# 1R - 465

# WORKPLAN

8/09/2005



August 9, 2005

Via e-mail: Psheeley@state.nm.us

Mr. Paul R. Sheeley
Environmental Engineering Specialist
State of New Mexico
Energy, Mineral and Natural Resources Department
Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Work Plan for Protective Barrier and Monitoring Well Installation Work Plan, John H. Hendrix Corporation, Will Cary Lease, Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Sheeley:

Per our meeting on August 4, 2005, Larson and Associates, Inc. ("LA"), as agent to John H. Hendrix Corporation ("JHHC"), presents a work plan for installing a protective barrier and monitoring well at the Will Cary Lease ("Site") located in unit letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East, in Lea County, New Mexico. The GPS coordinates for the Site are N. 32° 22.809' and W. 103° 09.063". Figure 1 presents a location and topographic map. Figure 2 presents a Site drawing.

**Emergency Pit Excavation** 

Between April 19 and 22, 2005, E.D. Walton Construction Co. ("EDW") excavated approximately 1,600 cubic yards of soil from an unlined pit once associated with the Will Cary Lease. The soil was hauled to the JHHC centralized surface waste management facility (NM-02-0021) located in Section 15, Township 24 South, Range 36 East, in Lea County, New Mexico. The excavation measured approximately 30' (W) x 50' (L) x 28' (D) feet. On April 22, 2005, soil samples were collected from the bottom and sides of the excavation, analyzed for headspace vapors using a calibrated photoionization detector, and submitted under chain-of-custody control to Environmental Lab of Texas, Inc. ("ELTI"). ELTI analyzed the samples for total petroleum hydrocarbons ("TPH") using method SW-846-8015 and chloride. Soil samples from approximately 20 feet from the west side, and 15 feet form the south side, which reported PID readings of 97.2 and 140.8 parts per million ("ppm"), respectively, were further analyzed for benzene and total BTEX (sum of benzene, toluene, ethylbenzene and xylene). The benzene and total BTEX results were below the NMOCD recommended action levels ("RRAL") of 10 milligrams per kilogram ("mg/kg") and 50 mg/kg, respectively. The TPH results below the RRAL of 1,000 mg/kg in all samples, except from approximately 15 feet (1,137.4 mg/kg) and 20 feet (1,590 mg/kg) from the west side, and approximately 5 feet (3,380 mg/kg) and 15 feet (4,120 mg/kg) from the south side.

On July 21, 2005, EDW excavated additional soil from the south and west sides of he excavation. Soil samples collected from the bottom (28 feet), west (7 and 20 feet), southwest (12 feet), and south (3, 12 and 17 feet) were analyzed for headspace vapors using a calibrated

Mr. Paul R. Sheeley August 9, 2005 Page 2

PID. ELTI analyzed the samples for TPH and chloride since no PID readings exceeded 100 ppm. TPH was less than 1,000 mg/kg in all samples. Chloride was 93.5 mg/kg in the bottom sample, and 2,500 mg/kg from the west sample (20 feet). The current dimensions for the excavation are approximately 40'(W) x 60' (L) x 28' (D). Figure 3 presents the sample locations. Table 1 presents a summary of the field and laboratory analysis. Appendix A presents the laboratory report.

#### **Protective Barrier**

EDW will begin filling the excavation with clean soil beginning August 10, 2005. A protective barrier of clay will be placed in the excavation between approximately 4 to 6 feet bgs. The clay will be compacted to 95% standard proctor density. Clean soil will be placed above the clay and extend to ground surface. The area will be seeded with range grass. Figure 4 presents a cross-section for the protective barrier placement.

**Monitoring Well** 

A monitoring well will be drilled to about 85 feet bgs near the southeast (down gradient) corner of the excavation using an air rotary rig. The well will be constructed with 2-inch diameter schedule 40 PVC casing, and approximately 20 feet of well screen will be placed near the bottom of the boring. Approximately 15 feet of screen will extend into groundwater, and 5 feet will remain above groundwater. The annular space between the boring and screen will be filled with graded silica sand to approximately 2 feet above the screen. A layer of bentonite pellets, approximately 2 feet thick, will be placed over the sand, and hydrated with potable water. The well will have a locking cap, and a temporary seal will be placed at the surface until the well is plugged. The well will be developed, and a groundwater sample will be collected and analyzed for BTEX, chlorides and TDS. The groundwater sample will be measured prior to and following development. The groundwater sample will be labeled, chilled in an ice chest, chilled, and transferred under chain-of-custody control to ELTI. The NMOCD will be notified approximately 72-hours in advance of drilling the well, and 24-hours in advance of collecting the groundwater sample.

A summary report will be submitted to the NMOCD following completion of the excavation, monitoring well installation and receipt of the groundwater sample results. Please call Mr. Marvin Burrows with JHHC at (505) 390-9689 or myself at (432) 687-0901 if you have questions. We may be reached by email at <a href="Mburrows@valornet.com">Mburrows@valornet.com</a> or Mark@LAEnvironmental.com.

Sincerely,

Larson and Associates, Inc.

Mark J. Larson, P.G., C.P.G., C.G.W.P.

Senior Hydrogeologist/President

Encl.

cc: Mr. Marvin Burrows

Mr. Ron Westbrook

#### **TABLES**

A. 10. 20.

Summary of TPH Analysis of Soil Samples from Emergency Pit Excavation John H. Hendrix Corp., Will Cary Lease UL F (SE/4, NW/4), Section 15, Township 22 South, Range 37 East

Carlo San

學學學

1

			•	Lea County, New Mexico	exico		,		Page 1 of 2
Location	Depth	Date	PID	GRO	DRO	TPH	Benzene	BTEX	Chloride
	(Feet BGS)		(mdd)	C6 - C12 (mg/Kg)	C12 - C35 (mg/Kg)	C6 - C35 (mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL:						1,000	10	50	
Bottom	28	04/22/2005	50.2	15.2	133	148.2	1	ŧ	54.7
-	78	07/21/2005	55	36.3	285	321.3	e e		93.5
West Side	s	04/22/2005	15.6	<10	<10	<20	1	ł	3,110
	15	04/22/2005	50.6	57.4	1,080	1,137.4	ł	1	468
	20	04/22/2005	97.2	233	1,360	1,590	<0.025	0.706	20.1
		07/21/2005	12.8	<10	<10	<20	ł	ŧ	476
<u> </u>	20	07/21/2005	31.0	15.7	220	235.7		1	2,500
Southwest	12	07/21/2005	12.1	<10	<10	<20	1	•	847
South Side	5	04/22/2005	58.5	260	3,120	3,380	1	ŀ	18.1
	15	04/22/2005	140.8	959	3,460	4,120	<0.025	0.2086	14.8
	20	04/22/2005	7.1	<10	<10	<20	i	ı	55.9
	æ	07/21/2005	13.3	<10	<10	<20		1	1,470
	12	07/21/2005	13.3	<10	<10	<20	1	i	733
	17	07/21/2005	11.8	<10	<10	<20		•	730
East Side	5	04/22/2005	32.7	34.5	928	962.5	1 .	1	9.78
(South)	15	04/22/2005	8.1	<10	<10	<20	•	:	40.3
	20	04/22/2005	0.3	<10	38.1	38.1	1		182
East Side	5	04/22/2005	1.7	<10	<10	<20	-	:	1,450

Summary of TPH Analysis of Soil Samples from Emergency Pit Excavation John H. Hendrix Corp., Will Cary Lease Table 1

UL F (SE/4, NW/4), Section 15, Township 22 South, Range 37 East Lea County. New Mexico

Location Depth (Feet BGS)	Date							
	2117	L L	GRO	DRO	TPH	Benzene	BTEX	Chloride
1		(mdd)	C6 - C12	C12 - C35	C6 - C35	(mg/Kg)	(mg/Kg)	(mg/Kg)
RRAL:			(mg/Kg)	(mg/Kg)	(mg/Kg)			
					1,000	10	50	
(North) 15 04/2	04/22/2005	9'0	<10	<10	<20	1	1	884
20 04/2	04/22/2005	9.0	<10	<10	<20	:		481
North Side 5 04/2	04/22/2005	0.9	<10	<10	<20	:	1	809
10 04/2	04/22/2005	18.2	<10	52.9	52.9	4 [	ł.	48.5
15 04/2	04/22/2005	30.8	<10	<10	<20			64.2

Analysis performed by Environmental Lab of Texas, Inc., Odessa, Texas Notes:

Depth in feet below ground surface 1. BGS:

Milligrams per kilogram 2. mg/Kg

Gasoline range organcis (C6 - C12) Parts per million 4. GRO: 3. ppm:

Diesel range organics (C12 - C35) 6. TPH: 5. DRO:

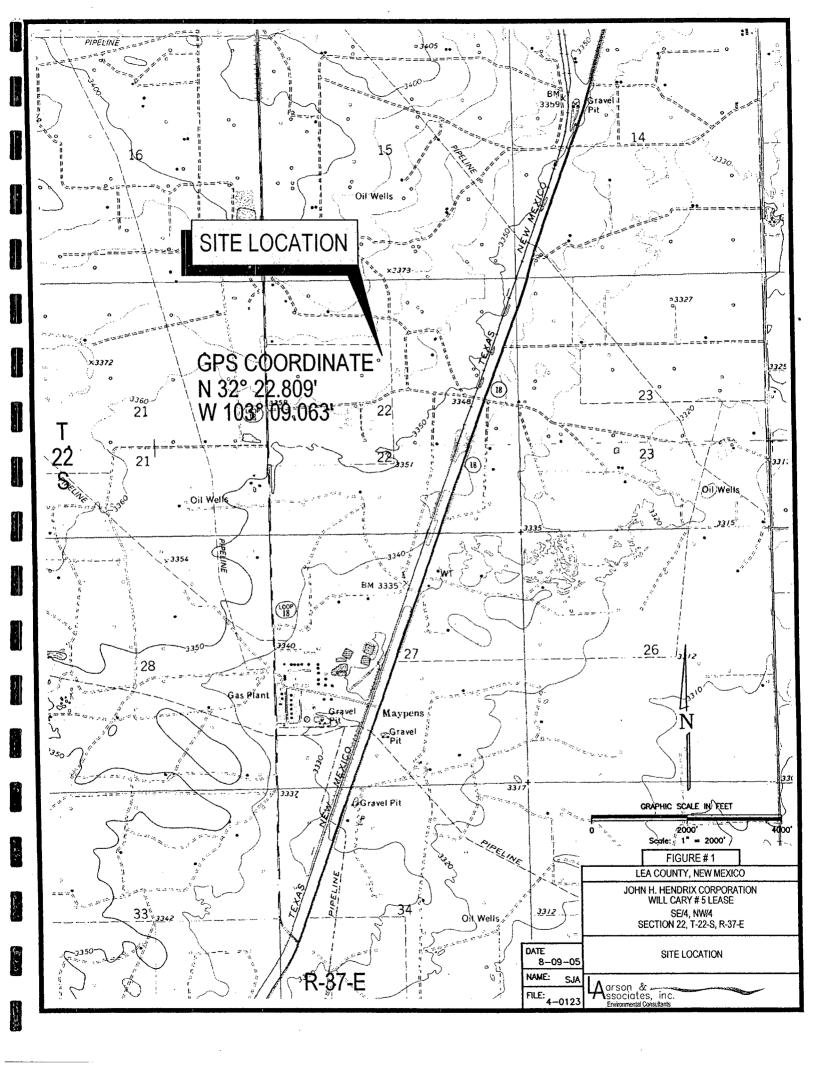
Sum of GRO and DRO (C6 - C35)

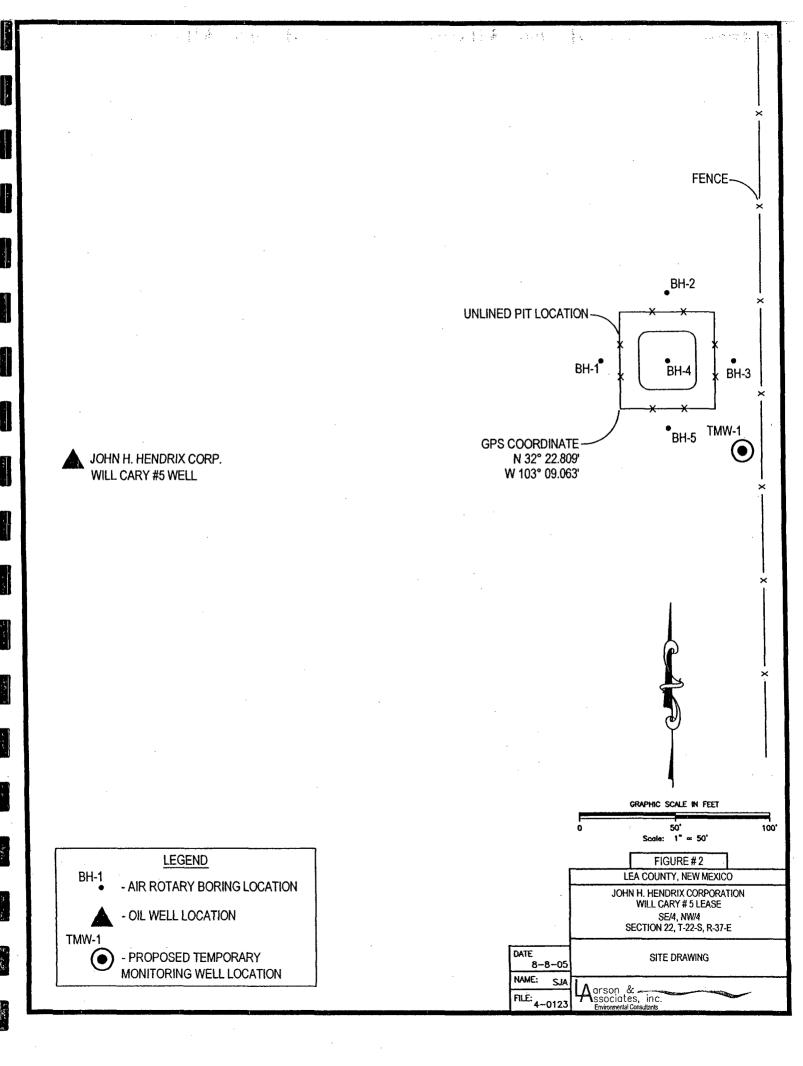
No data available 7. .:

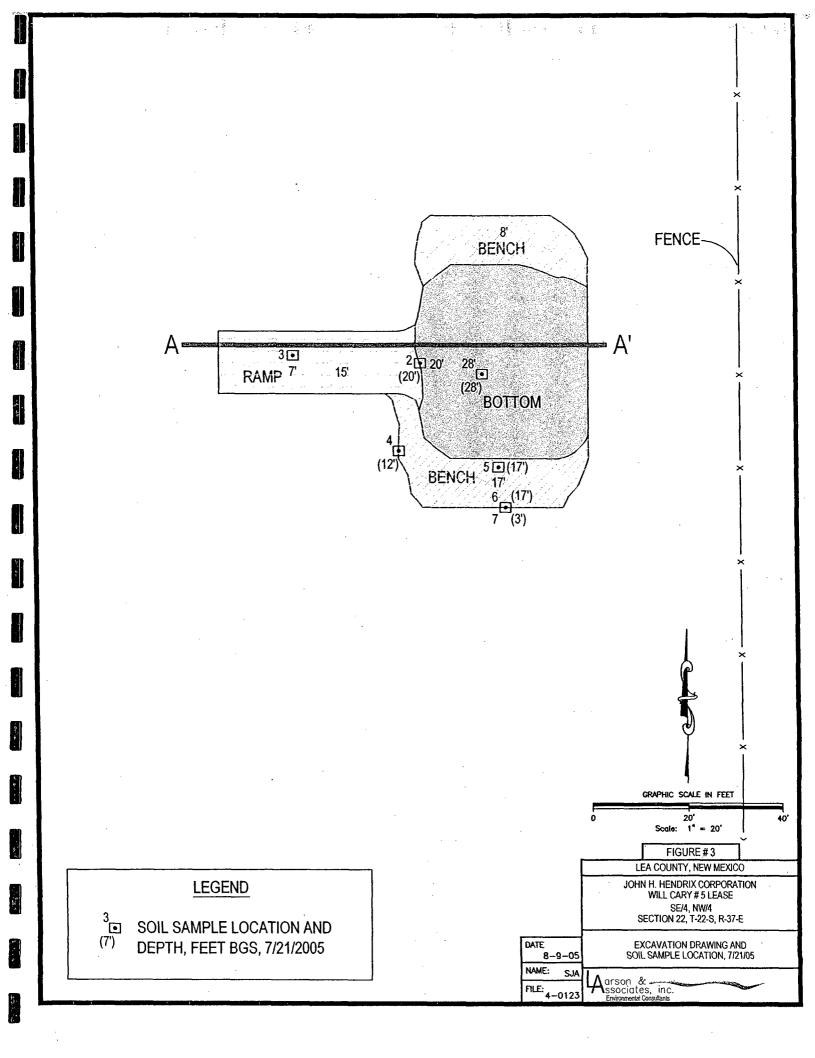
Below test method detection limit

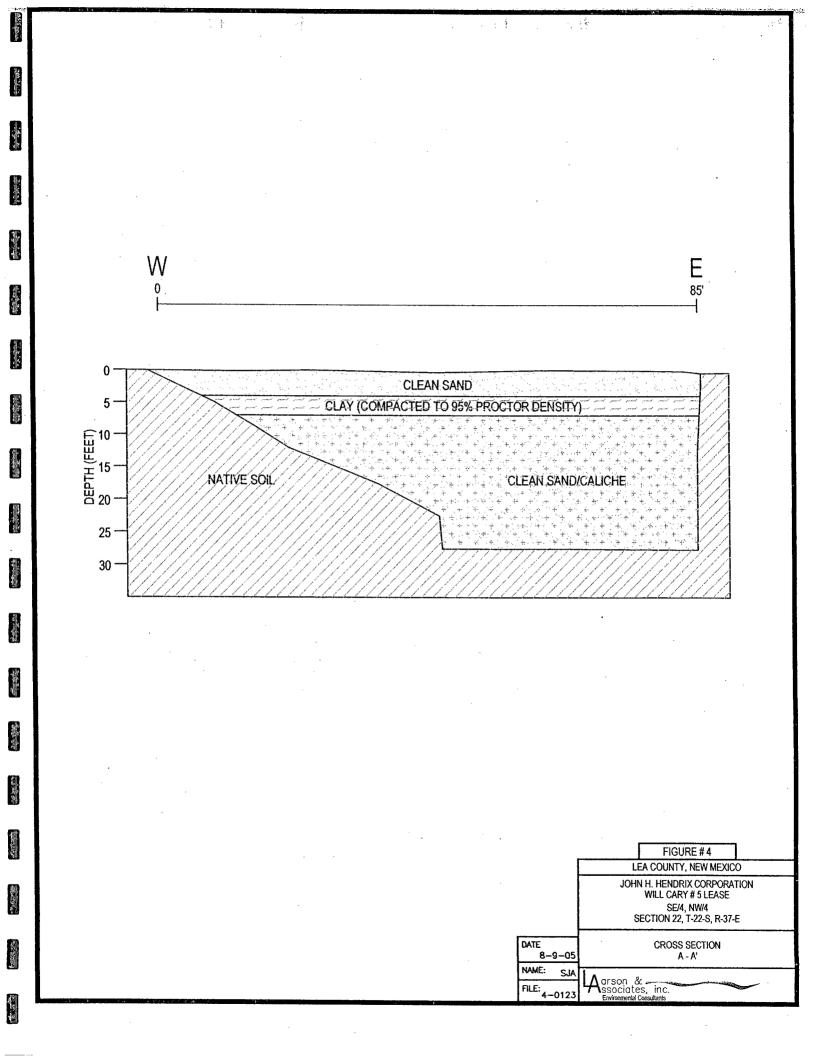
ÿ ∞

#### **FIGURES**





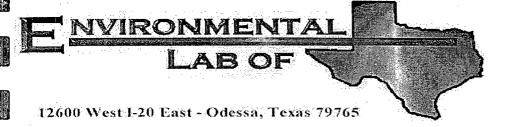




#### APPENDIX A

10 m

**Laboratory Reports** 



## Analytical Report

#### **Prepared for:**

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

Project: Will Cary
Project Number: 4-0123
Location: None Given

Lab Order Number: 5D25001

Report Date: 04/27/05

Project: Will Cary Project Number: 4-0123

Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 04/27/05 14:41

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Bottom- 28'	5D25001-01	Soil	04/22/05 08:15	04/22/05 17:15
West Side- 20'	5D25001-02	Soil	04/22/05 08:20	04/22/05 17:15
West Side- 15'	5D25001-03	Soil	04/22/05 08:25	04/22/05 17:15
West Side- 5'	5D25001-04	Soil	04/22/05 08:33	04/22/05 17:15
South Side- 20'	5D25001-05	Soil	04/22/05 08:40	04/22/05 17:15
South Side- 15'	5D25001-06	Soil	04/22/05 08:43	04/22/05 17:15
South Side- 5'	5D25001-07	Soil	04/22/05 08:46	04/22/05 17:15
East Side- South 20'	5D25001-08	Soil	04/22/05 08:50	04/22/05 17:15
East Side- South 15'	5D25001-09	Soil	04/22/05 08:53	04/22/05 17:15
East Side- South 5'	5D25001-10	Soil	04/22/05 08:55	04/22/05 17:15
East Side- North 20'	5D25001-11	Soil	04/22/05 09:00	04/22/05 17:15
East Side- North 15'	5D25001-12	Soil	04/22/05 09:05	04/22/05 17:15
East Side- North 5'	5D25001-13	Soil	04/22/05 09:08	04/22/05 17:15
North Side- 20'	5D25001-14	Soil	04/22/05 09:15	04/22/05 17:15
North Side- 15'	5D25001-15	Soil	04/22/05 09:18	04/22/05 17:15
North Side- 5'	5D25001-16	Soil	04/22/05 09:20	04/22/05 17:15

1 30 h

Project: Will Cary
Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported:
04/27/05 13:53

		ZILVII OIII	rental L		L CAMB				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Bottom- 28' (5D25001-01) Soil									
Gasoline Range Organics C6-C12	15.2	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	133	10.0	If	п	. #	* W	"	н	
Total Hydrocarbon C6-C35	148	10.0	н .	11	"	ıt	, п	н	
Surrogate: 1-Chlorooctane		98.8 %	70-1	30	. 11	" "	"	"	
Surrogate: 1-Chlorooctadecane		97.8 %	70-1	30	"	. "	"	. "	
West Side- 20' (5D25001-02) Soil									
Benzene	ND	0.0250	mg/kg dry	25	ED52602	04/25/05	04/25/05	EPA 8021B	,
<b>Coluene</b>	0.0300	0.0250	11	**	N	"	**	"	
Ethylbenzene	0.112	0.0250		н	Ħ	π .	"	**	
Xylene (p/m)	0.457	0.0250	u	н		. 11	Ħ	. н	
Xylene (o)	0.107	0.0250	11	11	#	H	н.	н	
Surrogate: a,a,a-Trifluorotoluene		112 %	80-1	120	"	"	"	u	
Surrogate: 4-Bromofluorobenzene		141 %	<i>80-1</i>	120	"	"	"	n	S-
Gasoline Range Organics C6-C12	233	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	1360	10.0	**	***	н	u		**	
Total Hydrocarbon C6-C35	1590	10.0	#	"	**	"	#	11	
Surrogate: 1-Chlorooctane		91.8 %	70-1	130	. #	, "	"	"	
Surrogate: 1-Chlorooctadecane		109 %	70-	130	"	<b>"</b>	"	"	
West Side- 15' (5D25001-03) Soil		•					•		
Gasoline Range Organics C6-C12	57.4	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	•
Diesel Range Organics >C12-C35	1080	10.0	11	**		"	11	**	
Total Hydrocarbon C6-C35	1140	10.0	Ħ	**	н	Ħ		н	
Surrogate: 1-Chlorooctane		99.4 %	70-	130	"	u	<b>"</b>	"	
Surrogate: 1-Chlorooctadecane	•	110 %	70-	130	"	"	m,	. "	
West Side- 5' (5D25001-04) Soil								•	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	**	u	Ħ	н .	Ħ	
Total Hydrocarbon C6-C35	ND	10.0	) "	11	. "	"	- 11	tt	
Surrogate: 1-Chlorooctane		91.0 %	<i>70-</i>	130	. "	"	"	n .	
Surrogate: 1-Chlorooctadecane		90.2 %	6 70-	-130	"	"	"	u	

Larson & Associates, Inc. P.O. Box 50685

Midland TX, 79710

Project: Will Cary
Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 04/27/05 13:53

		Environi	iiciitat L	741) UL 1	CAUS				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
South Side- 20' (5D25001-05) Soil		,							
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	ч	H	11	н	ŧŧ	H	
Total Hydrocarbon C6-C35	ND	10.0	"	11	n	"	Ħ	. "	
Surrogate: 1-Chlorooctane		102 %	. 70	130	"	"	"	ı,	
Surrogate: 1-Chlorooctadecane		102 %	70	130	"	· "	"	n	
South Side- 15' (5D25001-06) Soil					•				
Benzene	ND	0.0250	mg/kg dry	25	ED52602	04/25/05	04/25/05	EPA 8021B	
Toluene	ND	0.0250	"	**	н		**	т .	
Ethylbenzene	0.0400	0.0250	. , #	tt	**	и -	"	n	
Xylene (p/m)	0.125	0.0250	Ħ	н	п	Ħ	н	TT .	
Xylene (0)	0.0436	0.0250	11	11	n	u	"	и .	
Surrogate: a,a,a-Trifluorotoluene		99.9 %	80-	120	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		117 %	80-	120	#		."	."	
Gasoline Range Organics C6-C12	656	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	3460	10.0	, п	#	11.	n	<b>n</b> .	H	
Total Hydrocarbon C6-C35	4120	10.0	. "	11	н	· #	н	11	
Surrogate: 1-Chlorooctane		103 %	70-	-130	" "	"	"	и	
Surrogate: 1-Chlorooctadecane		106 %	70-	-130	"	"	"	u	
South Side- 5' (5D25001-07) Soil									
Gasoline Range Organics C6-C12	260	10.0	mg/kg dry	' 1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	3120	10.0	) "	Ħ	и.,	н .	н	u	
Total Hydrocarbon C6-C35	3380	10.0	) "	и .	н	, <b>n</b> .	"	и	
Surrogate: 1-Chlorooctane		101 %	<i>70</i> -	-130	н	. "	"	"	
Surrogate: 1-Chlorooctadecane		105 %	6 70	-130	. "	"	. "	· • • • • • • • • • • • • • • • • • • •	
East Side- South 20' (5D25001-08) So	il								<u>.</u>
Gasoline Range Organics C6-C12	ND	10.0	) mg/kg dry	/ 1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	38.1	10.0	" .	"	и	11	н	. "	
Total Hydrocarbon C6-C35	38.1	10.0	" "		11	11	11	11	
Surrogate: 1-Chlorooctane		99.2 %	6 70	-130	"	. "	, ,,	"	
Surrogate: 1-Chlorooctadecane		99.0 %	6 70	-130	"	"	"	. "	

Project: Will Cary
Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported:
04/27/05 14:41

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
East Side- South 15' (5D25001-09) Soil				Direction	Duton	Trepured	· · · ·	- Interior	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	`
Diesel Range Organics >C12-C35	ND	10.0	"	"	#	""	11	. "	
Fotal Hydrocarbon C6-C35	ND	10.0	a		п	Ħ	N	11	
Surrogate: 1-Chlorooctane		95.0 %	70-13	20	"	'n	"	"	
Surrogate: 1-Chlorooctadecane		93.8 %	70-13		"	"	"	"	
, arrogane.		70.070	, , ,	•					
East Side- South 5' (5D25001-10) Soil									
Gasoline Range Organics C6-C12	34.5	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	928	10.0	n	#	н	H	11	"	
Total Hydrocarbon C6-C35	963	10.0	. "	11	11	Ħ	31	Ħ	
Surrogate: 1-Chlorooctane		104 %	70-13	30	"	"	"	и .	
Surrogate: 1-Chlorooctadecane		114 %	70-13	30	"	"	"	"	
East Side- North 20' (5D25001-11) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1.	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	n .	Ħ	#	Ħ	Ħ	Ħ	
Total Hydrocarbon C6-C35	ND	10.0	. #	11	п	u	н	11	
Surrogate: 1-Chlorooctane		80.8 %	70-1.	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		80.8 %	70-1	30	u.	"	"	· п	
East Side-North 15' (5D25001-12) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	. п	н	**	"	<b>11</b> ·	* N	
Total Hydrocarbon C6-C35	ND	10.0	, "	17	11	п	. 11	ır	7
Surrogate: 1-Chlorooctane		81.0 %	70-1	30	"	"	"	"	
Surrogate: 1-Chlorooctadecane		79.6 %	70-1	30	<i>"</i> -	"	"	"	
The 4 Cide Name El (EDOSOO) 10 Call									
East Side- North 5' (5D25001-13) Soil							·		
Gasoline Range Organics C6-C12	ND		mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0				н	"		
Total Hydrocarbon C6-C35	ND	10.0		. "	11		H	. "	
Surrogate: 1-Chlorooctane		77.0 %			"	"	"	. "	
Surrogate: 1-Chlorooctadecane		77.6 %	6 70-1	30	"	"	. "	rr rr	

Project: Will Cary

Project Number: 4-0123 Project Manager: Mark Larson Fax: (432) 687-0456 Reported:

04/27/05 13:53

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
North Side- 20' (5D25001-14) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	. 10.0	. 41	н	н	Ħ	."	H	
Total Hydrocarbon C6-C35	ND	10.0	n	19	"	. "	"		
Surrogate: 1-Chlorooctane		77.0 %	70-13	30	"	"	-,,	. "	
Surrogate: 1-Chlorooctadecane		75.6 %	70-13	30	. "	<b>"</b>	"	"	
North Side- 15' (5D25001-15) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	52.9	10.0	n	11	Ħ	n	11	<b>M</b> .	
Total Hydrocarbon C6-C35	52.9	10.0	11	11	"	Ħ	"	11	
Surrogate: 1-Chlorooctane		78.4 %	70-1.	30	"	. "	."	"	
Surrogate: 1-Chlorooctadecane		76.6 %	70-1.	30	<b>"</b>	"	"	" .	
North Side- 5' (5D25001-16) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	ED52502	04/25/05	04/25/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	u ·	Ħ	Ħ	۳.	. 11	N	
Total Hydrocarbon C6-C35	ND	10.0		. #		, ir	Ħ	Ħ	
Surrogate: 1-Chlorooctane		76.0 %	70-1.	30	. "	"	. "	· 11	
Surrogate: 1-Chlorooctadecane		77.4 %	70-1	30	<b>"</b> .	"	"	<b>"</b>	

Project: Will Cary
Project Number: 4-0123

Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 04/27/05 13:53

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Bottom- 28' (5D25001-01) Soil									
Chloride	54.7	5.00	mg/kg	10	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	7.7	0.1	<b>%</b>	1	ED52603	04/25/05	04/26/05	% calculation	
West Side- 20' (5D25001-02) Soil									
Chloride	20.1	5.00	mg/kg	10	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	8.1	0.1	%	1	ED52603	04/25/05	04/26/05	% calculation	
West Side- 15' (5D25001-03) Soil									
Chloride	468	20.0	mg/kg	40	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	10.2	0.1	%	1 .	ED52603	04/25/05	04/26/05	% calculation	
West Side- 5' (5D25001-04) Soil									
Chloride	3110	100	mg/kg	200	ED52709	04/26/05	04/26/05	EPA 300.0	•
% Moisture	8.4	0.1	%	1	ED52603	04/25/05	04/26/05	% calculation	
South Side- 20' (5D25001-05) Soil									
Chloride	55.9	10.0	mg/kg	20	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	7.8	0.1	% ,	l	ED52603	04/25/05	04/26/05	% calculation	
South Side- 15' (5D25001-06) Soil		·							
Chloride	14.8	5.00	mg/kg	10	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	8.8	0.1	%	1	ED52603	04/25/05	04/26/05	% calculation	
South Side- 5' (5D25001-07) Soil				•					
Chloride	18.1	5.00	mg/kg	10	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	10.7	0.1	%	1	ED52603	04/25/05	04/26/05	% calculation	
East Side- South 20' (5D25001-08) Soil									
Chloride	182	20.0	mg/kg	40	ED52709	04/26/05	04/26/05	EPA 300.0	**************************************
% Moisture	8.4	0.1	%	1	ED52603	04/25/05	04/26/05	% calculation	

Larson & Associates, Inc. P.O. Box 50685

Midland TX, 79710

Project: Will Cary

Project Number: 4-0123 Project Manager: Mark Larson Fax: (432) 687-0456

Reported: 04/27/05 14:41

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

Analyte	Result	Rep	orting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	. Note
East Side- South 15' (5D25001-09) Soil	<del>-</del>					<u></u>			,	
Chloride	40.3		10.0	mg/kg	20	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	7.1		0.1	<b>%</b>	1	ED52603	04/25/05	04/26/05	% calculation	
East Side- South 5' (5D25001-10) Soil										
Chloride	87.6		10.0	mg/kg	20	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	8.6		0.1	%	. 1	ED52603	04/25/05	04/26/05	% calculation	
East Side- North 20' (5D25001-11) Soil										
Chloride	481		25.0	mg/kg	50	ED52709	04/26/05	04/26/05	EPA 300.0	•
% Moisture	16.2		0,1	%	1	ED52603	04/25/05	04/26/05	% calculation	
East Side-North 15' (5D25001-12) Soil			,							
Chloride	884		33.3	mg/kg	66.66	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	9.3		0.1	%	1 .	ED52603	04/25/05	04/26/05	% calculation	
East Side- North 5' (5D25001-13) Soil						•	•			
Chloride	1450		50.0	mg/kg	100	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	13.7		0.1	<b>%</b>	1	ED52603	04/25/05	04/26/05	% calculation	
North Side- 20' (5D25001-14) Soil										
Chloride	64.2		10.0	mg/kg	20	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	8.4		0.1	%	1	ED52603	04/25/05	04/26/05	% calculation	
North Side- 15' (5D25001-15) Soil										
Chloride	48.5		10.0	mg/kg	20	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	5.5	:	0.1	%	1	ED52603	04/25/05	04/26/05	% calculation	
North Side- 5' (5D25001-16) Soil										
Chloride	608		50.0	mg/kg	100	ED52709	04/26/05	04/26/05	EPA 300.0	
% Moisture	9.3		0.1	%	1	ED52603	04/25/05	04/26/05	% calculation	

Project: Will Cary

Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 04/27/05 13:53

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED52502 - Solvent Extraction	(GC)									
Blank (ED52502-BLK1)			•	Prepared	& Analyze	ed: 04/25/	05	,		
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	**							
Total Hydrocarbon C6-C35	ND	10.0	н							
Surrogate: 1-Chlorooctane	44.8		mg/kg	50.0		89.6	70-130			
Surrogate: 1-Chlorooctadecane	43.4		<b>"</b>	50.0		86.8	70-130			
LCS (ED52502-BS1)			1.	Prepared	& Analyze	ed: 04/25/	05			
Gasoline Range Organics C6-C12	450	10.0	mg/kg wet	500		90.0	75-125			
Diesel Range Organics >C12-C35	486	10.0	H "	500		97.2	75-125			
Total Hydrocarbon C6-C35	936	10.0	Ħ	1000	•	93.6	75-125			
Surrogate: 1-Chlorooctane	46.0		mg/kg	50.0		92.0	70-130			
Surrogate: 1-Chlorooctadecane	38.1		"	50.0		76.2	70-130			
Calibration Check (ED52502-CCV1)	•			Prepared	& Analyze	ed: 04/25/	05			
Gasoline Range Organics C6-C12	494		mg/kg	500		98.8	80-120	,		
Diesel Range Organics >C12-C35	501		н ,	500		100	80-120		•	
Total Hydrocarbon C6-C35	995		11	1000		99.5	80-120			
Surrogate: 1-Chlorooctane	51.5		"	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	49.6		"	50.0		99.2	70-130			
Matrix Spike (ED52502-MS1)	Soi	urce: 5D250	01-01	Prepared	& Analyz	ed: 04/25	/05			
Gasoline Range Organics C6-C12	499	10.0	mg/kg dry	542	15.2	89.3	75-125			
Diesel Range Organics >C12-C35	666	10.0		542	133	98.3	75-125			
Total Hydrocarbon C6-C35	1170	10.0	40	1080	148	94.6	75-125			
Surrogate: 1-Chlorooctane	56.1		mg/kg	50.0		112	70-130	· · · · · · · · · · · · · · · · · · ·		
Surrogate: 1-Chlorooctadecane	51.1		"	50.0		102	70-130			
Matrix Spike Dup (ED52502-MSD1)	So	urce: 5D25(	001-01	Prepared	& Analyz	ed: 04/25	/05			
Gasoline Range Organics C6-C12	508	10.0	mg/kg dry	542	15.2	90.9	75-125	1.79	20	
Diesel Range Organics >C12-C35	663	10.0		542	133	97.8	75-125	0.451	20	
Total Hydrocarbon C6-C35	1170	10.0	tt	1080	148	94,6	75-125	0.00	20	
Surrogate: 1-Chlorooctane	56.6		mg/kg	50.0		113	70-130			<u>i</u>
Surrogate: 1-Chlorooctadecane	50.8		"	50.0		102	70-130			

Project: Will Cary Project Number: 4-0123

Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 04/27/05 13:53

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

,										
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Maryte	Result	Dillit	Oma	LCVCI	Result	701CEC	Limits	- NO D	LAITIL	110103
Batch ED52602 - EPA 5030C (GC)										
Blank (ED52602-BLK1)				Prepared	& Analyze	ed: 04/25/0	)5		-	
Benzene	ND	0.0250	mg/kg wet							
Coluene	ND	0.0250	" .							
Ethylbenzene	ND	0.0250	н	•						
(ylene (p/m)	ND	0.0250	11							
Kylene (o)	ND	0.0250	н							
Surrogate: a,a,a-Trifluorotoluene	101		ug/kg	100		101	80-120			
Surrogate: 4-Bromofluorobenzene	119		"	100		119	80-120			
LCS (ED52602-BS1)	•			Prepared	& Analyz	ed: 04/25/0	05 -		•	
Benzene	88.5		ug/kg	100		88.5	80-120			· · · · · · · · · · · · · · · · · · ·
l'oluene	93.4		"	100		93.4	80-120			
Ethylbenzene	93.6		н	100		93.6	80-120			•
Xylene (p/m)	210		н	200		105	80-120			
Xylene (o)	98.8		н	100		98.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	117	•	"	100		117	80-120			
Surrogate: 4-Bromofluorobenzene	115		"	100	•	115	80-120			
Calibration Check (ED52602-CCV1)				Prepared	: 04/25/05	Analyzed	I: 04/26/0:	5	•	
Benzene	94.3		ug/kg	100		94.3	80-120			
Toluene	97.6	•	n	100		97.6	80-120			
Ethylbenzene	89.1		и.	100		89.1	80-120		•	
Xylene (p/m)	198		#	200		99.0	80-120			
Xylene (o)	95.6		Ħ	100		95.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	119		"	100		119	80-120			
Surrogate: 4-Bromofluorobenzene	118	•	. "	100		118	80-120			
Matrix Spike (ED52602-MS1)	S	ource: 5D25	011-02	Prepared	l: 04/25/05	Analyze	d: 04/26/0	5		
Benzene	96.0		ug/kg	100	ND	96.0	80-120			
Toluene	103		"	100	ND	103	80-120			
Ethylbenzene	103		**	100	ND	103	80-120			
Xylene (p/m)	233		11	200	ND	116	80-120			-
Xylene (o)	111		tı	100	ND	111	80-120			
Surrogate: a,a,a-Trifluorotoluene	111		"	100		111	80-120		····	
Surrogate: 4-Bromofluorobenzene	117		"	100		117	80-120			

Project: Will Cary

Fax: (432) 687-0456

Reported: 04/27/05 13:53

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123
Project Manager: Mark Larson

#### 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 ED52602 - EPA 5030C (GC)

Matrix Spike Dup (ED52602-MSD1)	Source:	5D25011-02	Prepared:	04/25/05	Analyzed	1: 04/26/05		
Benzene	94.1	ug/kg	100	ND	94.1	80-120	2.00	20
Toluene	100	и ,	100	ND	100	80-120	2.96	20
Ethylbenzene	98.7	n	100	ND ·	98.7	80-120	4.26	20
Xylene (p/m)	222	**	200	ND ·	111	80-120	4.41	20
Xylene (o)	104	11	100	ND	104	80-120	6.51	20
Surrogate: a,a,a-Trifluorotoluene	106	"	100		106	80-120	,	
Surrogate: 4-Bromofluorobenzene	114	"	100		114	80-120		

Project: Will Cary

Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 04/27/05 13:53

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED52603 - General Preparation	ı (Prep)									
Blank (ED52603-BLK1)		:		Prepared:	04/25/05	Analyzed	1: 04/26/05			
% Moisture	ND	0.1	% .		*****					
Duplicate (ED52603-DUP1)	Soi	urce: 5D2500	01-01	Prepared:	: 04/25/05	Analyzed	1: 04/26/05			•
% Moisture	7.1	0.1	%	<del></del>	7.7			8.11	20	,
Batch ED52709 - Water Extraction						, .			•	
Blank (ED52709-BLK1)				Prepared	& Analyz	ed: 04/26/	05			
Chloride	ND	0.500	mg/kg	<u> </u>						
Blank (ED52709-BLK2)				Prepared	& Analyz	ed: 04/26/	05			,
Chloride	ND	0.500	mg/kg							11.00
LCS (ED52709-BS1)				Prepared	& Analyz	ed: 04/26/	05			
Chloride	11.0		mg/L	10.0		110	80-120			
LCS (ED52709-BS2)				Prepared	& Analyz	zed: 04/26/	05			
Chloride	10.2	Market Paraga ay	mg/L	10.0		102	80-120			
Calibration Check (ED52709-CCV1)				Prepared	& Analyz	zed: 04/26/	05			
Chloride	10.3		mg/L	10.0		103	80-120			
Calibration Check (ED52709-CCV2)			•	Prepared	& Analyz	zed: 04/26/	/05			
Chloride	10.0		mg/L	10.0		100	80-120			
Duplicate (ED52709-DUP1)	So	ource: 5D260	08-01	Prepared	l & Analyz	zed: 04/26	/05			
Chloride	160	10.0	mg/kg		. 147			8.47	20	

Larson & Associates, Inc. P.O. Box 50685

Midland TX, 79710

Project: Will Cary

Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 04/27/05 13:53

RPD

%REC

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

Reporting

Spike

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch ED52709 - Water Extraction	•									
Duplicate (ED52709-DUP2)	Sou	rce: 5D2500	01-15	Prepared	& Analyz	ed: 04/26/0	05			
Chloride	46.9	10.0	mg/kg		48.5			3.35	20	

Project: Will Cary

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123
Project Manager: Mark Larson

**Reported:** 04/27/05 13:53

#### **Notes and Definitions**

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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: Report By: Report

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

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

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

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

Client: Larson & Assoc,						
Date/Time: 4-22-05	•		. "			•
Order#: 502500						
Initials:					•	
Sample Receipt	Checklis	st				
Temperature of container/cooler?	Yes	No	4.0	C		
Shipping container/cooler in good condition?	Yes	No				
Custody Seals intact on snipping container/cooler?	Yes	No	Not presi	ent		
Custody Seals intact on sample bottles?		No	Not prese			
Chain of custody present?	Yes	No	T.S. P. S.			
Sample Instructions complete on Chain of Custody?	Yes	No				
Chain of Custody signed when relinquished and received?	Ves	No	<del></del>			
Chain of custody agrees with sample label(s)		(NO)	No Label	5		
Container labels legible and intact?		Work	140			
Sample Matrix and properties same as on chain of custody?	Tes	No	<del></del>			
Samples in proper container/bottle?	Test	No	<del></del>			
Samples properly preserved?	(Yes)	No	<del></del>			
Sample bottles intact?	(Yes)	No	<del></del>			
Preservations documented on Chain of Custody?	des)	No	<del></del>			
Containers documented on Chain of Custody?	Ves	No	<del></del>			
Sufficient sample amount for indicated test?	(es)	No	· · · · · · · · · · · · · · · · · · ·			
All samples received within sufficient hold time?	(E)	No				
VOC samples have zero headspace?	(Yes.)	No	Not Applic	able		
Other observations:  No Labels- made client aware of						
2- Samples Listed as West 5' - one wit						
Client aware of variences. Runas North	5' pe	c m	ark 4-25	-05	0900 M	
	•					
Variance Docum	nentation	1:				
Contact Person: - Date/Time:			Contacted	l by:		•
Regarding:	<del></del>			,		
rtegaranig.				*		
	<del></del>				·	<del></del>
				·		
Corrective Action Taken:						
					· · · · · · · · · · · · · · · · · · ·	
			<del></del>			
	<del></del>		<del></del>		<del></del>	

CLIENT NAME:	A Company of the Comp		SITE MANAGER:		PARAM	FEERS	/METH	PARAMETERS/METHOD NUMBER	CHAIN-	OF—CUSTODY RECORD
John II.	Clon II (lendray)	ۇ ( <sup>1</sup> )	Mark Lawan	(0)	(	1208			_	000
PROJECT NO.:	7.3	)	PROJECT NAME:	NAINERS	3012	Strats At M	9 1 F		A GISO Environm	GI'SO
	2	# 0d 80		1001 910 1001	last.	(1)	(		507 N. Ma	507 N. Marienfeld, Ste. 202 • Midland, TX 79701
		j d		DS DS DS	450	EX(	85.7 Oh oll		LAB. I.D.	REMARKS (I.E., FILTERED, UNFILTERED,
3WI	NOS HELVIN	Y3440	υ,	MUN 91	<i>y</i> )	10 7.0	Ъ		(LAB USE ONLY)	
4	X		DaHom - 28"	<i>}</i>		2			5025001	101
0.250			Vet Sich - 20'	<b>&gt;</b>	<b>/</b>	7			102	
0.325			,5)	<b>&gt;</b>		2			93	
62.03	33		0 51	<i>&gt;</i>		<b>/</b>			Ca	4
2460	7.		South Side 201	7		>			7	70
C3843	ů			<i>&gt;</i> -	/	7			35,	97
3763	2		12 11	<i>-</i>		7			٩	
0.50	0		Fart Side - South 20'	<b>&gt;</b>	,	<i>&gt;</i>			32	
0353	4		=	<u>ア</u>		7			50	
7.55.0	15		- 22	<b>&gt;</b>		7			), ),	
86	g		East Steel North 201	<b>/</b> -		>			Ţ	
Coro	30		15/	<u>/</u>		7			72	
50103	0.3		1 2/2	7		2			1.2	
100	1		Hoth An 20'	<u> </u>		<b>&gt;</b>			4)	
8160	13			<u>)</u>		>			2-5	
350	3		1 21	<u>Z</u>		7			ع) ا	8
SAND ED BY. (Signature)	(Signature)		DATE 472/05 RELINQUISHED BY: (Signature)	HED BY: (Sig	nature)	. ~	-	DATE: 1/22/05 R TIME: 1/2001/15	DATE: <u>+/22/o</u> s RECEIVED BY: (Signature) TIME: <del>/Ecc./2</del> /5	nature) DAI E: TIME:
Our Silvingo	Pay. (Signothina)		RECEIVED E	Signatur	(a)			DATE: 4/22/ss	SAMPLE SHIPPED BY: (Circle)	BY: (Circle)
NE COOL	Name of the state				8			TIME: 1600	FEDEX	ব
				* *		TI IRN	AROUND	TI IRNAROLIND TIME NEEDED	HAND DELIVERED	UPS OTHER:
COMMENIS						<u></u>	; ;		WHITE RECEIVED A PECFEN	-RECEIVING LAB RECEIVING LAB (TO BE RETURNED TO
RECEIVING LA	RECEIVING LABORATORY EIN INCOMMENTED	11001	Lab of Energe	CEIVED B	RECEIVED BY: (Signature)	ore)	3	,	ı	LA AFTER RECEIPT) PROJECT MANAGER
CITY	Lalens Little		35/61 - 835 (2	DATE: <	4-11-05	11ME	1E: 77	-3	<b>GOLD</b> - QA/Q	QA/QC COORDINATOR
SAMPLE CONDITIC				IA CON	LA CONTACT PERSON:	NO NO	mana	5	SAMPLE TYPE:	Soil
The second secon		Total Control	ノン・シン	disconnection.						

2

\* \* \*

· 大

3

Mary of the San

.....

100

· S. Southern

S. 188 8

4 - 4 -

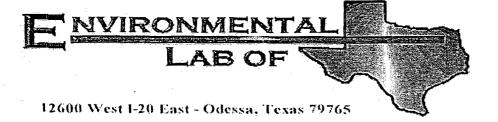
A STATE OF THE

3.4

N. W. W.

17.44

September 1



### Analytical Report

#### Prepared for:

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

Project: John H. Hendrix/ Will Cargo #5

Project Number: 4-0123 Location: None Given

Lab Order Number: 5G21014

Report Date: 07/26/05

Project: John H. Hendrix/ Will Cargo #5

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123 Project Manager: Mark Larson Reported: 07/26/05 11:04

#### ANALYTICAL REPORT FOR SAMPLES

· · · · · · · · · · · · · · · · · · ·		<del></del>		
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Bottom, 28'	5G21014-01	Soil	07/21/05 07:40	07/21/05 14:50
West, 20'	5G21014-02	Soil	07/21/05 07:47	07/21/05 14:50
West, 7'	5G21014-03	Soil	07/21/05 07:54	07/21/05 14:50
Southwest, 12'	5G21014-04	Soil	07/21/05 08:04	07/21/05 14:50
South, 17'	5G21014-05	Soil	07/21/05 08:14	07/21/05 14:50
South, 12'	5G21014-06	Soil	07/21/05 08:20	07/21/05 14:50
South, 3'	5G21014-07	Soil	07/21/05 08:25	07/21/05 14:50

P.O. Box 50685 Midland TX, 79710 Project: John H. Hendrix/ Will Cargo #5

Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 07/26/05 11:04

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Bottom, 28' (5G21014-01) Soil	TOOLK			Dilution	Daten	Frepated	Analyzed	Wellou	
Gasoline Range Organics C6-C12	36.3	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	285	10.0	"	"	Ħ	n	"	"	
Total Hydrocarbon C6-C35	321	10.0	"						
Surrogate: 1-Chlorooctane		82.0 %	70-13	0	"	"	n	*	
Surrogate: 1-Chlorooctadecane		88.6 %	70-13	0	W	"	"	*	
West, 20' (5G21014-02) Soil				_					
Gasoline Range Organics C6-C12	15.7	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	220	10.0	n	н	н		н	н	
Total Hydrocarbon C6-C35	236	10.0	"	п	н	#	"	11	
Surrogate: 1-Chlorooctane		76.2 %	70-13	0	"	"	*	*	
Surrogate: 1-Chlorooctadecane		81.0 %	70-13	0	н	**	*	"	
West, 7' (5G21014-03) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	ı	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	н	*	#1	"	"		
Total Hydrocarbon C6-C35	ND	10.0	. "	**	н	# .	<b>H</b>	н	
Surrogate: 1-Chlorooctane		82.0 %	70-13	30	"	. "	, "	. "	
Surrogate: 1-Chlorooctadecane		78.4 %	70-13	80	n	"	n	m	
Southwest, 12' (5G21014-04) Soil							•		
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	**	**	rr	ц	**	*	
Total Hydrocarbon C6-C35	ND	10.0	н	"	. "	n	"	Ħ	
Surrogate: 1-Chlorooctane		81.4 %	70-1.	30	, "	"	"	"	
Surrogate: 1-Chlorooctadecane	,	78.6 %	70-1.	30	"	"	, ,,	m	
South, 17' (5G21014-05) Soil		i i							
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	ì	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	**			n	n	"	
Total Hydrocarbon C6-C35	ND	10.0	"	**	и .	n		19	
Surrogate: 1-Chlorooctane		86.0 %	70-1.	30	"	"	"	" :	
Surrogate: 1-Chlorooctadecane		82.6 %	70-1.	30	"	"	#	· "	•

P.O. Box 50685 Midland TX, 79710 Project: John H. Hendrix/ Will Cargo #5

· Project Number: 4-0123 Project Manager: Mark Larson Fax: (432) 687-0456

Reported: 07/26/05 11:04

Analyte	Result	Reporting Limit		Dilution	Batch	Prepared	Analyzed	Method	Notes
South, 12' (5G21014-06) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	*	n	n	H	Ħ	н	
Total Hydrocarbon C6-C35	ND	10.0	н	*	н ,	<b>"</b>	п	**	
Surrogate: 1-Chlorooctane	-	71.4 %	70-13	30	"	"	"	N	
Surrogate: 1-Chlorooctadecane		82.0 %	70-13	30	<b>"</b>	"	W		
South, 3' (5G21014-07) Soil									
Gasoline Range Organics C6-C12	ND	. 10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	ĸ		н	н .	Ħ	. "	
Total Hydrocarbon C6-C35	ND	10.0	Ħ	Ħ	n	Ħ	н	н	
Surrogate: 1-Chlorooctane		70.0 %	70-1.	30	. 4	"	"	"	
Surrogate: 1-Chlorooctadecane		78.6 %	70-1.	30	•	"	"	"	

Project: John H. Hendrix/ Will Cargo #5

Fax: (432) 687-0456

P.O. Box 50685

Project Number: 4-0123
Project Manager: Mark Larson

Reported: 07/26/05 11:04

Midland TX, 79710

#### General Chemistry Parameters by EPA / Standard Methods

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bottom, 28' (5G21014-01) Soil		· · · · · · · · · · · · · · · · · · ·							
Chloride	93.5	5.00	mg/kg	10	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	5.7	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
West, 20' (5G21014-02) Soil							,		
Chloride	2500	50.0	mg/kg	100	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	9.8	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	•
West, 7' (5G21014-03) Soil	·								
Chloride	476	10.0	mg/kg	20	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	6.9	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
Southwest, 12' (5G21014-04) Soil									
Chloride	847	10.0	mg/kg	20	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	8.7	0.1	%	. 1	EG52516	07/22/05	07/25/05	% calculation	
South, 17' (5G21014-05) Soil									
Chloride	730	10.0	mg/kg	. 20	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	5.8	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
South, 12' (5G21014-06) Soil		·							٠.
Chloride	733	10.0	mg/kg	20	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	7.0	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
South, 3' (5G21014-07) Soil									
Chloride	1470	25.0	mg/kg	50	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	8.1	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	

Project: John H. Hendrix/ Will Cargo #5

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123 Project Manager: Mark Larson Reported: 07/26/05 11:04

#### 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 EG52114 - Solvent Extraction (GC)										
				D 1.0	7/21/05 1	.1. 1.07	123/05		<u>-</u>	<u> </u>
Blank (EG52114-BLK1)	> TD			Prepared: 0	1//21/U5 A1	natyzea: 07	123/05			
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	11							
Total Hydrocarbon C6-C35	ND	10.0								
Surrogate: 1-Chlorooctane	36.7		mg/kg	50.0		73.4	70-130			
Surrogate: 1-Chlorooctadecane	42.5		. "	50.0		85.0	70-130			
LCS (EG52114-BS1)				Prepared: (	)7/21/05 A	nalyzed: 07	//23/05			
Gasoline Range Organics C6-C12	435	10.0	mg/kg wet	500		87.0	75-125			
Diesel Range Organics >C12-C35	441	10.0	. "	500		88.2	75-125			
Total Hydrocarbon C6-C35	876	10.0	·#	1000		87.6	75-125			
Surrogate: 1-Chlorooctane	51.3		mg/kg	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	42.5		"	50.0		85.0	70-130			
Calibration Check (EG52114-CCV1)				Prepared: (	07/21/05 A	nalyzed: 07	1/23/05			
Gasoline Range Organics C6-C12	441		mg/kg	500		88.2	80-120			
Diesel Range Organics >C12-C35	477		**	500		95.4	80-120			
Total Hydrocarbon C6-C35	918		**	1000		91.8	80-120			
Surrogate: 1-Chlorooctane	54.5	-		50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	43.5		. "	50.0		87.0	70-130			
Matrix Spike (EG52114-MS1)	Sour	rce: 5G2101	<b>1-05</b>	Prepared:	07/21/05 A	nalyzed: 07	7/23/05			
Gasoline Range Organics C6-C12	488	10.0	mg/kg dry	531	ND	91.9	75-125			
Diesel Range Organics >C12-C35	479	10.0	*	531	ND	90.2	75-125			
Total Hydrocarbon C6-C35	967	10.0	n	1060	ND	91.2	75-125			
Surrogate: 1-Chlorooctane	53.2		mg/kg	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	42.8		"	50.0		85.6	70-130			
Matrix Spike Dup (EG52114-MSD1)	Sou	rce: 5G2101	4-05	Prepared:	07/21/05 A	nalyzed: 0	7/23/05			
Gasoline Range Organics C6-C12	479	10.0	mg/kg dry	531	ND	90.2	75-125	1.86	20	
Diesel Range Organics >C12-C35	450	10.0	**	531	ND	84.7	75-125	6.24	20 .	
Total Hydrocarbon C6-C35	929	10.0	. 11	1060	ND	87.6	75-125	4.01	20	
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	42.3		"	50.0		84.6	70-130			

Project: John H. Hendrix/ Will Cargo #5

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123

Project Manager: Mark Larson

Reported: 07/26/05 11:04

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

Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
			Prepared &	k Analyzed	07/23/05				
ND	0.500	mg/kg							
			Prepared &	k Analyzed	: 07/23/05				
10.7		mg/L	10.0		107	80-120			
			Prepared &	k Analyzed	: 07/23/05				
10.6		mg/L	10.0		106	80-120			
Sou	rce: 5G20024	-02	Prepared &	& Analyzed	: 07/23/05				
1390	25.0	mg/kg		1380			0.722	20	
)									
			Prepared:	07/22/05 A	nalyzed: 07	1/25/05			
ND	0.1	%							
Sou	rce: 5G21014	-01	Prepared:	07/22/05 A	nalyzed: 07	7/25/05			
5.5	0.1	%		5.7			3.57	20	
	ND 10.7 10.6 Sou 1390 ND Sou	ND 0.500  10.7  10.6  Source: 5G20024  1390 25.0  ND 0.1  Source: 5G21014	Result         Limit         Units           ND         0.500         mg/kg           10.7         mg/L           10.6         mg/L           Source: 5G20024-02         1390         25.0         mg/kg           ND         0.1         %           Source: 5G21014-01         **	Prepared &   Prepared &	Prepared & Analyzed	Prepared & Analyzed: 07/23/05	Prepared & Analyzed: 07/23/05     ND	Result   Limit   Units   Level   Result   %REC   Limits   RPD	Result   Limit   Units   Level   Result   %REC   Limits   RPD   Limit

Project: John H. Hendrix/ Will Cargo #5

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123
Project Manager: Mark Larson

Reported: 07/26/05 11:04

**Notes and Definitions** 

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

dry

Sample results reported on a dry weight basis

RPD

Relative Percent Difference

LCS

Laboratory Control Spike

MS

Matrix Spike

Dup

Duplicate

Report Approved By:

aly & Kune

7/26/2005

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

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.

CLIENT NAME:		SITE MANAGER:	A CANAL STATE STAT		PARAMETERS/METHOD NUMBER	//METH	NON ac	ABER	CHAIN-	-OF-CUST	CUSTODY RECORD
St. F. C.	S. S	m. Larven		(o)					( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (		
ō	40	PROJECT NAME:	ج ت		- :		-		SSOCIO	SSOCIATES, Inc. Fax: Environmental Consultants	Fax: 432-687-0456 432-687-0901
PAGE OF	LAE	LAB. PO #			iorig Ekk		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<del>/ 1.1.</del>	507 N. Marie	infeld, Ste. 202 •	507 N. Marienfeld, Ste. 202 • Midland, TX 79701
HU HOO	1105 934110	SAMPLE IDENTIFICATION		NUMBER TV IJ	CPI				NUMBER ILAB USE ONLYI	RE, FILTER PRESERVED GRAB	REMARKS (1.E., FILTERED, UNPILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE!
SK 0740	}	bottom 281		<b>〉</b> _	}	_			P		
545	7	Vest, 201		<b>&gt;</b>	>	-	1	-	20-		
表写	>	1. 1. 1.		<u>ک</u> 	<b>)</b>	1	+		-03		
C \$ 0 4	7	hismot	12	<u> </u>	>	<del> </del>	+		40		
4120	>	Spent 17.		2	<b>)</b>	+	-	-	8		
333	7	Bruth 12'		<i>)</i>	2				900		
C92.55	>	Bereth 31		<b>人</b>	<b>)</b>		1	-	8		
				-			_				
790	-			-							
	-			-							
						-					
				-							
									,		
									·		والمتعادية والمراوضة والمراوضة والمتعادية والمتعادية والمتعادية والمتعادية والمتعادية والمتعادية والمتعادية والمتعادية
				-			1				
			i	+			1	_			And the state of t
\ \{								١.			
SAMPLEB-BY-KSignoqure		DATE: 1/21/05 TIME: 082.5	REENOUISHED BY:		(Stgrepture)		DATE: "2 TIME 4	() () () ()	RECEIVED BY: (Signature)	ıture)	DATE
RELINQUISHED BY: (Signature)	aturel	DATE	RECEIVED BY: (Signature)	Signatur	(e)		DATE	75	SAMPLE SHIPPED BY: (Circle)	r. (Cirde)	
		TIME					TIME	H.	FEDEX	BUS AIRE	AIRBILL #:
COMMENTS.					TURN	AROUND	TURNAROUND TIME NEEDED		쁘	UPS	OTHER:
									WHITE - RECEIVING LAB	RECEIVING LAB RECEIVING LAB (TO BE RETURNED TO	JRNED TO
ABORATOR ZCCSS		STATE IX ZIP		DATE: CIT	Signally Bloom		A	<u> 7. 6</u>		LA AFTER RECEIPT) - PROJECT MANAGER - QA/QC COORDINATOR	
CONTACT CONTACT			~1 t	* .	TA OT DEDCOM			10	CANADI E TYDE.	***************************************	
SAMPLE CONDITION WHEN RECEIVED	GENED	2/9		2 2 2 1	raconiaci personi Frank	Droch	٤	,	Wire ore.	Sóle	
		<u>kalandan menandan me</u>									

and E. rock

10 C. N. S. S. . .

る。

3, 37, 2

A = 60 2 50 C

A Tree ... Off

N. San No.

\*\*\*

The ball

to specify.

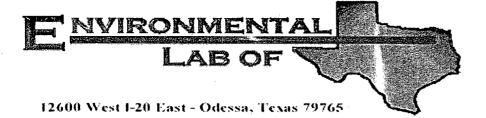
基準

1. 1. 1. 1.

Environmental Lab of Texas

Variance / Corrective Action Report – Sample Log-In

client: Largon & Assoc.	·		
Date/Time: 7/21/05 14:50			
Order #: 5G21014-			
nitials:			
Sample Receip	t Checklist		
Temperature of container/cooler?	Yes No	16 C	•
Shipping container/cooler in good condition?	(és) No		
Custody Seals intact on shipping container/cooler?	Yes No	Not present	
Custody Seals intact on sample bottles?	Yes No	Not present	4
Chain of custody present?	(es) No	7402 DICCCIP	
Sample Instructions complete on Chain of Custody?	Yes) No		•
Chain of Custody signed when relinquished and received?	(es) No	<u> </u>	
Chain of custody agrees with sample label(s)	(es) No		
Container labels legible and intact?	VES No		٠.
Sample Matrix and properties same as on chain of custody?	Yes) No		
Samples in proper container/bottle?	Yes No		
Samples in proper container bottle: Samples properly preserved?	Yes No		:
Sample bottles intact?	(YES) No		ı
Preservations documented on Chain of Custody?	(es) No		! !
Containers documented on Chain of Custody?	(Yes) No		
Sufficient sample amount for indicated test?	Yes No		
All samples received within sufficient hold time?		<u> </u>	
VOC samples have zero headspace?	Yes No	Not Applicable	
AOO settibles trave Yell treadshare;	ICLES I NO	Not Applicable 1	
Other observations:			
Variance Docu Contact Person: Date/Time: Regarding:		Contacted by:	
			***************************************
Corrective Action Taken:			
Corrective Action Taken:			
	de (territoria), agis menganying deriyaya diliking agas dan anang di sebagapat mang anang anang ana sang ang b		74 W. C.
	a anno ann an ann an ann an ann an ann an		
			,
	······································	·	***************************************
	randitudga dengagan ramayah dan gareran sara mari fishah deli gasah (1994) sarih tetapasan dan a		



# **Analytical Report**

#### Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: John H. Hendrix/ Will Cary #5
Project Number: 4-0123
Location: None Given

Lab Order Number: 5G21014

Report Date: 08/08/05

Project: John H. Hendrix/ Will Cary #5

Project Number: 4-0123

Fax: (432) 687-0456 Reported: 08/08/05 13:01

P.O. Box 50685 Midland TX, 79710

Project Manager: Mark Larson

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Bottom, 28'	5G21014-01	Soil	07/21/05 07:40	07/21/05 14:50
West, 20'	5G21014-02	Soil	07/21/05 07:47	07/21/05 14:50
West, 7'	5G21014-03	Soil	07/21/05 07:54	07/21/05 14:50
Southwest, 12'	5G21014-04	Soil	07/21/05 08:04	07/21/05 14:50
South, 17	5G21014-05	Soil .	07/21/05 08:14	07/21/05 14:50
South, 12°	5G21014-06	Soil	07/21/05 08:20	07/21/05 14:50
South, 3'	5G21014-07	Soil	07/21/05 08:25	07/21/05 14:50

P.O. Box 50685 Midland TX, 79710 Project: John H. Hendrix/ Will Cary #5

Project Number: 4-0123 Project Manager: Mark Larson Fax: (432) 687-0456

Reported: 08/08/05 13:01

## Organics by GC Environmental Lab of Texas

		Reporting		<del></del>		······································			
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Bottom, 28' (5G21014-01) Soil	· · · · · · · · · · · · · · · · · · ·								
Gasoline Range Organics C6-C12	36.3	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	285	10.0	•		•	•	• .	*	
Total Hydrocarbon C6-C35	321	10.0				•			
Surrogate: 1-Chlorooctane		82.0 %	70-13	0	*	*	*	"	
Surrogate: 1-Chlorooctadecane		88.6 <b>%</b>	70-13	0	*	~	*	*	
West, 20' (5G21014-02) Soil									
Gasoline Range Organics C6-C12	15.7	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	220	10.0	•	•		*	•	•	
Total Hydrocarbon C6-C35	236	10.0	N	•	•	•			
Surrogate: 1-Chlorooctane		76.2 %	70-13	0	*	*	. "	*	
Surrogate: 1-Chlorooctadecane		81.0%	70-13	0	*	~		~	
West, 7' (5G21014-03) Soil								-	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	•	•	•	. •	•.	•	
Total Hydrocarbon C6-C35	ND	10.0	•	•	•	*	•	•	
Surrogate: 1-Chlorooctane		82.0 %	70-13	0	-	*		*	
Surrogate: 1-Chlorooctadecane		78. <b>4</b> %	70-13	10	*	*	*	<b>H</b>	
Southwest, 12' (5G21014-04) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg∕kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	•	•		•		*	
Total Hydrocarbon C6-C35	ND	10.0	•	•	•	•		•	
Surrogate: 1-Chlorooctane		81.4 %	70-13	30	n	"	"	*	
Surrogate: 1-Chlorooctadecane		78.6%	70-13	3 <b>0</b> .	**	*	~	*	
South, 17' (5G21014-05) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	ì	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	•			•	*	•	
Total Hydrocarbon C6-C35	ND	10.0	, <b>,</b> ,	•	•		•		
Surrogate: 1-Chlorooctane		86.0 %	70-1.	30	~	*	*	*	
Surrogate: 1-Chlorooctadecane		82.6 %	70-1.	30	*	*	•	*	

Project: John H. Hendrix/ Will Cary #5

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123 Project Manager: Mark Larson

Reported: 08/08/05 13:01

## Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
South, 12' (5G21014-06) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	*		•		•	*	
Total Hydrocarbon C6-C35	ND	10.0	•		•	•		•	
Surrogate: 1-Chlorooctane		71.4 %	70-13	0	*	*	*		
Surrogate: 1-Chlorooctadecane		82.0 %	70-13	0	*	"	*	•	
South, 3' (5G21014-07) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EG52114	07/22/05	07/23/05	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	•		• .	•	. •	•	
Total Hydrocarbon C6-C35	ND	10.0	•		•	•			
Surrogate: 1-Chlorooctane		70.0 %	70-13	ю	*		₩	*	
Surrogate: 1-Chlorooctadecane		78.6 %	70-13	0	*		. "	*	

Project: John H. Hendrix/ Will Cary #5

P.O. Box 50685 Midland TX, 79710

Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 08/08/05 13:01

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

		Reporting	_						
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Bottom, 28' (5G21014-01) Soil	···								
Chloride	93.5	5.00	mg/kg	10	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	5.7	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
West, 20' (5G21014-02) Soil									
Chloride	2500	50.0	mg/kg	100	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	9.8	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
West, 7' (5G21014-03) Soil								•	
Chloride	476	10.0	mg/kg	20	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	6.9	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
Southwest, 12' (5G21014-04) Soil		· · ·							
Chloride	847	10.0	mg/kg	20	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	8.7	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
South, 17' (5G21014-05) Soil									
Chloride	730	10.0	mg/kg	20	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	5.8	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
South, 12' (5G21014-06) Soil						_			
Chloride	733	10.0	mg/kg	20	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	7.0	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	
South, 3' (5G21014-07) Soil									
Chloride	1470	25.0	mg/kg	50	EG52512	07/23/05	07/23/05	EPA 300.0	
% Moisture	8.1	0.1	%	1	EG52516	07/22/05	07/25/05	% calculation	

P.O. Box 50685 Midland TX, 79710 Project: John H. Hendrix/ Will Cary #5

Project Number: 4-0123
Project Manager: Mark Larson

Fax: (432) 687-0456

Reported: 08/08/05 13:01

## 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 EG52114 - Solvent Extraction (GC	)		<b></b>							
Blank (EG52114-BLK1)				Prepared: 0	37/21/05 Aı	nalyzed: 07	//23/05			
Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	•							
Total Hydrocarbon C6-C35	ND	10.0								
Surrogate: 1-Chlorooctane	36.7		mg/kg	50.0		73.4	70-130			
Surrogate: 1-Chlorooctadecane	42.5		"	50.0		85.0	70-130			
LCS (EG52114-BS1)				Prepared: (	07/21/05 A	nalyzed: 07	7/23/05			
Gasoline Range Organics C6-C12	435	10.0	mg/kg wet	500		87.0	75-125			
Diesel Range Organics >C12-C35	441	10.0		500		88.2	75-125			
Total Hydrocarbon C6-C35	876	10.0		1000		87.6	75-125			
Surrogate: 1-Chlorooctane	51.3		mg/kg	50.0		103	70-130			
Surrogate: 1-Chlorooctadecane	42.5		*	50.0		85.0	70-1 <b>3</b> 0			
Calibration Check (EG52114-CCV1)	•			Prepared:	07/21/05 A	nałyzed: 07	7/23/05			
Gasoline Range Organics C6-C12	441		mg/kg	500		88.2	80-120			
Diesel Range Organics >C12-C35	477			500		95.4	80-120			
Total Hydrocarbon C6-C35	918		•	1000		91.8	80-120			
Surrogate: 1-Chlorooctane	54.5			50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	43.5		•	50.0		87.0	7 <b>0</b> -130		•	
Matrix Spike (EG52114-MS1)	Source	e: 5G2101	4-05	Prepared:	07/21/05 A	nalyzed: 0°	7/23/05			
Gasoline Range Organics C6-C12	488	10.0	mg/kg dry	531	ND	91.9	75-125			
Diesel Range Organics >C12-C35	479	10.0	•	531	ND	90.2	75-125			
Total Hydrocarbon C6-C35	967	10.0		1060	ND	91.2	75-125		•	
Surrogate: 1-Chlorooctane	53.2		mg/kg	50.0		106	70-130			
Surrogate: 1-Chlorooctadecane	42.8		*	50.0		85.6	70-130	-	*	
Matrix Spike Dup (EG52114-MSD1)	Sour	ce: 5G2101	4-05	Prepared:	07/21/05 A	nalyzed: 0	7/23/05			
Gasoline Range Organics C6-C12	479	10.0	mg/kg dry	531	ND	90.2	75-125	1.86	20	
Diesel Range Organics >C12-C35	450	10.0	•	531	ND	84.7	75-125	6.24	20	
Total Hydrocarbon C6-C35	929	10.0	• •	1060	ND	87.6	75-125	4.01	20	
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0	<del>-</del> ,	105	70-130			
Surrogate: 1-Chlorooctadecane	42.3		*	50.0		84.6	70-130			

Project: John H. Hendrix/ Will Cary #5

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123
Project Manager: Mark Larson

Reported: 08/08/05 13:01

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

		· · · · · · · · · · · · · · · · · · ·					<del></del>			
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EG52512 - Water Extraction	·····	<u> </u>								
Blank (EG52512-BLK1)		•		Prepared 8	Analyzed:	07/23/05		•		
Chloride	ND	0.500	mg/kg							
LCS (EG52512-BS1)				Prepared &	Analyzed:	: 07/23/05				
Chloride	10.7		mg/L	10.0		107	80-120			
Calibration Check (EG52512-CCV1)				Prepared &	t Analyzed	: 07/23/05				
Chloride	10.6		mg/L	· 10.0		106	80-120			
Duplicate (EG52512-DUP1)	Sou	rce: 5G20024	-02	Prepared &	k Analyzed	: 07/23/05				
Chloride	1390	25.0	mg/kg		1380			0.722	20	
Batch EG52516 - General Preparation (Prep	)									
Blank (EG52516-BLK1)				Prepared:	07/22/05 A	nalyzed: 0	7/25/05			
% Moisture	ND	0.1	%							
Duplicate (EG52516-DUP1)	Sou	rce: 5G21014	-01	Prepared:	07/22/05 A	analyzed: 0	7/25/05			
% Moisture	5.5	0.1	%		5.7			3.57	20	

Project: John H. Hendrix/ Will Cary #5

Fax: (432) 687-0456

P.O. Box 50685 Midland TX, 79710 Project Number: 4-0123 Project Manager: Mark Larson Reported: 08/08/05 13:01

#### **Notes and Definitions**

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:

Raland Khuds

Date:

8/8/2005

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.

#### ronmemal Lab of Texas Environmental Lab of Texas Variance / Corrective Action Report - Sample Log-In Date/Time: Order #: <u>5G2</u> Initials: Sample Receipt Checklist Yes Temperature of container/cooler? No C Shipping container/cooler in good condition? (es) No Custody Seals intact on shipping container/cooler? Not present Yes No Not present Custody Seals intact on sample bottles? No Yes Chain of custody present? (ES) No Sample Instructions complete on Chain of Custody? No Yes) Chain of Custody signed when relinquished and received? (Pes) No Chain of custody agrees with sample label(s) No (Fes) Container labels legible and intact? No Sample Matrix and properties same as on chain of custody? (es) No Samples in proper container/bottle? No Samples properly preserved? (€s € No Sample bottles intact? No Yes | Preservations documented on Chain of Custody? No (FES) Containers documented on Chain of Custody? (Yes) No Sufficient sample amount for indicated test? Ves\_ No All samples received within sufficient hold time? (Pes) No VOC samples have zero headspace? Yes No Not Applicable Other observations:

<u> </u>		
	Variance Documentation:	
Centact Person:	Date/Time:	Contacted by:
Regarding:		
		<u> </u>
Savestive Action Taken		<del></del>
Corrective Action Taken:		·
<del></del>		
	· · · · · · · · · · · · · · · · · · ·	
	<del></del>	

CLIENT NAME:	SITE MANAGER:	PARAMETE	PARAMETERS/METHOD NUMBER	CHAIN-OF-	-CUSTODY RECORI
Ocho H. Handing	M. Langen				
-	PROJECT NAME:			SSOCIOTES, Inc. Environmental Consultants	Fax: 40
- JO	3-			(Z)	
JION SWITE	SAMPLE IDENTIFICATION	UMBER O		NUMBER NUMBER	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED,
7	hitton 281	j		(m) (p)	GRAB COMPOSITE)
	┝	<i>&gt; -</i>		20-	
	<u> </u>	<i>&gt;</i>		-03	
	hauthunt 12'	<b>&gt;</b> -		\$0	
> Hiso		<b>&gt;</b>		8	
V 0350	South 121	<i>)</i>		90	
	Bruth 3'	シ シ ー		50	
	1		1		
SAMPLE® BX (Signorfure)	DATE: 421/05 REHADUISHED BY:	SHED BY: (Signature)	DATE: 72/cs5 TIME/24 5C	RECEIVED BY: (Signature)	DATE: TIME:
RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)	DATE:	SAMPLE SHIPPED BY: (Circle)	(e
•			TIME		₹
COMMENTS:		JUT	TURNAROUND TIME NEEDED	HAND DELIVERED WHITE - RECEIVING LAB	UPS OTHER:
BORATORY: ETNY Zicks E	dra-l	RECEIVED BY: Signature	10 / W.C.		- Keceiving cab (10 de Rejorned 10 La After Receipt) - Project Manager - Da/OC Coordinator
CONTACT. Poland 14+16	PHONE: (432) 563-1800	UAIE: - (   V L L L			
SAMPLE CONDITION WHEN RECEIVED:	<i>e</i> ]	LA CONTACT PERSON:	i overm	SAMPLE TYPE: ${\mathcal B}_{\mathbf c}$	Bose