

Form 3160-3
(August 2008)

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

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

RECEIVED

JAN 14 2010

NMOCD-ARTESIA

FORM APPROVED

OMB NO. T004-0137

Expires July 31, 2010

5. Lease Serial No.

NM-28171

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

Spear OA Federal Com. #10

9. API Well No

10. Field and Pool, or Exploratory

Undesignated Precambrian

11. Sec., T, R, M, or Blk And Survey or Area

Section 5, T 9S-R26E

12. County or Parish

Chaves

13. State

NM

1a. Type of Work ☒ DRILL

☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

Yates Petroleum Corporation 025575

3a. Address

105 South Fourth Street, Artesia, NM 88210

3b. Phone No. (include area code)

505-748-1471

4. Location of well (Report location clearly and in accordance with any State requirements. *)

At surface

1230' FSL and 1800' FEL

At proposed prod zone

Same

14. Distance in miles and direction from the nearest town or post office*

Approximately 11.5 miles east of Roswell, New Mexico

15. Distance from proposed*

location to nearest
property or lease line, ft.

(Also to nearest drlg unit line, if any)

1800'

16. No. of acres in lease

1399.95

17. Spacing Unit dedicated to this well

E/2

18. Distance from proposed location*

to nearest well, drilling, completed,
applied for, on this lease, ft.

1 mile

19. Proposed Depth

6300'

20. BLM/ BIA Bond No. on file

NATIONWIDE BOND #NMB000434

21. Elevations (Show whether DF, KDB, RT, GL, etc)

3766' G:

22. Approximate date work will start*

ASAP

23. Estimated duration

45 days

24. Attachments

ROSWELL CONTROLLED WATER BASIN

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.

2. A Drilling Plan

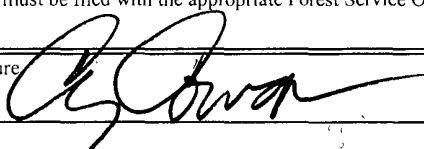
3. A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO must be filed with the appropriate Forest Service Office)

4. Bond to cover the operations unless covered by existing bond on file(see
item 20 above)

5. Operator certification

6. Such other site specific information and/ or plans as may be required by the
BLM

25. Signature



Name (Printed/ Typed)

Cy Cowan

Date

10/30/2009

Title

Land Regulatory Agent

Approved By (Signature)

151 Angel Mayes

Name (Printed/ Typed)

Angel Mayes

Date

JAN 09 2010

Title

Assistant Field Manager,
Lands And Minerals

Office

ROSWELL 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.

APPROVED FOR 2 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 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

*(Instructions on page 2)

DECLARED WATER BASIN

CEMENT BEHIND THE 85"
CASING MUST BE CIRCULATED

WITNESS

APPROVAL 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 Rd., Aztec, NM 87410

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-005-64123	Pool Code	Pool Name UNDESIGNATED PRE-CAMBRIAN
Property Code 29701	Property Name SPEAR "OA" FEDERAL COM	Well Number 10
OGRID No. 025575	Operator Name YATES PETROLEUM CORP.	Elevation 3766'

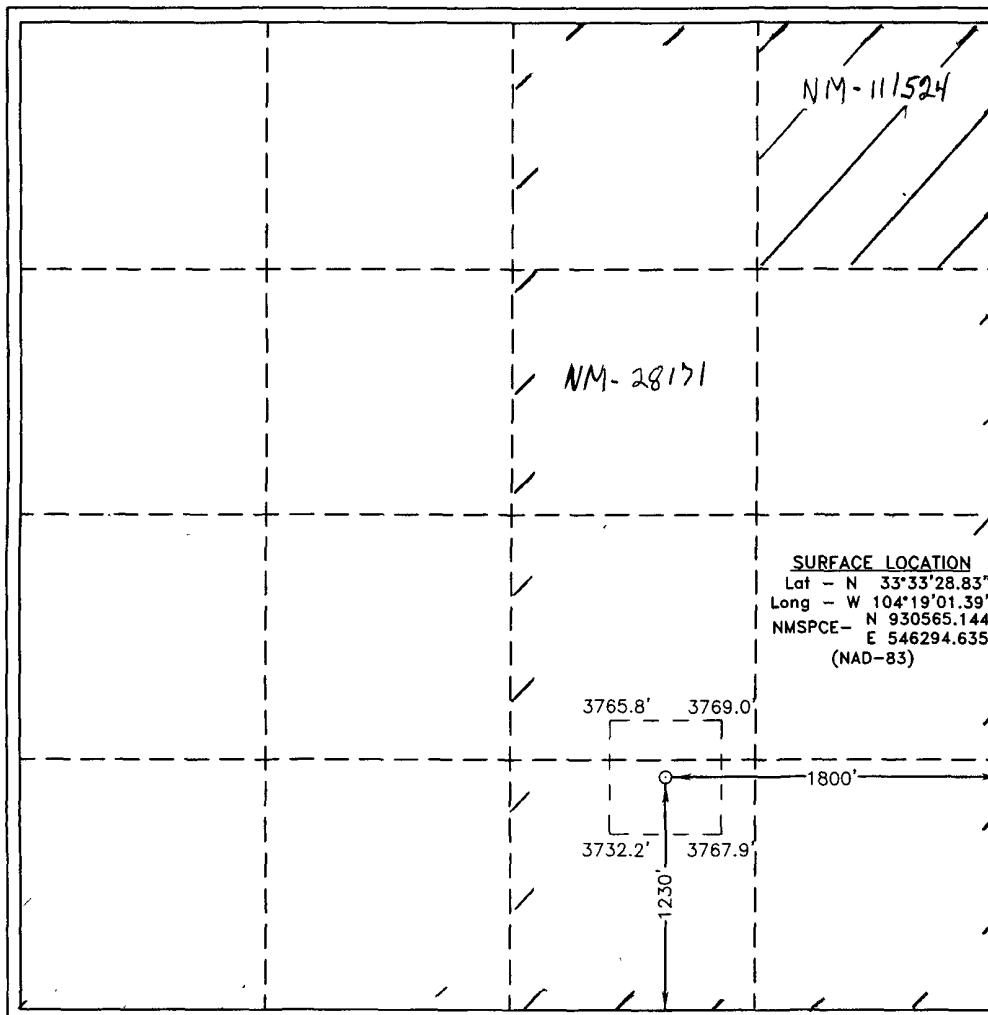
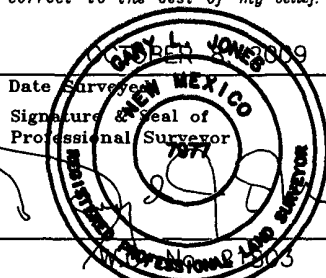
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	5	09 S	26 E		1230	SOUTH	1800	EAST	CHAVES

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
Dedicated Acres 320	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>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>Cy Cowan</i> Signature _____ Date _____ CY COWAN 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 _____ Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>
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YATES PETROLEUM CORPORATION

Spear "OA" Federal Com. #1

1230' FSL and 1800' FEL

Section 5-T9S-R26E

Chaves County, New Mexico

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

San Andres	901'	Cisco	5533' Gas
Glorietta	1987'	Strawn	5645' Gas
Tubb	3529'	Mississippian	5803' Gas
Abo	4279' Gas	Silurian-Devonian	5875' Gas
Wolfcamp	4954' Gas	Pre-Cambrian	6076'
Spear	5293' Gas	TD	6300'

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

Water: 200'

Oil or Gas: All potential zones. See above.

3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" casing and rated for 3000 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>Coupling</u>	<u>Interval</u>
12 1/4"	8 5/8"	24#	J-55	ST&C	0-1000'
7 7/8"	5 1/2"	15 1/2"	J-55	LT&C	0-6300'

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

- B. CEMENTING PROGRAM:

Surface casing: 275 sx 35:65:6PzC (WT 12.6 YLD 2.1). Tail with 200 sx 'C' + 2%CaCl₂ (WT 14.8 YLD 1.32). TOC Surface.

Production Casing: 400 sx Lite Crete (WT 9.8 YLD 2.92). Tail in with 635 sx PecosVILt. (YLD 1.41WT 13.00). TOC 500'

Spear "OA" Federal Com #10
Page Two

5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-1000'	FW/Gel	8.6-9.0	32-34	N/C
1000'-1600'	Fresh Water	8.4	28	N/C
1600'-4200'	Brine Water	10	28	N/C
4200'-6300'	Salt Gel/Starch +4-6% KCL	9.6-10	40-55	<6cc

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' samples Surface to TD
Logging: Platform Express: CNL/LDT from TD to surface casing; CNL/GR from TD to surface; DLL-MSFL from TD to surface casing; BHC Sonic from TD to surface casing.
Coring: None
DST's: As warranted
Mudlogging: Out from under surface casing to TD.

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

Anticipated BHP:

From: 0	TO: 1000'	Anticipated Max. BHP: 470 PSI
From: 1000'	TO: 6300'	Anticipated Max. BHP: 3275 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None anticipated.

Maximum Bottom Hole Temperature: 130 F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 30 days to drill the well with completion taking another 15 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Yates Petroleum Corporation

Spear OA Federal Com. #10

1230' FSL and 1800' FEL

Section 5, T9S-R26E

Chaves 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 11.5 miles east of Roswell, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go east of Roswell on Highway 70 for approximately 11 miles. The Acme School House will be on the left side of the highway. Turn right here and go south on Magdalena Road for approximately 1 mile. At this point will be a cattleguard with a gate on the left side of the road. Turn left here and cross the cattleguard and follow the lease road passing several well locations around the ranch house for approximately .8 of a mile. At this point the road will make a 'T'. Turn right here and follow the lease road west for approximately .5 of a mile. Turn left here and follow the existing lease road for approximately .9 of a mile. The new road will start here going east for approximately .4 of a mile to the southwest corner of the proposed well location.

2. PLANNED ACCESS ROAD:

- A. The proposed new road will go east for approximately .4 of a mile to the southwest corner of the drilling pad.
- B. The new road will be 14' 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 one side. Traffic turnouts may be built if needed.
- D. The route of the road is visible.
- E. Existing roads will be maintained in the same or better condition. Yates' will be using Magdalena Road, a Chaves County Road and then will use our Federal Right-of-Way NM-53057 in the NE/NE of Section 31, T8S-R26E. Yates' has road right-of-way from Alan Leer, private surface owner through the W/2 of Section 32 and the S/2SE/4 of Section 31, T8S-R26E and the E/2 of Section 6 and N/2SW/4 of Section 5, T9S-R26E on to our lease.

3. LOCATION OF EXISTING WELL

- A. There is any 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 production facilities on this lease at the present time. However, if production facilities are needed for this well they will be placed on the location as determined by Yates' Production Department. Placement has not been determined at this time.
- B. In the event that the well is productive, the necessary production facilities may 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 an electric power line can be built if needed.

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.
- 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 closed loop mud system, the location of the drilling equipment, rig orientation and access road approach. The proposed well location will be approximately 355' x 308'. All of the location will be constructed within the 600' x 600' staked area.
- 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 well site in as aesthetically pleasing a condition as possible. At the time interim reclamation is proposed Yates will furnish the BLM with a Sundry Notice detailing the remediation plans.
- 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.

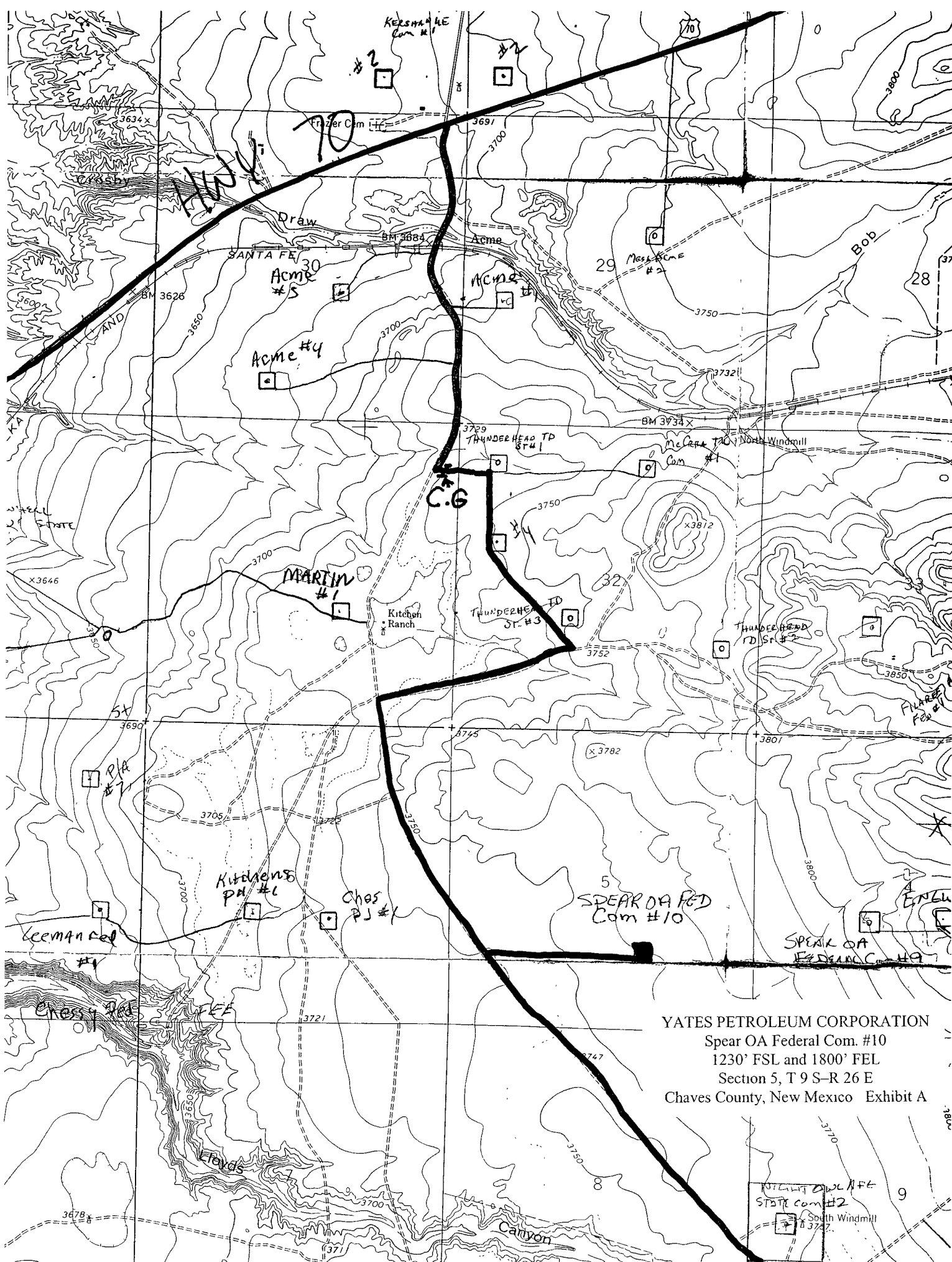
11. SURFACE OWNERSHIP

Surface Estate: Mr. Matlock Leer, for the Leer Revocable Living Trust, 167 Magdalena Road, Roswell New Mexico 88201. (575) 420-4891. Yates Petroleum Corporation has entered into a surface use agreement with the Leer Revocable Living Trust.

Mineral Estate: Bureau of Land Management, 2909 West Second Street, Roswell, New Mexico 88201.

12. OTHER INFORMATION:

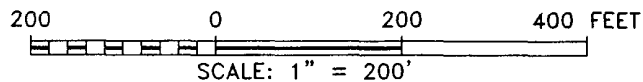
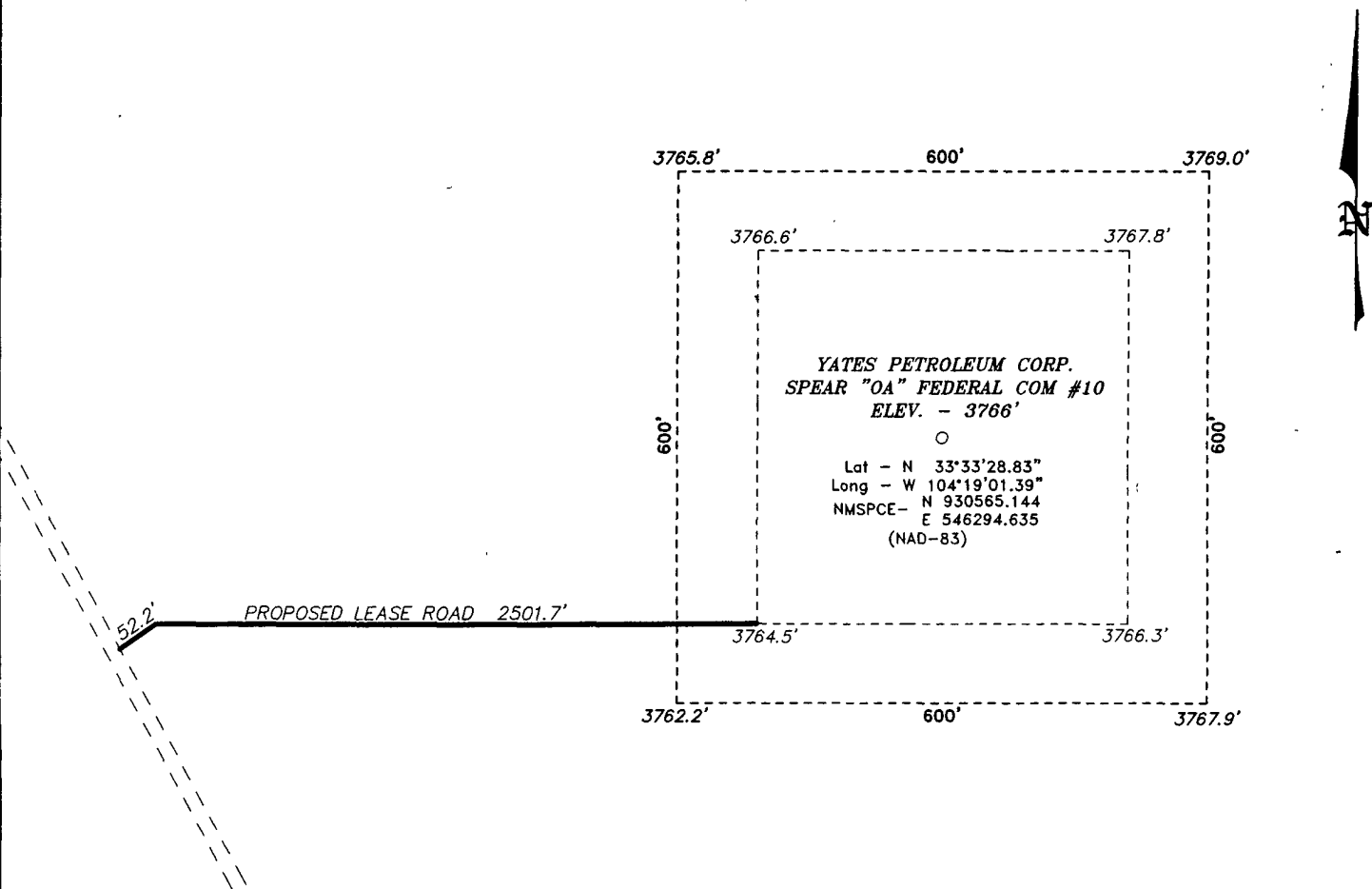
- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.



YATES PETROLEUM CORPORATION
Spear OA Federal Com. #10
1230' FSL and 1800' FEL
Section 5, T 9 S-R 26 E
Chaves County, New Mexico Exhibit A

WILSON DOWD LEE
STATE Com #2
South Windmill
3722

SECTION 5, TOWNSHIP 09 SOUTH, RANGE 26 EAST, N.M.P.M.,
CHAVES COUNTY, NEW MEXICO.



YATES PETROLEUM CORP.

REF: SPEAR "OA" FEDERAL COM #10 / WELL PAD TOPO

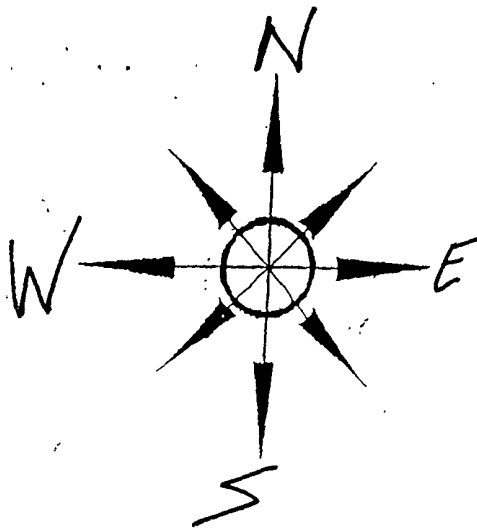
THE SPEAR "OA" FEDERAL COM #10 LOCATED 1230'
FROM THE SOUTH LINE AND 1800' FROM THE east LINE OF
SECTION 5, TOWNSHIP 09 SOUTH, RANGE 26 EAST,
N.M.P.M., CHAVES COUNTY, NEW MEXICO.

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

W.O. Number: 21803 Drawn By: J. SMALL

Date: 10-09-2009 Disk: JMS 21803

Survey Date: 10-08-2009 Sheet 1 of 1 Sheets

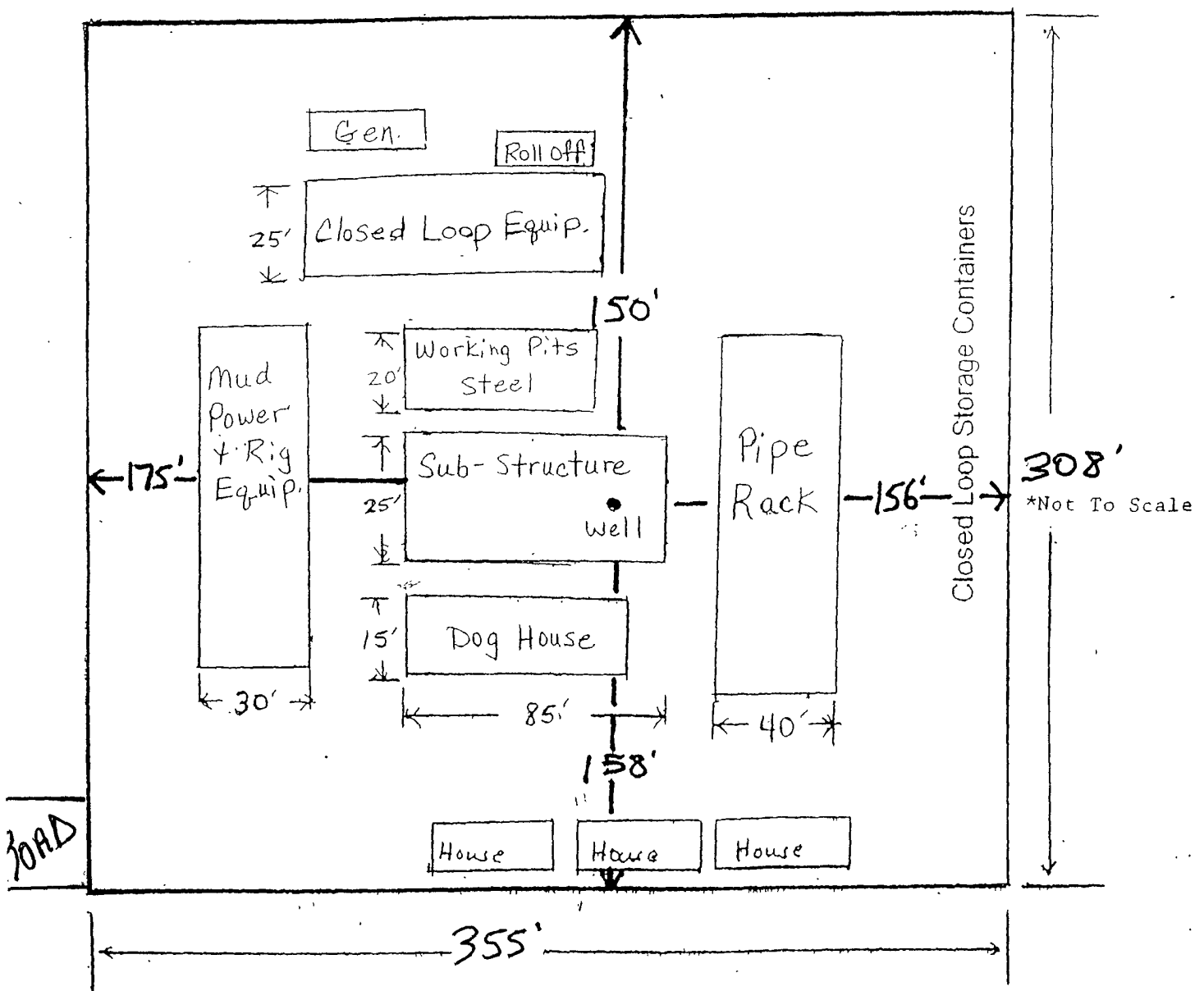


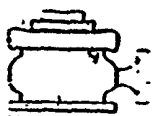
Yates Petroleum Corporation

Location Layout for Permian Basin

YATES PETROLEUM CORPORATION
Spear OA Federal Com. #10
1230' FSL and 1800' FEL
Section 5, T 9 S-R 26 E
Chaves County, New Mexico Exhibit B

Closed Loop Design Plan



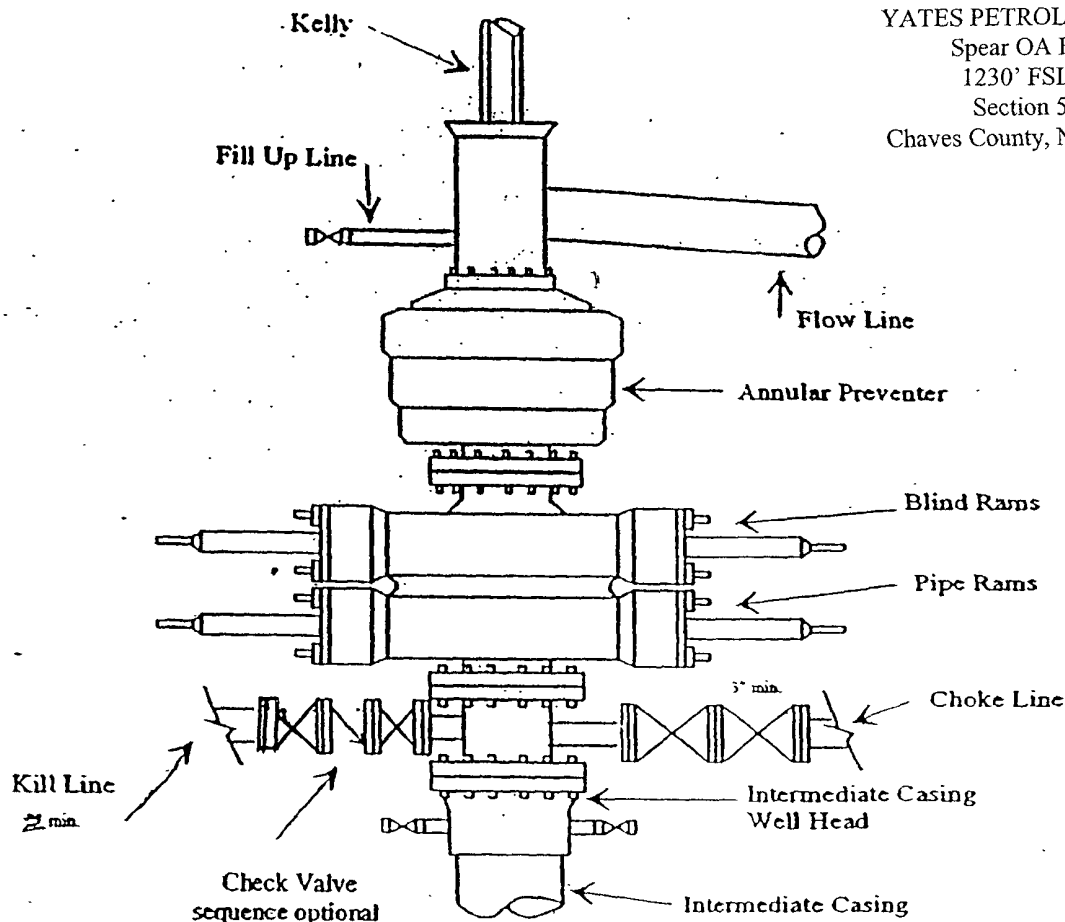


Yates Petroleum Corporation

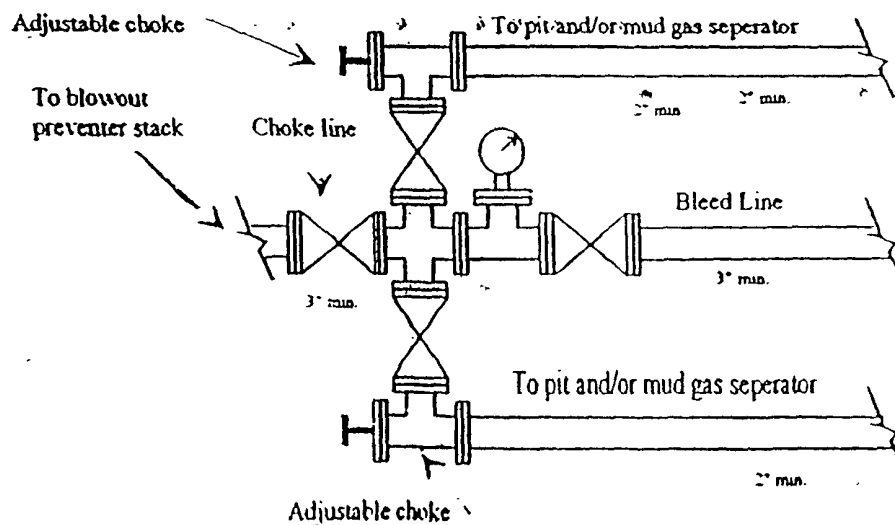
BOP-3

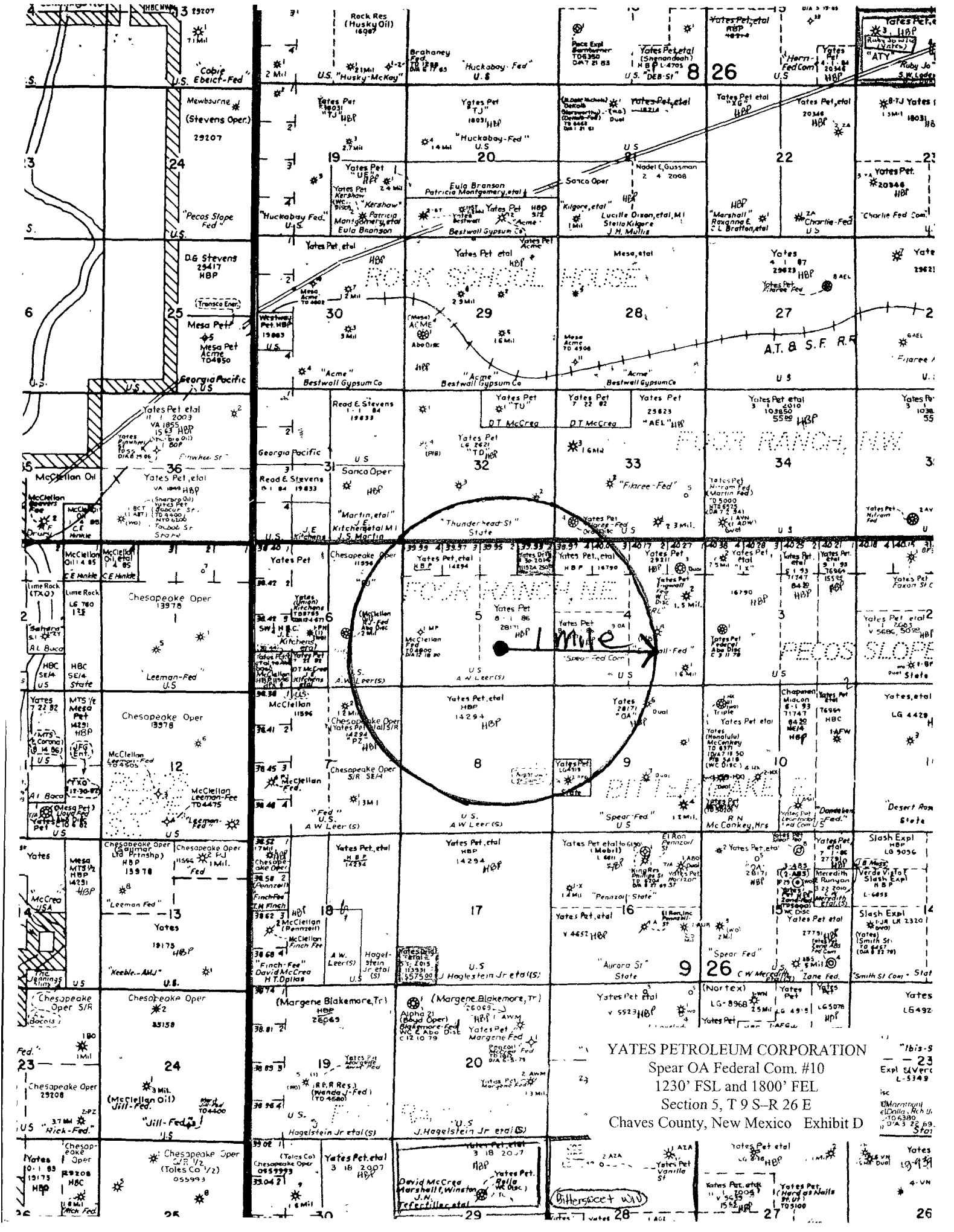
Typical 3,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack

YATES PETROLEUM CORPORATION
Spear OA Federal Com. #10
1230' FSL and 1800' FEL
Section 5, T 9 S-R 26 E
Chaves County, New Mexico Exhibit C



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

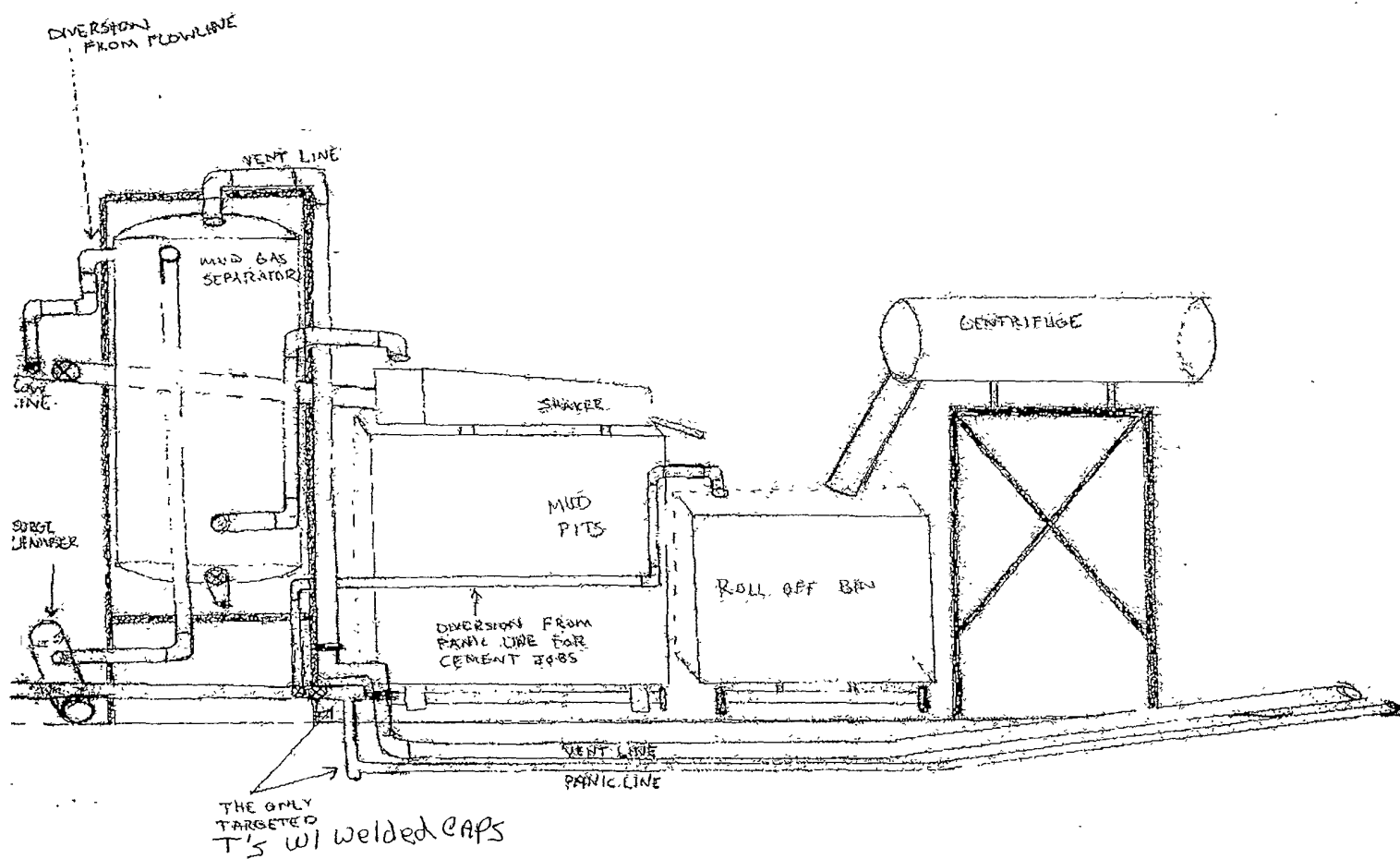




YATES PETROLEUM CORPORATION
Spear OA Federal Com. #10
1230' FSL and 1800' FEL
Section 5, T 9 S-R 26 E
Chaves County, New Mexico Exhibit D

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

YATES PETROLEUM CORPORATION
Spear OA Federal Com. #10
1230' FSL and 1800' FEL
Section 5, T 9 S-R 26 E
Chaves County, New Mexico Exhibit E

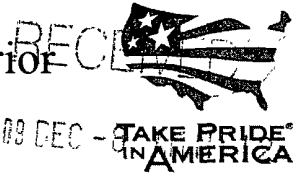




United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Pecos District
2909 West Second Street
Roswell, New Mexico 88201-2019



BUREAU OF LAND MANAGEMENT
ROSWELL OFFICE

In Reply Refer To:
3162.4
NM-28171
NMP0130

NOV 12 2009

CERTIFIED MAIL NO. 7006 3450 0001 4285 6331
RETURN RECEIPT REQUESTED

Yates Petroleum Corporation
Attn: Cy Cowan
105 South Fourth Street
Artesia, NM 88210

RECEIVED

NOV 16 2009

SR -

Dear Mr. Cowan:

Your Application for Permit to Drill (APD) the Spear OA Fed Com. #10 located 1230' FSL & 1800' FEL, Section 5, T. 9 S., R. 26 E., NMPM, Chaves County was received on October 27, 2009.

The APD was reviewed pursuant to Oil and Gas Onshore Order No. 1; Part III.B. The following checklist identifies areas in which the APD is administratively deficient, where more information is needed, or if the application is administratively complete as submitted.

- ☐ Complete as submitted
- ☒ Deficient in the following area(s):
 - ☐ Form 3160-3 – Please sign
 - ☐ Survey Plat
 - ☐ Drilling Plan (BOPE, Casing Program, etc)
 - ☒ Surface Use Plan (see below)
 - ☐ Bonding
 - ☐ Operator Certification Statement – *need original signature*
 - ☐ Original Signature
 - ☒ Private Surface Landowner Agreement
 - ☐ Onsite Inspection has not occurred
 - ☐ Other:

Got to BLM 11/23/09

See Attached!

Onshore order #1 requires a detailed Plan for surface Reclamation, for surface reclamation or stabilization of all disturbed areas. Plan must address interim (during production) reclamation for the area of the well pad not needed for production, as well as final abandonment of the well location. Such plans must include, as appropriate:

- Configuration of the reshaped topography
- Drainage systems;
- Segregation of spoil materials (stockpiles);
- Surface disturbances;
- Backfill requirements;
- Redistribution of topsoil;
- Soil treatments;
- Seeding or other steps to reestablish vegetation;
- Weed control;
- Practices necessary to reclaim all disturbed areas, including any access roads and Pipelines.

You have two years from the date of this notice to take the specified action. Once the appropriate analyses have been completed and a report that addresses all of the issues or actions specified in this notice is received, the BLM will make a decision on the APD and the Surface Use Plan of Operations within 10 days. If you do not complete the actions specified in this notice within 2 years from receipt of this notice, the BLM will deny the APD.

For all others questions or concerns regarding your APD, please contact Jared Reese, Natural Resource Specialist, BLM, (575) 627-0249.

Sincerely,

A handwritten signature in cursive script, appearing to read "Angel Mayes".

Angel Mayes,
Assistant Field Manager,
Lands and Minerals

Plans for Interim and Final Surface Reclamation.
Spear OA Federal #10
1230' FSL and 1800' FEL
Section 5, T9S-R26E
Chaves County, New Mexico

1. Well location will be contoured to resemble the original topography as closely as possible. Surface reclamation measures will be taken to avoid new erosion on the well location and the area surrounding the well location. These measures will be overseen by Yates' construction personnel following a structured plan for the reclamation of each individual site.
2. Major drainage systems will be avoided as determined at the onsite with the BLM. Minor drainages may be rerouted around the well site within the 600' x 600' cleared area to avoid moving the well location.
3. Segregation of topsoil or like soils will be placed in low lift rows rather than in a stockpile just off the caliche well pad. Placement of these lift rows will be determined at the BLM onsite or at the time of construction by Yates Personnel.
4. Yates will use prudent oil field practices when constructing well locations and related facilities. Yates personnel will determine the size of the well location needed for safe working conditions for personnel during all aspects on the drilling and production process.
5. Back fill requirements for above ground reserve pits will be met by using cut, fill, and contouring of available top soil and like soils from the pit area.
6. All topsoil will be spread over the area reclaimed during interim reclamation using a front end loader. This will allow soils to remain viable for producing plant growth. For final reclamation enough topsoil will be evenly distributed between the interim reclaimed area and the final reclaimed area.
7. Soil treatments will be determined at the time of final reclamation by Yates' Soil Specialist to meet BLM Best Management Practices for soil protection and enhancement.
8. Reseeding of disturbed areas will be accordance with the seed mixtures attached to the approved APD as Conditions of Approval. Planting and soil preparation will be done during the rainy season between June 1st and September 1st.
9. Yates' personnel will control weeds during the productive period through final abandonment of the well. Yates may also use the option to hire a third party to be in charge of weed control or participate in the Chaves Soil and Water District program to pool monies for weed control.
10. Well pads, roads and related facilities with caliche or other surfacing material will be picked up at the time of final abandonment. These materials may be used on other projects in the area if possible or placed back in the caliche pit or other designated site. Buried pipelines will be left in place after being bled down and flushed out. Above surface support equipment will be removed or cut down below plow depth and removed. Pipeline right-of-ways will be reseeded according to BLM Best Management Practices.

November 23, 2009

I, Matlock Leer as the appointed Authorized Representative for the Lola Leer Revocable Living Trust owners of the surface on which Yates Petroleum Corporation's Spear OA Federal #10 well shall be drilled upon being the 1230' FSL and 1800' FEL, Section 5, T9S-R26E, Chaves County, New Mexico I hereby authorize Yates Petroleum Corporation to drill this well on non-federal lands and as authorized representative I guarantee the Department of the Interior, including the Bureau of Land Management access to the non-federal lands to perform all necessary surveys and inspections of this well location.

Matlock Leer

Matlock Leer, Authorized Representative for
the Lola Leer Revocable Living Trust

Exhibit B
PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL

January 7, 2010

OPERATORS NAME: Yates Petroleum Corporation
LEASE NO.: NM- 28171
WELL NAME & NO: Spear "OA" Fed Com #10
SURFACE HOLE FOOTAGE: 1230' FSL & 1800' FWL
LOCATION: Section 5, T. 9 S., R. 26 E., NMPM
COUNTY: Chaves County, New Mexico

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.

I. 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).

II. 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.

III. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). 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.

IV. CONSTRUCTION

A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0247 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 Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL:

The topsoil will be stripped to approximately 6 inches in depth within the area designated for construction of the well pad. The operator shall stockpile the stripped topsoil adjacent to the constructed well pad. The topsoil will be used for interim and final reclamation of the surface disturbance created by the construction of the well pad.

C. CLOSED SYSTEMS OR STEEL TANKS:

A closed system or steel tanks will be used in lieu of reserve pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. 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 need.

E. ON LEASE ACCESS ROADS:

Road Egress and Ingress

The on lease access road shall be constructed to access the southwest corner of the well pad.

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.

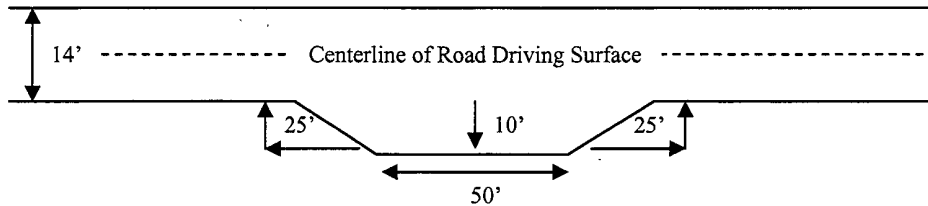
Ditching

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:

Standard Turnout – Plan View

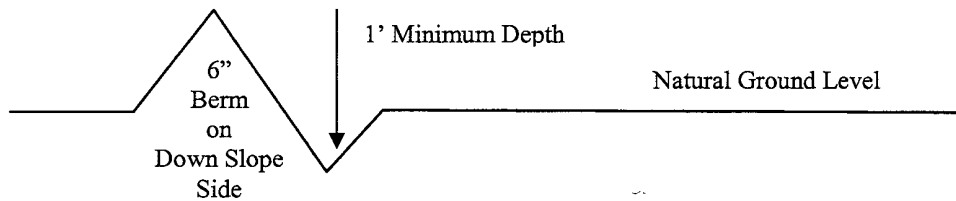


Drainage

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:

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

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).

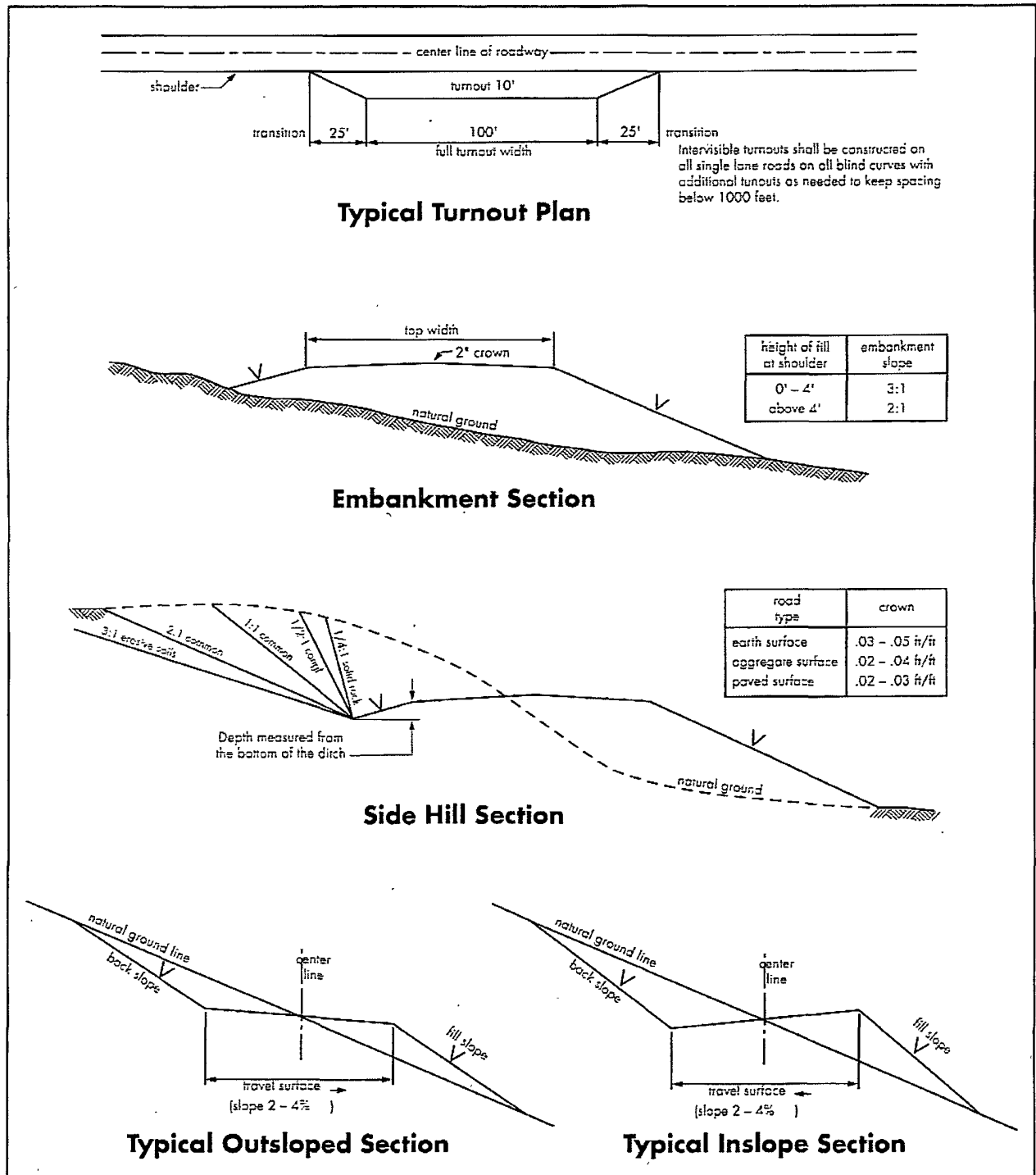
Public Access

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

Pipeline Protection Requirement

Precautionary measures shall be taken by the operator during construction of the access road to protect existing pipelines that the access road will cross over. An earthen berm; 2 feet high by 3 feet wide and 14 feet across the access road travelway (2' X 3' X 14'), shall be constructed over existing pipelines. The operator shall be held responsible for any damage to existing pipelines. If the pipeline is ruptured and/or damaged the operator shall immediately cease construction operations and repair the pipeline. The operator shall be held liable for any unsafe construction operations that threaten human life and/or cause the destruction of equipment.

Figure 1 – Cross Sections and Plans For Typical Road Sections



V. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS:

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 910-6024. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.
2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:
 - a. Spudding well
 - b. Setting and/or Cementing of all casing strings

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

BOPE Tests

3. 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.
4. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.
5. **The operator will accurately measure the drilling rate in ft/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion**
6. Fresh water and non toxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

B. CASING:

1. The **8-5/8** inch usable water protection casing string shall be set at approximately 1000 ft. in competent bedrock.

If not the operator is required to set usable water protecting casing in the next thick competent bedding (i.e. 15 to 25 ft or greater) encountered and cemented to the surface.

- a. If cement does not circulate to the surface, the Roswell Field 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 will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).
 - 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 compression strength, whichever is greater.
 - d. If cement falls back, remedial action will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is **sufficient to circulate to the surface**. If cement does not circulate see B.1.a-d above.
 3. The minimum required fill of cement behind the 5-1/2 inch production casing is **sufficient to tie back 500 feet above the uppermost perforation in the pay zone**. If cement does not circulate, 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.
 4. 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.
 5. All casing shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the authorized officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

C. PRESSURE CONTROL:

1. Before drilling below the 8-5/8 inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the 5-1/2 inch intermediate casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.
2. Before drilling below the 8-5/8 inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi. Before drilling below the 5-1/2 inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **3000** psi.
3. The BOPE shall be installed before drilling below the 8-5/8 inch surface casing and the 5-1/2 inch intermediate casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
 - a. The BLM Roswell Field office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

- b. The tests shall be done by an independent service company.
- c. 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. 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 BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.
- e. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- f. Testing must be done in a safe workman like manner. Hard line connections shall be required.

VI. PRODUCTION

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

Through color manipulation, by painting well facilities to blend with the rolling to flat vegetative and/or landform setting with a gray-green to brownish color, the view is expected to favorably blend with the form, line, color and texture of the existing landscape. The semi-gloss color Juniper Green from the standard environmental colors (June 2008) also closely approximates the brownish color of the setting. All facilities, including the meter building, would be painted this color.

VRM Facility Requirement

Low-profile tanks not required.

VII. 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. Earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging

(weather permitting). The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, 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.

PECOS DISTRICT
SEED MIX FOR

The following Soils or Soil associations may represent these ecological sites:
Alama-Poquita, Alama-Reeves, Anthony sandy loam, Berino, Blakeney-Ima, Cacique, Dona Ana,
Glendale-Harkey, Harkey sandy loam, Karro loam, Kermit-Berino fine sands, Mobeetie fine sandy loam,
Pajarito-Bluepoint, Poquita, Potter-Simona complex, Sharvana-Redona, Simona, Simona-Bippus complex,
Sotim-Berino, Sotim-Simona association, moderately undulating, Tonuco loamy sands, Vinton

Ecological Site: Shallow Sand SD-3

Ecological Site: Sandy SD-3

April 4, 2006

<u>Common Name and Preferred Variety</u>	<u>Scientific Name</u>	<u>Pounds of Pure Live Seed Per Acre</u>
Black grama or Blue grama.	(<i>Bouteloua eriopoda</i>) (<i>Bouteloua gracilis</i>)	3.0
Sideoats grama	(<i>Bouteloua curtipendula</i>)	2.0
Sand dropseed or Mesa dropseed or Spike dropseed	(<i>Sporobolus cryptandrus</i>) (<i>S. flexuosus</i>) (<i>S. contractus</i>)	1.5
Desert or Scarlet Globemallow	(<i>Sphaeralcea ambigua</i>) or (<i>S. coccinea</i>)	1.0
Croton	(<i>Croton</i> spp.)	1.0
TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE Certified Weed Free Seed		8.5

IF ONE SPECIES IS NOT AVAILABLE,
INCREASE ALL OTHERS PROPORTIONATELY

Use no less than 4 species, including 1 forb

No less than 8.5 pounds pls per acre shall be applied

APPROVED: /s/ Douglas J. Burger
District Manager- Pecos District

C. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

VIII. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

- a) Upon abandonment of the well and/or when the access road is no longer in service, a Notice of Intent for Final Abandonment with the proposed surface restoration procedure must be submitted for approval.
- b) On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with direction from an authorized BLM representative and/or with the concurrence of the Private Surface Land Owner agreements and a copy of the release is to be submitted upon abandonment.
- c) Upon abandonment of the well, all casing shall be cut-off at the base of the cellar or 3-feet below final restored ground level (whichever is deeper). A 4-inch pipe, 10 feet in length, shall be installed 4 feet above ground and embedded in cement. The following information shall be permanently inscribed on the dry hole marker: Well name and number, the name of the operator, the lease serial number, the surveyed location (the quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer; such as metes and bounds).
- d) d. Surface Reclamation must be completed within 6 months of well plugging. If the operator proposes to modify the plans for surface reclamation approved on the APD, the operator must attach these modifications to the Subsequent Report of Plug and Abandon using Sundry Notices and Reports on Wells, Form 3160-5.

IX. WILDLIFE

Netting storage tanks and installation of cones on separator stacks would alleviate losses of wildlife species. Interim reclamation and final rehabilitation through revegetation would return to wildlife previous levels.