

1625 N. French Dr. Hobbs, NM 88241  
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

Form C-144  
June 1, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: BOLD ENERGY, LP Telephone: 432-686-1100  
Address: 415 W. WALL ST. 500 MIDLAND, TX 79701 e-mail address: DANNY.MONEY@BOLDENERGY.COM  
Facility or well name: BILL LAK UNIT #27 API#: 30-025-38562 U/L or Qtr/Qtr L Sec 5 T 245 R 34E  
County: LEA, NM Latitude 32° N 42.3° N Longitude 103° 29' 54.5" W NAD: 1927 ☐ 1983 ☐  
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

Pit  
Type: Drilling ☒ Production ☐ Disposal ☐  
Workover ☐ Emergency ☐  
Lined ☒ Unlined ☐  
Liner type: Synthetic ☒ Thickness 20 mil Clay ☐  
Pit Volume 2500 bbl

Below-grade tank  
Volume:        bbl Type of fluid: N/A  
Construction material:         
Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) <u>75' Bgs</u>	Less than 50 feet	(20 points)	
	<u>50 feet or more, but less than 100 feet</u>	(10 points)	<u>10</u>
	100 feet or more	(0 points)	
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)	
	<u>No</u>	(0 points)	<u>0</u>
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)	
	200 feet or more, but less than 1000 feet	(10 points)	<u>0</u>
	<u>1000 feet or more</u>	(0 points)	
Ranking Score (Total Points)			<u>10</u>

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☒ offsite ☐ If offsite, name of facility       . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface        ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

PLEASE SEE ATTACHED WORK PLAN FOR PIT CLOSURE

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HOBBS OCD

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

Date:

Printed Name/Title Danny Money / Prod. Supt. Signature [Signature]

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title        Signature [Signature] ENVIRONMENTAL ENGINEER

Date: 2.11.08

# ***Bell Lake Federal #27***

*Located in SECTION 5, T24S, R34E of Lea Co., NM*

*GPS Reading of 32°-14'-42.3"-N & 103°-29'-54.5"-W*

*API # 30-025-38562*

## ***Reserve Drilling Pit Closure Report***

*Presented to:*

***Bold Energy, LP***

*415 W. Wall Suite 500*

*Midland, Texas 79701*

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DEC 09 2008

HOBBSOCD

*Prepared by:*

***Phoenix Environmental, LLC.***

*P.O. Box 1856*

*Hobbs, New Mexico 88240*



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### **IMPORTANT NOTICE:**

Phoenix Environmental, LLC., with offices at 2113 French Drive, Hobbs, New Mexico 88241 (the Company), has prepared this project report for remediation of Bell Lake #27, to the best of its ability. No warranty, expressed or implied, is made or intended. The report was prepared for Bold Energy, LP, with offices at 415 W. Wall, Suite 500, Midland, Texas 79701, (the Client). All information disclosed in this plan is for internal purposes only and is considered confidential. By accepting this document, the recipient agrees to keep confidential the information contained herein. The recipient further agrees not to copy, reproduce or distribute to any third party this project plan in whole or in part, without express written permission from the Company or Client.





# *SECTION I*



# PHOENIX ENVIRONMENTAL LLC

P.O. Box 1856

2113 French Dr.

Hobbs, NM 88241-1856

Office 505-391-9685

Fax 505-391-9687

February 1, 2008

Bold Energy, LP  
415 W. Wall, Ste. 500  
Midland, Texas 79701

Attn: Mr. Shannon Klier  
Operations Engineering Manager

**RE: Work Plan to Clean Up the Bell Lake #27 Drilling Pit Located in UL L  
Sec 5, T24S and R34E of Lea County, New Mexico**

Dear Mr. Klier:

Phoenix Environmental, LLC (Phoenix) would like to take this time to thank you and Bold Energy, for the opportunity to provide our professional services. Please find attached our work plan for the above listed site.

If you have any questions and/or need more data in regards to projects please call at any time. My cell phone is 505-631-8314.

Sincerely,

Allen Hodge, REM  
VP Operations  
Phoenix Environmental LLC

**RECEIVED**

FEB 11 2008

**HOBBS OCD**



## **Summary/Overview**

The Bell Lake #27 Drilling Pit site should be completed and remediated in accordance with the standards of the NMOCD. It is our understanding that any potential contamination from the site was a result of activities associated with the drilling and production of oil and gas.

The potential contaminants of concern are mid to high-level concentrations of drilling mud and cuttings that were left after drilling operations were completed.

The lands primary use is domestic pasture for ranching and the production of oil and gas.

The ground water depth data available for this area showed the depth to ground water to be in the 75' range BGS.

Pursuant to the standards of the NMOCD, the clean up level for this site will be at <1,000ppm of TPH, <50ppm for BTEX and Chlorides less than <250ppm.

The following scope of work was based on data from our site visit and the requirements of the NMOCD for site clean up.

## **Scope of Work for Entombment of Impacted Soils**

**NOTE:** Phoenix, for the purpose of this work plan, will estimate that there is approximately 2,500cyds of impacted cuttings and drilling mud at the site that needs to be addressed for site closure.

1. First Phoenix will call One-Call for line spot clearance before any excavation at the site is started.
2. Phoenix will mobilize to the site located in the Bell Lake area southwest of Eunice, NM equipment and personnel necessary to start and complete the site remediation as required, getting the site back into compliance.
3. The site will be cleared of brush and debris and a staging area set up for site control and safety.



4. Phoenix will move the stockpile of soils on the side of the drilling pit back to allow room to excavate the tomb to hold the contents of the drilling pit. While leaving the top of the impacted soils at a minimum of three feet below grade, the size of the tomb will need to be 150x30x20 and will yield an estimated 3,334cyds of total material and will hold an estimated 2,800cyds of impacted soils.
5. Once the tomb area has been excavated it will be lined with 12mil HDPE bottom and a 20mil sewn on top above the impacted soils before backfilling.
6. Impacted soils at the site will then be transported and placed in the lined tomb area until the top of the impacted soils are at a minimum of three feet below grade.
7. Phoenix will field screen the site during the excavation, and, once the TPH and CL has dropped below clean-up requirements, final samples will be taken and sent to a third party lab for analysis.
8. Once all of the remediation criteria have been met for site closure and compliance, the site will be backfilled with clean material from the site. The site will be contoured with a slight crown to prevent the ponding of any water and reseeded.
9. Once all of the closure criteria have been met, a final closure report will be prepared by Phoenix. This report will include a summary of remediation operations, findings on-site and lab analysis, site maps and project photos.

If you have any questions and/or need more data in regards to this project please call 505-631-8314 at any time.

Sincerely,



Allen Hodge, REM  
VP Operations  
Phoenix Environmental LLC





## *SECTION II*

## **Project Overview**

*Phoenix Environmental, LLC. (Phoenix) was contracted for the closure of a reserve-drilling pit on the Bell Lake #27, belonging to Bold Energy, LP. The Bell Lake #27 is located in Section 5 T24S R34E. The GPS Reading is 32°14'42.3"N & 103°29'54.5"W, with an elevation of 3585 feet above sea level. The land, in and around the site, is primarily used as domestic pasture for ranching and the production of oil and gas. The pit site is located on the north side of the location.*

*The potential contaminates of concern were mid- to high-level concentrations of salt water, drilling mud, cuttings, and drilling fluids that were left after drilling operations were completed.*

*The ground water depth data available from the State of New Mexico Engineers' office showed the vertical depth to the top of water to be about 75 feet below surface.*

*Pursuant to the NMOCD guidelines for clean up of unlined surface impoundments, the clean up level for this site will be at <1,000 ppm for TPH (Total Petroleum Hydrocarbons) and <50 ppm for BTEX (Benzene, Toluene, Ethylbenzene, and Xylene). The NMOCD has also asked for CL (Chlorides) be returned back as close to background levels as possible or <250 ppm.*

## **Findings and Conclusion**

*It appeared that in excess of 2,500 cubic yards (cyds) of cuttings, drilling mud, and soil were impacted in the pit area with the dimensions of 120'x120'x8'.*

*The bottom of the excavation (approximately 12 feet) was tested for Chlorides to make certain that the target limits had been met prior to backfilling and compaction for closure. The site cleaned up well with vertical depth of impact, listed above at 12 feet and not impacting groundwater. All of the final lab analyses were below the NMOCD guidelines for unlined surface impoundments (refer to attached laboratory reports for actual levels).*

*The site was backfilled and compacted with clean backfill and contoured with a crown back to grade to prevent ponding on the area. The site was reseeded and should vegetate very well with upcoming rains.*



## **Chronology of Operations**

1. *February 18, 2008 – Phoenix mobilized on-site. The first order on the agenda was a tailgate safety meeting to review any potential safety concerns of the site and to cover the clean- up operations. (Please note that a daily safety meeting is the first order of the day before any work begins on site). New Mexico One Call was notified of the intent to finish the pit closure. A dozer cleared the area of vegetation and debris around the pit and the staging area.*
2. *February 19, 2008 – The crew started digging the deep bury (entombment) pit.*
3. *February 20 thru 22, 2008 – Crew continued to dig a deep bury (entombment) pit to hold reserve drilling pit contents.*
4. *February 25 thru 27, 2008 - Crew continued to dig a deep bury (entombment) pit to hold reserve drilling pit contents.*
5. *March 1 thru 4, 2008 - Crew continued to dig a deep bury (entombment) pit to hold reserve drilling pit contents.*
6. *March 5, 2008, - Crew finished digging deep bury (entombment) pit. The bottoms of the deep bury (entombment) pit was cleaned and dressed to prevent damage to liner.*
7. *March 6, 2008 – The deep bury (entombment) pit was lined with 12 mil HDPE bottom. The crew started transferring the contents of the reserve drilling pit to the deep bury (entombment) pit.*
8. *March 7, 2007 – Crew continued transferring drilling mud and cuttings from the reserve-drilling pit to deep bury (entombment) pit.*
9. *March 10, 2008 – The bottom of the reserve drilling pit was cleaned and final samples were taken and sent to a third party laboratory for analysis of Chlorides for final verification of the limits met. (Please refer to attached reports, pages 9 through 12 of this report). The deep bury (entombment) pit was capped with a 20 mil HDPE top.*
10. *March 11, 2008– A dozier was mobilized to location to push-up material to backfill deep bury entombment pit. The walls of the reserve drilling pit were back dragged.*



11. *March 12, 2008- Loader was mobilized to the ARU #1 for caliche to use as backfilling. Crew continued to push-up material at location and push in as backfill.*
12. *March 13, 2008 – Crew continued to backfill using material from location.*
13. *March 19, 2008 – Trucks were loaded with 440 cubic yards of caliche from the ARU #1, which was hauled back to location and used for backfilling.*
14. *March 20, 2008 – Trucks were loaded with 300 cubic yards of caliche from the ARU #1, which was hauled back to location and used for backfilling.*
15. *March 21, 2008 - Loader was mobilized to the Pitchfork pit. Trucks were loaded with 540 cubic yards of caliche, which was hauled back to location and used as backfill.*
16. *March 24, 2008 – Trucks were loaded with 700 cubic yards of caliche from the Pitchfork pit. The trucks then hauled it back to location and used the caliche for backfill.*
17. *March 25, 2008 - 40 cubic yards of caliche was hauled from Pitchfork pit to location and used as backfill.*
18. *March 26, 2008 – Backfill of pits completed.*
19. *March 27, 2008 - Final contouring and compaction was implemented to return the site back to grade. Contouring was completed with a crown to prevent rainwater ponding.*
20. *April 23, 2008 - The site was reseeded with native grasses and with the available moisture should vegetate very quickly.*

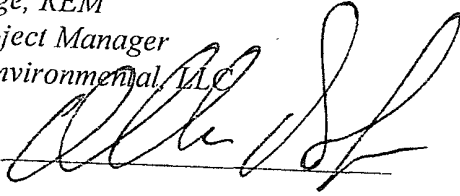


**Certification**

*The following Phoenix Environmental personnel have reviewed this report and verified that to the best of their knowledge the contents are true and correct.*

*Allen Hodge, REM  
Senior Project Manager  
Phoenix Environmental, LLC*

Signature: \_\_\_\_\_



*Registered Environmental Manager #7096  
National Registry of Environmental Professionals*





## *SECTION III*



## **SUMMARY SOIL ANALYSIS REPORT**

**Client:** Bold Energy LP  
**Supervisor:** Allen Hodge  
**Sample Matrix:** Soil

**Facility:** Bell Lake #27  
**Order No.:** Donny Money  
**Samples Received:** Intact on site

### ***Initial Project Screening***

Sample	Date	Depth	Chlorides	TPH	BTEX	Location	Test Method
#1							
#2							
#3							
#4							
#5							
#6							

Samples reported in parts per million (ppm) and depth is in feet (') and inches (")

### ***Interim Project Screening***

Sample	Date	Depth	Chlorides	TPH	BTEX	Location	Test Method
#1	3/10/08	12'	80			Outside East	EPA 325.3
#2	3/10/08	12'	78			Outside North	EPA 325.3
#3	3/10/08	10'	100			Outside West	EPA 325.3
#4	3/10/08	12'	80			Inside East	EPA 325.3
#5	3/10/08	10'	<50			Inside West	EPA 325.3
#6	3/10/08	0-6"	<50			Background	EPA 325.3
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

Samples reported in parts per million (ppm) and depth is in feet (') and inches (")

### ***Final (Third Party Laboratory) Project Screening Verification***

Sample	Date	Depth	Chlorides	TPH	BTEX	Location	Test Method
#1	6/23/08	12'	64			Outside East	See Report
#2	6/23/08	12'	64			Outside North	See Report
#3	6/23/08	10'	64			Outside West	See Report
#4	6/23/08	12'	64			Inside East	See Report
#5	6/23/08	10'	16			Inside West	See Report
#6	6/23/08	0-6"	<16			Background	See Report
#7							

Samples reported in parts per million (ppm) and depth is in feet (') and inches (")



**Phoenix Environmental, LLC.**  
**P.O. Box 1856 – 2113 French Drive**  
**Hobbs, New Mexico 88241**  
**505.391.9685 – FAX: 505.391.9687**

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## **SOIL ANALYSIS REPORT**

**Date:** 3/10/08  
**Client:** Bold Energy LP  
**Supervisor:** Allen Hodge  
**Sample Matrix:** Soil

**Facility:** Bell Lake #27  
**Test Method:** EPA 325.3  
**Order No.:** Donny Money  
**Sample Received:** Intact on site

<b><u>Sample</u></b>	<b><u>CL (ppm)</u></b>	<b><u>Depth (feet)</u></b>	<b><u>Location</u></b>
<b>#1</b>	80	12'	Outside East
<b>#2</b>	75	12'	Outside North
<b>#3</b>	100	10'	Outside West
<b>#4</b>	80	12'	Inside East
<b>#5</b>	<50	10'	Inside West
<b>#6</b>	<50	0-6"	Background

**COMMENTS:** These samples are field screen samples taken to confirm regulator limits prior to final lab analysis.



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
PHOENIX ENVIRONMENTAL, LLC  
ATTN: ALLEN HODGE  
P.O. BOX 1856  
HOBBS, NM 88241  
FAX TO: (575) 391-9687

Receiving Date: 06/23/08  
Reporting Date: 06/23/08  
Project Number: BOLD ENERGY  
Project Name: BULL LAKE 27  
Project Location: LEA CO., NM

Analysis Date: 06/23/08  
Sampling Date: 06/17/08  
Sample Type: SOIL  
Sample Condition: INTACT  
Sample Received By: ML  
Analyzed By: HM

LAB NUMBER SAMPLE ID

CF  
(mg/kg)

H15035-1	1-OUTSIDE EAST @ 12'	64
H15035-2	2-OUTSIDE NORTH @ 12'	64
H15035-3	3-OUTSIDE WEST @ 10'	64
H15035-4	4-INSIDE EAST @ 12'	64
H15035-5	5-INSIDE WEST @ 10'	16
H15035-6	6-BACKGROUND @ 0-6"	< 16
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		2.0

METHOD: Standard Methods

4500-CF/B

Note: Analyses performed on 1:4 w/v aqueous extracts.

  
Chemist

06-23-08  
Date

H15035 PHOENIX

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by client for analyses and claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

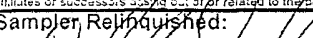
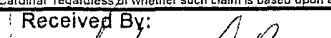



(575) 393-2326 Fax (575) 393-2476

Page \_\_\_\_\_ of \_\_\_\_\_

CL chlorides

Terms and Conditions. Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

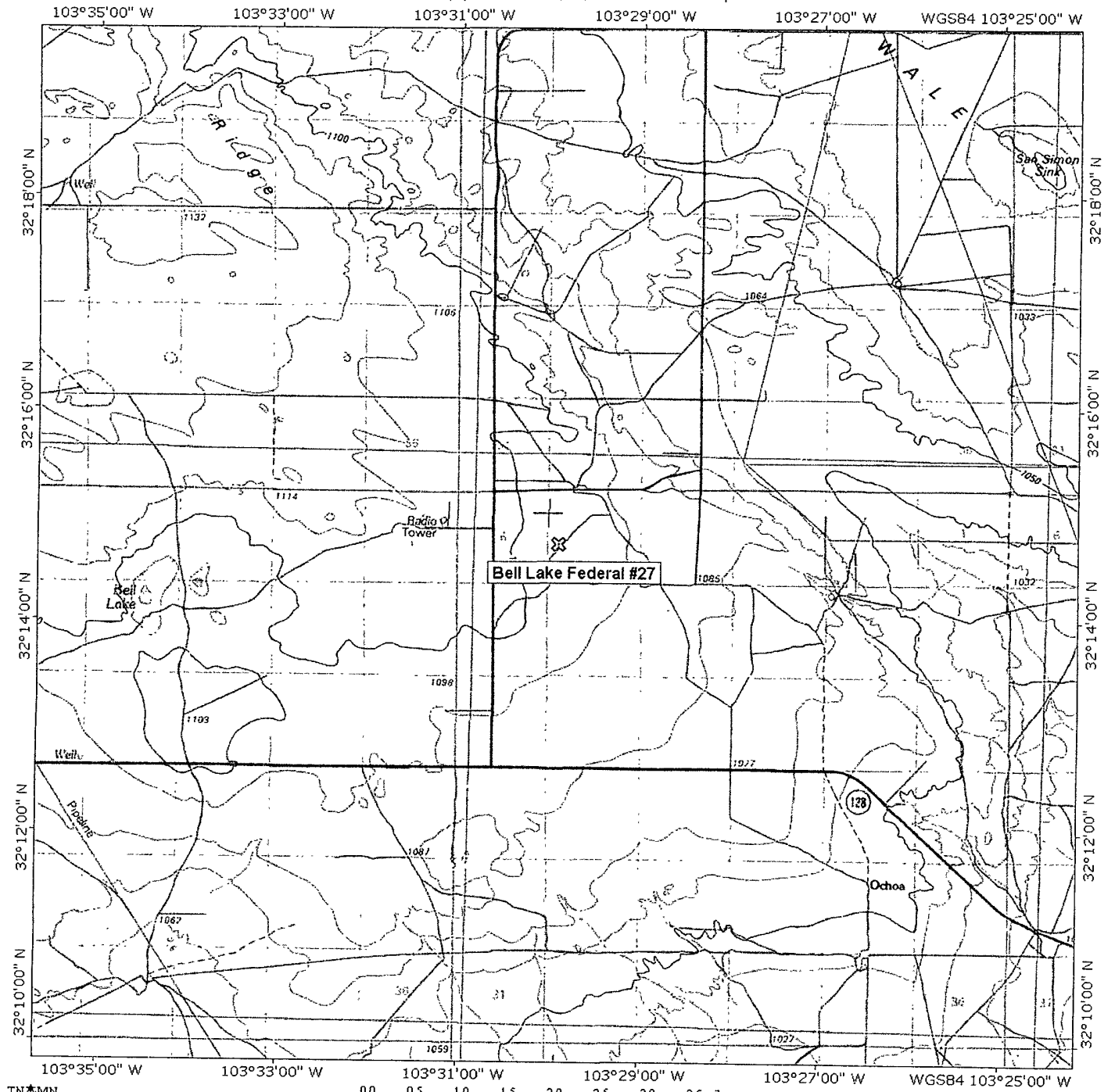
Sampler Relinquished: 		Date: <u>6-23-08</u>		Received By: 		Phone Result: <input type="checkbox"/> No Add'l Phone #: _____	
Relinquished By: _____		Time: <u>8:30</u>		Date: _____		Fax Result: <input type="checkbox"/> No Add'l Fax #: _____	
Delivered By: (Circle One) -- Sampler - UPS - Bus - Other: _____		Temp.: _____		Sample Condition: Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		REMARKS: <u>RUSH ASAP</u> 	
CHECKED BY: _____ (Initials) <u>UPAB</u>							

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.



## ***SECTION IV***

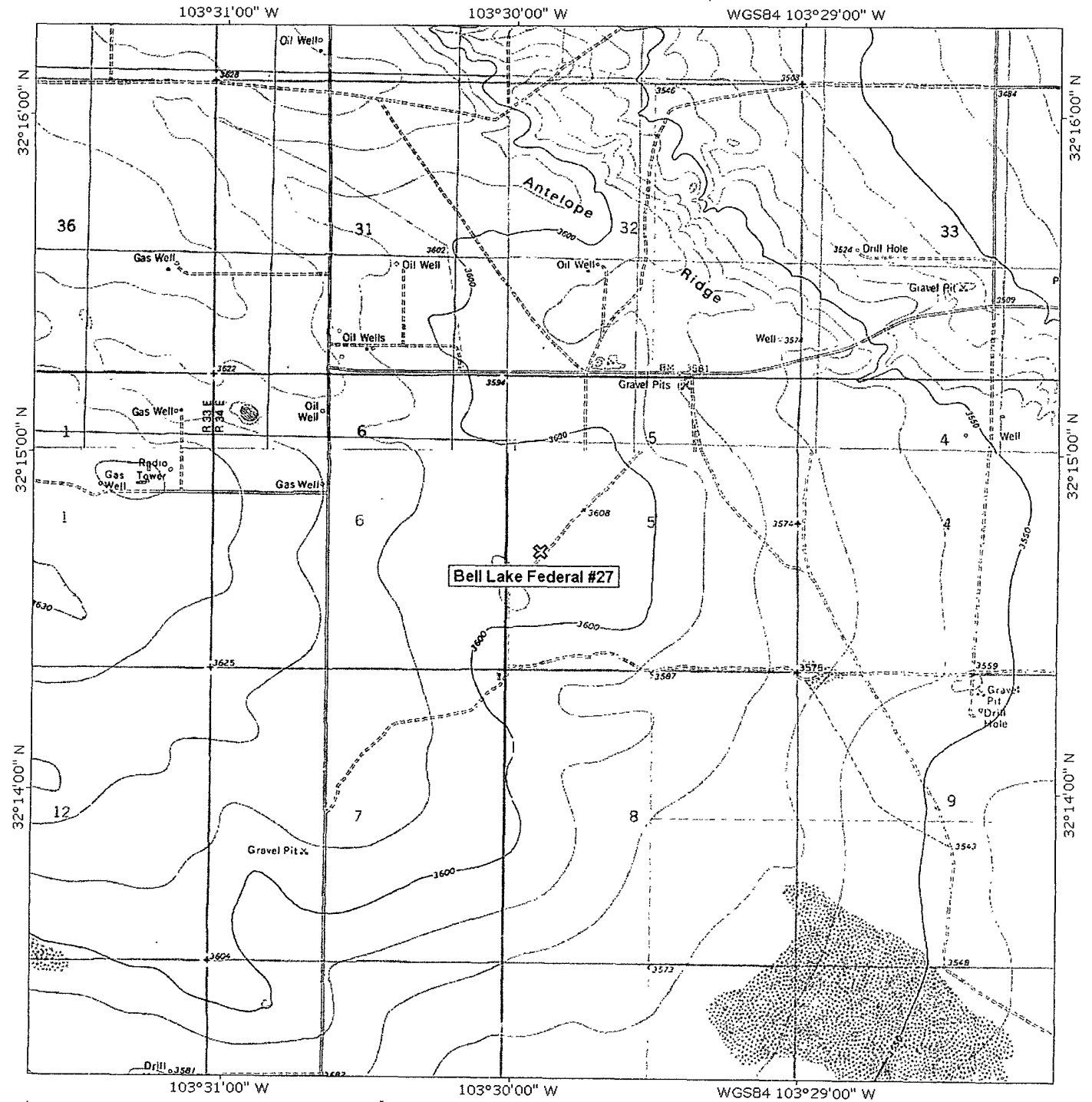
TOPO! map printed on 06/10/08 from "Untitled.tpo"



Map created with TOPO!® ©2003 National Geographic ([www.nationalgeographic.com/topo](http://www.nationalgeographic.com/topo))



TOPO! map printed on 06/10/08 from "Untitled topo"



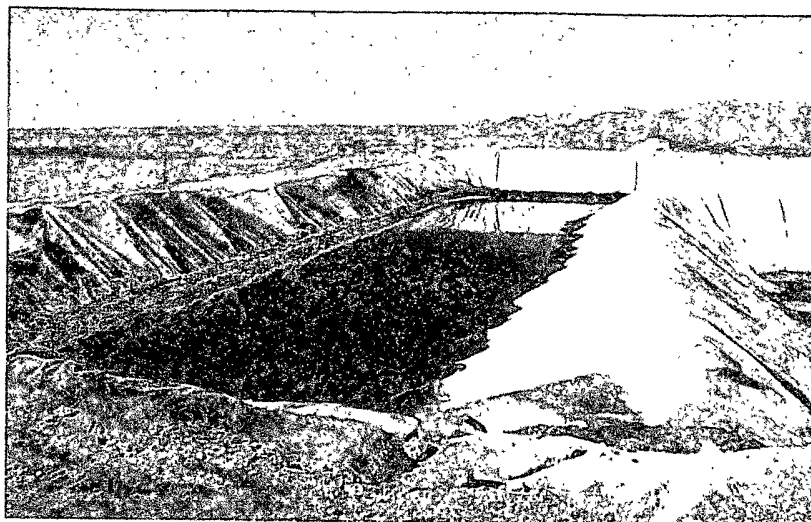
TN MN  
8 1/2°

0 5 1 MILE  
0 1000 FEET 0 500 1000 METERS  
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

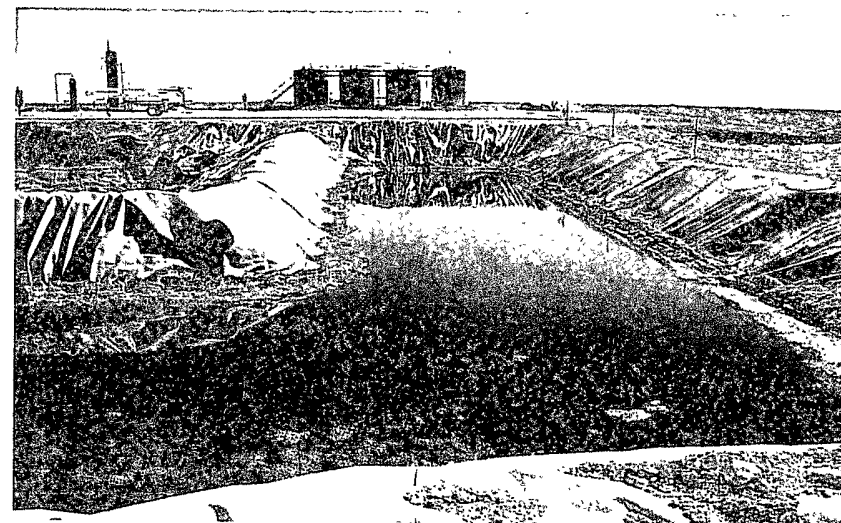




## ***SECTION V***



*Photo #1 Beginning View*



*Photo #2 Beginning View*



*Photo #3 Beginning View*



*Photo #4 Beginning View*

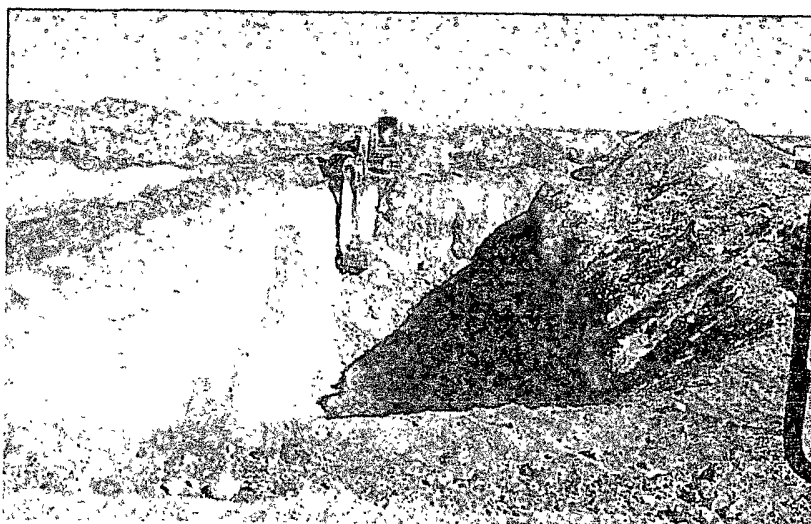




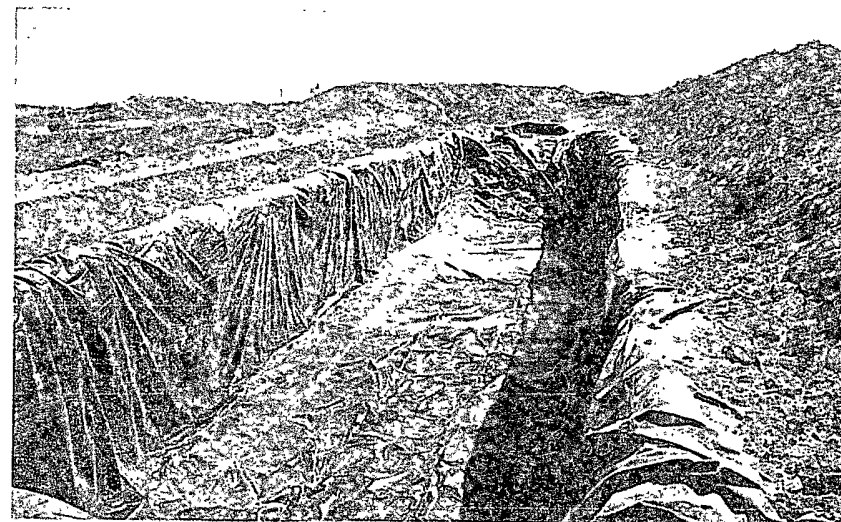
*Photo #5 Excavation of the Deep Bury (entombment) Pit*



*Photo #6 Excavation of the Deep Bury (entombment) Pit*

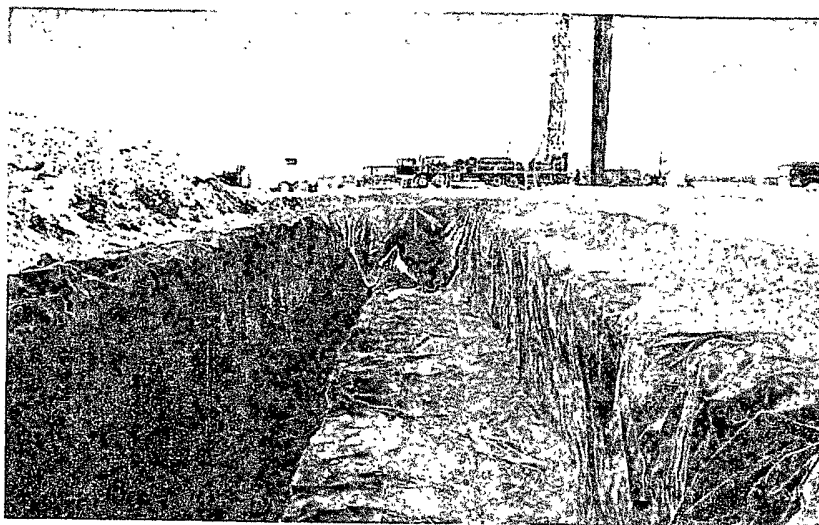


*Photo #7 Excavation of the Deep Bury (entombment) Pit*

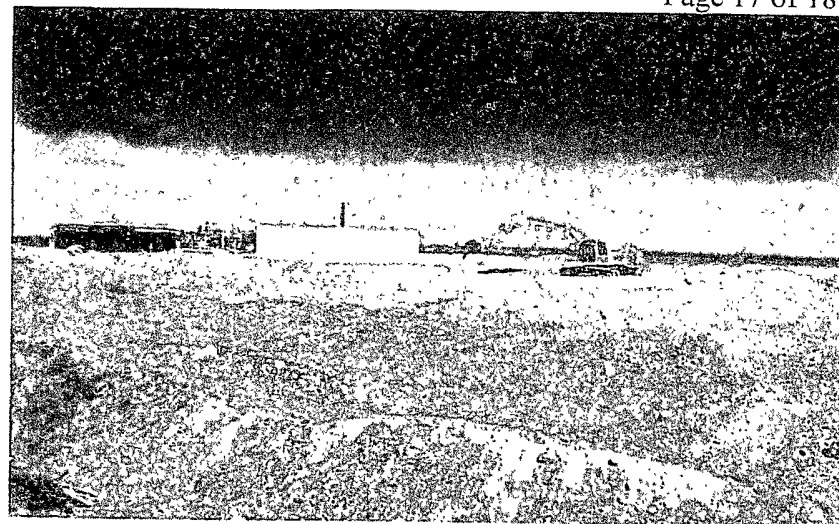


*Photo #8 View of Lined Deep Bury (entombment) Pit*

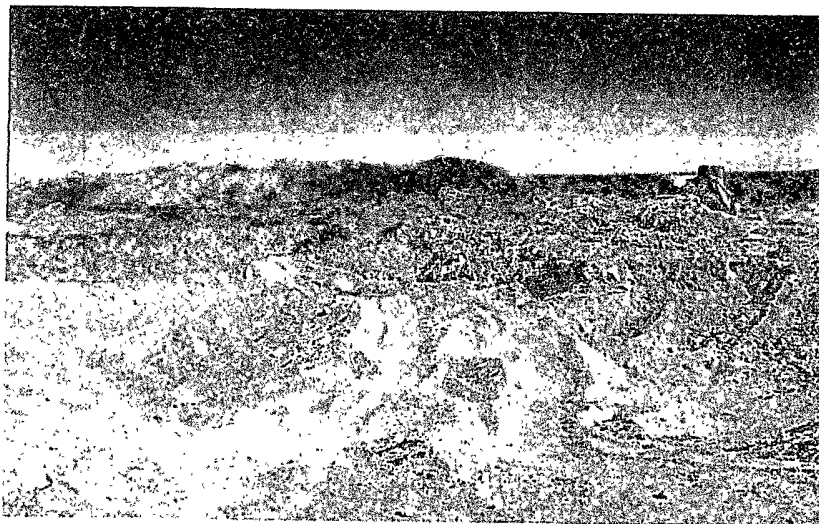




*Photo #9 Lined Deep Bury Pit*



*Photo #10 Transferring Drilling Mud to Deep Bury Pit*

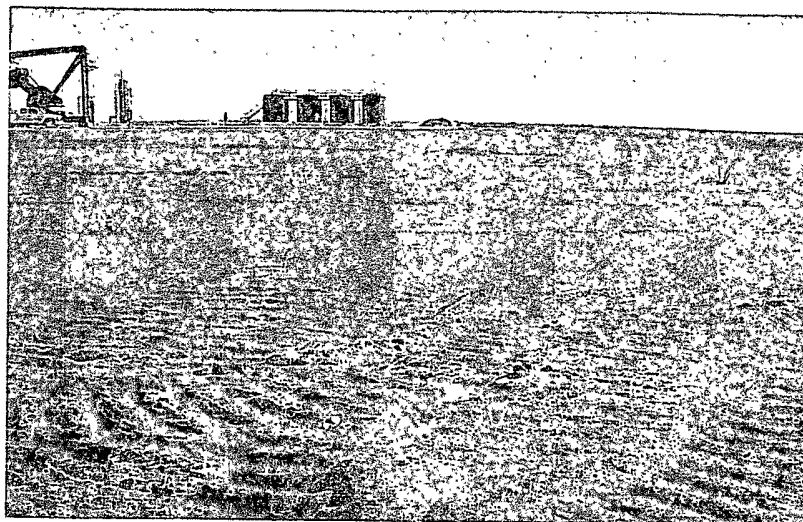


*Photo #11 Transferring Drilling Mud to Deep Bury Pit*

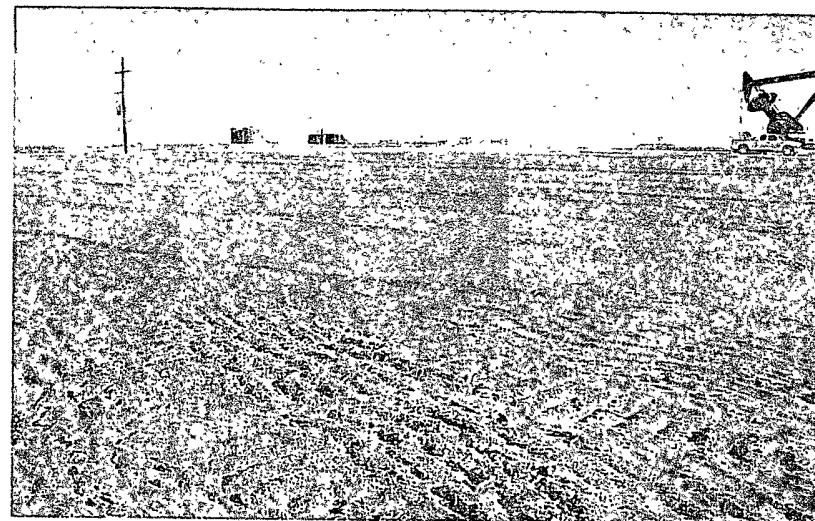


*Photo #12 Transferring Drilling Mud to Deep Bury Pit*

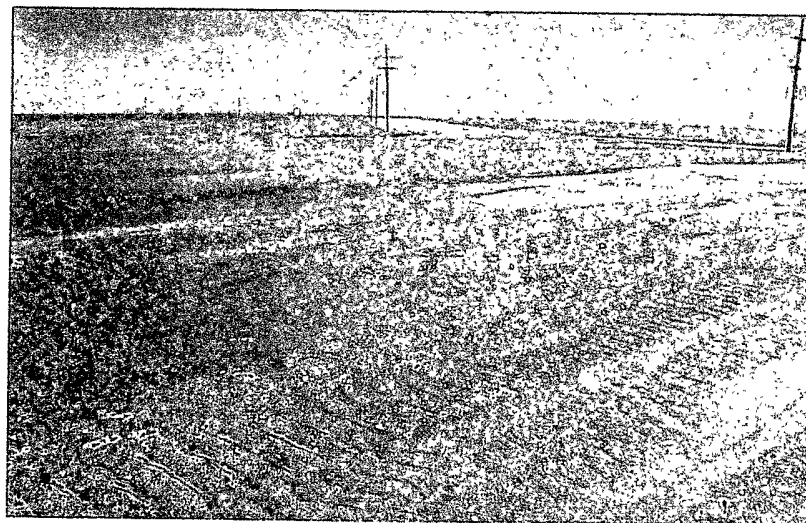




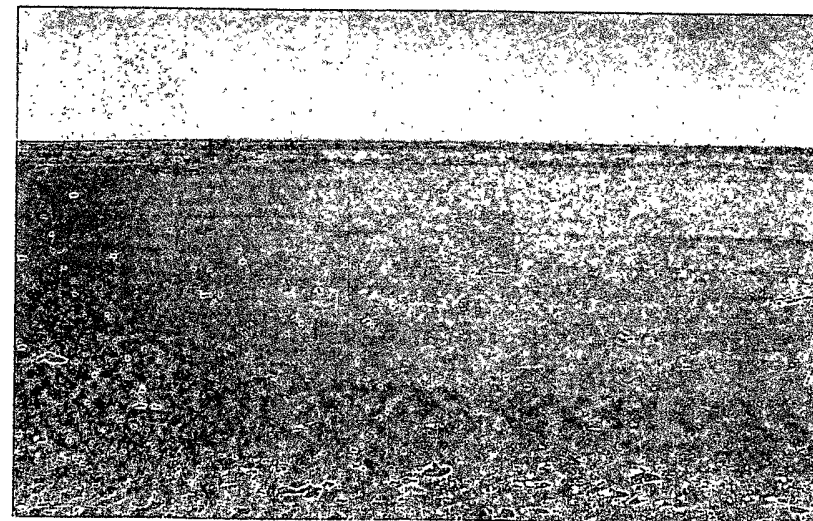
*Photo #13 Final View of Location*



*Photo #14 Final View of Location*



*Photo #15 Final View of Location*



*Photo #16 Final View of Location*

