

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. Lease Number
NM-04240
Unit Reporting Number

6. If Indian, All. or Tribe

7. Unit Agreement Name

8. Farm or Lease Name
Kelly

9. Well Number
#4M

10. Field, Pool, Wildcat
Blanco MV/Basin DK
11. Sec., Twn, Rge, Mer. (NMPM)
G Sec.35, T-30-N, R-10-W
API # 30-045- 30403

12. County San Juan 13. State NM

16. Acres in Lease

17. Acres Assigned to Well
~~320~~ E/2
 317.32

19. Proposed Depth 7290'

20. Rotary or Cable Tools

22. Approx. Date Work will Start

DOMESTIC OPERATIONS AUTHORIZED ARE
 SUBJECT TO COMPLIANCE WITH ATTACHED
 'DOMESTIC REQUIREMENTS'.

Date 10-20-00

APPROVAL DATE 11/14/01

TITLE *AFM*

DATE 11/14/01

Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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 United States any false, fictitious or fraudulent statements or presentations as to any matter within its jurisdiction.

~~NSLm Bastin Dinkota~~

NOTES

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

☐ AMENDED REPORT

DISTRICT IV
PO-Box-2088, Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045- 30403	² Pool Code 72319/71599	³ Pool Name Blanco Mesaverde/Basin Dakota
⁴ Property Code 7218	⁵ Property Name KELLY	⁶ Well Number 4M
⁷ DGRID No. 14538	⁸ Operator Name BURLINGTON OIL AND GAS, INC.	⁹ Elevation 6193'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	35	30-N	10-W		1730'	NORTH	1895'	EAST	SAN JUAN

¹¹ 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
¹² Dedicated Acres E/317.32			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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

16	FD B.L.M. BC 1967	N 89°58'42" W 2610.2' (M)	FD B.L.M. BC 1967	1730'	1895'	LAT. 36°46.3'N LONG. 107°51.1'W	35	USA NM-04240	FD B.L.M. BC 1967	17 OPERATOR CERTIFICATION	
										I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
										Signature <i>Peggy Cole</i> Peggy Cole Printed Name Regulatory Supervisor Title 11-1-00 Date	
										18 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.	
										Date of Survey 8-29-00 Signature and Seal of Professional Surveyor <i>[Signature]</i> 8894 Certificate Number	

BURLINGTON OIL AND GAS, INC.

KELLY 4M

SEC. 35, T-30-N, R-10-W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

1730' FNL, 1895' FEL

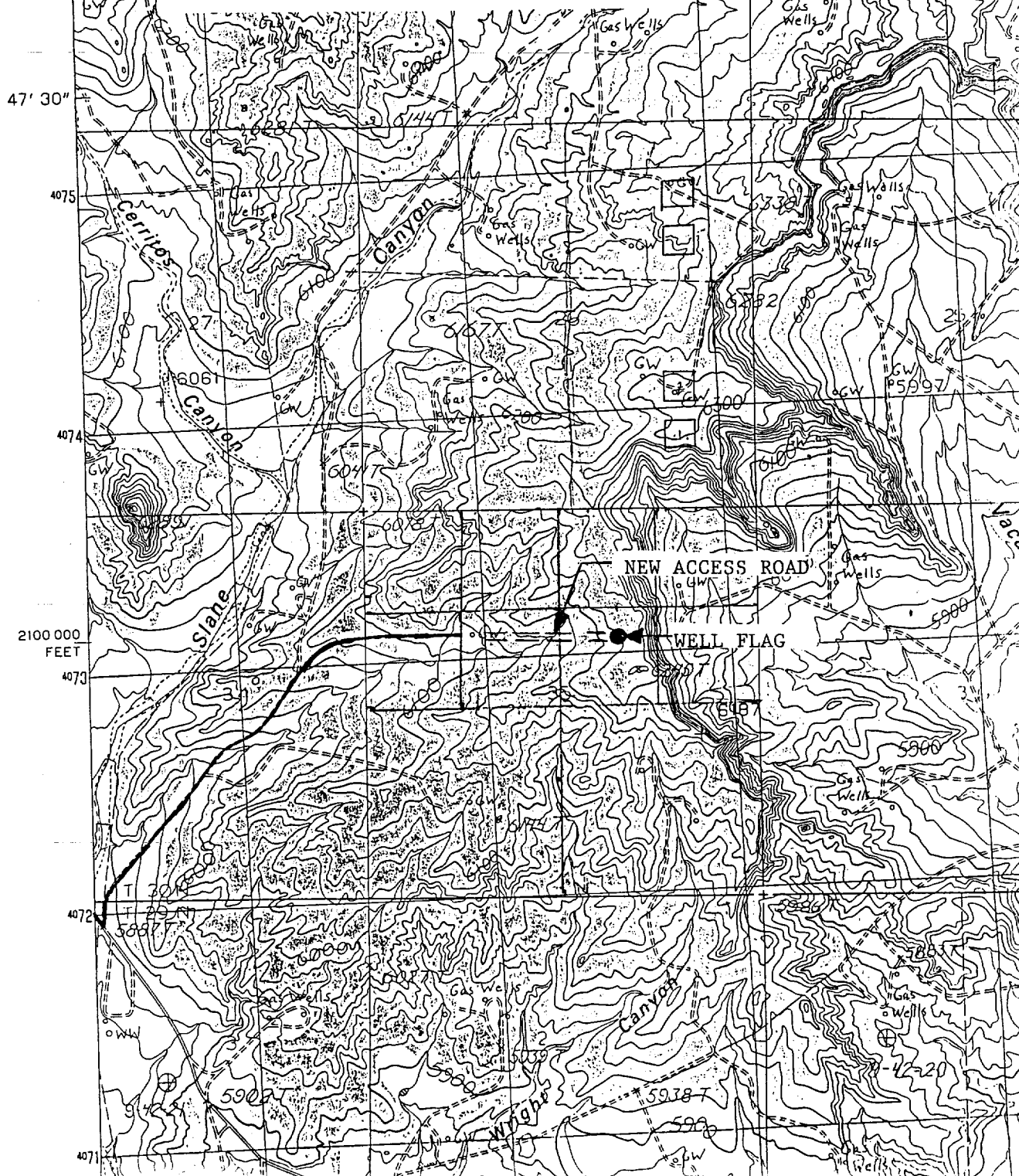
APD MAP #1

1200' NEW B.L.M. CONSTRUCTION

1200' SE/NW SECTION 35, T30N, R10W

800' NEW B.L.M. CONSTRUCTION

800' SW/NE SECTION 35, T30N, R10W



OPERATIONS PLAN

Well Name: Kelly #4M
Location: 1730' FNL, 1895' FEL, Sec 35, T-30-N, R-10-W
San Juan County, NM
Latitude 36° 46.3, Longitude 107° 51.1
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6193' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1455'	
Ojo Alamo	1455'	1596'	aquifer
Kirtland	1596'	2161'	gas
Fruitland	2161'	2730'	gas
Pictured Cliffs	2730'	2886'	gas
Lewis	2886'	3425'	gas
Intermediate TD	2986'		
Mesa Verde	3425'	3715'	gas
Chacra	3715'	4375'	gas
Massive Cliff House	4375'	4485'	gas
Menefee	4485'	4965'	gas
Massive Point Lookout	4965'	5380'	gas
Mancos	5380'	6231'	gas
Gallup	6231'	6975'	gas
Greenhorn	6975'	7025'	gas
Graneros	7025'	7082'	gas
Dakota	7082'		gas
TD	7290'		

Logging Program:

Cased hole - GR/CBL - TD to surface
Cores - none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200- 2986'	LSND	8.4-9.0	30-60	no control
2986- 7290'	Air/N2	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program (as listed, the equivalent, or better):

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 2986'	7"	20.0#	J-55
6 1/4"	0' - 7290'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 7290' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1).
After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1).
After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2).
After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" x 3000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing - cement with 159 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

Lead w/266 sx Class "G" w/3% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps flocele, 5 pps gilsonite (899 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar at 2061'. First stage: cement with 217 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps flocele, 5 pps gilsonite. Second stage: 210 sx Class "G" w/3% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# flocele/sx (899 cu.ft., 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 1596'. Two turbolating centralizers at the base of the Ojo Alamo at 1596'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Casing -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 440 sx 50/50 Class "G" Poz with 2% gel, 0.25# flocele/sx, 5# gilsonite/sx, 0.2% retardant and 0.4% fluid loss additive (633 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Cement float shoe on bottom with float collar spaced on top of shoe joint.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4 1/2" x 7" overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Dakota and Mesa Verde formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2500 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The east half of Section 35 is dedicated to the Mesaverde and Dakota in this well.
- This gas is dedicated.


Drilling Engineer

10/20/00
Date