benzene         1.18         0.0250 mg/kg dry         1.26         ND         93.7 93.7 80-120           Toluene         1.23         0.0250 "         1.26 ND         97.6 80-120           Ethylbenzene         1.31         0.0250 "         1.26 ND         104 80-120           Xylene (p/m)         2.49 0.0250 "         2.52 ND         98.8 80-120           Xylene (o)         1.30 0.0250 "         1.26 ND         103 80-120           Surrogate: a,a,a-Triftuorotoluene         34.7 ug/kg 40.0 86.8 86.8 86-120	Surrogate: 4-Bromofluorobenzene	40.4		"	40.0		101	80-120			
Toluene         1.23         0.0250         "         1.26         ND         97.6         80-120           Ethylbenzene         1.31         0.0250         "         1.26         ND         1.04         80-120           Xylene (p/m)         2.49         0.0250         "         2.52         ND         98.8         80-120           Xylene (o)         1.30         0.0250         "         1.26         ND         103         80-120           Surrogate: a,a,a-Triftuorotoluene         34.7         ug/kg         40.0         86.8         80-120	Matrix Spike (EA63105-MS1)	So	urce: 6A26(	012-17	Prepared	: 01/31/06	Analyze	d: 02/01/0	5		
Ethylbenzene         1.31         0.0250         "         1.26         ND         104         80-120           Xylene (p/m)         2.49         0.0250         "         2.52         ND         98.8         80-120           Xylene (o)         1.30         0.0250         "         1.26         ND         103         80-120           Surrogate: a,a,a-Trifluorotoluene         34.7         ug/kg         40.0         86.8         80-120	Benzene	1.18	0.0250	mg/kg dry	1.26	ND	93.7	80-120			
Xylene (p/m)         2.49         0.0250         "         2.52         ND         98.8         80-120           Xylene (o)         1.30         0.0250         "         1.26         ND         103         80-120           Surrogate: a,a,a-Trifluorotoluene         34.7         ug/kg         40.0         86.8         80-120	Toluene	1.23	0.0250	н	1.26	ND	97.6	80-120			
Xylene (o)         1.30         0.0250         "         1.26         ND         103         80-120           Surrogate: a,a,a-Trifluorotoluene         34.7         ug/kg         40.0         86.8         80-120	Ethylbenzene	1.31	0.0250	u u	1.26	ND	104	80-120			
Surrogate: a,a,a-Trifluorotoluene 34.7 ug/kg 40.0 86.8 80-120	Xylene (p/m)	2.49	0.0250		2.52	ND	98.8	80-120			
	Xylene (o)	1.30	0.0250		1.26	ND	103	80-120			•
	Surrogate: a,a,a-Trifluorotoluene	34.7		ug/kg	40.0		86.8	80-120			

 Larson & Associates, Inc.
 Project: John Hendrix/ Amanda Sims TB
 Fax: (432) 687-0456

 P.O. Box 50685
 Project Number: 3-0108-10
 Reported:

 Midland TX, 79710
 Project Manager: Mark Larson
 02/03/06 14:35

		ители опп	- CHICAL LI	40 OX X						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EA63105 - EPA 5030C (GC)										
Matrix Spike Dup (EA63105-MSD1)	Sou	rce: 6A260	12-17	Prepared:	01/31/06	Analyzed	1: 02/01/06			
Benzene	1.28	0.0250	mg/kg dry	1.26	ND	102	80-120	8.48	20	
Toluene	1.32	0.0250	u	1.26	ND	105	80-120	7.31	20	
Ethylbenzene	1.37	0.0250	31	1.26	ND	109	80-120	4.69	20	
Xylene (p/m)	2.59	0.0250	**	2.52	ND	103	80-120	4.16	20	
Xylene (o)	1.34	0.0250	"	1.26	ND	106	80-120	2.87	20	
Surrogate: a,a,a-Trifluorotoluene	35.4		ug/kg	40.0		88.5	80-120			
Surrogate: 4-Bromofluorobenzene	35.7		,,	40.0		89.2	80-120			
Batch EB60213 - EPA 5030C (GC)										
Blank (EB60213-BLK1)				Prepared	& Analyz	ed: 02/02/	06			
Benzene	ND	0.0250	mg/kg wet	-						
Toluene	ND	0.0250								
Ethylbenzene	ND	0.0250	u							
Xylene (p/m)	ND	0.0250	u							
Xylene (o)	ND	0.0250	**							
Surrogate: a,a,a-Trifluorotoluene	36.1		ug/kg	40.0		90.2	80-120			
Surrogate: 4-Bromofluorobenzene	35.8		"	40.0		89.5	80-120			
LCS (EB60213-BS1)				Prepared	& Analyz	ed: 02/02/	/06			
Benzene	0.0498	0.00100	mg/kg wet	0.0500		99.6	80-120			
Toluene	0.0512	0.00100		0.0500		102	80-120			
Ethylbenzene	0.0529	0.00100	**	0.0500		106	80-120			
Xylene (p/m)	0.0998	0.00100	**	0.100		99.8	80-120			
Xylene (o)	0.0512	0.00100	*	0.0500		102	80-120			
Surrogate: a,a,a-Trifluorotoluene	43.3		ug/kg	40.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	46.1		,,	40.0		115	80-120			

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 Project Manager: Mark Larson
 02/03/06 14:35

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60213 - EPA 5030C (GC)							***************************************	_		
Calibration Check (EB60213-CCV1)				Prepared:	02/02/06	Analyzed	1: 02/03/06			
Benzene	48.7	******	ug/kg	50.0		97.4	80-120			
Toluene	50.4			50.0		101	80-120			
Ethylbenzene	48.5		и	50.0		97.0	80-120			
Xylene (p/m)	90.5		n	100		90.5	80-120			
Xylene (o)	46.0		n	50.0		92.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	40.5		"	40.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	33.3		"	40.0		83.2	80-120			
Matrix Spike (EB60213-MS1)	So	urce: 6A270	03-01	Prepared	02/02/06	Analyzed	1: 02/03/06			
Benzene	1.25	0.0250	mg/kg dry	1.31	ND	95.4	80-120			
Toluene	1.30	0.0250	11	1.31	ND	99.2	80-120			
Ethylbenzene	1.35	0.0250	19	1.31	ND	103	80-120			
Xylene (p/m)	2.56	0.0250	В	2.62	ND	97.7	80-120			
Xylene (o)	1.31	0.0250	8	1.31	ND	100	80-120			
Surrogate: a,a,a-Trifluorotoluene	39.8		ug/kg	40.0		99.5	80-120			
Surrogate: 4-Bromofluorobenzene	47.7		H	40.0		119	80-120			
Matrix Spike Dup (EB60213-MSD1)	Sc	ource: 6A270	03-01	Prepared	: 02/02/06	Analyzed	1: 02/03/06			
Benzene	1.15	0.0250	mg/kg dry	1.31	ND	87.8	80-120	8.30	20	
Toluene	1.22	0.0250	42	1.31	ND	93.1	80-120	6.34	20	
Ethylbenzene	1.26	0.0250	n	1.31	ND	96.2	80-120	6.83	20	
Xylene (p/m)	2.39	0.0250	10	2.62	ND	91.2	80-120	6.88	20	
Xylene (o)	1.20	0.0250	u	1.31	ND	91.6	80-120	8.77	20	
Surrogate: a,a,a-Trifluorotoluene	41.3		ug/kg	40.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	44.4		н	40.0		111	80-120			

 Larson & Associates, Inc.
 Project: John Hendrix/ Amanda Sims TB
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 P.O. Box 50685
 Project Number: 3-0108-10
 Reported: Number: 02/03/06 14:35

 Midland TX, 79710
 Project Manager: Mark Larson
 02/03/06 14:35

#### 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 EA63007 - Water Extraction										
Blank (EA63007-BLK1)				Prepared	& Analyz	ed: 01/31/	06			
Chloride	ND	0.500	mg/kg							
LCS (EA63007-BS1)				Prepared	& Analyz	ed: 01/31/	06			
Chloride	8.72		mg/L	10.0		87.2	80-120	***************************************		
Calibration Check (EA63007-CCV1)				Prepared	& Analyz	ed: 01/31/	06			
Chloride	8.92		mg/L	10.0		89.2	80-120			
Duplicate (EA63007-DUP1)	Sor	rce: 6A2600	09-05	Prepared	& Analyz	ed: 01/31/	06			
Chloride	9130	200	mg/kg		9180			0.546	20	
Batch EA63008 - General Preparation	ı (Prep)			tentra						
Blank (EA63008-BLK1)		_		Prepared	01/27/06	Analyzed	1: 01/30/06			
% Solids	100		%							
Duplicate (EA63008-DUP1)	Sou	rce: 6A260	12-01	Prepared:	01/27/06	Analyze	1: 01/30/06			
% Solids	97.0		%		96.9			0.103	20	
Duplicate (EA63008-DUP2)	Sor	ırce: 6A260	17-01	Prenared	01/27/06	Analyze	d: 01/30/06	i		
% Solids	90.5		%		91.5			1.10	20	
Duplicate (EA63008-DUP3)	Sor	ırce: 6A270	07-01	Prepared	: 01/27/06	Analyze	d: 01/30/06	i		
% Solids	93.1		%		94.3			1.28	20	-
Duplicate (EA63008-DUP4)	Ser	urce: 6A270	08-16	Prepared	: 01/27/06	Analyze	d: 01/30/06	6		
% Solids	82.7		%		83.1			0.483	20	

Larson & Associates, Inc. P.O. Box 50685 Project: John Hendrix/ Amanda Sims TB Fax: (432) 687-0456 Project Number: 3-0108-10 Reported: Midland TX, 79710 Project Manager: Mark Larson 02/03/06 14:35

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

						***	2/2/20		n.n.	
1		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EB60106 - Water Extraction				****						
Blank (EB60106-BLK1)				Prepared	& Analyzo	d: 02/01/0	06			
Chloride	ND	0.500	mg/kg							.,
LCS (EB60106-BS1)				Prepared	& Analyz	ed: 02/01/	06			
Chloride	8.61	0.500	mg/kg	10.0		86.1	80-120			
Calibration Check (EB60106-CCV1)				Prepared	& Analyz	ed: 02/01/	06			
Chloride	8.85		mg/L	10.0		88.5	80-120			
Duplicate (EB60106-DUP1)	So	urce: 6A260	12-21	Prepared	& Analyz	ed: 02/01/	06			
Chloride	6.53	5.00	mg/kg		6.82		,,,,,,	4.34	20	

	Larson & Associates, Inc.	Project:	John Hendrix/ Amanda Sims TB	Fax: (432) 687-0456
-	P.O. Box 50685	Project Number:	3-0108-10	Reported:
	Midland TX, 79710	Project Manager:	Mark Larson	02/03/06 14:35

#### Notes and Definitions

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: Laland (c Jull)

Date: 2-03-06

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.

PROJECTANIE   PROJECTANIA GREET   PROJECTANIA GREET   PROJECTANIA GREET   PROJECTANIA AGREET   PROJECTANIA GREET   PROJECTANIA GRE	CLIENT NAME:		SITE MANAGER:	PARAMETERS/METHOD NUMBER	D NUMBER	CHAIN	CHAIN-OF-CUSTODY RECORD
OB - 10	Reso	X Cop	Mark	L	-	A green	2
OF   JAB DO#   LAB DOM	08~	^	Sims	Hd		SSOCIO	ITES, Inc. Fax: 432-687-0456
HA - 1 0 - 1	PAGE OF	IAB.	#Od	<u>/</u>		507 N. Marie	infeld, Ste. 202 • Midland, TX 7970
HA-1   1-2   HA-1   1-2   HA-1   1-2   HA-2   2-3   HA-2   2-3   HA-2   2-3   HA-2   2-3   HA-3	3MI	1	SAMPLE IDENTIFICATION	\$108 \$108		LAB, I.D. NUMBER (LAB USE ONLY)	REMARKS (1.E., FILTBRED, UNHITTRED, PRESERVED, UNPRESERVED, GRAB COMPOSITE
HA-1   1-2   HA-2   2-3   HA-2   1-2   HA-2   1-2   HA-2   2-3   HA-2   1-2   HA-2   1-2   HA-2   1-2   HA-2   2-3   HA-3   2-1   HA-3   2-2   HA-3   2-3   HA-3   HA-3   2-3   HA-3   HA-3   1-3   HA-3   HA-3   HA-3   1-3   HA-3	Kin1/	ł	HA-1 0	  -  -  -			6A26017-01
HA-2 0-1	3	-		1 1 4			20~
HA-2 0-1 HA-2 0-1 HA-2 1-2 HA-3 1-2 HA-3 2-3 HA-3 2-3 HA-3 2-3 HA-3 2-3 HA-3 2-3 HA-3 2-3 HA-3 1-2 HA-	1033		7				20
HA-2 0-1	1644		3-3.				\$0
HA-2 2-3	1058		2				\$
HA-2 3-3	110		.7 2.				9
HA-3 1-2	1125		7 7				Þ
HA-3 1-2	1140		3				20
HA-3 1-2	(20)						Ş
HA-3 2-3	1210						20
140-3 8-3,5	1226		2-3				7
HA-4 6-	1232		3 3-3,				72
DATE.     26   RELINGUESTREEDS!   Signature    TIME.   LEOS     TIME.	11245		4				13
DATE:   26   RECEIVED BY: [Signature]   TIME:   26   RECEIVED BY: [Signature]   TURNAROUND TIME NEEDED   HAND DELIVERED UPS OTHER:   PECETORING LAB   PECETO			1			***************************************	
DATE     26   RELINGUISHEDRY:   Signature    DATE   26   RECEIVED BY:   Signature    TIME   26   RECEIVED BY:   Signature    TIME   AND EASTER   Signature    TURNAROUND TIME   RECEIVED BY:   Circle    LA AFTER RECEIVING LAB   LA AFTER RECEIVING		-		-			
DATE. 126  TIME: 1609  DATE. 1609  TIME. 1609  TIME. 1609  TIME. 1609  THAND DELIVERED BY: (Circle)  TURNAROUND TIME NEEDED  WHITE - RECEIVING LAB  THELOW - RECEI							
PATE.   RECEIVED BY: (Signature)   DATE.	SAMPLETEX (Signature)	١	200	1	208	EIVED BY: (Signo	ture) DAIE:
TURNAROUND TIME.  FLOT  RECEIVED BY ISIGnatural  STATE:  PHONE:  AC 0.5°C   LA CONTACT PERSON:	RELINQUISHED BY: (Signat	lure)				APLE SHIPPED B	í: (Circle)
STATE: ZIP: DATE: 1-26-66 TIME: 1609 PHONE: Received By Signature 1609 DATE: 1-26-66 TIME: 1609 No SCALE RECEIVED BY SIGNATURE 1609			TiME		11	EX	
STATE: ZIP: DATE: 1-26-66 TIME: 1608 PHONE: R. Q.S.C. LA CONTACT PERSON:	COMMENTS:			TURNAROUND 1		ITE - RECEIVING	G LAB
STATE: ZIP: DATE: 1-2C-0C TIME: 16C0 GOLD PHONE: A C O.S C IA CONTACT PERSON: SAMPLE 1	RECEIVING LABORATORY:	4	407	SCENTED BY (Signature)		LOW - RECEIVING	IG UAB (10 BE KELOKINED 10 RECEIPT)
No Scals Re O.S. C IA CONTACT PERSON:	CITY		ZIP	1-26-00 TIME /		_	COORDINATOR
	Loz 0)0CC		he as	LA CONTACT PERSON:	SAA	APLE TYPE:	

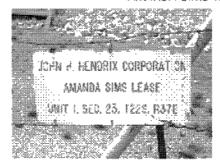
### Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

lient: Lugon				
sterTime: 1/20/06 16:00				
der#: <u>4A2401</u> 7				
itials:				
Sample Receipt	: Checkli	st		
emperature of container/cooler?	Yes		0.5 C	
nipping container/cooler in good condition?	Yes	No		
ustody Seals intact on shipping container/cooler?	Yes		Mci present	
ustody Seals intact on sample bottles?	Yes	No	Not-present	
hain of custody present?	1 25	No		
ample Instructions complete on Chain of Custody?	100		<u> </u>	
hain of Custody signed when relinguished and received?	( <del>es</del> )	No	1	
hain of custody agrees with sample label(s)	Yes	No	ID on lid	
ontainer labels legible and intact?	Yes	No	nla	
ample Matrix and properties same as on chain of custody?	でき	No		
amples in proper container/bottle?	135	No	•	
ampies properly preserved?	1 25	No		
ample bottles intact?		No		
reservations documented on Chain of Custody?		No		
Containers documented on Chain of Custody?	100	No		
Sufficient sample amount for Indicated test?	(Z=3)	No		
All samples received within sufficient hold time?		No		
/OC samples have zero headspace?	(Tes	No	Not Applicable	
Other observations:  Variance Docu	mentati	on:		
Contact Person: Date/Time:			Contacted by:	
			_ Ochredica by	
Regarding:				
	~	~		
·				
Corrective Action Taken:				
	***************************************			
	***************************************			
			····	

### APPENDIX C

## Photographs

# U.L. I, NE/4, SE/4, SECTION 25, T-22-S, R-37-E, LEA COUNTY NEW MEXICO AMANDA SIMS TANK BATTERY



1. Amanda Sims Tank Battery -Location Sign, April 10, 2006



2. Amanda Sirns Tank Battery -Spill Location West of Water Tank, Looking East, April 10, 2006

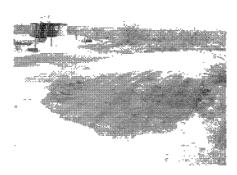


3. Amanda Sims Tank Battery -Spill Location North of Water Tank, Looking East, April 10, 2006

# U.L. I, NE/4, SE/4, SECTION 25, T-22-S, R-37-E, LEA COUNTY NEW MEXICO AMANDA SIMS TANK BATTERY



4. Amanda Sims Tank Battery -Spill Location East of Water Tank, Looking Southwest, April 10, 2006



5. Amanda Sims Tank Battery -Spill Location Northeast of Water Tank, Looking Southwest, April 10, 2006