



OCD-ARTESIA

ATS-10-105

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

FORM APPROVED  
OMB NO. 1004-0137  
Expires: July 31, 2010 **EA 10-853**

5. Lease Serial No

**NM-660**

6. If Indian, Allottee or Tribe Name

**N/A**

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

**N/A**

8. Lease Name and Well No.

**Federal GR #2H** **(36274)**

9. API Well No.

**30-015-38151**

10. Field and Pool, or Exploratory

**Undesignated Wolfcamp**

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

**Section 24, T17S-R24E**

12. County or Parish

**Eddy**

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)

**575-748-1471**

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

At surface

**660' FNL and 660' FEL Surface Hole**

**660' FNL and 660' FWL Bottom Hole**

At proposed prod. zone

**same as above**

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

**Approximately eight (8) miles west of Artesia, New Mexico**

15. Distance from proposed\*

location to nearest

property or lease line, ft

(Also to nearest drlg unit line, if any)

**660'**

16. No. of acres in lease

**640.00**

17. Spacing Unit dedicated to this well

**N2**

18. Distance from proposed location\*

to nearest well, drilling, completed,

applied for, on this lease, ft

**1 mile**

19. Proposed Depth

**5250'**

20. BLM/ BIA Bond No. on file

**NATIONWIDE BOND #NMB000434**

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

**3666'**

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:

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

**Land Regulatory Agent**

**Cy Cowan**

Date

**11/10/2009**

Approved By (Signature)

**/s/ Don Peterson**

Name (Printed/ Typed)

Date

**AUG 19 2010**

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 cc operations thereon

Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and 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.

**Previously Approved**

**Roswell Controlled Water Basin**

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

**Approval Subject to General Requirements  
& Special Stipulations Attached**

DISTRICT I  
1626 E. French Dr., Hobbs, NM 88340

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-014-38151</b>	Pool Code <b>96623</b>	Pool Name <b>GOLLINS RANCH</b> <del>Undesignated Wolfcamp</del> , <b>NE</b>
Property Code <b>36274</b>	Property Name Federal GR	Well Number 2H
OGRD No. 025575	Operator Name Yates Petroleum Corporation	Elevation 3666'

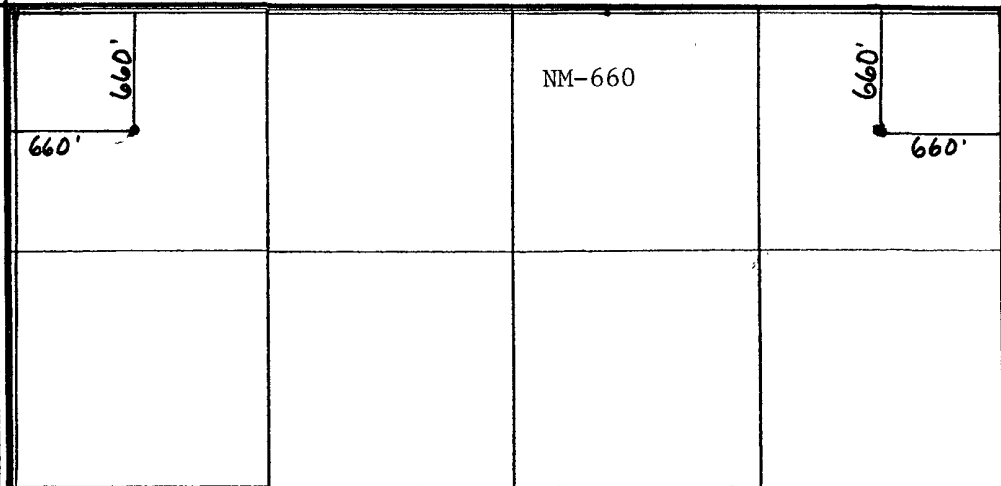
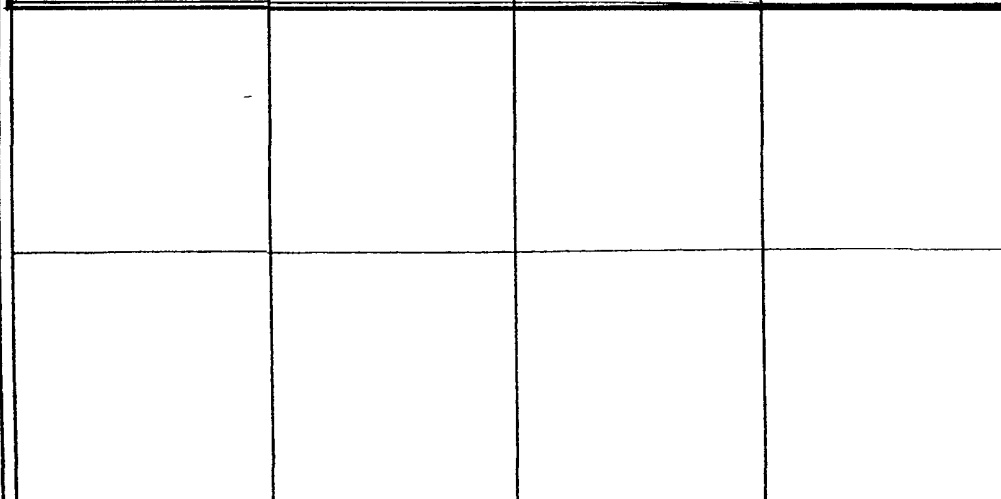
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	24	17S	24E		660'	North	660'	East	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	24	17S	24E		660'	North	660'	West	Eddy
Dedicated Acres	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><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Cy Cowan</i></p> <p>Signature</p> <p>Cy Cowan</p> <p>Printed Name</p> <p>Land Regulatory Agent</p> <p>Title</p> <p>11/10/09</p> <p>Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></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><b>REFER TO ORIGINAL PLAT</b></p> <p>Date Surveyed</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p>Certificate No.</p>

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Breros Rd., Amar, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name Wildcat Wolfcamp
<sup>4</sup> Property Code	<sup>5</sup> Property Name FEDERAL GR	<sup>6</sup> Well Number 2H
<sup>7</sup> OGRID No. 022575	<sup>8</sup> Operator Name YATES PETROLEUM CORPORATION	<sup>9</sup> Elevation 3666

**Surface Location**

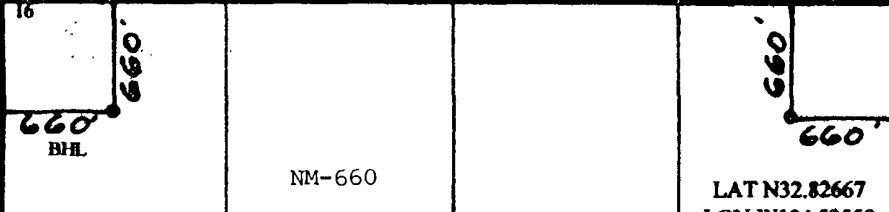
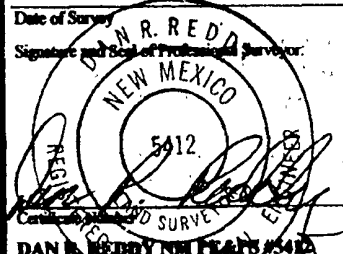
UL or lot no.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County
A	24	17-S	24-E		660	NORTH	660	EAST	EDDY

**Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County
D	24	17-S	24-E		660	NORTH	660	WEST	EDDY

<sup>10</sup> Dedicated Acre 320	<sup>11</sup> Joint or Infill	<sup>12</sup> Consolidation Code	<sup>13</sup> Order No.
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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.

	<b>OPERATOR CERTIFICATION</b> 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.  Signature: <i>Cy Cowan</i> Date: 9/15/06 Cy Cowan, Regulatory Agent Printed Name	
	<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 belief. JUNE 6, 2006 Date of Survey Signature and Seal of Professional Surveyor:  DAN R. REDD, NEW MEXICO #5412, PROFESSIONAL SURVEYOR	

June 15, 2010

Albert P. Bach and Wilma R. Bach, husband and wife as Joint Tenants owners of the surface on which Yates Petroleum Corporation's Federal GR #2H well shall be drilled upon being in the northeast quarter at the footages of 660' FNL and 660' FEL, Section 24, T17S-R24E, Eddy County, New Mexico we hereby authorize Yates Petroleum Corporation to drill this well on non-federal lands and as owners we 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.

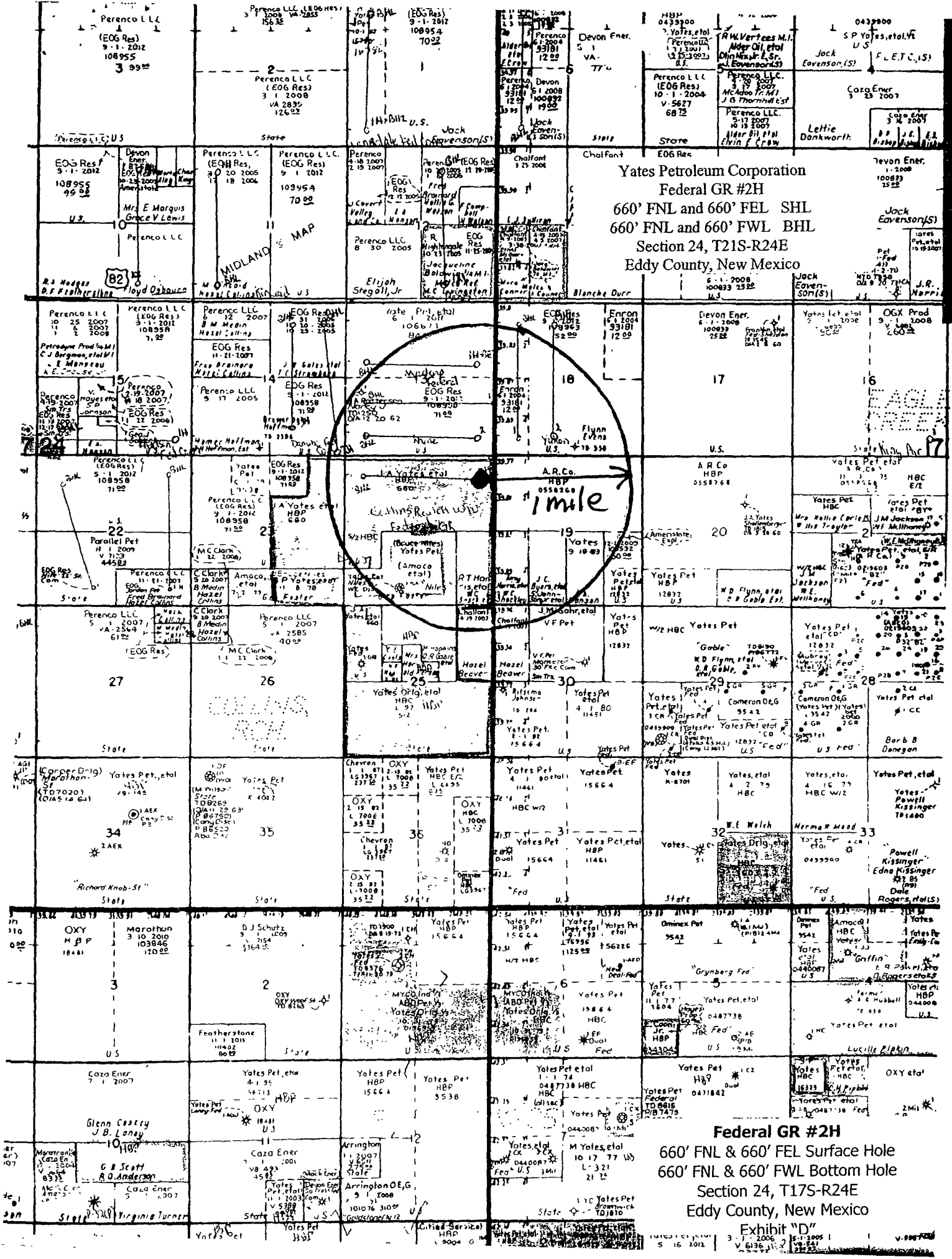
  
Albert P. Bach

  
Wilma R. Bach

Bureau of Land Management  
RECEIVED

JUN 15 2010

Carlsbad Field Office  
Carlsbad, N.M.



Yates Petroleum Corporation  
Federal GR #2H  
660' FNL and 660' FEL SHL  
660' FNL and 660' FWL BHL  
Section 24, T21S-R24E  
Eddy County, New Mexico

Federal GR #2H  
660' FNL & 660' FEL Surface Hole  
660' FNL & 660' FWL Bottom Hole  
Section 24, T17S-R24E  
Eddy County, New Mexico  
Exhibit "D"

# YATES PETROLEUM CORPORATION

## Federal GR #2H

660' FNL and 660' FEL Surface Hole

660' FNL and 660' FWL Bottom Hole

Section 24-T17S-R24E

Eddy County, New Mexico

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

San Andres	673'	Base Wolfcamp Pay	5085'
Glorieta	1953'	Base Wolfcamp Shale	5133'
Tubb	3258'	TD Pilot Hole	5250'
Abo	3913'	TD Lateral Hole	8838'
Wolfcamp	5028'		

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

Water: 309'

Oil or Gas: All potential formations.

3. Pressure Control Equipment: BOPE will be installed on the 9 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.

See  
COA

### 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>	<u>Length</u>
17 1/2"	13 3/8"	48#	H-40	ST&C	0-350'	350'
12 1/4"	9 5/8"	36#	J-55	ST&C	0-1500'	1500'
8 3/4"	Open Hole				5250'-TVD	5250'
**8 3/4"	7"	26#	J-55	ST&C	0-5160'	5160'
7 7/8"	5 1/2"	17#	HCP-110	LT&C	0-8838'MD	8838'

\*\*7" casing will only be run if hole conditions dictate that it is needed. If 7" is run, a 6 1/8" hole will be drilled and run 4 1/2" production casing run and cemented to tie-in to the 7" casing.

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

## B. CEMENTING PROGRAM:

Surface casing: Cement with 250 sx C Lite (WT 12.6 YLD 2.1). Tail in with 200 sx Class "C" with 2% CaC12 (WT 14.8 YLD 1.32). TOC-Surface.

Intermediate Casing: 450 sx C Lite (WT 12.6 YLD 2.1) and tail in with 200 sx Class C with 2% CaC12 (WT 14.8 TLD 1.32). TOC-Surface.

Production Casing: Lead with 775 sx Lite C (WT 12.5 YLD 2.05). Tail in with 1220 Magne Plus (WT 13.0 YLD 1.05). TOC-600'.

If 7" casing is run a 6 1/4" hole will be drilled and 4 1/2" production casing will be set. (TOC-1000') Lead w/775 sx Lite "C" (WT 12.5 YLD 2.05). Tail in w/1200 sx Magne Plus (WT13.0 YLD 1.05).

## 5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-350'	FW/Spud Mud	8.4-8.9	32-36	N/C
350'-1300'	FW Gel/Air Mist	8.4-8.9	28-34	N/C
1300'-8838'	Cut Brine	8.8-9.2	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' samples out from under intermediate casing to TD.

Logging: Platform Express/HALS, FMI.

Coring: Rotary sidewall Cores (Pilot Hole).

DST's: None Anticipated.

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

Anticipated BHP:

From: 0	TO: 350' TVD	Anticipated Max BHP: 162	PSI
From: 350'	TO: 1500' TVD	Anticipated Max. BHP: 695	PSI
From: 1500'	TO: 5250' TVD	Anticipated Max. BHP: 2510	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None

H2S Zones Anticipated: None Anticipated

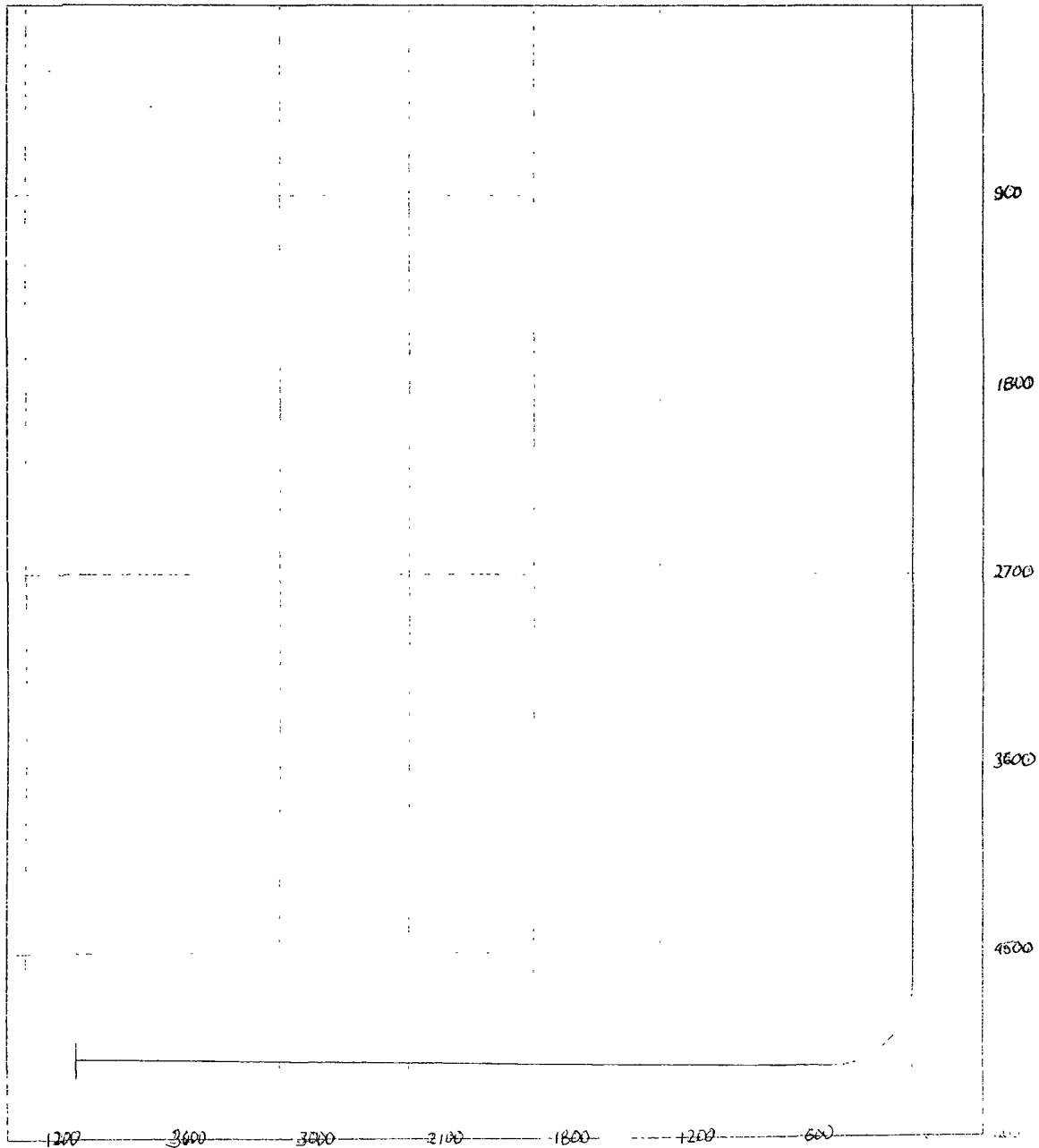
Maximum Bottom Hole Temperature: 168 F

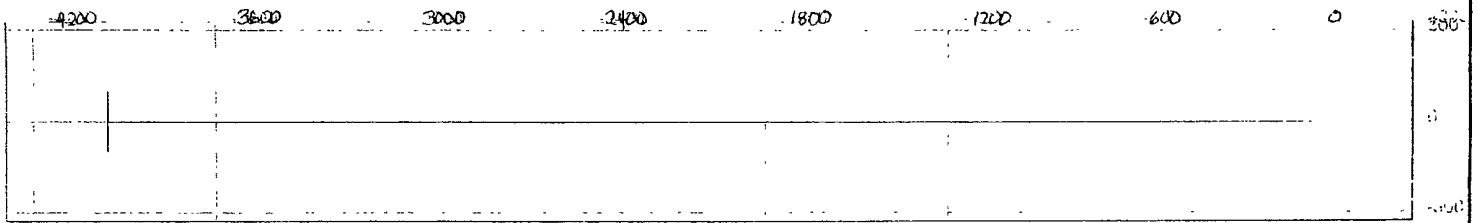
## 8. ANTICIPATED STARTING DATE:

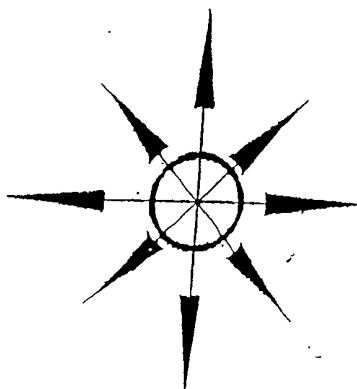
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 40 days.

	M.D. [ft]	Inclination [°]	Azimuth [°]	T.V.D. [ft]	N+/S- [ft]	E+/W- [ft]	D.L.S. [°/100ft]	ToolFace [°]	T.F. Ref. [HS/GN]
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	4660.00	0.00	0.00	4660.00	0.00	0.00	15.00	270	GN
3	4675.00	2.25	270.00	4675.00	0.00	-0.29	15.00	0	HS
4	4700.00	6.00	270.00	4699.93	0.00	-2.09	15.00	0	HS
5	4725.00	9.75	270.00	4724.69	0.00	-5.52	15.00	0	HS
6	4750.00	13.50	270.00	4749.17	0.00	-10.55	15.00	0	HS
7	4775.00	17.25	270.00	4773.27	0.00	-17.18	15.00	0	HS
8	4800.00	21.00	270.00	4796.89	0.00	-25.37	15.00	0	HS
9	4825.00	24.75	270.00	4819.92	0.00	-35.09	15.00	0	HS
10	4850.00	28.50	270.00	4842.26	0.00	-46.29	15.00	0	HS
11	4875.00	32.25	270.00	4863.83	0.00	-58.93	15.00	0	HS
12	4900.00	36.00	270.00	4884.52	0.00	-72.95	15.00	0	HS
13	4925.00	39.75	270.00	4904.25	0.00	-88.30	15.00	0	HS
14	4950.00	43.50	270.00	4922.93	0.00	-104.90	15.00	0	HS
15	4975.00	47.25	270.00	4940.49	0.00	-122.69	15.00	0	HS
16	5000.00	51.00	270.00	4956.85	0.00	-141.59	15.00	0	HS
17	5025.00	54.75	270.00	4971.93	0.00	-161.52	15.00	0	HS
18	5050.00	58.50	270.00	4985.69	0.00	-182.39	15.00	0	HS
19	5075.00	62.25	270.00	4998.04	0.00	-204.12	15.00	0	HS
20	5100.00	66.00	270.00	5008.95	0.00	-226.61	15.00	0	HS
21	5125.00	69.75	270.00	5018.36	0.00	-249.76	15.00	0	HS
22	5150.00	73.50	270.00	5026.24	0.00	-273.49	15.00	0	HS
23	5175.00	77.25	270.00	5032.55	0.00	-297.67	15.00	0	HS
24	5200.00	81.00	270.00	5037.27	0.00	-322.22	15.00	0	HS
25	5225.00	84.75	270.00	5040.37	0.00	-347.02	15.00	0	HS
26	5250.00	88.50	270.00	5041.84	0.00	-371.97	15.00	0	HS
27	5264.16	90.62	270.00	5041.95	0.00	-386.14	0.00		
28	8838.24	90.62	270.00	5003.00	0.00	-3960.00	0.00		









**Yates Petroleum Corporation**  
Location Layout for Permian Basin

**Closed Loop Design Plan**

**Federal GR #2H**

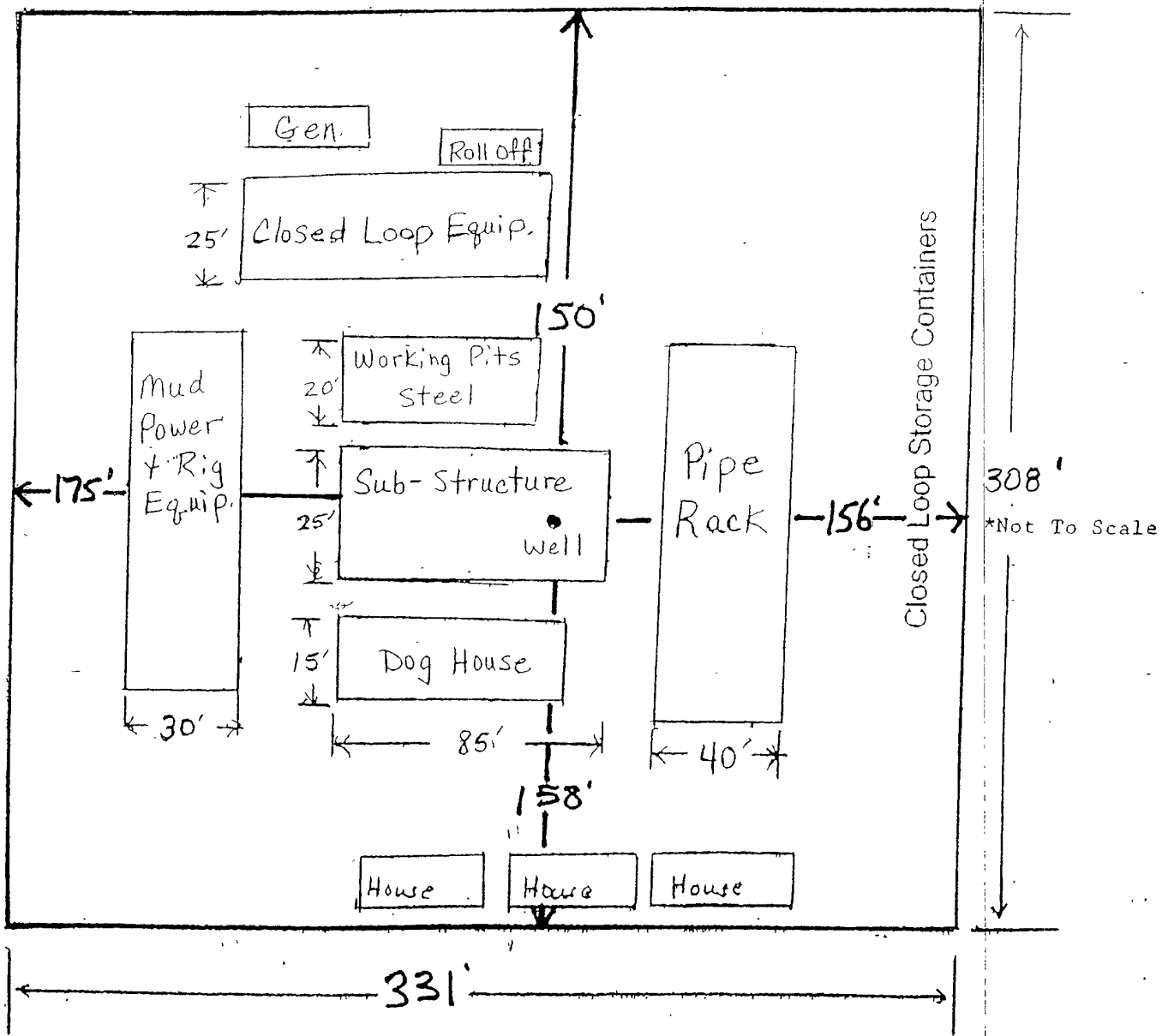
660' FNL & 660' FEL Surface Hole

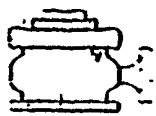
660' FNL & 660' FWL Bottom Hole

Section 24, T17S-R24E

Eddy County, New Mexico

Exhibit "C"

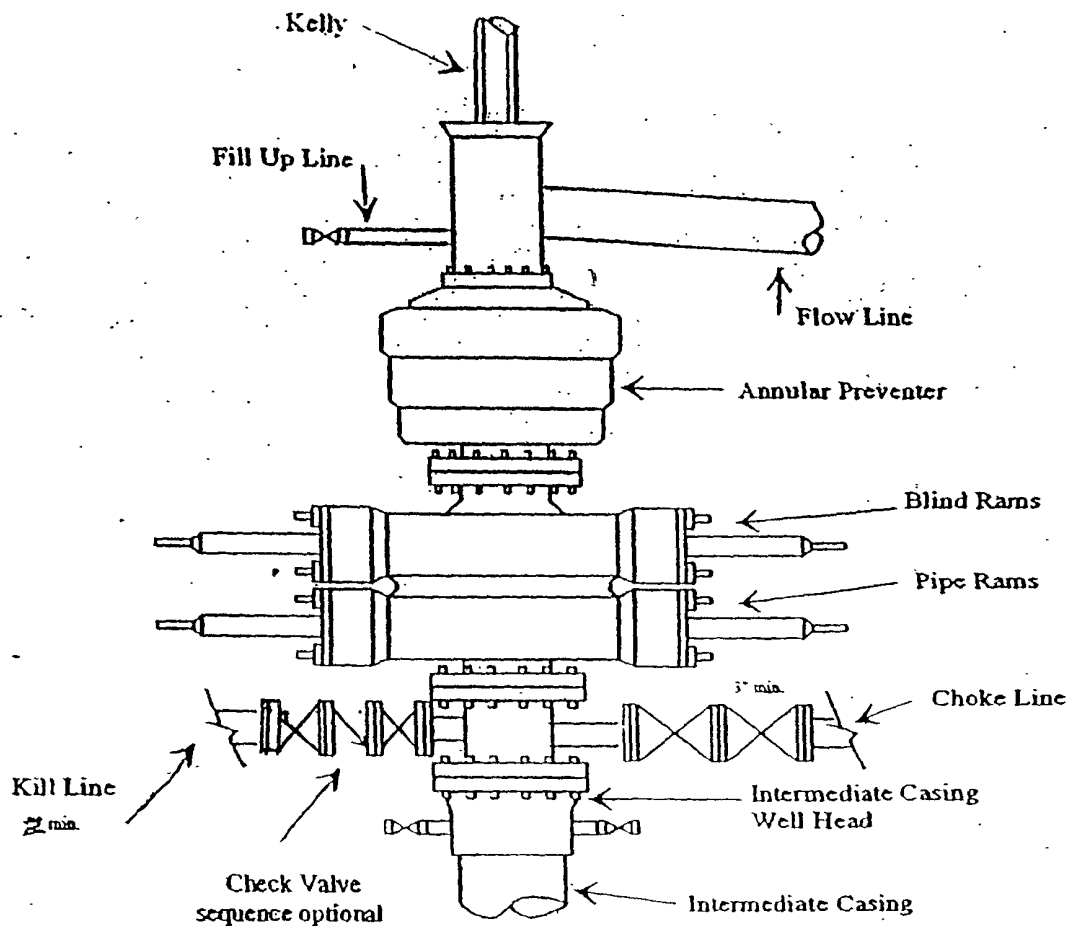




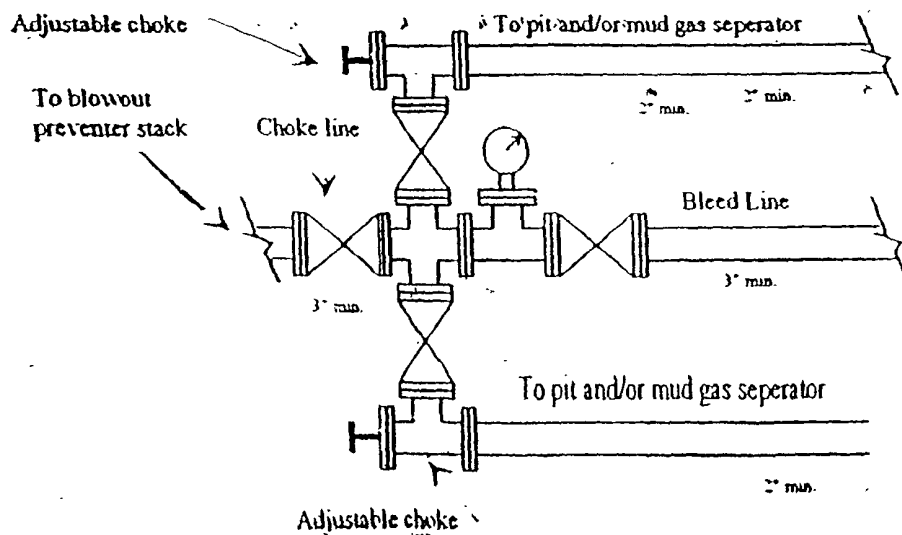
# Yates Petroleum Corporation

BOP-3

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



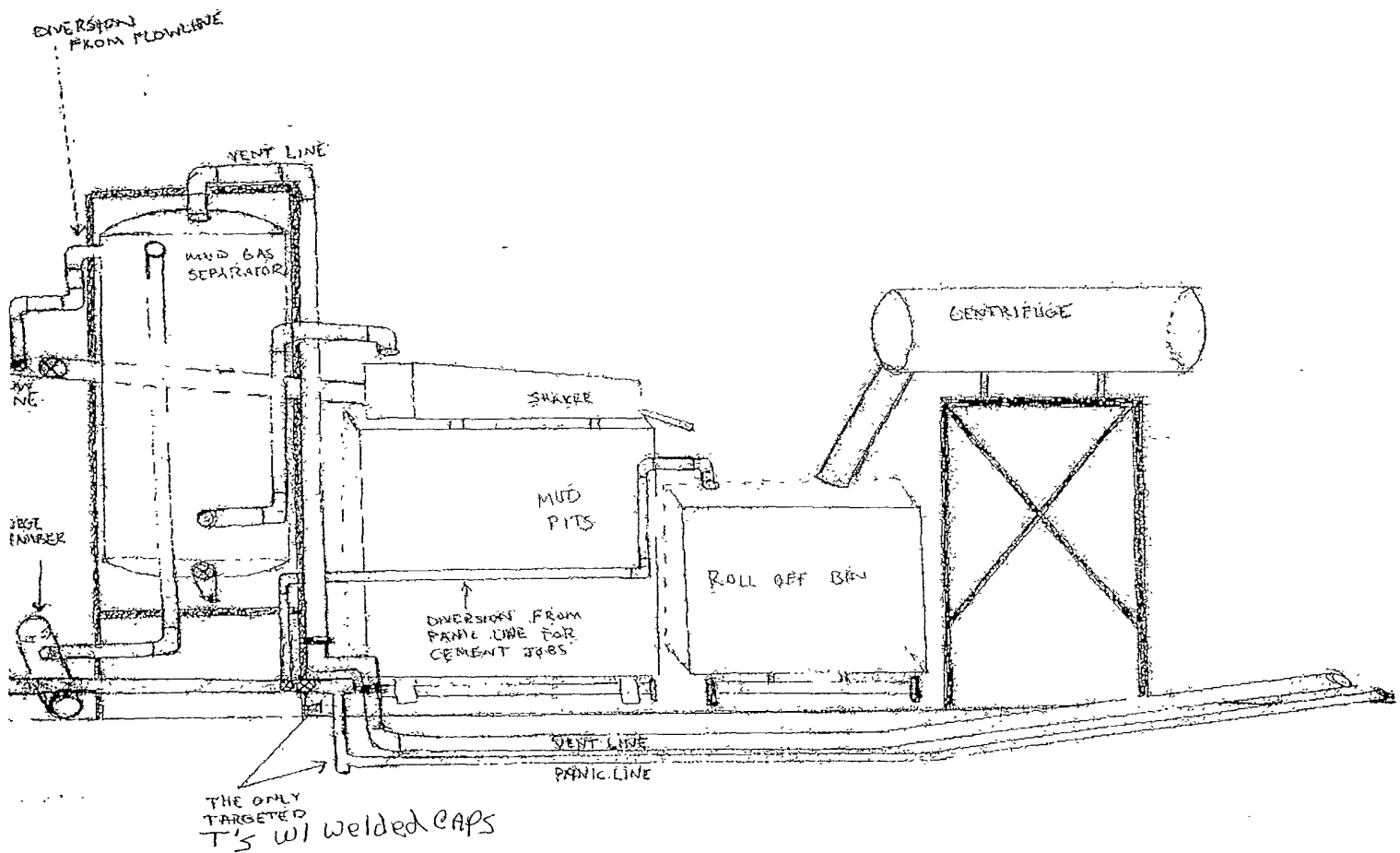
Typical 3,000 psi choke manifold assembly with at least these minimum features



### Federal GR #2H

660' FNL & 660' FEL Surface Hole  
660' FNL & 660' FWL Bottom Hole  
Section 24, T17S-R24E  
Eddy County, New Mexico  
Exhibit "B"

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



**Federal GR #2H**

660' FNL & 660' FEL Surface Hole  
660' FNL & 660' FWL Bottom Hole  
Section 24, T17S-R24E  
Eddy County, New Mexico  
Exhibit "C-1"

LABDALE  
BAZ FED  
Com 1H

**Federal GR #2H**

660' FNL & 660' FEL Surface Hole  
660' FNL & 660' FWL Bottom Hole  
Section 24, T17S-R24E  
Eddy County, New Mexico  
Exhibit "A"

Combo  
3600

MADCAP BET  
FED 1H

SHL

BHL

BHL

FEDER  
GR 2H

Emergency Landing Field

(Abernethy)

DITCH

Draw

Eagle

Jug Well

Well

Well

Gravel Pit

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**  
**YATES PETROLEUM CORPORATION**  
**Federal GR #2H**  
660' FNL and 660' FEL Surface Hole  
660' FNL and 660' FWL Bottom Hole  
Section 24-T17S-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 8 miles (approximately .9 of mile past Mile Marker 100) west of Artesia, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Take Hwy 82 west from the intersection of 13<sup>th</sup> & Main in Artesia, New Mexico for approximately 8 miles (approximately .9 of a mile past mile marker 100). Turn left here at a cattle guard with a gate. Combination for the lock is 3600. Cross cattle guard and go approximately .8 of a mile on the existing lease road. There will be pit here and a lease road going to the left. Continue going south on to a two track road on the west side of the pit for approximately .2 of a mile to a "T" in the road. The new road will start here angling to the southeast for approximately .1 of a mile to the northwest corner of the proposed well location.

2. PLANNED ACCESS ROAD:

- A. The proposed new access will be approximately .1 mile in length from the point of origin to the northeast corner of the drilling pad.
- B. The existing lease road is 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. The existing road is bladed with and has drainage on one side. Some traffic turnouts have been built.
- D. The route of the road is visible.
- E. The existing road 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. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power until an electric 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:

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

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 land fill. 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 reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the “Pit Rule” 19.15.17 NMAC.
- 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. 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.



CERTIFICATION  
YATES PETROLEUM CORPORATION  
Federal GR #2H

I hereby certify that I or the company I represent, have inspected the drill site and access route proposed herein; that the company I represent is familiar with the conditions which currently exist; that full knowledge of state and federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that 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 10th day of November, 2009

Printed Name Cy Cowan

Signature 

Position Title Land Regulatory Agent

Address 105 South Fourth Street, Artesia, NM 88210

Telephone 575-748-4372

E-mail (optional) cy@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 Corp.
LEASE NO.:	NM660
WELL NAME & NO.:	Federal GR # 2H
SURFACE HOLE FOOTAGE:	660' FNL & 660' FEL
BOTTOM HOLE FOOTAGE:	660' FNL & 660' FWL
LOCATION:	Section 24, T. 17 S., R 24 E., NMPM
COUNTY:	Eddy County, New Mexico

## TABLE OF CONTENTS

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

- ☐ **General Provisions**
- ☐ **Permit Expiration**
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- ☐ **Noxious Weeds**
- ☐ **Special Requirements**
  - Lesser Prairie Chicken
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- ☐ **Reserve Pit Closure/Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**

## **I. GENERAL PROVISIONS**

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

## **II. PERMIT EXPIRATION**

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

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

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

## **IV. NOXIOUS WEEDS**

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

## **V. SPECIAL REQUIREMENT(S)**

## **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 to be stripped is approximately        inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

### **C. RESERVE PITS**

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 150' X 150' on the West side of the well pad.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

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.

**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.

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

### B. CASING

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

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



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

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

**Water Flows in the San Andres  
Lost circulation in the Grayburg and San Andres  
Potential for high pressure in the Wolfcamp  
Possible BHP up to 3,040 psi**

1. The 13 3/8 inch surface casing shall be set at **approximately 350 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 9 5/8 inch intermediate casing is:  
☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Pilot hole is required to have a plug at the bottom of the hole. If two plugs are set, the BLM is to be contacted (575-361-2822) prior to tag of bottom plug, which must be a minimum of 200' in length. Operator can set one plug from bottom of pilot hole to kick-off point and save the WOC time for tagging the first plug.**

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. Casing cut-off and BOP installation will not be initiated until the cement has had 4-6 hours of setup time in a water basin and 12 hours in the potash areas. This time will start after the cement plug is bumped. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.
  - b. The tests shall be done by an independent service company utilizing a test plug.
  - c. The results of the test shall be reported to the appropriate BLM office.
  - 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 appropriate BLM office.**
  - e. 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.
  - f. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### **D. 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.

**FW Gel/Air Mist is to be used to intermediate casing set point. If a water based mud is needed while drilling the intermediate borehole, it must be a fresh water mud.**

#### **E. DRILL STEM TEST**

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

**MAK 012810**

## **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.