

Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION

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

API NO. (assigned by OCD on New Wells)

30-105-21121

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

LG-2464

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL ☒ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☐

b. Type of Well:

OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☐ MULTIPLE ZONE ☐

2. Name of Operator

YATES PETROLEUM CORPORATION

3. Address of Operator

105 South Fourth Street, Artesia, New Mexico 88210

4. Well Location

Surface Unit Letter N : 990 Feet From The South Line and 2310 Feet From The West Line
Bottom M : 990
Section 36 Township 7 South Range 31 East NMPM Chaves County

10. Proposed Depth

4300' VD 6210' MD

11. Formation

San Andres

12. Rotary or C.T.

Rotary

13. Elevations (Show whether DF, RT, GR, etc.)

4402' GR

14. Kind & Status Plug. Bond

Blanket

15. Drilling Contractor

Undesignated

16. Approx. Date Work will start

ASAP

17.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4"	9 5/8"	36#	1700'	1000 sacks	Circulate
8 3/8"	7"	26#	4045' TVD	500 sacks	Tie Back to
6 1/8"	N/A	N/A	Open hole 4145'		9 5/8"

TVD

Yates Petroleum Corporation proposes to horizontally drill this well at a surface location of 990' FSL and 2310' FWL (Unit N) to a target bottom hole location of 990' FSL and 100' FWL (Unit M). The kick-off point is to be 3545' after drilling vertical to 4300' and plugging back. Surface casing will be set at 1700' and cement circulated. Drill to 4300' to determine top of P2 and bottom of P2. Plug back to 3545' and kick-off to top of target zone 4045' TVD and set 7" casing and cement back to 9 5/8" casing. Drill open hole to 4145' TVD at bottom hole target. Complete well open hole.

MUD PROGRAM: FW/Mud to 1700'; Brine to 4300' and 4045' TVD; Brine to TD.

BOPE PROGRAM: BOPE will be installed on the 9 5/8" casing and tested daily for operational.

* NOTE: See Attached OCD Order No. R-10022

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

SIGNATURE Clifton R. May TITLE Permit Agent DATE 12/16/93

TYPE OR PRINT NAME Clifton R. May TELEPHONE NO. 748-4347

(This space for State Use)

ORIGINAL SIGNED BY JERRY SEITZ
DISTRICT I SUPERVISOR

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY.

Permit Expires 6 Months From Approval
Date Unless Drilling Underway.

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

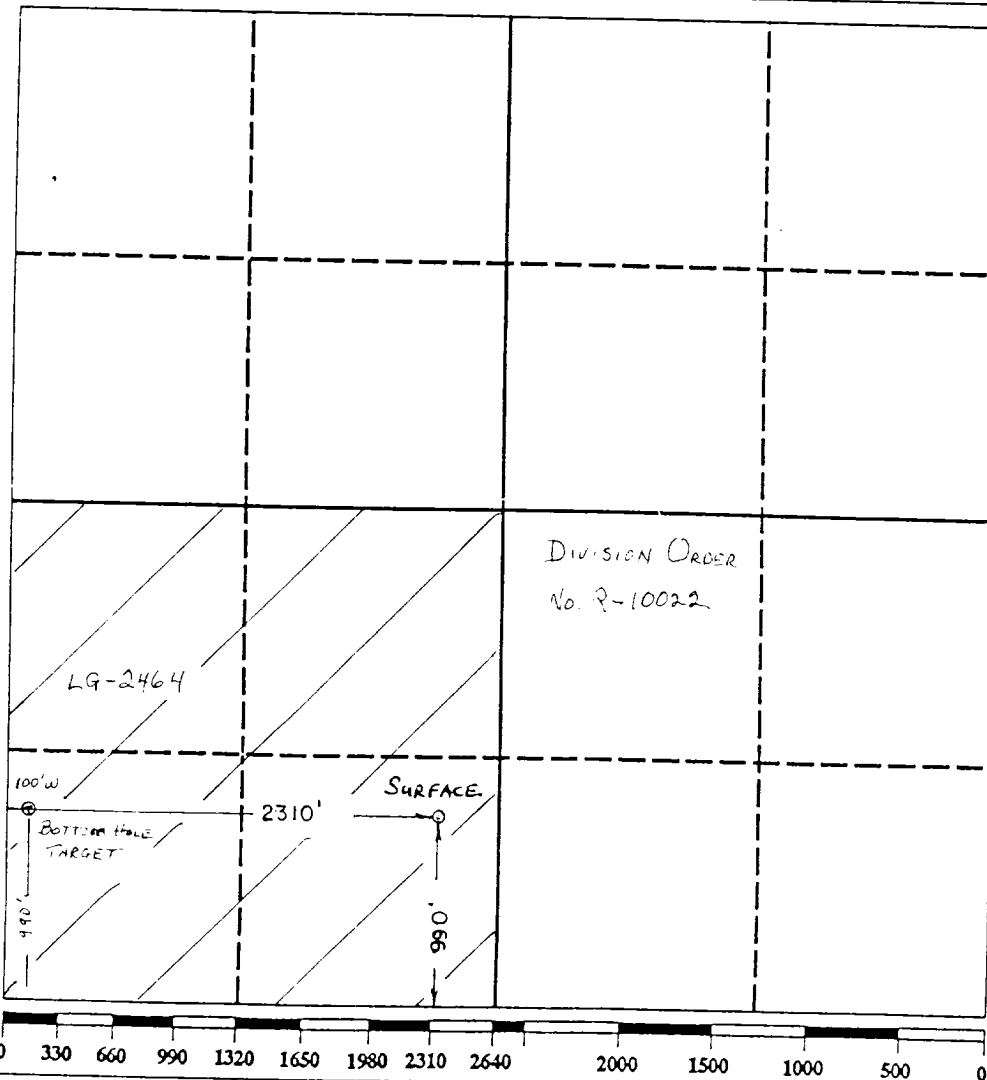
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator YATES PETROLEUM CORPORATION			Lease LOVELESS "LQ" STATE		Well No. 9
Unit Letter N	Section 36	Township 7 SOUTH	Range 31 EAST	County CHAVES	
Actual Footage Location of Well: 990 feet from the SOUTH line and 2310 feet from the WEST line					
Ground level Elev. 4402	Producing Formation SAN ANDRES		Pool TOMAHAWK - SAN ANDRES	Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, 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

Clifton R. May

Printed Name

Clifton R. May

Position

Permit Agent

Company

Yates Petroleum Corporation

Date

12/16/93

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 knowledge and belief.

Date Surveyed

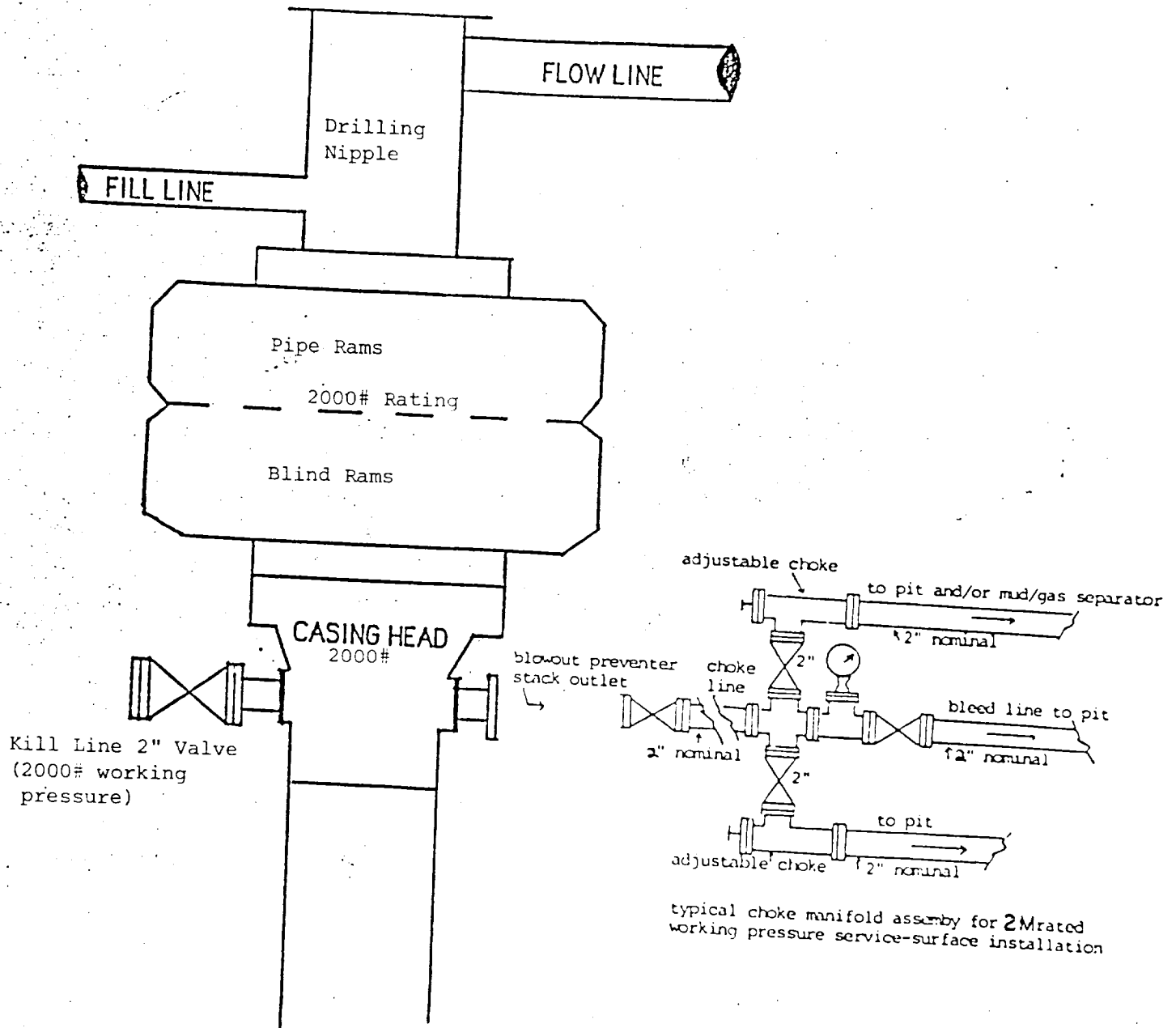
10/28/93

Signature & Seal of
Professional Surveyor

Certificate No.

3640

YATES PETROLEUM CORPORATION



**BLOWOUT PREVENTER
2M SYSTEM**

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

RECEIVED
NOV 23 1993
CAMPBELL, CARR, et. al.

CASE NO. 10863
Order No. R-10022

APPLICATION OF YATES PETROLEUM
CORPORATION FOR A HORIZONTAL
DIRECTIONAL DRILLING PILOT PROJECT
AND SPECIAL OPERATING RULES THEREFOR,
CHAVES COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on November 4, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 23rd day of November, 1993, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Yates Petroleum Corporation, seeks authority to initiate a horizontal directional drilling pilot project in the Tomahawk-San Andres Pool underlying the SW/4 of Section 36, Township 7 South, Range 31 East, NMPM, Chaves County, New Mexico, thereby creating a non-standard 160-acre oil spacing and proration unit for said pool.

(3) The applicant further seeks authority to horizontally drill its proposed Loveless "LQ" State Well No. 9 at a surface location 990 feet from the South line and 2310 feet from the West line (Unit N) of Section 36 in the following unconventional manner:

Drill vertically to a depth of 4,300 feet. Log well to determine top and bottom of P-2 pay interval and fracture orientation within the San Andres formation. Plug back to a depth of 3,545 feet and kick off from the vertical at this depth drilling in an estimated westerly direction building angle so as to penetrate the top of the P-2 interval at a true vertical depth of approximately 4,045 feet. Continue drilling horizontally a distance of approximately 1,710 feet at such an angle so as to bottom said wellbore at the base of the P-2 interval at a true vertical depth of approximately 4,145 feet.

(4) The applicant further seeks:

- a) the adoption of special operating provisions and rules within the pilot project area including the designation of a prescribed area limiting the horizontal or producing portion of the wellbore such that it can be no closer than 100 feet from the outer boundary of the project area;
- b) approval of a 160-acre non-standard oil proration unit comprising the SW/4 of Section 36;
- c) a special project allowable equal to four times the normal allowable for a standard 40-acre spacing unit.

(5) The proposed well is located within the Tomahawk-San Andres Pool which is currently governed by Statewide Rules and Regulations which require standard 40-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit, a standard oil allowable of 80 barrels of oil per day, and a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil.

(6) Through its evidence and testimony, the applicant demonstrated that the proposed horizontal wellbore, which is experimental in nature, should encounter a substantially greater number of natural fractures within the P-2 member of the San Andres formation than would a conventional wellbore, which should substantially increase the productivity of the subject well and which should ultimately result in the recovery of a greater amount of oil and gas from the proposed project area, thereby preventing waste.

(7) Petroleum Development Corporation, the only affected offset operator, expressed its support of Yates' application by letter which was submitted as evidence in this case.

(8) No other offset operator and/or interest owner appeared at the hearing in opposition to the application.

(9) The SW/4 of Section 36 is currently being developed in the Tomahawk-San Andres Pool by the Loveless "LQ" State Well Nos. 4, 6, 7 and 8 located, respectively, in Units K, L, M and N. All of these wells are currently marginal producing wells in the subject pool.

(10) Horizontal drilling within the SW/4 of Section 36 should result in the recovery of a significant volume of oil and gas which will otherwise not be recovered by the existing conventional vertical wellbores, thereby preventing waste.

(11) In the interest of conservation and prevention of waste, the application of Yates Petroleum Corporation for a horizontal directional drilling project should be approved.

(12) According to applicant's evidence, the proposed 100 foot setback from the outer boundary of the project area will allow the flexibility to extend the wellbore the maximum distance.

(13) The project allowable should be based upon the number of standard 40-acre proration units within the project area which are developed or traversed by the horizontal wellbore, or $(4 \times 80 \text{ BOPD}) = 320 \text{ BOPD}$.

(14) The applicant should be required to determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant should be required to conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.

(15) The applicant should notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.

(16) The applicant should be required to submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Hobbs offices of the Division.

IT IS THEREFORE ORDERED THAT:

- (1) The applicant, Yates Petroleum Corporation, is hereby authorized to initiate a horizontal directional drilling pilot project in the Tomahawk-San Andres Pool underlying the SW/4 of Section 36, Township 7 South, Range 31 East, NMPM, Chaves County, New Mexico, thereby creating a non-standard 160-acre oil spacing and proration unit for said pool, also hereby approved.
- (2) The applicant is further authorized to horizontally drill its Loveless "LQ" State Well No. 9 at a surface location 990 feet from the South line and 2310 feet from the West line (Unit N) of Section 36 in the following unconventional manner:

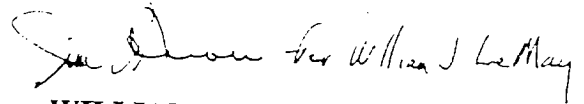
Drill vertically to a depth of 4,300 feet. Log well to determine top and bottom of P-2 pay interval and fracture orientation within the San Andres formation. Plug back to a depth of 3,545 feet and kick off from the vertical at this depth drilling in an estimated westerly direction building angle so as to penetrate the top of the P-2 interval at a true vertical depth of approximately 4,045 feet. Continue drilling horizontally a distance of approximately 1,710 feet at such an angle so as to bottom said wellbore at the base of the P-2 interval at a true vertical depth of approximately 4,145 feet.
- (3) The horizontal or producing portion of the wellbore shall be located no closer than 100 feet from the outer boundary of the project area.
- (4) The applicant shall determine the actual location of the kick-off point prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of the wellbore during or after completion of drilling operations.
- (5) The applicant shall notify the supervisor of the Hobbs district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed.
- (6) The applicant shall submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Hobbs offices of the Division.
- (7) The allowable assigned to the project area in the Tomahawk-San Andres Pool shall be equal to 320 barrels of oil per day.

CASE NO. 10863
Order No. R-10022
Page -5-

(8) Jurisdiction of this cause is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

990' FSL & 100' FWL

990' FSL & 1810' FWL

990' FSL & 2310' FWL

Yates Petroleum Corp.
Loveless LQ State No. 9
HORIZONTAL PROSPECT
Tomahawk San Andres
SECTION VIEW

Drawing Not To Scale

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico

Case No. 10863 Exhibit No. 6

Submitted by: Yates Petroleum Corporation

Hearing Date: November 4, 1993

