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RESUBMITTAL

478

RM

CD Artesia

AUG 11 2009

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

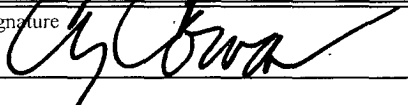
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work. <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No NM-487738
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 025575		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) 505-748-1471	8. Lease Name and Well No. Federal AB #13
4. Location of well (Report location clearly and in accordance with any State requirements *) At surface 330' FSL and 1650' FWL, SESW, Unit N At proposed prod zone same as above		9. API Well No. 30-015-37211
10. Field and Pool, or Exploratory Penasco Draw, San Andres, Yeso		11. Sec., T, R., M., or Blk And Survey or Area Section 32, T18S-R25E
12. Distance in miles and direction from the nearest town or post office* Approximately fourteen (14) miles southwest of Artesia, New Mexico		12. County or Parish Eddy
13. State NM		13. State NM
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg unit line, if any) 350 feet	16. No. of acres in lease 2329.37	17. Spacing Unit dedicated to this well SESW (40 acres)
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 990 feet	19. Proposed Depth 3100'	20. BLM/ BIA Bond No. on file NATIONWIDE BOND #NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc) 3604' GL	22. Approximate date work will start* ASAP	23. Estimated duration 30 days

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 	Cy Cowan	Date 6/29/2009
Title Land Regulatory Agent		
Approved By (Signature) /s/ Don Peterson	Name (Printed/ Typed) /s/ Don Peterson	Date AUG 04 2009
Title ACTING 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 cc operations thereon.

Conditions of approval, if any, are attached

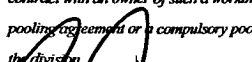
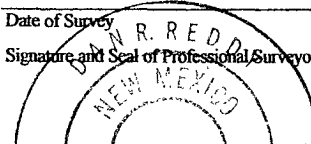
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and wilfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

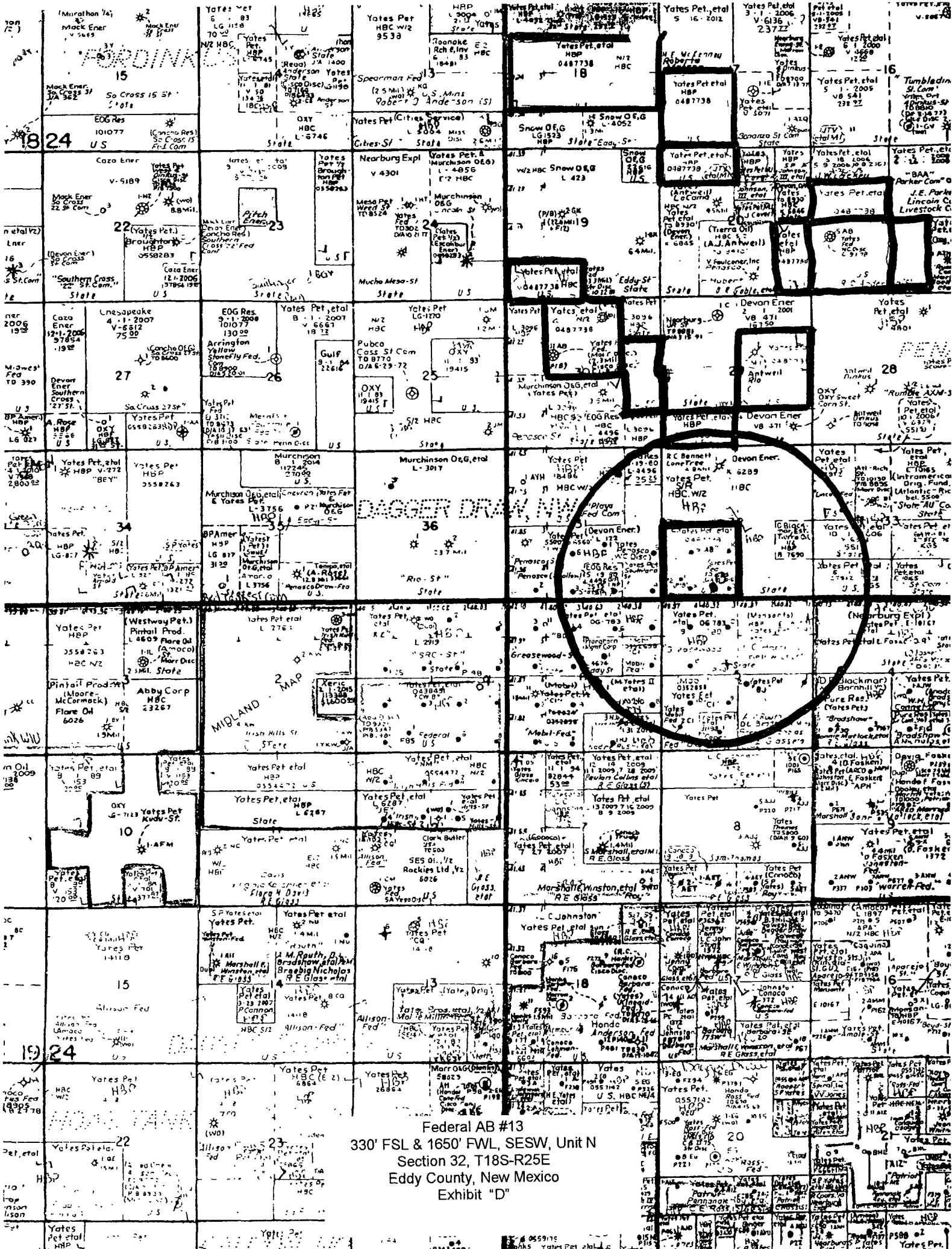
APD Previously Approved

Roswell Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

16				<p>17 OPERATOR CERTIFICATION</p> <p><i>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 in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p> 6/29/09</p> <p>Signature _____ Date _____</p> <p>Cy Cowan Land Regulatory Printed Name Agent</p>
				<p>18 SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>MARCH 1, 2006</p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: _____</p> <p></p> <p>Certificate Number _____</p> <p>DAN R. REDDY NM P.E.C.S. 5412</p>
1650'	LAT N32.69858 LON W104.51064 NM-487738 330'			



Federal AB #13
330' FSL & 1650' FWL, SESW, Unit N
Section 32, T18S-R25E
Eddy County, New Mexico
Exhibit "D"

YATES PETROLEUM CORPORATION

Federal AB #13

350' FSL and 1650' FWL, SESW, Unit N

Section 32, T18S-R25E

Eddy County, New Mexico

1. The estimated tops of geologic markers are as follows:

San Andres	612'
Glorietta	1,962'
Upper Yeso	2,162'
TD	3,100'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 150' – 350'

Oil or Gas: All potential zones

(should be shown - 0.0.1)

3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" casing and rated for 2000 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 B.

Auxiliary Equipment:

- A. 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>
14 3/4"	8 5/8"	24#	J-55	ST&C	0-1125'	1,000' 1125'
7 7/8"	5 1/2"	15.5#	J-55	LT&C	0-3,100'	3,100'

Minimum Casing Design Factors: Burst 1.0, Tensile 1.8, and Collapse 1.125.

Pressure Control Equipment: 2000 psi system nipples up and tested on 8 5/8".

B. CEMENTING PROGRAM: *← see COA*

Surface Casing: 475~~5~~ sx C Lite (YLD 2.0 WT 12.5) tail in w/ 200 sx "C"
 (YLD 1.34 WT 14.8). *TOC - surface per operator*

Production Casing: 600 sx C (YLD 1.34 WT 14.8)
TOC - surface per operator

5. Mud Program and Auxiliary Equipment: *8/4/09*

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0 - 1125'	Fresh Water	8.4	28	N/C
1125' - TD	Fresh Water	8.4	28	N/C

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

6. EVALUATION PROGRAM:

Samples: 10' out from 1125' to TD.
 Logging: Platform Express/HALS.
 Coring: None anticipated.
 DST's: None anticipated.
 Mudlogging: TBD.

7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

From: 0 TO 1125' Anticipated Max. BHP: 435 PSI
 From: 1125' TO 3100' TVD Anticipated Max. BHP: 1355 PSI

Abnormal Pressures Anticipated: None

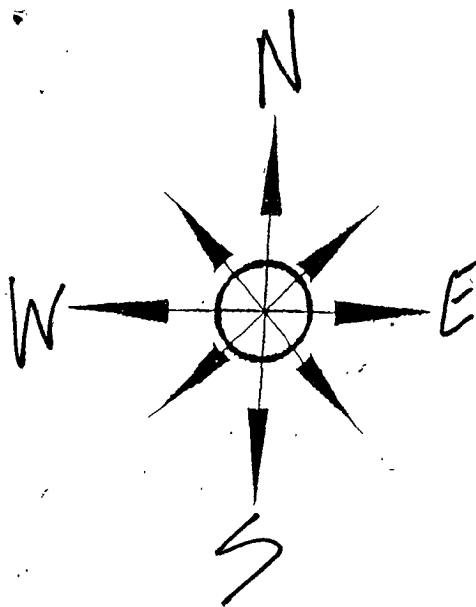
Lost Circulation Zones Anticipated: None

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 168° F

8. ANTICIPATED STARTING DATE:

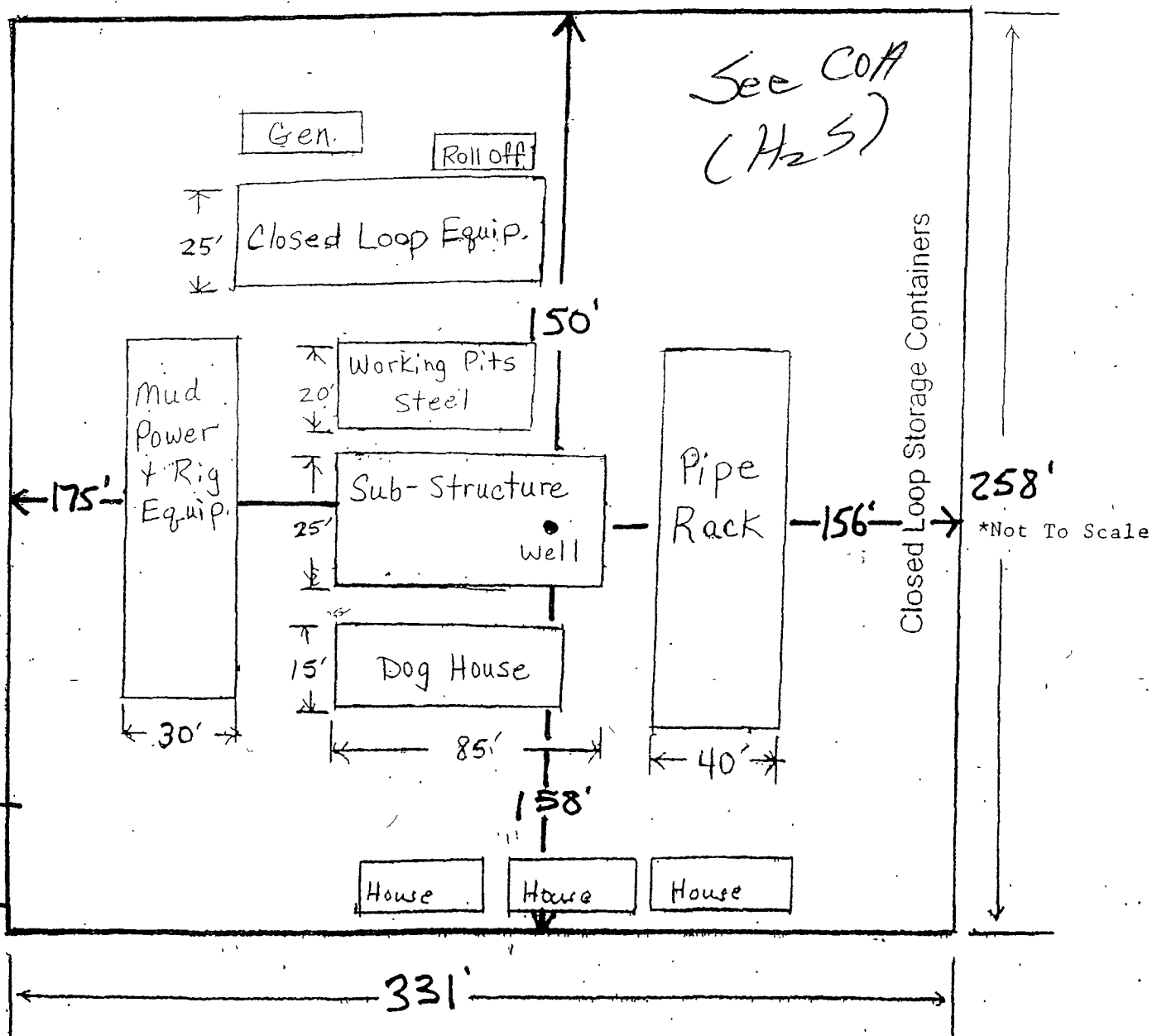
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 25 days to drill the well with completion taking another 15 days.

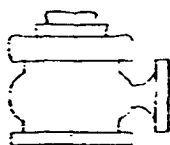


Yates Petroleum Corporation
Location Layout for Permian Basin

Closed Loop Design Plan

Federal AB #13
330' FSL & 1650' FWL, SESW, Unit N
Section 32, T18S-R25E
Eddy County, New Mexico
Exhibit "C"

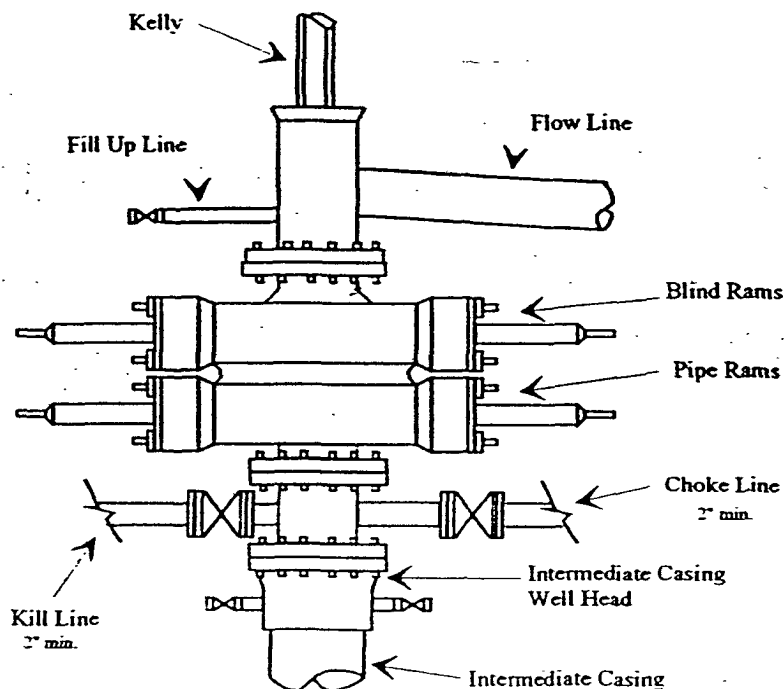




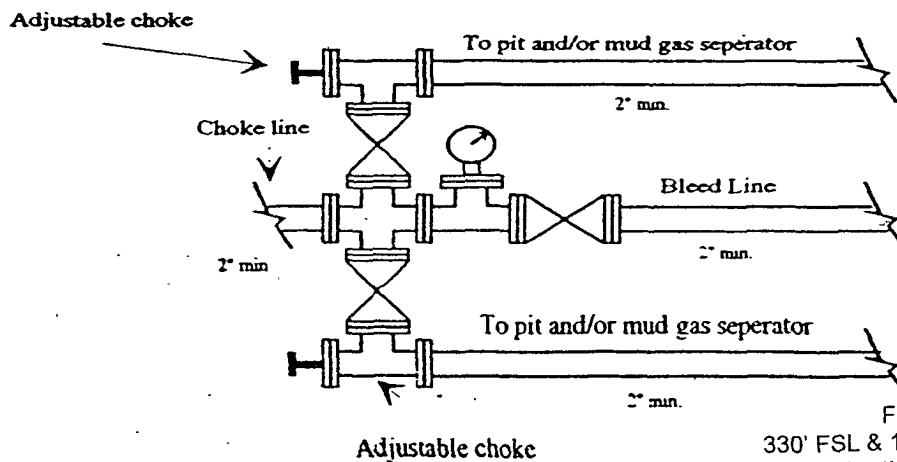
Yates Petroleum Corporation

BOP-2

Typical 2,000 psi Pressure System Schematic Double Ram Preventer Stack

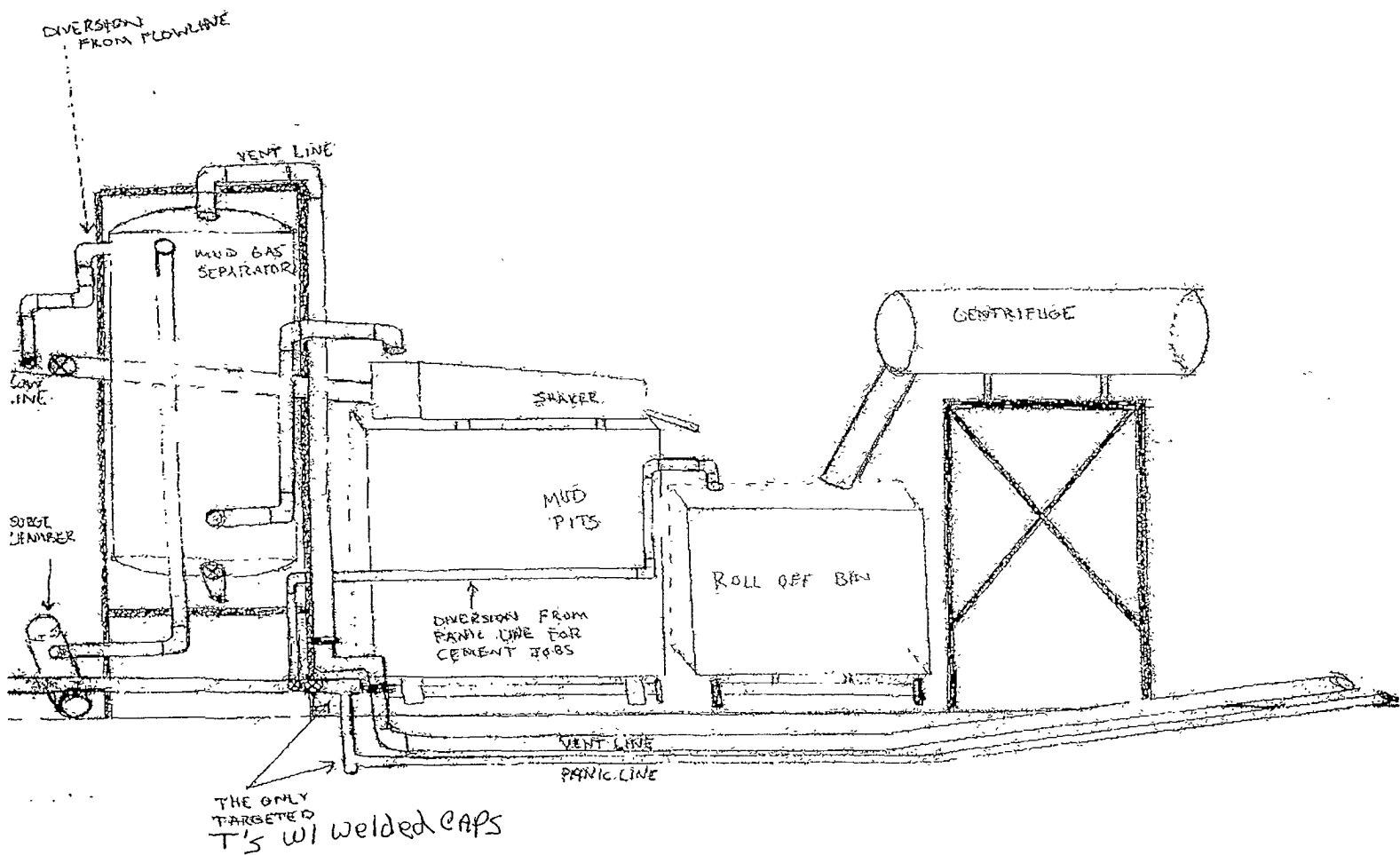


Typical 2,000 psi choke manifold assembly with at least these minimum features



Federal AB #13
330' FSL & 1650' FWL, SESW, Unit N
Section 32, T18S-R25E
Eddy County, New Mexico
Exhibit "B"

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



Federal AB #13
330' FSL & 1650' FWL, SESW, Unit N
Section 32, T18S-R25E
Eddy County, New Mexico
Exhibit "C-1"

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Yates Petroleum Corporation

Federal AB #13

350' FSL and 1650' FWL, SESW, Unit N

Section 32, T18S-R25E

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 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 wellsite is located approximately 14 miles southwest of Artesia, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go south of Artesia on Highway 285 to CR-38 Kincaid Ranch Road. Turn right and go 3.3 miles to end of pavement and a cattle guard. Cross cattle guard and continue on CR 38 for 1 mile. Turn west and cross cattle guard and go 1.2 miles to another cattle guard. Cross cattle guard and road forks here. Take right fork and get on the double road. Go Approximately 2 miles. Turn right and go through the cattle guard. Follow lease road north for .5 of a mile to the Federal AB #8 well location. From the southeast corner of the #8 location follow two track road for .1 of a mile to the southwest corner of the proposed Federal AB #13 well location.

2. PLANNED ACCESS ROAD:

- A. The proposed new access will be approximately 300' going east to the southwest corner of the drilling pad. The road will lie in an east/west direction.
- 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 may be needed.
- D. The route of the road is visible.
- E. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL

- A. There is drilling activity within a one-mile radius of the wellsite.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed wellsite.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. There are production facilities on this lease at the present time.
- B. If this well is productive of oil a gas or diesel self-contained unit will be used to provide the necessary power until an electric line can be built if it is needed. Power should not be required if the well is productive of gas.
- C. Should off location facilities be needed for power line, flow line right-of-ways, etc. they will be filed under a separate application by Yates or a third party if applicable. The route and placement will be determined at that time.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. 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 well pad.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. A closed loop system will be used to drill this well and reserve pits will not be used.
- 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 C shows the relative location and dimensions of the well pad, the closed loop design plan, the location of the frilling equipment, 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.
- 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 wellsite in as aesthetically pleasing a condition as possible.
- B. 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. All pits will be filled level within 90 days after abandonment.

11. SURFACE OWNERSHIP:

**Four Dinkus Ranch
Darrell Brown
PO Box 1281
Artesia, NM 88210**

****A surface agreement has been made with surface owner.**

12. OTHER INFORMATION:

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

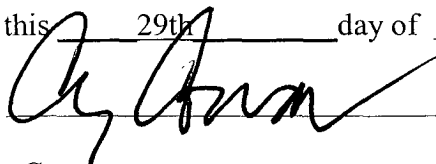
CERTIFICATION
YATES PETROLEUM CORPORATION

Federal AB #13

I hereby certify that I, or the company I represent, have inspected the drill site and access route proposed herein; am familiar with the conditions which currently exist; that 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. I also certify that the company I represent is 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 29th day of June, 2009.

Signature



Name Cy Cowan

Position Title Land Regulatory Agent

Address 105 South Fourth Street, Artesia, New Mexico, 88210

Telephone (575) 748-4372 Fax: (575) 748-4572

E-mail (optional) cyc@yatespetroleum.com

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) _____

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	YATES PETROLEUM CORPORATION
LEASE NO.:	NM487738
WELL NAME & NO.:	FEDERAL AB #13
SURFACE HOLE FOOTAGE:	330' FSL & 1650' FWL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 32, T. 18 S., R 25 E., NMPM
COUNTY:	Eddy County, New Mexico

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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**
 - Aplomado Falcon
- ☒ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Onshore Order 6 – H2S requirements
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
- ☐ **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)

Conditions-of-Approval for Drilling in Aplomado Falcon Habitat

The following well pad construction and reclamation measures will be implemented to provide for minimal long-term disturbance:

No Yuccas or trees over 5 feet in height will be damaged by vehicular use or any other activity associated with this project.

All active raptor nests will be avoided by a minimum of 400 meters by all activities or curtail activities until fledging is complete.

All inactive raptor nests will be avoided by a minimum of 200 meters by all activities.

Remove all caliche from well pads and roads that are plugged and abandoned. Reclamation will consist of disking, mulching, seeding with a drill (See seed mixture below), and application of water to encourage seed germination.

Well pad size will not exceed 300 ft. x 390 ft. (unless multiple wells are drilled from the same well pad). All unused portions of the well pad associated with producing wells will be reclaimed using the seed mixture below:

Buffalograss (<i>Buchloe dactyloides</i>)	4 lbs/acre
Blue grama (<i>Bouteloua gracilis</i>)	1 lbs/acre
Cane bluestem (<i>Bothriochloa barbinoëdis</i>)	5 lbs/acre
Sideoats grama (<i>Bouteloua curtipendula</i>)	5 lbs/acre
Plains bristleglass (<i>Setaria macrostachya</i>)	6 lbs/acre

Reserve pits for drilling and disposal are not allowed unless the pit can be effectively netted to the satisfaction of the BLM. Steel tank circulation system must be used if the reserve pit is not netted.

A sign stating "This Pipeline Corridor is Closed to Vehicular Traffic Due to Reclamation Efforts in Progress" will be placed where the pipeline crosses any road (both sides of the road), and at the beginning and end of the pipeline route on BLM administered lands.

All roads associated with well development will not exceed 30 ft in width

Conditions-of-Approval for Rights-of-Way in Aplomado Falcon Habitat

No Yuccas or trees over 5 feet in height will be damaged by vehicular use or any other activity associated with this project.

All active raptor nests will be avoided by a minimum of 400 meters by all activities or curtail activities until fledging is complete.

All inactive raptor nests will be avoided by a minimum of 200 meters by all activities.

Remove all caliche from roads that are abandoned. Reclamation will consist of disking, mulching, seeding with a drill (See seed mixture below), and application of water to encourage seed germination.

Buffalograss (<i>Buchloe dactyloides</i>)	4 lbs/acre
Blue grama (<i>Bouteloua gracilis</i>)	1 lbs/acre
Cane bluestem (<i>Bothriochloa barbinodis</i>)	5 lbs/acre
Sideoats grama (<i>Bouteloua curtipendula</i>)	5 lbs/acre
Plains bristlegrass (<i>Setaria macrostachya</i>)	6 lbs/acre

A sign stating "This Pipeline Corridor is Closed to Vehicular Traffic Due to Reclamation Efforts in Progress" will be placed where the pipeline crosses any road (both sides of the road), and at the beginning and end of the pipeline route on BLM administered lands.

All roads will not exceed 30 ft in width

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 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. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

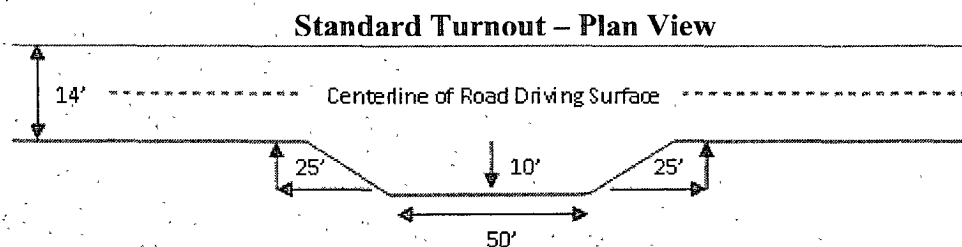
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

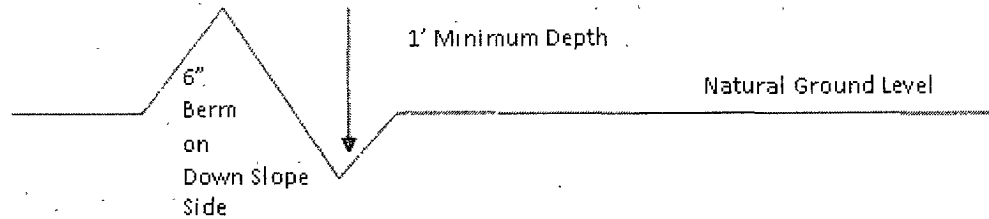


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping 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

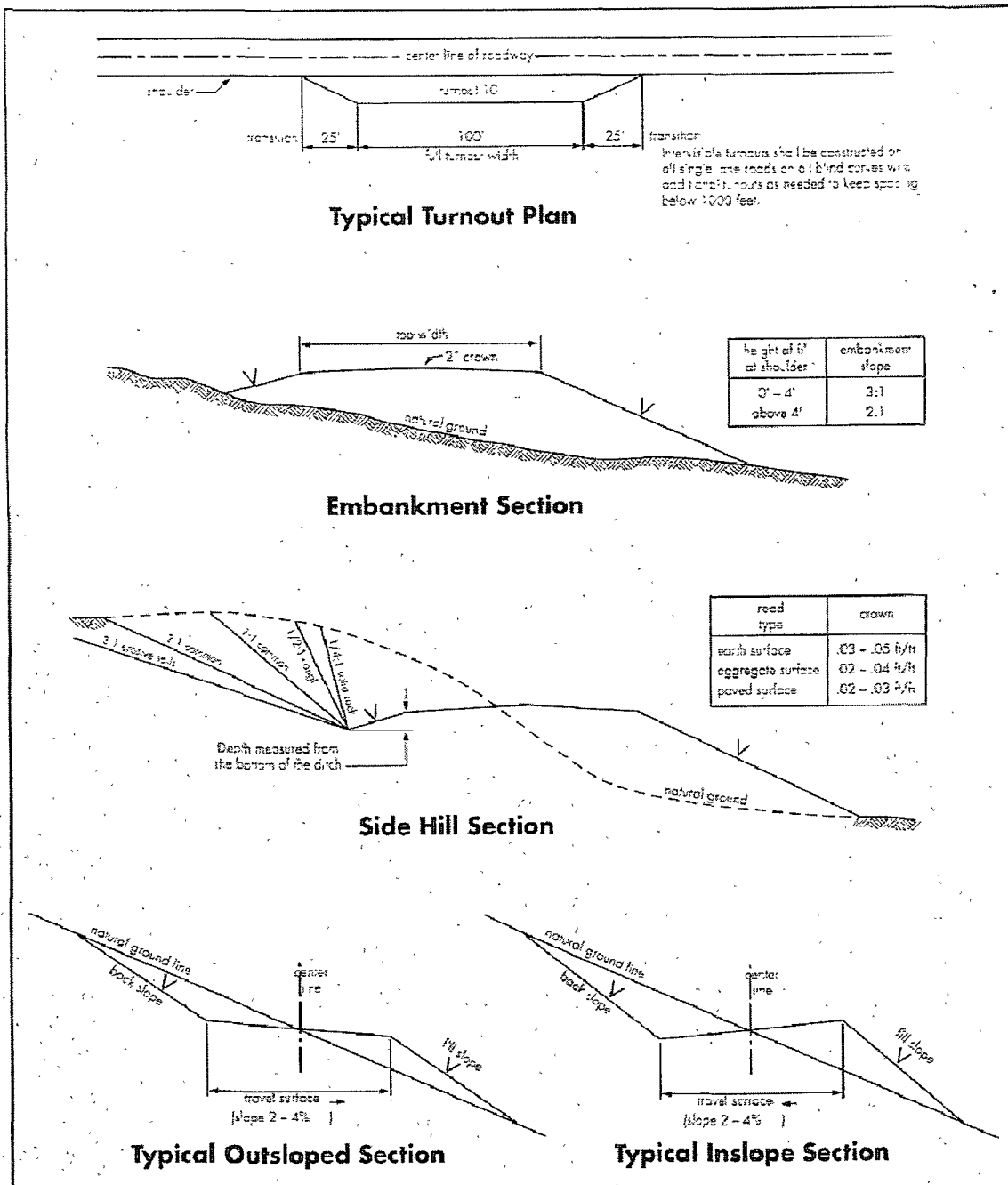
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated 500 feet prior to drilling into the San Andres formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values 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.

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.

Medium cave/karst.

Possible lost circulation in the Grayburg and San Andres formations.

1. The **8-5/8** inch surface casing shall be set at approximately **1125** feet 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 **5-1/2** inch production casing is:
 - ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.
3. 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.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** 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.

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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

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.

The 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.

(Insert Seed Mixture Here)

Aplomado Falcon Habitat Seed Mixture

Buffalograss (Buchloe dactyloides)) -----	4 lbs/acre
Blue grama (Bouteloua gracilis) -----	1 lb/acre
Cane bluestem (Bothriochloa barbinodis) -----	5 lbs/acre
Sideoats grama (Bouteloua curtipendula) -----	5 lbs/acre
Plains bristlegrass (Setaria macrostachya) -----	6 lbs/acre

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.