

Form 3160-3
(August 2007)OCD Hobbs
RECEIVED

SEP 17 2009

HOBBSOCD

FORM APPROVED
OMB NO 1004-0137
Expires July 31, 2010UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

| | | |
|--|--|---|
| 1a Type of Work. <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5 Lease Serial No NM-15317 |
| 1b Type of Well. <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone | | 6 If Indian, Allottee or Tribe Name N/A |
| 2. Name of Operator Yates Petroleum Corporation | | 7 If Unit or CA Agreement, Name and No N/A |
| 3a Address 105 South Fourth Street, Artesia, NM 88210 | 3b Phone No (include area code) 575-748-1471 | 8 Lease Name and Well No Farber BOB Fed #1H |
| 4 Location of well (Report location clearly and in accordance with any State requirements *) At surface 330' FSL & 660' FWL, UL M, SWSW At proposed prod zone 330' FNL & 660' FWL, UL D, NWNW | | 9 API Well No 30-025-39525 |
| 14 Distance in miles and direction from the nearest town or post office* | | 10 Field and Pool, or Exploratory Bone Springs Delaware |
| 15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg unit line, if any) 330' | | 11 Sec, T, R, M, or Blk And Survey or Area Section 1-T25S-R32E |
| 16 No. of acres in lease 1120.84 | 17 Spacing Unit dedicated to this well 160 W2W2 | 12 County or Parish Lea |
| 18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft None | 19 Proposed Depth 10500' | 13 State NM |
| 20 BLM/ BIA Bond No on file NATIONWIDE BOND #NMB000434 | 21 Elevations (Show whether DF, KDB, RT, GL, etc) 3531' GL | 22 Approximate date work will start* ASAP |
| 23 Estimated duration | | |

24 Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form

- | | |
|--|--|
| 1 Well plat certified by a registered surveyor | 4 Bond to cover the operations unless covered by existing bond on file (see item 20 above) |
| 2 A Drilling Plan | 5 Operator certification |
| 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office) | 6 Such other site specific information and/or plans as may be required by the BLM |

| | | |
|--|--|---------------------|
| 25 Signature <i>Lucky Briggs</i> | Name (Printed/ Typed) W. "Lucky" Briggs | Date 8/4/2009 |
| Title Land Regulatory Agent | | |
| Approved By (Signature) <i>Is/ Don Peterson</i> | Name (Printed/ Typed) Is/ Don Peterson | Date SEP 15 2009 |
| Title <i>for</i> FIELD MANAGER | | |
| Office CARLSBAD FIELD OFFICE | | |

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to operations thereon

Conditions of approval, if any, are attached

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

* (Instructions on page 2)

Carlsbad Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Ed., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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HOBBSD

State of New Mexico
Energy, Minerals and Natural Resources Department

CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

| | | |
|-----------------------------------|---|--|
| API Number 30-025-39525 | Pool Code / | Pool Name Wildcat Delaware Bone Spring |
| Property Code 37842 | Property Name FARBER "BOB" FEDERAL | Well Number 1H |
| GRID No. 25575 | Operator Name YATES PETROLEUM CORP. | Elevation 3531' |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M | 1 | 25 S | 32 E | | 330 | SOUTH | 660 | WEST | LEA |

Bottom Hole Location If Different From Surface

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| D | 1 | 25 S | 32 E | | 330 | NORTH | 660 | WEST | LEA |

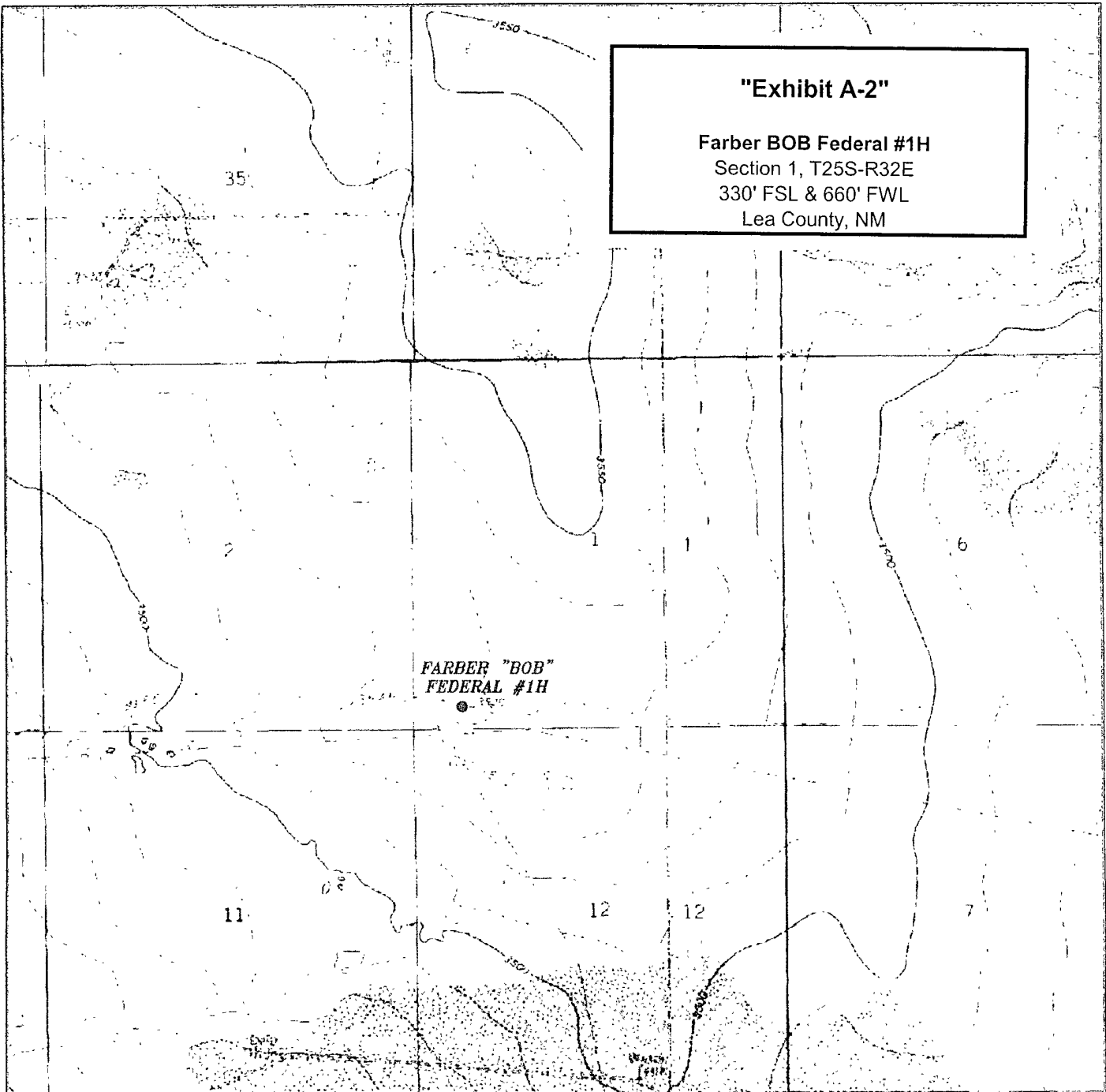
| | | | |
|-------------------------------|-----------------|--------------------|-----------|
| Dedicated Acres 160 | Joint or Infill | Consolidation Code | Order No. |
|-------------------------------|-----------------|--------------------|-----------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

| | |
|---|---|
| <p>BOTTOM HOLE LOCATION Lat - N 32°09'57.41" Long - W 103°38'05.72" NMSPCE- N 424808.225 E 757448.292 (NAD-83)</p> <p>Project Area</p> <p>Producing Area</p> <p>Penetration Point 808' FSL & 660' FWL</p> <p>SURFACE LOCATION Lat - N 32°09'11.55" Long - W 103°38'05.64" NMSPCE- N 420173.8 E 757485.3 (NAD-83)</p> | <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Lucky Briggs</i> 8/11/09 Signature Date</p> <p>Lucky BRIGGS Printed Name</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p> Date Surveyed Signature & Seal of Professional Surveyor</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p> |
|---|---|

"Exhibit A-2"

Farber BOB Federal #1H
Section 1, T25S-R32E
330' FSL & 660' FWL
Lea County, NM



FARBER "BOB" FEDERAL #1H
Located 330' FSL and 660' FWL
Section 1, Township 25 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

Basin
Surveys

*focused on experience
in the oilfield*

P.O. Box 1786
1170 N. West Creek Rd.
Hobbs, New Mexico 88241
(575) 393-3116 - Office
(575) 392-2216 - Fax
basinsurveys.com

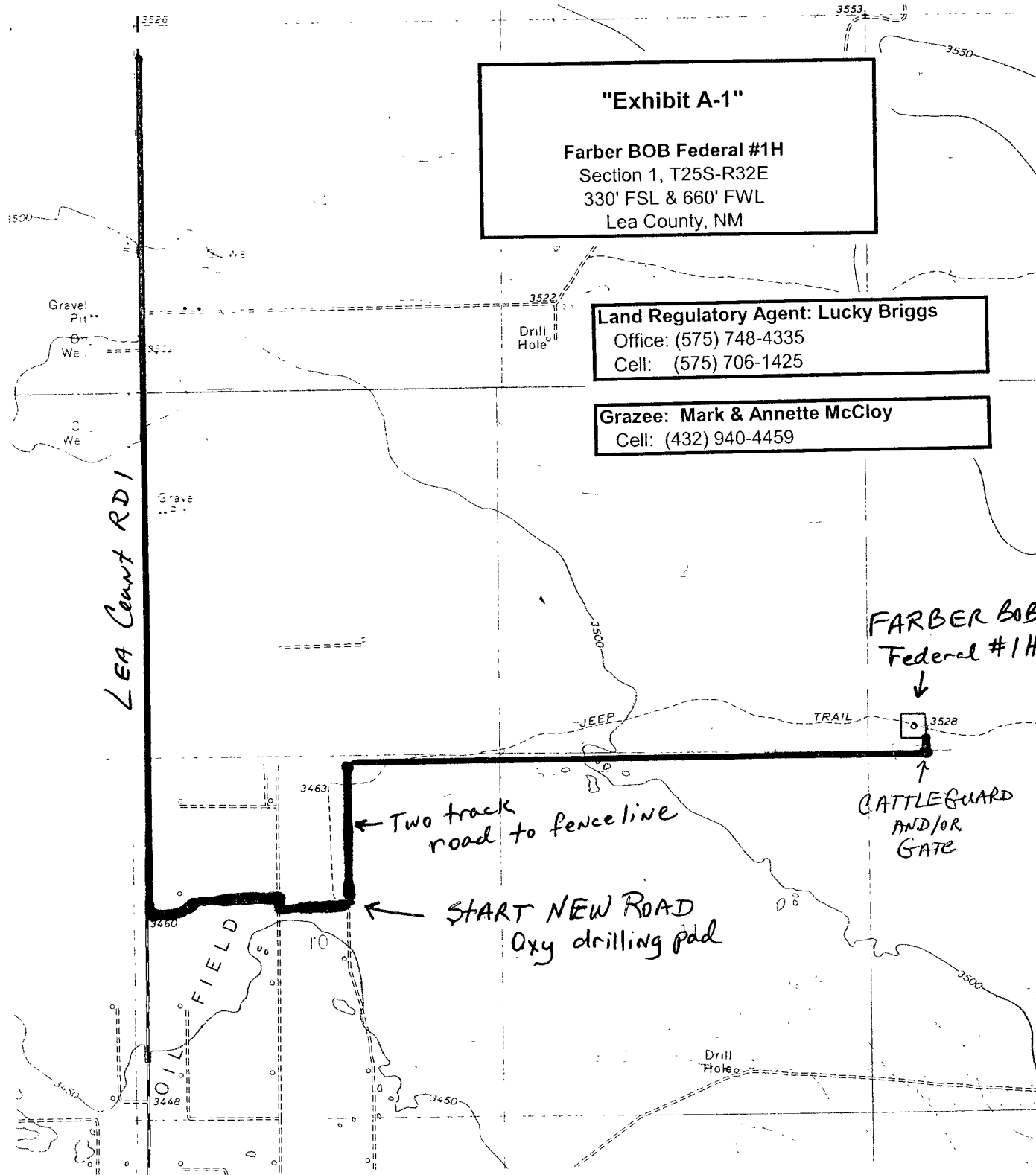
Ac Number: JMS 1146

Survey Date: 07-26-2008

Scale: 1" = 200'

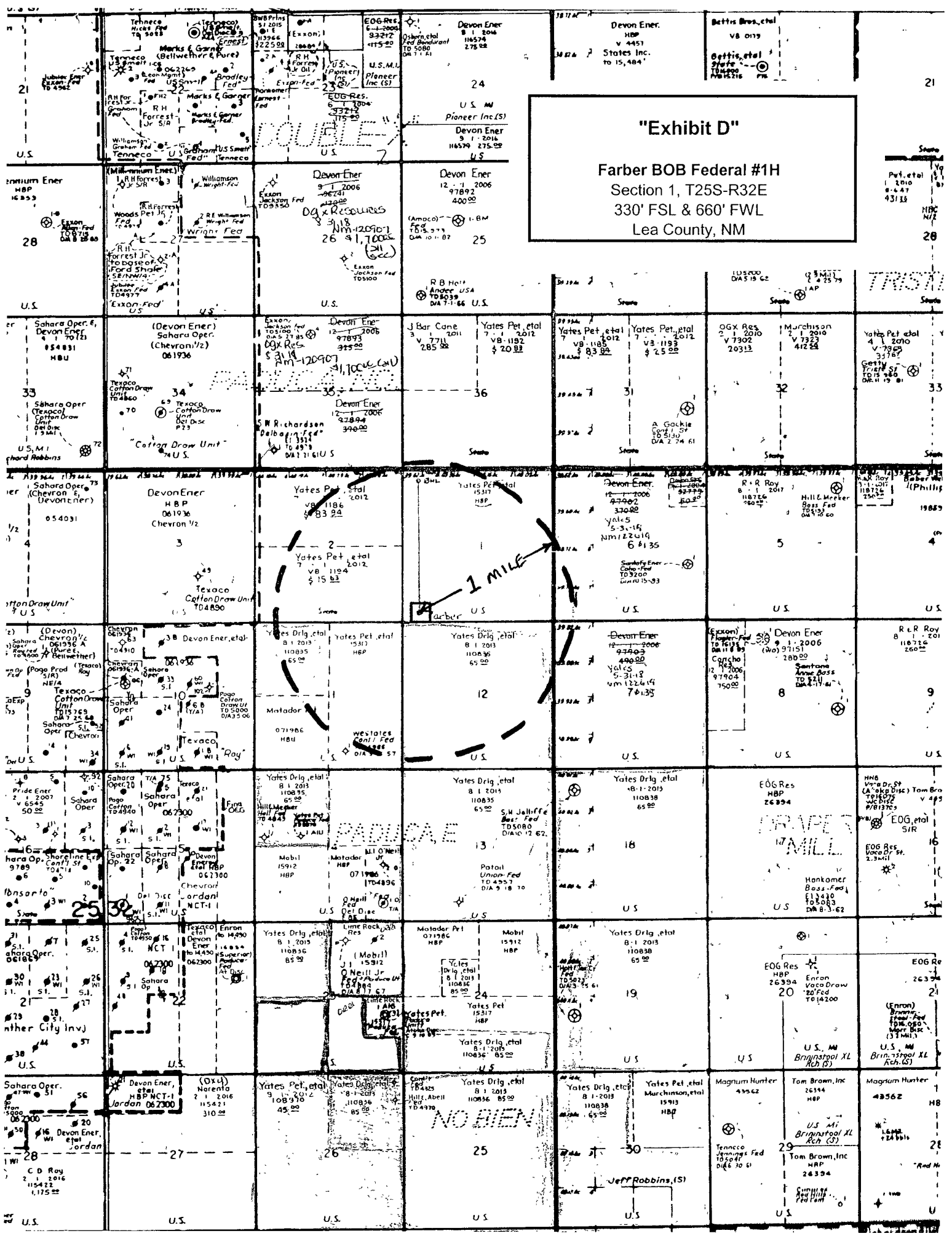
Date: 07-30-2008

YATES
PETROLEUM
CORP.



DIRECTIONS:

From the intersection of State Road 31 and State Road 128 travel to the east on State Road 128 for a distance of 21.3 miles. Turn south on Lea County Rd 1 and travel approx. 4.3 miles. Turn east, cross cattleguard and travel approx. 0.3 miles. At the T in the road proceed south approx 100' and then continue to the east. Travel approx. 0.2 miles to the Oxy drilling pad. The new road will begin here proceeding north from the north east corner of the drill pad. Travel north approximately 0.4 miles just south of the fence line turn east and follow fence line approximately 1.5 miles. The Farber BOB Federal #1H is located approx. 400' to the north.



"Exhibit D"

Farber BOB Federal #1H

Section 1, T25S-R32E

330' FSL & 660' FWL

Lea County, NM

Source
Pet. et al
1-1-2010
8-4-47
43133
HBC
N/E

Source
Pet. et al
4-1-2010
V-7962
33767
Gentry
TO 15-86
OK 11-15-81

Source
Pet. et al
1-1-2010
118716
25000
19889

Source
Pet. et al
8-1-2010
118716
25000

Source
Pet. et al
8-1-2010
118716
25000

Source
Pet. et al
8-1-2010
118716
25000

Source
Pet. et al
8-1-2010
118716
25000

YATES PETROLEUM CORPORATION

Farber BOB Federal #1H

330' FSL & 660' FWL

Section 1: T25S-R32E

Lea County, New Mexico

1. THE ESTIMATED TOPS OF GEOLOGIC MARKERS ARE AS FOLLOWS:

| | | | |
|---------------|--------|-------------------|---------|
| Rustler | 780' | Brushy Canyon | 7,450' |
| TOS | 1,120' | Bone Springs | 8,850' |
| BOS | 4,520' | Bone Springs1/SD/ | 9,930' |
| Bell Canyon | 4,800' | PTD | 10,500' |
| Cherry Canyon | 5,900' | | |

2. THE ESTIMATED DEPTHS AT WHICH ANTICIPATED WATER, OIL OR GAS FORMATIONS ARE EXPECTED TO BE ENCOUNTERED:

Water: 350'+

Oil or Gas: Oil: Bell Canyon, Cherry Canyon, Brushy Canyon, Bone Springs, Bone Springs1/SD/

- 3. PRESSURE CONTROL EQUIPMENT:** BOPE will be installed on the 13 3/8", 9 5/8" and 7" casing and rated for 3000 psi. BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order and this inspection recorded on the daily drilling report. See Exhibit C.

Auxiliary Equipment:

Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when Kelly is not in use.

4. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New)

| <u>Hole Size</u> | <u>Casing Size</u> | <u>Wt./Ft</u> | <u>Grade</u> | <u>Thread</u> | <u>Interval</u> | <u>Length</u> |
|------------------|--------------------|---------------|--------------|---------------|-----------------|---------------|
| 17 1/2" | 13 3/8" | 48# | H-40 | ST&C | 0-900' | 900' |
| 12 1/4" | 9 5/8" | 40# | J-55 | ST&C | 0-100' | 100' |
| 12 1/4" | 9 5/8" | 36# | J-55 | ST&C | 100-3300' | 3200' |
| 12 1/4" | 9 5/8" | 40# | J-55 | ST&C | 3300-4200' | 900' |
| 12 1/4" | 9 5/8" | 40# | HCK-55 | ST&C | 4200-4650' | 450' |
| 8 3/4" | 7 " | 26# | L-80 | LT&C | 0-1500' | 1500' |
| 8 3/4" | 7 " | 26# | J-55 | LT&C | 1500-7800' | 6300' |
| 8 3/4" | 7 " | 26# | L-80 | LT&C | 7800-10200' | 2400' |
| 8 3/4" | 7 " | 26# | HCP-110 | LT&C | 10200-10500' | 300' |
| 6 1/8" | 4 1/2" | 11.6# | HCP-110 | LT&C | 0-14405' | 14405' |

1 Minimum Casing Design Factors: Burst 1.0; Tensile Strength 1.8; Collapse 1.125

2. Pilot hole drilled vertically to 10500' where 7" casing will be run and cemented. A whipstock will then be placed at approx. 9513' where a window will be milled in the 7" casing for kick off. Well will then be directionally drilled at 12 degrees/100' with 6 1/8" hole to 14405' MD (9990 TVD) where 4 1/2" casing will be set & cemented. Penetration point of producing zone will be encountered at 808' FSL and 660' FWL, 1-25S-32E. Deepest TVD in the well is 10,500' in the pilot hole. Deepest TVD in the lateral is 9990'.

B. Cementing Program:

Surface Casing: Cement with 500 sx C Lite (WT 12.5; YLD 1.96). Tail in with 200 sx class "C" w/CaCl₂ (Wt 14.8; YLD 1.34). TOC-Surface.

Intermediate Casing: 1335 sx C Lite (Wt 12.6; YLD 2.00). Tail in with 200 sx class "C" (Wt 14.8; YLD 1.34). TOC-Surface.

Intermediate 2 Casing:

Stage 1: DV tool at 7000'. 750 sx Pecos VI Lt (Wt 13.0; YLD 1.41). TOC-7000.

Stage 2: 700 sx LiteCrete (Wt 9.90; YLD 2.78). Tail in with 100 sx class Pecos VI Lt (Wt 13.00; YLD 1.41). TOC-Surface.

Production Casing: DV tool at 9000' to be cemented in one stage - 725 sx Pecos VILt (Wt 13.0; YLD 1.41). TOC-9000'.

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

| <u>Interval</u> | <u>Type</u> | <u>Weight</u> | <u>Viscosity</u> | <u>Fluid Loss</u> |
|-----------------|-----------------------------|---------------|------------------|-------------------|
| 0-900' | Fresh Water | 8.8-9.2 | 32-35 | N/C |
| 900'-4650' | Brine Water | 10.0-10.20 | 28-28 | N/C |
| 4650'-10500' | Cut Brine | 8.8-9.0 | 28-30 | N/C |
| 9513'-14405' | Cut Brine (lateral section) | 8.8-9.0 | 28-30 | N/C |

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM: See COA

Samples: 30' Samples to 3000'. 10' Samples 3000'-TD. SWC or Gas Analysis bulk cuttings samples 8850' – 9900'.

Logging: Platform Hals, CMR, Dipole Sonic for stress field.

Coring: None anticipated

DST's: As warranted

7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE AND POTENTIAL HAZARDS:

Anticipated BHP:

| | | |
|-----------------------|-----------------------|----------|
| From: 0' to 900' | Anticipated Max. BHP: | 430 PSI |
| From: 900' to 4650' | Anticipated Max. BHP: | 2465 PSI |
| From: 4650' to 10500' | Anticipated Max. BHP: | 4915 PSI |

Abnormal Pressures Anticipated: None
Lost Circulation Zones Anticipated: None
H₂S Zones Anticipated: None
Maximum Bottom Hole Temperature: 152° F

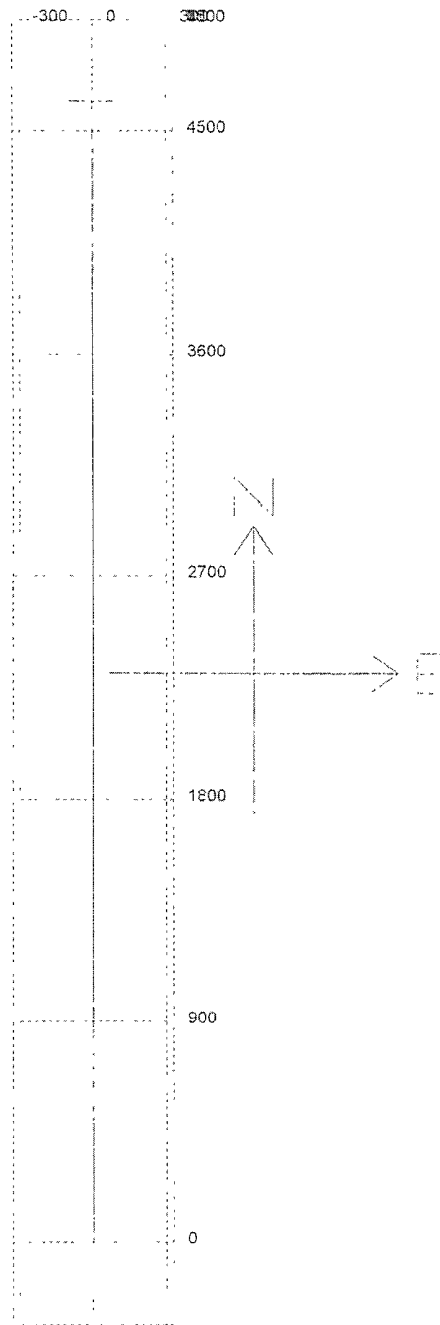
8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 40 days to drill the well with completion taking another 40 days.

3D^s Directional Drilling Planner - 3D View

Company: Yates Petroleum Corporation

Well: Farber BOB Federal #1H



3D³ Directional Drilling Planner - 3D View

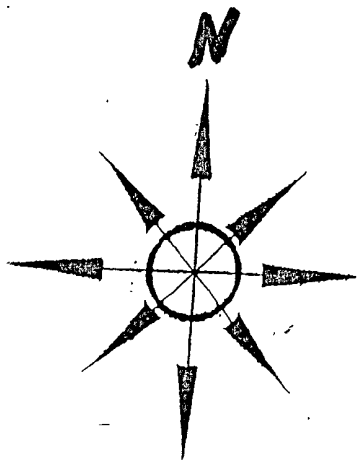
Company: Yates Petroleum Corporation

Well: Farber BOB Federal #1H



| M.D. | Inclination | Azimuth | T.V.D. | N+/S | E+/W | D.L.S. | ToolFace | T.F. Ref (HS/GN) | |
|----------|-------------|---------|---------|--------|------|--------|----------|------------------|------------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 780 | 0 | 0 | 780 | 0 | 0 | 0 | | | RUSTLER |
| 1,120 | 0 | 0 | 1,120 | 0 | 0 | 0 | | | TOP OF SALT |
| 4,520 | 0 | 0 | 4,520 | 0 | 0 | 0 | | | BASE OF SALT |
| 4,800 | 0 | 0 | 4,800 | 0 | 0 | 0 | | | BELL CANYON |
| 5,900 | 0 | 0 | 5,900 | 0 | 0 | 0 | | | CHERRY CANYON |
| 7,450 | 0 | 0 | 7,450 | 0 | 0 | 0 | | | BRUSHY CANYON |
| 8,850 | 0 | 0 | 8,850 | 0 | 0 | 0 | | | BONE SPRINGS |
| 9513 | 0 | 0 | 9513 | 0 | 0 | 12 | 0 | GN | KOP |
| 9525 | 1.44 | 0 | 9525 | 0.15 | 0 | 12 | 0 | HS | |
| 9550 | 4.44 | 0 | 9549.96 | 1.43 | 0 | 12 | 0 | HS | |
| 9575 | 7.44 | 0 | 9574.83 | 4.02 | 0 | 12 | 0 | HS | |
| 9600 | 10.44 | 0 | 9599.52 | 7.9 | 0 | 12 | 0 | HS | |
| 9625 | 13.44 | 0 | 9623.98 | 13.08 | 0 | 12 | 0 | HS | |
| 9650 | 16.44 | 0 | 9648.13 | 19.52 | 0 | 12 | 0 | HS | |
| 9675 | 19.44 | 0 | 9671.91 | 27.22 | 0 | 12 | 0 | HS | |
| 9700 | 22.44 | 0 | 9695.26 | 36.15 | 0 | 12 | 0 | HS | |
| 9725 | 25.44 | 0 | 9718.1 | 46.3 | 0 | 12 | 0 | HS | |
| 9750 | 28.44 | 0 | 9740.39 | 57.62 | 0 | 12 | 0 | HS | |
| 9775 | 31.44 | 0 | 9762.05 | 70.1 | 0 | 12 | 0 | HS | |
| 9800 | 34.44 | 0 | 9783.03 | 83.69 | 0 | 12 | 0 | HS | |
| 9825 | 37.44 | 0 | 9803.27 | 98.36 | 0 | 12 | 0 | HS | |
| 9850 | 40.44 | 0 | 9822.71 | 114.07 | 0 | 12 | 0 | HS | |
| 9875 | 43.44 | 0 | 9841.3 | 130.78 | 0 | 12 | 0 | HS | |
| 9900 | 46.44 | 0 | 9859 | 148.44 | 0 | 12 | 0 | HS | |
| 9925 | 49.44 | 0 | 9875.74 | 166.99 | 0 | 12 | 0 | HS | |
| 9950 | 52.44 | 0 | 9891.49 | 186.4 | 0 | 12 | 0 | HS | |
| 9975 | 55.44 | 0 | 9906.21 | 206.61 | 0 | 12 | 0 | HS | |
| 10000 | 58.44 | 0 | 9919.85 | 227.56 | 0 | 12 | 0 | HS | |
| 10020 | 60.84 | 0 | 9929.95 | 244.82 | 0 | 12 | 0 | HS | 1ST.BONE SPRINGS |
| 10025 | 61.44 | 0 | 9932.37 | 249.2 | 0 | 12 | 0 | HS | |
| 10050 | 64.44 | 0 | 9943.74 | 271.46 | 0 | 12 | 0 | HS | |
| 10075 | 67.44 | 0 | 9953.93 | 294.28 | 0 | 12 | 0 | HS | |
| 10100 | 70.44 | 0 | 9962.91 | 317.61 | 0 | 12 | 0 | HS | |
| 10125 | 73.44 | 0 | 9970.66 | 341.38 | 0 | 12 | 0 | HS | |
| 10150 | 76.44 | 0 | 9977.16 | 365.51 | 0 | 12 | 0 | HS | |
| 10175 | 79.44 | 0 | 9982.38 | 389.96 | 0 | 12 | 0 | HS | |
| 10200 | 82.44 | 0 | 9986.32 | 414.65 | 0 | 12 | 0 | HS | |
| 10225 | 85.44 | 0 | 9988.96 | 439.5 | 0 | 12 | 0 | HS | |
| 10250 | 88.44 | 0 | 9990.29 | 464.46 | 0 | 12 | 0 | HS | |
| 10263.06 | 90.01 | 0 | 9990.47 | 477.52 | 0 | 12 | 0 | HS | TARGET ZONE |
| 14405.54 | 90.01 | 0 | 9990 | 4620 | 0 | 0 | | | LATERAL TD |

Pilot hole drilled vertically to 10,500' where 7" casing will be run and cemented. A whipstock will then be placed at approx 9513' where a window will be milled in the 7" casing for kick off. Well will then be directionally drilled at 12 degrees/100' with 6 1/8" hole to 14,405' MD (9,990' TVD) where 4 1/2" casing will be set & cemented. Penetration point of producing zone will be encountered at 808' FSL and 660' FWL, 1-25S-32E. Deepest TVD in the well is 10,500' in the pilot hole. Deepest TVD in the lateral is 9990'.

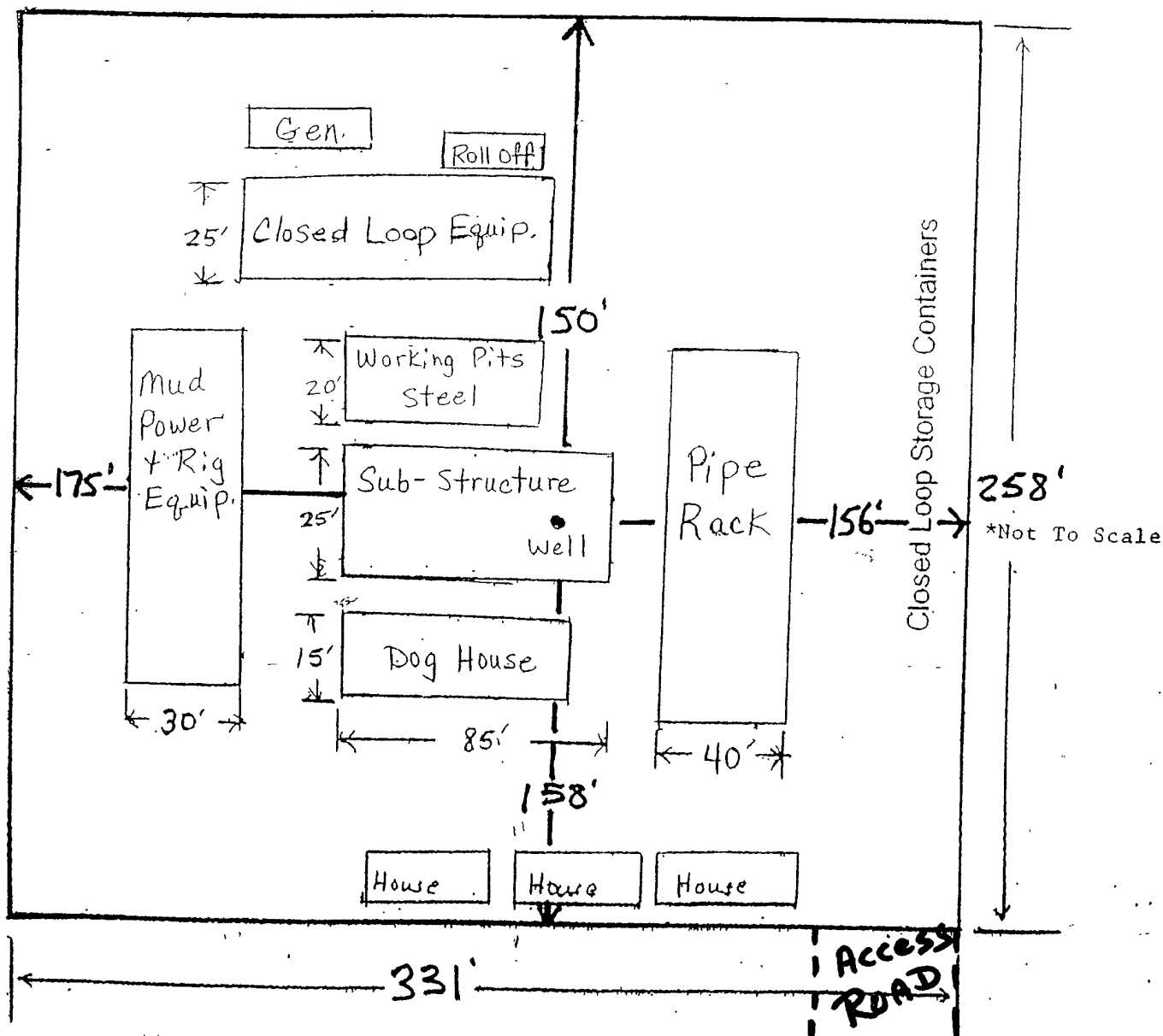


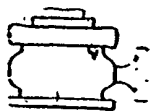
"Exhibit B"

Farber BOB Federal #1H
Section 1, T25S-R32E
330' FSL & 660' FWL
Lea County, NM

Yates Petroleum Corporation
Location Layout for Permian Basin

Closed Loop Design Plan

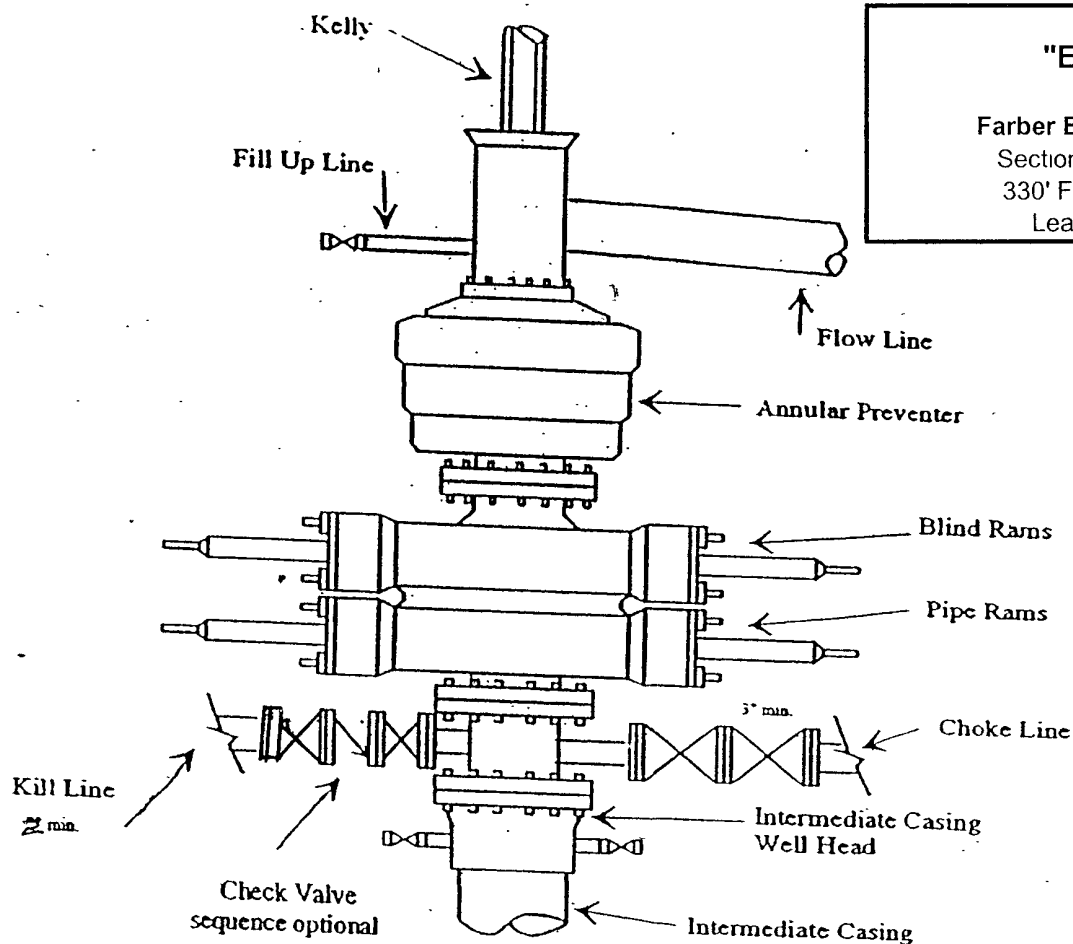




Yates Petroleum Corporation

BOP-3

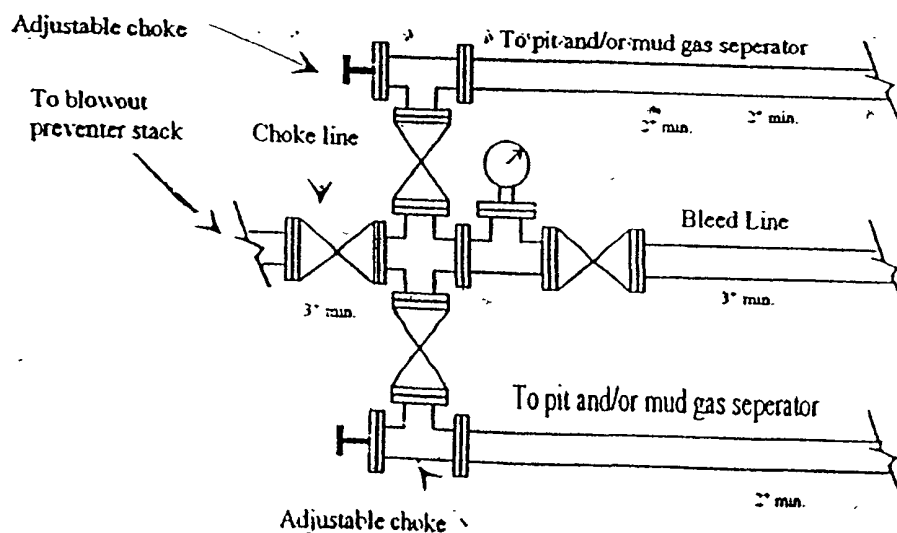
Typical 3,000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack



"Exhibit C"

Farber BOB Federal #1H
Section 1, T25S-R32E
330' FSL & 660' FWL
Lea County, NM

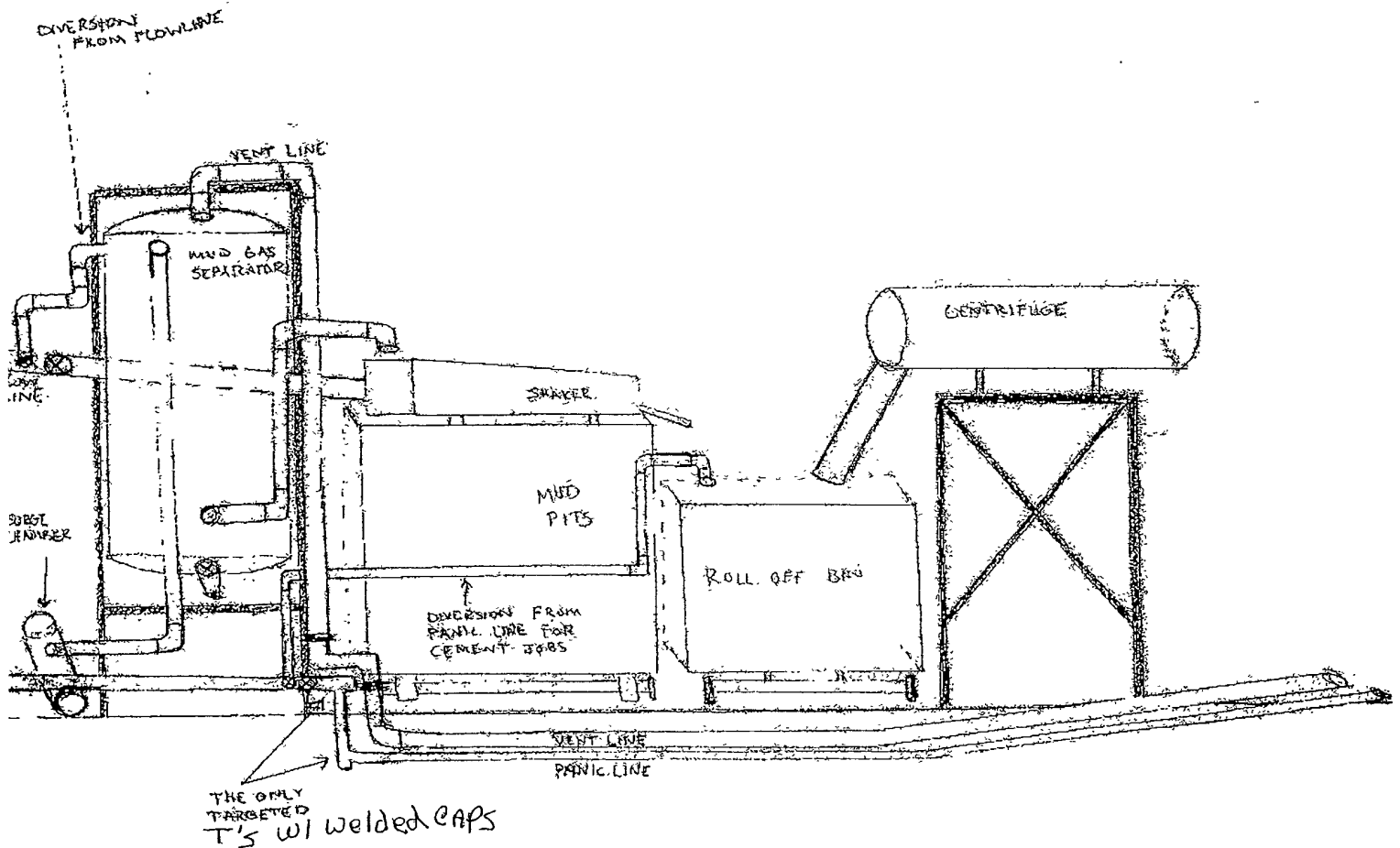
Typical 3,000 psi choke manifold assembly with at least these minimum features



YATES PETROLEUM CORPORATION
Piping from Choke Manifold
to the Closed-Loop Drilling Mud System

"Exhibit B-1"

Farber BOB Federal #1H
Section 1, T25S-R32E
330' FSL & 660' FWL
Lea County, NM



MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Yates Petroleum Corporation

Farber BOB Federal #1H

330' FSL and 660' FWL

Section 1-T25S-R32E

Lea 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 rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 30 miles east of Carlsbad, New Mexico and the access route to the location is indicated in red (existing road) and blue (new road) on Exhibit A.

DIRECTIONS:

From the intersection of State Road 31 and State Road 128 travel to the east on State Road 128 for a distance of 21.3 miles. Turn south on Lea County Rd 1 and travel approx. 4.3 miles. Turn east, cross cattleguard and travel approx. 0.3 miles. At the T in the road proceed south approx 100' and then continue to the east. Travel approx. 0.2 miles to the Oxy drilling pad. The new road will begin here proceeding north from the north east corner of the drill pad. Travel north approximately 0.4 miles just south of the fence line turn east and follow fence line approximately 1.5 miles. The Farber BOB Federal #1H is located approx. 400' to the north.

2. PLANNED ACCESS ROAD:

- A. The proposed new access will be approximately 2.0 miles in length from the point of origin to the southeast corner of the drilling pad.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. The new road will be bladed with drainage on both sides. Traffic turnouts will be built as needed (approximately 1500' apart).
- D. The route of the road is visible.
- E. Existing roads will be maintained in the same or better condition.
- F. One cattle guard and/or gate will be needed.

3. LOCATION OF EXISTING WELL

- A. There is no drilling activity within a one-mile radius of the well site.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

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, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power until electric power can be brought in if needed.

5. LOCATION AND TYPE OF WATER SUPPLY:

It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will acquire any materials from the closest source at the time of construction of the road and pad and will obtain any permits that may be required.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. A closed loop system will be used to drill this well.
- B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the “Pit Rule” 19.15.17 NMAC.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: None

9. WELLSITE LAYOUT:

- A. Exhibit B shows the relative location and dimensions of the well pad, the reserve pits, and the location of the drilling equipment, rig orientation and access road approach.
- B. The closed loop system will be constructed, maintained and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division—the “Pit Rule” 19.15.17 NMAC. Form C-144 attached.
- C. A 600' x 600' area has been staked and flagged.

10. PLANS FOR RESTORATION

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible.

11. SURFACE OWNERSHIP:

Federal lands administered by the Bureau of Land Management.

12. OTHER INFORMATION:

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

(Exhibits Attached)

| | |
|-----------|-------------------------------|
| Exhibit A | Topographic Map and Road Plat |
| Exhibit B | Location Layout |
| Exhibit C | BOP Schematic |
| Exhibit D | One Mile Radius |

CERTIFICATION
YATES PETROLEUM CORPORATION
Farber BOB Federal #1H

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 4th day of August, 2009.

Name Lucky Briggs

Position Title Land Regulatory Agent

Address 105 South Fourth Street 88210

E-mail (optional) luckyb@yatespetroleum.com

Telephone 575-748-4335

Field Representative (if not above signatory) Tim Bussell

Address (if different from above) Same

Telephone (if different from above) 575-748-4221

E-mail (optional) _____

ATS-09-527

NOTICE OF STAKING(Not to be used in place of
Application for Permit to Drill Form 3160-3)1. Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Yates Petroleum Corporation

3. Address of Operator or Agent

105 South Fourth Street, Artesia, New Mexico 88210

4. Surface Location of Well

(Governmental 1/4 or 1/4 1/4)

330' FSL & 660' FWL, Ltr M, SWSW, Surface

330' FNL & 660' FWL, Ltr D, NWNW, Bottom

Attach: Topographical or other acceptable map

showing location, access road, and lease boundaries.

15. Formation Objective(s)

Bone Spring

16. Estimated Well Depth

9990' TVD 14130' TMD

5. Lease Number

NM-15317

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

8. Farm or Lease Name

Farber "BOB" Federal

9. Well No.

1H

10. Field or Wildcat Name

Wildcat

11. Sec., T., R., M., or

Blk. and Survey or Area

Section 1, T25S-R312E

12. County or Parish

Lea County

13. State

NM

16.

a. Location must be staked

b. Access road flagged

c. Sketch and/or map of location, showing road, pad dimensions, reserve pit, cuts, and fills

(To be provided at onsite)

17. To be Considered by Operators Prior to Onsite

a. H₂S Potential

b. Private Surface Ownership

c. Cultural Resources (Archaeology)

d. Federal Right of Way

18. Additional Information

Surface Owner - Federal Surface - Bureau of Land Management, Carlsbad, NM.

SHL: SWSW-M

BHL: NWNW-D

BLM

NO-POTASH

POD-Zone 4

Low-CK

14. Signed

Cliff May
for Lucky Briggs

Title

Regulatory Agent

Date

7/21/2009

| | | | |
|---|--|---|---|
| NOTICE OF STAKING (Not to be used in place of Application for Permit to Drill Form 3160-3) | | 5. Lease Number <p style="text-align: center;">NM-15317</p> | |
| 1. Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> | | 6. If Indian, Allottee or Tribe Name | |
| 2. Name of Operator <p style="text-align: center;">Yates Petroleum Corporation</p> | | 7. Unit Agreement Name | |
| 3. Address of Operator or Agent <p style="text-align: center;">105 South Fourth Street, Artesia, New Mexico 88210</p> | | 8. Farm or Lease Name <p style="text-align: center;">Farber BOB Federal</p> | |
| 4. Surface Location of Well (Governmental 1/4 or 1/4 1/4) <p style="text-align: center;">330' FSL and 660' FWL Unit M, (SWSW) Attach: Topographical or other acceptable map showing location, access road, and lease boundaries.</p> | | 9. Well No. <p style="text-align: center;">1H</p> | |
| 15. Formation Objective(s) <p style="text-align: center;">Bone Spring</p> | | 16. Estimated Well Depth <p style="text-align: center;">10,500</p> | |
| | | 10. Field or Wildcat Name <p style="text-align: center;">Wildcat</p> | |
| | | 11. Sec., T., R., M., or Blk. and Survey or Area <p style="text-align: center;">Section 1, T25S-R32E</p> | |
| | | 12. County or Parish <p style="text-align: center;">Lea</p> | 13. State <p style="text-align: center;">NM</p> |

16. To be Completed by Operator Prior to Onsite
- a. Location must be staked
 - b. Access road flagged
 - c. Sketch and/or map of location, showing road, pad dimensions, reserve pit, cuts, and fills

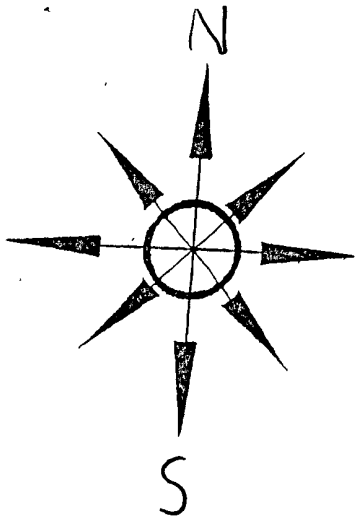
17. To be Considered by Operators Prior to Onsite
- a. H₂S Potential
 - b. Private Surface Ownership
 - c. Cultural Resources (Archaeology)
 - d. Federal Right of Way

18. Additional Information - Federal Surface with Grazee

Grazee - Mark McCloy
 PO Box 1076, Jal, NM 88252
 Federal Minerals
 Administered by Bureau of Land Management, Carlsbad Field Office,
 620 E. Green St, Carlsbad, NM 88220
 Phone: 575-234-5972 FAX: 575-885-9264

5 pages attached

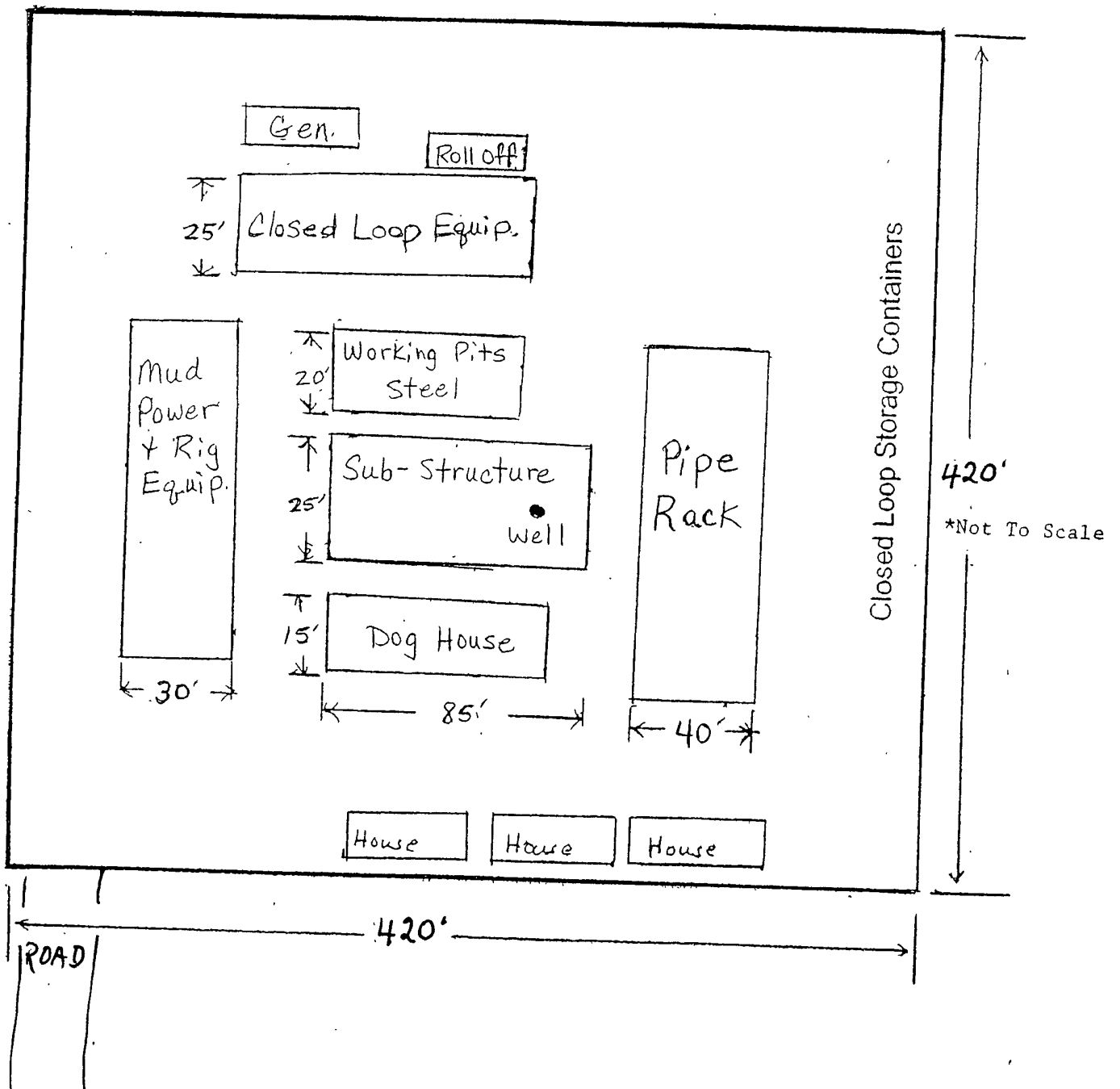
14. _____ Title **Land Regulatory Agent** Date **6/25/2009**
 Signed - Lucky Briggs

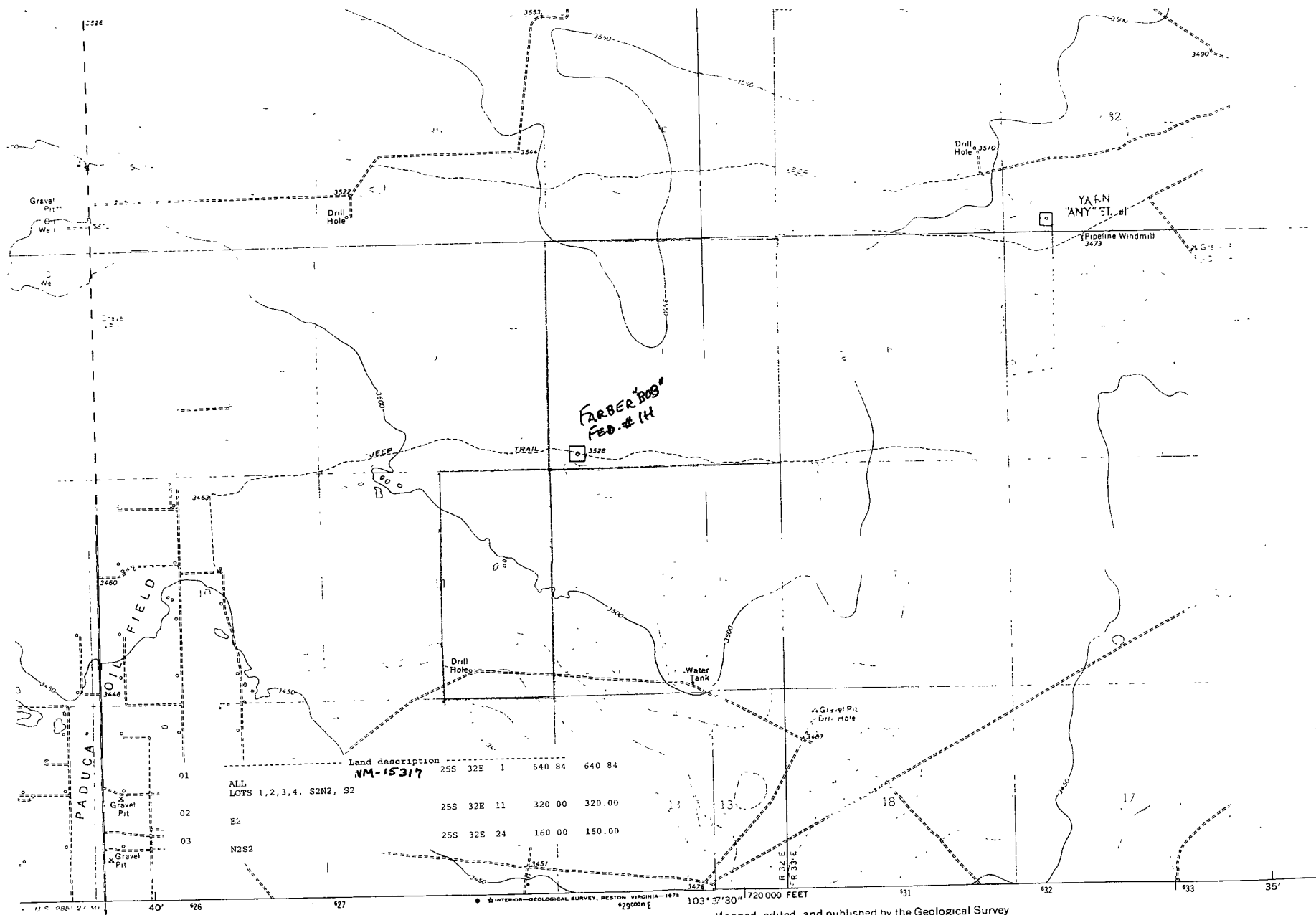


Yates Petroleum Corporation

Location Layout for Permian Basin

Closed Loop Design Plan





PECOS DISTRICT CONDITIONS OF APPROVAL

| | |
|-----------------------|------------------------------------|
| OPERATOR'S NAME: | YATES PETROLEUM CORPORATION |
| LEASE NO.: | NM15317 |
| WELL NAME & NO.: | FARBER BOB FED #1H |
| SURFACE HOLE FOOTAGE: | 330' FSL & 660' FWL |
| BOTTOM HOLE FOOTAGE: | 330' FNL & 660' FWL |
| LOCATION: | Section 1, T. 25 S., R 32 E., NMPM |
| COUNTY: | Lea County, New Mexico |

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Lesser Prairie Chicken
- ☒ **Construction**
 - Notification
 - Topsoil
 - Reserve Pit – Closed-loop mud system
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Logging Requirements
- ☐ **Production (Post Drilling)**
- ☐ **Reserve Pit Closure/Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (575) 393-3612 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

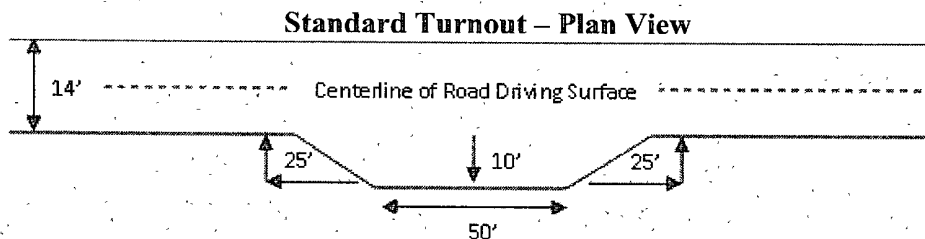
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

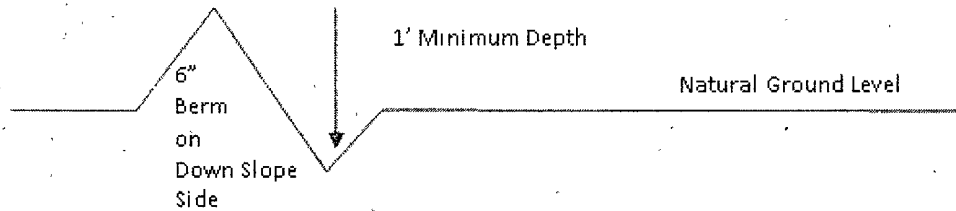


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out sloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section Of Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } 400/4\% + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

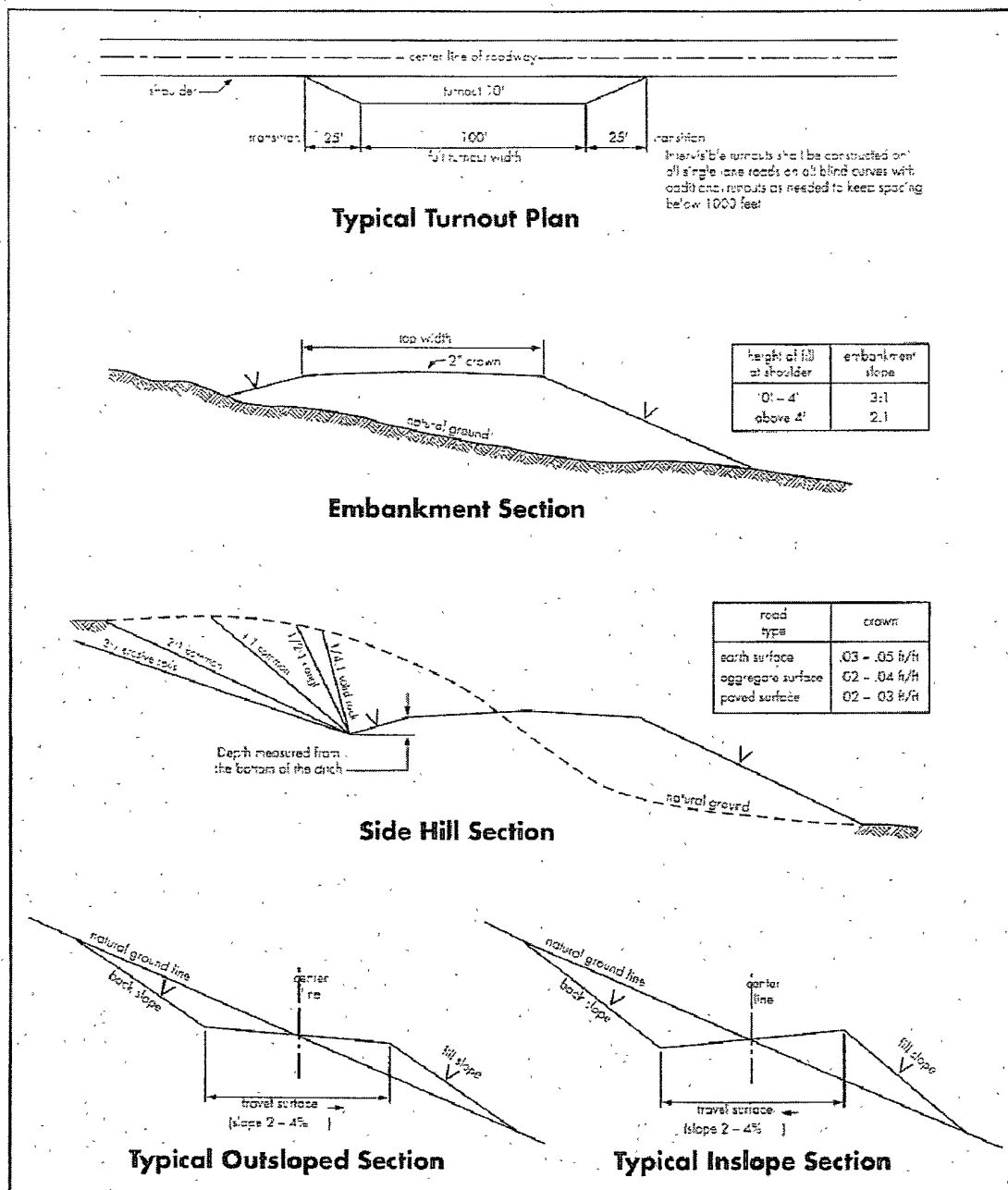
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a possible hazard. It has been reported in the Township to the east. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible brine and water flows in the Salado, Castile, Delaware and Bone Spring formations.

Possible lost circulation in the Delaware and Bone Spring formations.

1. The 13-3/8 inch surface casing shall be set **at approximately 900 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing (**set in the Fletcher Anhydrite**) is:
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The minimum required fill of cement behind the 7 inch intermediate casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool, cement shall:

- ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

4. The minimum required fill of cement behind the 4-1/2 inch production casing is:

a. First stage to DV tool, cement shall:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17. **Piping from choke manifold and to flare to be as straight as possible.**

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) psi.**

3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

a. The tests shall be done by an independent service company.

b. The results of the test shall be reported to the appropriate BLM office.

c. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

CRW 090809

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

| <u>Species</u> | <u>lb/acre</u> |
|---|----------------|
| Sand dropseed (<i>Sporobolus cryptandrus</i>) | 1.0 |
| Sand love grass (<i>Eragrostis trichodes</i>) | 1.0 |
| Plains bristlegrass (<i>Setaria macrostachya</i>) | 2.0 |

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.