N. M. OIL CONS. COMMISSION
P. O. BOX 1980
HOBBS, NEW MEXICO 88240

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT 3-17-97 MM

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-86153

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---

7. UNIT AGREEMENT NAME: ---

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: TOMCAT "21" FEDERAL COM #2

2. NAME OF OPERATOR: PENWELL ENERGY INC. (BILL PIERCE) Ph. 915-683-2534

9. API WELL NO.:

3. ADDRESS AND TELEPHONE NO.: 600 NORTH MARIENFELD SUITE 1100 MIDLAND, TEXAS 79701

10. FIELD AND POOL, OR WILDCAT: WILDCAT Morrow

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FSL & 1980' FEL SEC. 21 T23S-R32E LEA CO. NEW MEXICO
At proposed prod. zone: SAME Unit J

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC.21 T23S-R32E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 30 miles West of Jal New Mexico

12. COUNTY OR PARISH: LEA CO. 13. STATE: NEW MEXICO

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	990'	16. NO. OF ACRES IN LEASE: 1000	17. NO. OF ACRES ASSIGNED TO THIS WELL: 320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	1980'	19. PROPOSED DEPTH: 16,000'	20. ROTARY OR CABLE TOOLS: ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3680' GR.

22. APPROX. DATE WORK WILL START*: As soon as approved

23. PROPOSED CASING AND CEMENTING PROGRAM

CARLSBAD CONTROLLED WATER BASIN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	X-56 20"	94	600'	600 Sx. Circulated to surface
17½"	L-80 13 3/8"	72	4700'	2000 Sx. "
12¼"	P-110 9 5/8"	53.5	12,500'	1700 Sx. "
8½"	P-110 7"	29	15,000' (liner)	275 Sx.
6½"	P-110 4½"	13.5	16,000' (liner)	125 Sx.

WITNESS
WITNESS

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED PAGE.

OPER. OGRID NO. 14738D
PROPERTY NO. 20481
POOL CODE V
EFF. DATE 4/8/97
API NO. 30-025-33810

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Joe T Janica TITLE Agent DATE 03/14/97

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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:

ORIG. SGD.: TONY L. FERGUSON ADM. MINERALS 4-4-97

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
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	Pool Code	Pool Name
30-025-33910	✓	WILDCAT Morrow

Property Code	Property Name	Well Number
20481	TOMCAT FEDERAL "21" COM.	2

OGRID No.	Operator Name	Elevation
147380	PENWELL ENERGY INC.	3680'

Surface Location

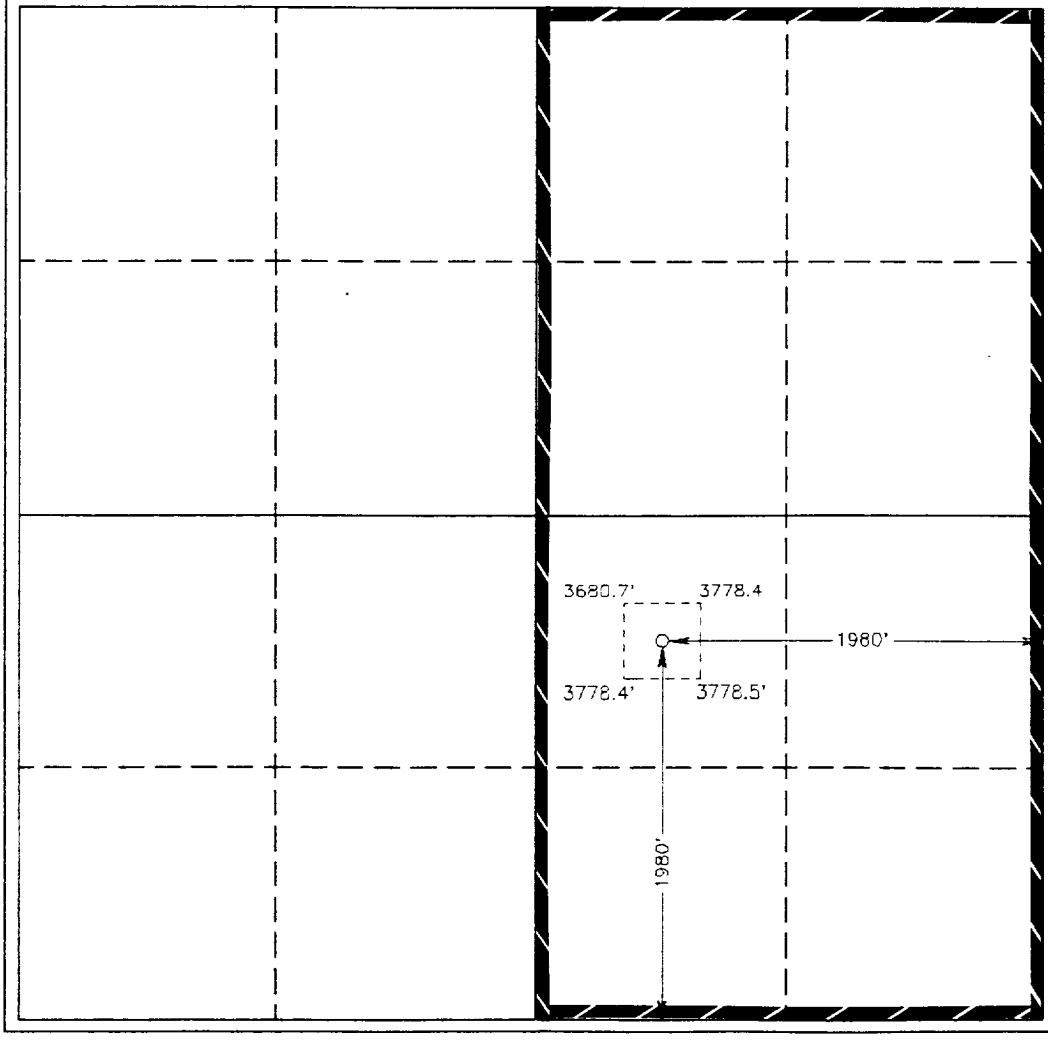
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	21	23 S	32 E		1980	SOUTH	1980	EAST	LEA

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	Joint or Infill	Consolidation Code	Order No.
320			

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 the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Joe T. Janica
Printed Name

Agent
Title

03/14/97
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 supervison, and that the same is true and correct to the best of my belief.

March 6, 1997
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

Num. 7114D

Certificate No. GARY L. JONES 7977

EXHIBIT "A"

1. Drill 26" hole to 600'. Run and set 600' of X-56 20" 94# casing. Cement with 600 Sx. Class "C" neat + 2% CaCl, circulate cement to surface.

2. Drill 17½" hole to 4700'. Run and set 4700' of 13 3/8" BTC L-80 72# casing. Cement with 1500 Sx. Class "C" Halco Light, tail in with 500 Sx. Class "C" + additives, circulate cement to surface.

3. Drill 12¼" hole to 12,500'. Run and set 12,500' of 9 5/8" 53.5# P-110 LT&C casing. Cement with 1200 Sx. Class "H" Halco Light, tail in with 500 Sx. Class "H" neat, circulate cement to surface.

4. Drill 8½" hole to 15,000'. Run and set 7" 29# 8-R LT&C liner from 12,000' to TD 15,000'. cement liner with 275 Sx. of Class "H" + additives.

5. Drill 6½" hole to 16,000'. Run and set 4½" 13.5# 8-R LT&C P-110 production liner from 14,500 to TD 16,000' cement with 125 Sx. Class "H" + additives.

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT FEDERAL "21" COM.#2
SEC.21 T23S-R32E
LEA CO. N.M.

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1. Location: 1980' FSL & 1980' FEL SEC. 21 T23S-R32E LEA CO. NM

2. Elevation above sea level: 3680' GR.

3. Geologic name of surface formation: Quaternery Aeolian Deposits.

4. Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5. Proposed drilling depth: 16,000'

6. Estimated tops of geological markers:

DELAWARE	4,900'	STRAWN	13,700'
BONE SPRING	8,700'	ATOKA	13,900'
WOLFCAMP	12,150'	MORROW	15,100'

7. Possible mineral bearing formation:

DELAWARE	OIL	STRAWN	GAS
BONE SPRING	OIL	ATOKA	GAS
WOLFCAMP	OIL	MORROW	GAS

8. Casing program:

Hole size	Interval	OD casing	Weight	Thread	Collar	Grade	Condition
26"	0-600'	20"	94#	8-R	ST&C	X-56	NEW
17½"	0-4700'	13-3/8"	72#	8-R	ST&C	L-80	NEW
12¼"	0-12500'	9-5/8"	53.5#	8-R	LT&C	P-110	NEW
8½"	12000-15000'	7"	29#	8-R	LT&C	P-110	NEW
6½"	14500-16000'	4½"	13.5#	8-R	LT&C	P-110	NEW

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT FEDERAL "21" COM #2
SEC. 21 T23S-R32E
LEA CO. N.M.

9. Cementing and Setting Depth:

20"	Surface	Set 600' of 20" 94# 8-R ST&C casing. Cement with 600 sx Class "C" Neat + 2% CaCl. Circulate cement to surface.
13-3/8"	1st Intermediate	Set 4700' of 13-3/8" 72# BTC L-80 casing. Cement with 1500 sx Class "C" Halco Light. Tail in with 500 sx Class "C" + additives. Circulate cement to surface.
9-5/8"	2nd Intermediate	Set 12,500' of 9-5/8" 53.5# P-110 LT&C casing. Cement with 1200 sx of Class "H" Halco Light, tail in with 500 sx Class "H" neat + additives. Circulate cement to surface.
7"	1st Production Liner	Set 7" 29# *-R LT&C P-110 Liner from 12,000' to 15000' Cement with 275 sx Class "H" + additives.
4½"	2nd Production Liner	Set 4½" 13.5# 8-R LT&C P-110 Liner from 14500' to TD. Cement with 125 sx Class "H" + additives.

10. Pressure Control Equipment: Exhibit "E". A BOP (no less than 2900 Series 10,000 PSI working pressure.) consisting of double ram and bag type preventor. BOP unit will be hydraulically operated. Exhibit "E-1" Choke Manifold and Closing Unit. Blind Rams on top, Pipe Rams on bottom to correspond with the size of drill pipe in use. BOP will be nipped up on 13 3/8" casing and remain on well until casing is run and cemented. BOP will be tested as well as the Choke Manifold. BOP will be worked at least once each day while drilling and Blind Rams will be worked on trips when drill pipe is out of hole. Full opening stabbing valve and upper kelly cock will be utilized.

11. Proposed Mud Circulating System:

Depth	Mud Wt.	Visc,	Fluid Loss	Type Mud
0-600'	8.4-8.6	29-34	NC	Fresh water spud mud add paper to control seepage
600-4700'	10-10.5	29-34	NC	Brine water use paper for seepage & Lime for pH control
4700-12500'	9-9.5	29-34	NC	Cut Brine with Drispac, starch soda ash & Lime.
12500-15000'	12-13	38-45	10cc or less	Brine water starch, Barite soda ash & Lime.
15000-16000'	10-10.5	28-32	NC	Brine water.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, unexpected kiks. In order to run DST'S, open hole logs, and casing the viscosity and water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

PENWELL ENERGY, INC.
TOMCAT FEDERAL "21" COM #2
SEC. 21 T23S-R32E
LEA CO. N.M.

12. Testing, Logging and Coring Program:

A. Gamma Ray from TD to surface, Caliper from TD to 13 3/8" casing shoe.

B. CNL-LDT, DUAL Laterlog, MSFL and Caliper from TD to 13 3/8" casing shoe.

C. Mud logger on from 4700' to TD.

D. Cores and DST'S will be taken as shows dictate.

13. Potential Hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H_2S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 9000 PSI, estimated BHT 185 .

14. Anticipated Starting Date and Duration of Operation:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 60-75 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Morrow pay will be perforated and stimulated. The well will be swab tested and potentialed as a gas well.

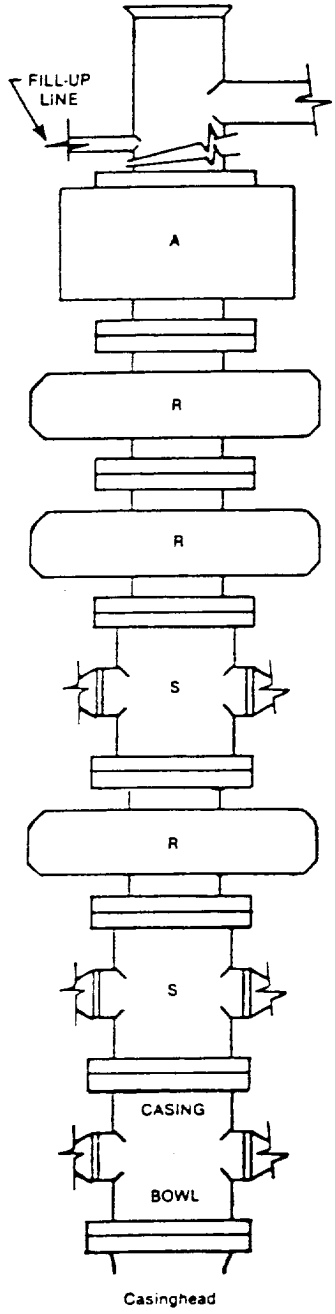


FIGURE K1-3. Recommended IADC Class 10 BOP stack arrangement SRSRRA, 10,000 psi WP. Lower drilling spool is optional with outlets on lower ram. Annular preventers 10,000 psi.

EXHIBIT "E"
B.O.P. SKETCH TO BE USED ON

PENWELL ENERGY, INC.
TOMCAT "21" FEDERAL COM. # 2
UNIT "J" SECTION 21
T23S-R32E LEA CO. NM