

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RESUBMITTAL**

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

OMB No. 1004-0136  
Expires November 30, 2000

5. Lease Serial No.  
**NM-88092**

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.  
**34528**

8. Lease Name and Well No.  
**Anadarko Pardue Farms ANQ Fed. Com. 2**

9. API Well No.  
**30-015-35197**

10. Field and Pool, or Exploratory  
**Indian Basin; Upper Penn Assoc 33685**

11. Sec., T., R., M., or Blk, and Survey or Area  
**Section 27, T21S-R24E**

12. County or Parish  
**Eddy County**

13. State  
**NM**

1a. Type of Work: ☒ REENTER

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

2. Name of Operator  
**Yates Petroleum Corporation 25575 CARLSBAD CONTROLLED WATER BASIN**

3A. Address **105 South Fourth Street  
Artesia, New Mexico 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 **573' FNL and 485' FWL Surface Location, Unit D**  
At proposed **660' FNL and 660' FWL Bottom Hole Location, Unit D**

14. Distance in miles and direction from nearest town or post office\*  
**Approximately 31 miles northwest of Carlsbad, New Mexico**

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)  
**660'**

16. No. of Acres in lease  
**80**

17. Spacing Unit dedicated to this well  
**N/2**

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft.  
**1500'**

19. Proposed Depth  
**8400'**

20. BLM/BIA Bond No. on file  
**585997 NM 2811**

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
**3621'**

22. Approximate date work will start\*  
**ASAP**

23. Estimated duration  
**45 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:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office.
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized office.

25. Signature **Cy Cowan** Name (Printed/Typed) **Cy Cowan** Date **8/22/2006**

Regulatory Agent

**Regulatory Agent**

Approved by (Signature) **/s/ James Stovall** ACTING Name (Printed/Typed) **OCT 1 2006**

Title **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 conduct operations thereon.

Conditions of approval, if any, are attached.

**APPROVAL FOR 1 YEAR**

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 reverse)

**Previously Approved**

**C-144 attached**

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED**

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
JOHN A. YATES  
PRESIDENT  
PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

October 5, 2006

Bureau of Land Management  
Carlsbad, New Mexico



VIA FAX and HAND CARRY

Re: Anadarko Pardue Farms ANQ Federal Com. #2  
573' FNL and 485' FWL Surface Location  
660' FNL and 660' FWL Bottom Hole Location  
Section 27, T21S-R24E  
Eddy County, New Mexico

Please be advised that Yates Petroleum Corporation has a general agreement with Stacy Biebelle and Skip Shafer the private surface owners of the captioned lands for access to the well location. When approval is given by Yates Management to start construction operations in preparation for drilling this well the final monetary negotiations will be made with the surface owners.

Thank you.

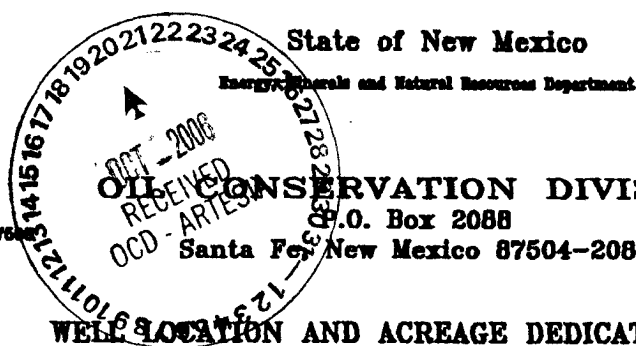
Cy Cowan  
Regulatory Agent

DISTRICT I  
1875 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505



K-06-56  
8/23/06

Form C-102  
Revised March 17, 1999  
Instruction on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 33685	Pool Name Indian Basin, Upper Penn Assoc.
Property Code	Property Name Anadarko Pardue Farms ANQ Federal Com.	Well Number 2
OCED No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3621'

#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	27	21S	24E		573'	North	485'	West	Eddy

#### 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	27	21S	24E		660'	North	660'	West	Eddy

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


#### OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature  
Cy Cowan  
Printed Name  
Regulatory Agent  
Title  
June 16, 2005  
Date

#### SURVEYOR CERTIFICATION

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.

REFER TO ORIGINAL PLAT.

Date Surveyed  
Signature & Seal of Professional Surveyor

Certificate No. Herschel L. Jones RLS 3840

GENERAL SURVEYING COMPANY

District I  
1825 N French Dr. Hobbs, NM 88240

District II  
811 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, N M 87505

Form C-102

Revised March 17, 1999

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name Wildcat Canyon	
Property Code	Property Name ANADARKO PARDUE FARMS ANQ FED. COM			Well Number 2
OGRI No. 025575	Operation Name YATES PETROLEUM CORPORATION			Elevation 3621

Surface Location

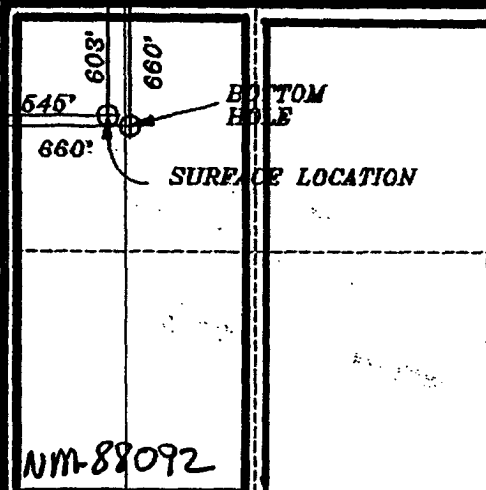
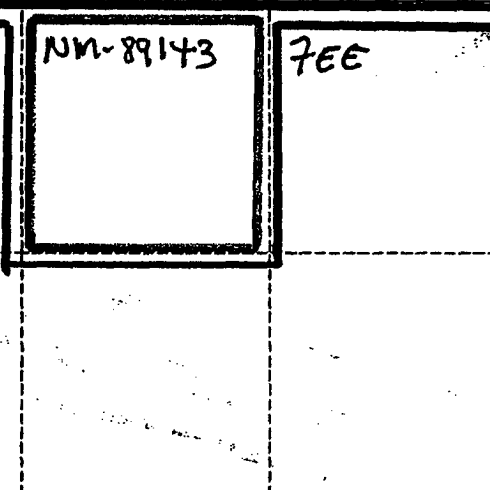

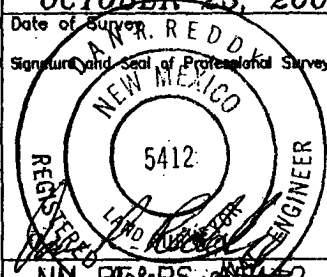
UL or Lot No. D	Section 27	Township 21-S	Range 24-E	Lot Id.	Feet from the 603	North/South line NORTH	Feet from the 545	East/West line WEST	County EDDY
--------------------	---------------	------------------	---------------	---------	----------------------	---------------------------	----------------------	------------------------	----------------

Bottom Hole Location If Different From Surface

UL or Lot No. D	Section 27	Township 21-S	Range 24-E	Lot Id.	Feet from the 660	North/South line NORTH	Feet from the 660	East/West line WEST	County EDDY
--------------------	---------------	------------------	---------------	---------	----------------------	---------------------------	----------------------	------------------------	----------------

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
------------------------	-----------------	--------------------	-----------

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

		<b>OPERATOR CERTIFICATION</b> I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.	
		Signature 	
		Printed Name Cy Cowan	
		Title Regulatory Agent	
Date November 24, 2003		<b>SURVEYOR CERTIFICATION</b> 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 KNOWLEDGE AND BELIEF.	
Date of Survey OCTOBER 23, 2003		Signature and Seal of Professional Surveyor 	
Certificate Number NM PE&PS 5412			

**YATES PETROLEUM CORPORATION**  
 Anadarko Pardue Farms ANQ Federal Com. #2  
 573' FNL and 485' FWL Surface Location, Unit D  
 660' FNL and 660' FWL Bottom Hole Location, Unit D  
 Section 27-T21S-R24E  
 Eddy County, New Mexico

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

San Andres	761'	Wolf Camp	6886'
Glorieta	2446'	Cisco Canyon Dolomite	7586'
Bone Spring Lime	3136'	O/W Contact	7686'
2 <sup>nd</sup> Bone Spring	3496'	Base of Dolomite	8086'
3 <sup>rd</sup> Bone Spring	6666'	TD	8400'

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

Water: 150' – 250'  
 Oil or Gas: All potential Zones.

3. Pressure Control Equipment: BOPE will be installed on the 9 5/8" casing and rated for 5000 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:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Interval</u>	<u>Length</u>
14 3/4"	9 5/8"	36#	J-55	0-1800'	1800'
8 3/4"	7"	<b>WITNESS</b> 26#	J-55/L-80	0-8400'	8400'

Yates Petroleum Corporation requests a variance to install a rotating head on the surface casing strings when intermediate casing will be set. If a BOP system is required then we wish to install a 2M system and receive a variance to test the system to 1000# using the rig pumps. The test will be held for 30 minutes on each system component. Components to be tested include pipe rams, blind rams, and annular preventer.

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

**B. CEMENTING PROGRAM:**

**Surface Casing:** 200 sx "H" (YLD 1.52 WT 14.6) 1100 sx "C" Lite (YLD 1.98 WT 12.5).  
Tail in with 200 sx Class "C" +2% CaCl<sub>2</sub> (YLD 1.34 WT 14.8).

**Production Casing** TOC 1600' Stage I: 1450 sx Super "C" Modified (YLD 1.63 WT 13)  
DV tool @ 6000'.

Stage II 700 sx Lite "C" (Yld 2.05 WT 12.7) May use nitrified mud cement job if wellbore conditions permit.

**5. MUD PROGRAM AND AUXILIARY EQUIPMENT:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-1800'	FW/Air Mist	8.4	28	N/C
1800'-7550'	Cut Brine/Starch	8.8-9.0	28	N/C
7550'-8400'	SW Gel/Starch	9.0-9.4	28-32	<15

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: Every 10' out from under intermediate casing.

Logging: Platform Express/Hals/ NGT.

Coring: None anticipated.

DST's: None anticipated.

**7. Abnormal Conditions: none anticipated.**

Bottom hole pressure and potential hazards:

Anticipated BHP:

From: 0	To: 1800'	Anticipated Max.	BHP: 700 PSI
From: 1800'	To: TD	Anticipated Max.	BHP: 4100 PSI

Lost Circulation Zones Anticipated: Possible in the Canyon Formation.

H<sub>2</sub>S Zones Anticipated: None.

Maximum Bottom Hole Temperature: 165 F

**8. ANTICIPATED STARTING DATE:**

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

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

### **Yates Petroleum Corporation**

Anadarko Pardue Farms "ANQ" Federal Com. #2  
573' FNL and 485' FWL Surface Location, Unit D  
660' FNL and 660' FWL Bottom Hole Location, Unit D  
Section 27-T21S-R24E  
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 well site is located approximately 31 miles northwest of Carlsbad, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

#### **DIRECTIONS:**

Go north of Carlsbad, New Mexico on Highway 285 for approximately 12 miles. Turn left on Highway 137 (Scenic Byeway) and go approximately 9 miles. The new access road will start here going to the northeast.

#### **2. PLANNED ACCESS ROAD:**

- A. The new access will be approximately .1 of a mile from Hwy 137 to the southwest corner of the well 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 one side. Traffic turnouts may be built.
- 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 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.
- 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. No power will be required if the well is productive of gas.

#### **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.

**Anadarko Pardue Farms "ANQ" Federal Com. #2**  
**Page 2**

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:

Dirt contractor will locate closest pit and obtain any permits and materials needed for construction.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- 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:

- A. None Required.

9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined.
- C. A 400' x 400' 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. All pits will be filled level after they have evaporated and dried.



**Anadarko Pardue Farms "ANQ" Federal Com. #2**  
**Page 3**

11. SURFACE OWNERSHIP: Private surface owned by Stacy Biebelle and Skip Shafer, Carlsbad, New Mexico.

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.

13. OPERATOR'S REPRESENTATIVE

A. Through A.P.D. Approval:

Cy Cowan, Regulatory Agent

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

B. Through Drilling Operations,  
Completions and Production:

Pinson McWhorter, Operations  
Manager

Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

14. CERTIFICATION:

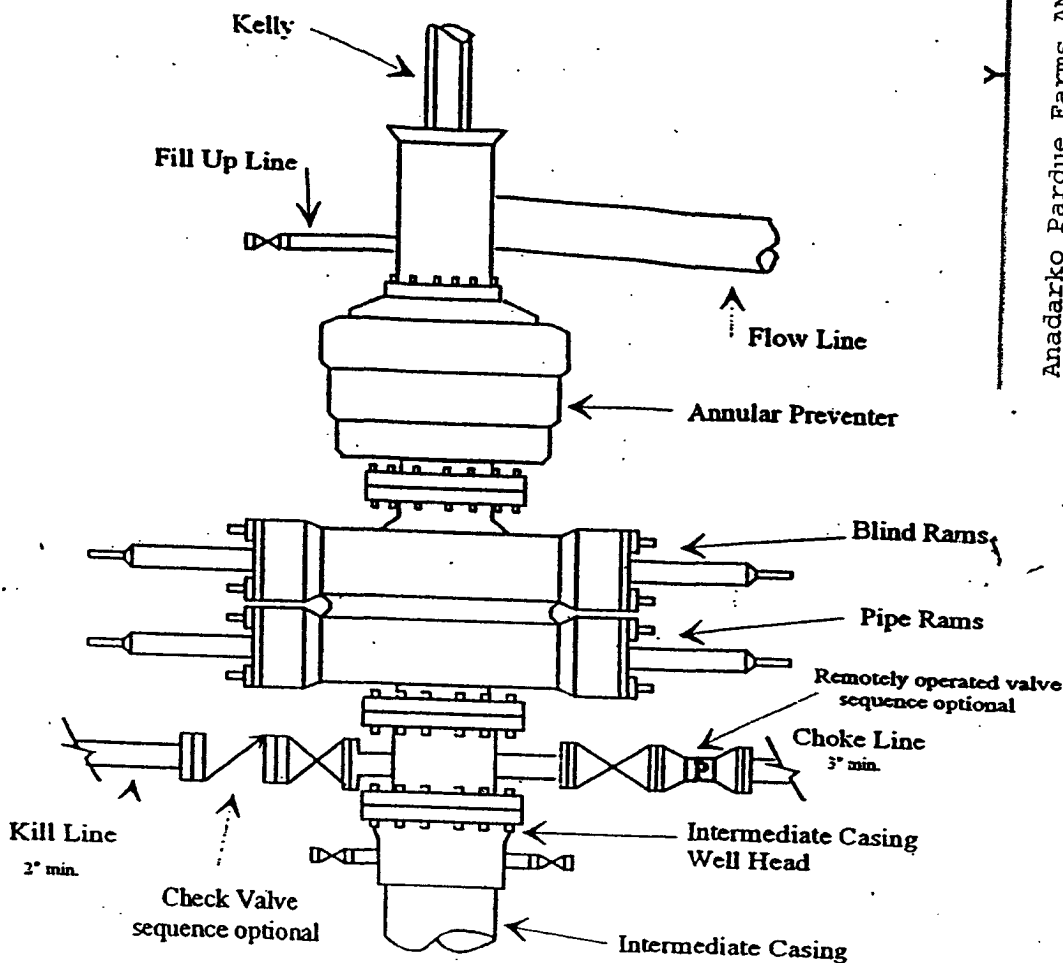
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Yates Petroleum Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

8/22/2006  
Date

  
Cy Cowan, Regulatory Agent

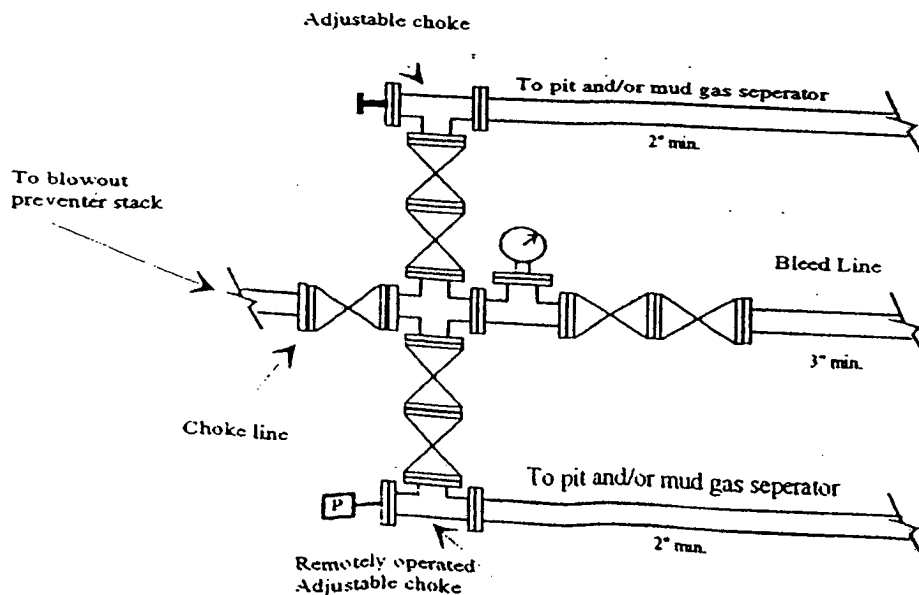


# **Yates Petroleum Corporation** **Typical 5,000 psi Pressure System** **Schematic** **Annular with Double Ram Preventer Stack**



Anadarko Pardue Farms ANQ Fed. Com. #2  
 513' FNL and 545' FNL Surface Loc.  
 660' FNL and 660' FNL Bottom Hole Loc.  
 Section 27, T21S-R24E  
 Eddy County, New Mexico  
 NM-88092

## **Typical 5,000 psi choke manifold assembly with at least these minimum features**

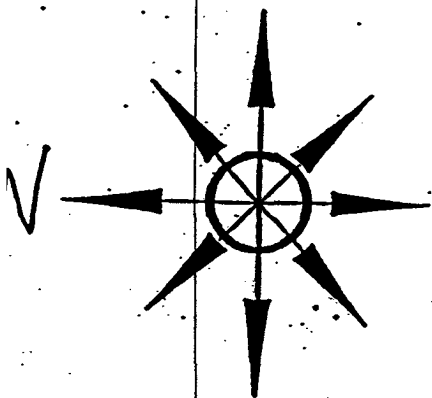


Exh-B

# Yates Petroleum Corporation

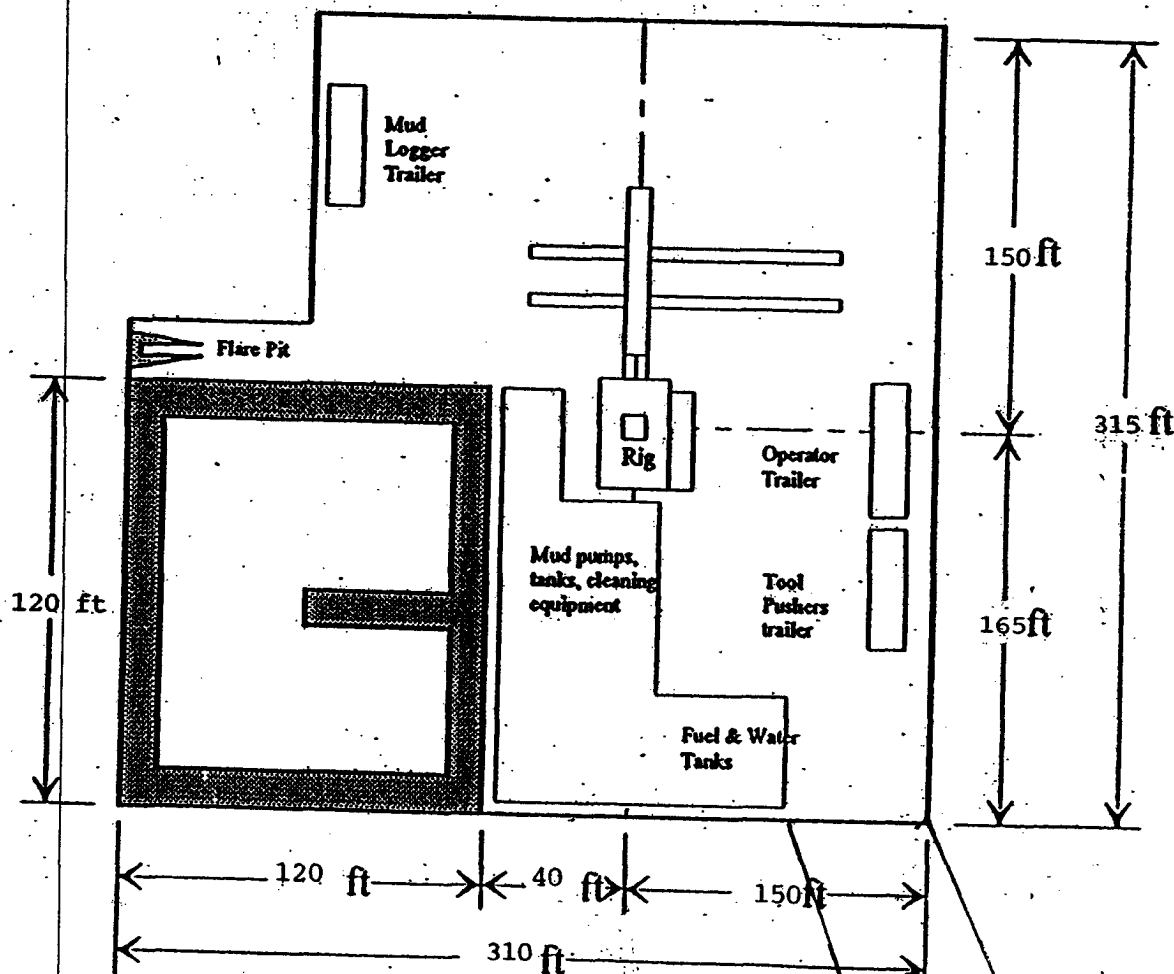
## Location Layout for Permian Basin

### Up to 12,000'



*Pits North*  
*South*

Anandarko Pardue Farms ANQ Fed. Com. #2  
573' 603' FNL and 545' FNL Surface Loc.  
660' FNL and 660' FNL Bottom Hole Loc.  
Section 27, T21S-R24E  
Eddy County, New Mexico  
NM-88902



Distance from Well Head to Reserve Pit will vary between rigs

The above dimension should be a maximum

*ROAD*

*Exhibit C*

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Yates Petroleum Corp.  
Well Name & No. Anadarko Pardue Farms ANQ Fed Com # 2  
Location: 573' FNL, 485' FWL, SEC 27, T21S, R24E, Eddy County, NM  
BHL: 660' FNL, 660' FWL, SEC 27, T21S, R24E, Eddy County, NM  
Lease: NM-88092

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:
  - A. Spudding
  - B. Cementing casing: 9 5/8 inch 7 inch
  - C. BOP tests
2. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan should be activated prior to **drilling out of the surface casing**. A copy of the plan shall be posted at the drilling site.
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. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
6. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.
7. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

### II. CASING:

1. The 9 5/8 inch surface casing shall be set at 1800 feet, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
2. The minimum required fill of cement behind the 5-1/2 inch production casing is **cement shall extend upward a minimum of 200 feet above the base of the intermediate casing string**.
3. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

### **III. PRESSURE CONTROL:**

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 9 5/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be 3000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 9 5/8 inch casing shall be 3000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- A variance to test the \_\_\_\_\_ to the reduced pressure of \_\_\_\_ psi with the rig pumps is approved.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- 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.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE must be tested prior to drilling into the **Wolfcamp** Formation by an independent service company.

### **IV. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.

**Engineering may be contacted at 505-706-2779 for variances if necessary.**