

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

1RP-955

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

|   |  |                    |
|---|--|--------------------|
| Name of Company: John H. Hendrix Corporation                    | Contact: Marvin Burrows                |                    |
| Address: 1310 18 <sup>th</sup> Street, Eunice, New Mexico 88231 | Telephone No.: (505) 394-2649          |                    |
| Facility Name: Toni #1 Tank Battery                             | Facility Type: Production Tank Battery |                    |
| Surface Owner: Paige McNeill                                    | Mineral Owner                          | Lease No.: NN23777 |

LOCATION OF RELEASE

|                  |               |                   |              |               |                  |               |                |             |
|------------------|---------------|-------------------|--------------|---------------|------------------|---------------|----------------|-------------|
| Unit Letter<br>H | Section<br>22 | Township<br>• 19S | Range<br>38E | Feet from the | North/South Line | Feet from the | East/West Line | County: Lea |
|------------------|---------------|-------------------|--------------|---------------|------------------|---------------|----------------|-------------|

Latitude: 32° 38' 50.4" North and Longitude: 103° 07' 41.1" West

NATURE OF RELEASE

|   |   |  |
|---|---|--|
| Type of Release: Crude Oil and Produced Water   | Volume of Release:<br>15 bbl oil / 30 bbl water         | Volume Recovered:<br>10 bbl oil / 20 bbl water         |
| Source of Release: Lightening   | Date and Hour of Occurrence:<br>10:00 hrs on 07/10/2006 | Date and Hour of Discovery:<br>10:00 hrs on 07/10/2006 |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom? NMOCD On-Call Representative (Pager)   |  |
| By Whom? Marvin Burrows, Production Superintendent  | Date and Hour: 08/10/2006 / 10:00 hrs.                  |  |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input type="checkbox"/> No  | If YES, Volume Impacting the Watercourse.               |  |

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APR 16 2008

HOBBS OCD

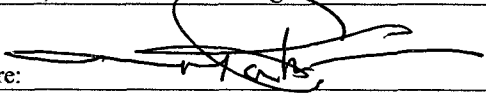
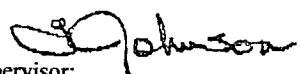
If a Watercourse was Impacted, Describe Fully.\* N/A

Describe Cause of Problem and Remedial Action Taken.\*

Lightening hit Toni #1 battery, firewall contained most of the fluid. Picked up fluid with vacuum truck.

Describe Area Affected and Cleanup Action Taken. Spill affected area approximately 40 x 20 feet outside of firewall. Samples were collected and area was excavated to reduce contaminant levels below NMOCD guidelines for benzene, BTEX and TPH. Installed monitoring well and analyzed water samples for WQCC, which were below human health and domestic water quality thresholds.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

|  |  |                                   |
|--|--|-----------------------------------|
| Signature:                  | OIL CONSERVATION DIVISION  |                                   |
| Printed Name: Mark J. Larson   | Approved by District Supervisor: <br>ENVIRONMENTAL ENGINEER |                                   |
| Title: Sr. Project Manager / President, Larson and Associates, Inc.<br>(agent for John H. Hendrix Corporation) | Approval Date: 4.30.08   | Expiration Date: _____            |
| E-mail Address: mark@laenvironmental.com   | Conditions of Approval:  | Attached <input type="checkbox"/> |
| Date: April 1, 2008 Phone: (432) 687-0901  |  |                                   |

\* Attachment C to Report dated April 1, 2008

**RECEIVED**

4.30.08

HOBBS JCD

April 1, 2008

**VIA: HAND DELIVERY**

Mr. Larry Johnson  
Environmental Engineer  
State of New Mexico – Department of Natural Resources  
Oil Conservation Division – District 1  
1625 North French Drive  
Hobbs, New Mexico 88240

**Re: 1RP-955 Final Report**  
**John H. Hendrix Corporation, Toni #1 Tank Battery**  
**Unit H (SE/4, NE/4), Section 22, Township 19 South, Range 38 East**  
**Lea County, New Mexico**

Dear Mr. Johnson:

This final report is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of John H. Hendrix Corporation (JHHC) by Larson and Associates Inc. (LA), its consultant, and presents the results of groundwater samples collected from a monitoring well (MW-1) that was installed to assess conditions immediately down gradient (south-southeast) of the Toni #1 battery (Site). The Site is located in unit H (SE/4, NE/4), Section 22, Township 19 South, Range 38 East, in Lea County, New Mexico. The latitude and longitude is 32° 38' 50.4" north and longitude 103° 07' 41.1" west, respectively. Figure 1 presents a location and topographic map. Figure 2 presents a Site drawing. Contact information for JHHC is as follows:

Name: Mr. Ron Westbrook  
Title: Vice President  
John H. Hendrix Corporation  
Address: 110 N. Marienfeld Street, Suite 400  
Midland, Texas 79701  
Telephone: (432) 684-6631  
Fax: (432) 68407317  
Email: ronnie@jhhc.org

**Chronology**

On July 10, 2006, lightning struck a near-empty 210-barrel (bbl) oil tank that released approximately 15 barrels (bbl) of crude oil and 30 bbl of produced water. JHHC recovered approximately 10 bbl of oil and 20 bbl of water. The initial C-141 was submitted to the OCD on July 11, 2006. JHHC remediated the spill by excavating soil to approximately 17 feet below ground surface (bgs). Approximately 2,900 cubic yards of soil was hauled to the JHHC Centralized Surface Waste Management Facility (NM-021-0021). On January 24, 2007, soil samples were collected from the sides and bottom of the excavation and reported no total petroleum hydrocarbons (TPH). Chloride was less than 250 milligrams per kilogram (mg/Kg) in all samples, except GS-2 (715 mg/Kg).

507 North Marienfeld, Suite 202 ♦ Midland, Texas 79701 ♦ Ph. (432) 687-0901 ♦ Fax (432) 687-0456

and GS-3 (1,470 mg/Kg) collected from the east wall at 13 feet BGS and 17 feet bgs, respectively, GS-4 (1,950 mg/Kg) collected from the south wall at 15 feet bgs and GS-11 (339 mg/Kg) collected from the north wall at 10 feet bgs.

On February 1, 2007, LAI personnel collected delineation samples near the east (TH-1), southeast (TH-2) and south (TH-3) sides of the excavation. The samples were collected at 1,5,10 and 15 feet bgs and submitted under chain of custody control to Trace Analysis, Inc., which analyzed the samples for chloride using method 300. Chloride was 511 mg/Kg in the 15 foot sample from location TH-3. The remediation and delineation sample results were submitted to the OCD on February 22, 2007 in a report titled, "*1RP-955 - John H. Hendrix Corporation, Toni #1 Tank Battery, Unit H (SE/4, NE/4), Section 22, Township 19 South, Range 38 East, Lea County, New Mexico*". The report contained form C-141 and a request to close the excavation. The OCD approved the request to close the excavation, which was filled with clean soil. However, the surface owner requested that JHHC install a monitoring well to assess potential impacts to groundwater.

#### **Monitoring Well Installation**

On May 25, 2007, Hungry Horse, LLC Environmental Services, under supervision from LAI, drilled monitoring well MW-1 immediately down gradient (south – southeast) of the excavation using an air rotary rig. The boring (6 1/8 inches) was advanced to about 70 feet bgs and split-spoon samples were collected at 0, 5, 10, 15, 20, 25, 30, 35, 40, 45 and 50 feet bgs. The samples were submitted under preservation and chain of custody control to DHL Analytical Laboratories, Inc., which analyzed the samples for chloride. DHL also analyzed the 20 foot sample for TPH, including DRO and GRO. Headspace samples were also collected and reported no organic vapor readings above background or zero parts per million (ppm). The highest chloride concentration was 231 mg/Kg in the 25 foot sample and decreased to 9.20 mg/Kg in the 50 foot sample. No TPH was reported in the 20 foot sample. Figure 2 presents the monitoring well location. Table 1 presents a summary of the soil sample analysis. Appendix A presents the laboratory reports.

The well was constructed with 2-inch diameter schedule 40 PVC screen and casing. The well screened was positioned between 51.80 and 66.39 feet bgs since groundwater stabilized at 56.48 feet bgs. The well screen was packed with 10 – 20 graded silica sand that extends to about 2 feet above the screen. The remainder of the annulus was filled with bentonite chips. The well is secured with a locking steel cover anchored in concrete. The well was developed by hand bailing with a disposable polyethylene bailer to remove suspended material. Appendix B presents the well completion and geologic log.

#### **Groundwater Samples**

On August 16, 2007 and December 20, 2007, LAI personnel collected groundwater samples after the well was purged of at least 3 casing volumes of groundwater using disposable polyethylene bailers. The purged water was contained in a portable tank and disposed at an OCD approved facility (Vista Services). The groundwater samples were carefully poured from the bailers into laboratory prepared containers, which were sealed, labeled, chilled in an ice chest and delivered  
507 North Marlenfeld, Suite 202 ♦ Midland, Texas 79701 ♦ Ph. (432) 687-0901 ♦ Fax (432) 687-0456

Mr. Larry Johnson  
April 1, 2008  
Page 3

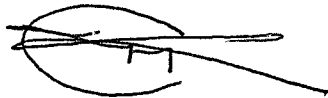
under chain of custody control to DHL. DHL analyzed the samples by EPA methods for benzene, toluene, ethylbenzene and xylene (BTEX), metals (arsenic, barium, cadmium, calcium, chromium, lead, magnesium, mercury, potassium, selenium, silver and sodium) and general water quality parameters chloride, sulfate, alkalinity (bicarbonate, carbonate and hydroxide) and total dissolved solids (TDS). Table 2 presents a summary of the laboratory analysis of groundwater samples. Appendix A presents the laboratory reports.

Referring to Table 2, no constituents were reported above the New Mexico Water Quality Control Commission (WQCC) human health and domestic water quality standards. Chloride was reported at 49.9 milligrams per liter (mg/L) and 49.3 mg/L on August 16, 2007 and December 20, 2007, respectively. The TDS was reported at 414 mg/L and 556 mg/L on August 16, 2007 and December 20, 2007, respectively.

JHHC requests final closure based on the soil remediation and groundwater sample results. JHHC also requests permission to plug the monitoring well according to New Mexico State Engineer regulations. Please contact Mr. Ron Westbrook or myself with questions (432) 684-6681 or (432) 687-0901. You may also email [ronniew@jhhc.org](mailto:ronniew@jhhc.org) [mark@laenvironmental.com](mailto:mark@laenvironmental.com). Appendix C presents the final C-141.

Sincerely,

**Larson & Associates, Inc.**



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

Encl.

cc: Ron Westbrook/JHHC  
Paige McNeill

## TABLES

Table 1

## Summary of Laboratory Analysis of Soil Samples from Monitoring Well

John H. Hendrix Corporation, Toni #1 Tank Battery

Unit H (SE/4,NE/4), Section 22, Township 19 South, Range 38 East

Lea County, New Mexico

| Location | Depth<br>(Feet BGS) | Date       | PID<br>(ppm) | Chloride<br>(mg/Kg) | TPH - GRO<br>(mg/Kg) | TPH - DRO<br>(mg/Kg) | TPH - ORO<br>(mg/Kg) | TPH - DRO + GRO<br>(mg/Kg) |
|----------|---------------------|------------|--------------|---------------------|----------------------|----------------------|----------------------|----------------------------|
| MW-1     | 0 - 1.5             | 02/01/2007 | 0.0          | 10.9                | --                   | --                   | --                   | --                         |
|          | 5 - 6               | 02/01/2007 | 0.0          | 50                  | --                   | --                   | --                   | --                         |
|          | 10 - 10.5           | 02/01/2007 | 0.0          | 101                 | --                   | --                   | --                   | --                         |
|          | 15                  | 02/01/2007 | 0.0          | 224                 | --                   | --                   | --                   | --                         |
|          | 20                  | 02/01/2007 | 0.0          | 199                 | <0.0611              | <2.88                | <2.88                | <8.7011                    |
|          | 25                  | 02/01/2007 | 0.0          | 231                 | --                   | --                   | --                   | --                         |
|          | 30                  | 02/01/2007 | 0.0          | 93.1                | --                   | --                   | --                   | --                         |
|          | 35                  | 02/01/2007 | 0.0          | 47.1                | --                   | --                   | --                   | --                         |
|          | 40                  | 02/01/2007 | 0.0          | 62.8                | --                   | --                   | --                   | --                         |
|          | 45                  | 02/01/2007 | 0.0          | 15.2                | --                   | --                   | --                   | --                         |
|          | 50                  | 02/01/2007 | 0.0          | 9.20                | --                   | --                   | --                   | --                         |

Notes: Analysis performed by DHL Analytical, Inc., Round Rock, Texas

All results reported in milligrams/Kilogram (mg/Kg) or parts per million (ppm)

Table 2  
Summary of Laboratory Analysis of Groundwater Samples from Monitor Well  
John H. Hendrix Corporation, Toni #1 Tank Battery  
Unit H (SE/4, NE/4), Section 22, Township 19 South, Range 38 East  
Lea County, New Mexico

| Parameter                | Reporting Units | NMWQCC Human Health/Domestic Standard | MW-1<br>8/16/07 | MW-1<br>12/20/07 |
|--------------------------|-----------------|---------------------------------------|-----------------|------------------|
| <b>Characteristics</b>   |                 |                                       |                 |                  |
| Chloride                 | mg/L            | 250                                   | 49.9            | 49.3             |
| Sulfate                  | mg/L            | 600                                   | 73.4            | 122              |
| Alkalinity, Bicarbonate  | mg/L            | --                                    | 194             | 188              |
| Alkalinity, Carbonate    | mg/L            | --                                    | <10             | <10              |
| Alkalinity, Hydroxide    | mg/L            | --                                    | <10             | <10              |
| Alkalinity, Total        | mg/L            | --                                    | 194             | 188              |
| Total Dissolved Solids   | mg/L            | 1,000                                 | 414             | 556              |
| <b>Volatile Organics</b> |                 |                                       |                 |                  |
| Benzene                  | mg/L            | 0.01                                  | <0.0008         | <0.0008          |
| Ethylbenzene             | mg/L            | 0.75                                  | <0.002          | <0.002           |
| Toluene                  | mg/L            | 0.75                                  | <0.002          | <0.002           |
| Total Xylenes            | mg/L            | 0.62                                  | <0.003          | <0.003           |
| <b>Metals</b>            |                 |                                       |                 |                  |
| Arsenic                  | mg/L            | 0.1                                   | 0.00736         | 0.00769          |
| Barium                   | mg/L            | 1.0                                   | 0.0759          | 0.0702           |
| Cadmium                  | mg/L            | 0.01                                  | <0.0003         | <0.0003          |
| Calcium                  | mg/L            | --                                    | 59.2            | 59.5             |
| Chromium                 | mg/L            | 0.05                                  | <0.002          | <0.002           |
| Lead                     | mg/L            | 0.05                                  | 0.000554        | 0.000690         |
| Magnesium                | mg/L            | --                                    | 11.7            | 19.8             |
| Mercury                  | mg/L            | 0.002                                 | <0.00008        | <0.00008         |
| Potassium                | mg/L            | --                                    | 2.41            | 2.29             |
| Selenium                 | mg/L            | 0.05                                  | 0.0022          | 0.00275          |
| Silver                   | mg/L            | 0.05                                  | <0.001          | <0.001           |
| Sodium                   | mg/L            | --                                    | 52.2            | 60.0             |

Notes: Analysis performed by DHL Analytical, Inc., Round Rock, Texas

All results are reported in milligrams per liter (mg/L)

1. <: Below method detection limit

2. --: No data available

## FIGURES



SITE LOCATION

GPS COORDINATE

N 32° 38' 50.4"

W 103° 07' 41.1"

T-19-S

GRAPHIC SCALE IN FEET

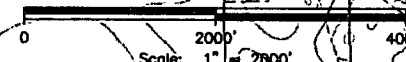


FIGURE #1

LEA COUNTY, NEW MEXICO

JOHN H. HENDRIX CORPORATION

TONI # 1 TANK BATTERY

U. L. H. SE/4, NE/4

SECTION 22, T-19-S, R-38-E

SITE LOCATION

DATE

02-22-07

NAME: SJA

FILE: 6-0122

Larson &  
Associates, inc.  
Environmental Consultants

GPS N 32° 38' 50.4"  
W103° 07' 41.1"

WELL AND TANK BATTERY LOCATION

JOHN H HENDRIX CORPORATION  
TONI WELL #1

SEPARATOR

LEASE ROAD

TO HWY. #18

LEASE ROAD

DUKE ENERGY YIELD  
SERVICES GAS  
PIPELINE

TEPPCO CRUDE OIL PIPELINES

OVERHEAD POWER LINE

MW-1

SW CORNER

EXCAVATION

RAMP

WATER  
TANK

# LEGEND

GS-1

SOIL SAMPLE LOCATION,  
JANUARY 24, 2007

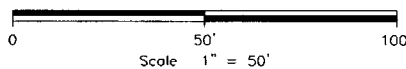
SW CORNER

SOIL SAMPLE LOCATION,  
APRIL 12, 2007.

MW-1

MONITOR WELL LOCATION,  
MAY 25, 2007.

GRAPHIC SCALE IN FEET



## FIGURE #2

LEA COUNTY, NEW MEXICO

JOHN H HENDRIX CORPORATION  
TONI #1 TANK BATTERY  
U L H, SE/4, NE/4  
SECTION 22, T-19-S, R-38-E

SITE DRAWING

DATE  
05-08-07

NAME SJA

FILE 6-0122

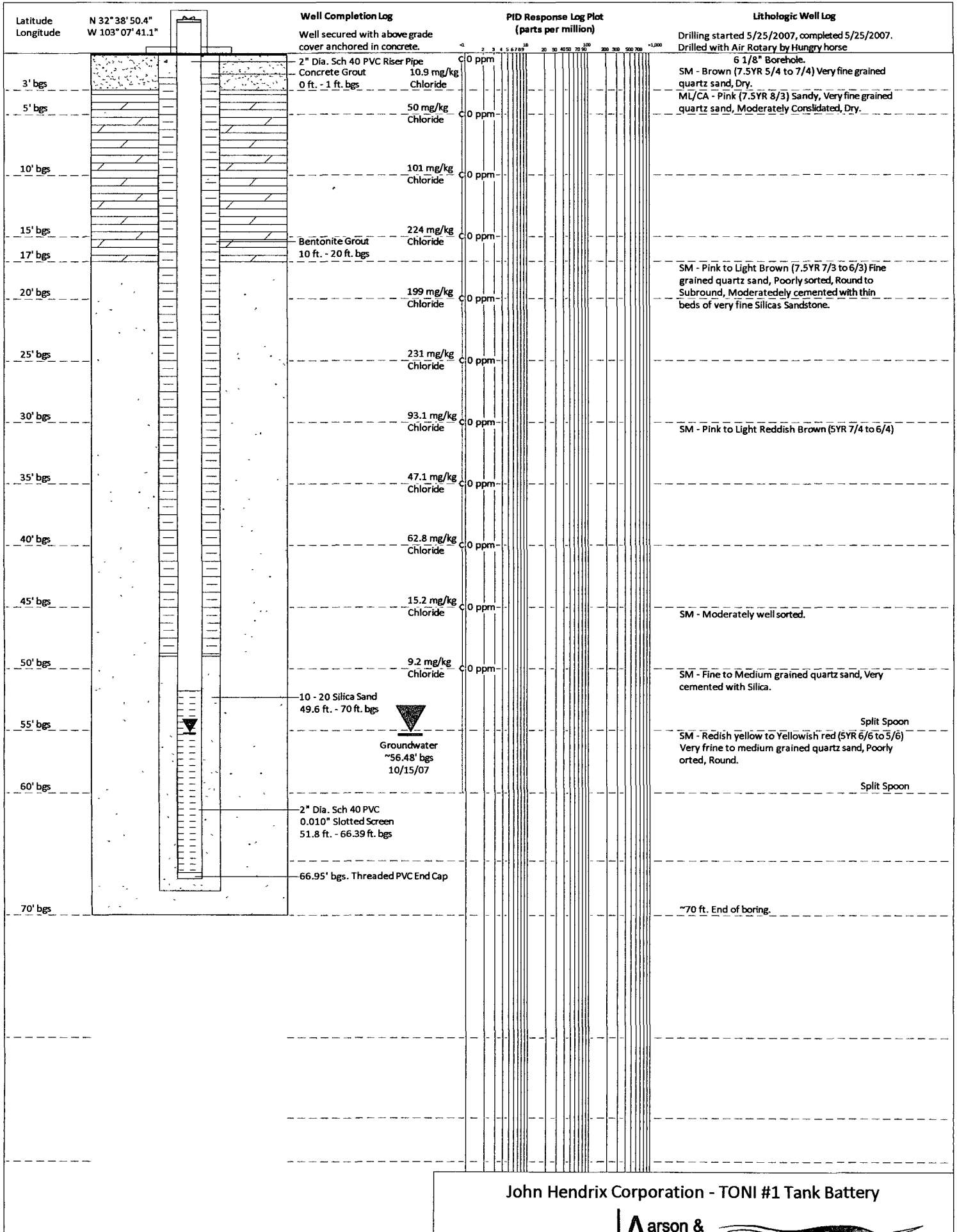
**L**arson &  
Associates, inc.  
Environmental Consultants

**APPENDIX A**

**Laboratory Reports**

**APPENDIX B**

**Monitoring Well Record**



John Hendrix Corporation - TONI #1 Tank Battery

**L**arson &  
Associates, inc.  
Environmental Consultants

**APPENDIX C**

**Form C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
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Form C-141  
Revised October 10, 2003

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1RP-955

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☐ Initial Report ☐ Final Report

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| Facility Name: Toni #1 Tank Battery                             | Facility Type: Production Tank Battery |

|                              |               |                    |
|------------------------------|---------------|--------------------|
| Surface Owner: Paige McNeill | Mineral Owner | Lease No.: NN23777 |
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| Source of Release: Lightening   | Date and Hour of Occurrence:<br>10:00 hrs on 07/10/2006 | Date and Hour of Discovery:<br>10:00 hrs on 07/10/2006 |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom? NMOCD On-Call Representative (Pager)   |  |
| By Whom? Marvin Burrows, Production Superintendent  | Date and Hour: 08/10/2006 / 10:00 hrs.                  |  |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input type="checkbox"/> No  | If YES, Volume Impacting the Watercourse.               |  |

If a Watercourse was Impacted, Describe Fully.\* N/A

RECEIVED

APR 16 2008

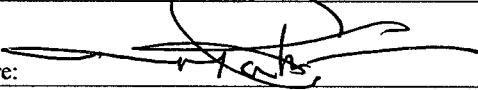
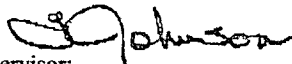
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HOBBS OCD

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|  |  |                                   |
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| Signature:                  | OIL CONSERVATION DIVISION  |                                   |
| Printed Name: Mark J. Larson   | Approved by District Supervisor: <br>ENVIRONMENTAL ENGINEER |                                   |
| Title: Sr. Project Manager / President, Larson and Associates, Inc.<br>(agent for John H. Hendrix Corporation) | Approval Date: 4.30.08   | Expiration Date: _____            |
| E-mail Address: mark@laenvironmental.com   | Conditions of Approval:  | Attached <input type="checkbox"/> |
| Date: April 1, 2008 Phone: (432) 687-0901  |  |                                   |

\* Attachment C to Report dated April 1, 2008