

Hydrogen Sulfide Drilling Operations Plan

30-015-38391

Mewbourne Oil Company  
Brton Flat "7" Federal #5H  
330' FSL & 400' FEL (SL)  
Sec 7-T20S-R28E  
Eddy County, New Mexico

**1. General Requirements**

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H<sub>2</sub>S were found. MOC will have on location and working all H<sub>2</sub>S safety equipment before drilling out from surface casing for purposes of safety and insurance requirements.

**2. Hydrogen Sulfide Training**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- 1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- 3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a known hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

**3. Hydrogen Sulfide Safety Equipment and Systems**

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

**1. Well Control Equipment**

- A. Flare line with automatic igniter or continuous ignition source.
- B. Choke manifold with minimum of one adjustable choke.
- C. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment including annular type blowout preventer.

**2. Protective Equipment for Essential Personnel**

Thirty minute self contained work unit located at briefing area as indicated on wellsite diagram.

3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. **Mud Program**

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. **Metallurgy**

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. **Communications**

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. **Well Testing**

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. **Emergency Phone Numbers**

<b>Eddy County Sheriff's Office</b>	<b>911 or 575-887-7551</b>
<b>Ambulance Service</b>	<b>911 or 575-885-2111</b>
<b>Carlsbad Fire Dept</b>	<b>911 or 575-885-2111</b>
<b>Closest Medical Facility - Columbia Medical Center of Carlsbad</b>	<b>575-492-5000</b>

<b>Mewbourne Oil Company</b>	<b>Hobbs District Office</b>	<b>575-393-5905</b>
	<b>Fax</b>	<b>575-397-6252</b>
	<b>2<sup>nd</sup> Fax</b>	<b>575-393-7259</b>

<b>District Manager</b>	<b>Micky Young</b>	<b>575-390-0999</b>
<b>Drilling Superintendent</b>	<b>Frosty Lathan</b>	<b>575-390-4103</b>
<b>Engineer</b>	<b>Charles Martin</b>	<b>575-441-2081</b>
<b>Drilling Foreman</b>	<b>Wesley Noseff</b>	<b>575-441-0729</b>
<b>Drilling Foreman</b>	<b>George Smith</b>	<b>575-390-4365</b>

# **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

## **MEWBOURNE OIL COMPANY**

Burton Flat "7" Federal #5H

330' FNL & 400' FEL

Sec 7-T20S-R28E

Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, Covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved, and the procedures to be followed in restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

### **1. Existing Roads:**

- A. Exhibit #3 is a road map showing the location of the proposed well. Existing roads are highlighted in black. Exhibits #3-#3C are maps showing the location of the proposed well and access road. Existing and proposed roads are highlighted.
- B. Directions to location: From Carlsbad on CR206 (Illinois Camp), north 9 miles to lease road. Turn right (east) 0.8 miles to new lease road. Turn left (south) 0.2 miles to location.
- C. Existing roads will be maintained in a condition the same as or better than before operations begin.

### **2. Proposed Access Road:**

- A. 1200' feet of new road construction will be needed.
- B. The maximum width of the driving surface will be 14 feet. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The road will be surfaced with 6" of rolled and compacted caliche.
- C. Mewbourne Oil Co. will cooperate with other operators in the maintenance of lease roads.

### **3. Location of Existing Wells:**

There are producing wells within the immediate vicinity of the well site. Exhibit #4 shows the proposed well and existing wells within a one mile radius.

### **4. Location of Existing and/or Proposed Facilities:**

- A. There are no production facilities on this lease at the present time.
- B. In the event that the well is productive, production facilities will be built on the east side of the well pad.
- C. All production vessels left on location will be painted to conform to BLM painting stipulations within 180 days of installation.

### **5. Location and Type of Water Supply**

The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or hauled to the location by transport trucks over existing and proposed roads as indicated in Exhibit #3.

## **6. Source of Construction Materials**

All material required for construction of the drill pad and access roads will be obtained from private, state, or federal pits. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.

## **7. Methods of Handling Waste Disposal:**

- A. Drill cuttings not retained for evaluation purposed will be hauled to CRI permit# NM-010006.
- B. Water produced during operations will be hauled to an off-site permitted SWD in the area.
- C. If any liquid hydrocarbons are produced during operations, those liquids will be stored in suitable tanks until sold.
- D. Sewage and gray water will be safely contained on-site, and then waste will be disposed at an approved off-site facility.
- E. All trash, junk, and other waste materials will be stored in proper containers to prevent dispersal and will be removed to an appropriate facility within one week of cessation of drilling and completion activities.

## **8. Ancillary Facilities**

There are no ancillary facilities within the immediate vicinity of the proposed well site.

## **9. Well Site Layout**

- A. A diagram of the drill pad is shown in Exhibit #5. Dimensions of the pad and location of major rig components are shown.
- B. The pad dimension of 280' x 320' has been staked and flagged.
- C. An archaeological survey is in the process of being conducted on the proposed location pad.

## **10. Plans for Restoration of Surface**

- A. Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.
- B. Interim reclamation:
  - i. All areas not needed for production operations will be reclaimed.
  - ii. Caliche will be removed, the land will be recontoured, the top soil from stockpile will be spread over these areas.
  - iii. The disturbed area will be restored by re-seeding during the proper growing season.
  - iv. Any additional caliche required for production facilities will be obtained from the area shown in exhibit #6 as interim reclamation.

**C. Final Reclamation:**

- i. Upon cessation of the proposed operations, if the well is abandoned, all equipment and trash will be removed and taken to a proper facility.
- ii. The location and road surfacing material will be removed and used to patch area lease roads. The entire location will be restored to the original contour as much as reasonable possible. The top soil used for interim reclamation will be spread over the entire location. All restoration work will be completed within 180 days of cessation of activities.

**11. Frac Pit:**

A frac pit will be constructed north of the north edge of the well pad, along the access road as shown on exhibit 7. The exterior dimensions of the pit will be approx 130' by 330'. The interior dimensions will be approx 100' by 300' by 10' deep as shown in exhibit 7. Working volume is approx 40,000 bbls. This pit will be lined and filled with fresh water purchased from a commercial source. Topsoil excavated during construction of the pit will be stockpiled inside the north berm of the pit.

**12. Surface Ownership:**

The surface is owned by BLM

**13. Other Information:**

- A. Topography: Refer to the archaeological report for a detailed description of flora, fauna, soil characteristics, dwellings, and historical or cultural sites.
- B. The primary use of the surface at the location is for grazing of livestock.

**14. Operator's Representative:**

- A. Through APD approval, drilling, completion and production operations:

**N.M. Young, District Manager**  
Mewbourne Oil Company  
PO Box 5270  
Hobbs, NM 88241  
575-393-5905

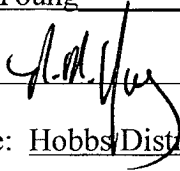
# Mewbourne Oil Company

PO Box 5270  
Hobbs, NM 88241  
(575) 393-5905

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 24 day of August, 2010.

Name: NM Young

Signature: 

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: myoung@mewbourne.com

**United States Department of the Interior  
Bureau of Land Management  
Carlsbad Field Office  
620 E Greene Street  
Carlsbad, New Mexico 88201-1287**

**Statement Accepting Responsibility for Operations**

Operator Name: Mewbourne Oil Company  
Street or Box: P.O. Box 5270  
City, State: Hobbs, New Mexico  
Zip Code: 88241

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number: Lease Number #NM-83583

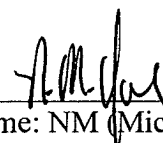
Legal Description of Land: Section 7, T-20S, R-28E Eddy County, New Mexico.  
Location @ 330' FNL & 400' FEL.

Formation (if applicable): Bone Springs

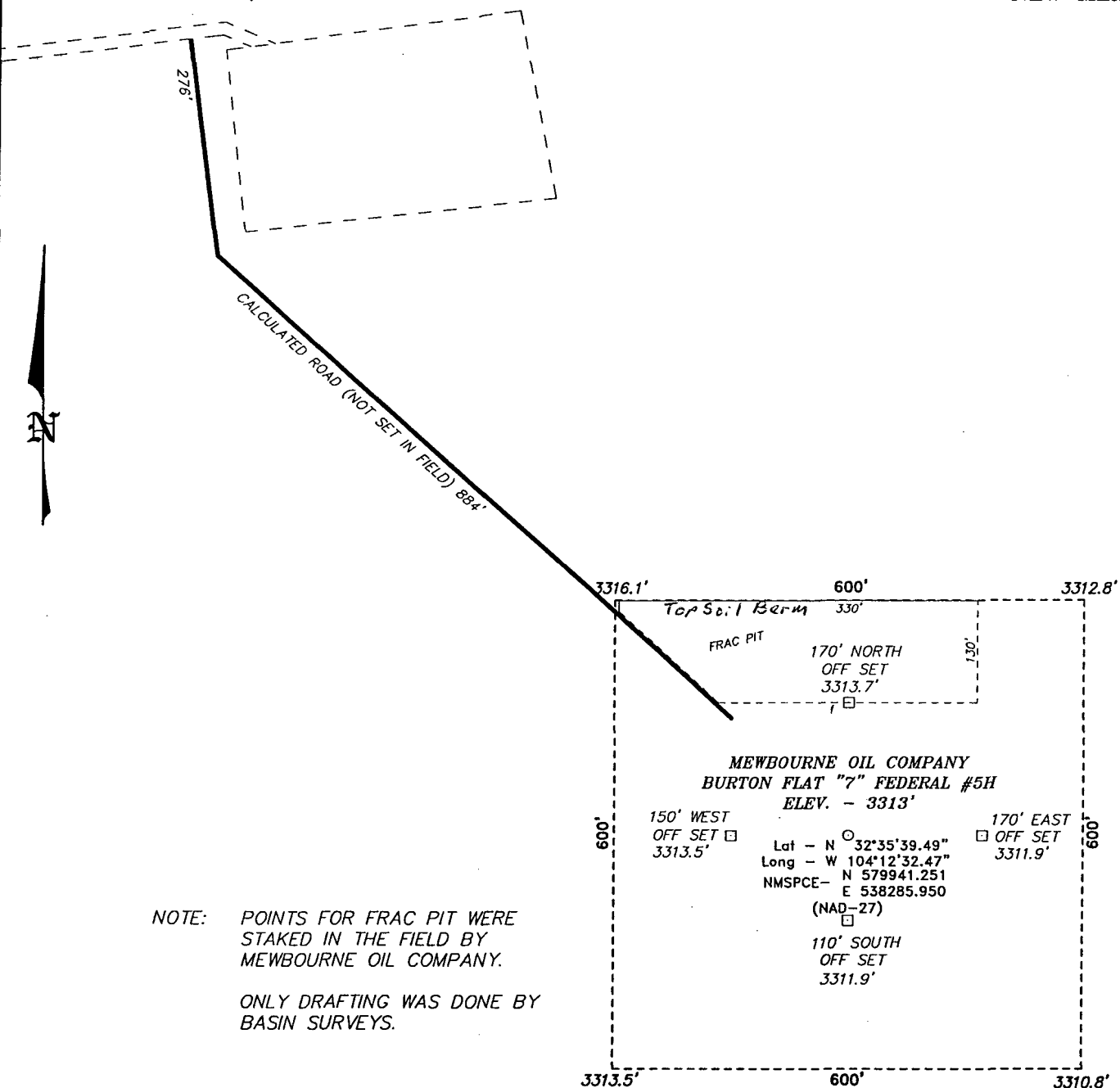
Bond Coverage: \$150,000

BLM Bond File: NM1693, Nationwide

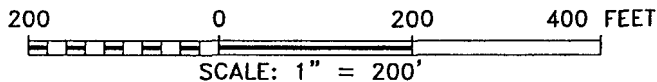
Authorized Signature: \_\_\_\_\_

  
Name: NM (Micky) Young  
Title: District Manager  
Date: August 24, 2010

SECTION 7, TOWNSHIP 20 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



NOTE: POINTS FOR FRAC PIT WERE  
STAKED IN THE FIELD BY  
MEWBOURNE OIL COMPANY.  
  
ONLY DRAFTING WAS DONE BY  
BASIN SURVEYS.



Directions to Location:

FROM JUNCTION OF ILLINOIS CAMP AND ANGEL  
RANCH, GO NORTH 0.7 MILES TO LEASE ROAD, ON  
LEASE ROAD GO EAST 1.0 MILES TO PROPOSED  
LEASE ROAD.

**MEWBOURNE OIL COMPANY**

REF: BURTON FLAT "7" FEDERAL #5H / WELL PAD TOPO

THE BURTON FLAT "7" FEDERAL #5H LOCATED 330'

FROM THE NORTH LINE AND 400' FROM THE EAST LINE OF

SECTION 7, TOWNSHIP 20 SOUTH, RANGE 28 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 22933

Drawn By: J. SMALL

Date: 08-09-2010

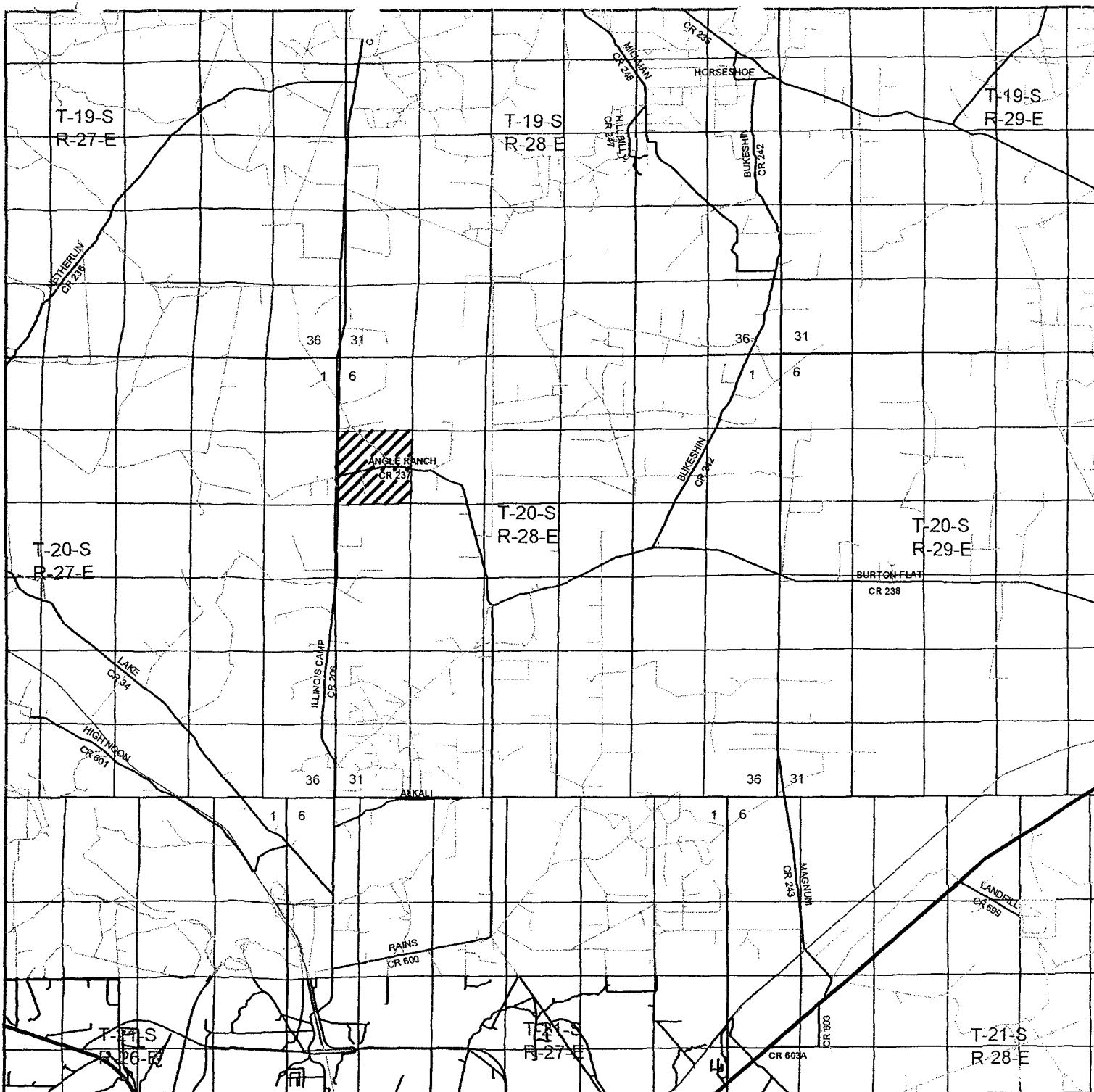
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Survey Date: 08-07-2010

Sheet 1 of 1 Sheets







**BURTON FLAT "7" FEDERAL #5H** *Exhibit 3 B*  
 Located 330' FNL and 400' FEL  
 Section 7, Township 20 South, Range 28 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**  
 focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2206 - Fax  
 basinsurveys.com

W.O. Number: JMS 22933

Survey Date: 08-07-2010

Scale: 1" = 2 Miles

Date: 08-09-2010

**MEWBOURNE**  
**OIL COMPANY**

T19S  
R28E

T20S  
R28E

ANGEL PATCH

BURTON FLAT "7" FEDERAL #5H

*Exhibit 3C*

Located 330' FNL and 400' FEL

Section 7, Township 20 South, Range 28 East,  
N.M.P.M., Eddy County, New Mexico.

**basin**  
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P.O. Box 17066  
1120 N. West County Rd.  
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(575) 393-7316 - Office  
(575) 392-2206 - Fax  
basinsurveys.com

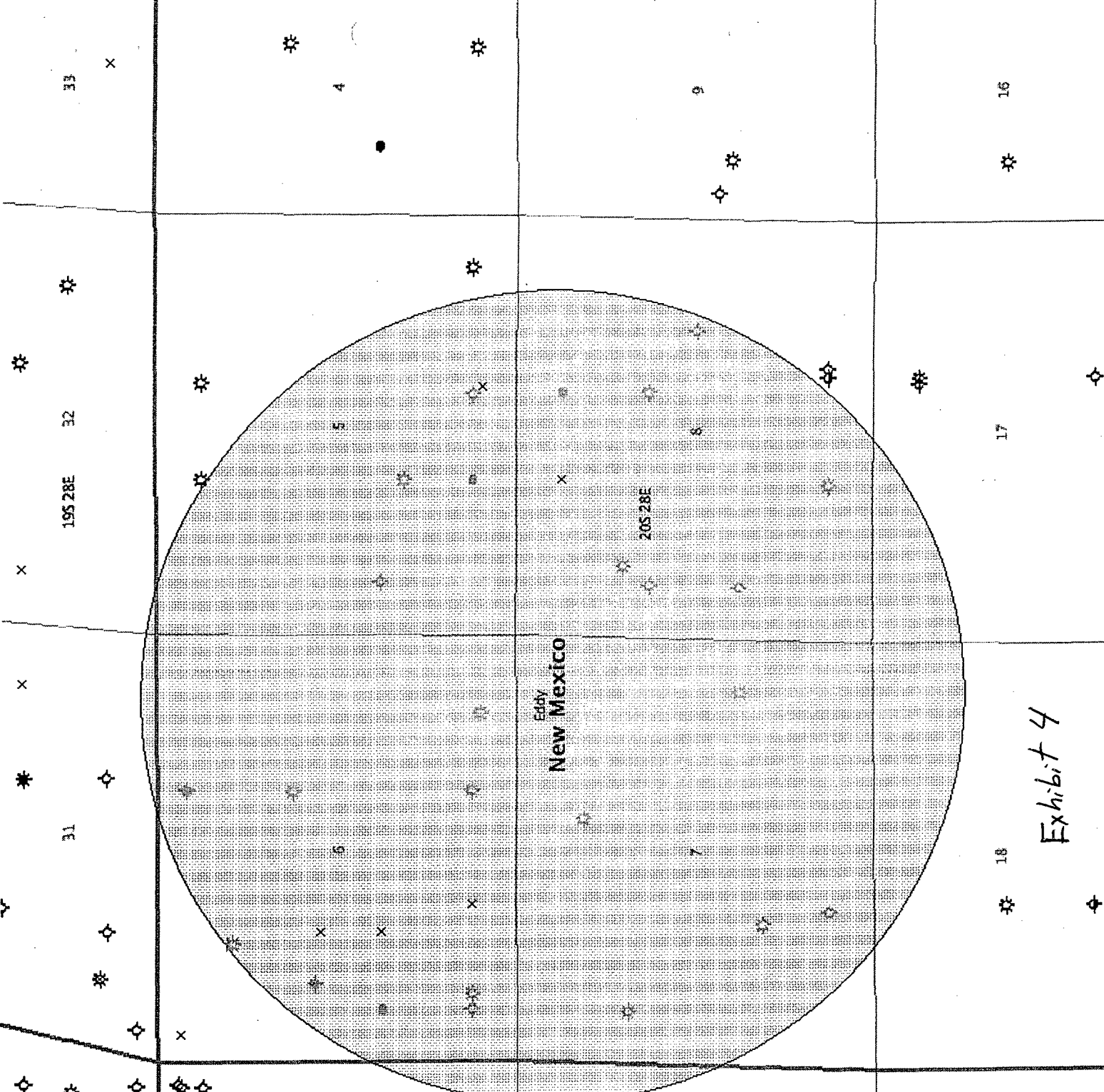
W.C. Number: LA, 22933

Scale: 1" = 200'

YELLOW TINT - USA LAND  
BLUE TINT - STATE LAND  
NATURAL COLOR - TEE LAND

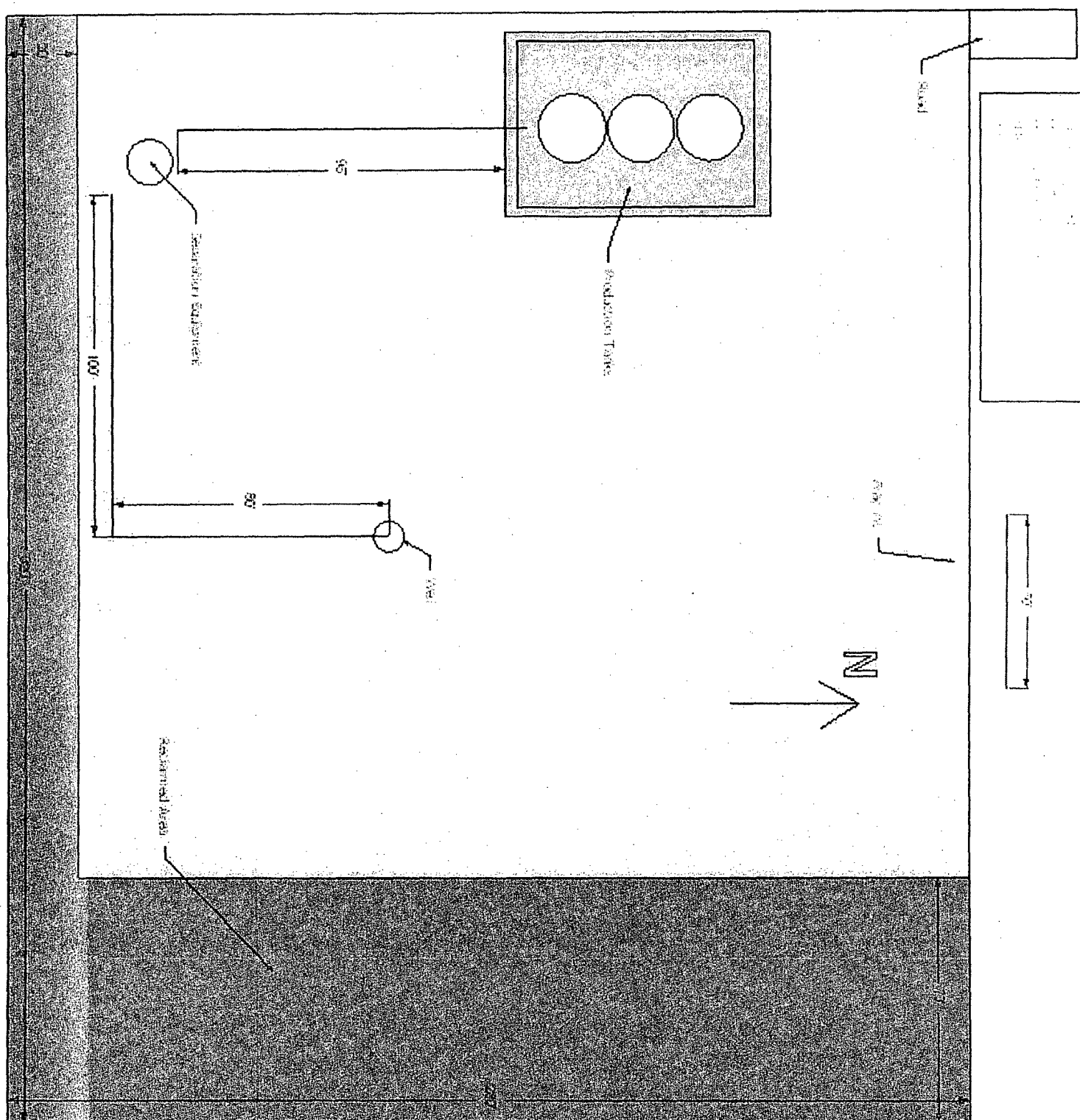


**MEWBOURNE**  
**OIL COMPANY**



- Location (Permit)
- Drilling (Well Start)
- × Abandoned Location (Permit)
- ☆ Gas Well
- Oil Well
- ✱ Oil and Gas Well
- Other (Observation, etc)
- ✂ Injection Well
- ◇ Suspended
- ✱ Plugged Gas Well
- ✂ Plugged Oil Well
- ✱ Plugged Oil and Gas
- ✱ Dry Hole (No Shows)
- ◇ Dry Hole w/Gas Show
- ◇ Dry Hole w/Oil Show
- ✱ Dry Hole w/Oil and Gas Show

Exhibit 4





SECTION 7, TOWNSHIP 20 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.

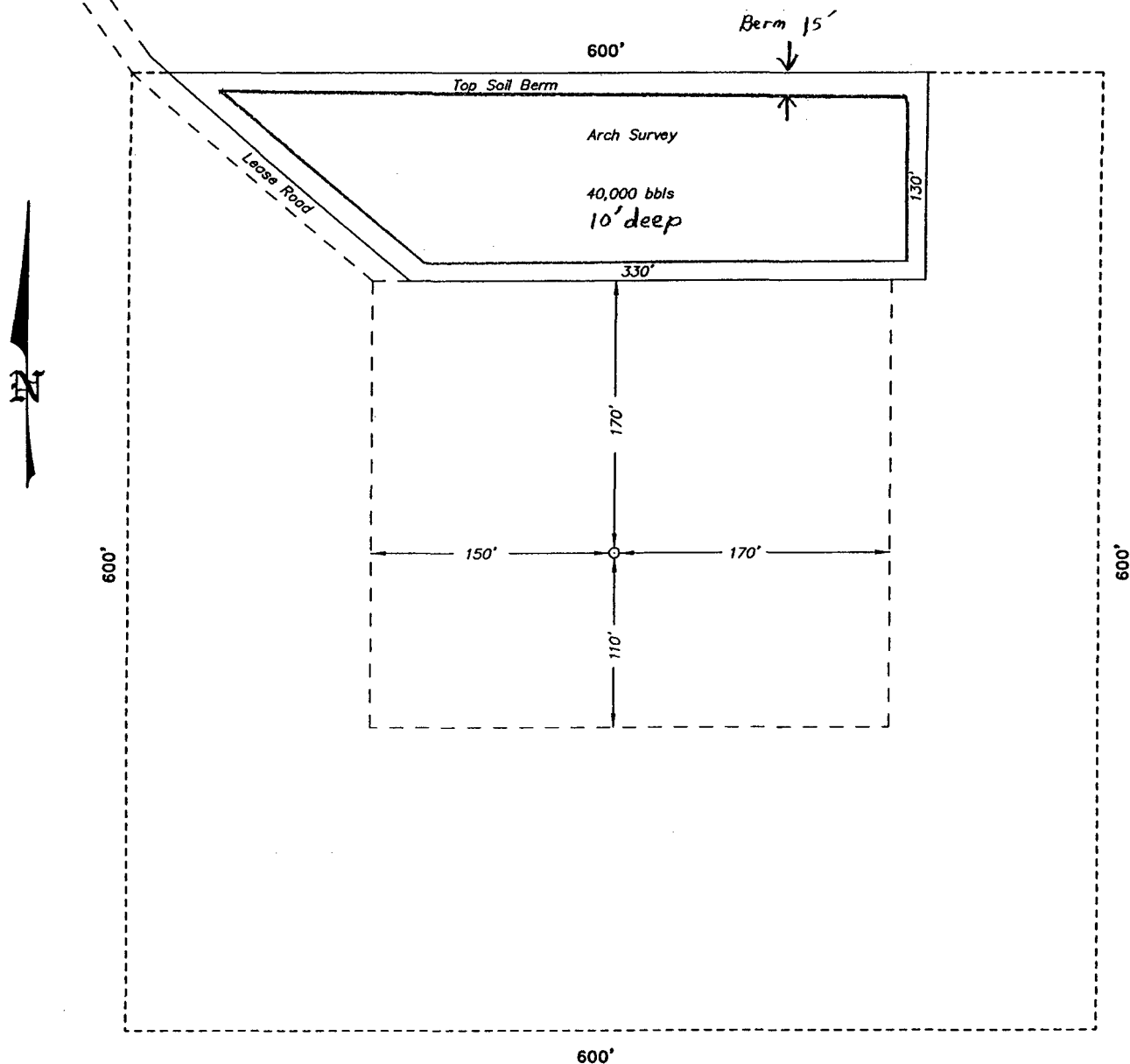
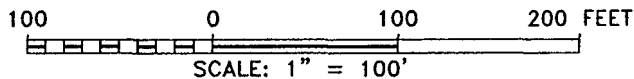


Exhibit 7

NOTE:  
FRAC PIT STACKED BY MEWBOURNE OIL COMPANY.  
PLAT BY BASIN SURVEYS. NO SURVEYING DONE.



**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 22933 Drawn By: J. SMALL

Date: 08-09-2010 Disk: JMS 22933

**MEWBOURNE OIL COMPANY**

REF: BURTON FLAT "7" FEDERAL #5H / WELL PAD TOPO

THE BURTON FLAT "7" FEDERAL #5H LOCATED 330'  
FROM THE NORTH LINE AND 400' FROM THE EAST LINE OF  
SECTION 7, TOWNSHIP 20 SOUTH, RANGE 28 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date:

Sheet 1 of 1 Sheets

Closed Loop Pad Dimensions 280' x 320'

