

December 6, 2005

VIA EMAIL: paul.sheeley@state.nm.us VIA CERTIFIED MAIL

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



#### Re: Revised Flow Line Leak Investigation Report and Remediation Plan, John H. Hendrix Corporation, Walter Lynch #1 Well, Unit Letter K (NE/4, SW/4), Section 1, Township 22 South, Range 37-East, Lea County, New Mexico AP1 # 3025 09942 0000

Dear Mr. Sheelev:

This letter is submitted to the State of New Mexico Oil Conservation Division ("OCD") on behalf of John H. Hendrix Corporation ("JHHC") by Larson and Associates, Inc. ("LA"), its agent, and presents the results of an investigation of a crude oil leak from a flow line in unit letter K ("NE/4, SW/4"), Section 1, Township 22 South, Range 37 East in Lea County, New Mexico. The leak was discovered on August 30, 2005, and immediately reported to OCD. Form C-141 was submitted to OCD by JHHC on August 30, 2005. The leak occurred approximately 400 feet southwest of the Walter Lynch #1 well, involved approximately 2 barrels of crude oil and no. product was recovered. The latitude and longitude for the leak is North 32° 25' 08.2" and West 103°07'09.7". Figure 1 presents a location and topographic map. Appendix A presents Form C-141.

#### **Current Investigation**

On September 9 and 12, 2005, LA personnel collected soil samples from six (6) locations (SP-1 through SP-6) using a Terraprobe<sup>®</sup> direct-push system. The Terraprobe<sup>®</sup> hydraulically pushes or percussion hammers a stainless steel core barrel into the subsurface and collects a soil core sample about four (4) feet long. Two (2) composite samples were generally collected from each core sample (i.e., 0 to 1', 1 to 3', 4 to 5', 5 to 6' etc.) to total depth and depending on sample recovery. Samples were collected for laboratory and headspace analysis. The laboratory samples were placed in 4-ounce glass sample 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 in Odessa, Texas. The headspace samples were collected in 8-ounce jars that were partially filled to leave an open headspace near the top of the container before sealing the container opening with a layer of aluminum foil and securely tightening the lid. The concentration of organic vapors in the headspace samples was measured using a calibrated photoionization detector ("PID") after the samples had warmed to near ambient temperature (approximately 30 minutes), at which time the PID probe was inserted into the container headspace, through the aluminum foil and the concentration of organic vapors was measured in parts per million ("ppm"). The maximum depth of Terraprobe® penetration was approximately eleven (11) feet below ground surface ("bgs") at location SP-3. The borings were plugged with

Hendrig - 12024 application - pPACO605436669 Incident - NPACO605436545 inspection -Hendrix - 12024

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bentonite and samples were visually examined using the Unified Soil Classification System ("USCS"). Figure 2 presents a Site drawing. Appendix B presents the boring logs.

The laboratory analyzed samples for benzene, toluene, ethyl benzene and xylene ("BTEX") using method SW-846-8021B, if PID readings exceeded 100 ppm. The laboratory analyzed samples for 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 PID and laboratory analysis. Appendix C presents the laboratory report. Appendix D presents photographs.

#### Setting

The leak occurred approximately 3 miles southeast of Eunice, New Mexico, at an elevation of approximately 3350 feet above mean sea level ("AMSL"). Monument Draw is located about 2,800 feet east of the leak and is an intermittent stream that flows southeast. The area is covered with wind blown sand that overlies the Ogallala formation (Tertiary). The Ogallala formation consists of unconsolidated to well-cemented sand and sandstone that is interstratified with clay, silt and gravel. The Ogallala formation overlies the Chinle formation (Triassic), which is known as "red bed". The red bed consists of mudstone, siltstone and sandstone.

The Office of the New Mexico State Engineer ("OSE") in Roswell, New Mexico, indicates that groundwater occurs at approximately 54 feet bgs, which is close to the cut-off for consideration of a higher ranking score. No wells were identified within 1,000 feet of the location. Recommended remediation action levels ("RRAL") were calculated using the following criteria published by OCD ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"):

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

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

Benzene	10 mg/kg
<b>Total BTEX</b>	50 mg/kg
ТРН	100 mg/kg

#### **Conclusions**

Benzene exceeded the RRAL in sample SP-3, 1 to 3 feet (8.45 mg/Kg). Total BTEX (sum of benzene, toluene, ethyl benzene and xylene) exceeded the RRAL in samples SP-3, 0 to 1 feet (85.15 mg/Kg) and SP-3, 1 to 3 feet (136.46 mg/Kg). TPH exceeded the RRAL in samples SP-2, 0 to 1 feet (18,386 mg/Kg), SP-2, 1 to 2.8 feet (244.04 mg/Kg), SP-3, 0 to 1 feet (27,770 mg/Kg), SP-3, 1 to 3 feet (5,970 mg/Kg), SP-4, 0 to 1 feet (15,150 mg/Kg), SP-5, 0 to 1 feet (19,400 mg/Kg), SP-6, 0 to 1 feet (5,902 mg/Kg) and SP-6, 1 to 2.5 feet (979 mg/Kg). There is no RRAL for chloride, but soil will be excavated to reduce chloride below 1,000 mg/Kg.

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Additional investigation will be performed during remediation to delineate chloride to 250 mg/Kg or background, whichever is greater.

#### **Remediation Plan**

Soil will be removed from the area of the leak to an approximate depth of three (3) feet bgs to reduce BTEX and TPH below the RRAL and chloride below 1,000 mg/Kg. Additional soil will be removed to approximately ten (1) feet bgs near the leak (SP-3) to reduce BTEX and TPH below the RRAL and chloride below 1,000 mg/Kg. Additional investigation will be performed in the vicinity of sample locations SP-3, SP-4, SP-5and SP-6 to delineate the lateral and vertical extent of chloride to near 250 mg/Kg or background, whichever is greater. Soil samples will be collected from the bottom and sides of the excavation and analyzed by a qualified laboratory for BTEX, TPH and chloride. The excavated soil will be hauled to the JHHC permitted landfarm (NM-02-0021) located northwest of Jal, New Mexico. Clean soil will be placed in the excavation and seeded to range grasses. A final report will be submitted to OCD within 45 days following receipt of the laboratory report. Your approval of the remediation plan is requested. If you have questions, please call Mr. Marvin Burrows with JHHC at (505) 394-2649, myself at (432) 687-0901 or email <u>mburrows@valornet.com</u> or <u>Mark@LAEnvironmental.com</u>.

Larson and Associates, Inc.

Cassie Holobs for

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 Ed Martin/OCD – Santa Fe



## NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON Governor Joanna Prukop Cabinet Secretary Mark E. Fesmire, P.E. Director Oil Conservation Division

Janurary 5, 2006

Marvin Burrows/JHHC John H. Hendrix Corp., (JHHC) 110 N. Marienfeld St., Ste. 400 Midland, TX 79701

Re: Walter Lynch #1 Well - Investigation Work Plan Approval Site Location: UL-K, Sec 1-T22S-R37E Dated: December 6, 2005

Dear Mr. Burrows,

New Mexico Oil Conservation Division (OCD) received an investigation work plan prepared by Larson & Associates for JHHC and referenced above. The plan is **hereby approved** with the following additional requirements:

- 1. JHHC shall dispose of contaminated material according to OCD protocol.
- 2. JHHC shall propose a soil remediation level demonstrating that remaining chloride contamination will not cause an exceedance of the New Mexico Water Quality Control Commission (WQCC) groundwater standard of 250 mg/L [Chloride].

Please be advised that OCD approval of this plan does not relieve JHHC of liability should their operations fail to adequately investigate and remediate contaminants that threaten ground water, surface water, human health or the environment. In addition, OCD approval does not relieve JHHC of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions or need assistance please write or call: (505) 393-6161, ext. 113, or e-mail: <u>psheeeley@state.nm.us</u>

Sincerely,

Paul Sheeley-Environmental Engineer Cc: Roger Anderson - Environmental Bureau Chief Chris Williams - District I Supervisor Larry Johnson - Environmental Engineer Mark Larson - Larson & Associates TABLES

Summary of Field and Laboratory Analysis of Soil Samples Table 1:

Page 1 of 2 John H. Hendrix Corporation, Walter Lynch #1 Unit Letter K (NE/4,SW/4), Section 1, Township 22 South, Range 37 East Lea County, New Mexico

Boring	Sample	Sample	PID	Benzene	BTEX	GRO C6	DRO	HdL	Chloride
Number	Date	Depth	(mqq)	(mg/kg)	(mg/kg)	C12 (ma/ka)	>C12-C35 (ma/ka)	C6-C35 (molke)	(mg/kg)
	RR			10	50	(9. A.)		100	
SP-1	9/9/2005	0 - 1	15.4			<10	<10	<20	31.9
	9/9/2005	1 - 2.8	2.0	ŀ		<10	<10	<20	138
	9/9/2005	4 - 6	0.1	ł		<10	<10	<20	159
	9/9/2005	6 - 7.8	0.1			-	1	-	1
SP-2	9/12/2005	0 - 1	120.0	<0.025	0.0882	986	17,400	18,386	1,440
	9/12/2005	1 - 2.8	20.5			5.04	239	244.04	159
	9/12/2005	4 - 5	7.0	ł		<10	28.2	28.2	31.9
	9/12/2005	5 - 6	23.4	-		1	1	1	
	9/12/2005	6 - 8	4.0				1		1
SP-3	9/12/2005	0 - 1	750.0	1.75	85.15	6,370	21,400	27,770	5,640
	9/12/2005	1 - 3	1450.0	8.45	136.46	2,430	3,540	5,970	9,250
	9/12/2005	4 - 5	402.0	0.0105	0.5	10.3	82.4	92.7	5,420
	9/12/2005	5 - 6	708.0	1		<10	<10	⊲20	6,810
	9/12/2005	6 - 7	3.0			1	ł	1	7,530
	9/12/2005	8 - 9	47.4	ł		1	1	l	4,140
	9/12/2005	9 - 11	15.2					-	622
SP-4	9/12/2005	0 - 1	220.0	0.0584	25.6684	2,750	12,400	15,150	2,450
	9/12/2005	1 - 2.8	51.6	-		<10	9.64	9.6	298
	9/12/2005	4 - 5	142.0	<0.025	0.2898	8.77	18.6	27.37	670
	9/12/2005	5 - 6	0.1	1		<10	<10	<20	308
	9/12/2005	6 - 8	0.1			-	-	1	292
SP-5	9/12/2005	0 - 1	68.7	-	-	1,300	18,100	19,400	681
	9/12/2005	1 - 2.8	20.8		1	<10	<10	∽0	1,000
	9/12/2005	4 - 5	2.8		1	<10	<10	⊲20	989
	9/12/2005	5 - 6	0.1		-		-		750

Unit Letter K (NE/4,SW/4), Section 1, Township 22 South, Range 37 East Summary of Field and Laboratory Analysis of Soil Samples John H. Hendrix Corporation, Walter Lynch #1 Table 1:

Chloride (mg/kg) ,460 1,030 1,540 915 389 709 Page 2 of 2 C6-C35 HJT (mg/kg) 5,902 979 ₹ 0000 3 1 1 >C12-C35 (mg/kg) DRO 5,140 <10 ≤10 864 1 GRO C6 (mg/kg) C12 115 <10 762 l BTEX (mg/kg) 50 ł Benzene (mg/kg) 2 (mdd) PD 53.6 95.7 9.2 0.4 0.2 0.1 Lea County, New Mexico (Feet BGS) Sample 6 - 7.8 Depth - 2.5 4 - 5 5-6 6 - 8 0-1 RRAL 9/12/2005 9/12/2005 9/12/2005 9/12/2005 9/12/2005 9/12/2005 Sample Date Boring Number SP-5 SP-6

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

I. BGS: Sample depth in feet below ground surface

2. TPH: Total petroleum hydrocarbons (Sum of DRO + GRO)

3. mg/kg: Milligrams per kilogram

4. <: Below method detection limit

5. PID: Photoionization detector

6. ppm: Parts per million

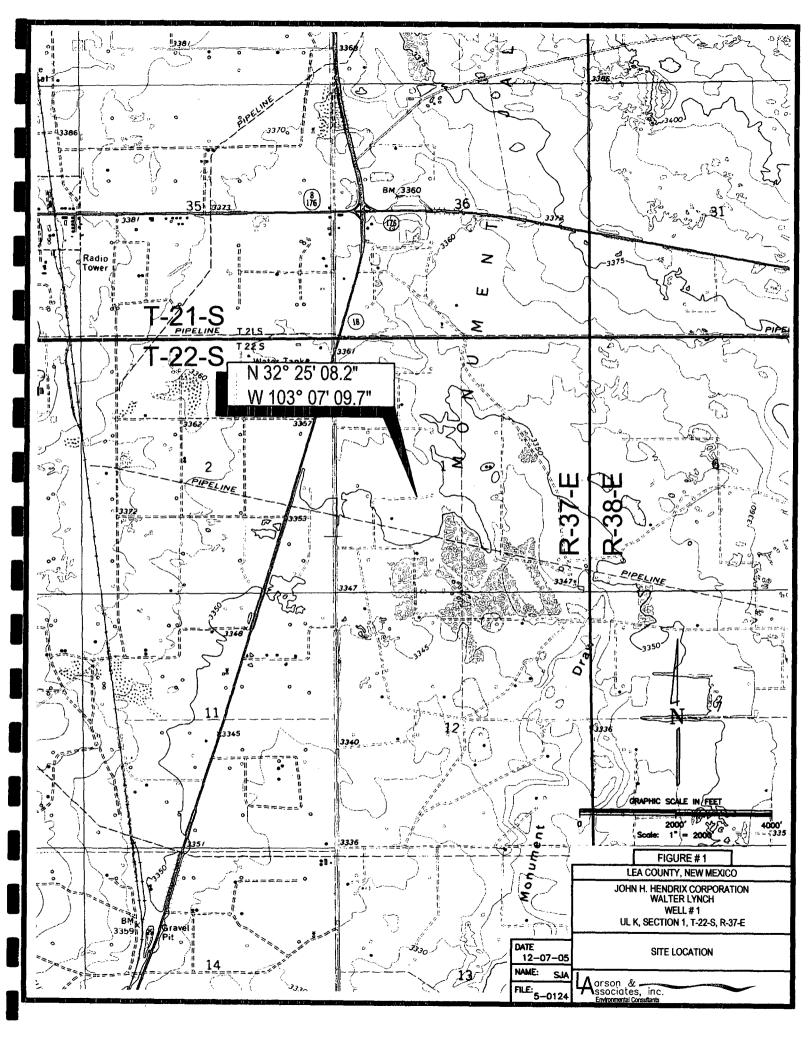
7. ---: No data available

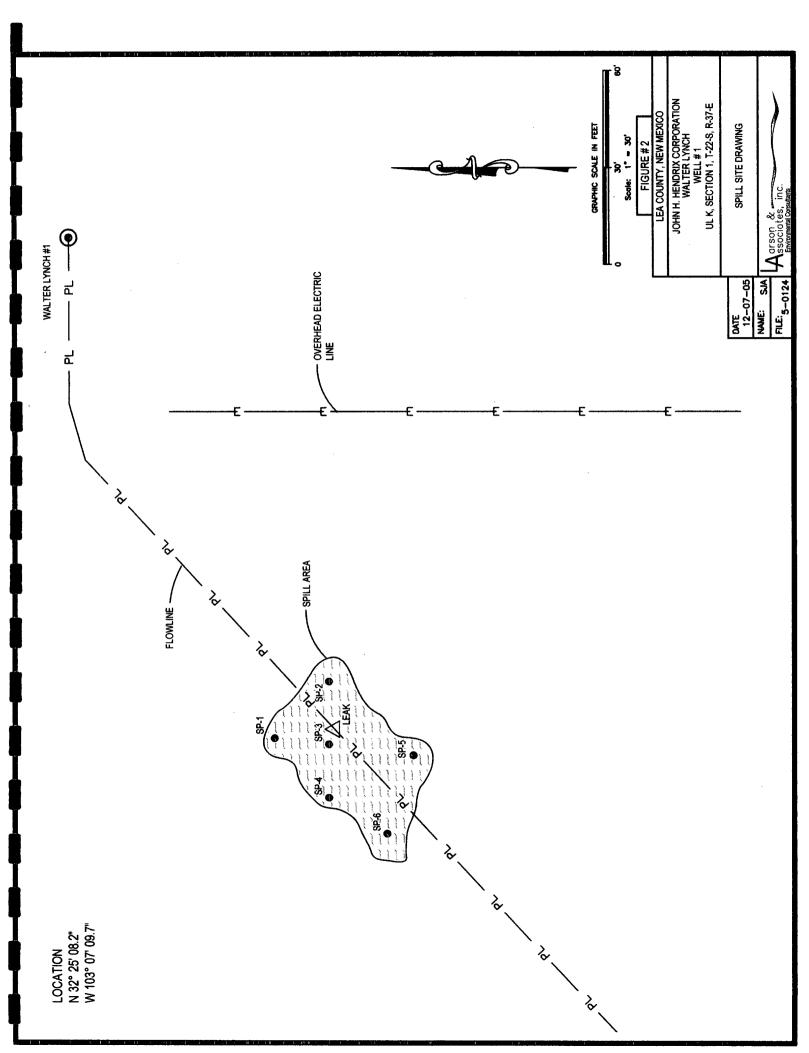
8. BTEX: Sum of benzene, tolulene, ethylbenzene and xylene

9. GRO: Gasoline - range organics

10. DRO: Diesel - range organics

**FIGURES** 





**APPENDIX A** 

Form C-141

			ty el l'ante	
<u>)istrict]</u> 625 N. French Dr., (Johbs, NM, 88240		New Mexico		Form C-14
District II 301 W. Grand Avenue, Artesia, NM 88210	<u></u>	and Natural Resources		Revised October 10, 200
District III 000 Rio Brazos Road, Azter: NM 87410		vation Division		Submit 2 Copies to appropriat District Office in accordance
District IV 220 S. St. Francis Dr., Sunta Fe. NM 87505		i St. Francis Dr. e, NM 87505		with Rule 116 on bac side of for
Ŕ	لي خدد بي الأواف سيري بالأله، حد جي الكاف ا	a and Corrective Ac	tion	
_1	1	OPERATOR		Report 🔲 Final Rep
Name of Company Ohn It.	Hendrix	Contact MARVIN	1 BUR	ROWS
Address Bax 910, Eunice Facility Name WALTEN Ly		Telephone No. 505- Facility Type FLO	394-2 Whine	649
Surface Owner Kennam	2 Mineral Owner	Kennann	Lease No	0
		N OF RELEASE		
Unit Letter Section Township Range		South Line Feel from the		County
1 000 010		1980 J	West	LeA
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Was Immediate Notice Given?	DNO D Not Required	If YES, To Whom? 5/3	0105	\$1301
	nnows	Date and Hour 3.00	Am El	30105
Was a Watercourse Reached?		If YES, Volume Impacting th	c Watercourse.	
If a Watercourse was Impacted, Describe Fully	/*	<u> </u>		
Describe Cause of Problem and Remedial Acti	on Taken.*		·	
r			4	
Pubble in F	-Lowhine	· .		
Pin hole M P	akcn."			
	x 20'			
('x 20', 2'		hone		
hereby certify that the information given about	e is true and complete to the	c best of my knowledge and und	lerstand that music	aut to NMO(1) rules and
hereby certify that the information given about egulations all operators are required to report a	and/of file certain release no	c best of my knowledge and mic	up actions for missi	cos nelveb man andrasa
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hereby certify that the information given above egulations all operators are required to report a multic health or the environment. The acceptan- bould their operations have failed to adequated or the environment. In addition NMOCD acce- cederal, state, or local laws aud/or regulations. Signatures Manue Bandon Bandon Printed Name: MANJIN 13	And/of tile certain release no nace of a C-141 report by the by investigate and remediate splance of a C-141 report do where of a C-141 report do	c best of my knowledge and und tilications and perform correction NMOCD marked as "Final Rep contamination that pose a threa is not relieve the operator of res <u>OIL CONST</u> Approved by District Supervisor	ve actions for relea: cont <sup>*</sup> does not reliev t to gmund water, s sponsibility for con <u>ERVATION 12</u>	ses which may endanger /e the operator of liability surface water, luman health upliance with any other <u>DIVISION</u>

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### **APPENDIX B**

**Boring Logs** 

Project: Walter Lynch # 1

Project No: 5-0124

Location: Lea County , New Mexico

# Log: SP - 1

Page: 1 of 1

		SUBSURFACE PROFILE	S	AMP	.E		
Depth	Symbol	Description	Number	Type	Recovery	PID ppm 2 6 10 14 18	Notes
0-		Ground Surface					
Ū		Slity Sand 7.5 YR 6/3, Very fine grained san sorted, sub round, loose to weakl conpacted, dry	d, poorly y 1			15.4	
-			2			2.0	
-							
5-			3			0.1	
1			4			0.1 0.1	
-		Caliche 7.5 YR 7/1 to 5/3, Light gray to bu very fine grained quartz sand, fria TD: 8'	rown, sandy able, dry				
10 Dr	rill Meth	od: Direct Push	arson and Assoc	iates,			Elevation: N/A
	rill Date ole Size	. 9/9/05 <b>N</b>	07 N. Marienfeld lidland, Texas 79 132) 687-0901	, Suite 9701	e 202		Checked by: MJL Drilled by: LA

Project: Walter Lynch # 1

Project No: 5-0124

Location: Lea County , New Mexico

## Log: SP - 2

Page: 1 of 1

		SUBSURFACE PROFILE	S	AMP	LE		
Depth	Symbol	Description	Number	Type	Recovery	PID ppm 50 150	Notes
0-		Ground Surface			[		
-		Slity Sand 7.5 YR 3/2 TO 5/2, Very brown to brown, very fine grained sand, poorly sorted, sub round, very stong hydrocarbon odor and stain from 0.0' - 1.0'	1			120.0	
-			2			20,5	
-							
5-			3			7.0	
-			4			23.4	
-			5				
-	<i></i>	Silty Clayey Sand 7.5 YR 3/2, Brown, very fine grained quart sand	z			4.0 5	
		TD: 8'					
-							
10-	1		<u> </u>	L	<u> </u>		
D	rill Meth	od: Direct Push Larson a 507 N. M	nd Assoc	ciates,			Elevation: N/A
D	rill Date	: 9/12/05 Midland,	Texas 7	9701	5 202		Checked by: MJL
Н	ole Size	: 0.25' (432) 68	7-0901				Drilled by: LA

Project: Walter Lynch # 1

Project No: 5-0124

Location: Lea County , New Mexico

## Log: SP - 3

Page: 1 of 1

		SUBSURFACE PROFILE	S	AMPI	E		
Depth	Symbol	Description	Number	Type	Recovery	PID ppm 500 1500	Notes
0-		Ground Surface					
-		<i>Slity Sand</i> 7.5 YR 3/2 TO 5/2, Very brown to brown, very fine grained sand, poorly sorted, sub round, very stong hydrocarbon odor and stain	1			750.0	
-			2			1400.0	
5-			3			402.0	
			4			708.0	
-		Silty Clayey Sand 7.5 YR 3/2 TO 5/6, Brown to strong brown,	5			3.0	
		very fine grained quartz sand, very poorly sorted, firm		ļ			
-			6			47.4	
10-	_//	Caliche	7			15.2 ¢	
-		7.5 YR 7/2 to 6/3, pinkish gray to light brown, sandy, very fine grained quartz sand, friable					
-	苦苦苦	TD: 12'					
-							
15-	l			<u> </u>	<u> </u>		
D		Direct Push Larson and A   9/12/05 507 N. Marie   0.25' (432) 687-09	enfeld as 79	, Suite	Inc 202	<u> </u>	Elevation: N/A Checked by: MJL Drilled by: LA
							·····

Project: Walter Lynch # 1

Project No: 5-0124

Location: Lea County, New Mexico

# Log: SP - 4

Page: 1 of 1

		SUBSURFACE PROFILE	S	AMPI	.E		
Depth	Symbol	Description	Number	Type	Recovery	PID ppm 100 300	Notes
0 - - - - - - - - - - - - - - - - - -		Ground Surface Slity Sand 7.5 YR 3/2, Light brown, very fine grained sand, poorly sorted, stong hydrocarbon odor and stain from 0.0' - 1.0' Silty Clayey Sand 7.5 YR 3/2, Light brown, very fine grained quartz sand, very poorly sorted, firm TD: 8'	1 2 3 4 5			220.0 51.6 142.0 0.1	
D		od: Direct Push Larson and 507 N. Maria 9/12/05 Midland, Te : 0.25'	enfeld xas 79	, Suite			Elevation: N/A Checked by: MJL Drilled by: LA

Project: Walter Lynch # 1

Project No: 5-0124

Location: Lea County, New Mexico

## Log: SP - 5

Page: 1 of 1

		SUBSURFACE PROFILE	S	AMPL	.E		
Depth	Symbol	Description	Number	Type	Recovery	PID ppm 50 150	Notes
0-		Ground Surface					
-		<b>Slity Sand</b> 7.5 YR 3/2, Light brown, very fine grained sand, very poorly sorted, subround, loose, dry	1			68.7 /	
-			2			20.8	
-							
5-			3			2.8	
_			4			0.1	
			5			0.1	
	λ,	<b>Silty Clayey Sand</b> 7.5 YR 3/2 to 5/6, Light brown to strong brown, very fine grained quartz sand, very poorly sorted, firm					
-		TD: 8'					
-							
10-	1		<u> </u>	L			l
D	rill Date:	od: Direct Push Larson and 2 507 N. Marie 9/12/05 Midland, Tex (432) 687-09	enfeld kas 79	, Suite	Inc 202		Elevation: N/A Checked by: MJL
Н	ole Size	. U.25					Drilled by: LA

Project: Walter Lynch # 1

Project No: 5-0124

Location: Lea County, New Mexico

## *Log:* SP - 6

Page: 1 of 1

		SUBSURFACE PROFILE	S	AMPL	.E		
Depth	Symbol	Description	Number	Type	Recovery	PID ppm 50 150	Notes
0-		Ground Surface					
-		<i>Slity Sand</i> 7.5 YR 3/2, Light brown, very fine grained sand, very poorly sorted, subround, loose, strong hydrocarbon odor	1			95.7	
-			2			53.6	
-							
5			3			9.2 ¢	
-			4			0.4	
-		Silty Clayey Sand	5			0.2	
-		7.5 YR 3/2, Light brown to strong brown, very fine grained quartz sand, very poorly sorted, firm <b>TD: 8'</b>					
10-							
D	rill Meth	od: Direct Push Larson and A	Assoc	iates.	Inc		Elevation: N/A
D	rill Date:	9/12/05 507 N. Marie Midland, Tex	nfeld.	, Suite	202		Checked by: MJL
	ole Size	(432) 687-00	01				Drilled by: LA

### **APPENDIX C**

## Laboratory Reports



# Analytical Report

## **Prepared for:**

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

Project: John H. Hendrix/ Walter Lynch #1 Project Number: 5-0124 Location: None Given

Lab Order Number: 5I29001

Report Date: 10/06/05

Larson & Associates, Inc.	Project: John H. Hendrix/ Walter Lynch #1	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 5-0124	Reported:
Midland TX, 79710	Project Manager: Mark Larson	10/06/05 14:36

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-3, 6-7'	5129001-01	Soil	09/12/05 12:00	09/13/05 08:45
SP-3, 8-9'	5129001-02	Soil	09/12/05 12:15	09/13/05 08:45
SP-3, 9-11'	5129001-03	Soil	.09/12/05 12:15	09/13/05 08:45
SP-4, 6-8'	5129001-04	Soil	09/12/05 13:15	09/13/05 08:45
SP-5, 5-6'	5129001-05	Soil	09/12/05 12:44	09/13/05 08:45
SP-5, 6-7.8'	5129001-06	Soil	09/12/05 12:44	09/13/05 08:45
SP-6, 5-6'	5129001-07	Soil	09/12/05 13:37	09/13/05 08:45
SP-6, 6-8'	5129001-08	Soil	09/12/05 13:37	09/13/05 08:45

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

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

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
SP-3, 6-7' (5129001-01) Soil									
Chloride	7530	100	mg/kg	200	EJ50402	09/30/05	10/04/05	EPA 300.0	
SP-3, 8-9' (5129001-02) Soil		<u>.</u>							
Chloride	4140	50.0	mg/kg	100	EJ50402	09/30/05	10/04/05	EPA 300.0	
SP-3, 9-11' (5129001-03) Soil									
Chloride	622	10.0	mg/kg	20	EJ50402	09/30/05	10/04/05	EPA 300.0	
SP-4, 6-8' (5129001-04) Soil									
Chloride	292	10.0	mg/kg	20	EJ50402	09/30/05	10/04/05	EPA 300.0	
SP-5, 5-6' (5129001-05) Soil									
Chloride	450	10.0	mg/kg	20	EJ50402	09/30/05	10/04/05	EPA 300.0	
SP-5, 6-7.8' (5129001-06) Soil									
Chloride	1460	20.0	mg/kg	40	EJ50402	09/30/05	10/04/05	EPA 300.0	
SP-6, 5-6' (5129001-07) Soil									
Chloride	389	10.0	mg/kg	20	EJ50402	09/30/05	10/04/05	EPA 300.0	
SP-6, 6-8' (5129001-08) Soil									
Chloride	709	10.0	mg/kg	20	EJ50402	09/30/05	10/04/05	EPA 300.0	

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.

Larson & Associates, Inc.	Project: John H. Hendrix/ Walter Lynch #1	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 5-0124	Reported:
Midland TX, 79710	Project Manager: Mark Larson	10/06/05 14:36

#### 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 EJ50402 - Water Extraction										
Blank (EJ50402-BLK1)				Prepared: (	<b>)9/30/05 A</b> i	nalyzed: 10	)/04/05			
Chloride	ND	0.500	mg/kg							
LCS (EJ50402-BS1)				Prepared: (	09/30/05 A	nalyzed: 10	)/04/05			
Chloride	8.09		mg/L	10.0		80.9	80-120			
Calibration Check (EJ50402-CCV1)				Prepared: (	09/30/05 A	nalyzed: 10	)/04/05			
Chloride	8.60		mg/L	10.0		86.0	80-120		·	
Duplicate (EJ50402-DUP1)	Sou	rce: 5129004-(	07	Prepared: (	09/30/05 A	nalyzed: 10	)/04/05			
Chloride	217	10.0	mg/kg		206			5.20	20	

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.

P.O. Box	& Associates, Inc. x 50685 TX, 79710	Project: Project Number: Project Manager:		Fax: (432) 687-0456 <b>Reported:</b> 10/06/05 14:36
		Notes and Def	initions	
DET	Analyte DETECTED			
ND	Analyte NOT DETECTED at or above the reporting limit			
NR	Not Reported			
dry	Sample results reported on a dry weight basis			
RPD	Relative Percent Difference			
LCS	Laboratory Control Spike			
MS	Matrix Spike			
Dup	Duplicate			

Report Approved By:

Raland K. Junits

10/6/2005

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.

Date:

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

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

Environmental Lab of Texas

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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CLIENT NAME	いように	PROJECT NO.:	20	PAGE 2	3UVO	Ľ	-											->			SAMPLED	REUNQUIS	Y	COMMENTS		RECEIVING		SAMPLE CON

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

Client:	anson	
Date/Time:	a/13/05 8	45
Order #:	571900Z	5[2900]
Initials:	C/L_	

 $\mathbb{P}\mathbb{V}$ 

## Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	1.0 C
Shipping container/cooler in good condition?	res	No	
Custody Seals intact on shipping container/cooler?	Yes	No	UNOL Drasant
Custody Seals intact on sample bottles?	Yes	No	ANCI present
Chain of custody present?	Ves .	No	
Sample Instructions complete on Chain of Custody?	Yas	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	I Don ar
Container labels legible and intact?	Yes	No	i na
Sample Matrix and properties same as on chain of custody?	1 Yes	No	
Samples in procer container/bottle?	1 Ces	l No	
Samples properly preserved?	1 Xes	No	
Sample bottles intact?	1 Yes	No	i
Preservations documented on Chain of Custody?	Yes	No	1
Containers documented on Chain of Custody?	YES	No	1
Sufficient sample amount for indicated test?	1 B	No	
All samples received within sufficient hold time?	123	No	
VOC samples have zero headspace?	Xes	No I	Nct Applicable

Other observations:

## Variance Documentation:

Contact Person: Regarding:	Date/Time:	Contacted by:
Corrective Action Taken:	· · · · · · · · · · · · · · · · · · ·	
	· · · ·	

#### Jeanne McMurrey

From:"Mark Larson" <mark@laenvironmental.com>To:<jeanne@elabtexas.com>Sent:Thursday, September 29, 2005 8:17 AMSubject:Re: Additional Analysis for Lab Order Number 5113002

Jeanne: Per our conversation, please analyze the following samples for

chloride:

SP-3, 6 - 7' SP-3, 8 - 9' SP-3, 9 - 11' SP-4, 6 - 8' SP-5, 5 - 6' SP-5, 6 - 7.8' SP-6, 5 - 6' SP-6, 6 - 8'

Thanks,

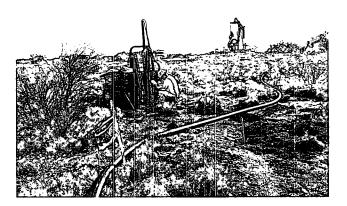
Mark

\_

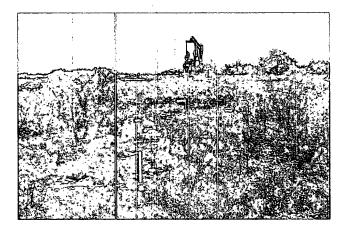
This message has been scanned for viruses and dangerous content by Basin Broadband, and is believed to be clean. **APPENDIX D** 

Photographs

## SECTION 1 T-22-S, R-37-E, LEA COUNTY, NEW MEXICO WALTER LYNCH TANK BATTERY WELL # 1 ULK



1. Direct push sampling at line



2. Flowline spill, looking northeast

3. Flowline spill, looking southwest

## SECTION 1 T-22-S, R-37-E, LEA COUNTY, NEW MEXICO WALTER LYNCH TANK BATTERY WELL # 1 ULK



4. Location sign