

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEEN ☒PLUG BACK ☐

b. TYPE OF WELL

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

2. NAME OF OPERATOR

Blackwood & Nichols Co., Ltd.

3. ADDRESS OF OPERATOR

P.O. Box 1237, Durango, Colorado 81302-1237

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface

2100' FNL - 1330' FWL

At proposed prod. zone

same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

16 miles NE of Blanco, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

540'

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2450'

16. NO. OF ACRES IN LEASE

2314.56

19. PROPOSED DEPTH

3016'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

W/319.38

20. ROTARY OR CABLE TOOLS

Rotary

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

6140 GL

22. APPROX. DATE WORK WILL START*

April 1, 1989

This notice is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	GENERAL QUANTITY OF CEMENT
12 1/4"	9 5/8"	36#	300'	207 cuft to circulate
8 3/4"	7"	23 1/2#	2790'	781 cuft to circulate
6 1/4"	5 1/2"	17#	2690'-3016'	39 cuft to circulate

Propose to spud in the San Jose formation. Will drill a 12 1/4" surface hole to a TD of 300'. Run and cement surface casing with cement, returns to surface. WOC 12 hours. Test to 600 psi. Drill a 8 3/4" hole to a TD of 2790' using fresh water mud. No poisonous gases or abnormal pressures are anticipated. Casing will be run and cemented with cement returns to surface. Release drilling rig, move in completion rig. Test to 1500 psi. Drill a 6 1/4" hole to a TD of 3016' using water and air. Run a production liner. The liner may or may not be cemented, depending on hole conditions.

RECEIVED

This APD requests a gas pipeline ROW as shown on the attached Vicinity Map MAR 21 1989

OIL CON. DIV
DIST. 3

Surface ownership is Bureau of Reclamation

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. 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.

21.

SIGNED

William F. Clark

TITLE

Operations Manager

DATE

Jan 23, 1989

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AS AMENDED

MAR 27 1989

AREA MANAGER

*See Instructions On Reverse Side

All distances must be from the outer boundaries of the Section.

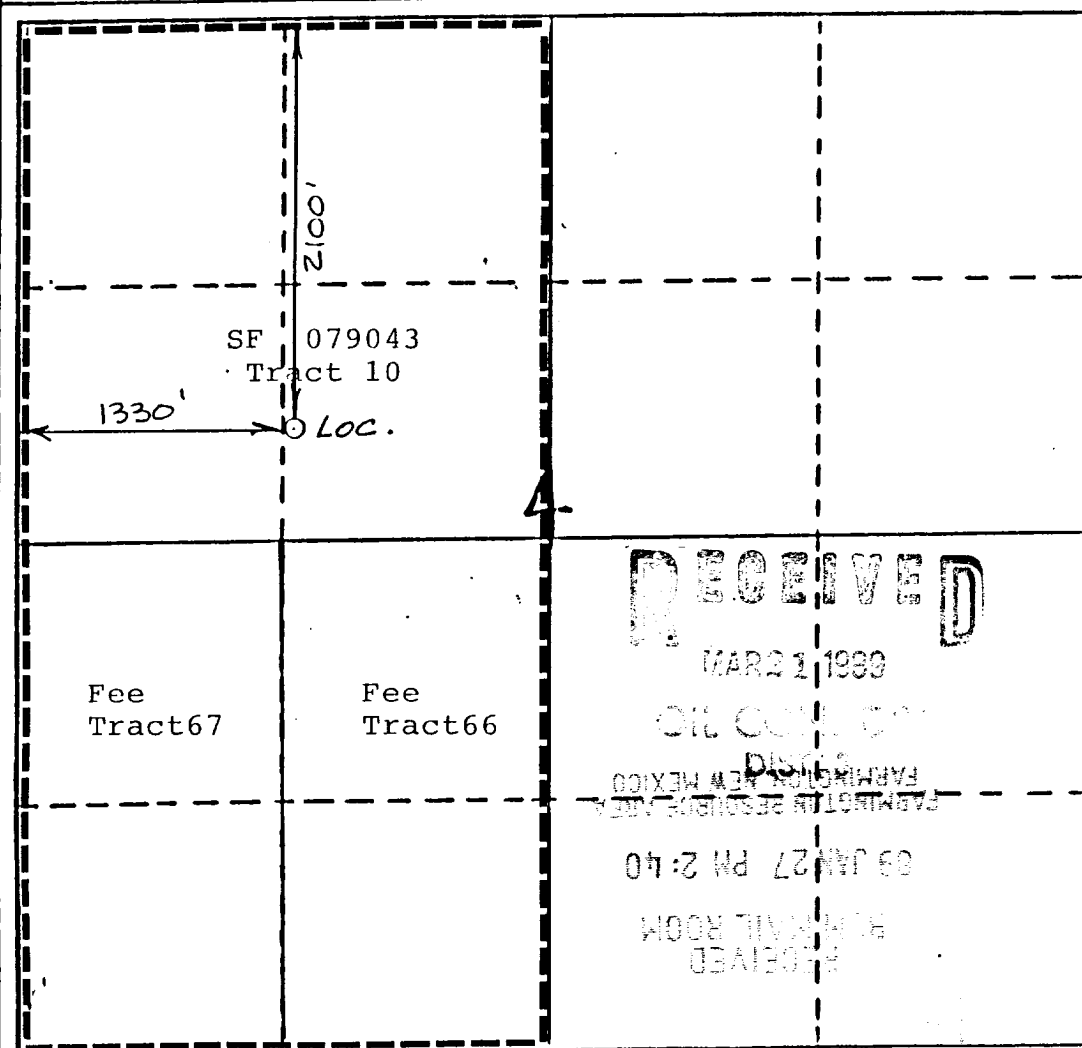
Operator Blackwood & Nichols Co., LTD.			Lease Northeast Blanco Unit		Well No. 424
Unit Letter F	Section 4	Township 30 North	Range 7 West	County San Juan	
Actual Footage Location of Wells 2100 feet from the North line and 1330 feet from the West line					
Ground Level Elev. 6140	Producing Formation Fruitland Coal		Pool Basin Fruitland Coal	Dedicated Acreage: 319.38 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 interests 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.) Tract 67 is uncommitted

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 interests, has been approved by the Division



CERTIFICATION

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

William F. Clark
Name

Position
Operations Manager

Company
Blackwood & Nichols Co.

Date
Jan 23, 1989

I hereby certify that the 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.

Heale C. Edwards
Date Surveyed
12/2/88

Registered Professional Engineer
and/or Land Surveyor

Heale C. Edwards

Certificate No.

6857

Blackwood & Nichols Co., Ltd.
Northeast Blanco Unit No. 424
2100' FNL - 1330' FWL
Section 4 , T30N, R7W
San Juan Co., New Mexico

Field: Basin Fruitland Coal

Elevation: 6140'GL

Geology:

Formation Tops: San Jose - Surface
Ojo Alamo - 1963'
Kirtland - 2134'
Fruitland - 2690'
Intermediate TD - 2790'
Total Depth - 3016'

Logging Program: No logs will be run at Intermediate TD.
A mud logging unit will be run from the
7" shoe to TD.

Drilling:

Contractor:

Toolpusher:

Operator's Representative:

Mud Program: 0 - 300': Spud mud of lime and gel.
300'- 2590': Benex and water with 5 sack gel
sweeps every 500' or less if hole
conditions dictate.
2590'- 2790': Fresh water, low solids mud. Mud
wt.- 9.5 to 10.0 ppg, as necessary
to control well. 35-40 sec./qt.
viscosity. 6-8 cc water loss.

Start mud up 100' above Fruitland

2790'- 3016': Water and Air.

Materials:

Casing Program:

Hole Size	Depth Set	Casing Size	Wt. & Grade
12 1/4"	300'	9 5/8"	36# , K-55
8 3/4"	2790'	7"	23# , K-55
6 1/4"	2690-3016'	5 1/2"	17# , N-80

C. J. COLE, D.W.

Materials: Cont'd

Float Equipment:

- 9 5/8" surface casing - Texas Pattern Guide Shoe. Threadlock guide shoe.
- 7" Intermediate Casing- Texas Pattern Guide Shoe. Self fill insert float valve run one joint above shoe. Five bow spring centralizers run every other joint above shoe.
- 5 1/2" liner -Geyser guide shoe. Liner hanger with lead seal ring packoff.

Wellhead Equipment:

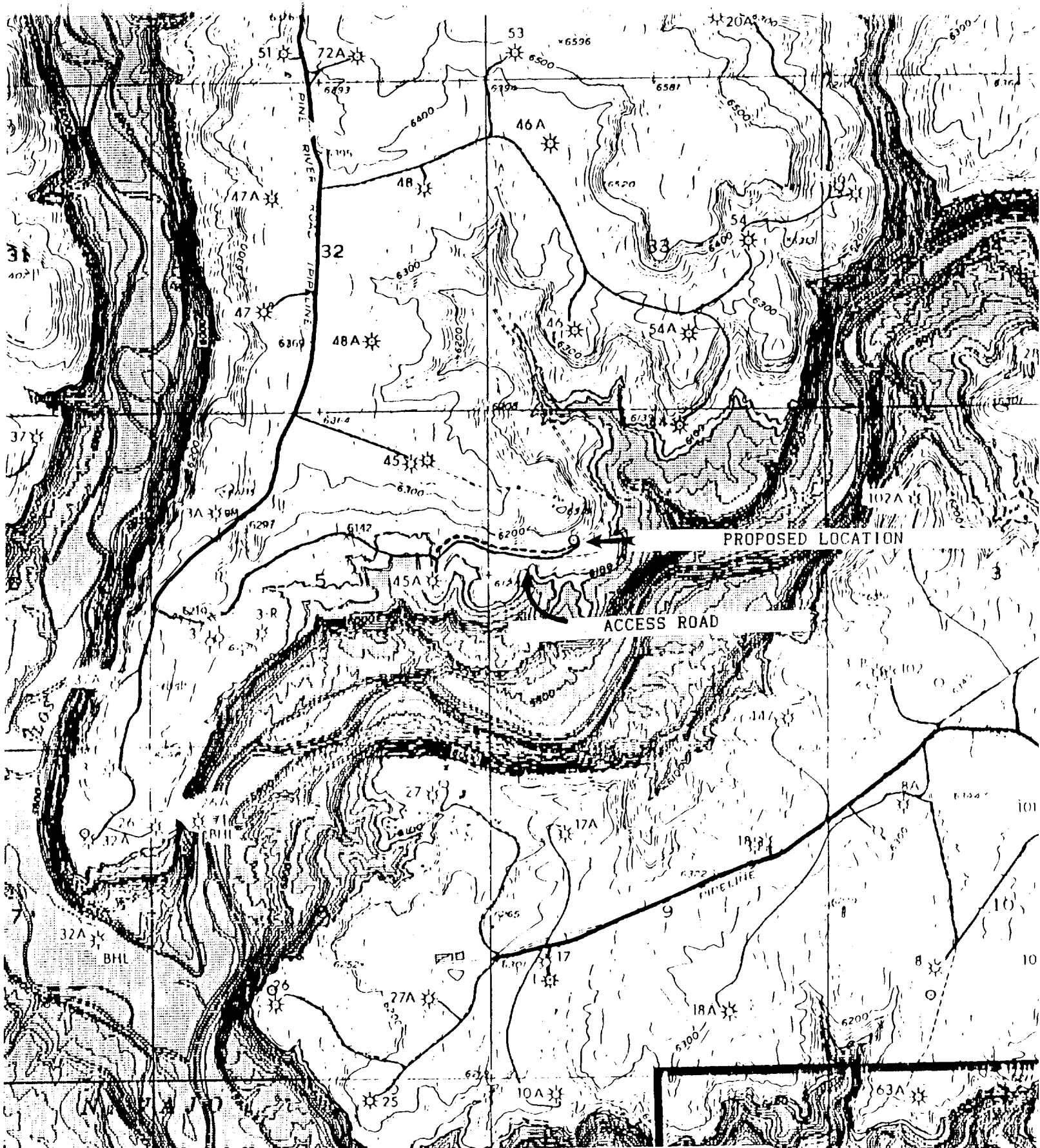
- 9 5/8"X 10" 3000 casing head with 5 1/2" automatic slips.
- 10" 3000 X 6" 3000 tubing head with a 2 7/8" EUE Tubing hanger.

Cement Program:

- 9 5/8" surface casing- 175 sacks(207 cuft) of Class B w/ 2% CaCl and 1/4# flocele per sack. 100 % excess to circulate to surface. WOC 12 hours. Pressure test to 600 psi for 30 minutes prior to drilling surface shoe.
- 7" Intermediate casing-390 sacks (663 cuft) of 65/35 Class B Poz with 6% gel, 1/4# flocele per sack and 0.6% fluid loss additive followed by 100 sacks Class B(118 cuft) with 1/4# flocele per sack. 70% excess to circulate to surface. WOC 12 hours. Pressure test to 1500 psi prior to drilling the shoe. Run temperature survey at 8 hours if cement does not circulate.
- 5 1/2" liner -30 sacks(39 cuft) of Class B with 0.2% retarder, 1% CaCl, 1.3% fluid loss additive, and 6 1/4# gilsonite/sack. 100 % excess to circulate to liner top. NOTE: Cement is optional. Liner may not be cemented if hole conditions dictate.

Miscellaneous:

- Operate pipe rams dailly and record in tour reports.
- Operate Blind rams on each trip and record in tour reports.
- 7" casing rams are to be installed prior to running the production casing.
- 5 1/2" casing rams are to be installed prior to running the liner.



VICINITY MAP
 Blackwood & Nichols Co., Ltd.
 Northeast Blanco Unit No. 424
 2100'FNL - 1330'FEL
 Section 4, T30N, R7W
 San Juan Co., New Mexico
 Pipeline RDW ---