

1R - 483

**APPROVALS**

**YEAR(S):**

2009

## **Hansen, Edward J., EMNRD**

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**From:** Hansen, Edward J., EMNRD  
**Sent:** Tuesday, September 01, 2009 3:22 PM  
**To:** 'cdoranhaynes@jhhc.org'  
**Cc:** 'Mark Larson'; Johnson, Larry, EMNRD; VonGonten, Glenn, EMNRD  
**Subject:** RE: (1R-483) John H Hendrix Corporation, Elliott B-9 Tank Battery #1, #4 and #5 Groundwater Remediation Plan submittal extension approval

Dear Ms. Haynes:

The New Mexico Oil Conservation Division (OCD) has received the groundwater investigation report and extension request for the above-referenced site, dated August 26, 2009, and has conducted a review of the report and request. The report substantially meets the requirements of 19.15.29 NMAC. Therefore, the OCD hereby conditionally approves the request:

John H. Hendrix Corporation (JHHC) must submit a groundwater remediation plan (with monitoring schedule and cross-sections with chloride and TDS concentration isopleths) within ~180 days after the first sampling event of the "new" groundwater monitoring well. Please submit the groundwater remediation plan by Thursday, December 31, 2009. Also, any additional time for submittal of the remediation plan in accordance with 19.15.29 NMAC may prompt the OCD to request the submittal of an abatement plan in accordance with 19.15.30 NMAC.

Please be advised that OCD approval of this extension request does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen  
Hydrologist  
Environmental Bureau

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**From:** Hansen, Edward J., EMNRD  
**Sent:** Wednesday, May 27, 2009 5:56 PM  
**To:** cdoranhaynes@jhhc.org  
**Cc:** 'Mark Larson'; Johnson, Larry, EMNRD; VonGonten, Glenn, EMNRD  
**Subject:** RE: (1R-483) John H Hendrix Corporation, Elliott B-9 Tank Battery #1, #4 and #5 Groundwater Investigation Work Plan Approval Request

Dear Ms. Haynes:

The New Mexico Oil Conservation Division (OCD) has received the groundwater investigation workplan for the above-referenced site, dated June 15, 2008, and has conducted a review of the plan. The workplan substantially meets the requirements of 19.15.29 NMAC. Therefore, the OCD hereby conditionally approves the workplan:

John H. Hendrix Corporation (JHHC) must implement the workplan within 60 days.

JHHC must submit to the OCD a copy of the monitoring reports within 45 days of each sampling event.

JHHC must propose a groundwater monitoring well location (for OCD approval) closer than 400 feet (e.g., ~250') to MW-1 in a ESE (downgradient) direction.

JHHC must submit a groundwater remediation plan (with monitoring schedule and cross-sections with chloride and TDS concentration isopleths) within 60 days after the first sampling event of the "new" groundwater monitoring well.

Please be advised that OCD approval of this workplan does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen  
Hydrologist  
Environmental Bureau

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**From:** Mark Larson [mailto:Mark@laenvironmental.com]  
**Sent:** Wednesday, May 20, 2009 1:39 PM  
**To:** Johnson, Larry, EMNRD  
**Cc:** cdoranhaynes@jhhc.org; Hansen, Edward J., EMNRD  
**Subject:** Re: John H Hendrix Corporation, Elliott B-9 Tank Battery #1, #4 and #5 Groundwater Investigation Work Plan Approval Request

Larry,

Per your meeting last week with Ms. Carolyn Haynes of John H. Hendrix Corporation (JHHC), Larson & Associates, Inc. (LAI) requests your approval of the attached work plan to install a monitoring well (MW-3) southeast (down gradient) of the Elliott B-9 #1, #4 and #5 Tank Battery located in Unit D (NW/NW), Section 22, Township 22 South, Range 37 East in Lea County, New Mexico. On June 15, 2008, the work plan was filed on behalf of JHHC with the New Mexico Oil Conservation Division (OCD) in Santa Fe and Hobbs, New Mexico, under remediation project number 1R0483. The latitude and longitude is 32° 24' 39.3" north and 103° 10' 12.4" west, respectively. Notification will be provided to the OCD at least 48 hours in advance of installing the monitoring well and collecting samples. Your approval of the work plan is greatly appreciated. Please contact me if you have questions.

Regards,

Mark J. Larson  
Sr. Project Manager / President  
507 N. Marienfeld St., Ste. 202  
Midland, Texas 79701  
(432) 687-0901 (office)  
(432) 687-0456 (fax)  
(432) 556-8656 (cell)  
mark@laenvironmental.com

The logo for Larson & Associates, Inc. features a large, stylized 'L' on the left. To its right, the text 'arson & Associates, Inc.' is written in a serif font, with 'arson' on the top line and '& Associates, Inc.' on the bottom line. Below this text, the words 'Environmental Consultants' are written in a smaller, sans-serif font. A decorative wavy line is positioned behind the text, extending from the 'L' to the right.

Larson & Associates, Inc.  
Environmental Consultants

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## Hansen, Edward J., EMNRD

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**From:** Hansen, Edward J., EMNRD  
**Sent:** Monday, June 01, 2009 3:05 PM  
**To:** cdoranhaynes@jhhc.org  
**Cc:** Mark Larson; 'William Green'; VonGonten, Glenn, EMNRD  
**Subject:** RE: Workplans for 1R-483 and 1R-484, Elliot B-9 Tank Battery #1, #4 and #5, and Elliot B-9 Tank Battery #2 & #3, respectfully

Dear Ms. Haynes:

The New Mexico Oil Conservation Division (OCD) has received the groundwater monitoring wells installation workplan for the above-referenced John H. Hendrix Corp. sites, dated June 1, 2009, and has conducted a review of the plan. The workplan substantially meets the requirements of 19.15.29 NMAC. Therefore, the OCD hereby approves the workplan.

Please be advised that OCD approval of this workplan does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

Please keep in mind that additional wells may need to be installed to determine the full extent of the release.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen  
Hydrologist  
Environmental Bureau

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**From:** William Green [mailto:wgreen@laenvironmental.com]  
**Sent:** Monday, June 01, 2009 1:25 PM  
**To:** Hansen, Edward J., EMNRD  
**Cc:** cdoranhaynes@jhhc.org; Mark Larson  
**Subject:** Workplans for 1R-483 and 1R-484, Elliot B-9 Tank Battery #1, #4 and #5, and Elliot B-9 Tank Battery #2 & #3, respectfully

Dear Mr. Hansen,

Attached is a workplan to install monitor wells at the two referenced sites. If you have any questions please feel free to email me or call me at the phone numbers listed below. I will schedule a driller as soon as your approval is received.

Sincerely,

William D. Green, PG No. 136

**Larson & Associates, Inc.**  
507 N. Marienfeld, Suite 200  
Midland, Texas 79701

office 432.687.0901  
mobile 432.556.8665  
[wgreen@laenvironmental.com](mailto:wgreen@laenvironmental.com)



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## **WORKPLAN FOR MONITOR WELL INSTALLATION**

### ***Site Info & Project Requirements***

John H. Hendrix Corporation (JHHC)  
Elliot B-9 #1, #4 & #5 Tank Battery (#1,4&5), 1R-483, and  
Elliot B-9 #2 & #3 Tank Battery (#2&3), 1R-484

New Mexico Oil Conservation Division (OCD) communications dated May 27, 2009 require the installation of two downgradient groundwater monitoring wells. The well associated with the #1,4&5 was suggested to be placed 250 feet in an east-southeast direction from the #1,4&5 associated MW-1, while the well associated with the #2&3 was suggested to be placed 450 feet east-southeast from the #2&3 associated MW-1.

Larson & Associates, Inc. (LAI) consulted Google Earth® to identify potential well locations. Based on the GPS locations of the existing monitor wells, the proposed monitor well locations were plotted for staking. Please note that the well associated with the #2&3 would be placed close to an existing oil well, so to comply with OCD requirements, the well will be moved approximately 50 feet closer to the associated MW-1. These locations may be further adjusted during the well staking and after utility clearance to avoid undetected hazards.

### ***Utility Clearance and Proposed Well Location Staking***

Upon workplan approval and prior to drilling the monitor wells, the proposed well locations will be staked based upon the GPS location presented in the Google Earth® image, and using visual cues of existing pipelines and other drilling hazards. A utility clearance will then be requested for a 50-foot radius using New Mexico One Call's online service. Please note that most pipeline companies require the field locator to make direct verbal contact with the on-site supervisors. Therefore, time has been included in the cost proposal for preparing the two utility clearances, and for the many telephone communications that will follow.

### ***Monitor Well Installation***

Four monitor wells with similar characteristics were previously installed for the two sites. Total depth drilled were between 90 and 91 feet below ground surface (bgs), all wells have an approximate 2.5-foot above grade completion, and all wells are 2-inch diameter PVC, with groundwater encountered between 77.97 and 82.11 feet below top of casing (TOC) during subsequent monitoring.

For consistency, the proposed wells will be drilled to 90 feet bgs and completed with 2-inch PVC with twenty feet of slotted screen. Soil samples will be collected for headspace analysis only, since both wells are beyond areas of soil impacts associated with the releases, and chlorides in groundwater are the primary concern. Both wells are anticipated to be installed on the same day, but a contingency for a second day is included in case drilling or well installation difficulties occur.

### ***New Well Development and Sampling***

After drilling is completed, an LAI technician will mobilize to the site to develop the new monitor wells and to collect representative groundwater samples. Prior to development all monitor wells associated with the two sites will be gauged. Development will commence, and will be accomplished by over pumping, and/or surging-and-purging the well until produced groundwater either clears in appearance, or a maximum of five casing volumes are removed.

Groundwater sample aliquots will be collected for chloride anion and total dissolved solids (TDS) analyses. These aliquots will be hand delivered to JHHC contracted laboratory for analyses with standard turn-around time.

### ***New Well Groundwater Analyses***

Groundwater laboratory analyses will be direct billed by Cardinal Laboratories to JHHC. Data quality will be checked by LAI's Quality Assurance Manager, and if acceptable the laboratory data will be tabulated.

### ***Documentation and Well Log Preparation***

Boring and completion logs will be prepared for the new monitor wells. As directed by the OCD, groundwater chloride and TDS iso-concentration maps and cross-sections will be generated for a remediation plan. A conceptual remediation plan will be submitted within 60 days after the groundwater monitoring.

Jul 30, 2005



MW-2 (2&3)

MW-1 (2&3)

Proposed MW-3 (2&3)

Elliot B-9 #2&3 - JHHC

MW-2 (1,4,5)

Elliot B-9 #1,4,5 - JHHC

MW-1 (1,4,5)

Proposed MW-3 (1,4,5)

697 ft

Image Date: Jul 2005

32°24'40.56" N 103°10'21.48" W elev 3424 ft

Image NMRGIS  
©2009 Tele Atlas

©2009 Google

Eye alt 12690 ft

## Hansen, Edward J., EMNRD

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OCD at least 48 hours in advance of installing the monitoring well and collecting samples. Your approval of the work plan is greatly appreciated. Please contact me if you have questions.

Regards,

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Sr. Project Manager / President  
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(432) 687-0901 (office)  
(432) 687-0456 (fax)  
(432) 556-8656 (cell)  
[mark@laenvironmental.com](mailto:mark@laenvironmental.com)



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