1R - 482

GENERAL CORRESPONDENCE

YEAR(S):

2007

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

February 9, 2007

Marvin Burrows
John H. Hendrix Corp
P.O. Box 910
Eunice, New Mexico 88231

RE: Penrose Federal Lease Battery #1
Unit F, Section 9, Township 22S, Range 37E, Lea County, New Mexico
OCD Case #1R0482

Dear Mr. Burrows:

The New Mexico Oil Conservation Division (OCD) has reviewed the investigation report for the above referenced site submitted by Larson & Associates, Inc. on behalf of the John H. Hendrix Corp on January 10, 2007. The OCD has the following comments regarding the report:

The report indicates that the chloride concentration in BH-30 is 4,310 mg/Kg at a depth of 70-71 feet bgs. Also, the report notes an approximate ground water depth of 75 feet bgs for the site. Therefore, the OCD is requiring that a ground water monitoring well be installed in the center of the pit area (near BH-30) to determine if ground water has been impacted by a release from the pit area. The well must be installed within 60 days from receipt of this letter and prior to proceeding with any corrective action at the site. In addition, the ground water must be sampled and analyzed for TPH, BTEX, TDS, and Chloride.

Please notify the OCD at least seven days prior to the ground water well installation. Also, please submit a report to the OCD regarding the ground water well installation and analyses within 30 days of the well installation. If you have any questions regarding this matter, please contact me at (505) 476-3489 or mailto:edwardj.hansen@state.nm.us.

Sincerely,

Edward J. Hansen
Hydrologist
Environmental Bureau

EJH:ejh

cc: Chris Williams, OCD Hobbs District Supervisor
Larry Johnson, OCD Hobbs

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Friday, January 12, 2007 12:04 PM
To: 'Mark@LAenvironmental.com'
Subject: Hendrix sites

Mark,

I was entering in our database the 3 Hendrix sites that you submitted reports on and discovered some discrepancies (could be cut and paste issues) - could you please clarify the locations of the following sites:

Penrose Federal Lease, Battery #1 site
You note in the cover letter that the site is in Unit C of Sec. 9, T22S, R37E, but the map indicates that the site is in Unit E (the Lat/Lon indicates Unit F). Also, in Fig. #2 the legend notes the the site is in Unit F.
In addition, in Appendix D the photo of the sign for the site reads "Unit F".

Elliott B-9 Lease, Battery #1, #4, and #5 site
You note in the cover letter that the site is in Unit C of Sec. 9, T22S, R37E, but the map (Fig. 1) and the Lat/Lon indicate Unit F. (Also, in Fig. #4 the legend notes that the site is in Unit D.)
In addition, in Appendix D the photo of the sign for the site reads "Unit C", but the title of the photo page has U.L. D.
The Lat/Lon is the same as the Penrose site (i.e., Unit F).

Elliott B-9 Lease, Battery #2 and #3 site
The cover letter, maps (Figures #1 and #3), Lat/Lon, and photos all correlate to Unit D.

I'm wondering if the Penrose site is actually in Unit F (?)
If this is the case, then a corrected cover letter (corrected Unit) and map must be submitted.

And, is the Elliott B-9 Lease, Battery #1, #4, and #5 site actually in Unit C?
If this is the case, then a corrected cover letter (corrected Lat/Lon), map, legends, and photo title page must be submitted.

Elliott B-9 Lease, Battery #2 and #3 site - I am assuming is all O.K.(?)

In any case, please make the appropriate corrections and send them to me.
Sorry to bother you with this - just a bit confusing for me.
Thanks. Let me know if you have any questions.

Edward J. Hansen
505-476-3489

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Monday, January 22, 2007 10:57 AM
To: 'Mark Larson'
Subject: RE: Hendrix sites: Elliott B-9, Battery #1, #4 and #5, Elliott B-9, Battery #2 and #3 and Penrose Federal Battery #1

Mark,
Thanks for checking into those locations.
We have a machine that will allow me to replace the pages of the bound report. Therefore, just send the affected pages only.
Thanks again.

Edward J. Hansen
Hydrologist
Environmental Bureau
505-476-3489

From: Mark Larson [mailto:mark@laenvironmental.com]
Sent: Monday, January 22, 2007 9:49 AM
To: Hansen, Edward J., EMNRD
Subject: RE: Hendrix sites: Elliott B-9, Battery #1, #4 and #5, Elliott B-9, Battery #2 and #3 and Penrose Federal Battery #1

Ed: After reviewing your comments, I compared the GPS coordinates that were referenced in each of the above-referenced reports to the GPS readings I obtained for each of the borings. I found the GPS readings for the Elliott B-9, Battery #2 and #3 (N32 degrees, 24' 42.4" and W103 Degrees 10' 31.1") to be correct. The correct unit for the Elliott B-9, Battery #2 and #3 is "D". I found the GPS reading for the Elliott B-9, Battery #1, #4 and #5 and the Penrose Federal Battery to be incorrect. The correct GPS readings for the Elliott B-9, Battery #1, #4 and #5 should be N32 Degrees 24' 39.3", W103 Degrees 10' 12.4", which places this site in unit "C". The correct GPS readings for the Penrose Federal Battery are N32 Degrees 24' 32.2" and W103 Degrees 10' 14.7", which places this site is unit "F". The field and laboratory data is correct for each site, but I will revise the reports accordingly for the correct lat/long (i.e., text, drawings and photo pages). I apologize for the confusion. Would you like me to send you revised reports or affected pages only?
Mark

✓ the Penrose site for gw impact(?)

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
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Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

January 12, 2007

Marvin Burrows
John H. Hendrix Corp
1310 N 18th St
Eunice, New Mexico 88231

RE: Proposed Voluntary Surface Restoration Program for "Old" Drill Pits

Dear Mr. Burrows:

The New Mexico Oil Conservation Division (OCD) has reviewed the proposed Voluntary Surface Restoration Program for "Old" Drill Pits submitted by the John H. Hendrix Corp (Hendrix) on October 17, 2006 (see attached for your reference). The OCD has the following comments regarding the Program:

1) Even though the OCD does not completely agree with the conceptual model put forth by Sublette and Hicks, the concept of a Voluntary Surface Restoration Program for "Old" Drill Pits is welcomed by the OCD.
2) The OCD maintains that migration of chlorides to ground water may still be a threat even in the absence of ponding situations. Even when salt deposits have been observed on the surface of "old" drill pits, the chlorides may migrate downward as well as upward.
3) Pit releases may have occurred under conditions of significant hydraulic head and may well have contaminated ground water decades ago. Rule 116 still applies, but OCD has no mandate to speculatively investigate "old" pit sites. However, the presence of salt crusts at an "old" pit site could be considered as evidence of a release and actionable under Rule 116.
4) The responsible person could certainly proceed under a Voluntary Surface Restoration Program. Such an effort could be a significant test of a slow, steady, practical remediation program that proactively deals with residual contamination. Please provide the OCD with a preliminary list of "old" drill pit sites that may be suitable for the proposed restoration. Please provide general information regarding

the sites (e.g., depth to ground water, age, salt deposits present, etc.) and the type of soil (e.g., clay, silt, loam, etc. and saturated hydraulic conductivity) that would be used to backfill the excavation of 18 inches of salt impacted soil. Please provide information regarding how often the backfill soil will be tested for chlorides and at what depths. Also, please provide information regarding how the site would eventually be closed; e.g., at what point would revegetation with native perennials occur (i.e., at what chloride concentration will the backfill soil be considered stabilized; and therefore, the remediation complete?), contour for drainage away from the site to prevent erosion, etc.

Once the OCD has received the additional information, it will further evaluate the Voluntary Surface Restoration Program for possible "authorization". The Voluntary Surface Restoration Program would be "permitted" under a general remediation plan with each site designated under that general remediation plan. The OCD would authorize the Voluntary Surface Restoration Program with the condition that for sites with ground water at less than 50 feet below ground surface, Hendrix must advance a boring with samples taken every 5 feet for field analyses to delineate the extent of TPH to 100 mg/Kg and chlorides to 250 mg/Kg. In addition, there must be a confirmatory sample taken for laboratory analyses 5 feet below the delineation concentrations stated above. If you have any questions regarding this matter, please contact Edward J. Hansen of my staff at (505) 476-3489 or mailto:edwardj.hansen@state.nm.us.

Sincerely,

Wayne Price
Environmental Bureau Chief

WP:ejh

attachment

cc: J. Daniel Sanchez, OCD Compliance and Enforcement Manager
Chris Williams, OCD Hobbs District Supervisor
Larry Johnson, OCD Hobbs
Tim Gum, OCD Artesia District Supervisor
Mike Bratcher, OCD Artesia

3 differ Tank Battery sites
Hendrix submitted Work Plan
& OCD Approved Work Plan

Landowner asked for surface cleanup

TPH cleanup to 1,000 mg/Kg

~500 mg/Kg Cl^- at ~70'

GW at ~75'

Larson & Associates, Inc.
Environmental Consultants

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RECEIVED
JAN 10 2007
Environmental Bureau
Oil Conservation Division

January 9, 2007

VIA: HAND DELIVERY

Mr. Wayne Price, Chief
Environmental Bureau
State of New Mexico
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Investigation Report of Historic Contamination and Remediation Plan, John H. Hendrix Corporation, Penrose Federal Lease, Battery #1, Unit C (NE/4, NW/4), Section 9, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Price:

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 consultant, to convey the results of an investigation to delineate the vertical and horizontal extent of historic contamination at the Penrose Federal Lease, Battery #1 ("Site"), as well as a former pit that was located southwest of the battery. The Site is located in unit C (NE/4, NW/4), Section 9, Township 22 South, Range 37 East in Lea County, New Mexico. The latitude and longitude for the Site is north 32° 24' 32.2" and west 103° 10' 16.1", respectively. Figure 1 presents a location and topographic map. Contact information for JHHC is as follows:

Name:	Marvin Burrows
Title:	Production Superintendent
Mailing Address:	1310 18th Street
	Eunice, New Mexico 88321
Telephone:	(505) 394-2649
Fax:	(505) 394-2653
Email Address:	mburrows@valornet.com

Setting

The Site is situated at an elevation of approximately 3415 feet above mean sea level ("MSL"). No surface water or wells are located within 1,000 horizontal feet of the Site, which is covered by wind blown sand (Recent). The Ogallala formation (Tertiary) underlies the sand and consists of unconsolidated to well-cemented sand and sandstone that is interstratified with clay, silt and gravel. The Chinle formation (Dockum group)

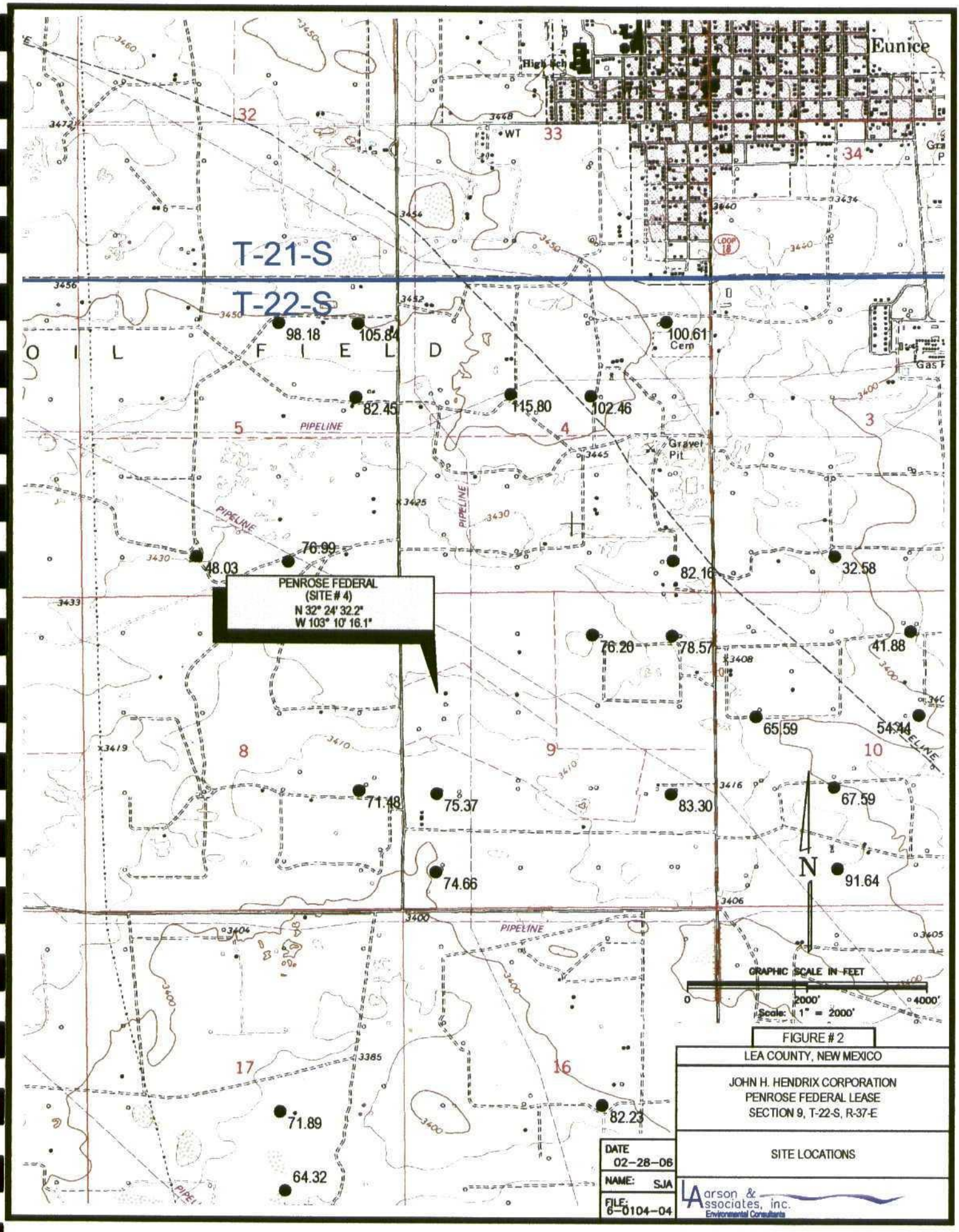

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Table 1
1R0482
Summary of Field and Laboratory Analysis of Soil Samples
John H. Hendrix Corporation, Penrose Federal Tank Battery #1
Unit Letter F (SE/4,NW/4), Section 9, Township 22 South, Range 37 East, Lea County, New Mexico

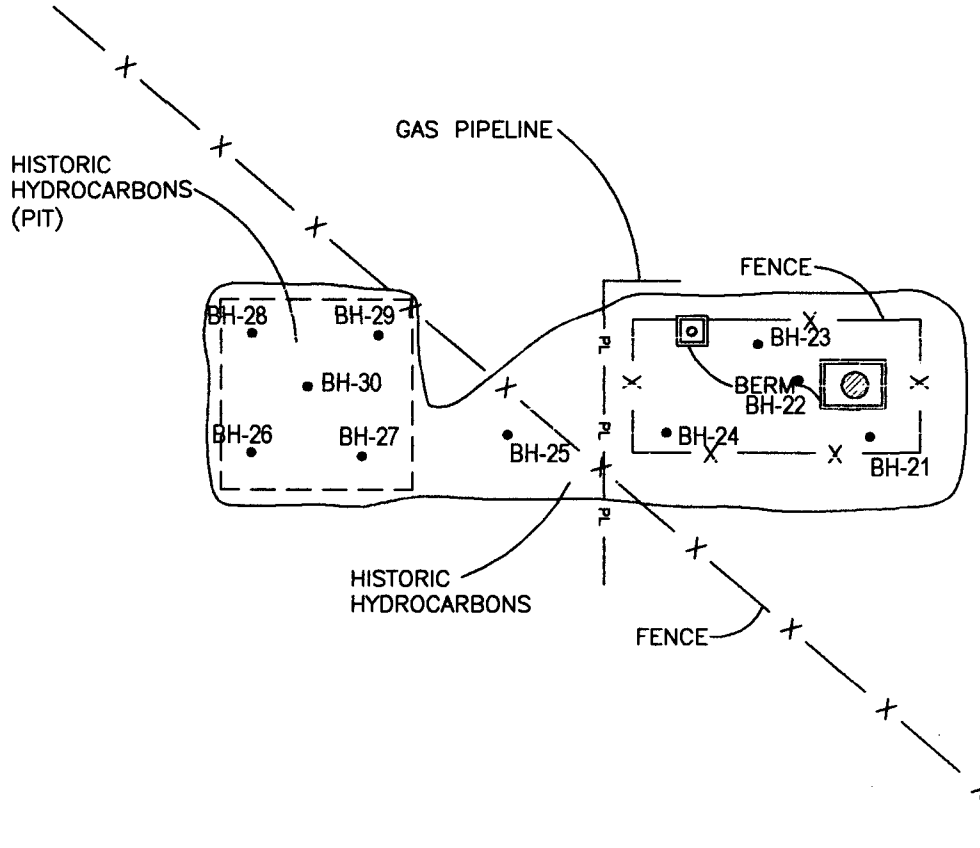
Boring Number	Sample Date	Sample Depth (Feet BGS)	PID (ppm)	Benzene (mg/kg)	BTEX (mg/kg)	GRO C6-C12 (mg/kg)	DRO C12 - C28 (mg/kg)	DRO C28-C35 (mg/kg)	DRO C6-C35 (mg/kg)	Chloride (mg/kg)
BH-21	06/29/2006	0 - 2		--	--	<10	<10	<10	<30	25.8
	06/29/2006	5 - 6		--	--	--	--	--	--	--
BH-22	06/29/2006	0 - 1		--	--	<10	359	185	544	69.2
	06/29/2006	5 -6		--	--	--	--	--	--	--
BH-23	06/29/2006	0 - 2		3.85	85.97	2,200	5,230	942	8,372	138
	06/29/2006	5 - 6		--	--	49.9	729	72.6	851.5	673
	06/29/2006	10 - 11		--	--	--	--	--	--	--
BH-24	06/29/2006	0 - 2		--	--	<10	<10	<10	<30	29.1
	06/29/2006	5 - 6		--	--	--	--	--	--	--
BH-25	06/29/2006	0 - 2		--	--	<50	2,610	633	3,243	19.6
	06/29/2006	5 - 7		--	--	--	--	--	--	--
BH-26	06/29/2006	0 - 2		0.35	3.251	93.3	1,670	268	2,031.3	425
	06/29/2006	5 - 7		0.0619	2.9929	1,860	6,610	738	9,208	2,350
	06/29/2006	10 -11		0.0112	0.8782	455	1,630	190	2,275	5,040
	06/29/2006	15 - 16		<0.025	<0.125	<10	<10	<10	<30	8,730
BH-27	06/29/2006	0 - 2		2.19	27.76	2,420	15,200	2,130	19,750	1,010
	06/29/2006	5 - 7		0.555	16.825	2,270	5,430	677	16,757	981
	06/29/2006	10 - 11		0.0529	2.2679	484	2,090	255	2,829	4,260
	06/29/2006	15 - 16		0.0553	2.8633	2,330	7,440	889	10,659	1,000
BH-28	06/29/2006	0 - 2		0.144	1.327	132	6,120	878	7,130	1,020
	06/29/2006	5 - 7		0.106	5.044	1,490	10,500	1,270	13,260	1,480
	06/29/2006	10 - 11		0.0105	1.3925	457	1,580	178	2,215	5,970
	06/29/2006	15 - 16		0.0182	3.0452	787	2,730	291	3,808	10,500
BH-29	06/29/2006	0 - 2		--	--	--	--	--	--	--

Table 1
1R0482
Summary of Field and Laboratory Analysis of Soil Samples
John H. Hendrix Corporation, Penrose Federal Tank Battery #1
Unit Letter F (SE/4,NW/4), Section 9, Township 22 South, Range 37 East, Lea County, New Mexico

Boring Number	Sample Date	Sample Depth	PID (ppm)	Benzene (mg/kg)	BTEX (mg/kg)	GRO C6-C12 (mg/kg)	DRO C12 - C28 (mg/kg)	DRO C28-C35 (mg/kg)	DRO C6-C35 (mg/kg)	Chloride (mg/kg)
	06/29/2006	5 - 6		--	--	731	7,310	938	8,979	2,680
	06/29/2006	10 - 11		<0.025	1.284	298	2,140	205	2,643	3,900
	06/29/2006	15 - 16		0.059	6.098	1,260	3,420	335	5,015	6,260
BH-30	06/29/2006	0 - 2		1.69	12.41	512	9,100	1,190	10,802	530
	06/29/2006	5 - 7		1.16	42.01	1,810	7,990	874	10,674	142
	06/29/2006	10 - 12		0.0933	4.7633	636	2,080	207	2,923	436
	06/29/2006	15 - 16		0.332	16.542	1,550	5,880	704	8,143	1,740
	06/29/2006	20 - 21		0.357	3.95	337	887	100	2,644	2,290
	06/29/2006	25 - 26		0.142	4.867	808	2,730	371	3,909	3,410
	07/05/2006	30 - 31		0.0125	1.4925	587	2,350	173	6,220	2,550

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

1. BGS: Sample depth in feet below ground surface
2. TPH: Total petroleum hydrocarbons (Sum of C6 to C35)
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



GRAPHIC SCALE IN FEET

0 100' 200'

Scale: 1" = 100'

FIGURE # 2

LEA COUNTY, NEW MEXICO

JOHN H. HENDRIX CORPORATION
PENROSE FEDERAL TANK BATTERY
U.L. F, (SE/4, NW/4)
SECTION 9, T-22-S, R-37-E

SITE # 4 DRAWING

DATE 01-22-07

NAME: SJA

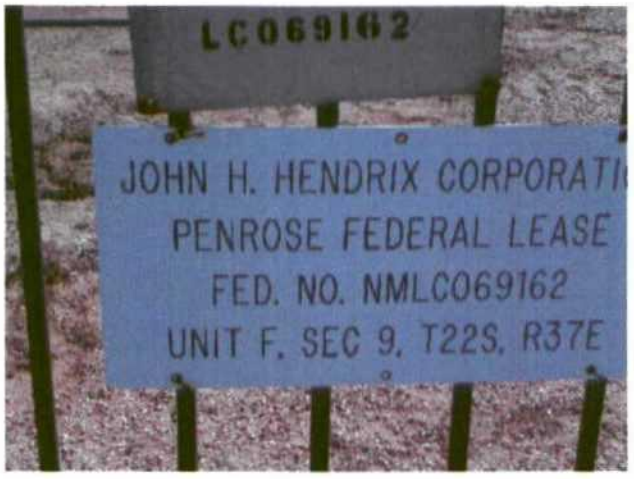
FILE: 6-0104-03

Larson & Associates, inc.
Environmental Consultants

LEGEND

BH-21 • BORE HOLE LOCATION

SECTION 9, T-22-S, R-37-E, LEA COUNTY, NEW MEXICO
PENROSE FEDERAL LEASE (SITE # 4)



1. (Site #4) Location Sign

Photo has unit F

2. (Site #4), Historic Hydrocarbons West of Location, Looking East

3. (Site #4) Historic Hydrocarbons West of Location, Looking East

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SECTION 9, T-22-S, R-37-E, LEA COUNTY, NEW MEXICO
PENROSE FEDERAL LEASE (SITE # 4)

4. (Site #4) Historic Hydrocarbons
West of Location, Looking East

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