



**PHILLIPS PETROLEUM COMPANY**

ODESSA, TEXAS 79762  
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP  
Permian Basin Region

October 7, 1991

New Mexico Dept. of Energy and Minerals  
Oil Conservation Division  
P. O. Drawer DD  
Artesia, New Mexico 88210

Attn: Mr. Mike Williams

Re: Drilling Permit Request  
Molly State #4  
660' FWL, 1980' FNL  
Section 1, T-22S, R-31E  
Eddy County, New Mexico  
State of NM-V-3605  
216679-000

Gentlemen:

State Lease V-3605 was offered at the February 1991 State Lease Sale. Phillips was the high bidder and was awarded the lease effective March 1, 1991. This is the lease upon which we are proposing to drill and requesting a drilling permit. Prior to purchasing said lease, Phillips contacted Mr. Tony Herrel in the Carlsbad BLM office to confirm that this acreage is not inside the "LMR" for any existing potash Lessee's mapping or in a proven, minable locale. This assurance was received.

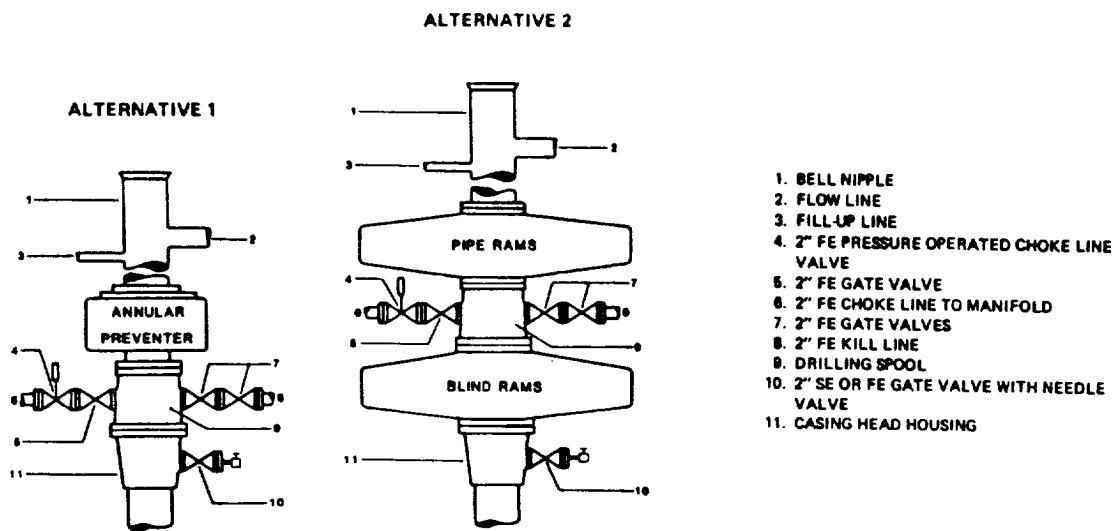
We again contacted Mr. Herrel on August 22, 1991 and were reassured of the above. Based upon this information, we request your assistance in an early issuance of our permit so that we may expedite the drilling of the referenced well. Thank you for your cooperation and kind assistance. We look forward to your early approval of this permit request.

Please call me at (915) 368-1228 should you have any questions.

Sincerely,

Troy E. Richard  
Landman

TER:ter



NOTE: THE DRILLING SPOOL MAY BE LOCATED BELOW BOTH SETS OF RAMS IF A DOUBLE PREVENTER IS USED AND IT DOES NOT HAVE SUITABLE OUTLETS BETWEEN RAMS

Figure 7-9. Standard Hydraulic Blowout Preventer Assembly  
(2 M or 3 M Working Pressure) Alternative 1

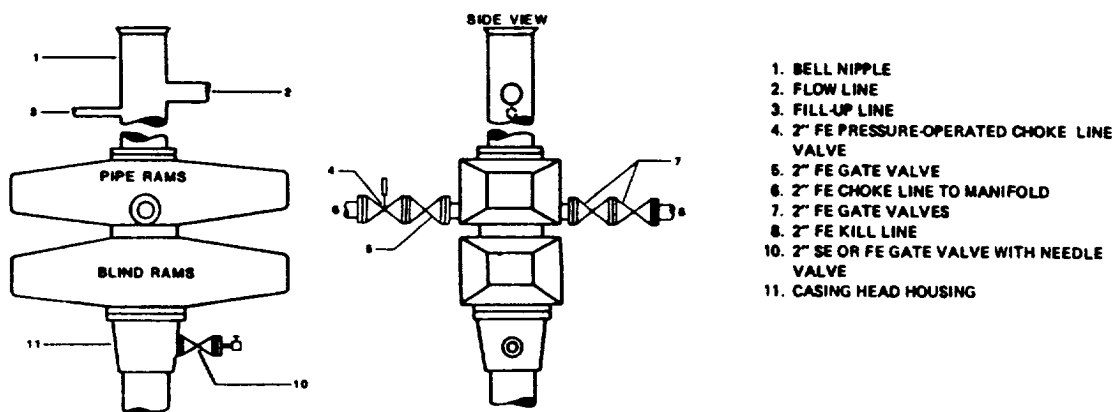


Figure 7-10. Standard Hydraulic Blowout Preventer Assembly  
(2 M or 3 M Working Pressure) Alternative 3 (without Drilling Spool)

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

OIL CONSERVATION DIVISION

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

API NO. (assigned by OCD on New Wells)  
**30-015-26855**

5. Indicate Type of Lease  
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.  
NM -V-3605

7. Lease Name or Unit Agreement Name

Molly State

8. Well No.  
4

9. Pool name or Wildcat  
☒ Livingston Ridge (Delaware)

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  
Phillips Petroleum Company

3. Address of Operator  
4001 Penbrook Street, Odessa, Texas 79762

4. Well Location  
Unit Letter E : 1980 Feet From The North Line and 660 Feet From The West Line  
Section 1 Township 22-S Range 31-E NMPM Eddy County

10. Proposed Depth  
8700'  
11. Formation  
Delaware  
12. Rotary or C.T.  
rotary

13. Elevations (Show whether DF, RT, GR, etc.)  
3557' (Unprepared)  
14. Kind & Status Plug. Bond  
Blanket  
15. Drilling Contractor  
Advise later  
16. Approx. Date Work will start  
Upon approval

PROPOSED CASING AND CEMENT PROGRAM					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13-3/8"	54.5#	850'	700 sx C	Surface
12 1/4"	8-5/8"	24&32#	4500'	1200 sx C & Tail 200 sx C	Surface
7 7/8"	5-1/2"	15.5 & 17#	8700'	1st stage 400 sx C	7000'

2nd stage 200 sx C - Circ 4000'  
Tail 300 sx C Neat 5500'

Part ID-1  
10-18-91  
New Loc + API

APPROVAL VALID FOR 180 DAYS  
PERMIT EXPIRES 4/16/92  
UNLESS DRILLING UNDERWAY

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 [Signature] TITLE Supervisor Reg. Proration DATE 10-7-91

TYPE OR PRINT NAME L.M. Sanders TELEPHONE NO. 368-1488

(This space for State Use)  
ORIGINAL SIGNED BY  
MIKE WILLIAMS  
SUPERVISOR, DISTRICT II

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE OCT 18 1991

CONDITIONS OF APPROVAL, IF ANY:

NOTIFY N.M.O.C.D. IN SUFFICIENT  
TIME TO WITNESS CEMENTING THE  
1338-858-5 1/2 CASING

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

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>PHILLIPS PETROLEUM COMPANY</b>			Lease <b>MOLLY STATE</b>		Well No. <b># 4</b>
Unit Letter <b>E</b>	Section <b>I</b>	Township <b>22-SOUTH</b>	Range <b>31-EAST</b>	County <b>EDDY</b>	
Actual Footage Location of Well: <b>1980</b> feet from the <b>NORTH</b> line and <b>660</b> feet from the <b>WEST</b> line					
Ground level Elev. <b>3557</b>	Producing Formation <b>LIVINGSTON RIDGE (DELAWARE)</b>		Pool <b>Livingston Ridge (Delaware)</b>		Dedicated Acreage: <b>40</b> Acres
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>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).</p> <p>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.? <input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>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 each interest, has been approved by the Division.</p>					
					<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>Signature: <i>[Signature]</i></p> <p>Printed Name: <b>L.M. Sanders</b></p> <p>Position: <b>Supervisor Reg/Proration</b></p> <p>Company: <b>Phillips Petroleum Company</b></p> <p>Date: <b>10-7-91</b></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 knowledge and belief.</p> <p>Date Surveyed: <b>SEPTEMBER 12, 1991</b></p> <p>Signature &amp; Seal of Professional Surveyor: <i>[Signature]</i></p> <p>Certificate No. <b>4882</b></p>

PROPOSED CASING & CEMENTING PROGRAM

MOLLY STATE WELL NO. 4

13 3/8" 54.5 lb/ft J-55 Surface Casing Set at 850' - 17 1/2" Hole:

Circulate to surface with 700 sacks of Class "C" + 2% CaCl<sub>2</sub>.

Slurry Weight:	14.8 ppg <sub>3</sub>
Slurry Yield:	1.32 ft <sup>3</sup> /sx
Water Requirement:	6.3 gals/sx

8 5/8" 24 & 32 lb/ft J-55 Intermediate Casing Set at 4500' - 12 1/4" Hole:

Lead: 1200 sx Class "C" 65/35 Poz + 6% Bentonite + 15 lb/sx Salt.  
Desired TOC = Surface.

Slurry Weight:	13.2 ppg <sub>3</sub>
Slurry Yield:	1.92 ft <sup>3</sup> /sx
Water Requirement:	9.9 gals/sx

Tail: 200 sx Class "C" + 10 lb/sx salt.

Slurry Weight:	15.2 ppg <sub>3</sub>
Slurry Yield:	1.38 ft <sup>3</sup> /sx
Water Requirement:	6.3 gals/sx

5 1/2" 15.5 & 17 lb/ft J-55 Production Casing Set at 8700' - 7 7/8" Hole:

Set stage tool at approximately 7000'.

1st Stage: 400 sx Class "C" + 0.6% FL-20 + 0.2% FWC-2. Desired TOC = 7000'.

Slurry Weight:	14.8 ppg <sub>3</sub>
Slurry Yield:	1.32 ft <sup>3</sup> /sx
Water Required:	6.3 gal/sx

2nd Stage:

Lead: 200 sx Class "C" + 20% Diacel "D". Desired TOC = 4000'.

Slurry Weight:	12.0 ppg <sub>3</sub>
Slurry Yield:	2.69 ft <sup>3</sup> /sx
Water Required:	15.5 gal/sx

Tail: 300 sx Class "C" Neat. Desired TOC = 5500'.

Slurry Weight:	14.8 ppg <sub>3</sub>
Slurry Yield:	1.32 ft <sup>3</sup> /sx
Water Required:	6.3 gal/sx

# MUD PROGRAM

MOLLY STATE WELL NO. 4

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	CL PPM	% SOLIDS	ADDITIVES
Surf - 850'	8.3-9.0 ppg	28-36 sec/1000 cc	-	-	-	Native Solids
400' - 4500'	10.0 ppg	29-32 sec/1000 cc	-	Saturated	-	Native Solids
4500' - 5500'	8.3-9.5 ppg	28-36 sec/1000 cc	-	-	-	
5500' - 8700'	8.5-9.0 ppg	32-38 sec/1000 cc	15 cc or less	-	-	Gel/Driscap Plus

The Mud Engineer shall include on each test report the materials used for the previous 24 hr. period. Twice weekly mail copies of the test reports to:

A. C. Sewell  
4001 Penbrook  
Odessa, Texas 79762

Send two copies of the Well Recap (Final Cost & Engineering Summaries) to A. C. Sewell at the above address.