

CASE 7188: BLACKWOOD & NICHOLS CO., LTD.
65 ~~WIDE~~ DIRECTIONAL DRILLING, SAN JUAN
COUNTY, NEW MEXICO

Case No.

7188

Application

Transcripts

Small Exhibits

ETC



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-9434

April 9, 1981

Mr. William F. Carr
Campbell, Byrd & Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Re: CASE NO. 7188
ORDER NO. R-6636

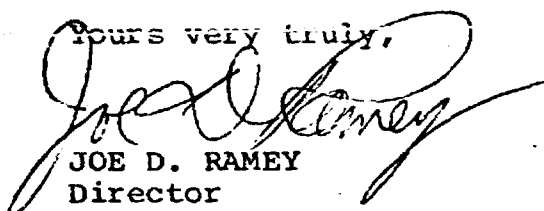
Applicant:

~~Blackwood & Nichols Co., Ltd.~~

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Division order recently entered in the subject case.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD x

Other _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 7188
Order No. R-6636

APPLICATION OF BLACKWOOD & NICHOLS
CO., LTD. FOR DIRECTIONAL DRILLING,
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 11, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 7th day of April, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Blackwood & Nichols Co., Ltd., seeks authority to directionally drill its Northeast Blanco Unit Well No. 20-A, the surface location of which is 1160 feet from the North line and 60 feet from the West line of Section 8, Township 30 North, Range 7 West, in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1190 feet from the North line and 790 feet from the West line of said Section 8, the W/2 of the section to be dedicated to the well.

(3) That applicant further seeks authority to directionally drill its Northeast Blanco Unit Well No. 32-A, the surface location of which is 1450 feet from the North line and 990 feet from the East line of Section 7, Township 30 North, Range 7 West, in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1850 feet from the South line and 990 feet from the East line of said Section 7, the E/2 of the section to be dedicated to the well.

(4) That the directional drilling of each of the above-described wells is necessitated by the presence of Navajo Lake which covers most of the surface of said proration units.

(5) That the applicant should be required to determine the subsurface location of the kick-off point on each well prior to directional drilling, and to determine the subsurface location of the bottom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said wells are to be completed as producing wells.

IT IS THEREFORE ORDERED:

(1) That the applicant, Blackwood & Nichols Co., Ltd., is hereby authorized to directionally drill its Northeast Blanco Unit Well No. 26-A, the surface location of which shall be 1160 feet from the North line and 60 feet from the West line of Section 8, Township 30 North, Range 7 West, in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1190 feet from the North line and 790 feet from the West line of said Section 8, the W/2 of the section to be dedicated to the well.

(2) That applicant is further hereby authorized to directionally drill its Northeast Blanco Unit Well No. 32-A, the surface location of which is 1450 feet from the North line and 990 feet from the East line of Section 7, Township 30 North, Range 7 West, in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1850 feet from the South line and 990 feet from the East line of said Section 7, the E/2 of the section to be dedicated to the well.

PROVIDED HOWEVER, that prior to directional drilling of each well, the operator shall determine the subsurface location of the kick-off point; and

PROVIDED FURTHER, that subsequent to the above-described directional drilling, should said wells be producers, a continuous multi-shot directional survey shall be made of the wellbore of each well from total depth to the kick-off point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Division's Aztec District Office of the date and time said survey is to be commenced.

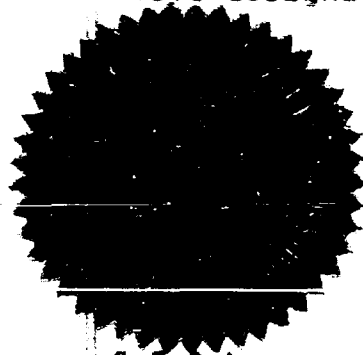
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Case No. 7188
Order No. R-6636

(3) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(4) That jurisdiction of this cause is 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.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
11 March 1981

EXAMINER HEARING

IN THE MATTER OF:

Application of Blackwood & Nichols
Co., Ltd., for directional drilling,
San Juan County, New Mexico.

CASE
7188

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

William F. Carr, Esq.
CAMPBELL, BYRD, & BLACK P.A.
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

DeLASSO LOOS

Direct Examination by Mr. Carr

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E X H I B I T S

Applicant Exhibit One, Documents

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Applicant Exhibit Two, Documents

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MR. STAMETS: Call next Case 7188.

MR. PADILLA: Application of Blackwood
and Nichols Company, Ltd., for directional drilling, San
Juan County, New Mexico.

MR. CARR: May it please the Commission,
my name is William F. Carr, with the law firm Campbell, Byrd,
and Black, Santa Fe, New Mexico, appearing on behalf of the
applicant.

I would request that the record show
that Mr. Loos, who will be testifying, is the same witness
who testified in the previous case and that he remains under
oath.

MR. STAMETS: The record will so show.

DeLASSO LOOS
being called as a witness and being previously sworn upon
his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your full name, please?

A DeLasso Loos.

Q Are you the witness that testified in
the previous case?

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2

A. I am.

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Q. Are you familiar with the application of Blackwood and Nichols Company, Limited, in Case 7188, and with the subject wells?

6

A. Yes, sir.

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8

MR. CARR: Are the witness' qualifications acceptable?

9

MR. STAMETS: They are.

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11

Q. Mr. Loos, will you briefly state what Blackwood and Nichols is seeking with this application?

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A. We have filed an application to drill a Mesaverde well in Section 8, 30 North, 7 West, San Juan County, New Mexico, and I would like to refer to United States Geological Survey map.

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Q. Is that included in --

A. Exhibit --

Q. -- your Exhibit Number One?

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A. Correct. The normal surface location of this proposed well is inundated by the Navajo Lake; therefore, we plan to build a location on the available surface land and directionally control -- drill this well out under the lake.

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The surface location 1190 feet, let's see, which one -- 1160 feet from the north line, 60 feet

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2 from the west line of Section 8, 30 North, 7 West. The sub-
3 surface target location will be 1190 from the north line,
4 790 from the west line of Section 8, 30 North, 7 West.

5 We propose to drill from the surface on
6 a bearing of south 87 degrees, 39 minutes east, to the target
7 subsurface target.

8 The next page is our tentative plan to
9 directionally control this well. At approximately 1000 feet
10 we will conventionally drill with mud, water-based mud, and
11 then go in the hole with -- with our Dyna-drill and begin to
12 build an angle, and by the time -- time we reach where we
13 want to set our 7-inch we will -- let's see, they didn't
14 do that exactly -- this is tentative, tentative plan here,
15 and they've got down here at 1400 feet vertical depth they'll
16 be at 8 degrees, 53 minutes angle, which would be 1443 feet
17 measured depth. But we will set our 7-inch at 3650 feet on
18 a vertical depth, and it hasn't been calculated here what
19 that will be on an angle measured depth; however, at TD to
20 a vertical depth of 5900 feet we will be on a measured depth
21 of 5955.83 feet.

22 And from the 7-inch we will drill with
23 gas as a circulating medium.

24 Q Mr. Loos, does Blackwood and Nichols
25 operate all the offsetting acreage to the lease on which this

1
2 well is to be drilled?

3 A Yes, sir. All, this well, all acreage
4 surrounding this well is within the boundary of the Northeast
5 Blanco Unit.

6 Q And what acreage do you propose to dedi-
7 cate to this well?

8 A The west half of Section 8, consisting
9 of 319.99 acres.

10 Q Now will the bottom hole location after
11 directionally drilling be at an orthodox location?

12 A Correct. We will -- our target, subsur-
13 face target will be within 100 feet of our calculated target,
14 except to the west, which we can't -- we will not go back to
15 the west. We'll have to go beyond.

16 Q Will you run a directional survey on
17 this well?

18 A Yes, sir.

19 Q And will you make the results of that
20 survey available to this Commission?

21 A Correct.

22 Q Will you now refer to Blackwood and
23 Nichols Exhibit Number Two and review this for Mr. Stamets?

24 A Incidentally, the subsurface target on
25 the 26-A is Federal royalty.

1
2 The proposed Northeast Blanco Unit No. 32-A Well,
3 similar, same conditions is the reason we want to drill this
4 well on a controlled basis, is that a normal location will be
5 inundated by the Navajo Lake.

6 The surface location will be 1450 feet
7 from the north line and 990 feet from the east line of Section
8 7, 30 North, 7 West. The target, subsurface target will be
9 1850 from the south line and 990 feet from the east line of
10 Section 7, 30 North, 7 West, which will be from a vertical,
11 surface vertical, we will be 1980 feet to the subsurface tar-
12 get.

13 The next page indicates our tentative
14 process for deviating this hole and from a vertical of 5900
15 feet we will have a measured depth TD of 6317 feet and our
16 maximum angle will be 24 degrees, 53 minutes from a vertical.

17 Q Mr. Loos, does Blackwood and Nichols also
18 control all the areage surrounding this location?

19 A Correct, all the acreage is within the
20 boundaries of the Northeast Blanco Unit.

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23 A The east half of Section 7, 31 North,
24 7 West.

25 Q Will the bottom hole location of this

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well be at a standard location?

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A. Correct.

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Q. And in the east half of that section do

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you have 320 acres so you can have a standard proration unit?

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A. Yes, sir.

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Q. In your opinion will granting this ap-

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plication be in the best interest of conservation, the pre-

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vention of waste, and the protection of correlative rights?

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A. Yes.

23

Q. Were Exhibits One and Two compiled

24

under your direction?

25

A. Yes, sir.

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2 MR. CARR: At this time, Mr. Stamets,
3 we would offer Blackwood and Nichols Exhibits One and Two.

4 MR. STAMETS: These exhibits will be
5 admitted.

6 Any questions of the witness? He may
7 be excused.

8 Anything further in this case?

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11 (Hearing concluded.)
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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREPY CERTIFY that
the foregoing Transcript of Hearing before the Oil Conserva-
tion Division was reported by me; that the said transcript
is a full, true, and correct record of the hearing, prepared
by me to the best of my ability.

Sally W. Boyd C.S.R.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is
a complete and correct transcript of the proceedings in
the case of 3-11 7/88
heard by me on 12/87.
Richard L. Hunt Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
11 March 1981

EXAMINER HEARING

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19 Q In your opinion will granting this ap-
20 plication be in the best interest of conservation, the pre-
21 vention of waste, and the protection of correlative rights?

22 A Yes.

23 Q Were Exhibits One and Two compiled
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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is
a complete and correct transcript of
the hearing held on _____ at _____
heard by _____, Examiner
Oil Conservation Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

Form No. 42 R1425

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. SF 079042	
1b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Blackwood & Nichols Co., Ltd.		7. UNIT AGREEMENT NAME NEBU Agreement No. 1, Sec. 929	
3. ADDRESS OF OPERATOR P. O. Box 1237, Durango, Colorado 81301		8. FARM OR LEASE NAME Northeast Blanco Unit	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface: 1160' F/NL - 60' F/WL At proposed prod. zone: 1190' F/NL - 790' F/WL		9. WELL NO. 26A	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Fifteen Miles		10. FIELD AND POOL, OR WILDCAT Blanco Mesaverde	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)		11. SEC., T., R., E., OR S.E. AND SURVEY OR AREA D-8-30N-7W	
16. NO. OF ACRES IN LEASE 1779.91		12. COUNTY OR PARISH San Juan	
17. NO. OF ACRES ASSIGNED TO THIS WELL 319.99		13. STATE New Mexico	
18. DISTANCE FROM PROPOSED* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 5955		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DP, RT, GR, etc.) 6136' GL		22. APPROX. DATE WORK WILL START* April 1, 1981	

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36.00# H-40	350'	Circulate
8 3/4"	7"	23.00# K-55	3650'	Two stage circulate to surface
6 1/4"	4 1/2"	10.50# K-55	5955'	Connect to 7"

NTL-6

- (3) San Jose
- (6) Ojo Alamo 1985'; Kirtland 2115'; Lewis 3490'; Cliffhouse 4890'; Mancos 5720'.
- (7) Fruitland 3000'; Pictured Cliffs 3240'; Massive Cliffhouse 5180'; Menefee 5220'; Point Lookout 5505'.
- (9) 9 5/8" surface; 300 sacks Class B cement with 2% CaCl₂; circulate to surface. 7" intermediate; 200 sacks Lite cement with 1/4# flocele per sack followed with 100 sacks Class B with 2% CaCl₂ and 1/4# flocele per sack. Second stage; 200 sacks Lite with 1/4# flocele per sack; to circulate to surface. 4 1/2" liner; 300 sacks 50-50 Pozmix with 2% gel, 0.6% FLA, 1/4# flocele per sack and 6 1/4# Gilsontite per sack to circulate to top of liner.
- (10) A 3000 PSI WP; Series 10" - 900 - adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with
- (Over) adequate kill and bleed off lines. Blowout preventer will be pressure tested after

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.

Signed DeLasso Loos TITLE District Manager DATE January 2, 1981

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

★ U.S. GOVERNMENT PRINTING OFFICE: 1974-781-025/VIII-239

(continued)

9 5/8" and 7" casing is set and will be tested as to operating condition during each trip while drilling. A rotating blowout preventer will be used while drilling with gas. (See schematic diagram)

- (11) A water base drilling mud of sufficient weight to control the Fruitland Formation will be used while drilling the 8 3/4" hole.
- (12) Compensated Density Gamma Ray-Neutron logs will be run in open hole. No testing or coring is anticipated.
- (13) Normal Fruitland field pressures are anticipated to be controlled with sufficient weighted mud. No hydrogen sulfide is anticipated.

BLACKWOOD & NICHOLS Co., LTD.

P.O. BOX 1237
DURANGO, COLORADO 81301

(303) 247-0728

January 2, 1981

United States Geological Survey
P.O. Box 959
Farmington, New Mexico 87401

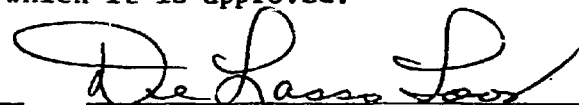
Gentlemen:

Blackwood & Nichols Co., Ltd., as operator of the Northeast Blanco Unit, proposes to drill the Northeast Blanco Unit Well No. 26A as an infill well located in the NW/4, Sec. 8-30N-7W, San Juan County, New Mexico. The well will be completed in the Mesaverde Zone.

Attached are maps and other data pertinent to the Development Plan for Surface Use.

- I. Existing roads; See attached U.S.G.S. topographic map.
- II, III, IV and IX: See attached maps.
- V. Water will be hauled by truck transport from the Navajo Lake, approximately seven miles south of the location.
- VII. Waste material will be placed in a reserve pit and later buried or burned.
- VIII. Camp or airstrip will not be necessary.
- IX. See attached map of well site layout. (Not to scale)
- X. Upon completion the location will be leveled to its original state. The access road will remain. The location will be seeded, as per the Bureau of Land Management requirements.
- IX. The location is relatively level and covered with Cedar and Pinon trees which will be disposed of as per the Bureau of Land Management requirements; an archaeological clearance will be obtained.
- XII. DeLasso Loos, 1032½ Main Street, Durango, Colorado 81301. Telephones: Office: 303-247-0728 Home: 303-247-2345.
- XIII. I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statement made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Blackwood & Nichols Co., Ltd. and its contractors and subcontractors in conformity with this plan and terms and conditions under which it is approved.

Date January 2, 1981


DeLasso Loos, District Manager

DL:st
Attachments

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

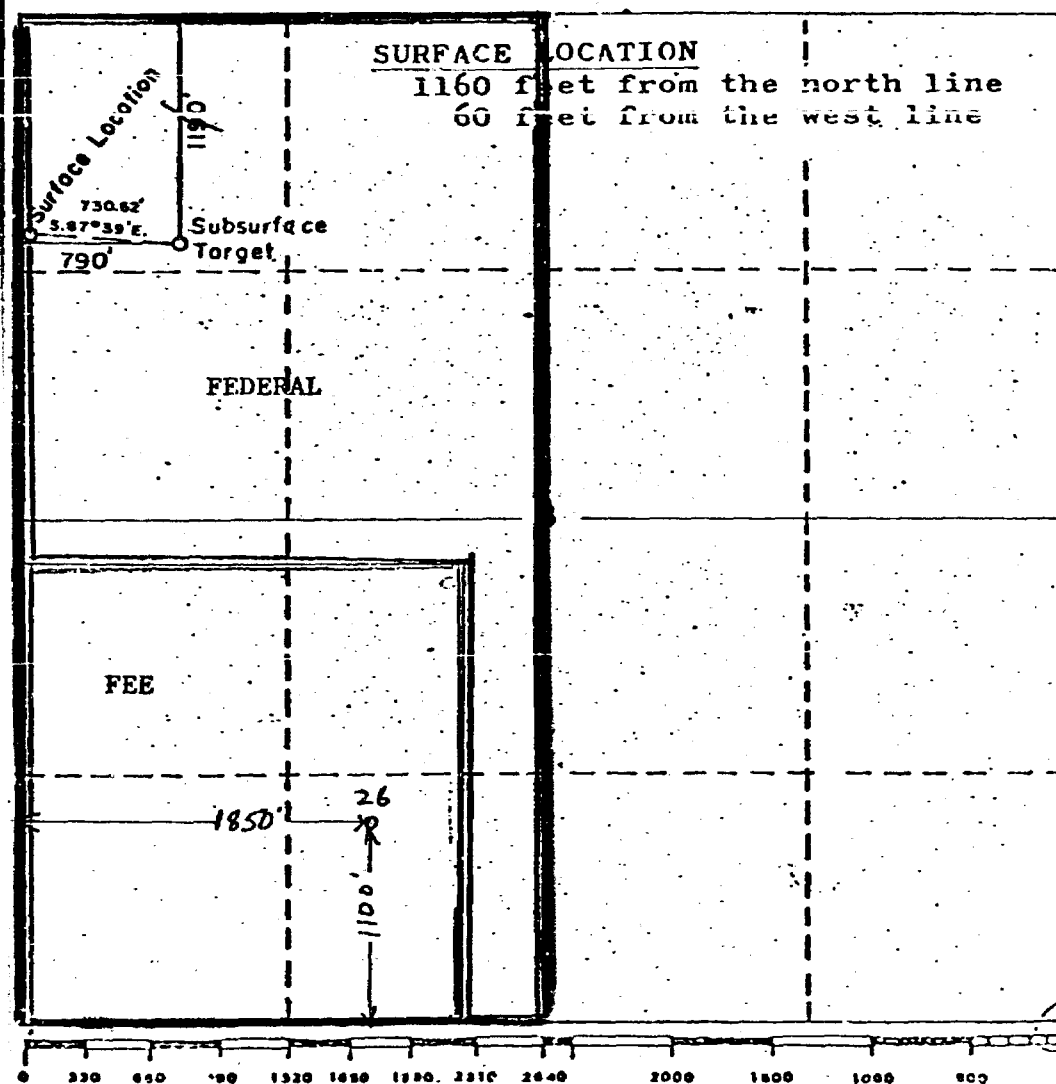
Operator BLACKWOOD & NICHOLS			Lease NORTHEAST BLANCO UNIT		Well No. 26A
Unit Letter D	Section 8	Township 30 N.	Range 7W., N.M.P.M.	County SAN JUAN	
Actual Footage Location of Well: 1190 feet from the north line and 790 feet from the west line					
Ground Level Elev. 6136 U.G.	Producing Formation Mesaverde		Pool Blanco-Mesaverde	Dedicated Acreage 319.99 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 Unitization

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 interests, has been approved by the Commission.



CERTIFICATION

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

De Lasso Loos
Name

DeLasso Loos
Position

District Manager
Company

Blackwood & Nichols Co., Ltd.
Date

October 20, 1980

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.

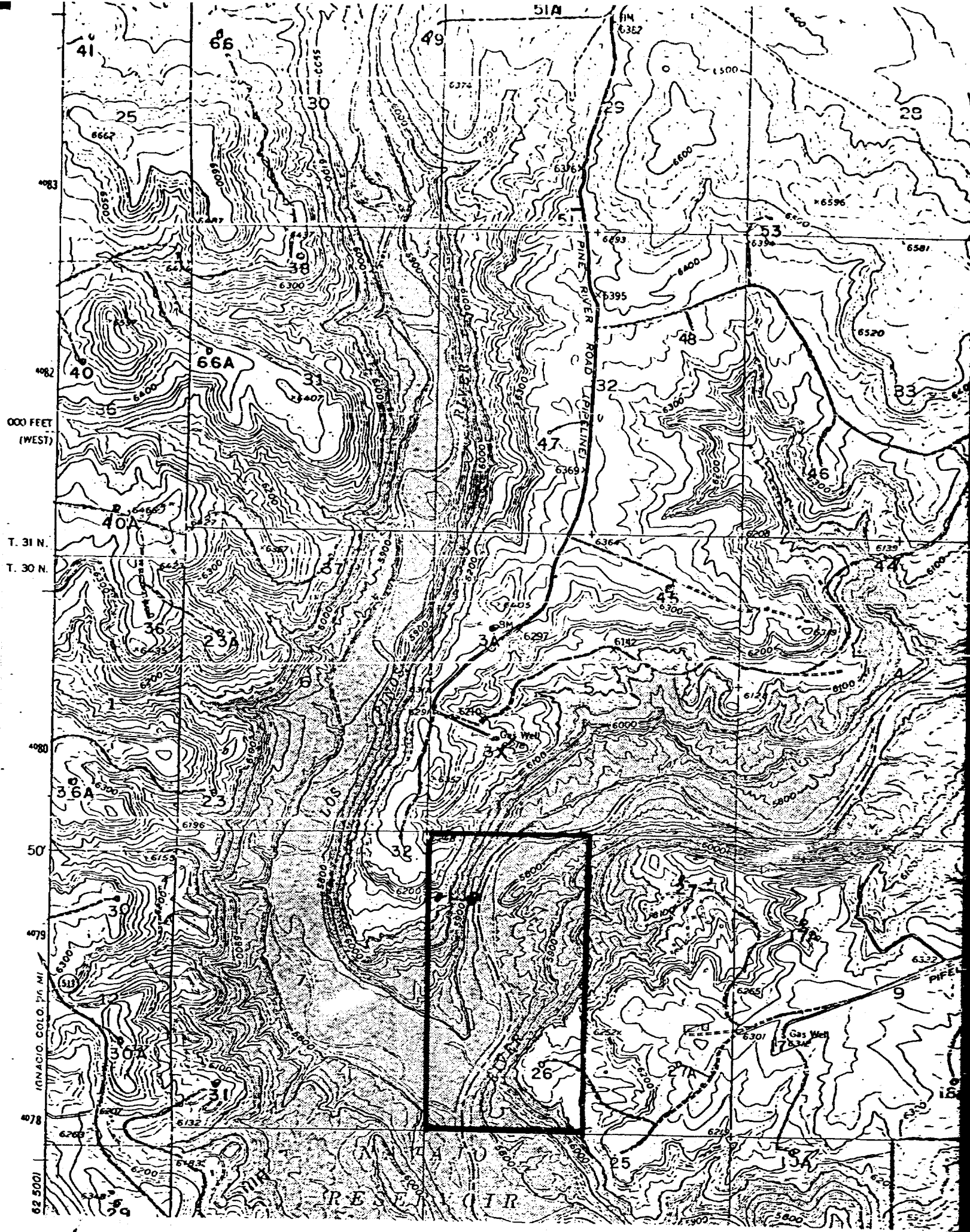
October 14, 1980
Date Surveyed

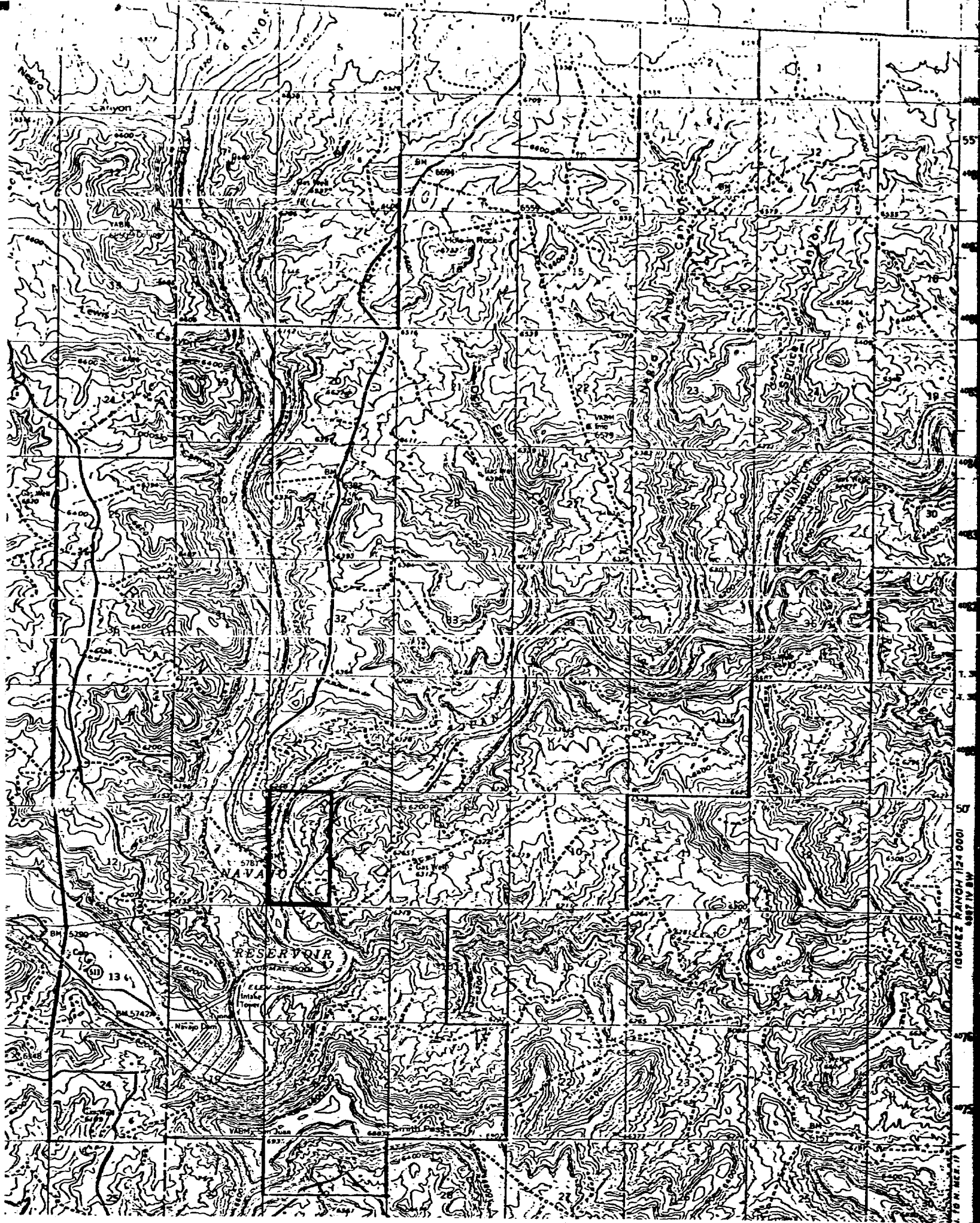
Registered Professional Engineer I
and/or Land Surveyor

John A. E. ...
John A. E. ...

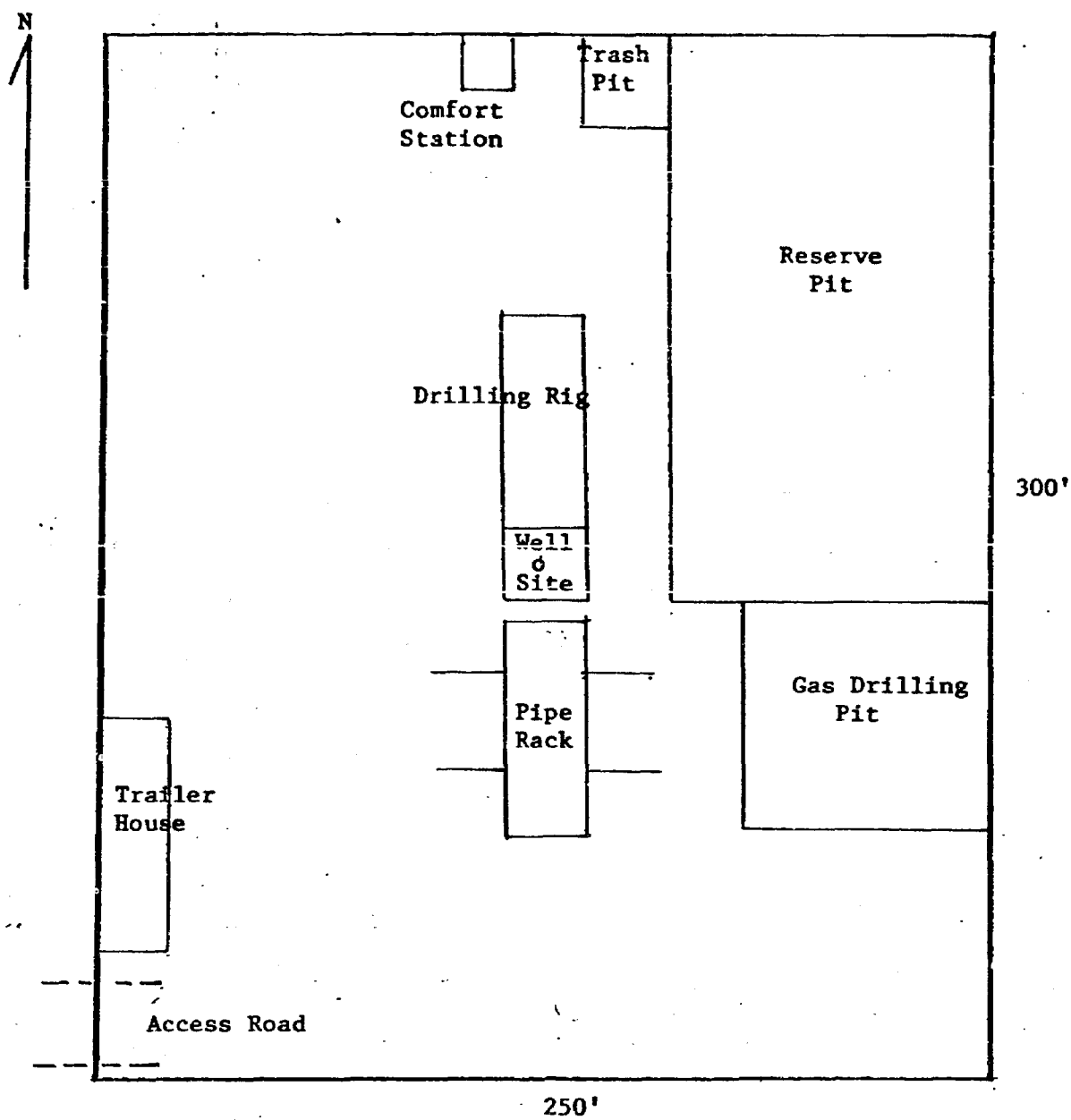
Certificate No. 1941

L. J. Reeves
Eastman Whipstock Representative - Date

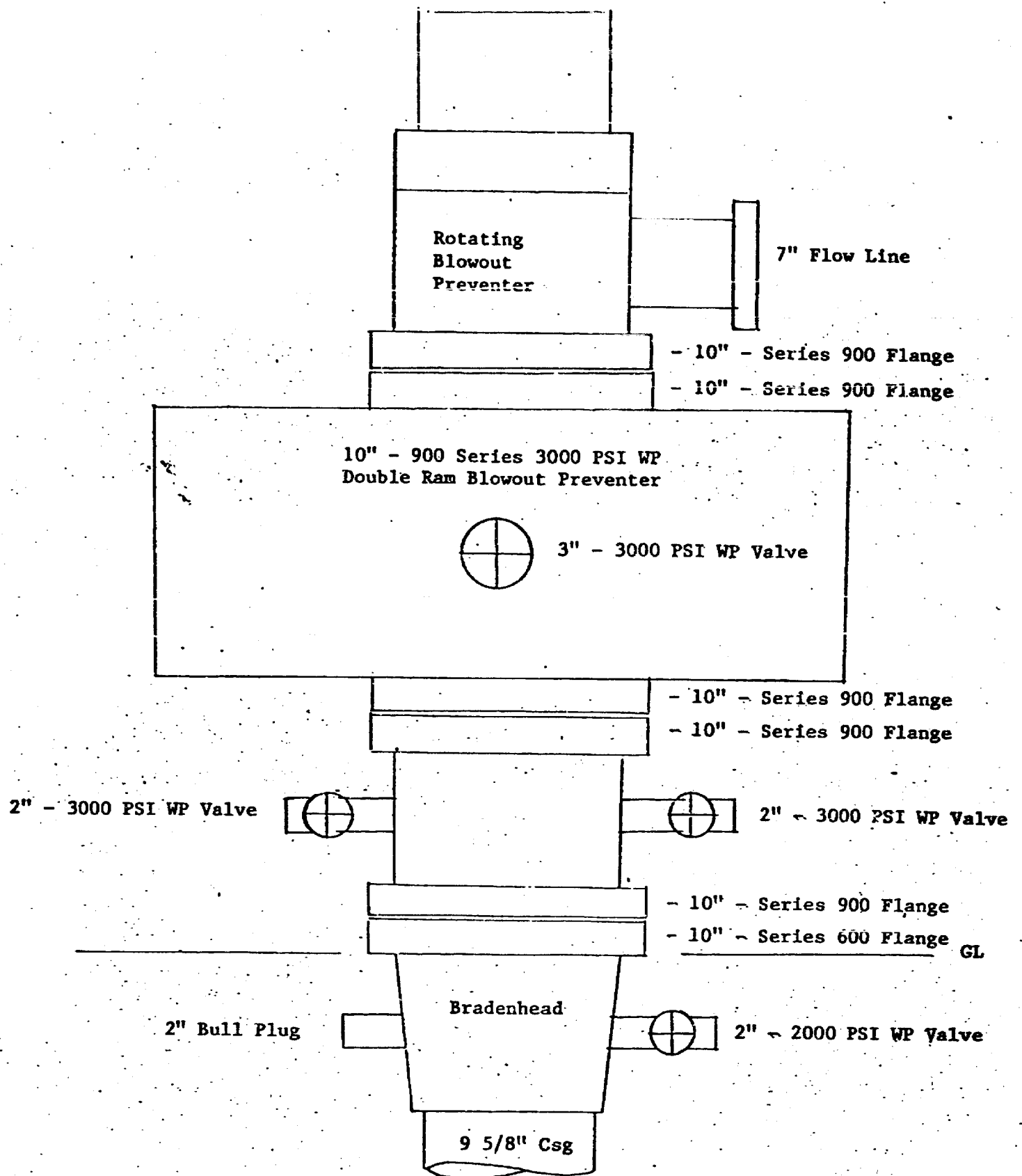




BLACKWOOD AND NICHOLS CO., LTD.
Northeast Blanco Unit No. 26A
1160' F/NL - 60' F/WL D-8-30N-7W
San Juan County, New Mexico



BLOWOUT PREVENTER SCHEMATIC DIAGRAM



Not to scale

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5a. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		5. State Oil & Gas Lease No.
2. Name of Operator Blackwood & Nichols Co., Ltd.		7. Unit Agreement Name Northeast Blanco Unit
3. Address of Operator P. O. Box 1237, Durango, Colorado 81301		8. Farm or Lease Name Northeast Blanco Unit
4. Location of Well UNIT LETTER <u>I</u> LOCATED <u>1850'</u> FEET FROM THE <u>South</u> LINE AND <u>990'</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>7</u> TWP. <u>30N</u> RGE. <u>7W</u> NMPM		9. Well No. 32A
		10. Field and Pool, or Wildcat Blanco Mesaverde
		12. County San Juan
		19. Proposed Depth 6317'
		19A. Formation Mesaverde
		20. Rotary or C.T. Rotary
21. Elevations (Show whether DF, RT, etc.) 6132' GL	21A. Kind & Status Plug. Bond	21B. Drilling Contractor Unknown
		22. Approx. Date Work will start April 1, 1981

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"	36.00#	300'	250 Sacks	Circulate
8 3/4"	7"	23.00#	3690'	400 Sacks	1000'
6 1/4"	4 1/2"	11.6#	6317'	350 Sacks	3500'

Surface Location: 1450' F/NL - 990' F/EL; Well to be Drilled Directionally Controlled to the above target. Well site located on Water & Power Resources Services Controlled Land.

We propose to perforate the Point Lookout and Cliffhouse Zones and sand-water fracture with 200,000 gals water and 200,000 lbs. sand in two stages. Estimated tops: Fruitland 2120', Lewis 3295', Cliffhouse 5190', Point Lookout 5867', Mancos 6017'. A 3000 PSI WP; Series 10" - 900 adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with adequate kill and bleed off lines. A mud of sufficient weight to control the Fruitland Formation will be used, well to be drilled with gas below 7" casing point.

Compensated Density-Neutron logs will be run in open hole below 7" casing point.

Blow out preventers will be tested every trip. Gas is dedicated to Northwest Pipeline Corp.

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.

Signed DeLasso Loos Title District Manager Date January 26, 1981

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-55

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

Operator BLACKWOOD & NICHOLS			Lease NORTHEAST BLANCO UNIT		Well No. 32A
Unit Letter I	Section 7	Township 30 N.	Range 7W., N.M.P.M.	County SAN JUAN	
Actual Footage Location of Well: 1850 feet from the south line and 990 feet from the east line					
Ground Level Elev. Surface Loc. 6132 U.G.		Producing Formation Mesaverde	Pool Blanco-Mesaverde	Dedicated Acreage 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 Unitization

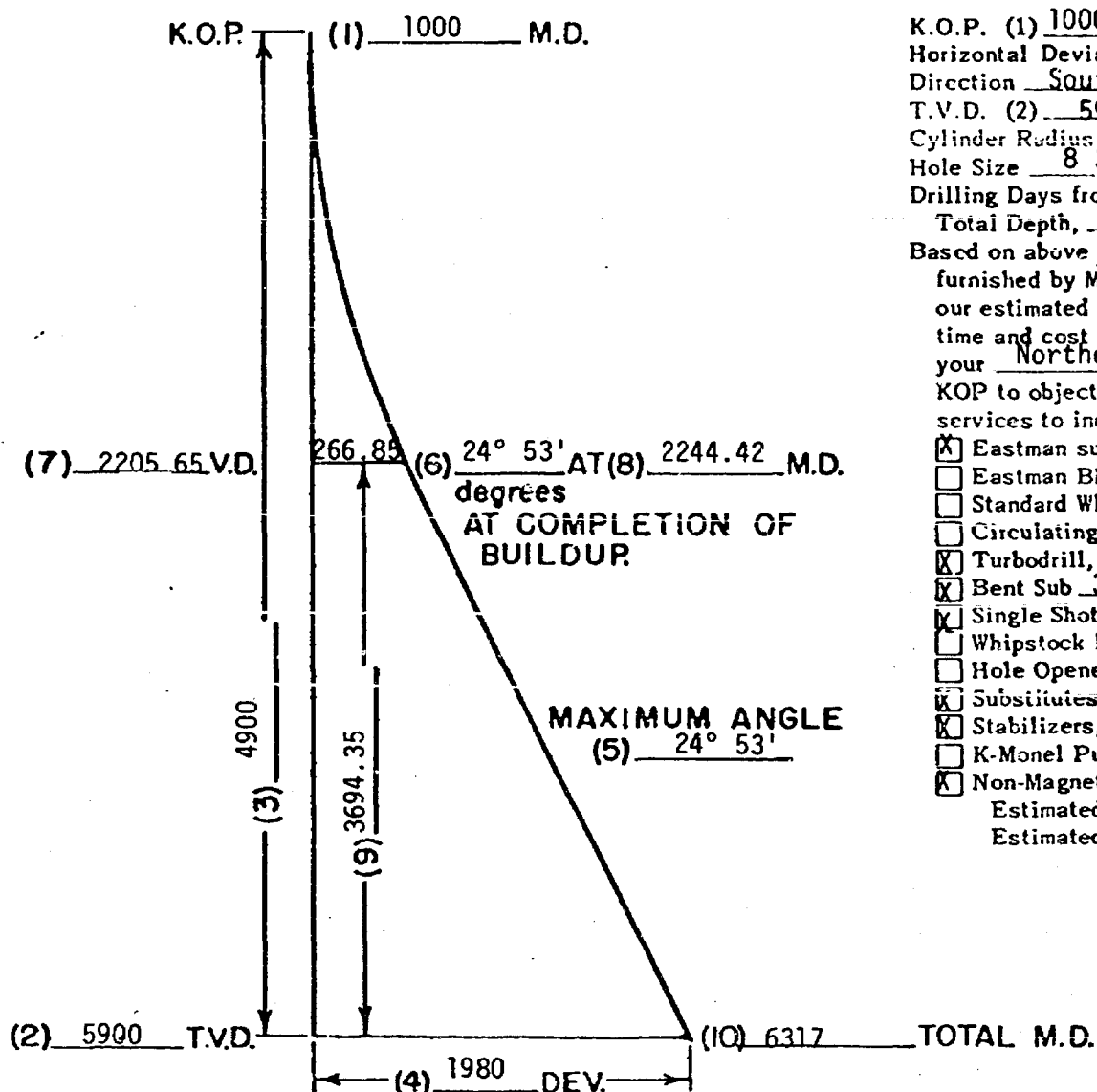
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

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 interests, has been approved by the Commission.

	<p align="center">CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>DeLasso Loos</i></p> <p>Name DeLasso Loos</p> <p>Position District Manager</p> <p>Company Blackwood & Nichols Co., Ltd.</p> <p>Date October 20, 1980</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 October 14, 1980</p> <p>Registered Professional Engineer and/or Land Surveyor</p> <p><i>John A. Krasner</i></p> <p>John A. Krasner, L.S.</p> <p>Certificate No. 1941</p>
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Preliminary Proposal and Cost Estimate for:

COMPANY Blackwood & Nichols Well Name Northeast Blanco Location San Jaun Co., New Mexico

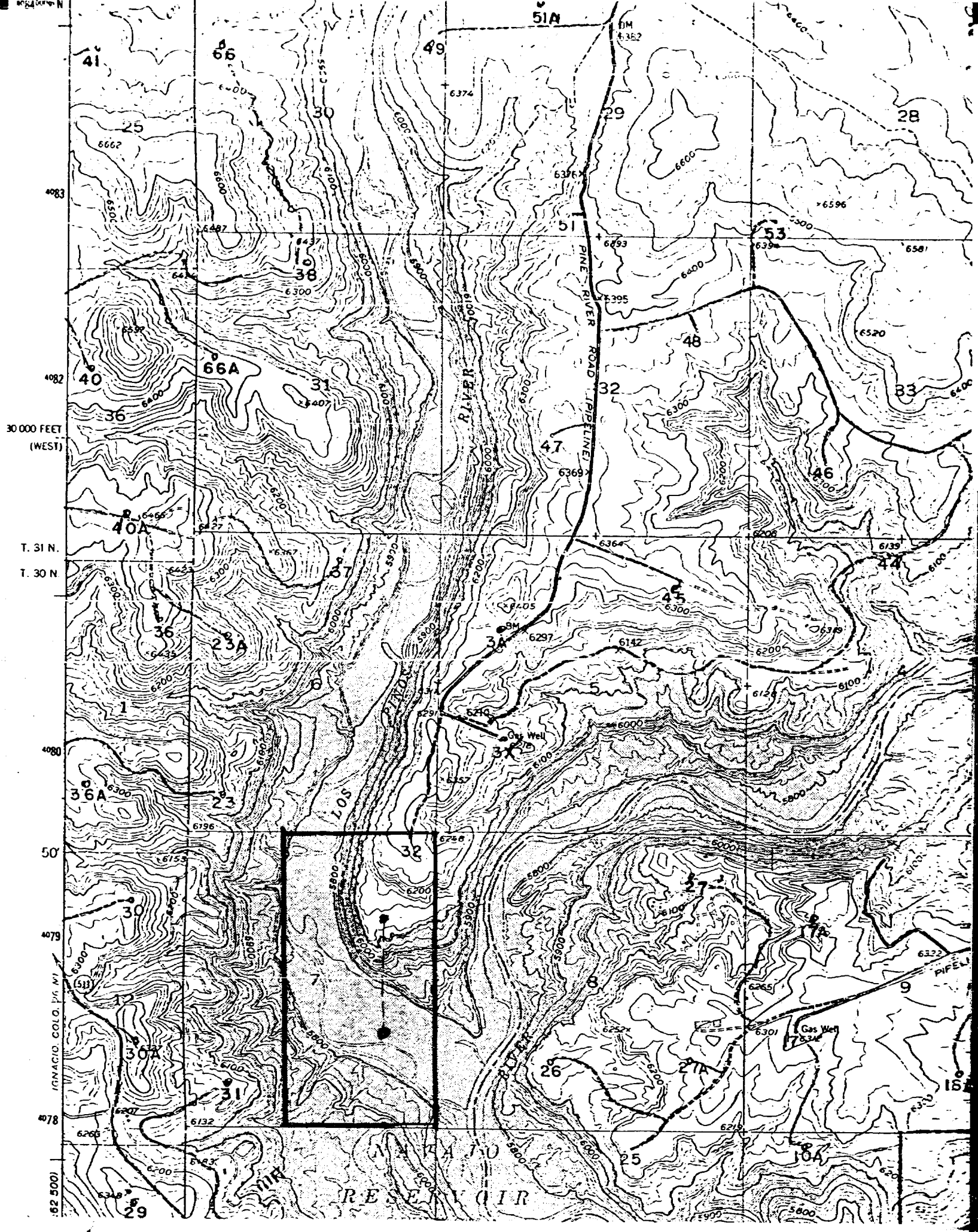


OBJECTIVE:

K.O.P. (1) 1000
Horizontal Deviation (4) 1980
Direction South
T.V.D. (2) 5900
Cylinder Radius 50'
Hole Size 8 3/8 & 6 1/4
Drilling Days from KOP to
Total Depth, 23 days
Based on above objective data
furnished by Mr. Loos
our estimated directional drilling
time and cost for controlling
your Northeast Blanco unit from
KOP to objective, with Eastman
services to include:
☒ Eastman supervision,
☐ Eastman BHO instruments,
☐ Standard Whipstock,
☐ Circulating Whipstock,
☒ Turbodrill, Dyna Drill
☒ Bent Sub 3 & 2 Degree,
☒ Single Shot instruments,
☐ Whipstock Bits,
☐ Hole Openers,
☒ Substitutes,
☒ Stabilizers,
☐ K-Monel Pup Joints
☒ Non-Magnetic D.C., is as follows:
Estimated time 23 days.
Estimated cost \$ 42,984.00

ALL INFORMATION ON PRELIMINARY PROPOSAL DETERMINED GRAPHICALLY.
FINAL WORK PROPOSAL TO BE COMPUTED BY EASTMAN WHIPSTOCK ENGINEERING DEPT.

H. T. Reimer
Eastman Whipstock Representative - Date



30 000 FEET
(WEST)

T. 31 N.
T. 30 N.

50

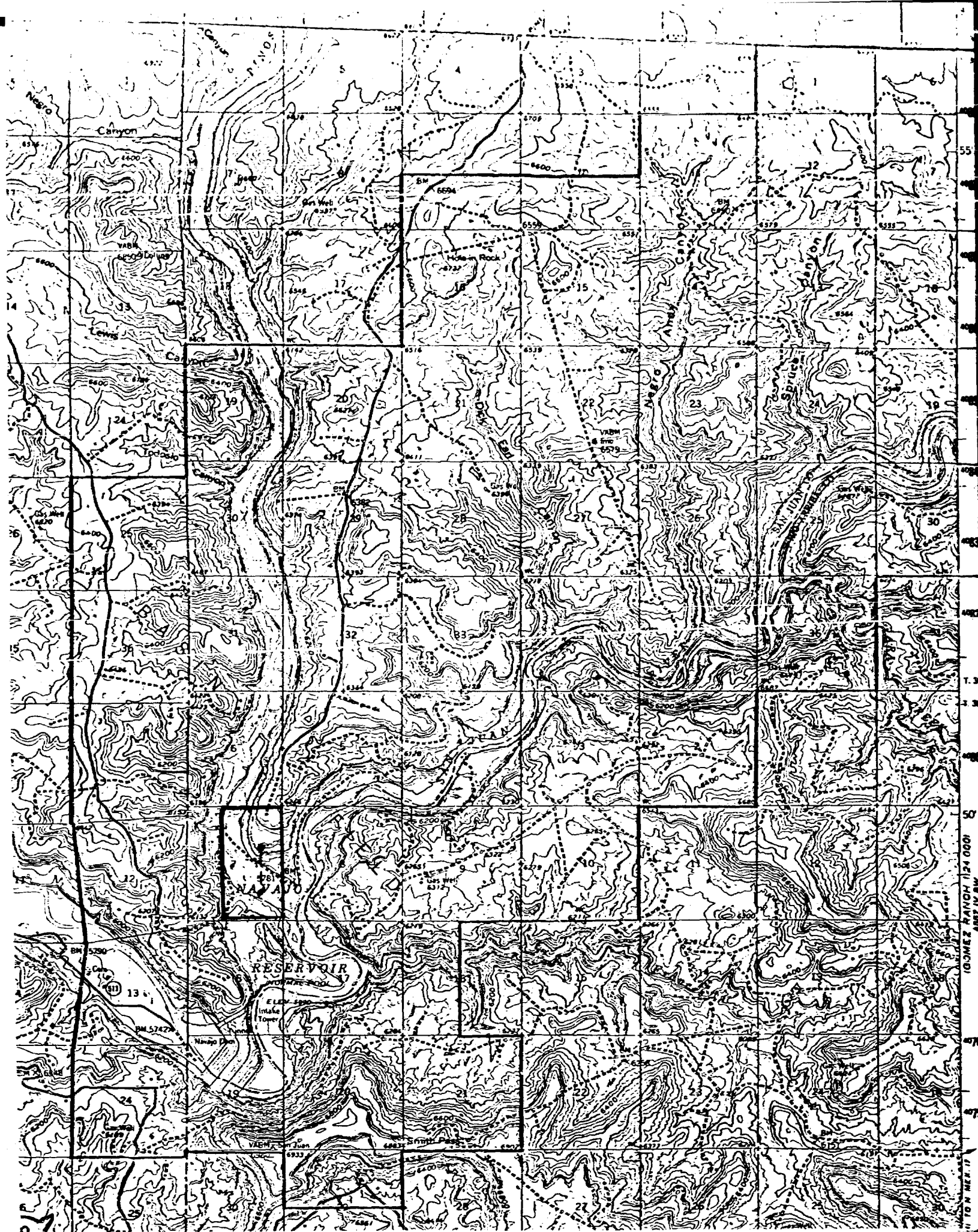
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IGNACIO COLO. PG. 17

4078

62 500

RESERVOIR



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Under instructions on
reverse side)

For use by the
Bureau of Land Management

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK				5. LEASE DENIGATION AND SERIAL NO.																					
1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>				SF 079042																					
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				6. IF INDIAN, ALLOTTEE OR TRIBE NAME																					
2. NAME OF OPERATOR Blackwood & Nichols Co., Ltd.				7. UNIT AGREEMENT NAME NEBU Agreement No. 1, Sec. 929																					
3. ADDRESS OF OPERATOR P. O. Box 1237, Durango, Colorado 81301				8. FARM OR LEASE NAME Northeast Blanco Unit																					
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface: 1160' F/NL - 60' F/WL At proposed prod. zone: 1190' F/NL - 790' F/WL				9. WELL NO. 26A																					
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Fifteen Miles				10. FIELD AND POOL, OR WILDCAT Blanco Mesaverde																					
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)				11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA D-8-30N-7W																					
16. NO. OF ACRES IN LEASE 1779.91				12. COUNTY OR PARISH San Juan																					
17. NO. OF ACRES ASSIGNED TO THIS WELL 319.99				13. STATE New Mexico																					
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.				19. PROPOSED DEPTH 5955																					
20. ROTARY OR CABLE TOOLS Rotary				21. APPROX. DATE WORK WILL START* April 1, 1981																					
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6136' GL				22. APPROX. DATE WORK WILL START* April 1, 1981																					
23. PROPOSED CASING AND CEMENTING PROGRAM																									
<table border="1"><thead><tr><th>SIZE OF HOLE</th><th>SIZE OF CASING</th><th>WEIGHT PER FOOT</th><th>SETTING DEPTH</th><th>QUANTITY OF CEMENT</th></tr></thead><tbody><tr><td>12 1/4"</td><td>9 5/8"</td><td>36.00# H-40</td><td>350'</td><td>Circulate</td></tr><tr><td>8 3/4"</td><td>7"</td><td>23.00# K-55</td><td>3650'</td><td>Two stage circulate to surface</td></tr><tr><td>6 1/4"</td><td>4 1/2"</td><td>10.50# K-55</td><td>5955'</td><td>Connect to 7"</td></tr></tbody></table>						SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT	12 1/4"	9 5/8"	36.00# H-40	350'	Circulate	8 3/4"	7"	23.00# K-55	3650'	Two stage circulate to surface	6 1/4"	4 1/2"	10.50# K-55	5955'	Connect to 7"
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6 1/4"	4 1/2"	10.50# K-55	5955'	Connect to 7"																					

NTL-6

- (3) San Jose
- (6) Ojo Alamo 1985'; Kirtland 2115'; Lewis 3490'; Cliffhouse 4890'; Mancos 5720'.
- (7) Fruitland 3000'; Pictured Cliffs 3240'; Massive Cliffhouse 5180'; Menefee 5220'; Point Lookout 5505'.
- (9) 9 5/8" surface; 300 sacks Class B cement with 2% CaCl₂; circulate to surface. 7" intermediate; 200 sacks Lite cement with 1/4# flocele per sack followed with 100 sacks Class B with 2% CaCl₂ and 1/4# flocele per sack. Second stage; 200 sacks Lite with 1/4# flocele per sack; to circulate to surface. 4 1/2" liner; 300 sacks 50-50 Pozmix with 2% gel, 0.6% FLA, 1/4# flocele per sack and 6 1/4" Gilsonite per sack to circulate to top of liner.
- (10) A 3000 PSI WP; Series 10" - 900 - adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with
- (Over) adequate kill and bleed off lines. Blowout preventer will be pressure tested after

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.

24. DeLasso Loos TITLE District Manager DATE January 2, 1981

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

★ U.S. GOVERNMENT PRINTING OFFICE: 1974-781-025/VIII-239

(continued)

9 5/8" and 7" casing is set and will be tested as to operating condition during each trip while drilling. A rotating blowout preventer will be used while drilling with gas. (See schematic diagram)

- (11) A water base drilling mud of sufficient weight to control the Fruitland Formation will be used while drilling the 8 3/4" hole.
- (12) Compensated Density Gamma Ray-Neutron logs will be run in open hole. No testing or coring is anticipated.
- (13) Normal Fruitland field pressures are anticipated to be controlled with sufficient weighted mud. No hydrogen sulfide is anticipated.

BLACKWOOD & NICHOLS Co., LTD.

P.O. BOX 1237

DURANGO, COLORADO 81301

(303) 247-0728

January 2, 1981

United States Geological Survey
P.O. Box 959
Farmington, New Mexico 87401

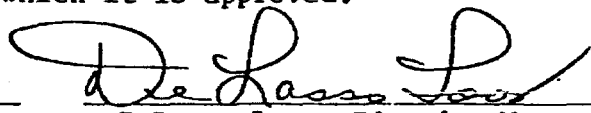
Gentlemen:

Blackwood & Nichols Co., Ltd., as operator of the Northeast Blanco Unit, proposes to drill the Northeast Blanco Unit Well No. 26A as an infill well located in the NW/4, Sec. 8-30N-7W, San Juan County, New Mexico. The well will be completed in the Mesaverde Zone.

Attached are maps and other data pertinent to the Development Plan for Surface Use.

- I. Existing roads; See attached U.S.G.S. topographic map.
- II, III, IV and IX: See attached maps.
- V. Water will be hauled by truck transport from the Navajo Lake, approximately seven miles south of the location.
- VII. Waste material will be placed in a reserve pit and later buried or burned.
- VIII. Camp or airstrip will not be necessary.
- IX. See attached map of well site layout. (Not to scale)
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- IX. The location is relatively level and covered with Cedar and Pinon trees which will be disposed of as per the Bureau of Land Management requirements; an archaeological clearance will be obtained.
- XII. DeLasso Loos, 1032½ Main Street, Durango, Colorado 81301. Telephones: Office: 303-247-0728 Home: 303-247-2345.
- XIII. I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statement made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Blackwood & Nichols Co., Ltd. and its contractors and subcontractors in conformity with this plan and terms and conditions under which it is approved.

Date January 2, 1981


DeLasso Loos, District Manager

DL:st
Attachments

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-126
Effective 1-1-85

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

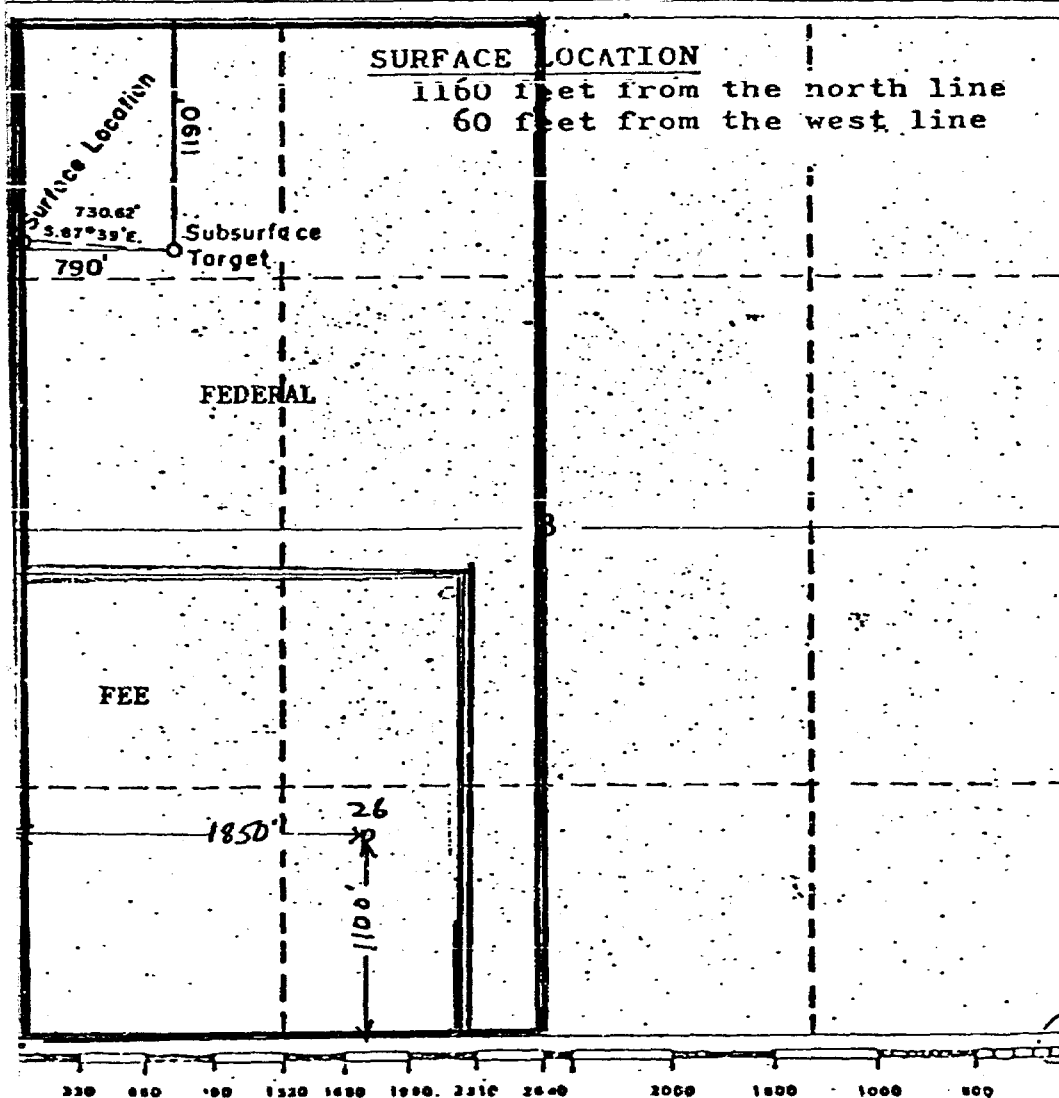
Operator BLACKWOOD & NICHOLS			Lease NORTHEAST BLANCO UNIT		Well No. 26A
Unit Letter D	Section 8	Township 30 N.	Range 7W., N.M.P. 11.	County SAN JUAN	
Actual Footage Location of Wells <div style="display: flex; justify-content: space-between;"> 1190 feet from the north line and 790 feet from the west line </div>					
Ground Level Elev. Surface Loc. 6136 U.G.	Producing Formation Mesaverde	Pool Blanco-Mesaverde	Dedicated Acreage 319.99 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
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☒ Yes ☐ No If answer is "yes," type of consolidation Unitization

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 interests, has been approved by the Commission.



CERTIFICATION

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

DeLasso Loos
Name

DeLasso Loos

District Manager
Position

Blackwood & Nichols Co., Ltd.
Company

October 20, 1980
Date

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.

October 14, 1980
Date Surveyed

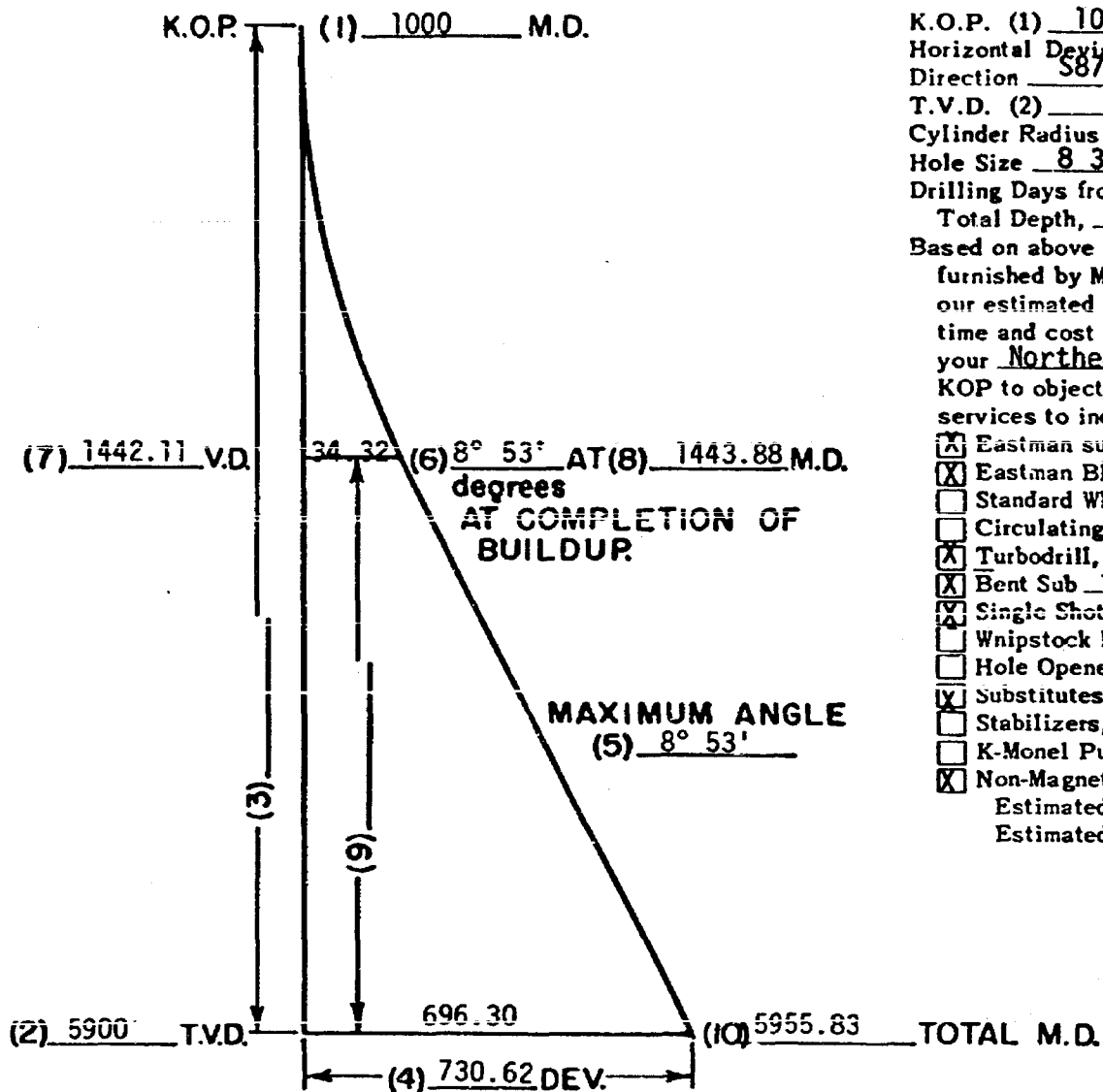
John A. Kasper, LS
Registered Professional Engineer I
and/or Land Surveyor

1941
Certificate No.



Preliminary Proposal and Cost Estimate for:

COMPANY Blackwood & Nichols Well Name Northeast Blanco unit 26-A Location San Juan Co., New Mexico

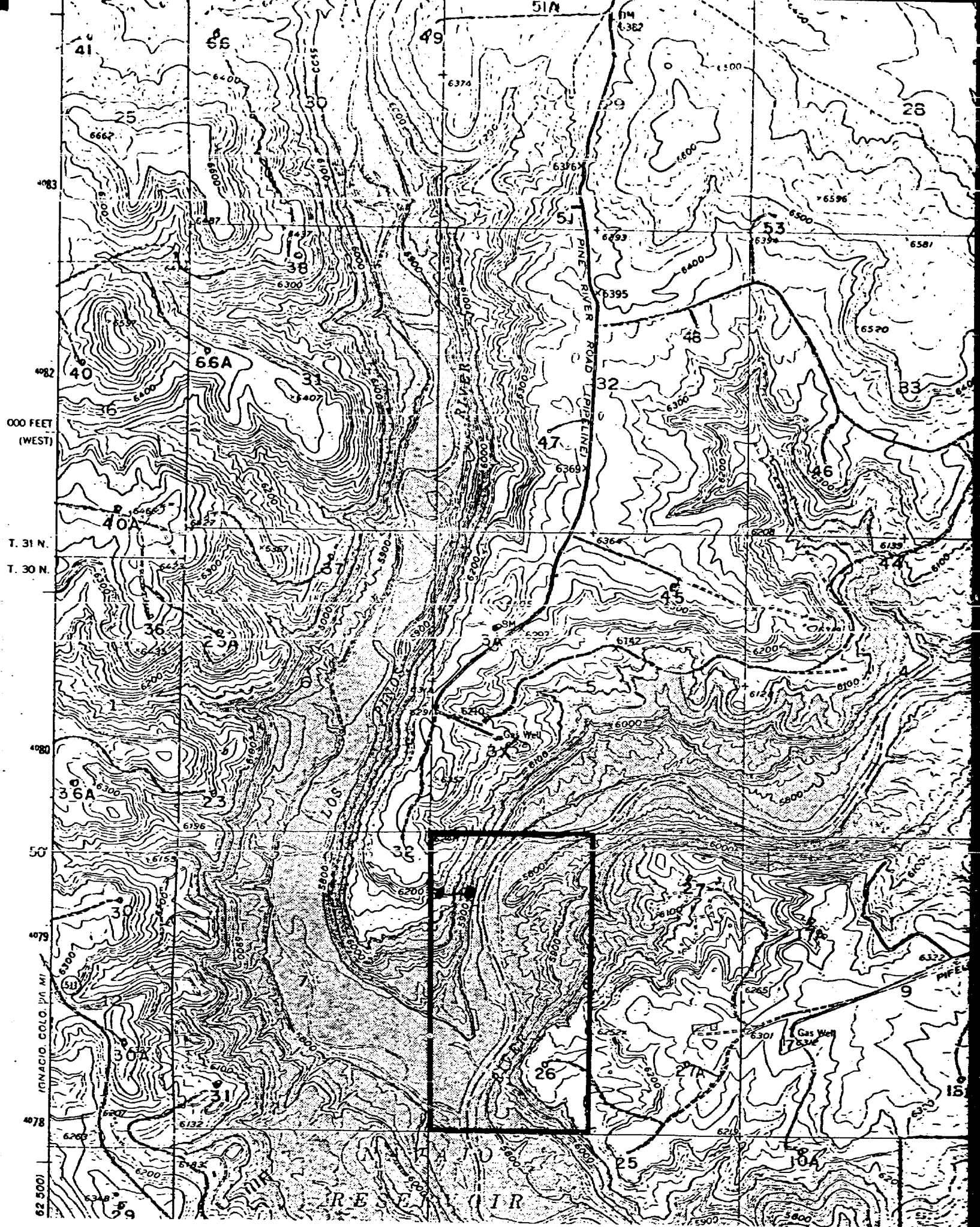


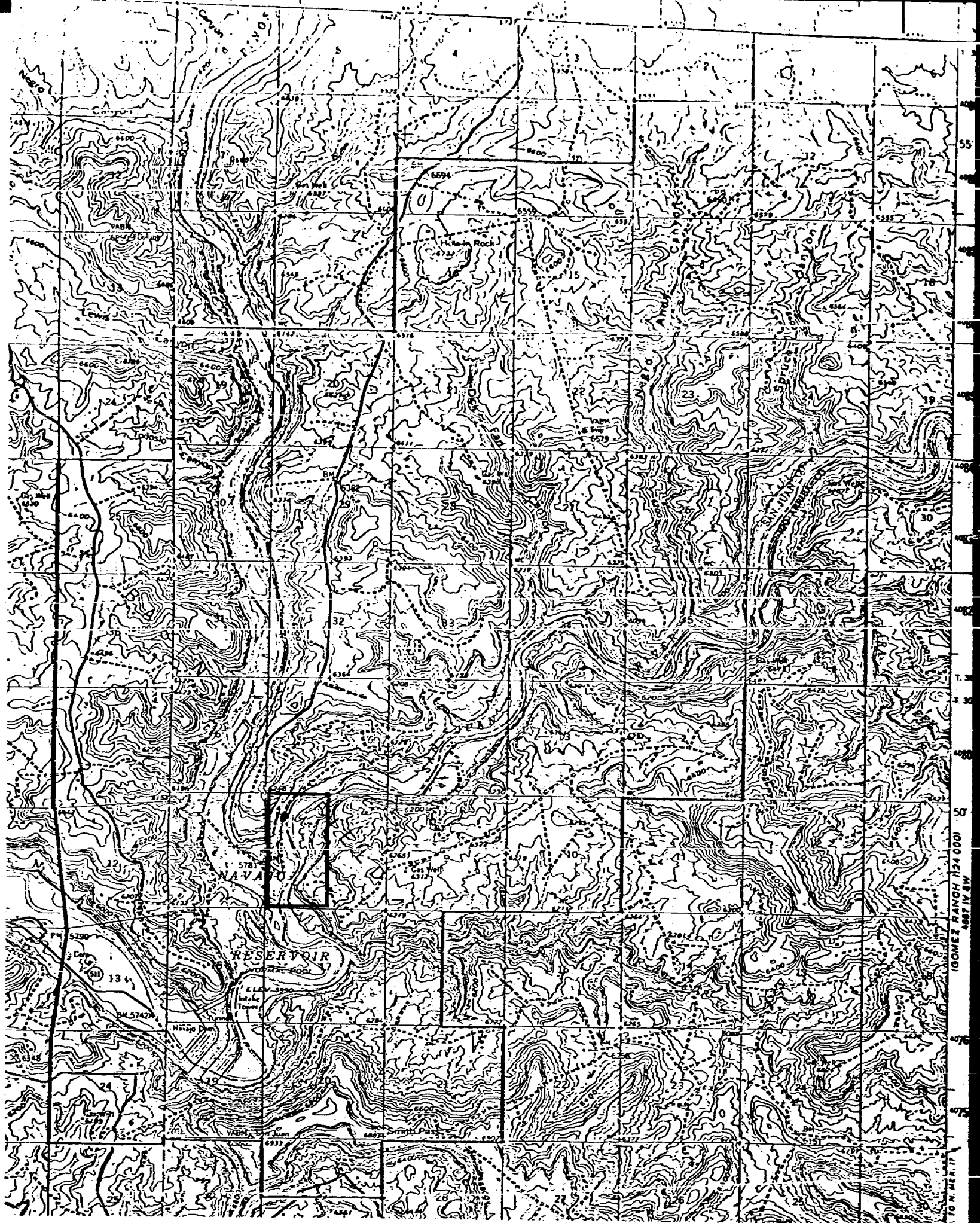
OBJECTIVE:

K.O.P. (1) 1000
Horizontal Deviation (4) 730.62
Direction S87° 39' E
T.V.D. (2) 5900
Cylinder Radius 50'
Hole Size 8 3/8 and 6 1/4
Drilling Days from KOP to
Total Depth, 19 days
Based on above objective data
furnished by Mr. LOOS
our estimated directional drilling
time and cost for controlling
your Northeast Blanco unit 26-A
KOP to objective, with Eastman
services to include:
☒ Eastman supervision,
☒ Eastman BHO instruments,
☐ Standard Whipstock,
☐ Circulating Whipstock,
☒ Turbodrill, Dyna Drills
☒ Bent Sub 1 1/2 Degree, 2°, 2 1/2°
☒ Single Shot instruments,
☐ Whipstock Bits,
☐ Hole Openers,
☒ Substitutes,
☐ Stabilizers,
☐ K-Monel Pup Joints
☒ Non-Magnetic D.C., is as follows:
Estimated time 19 days.
Estimated cost \$ 33,906.00

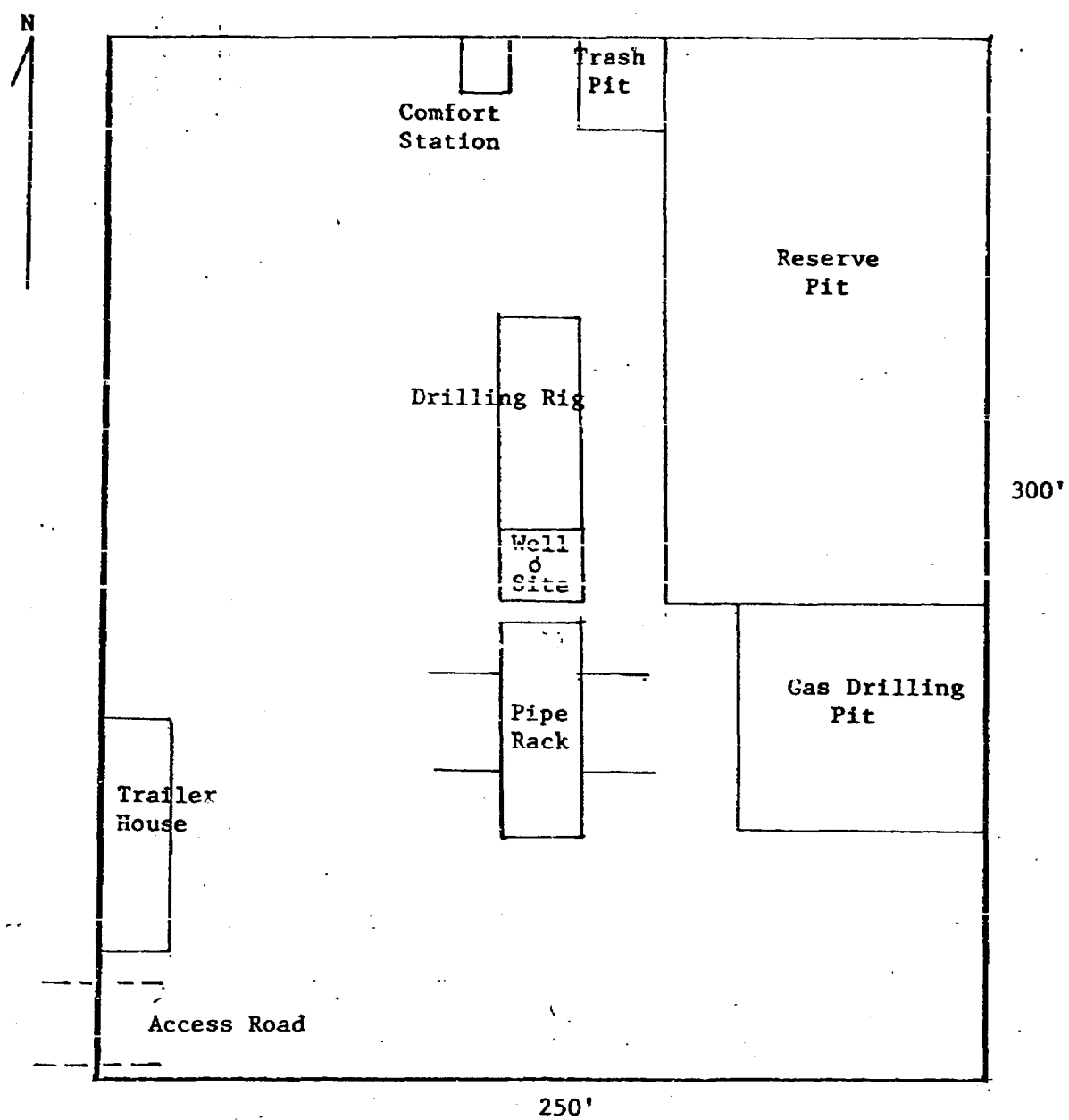
ALL INFORMATION ON PRELIMINARY PROPOSAL DETERMINED GRAPHICALLY.
FINAL WORK PROPOSAL TO BE COMPUTED BY EASTMAN WHIPSTOCK ENGINEERING DEPT.

A. F. Reuser
Eastman Whipstock Representative - Date

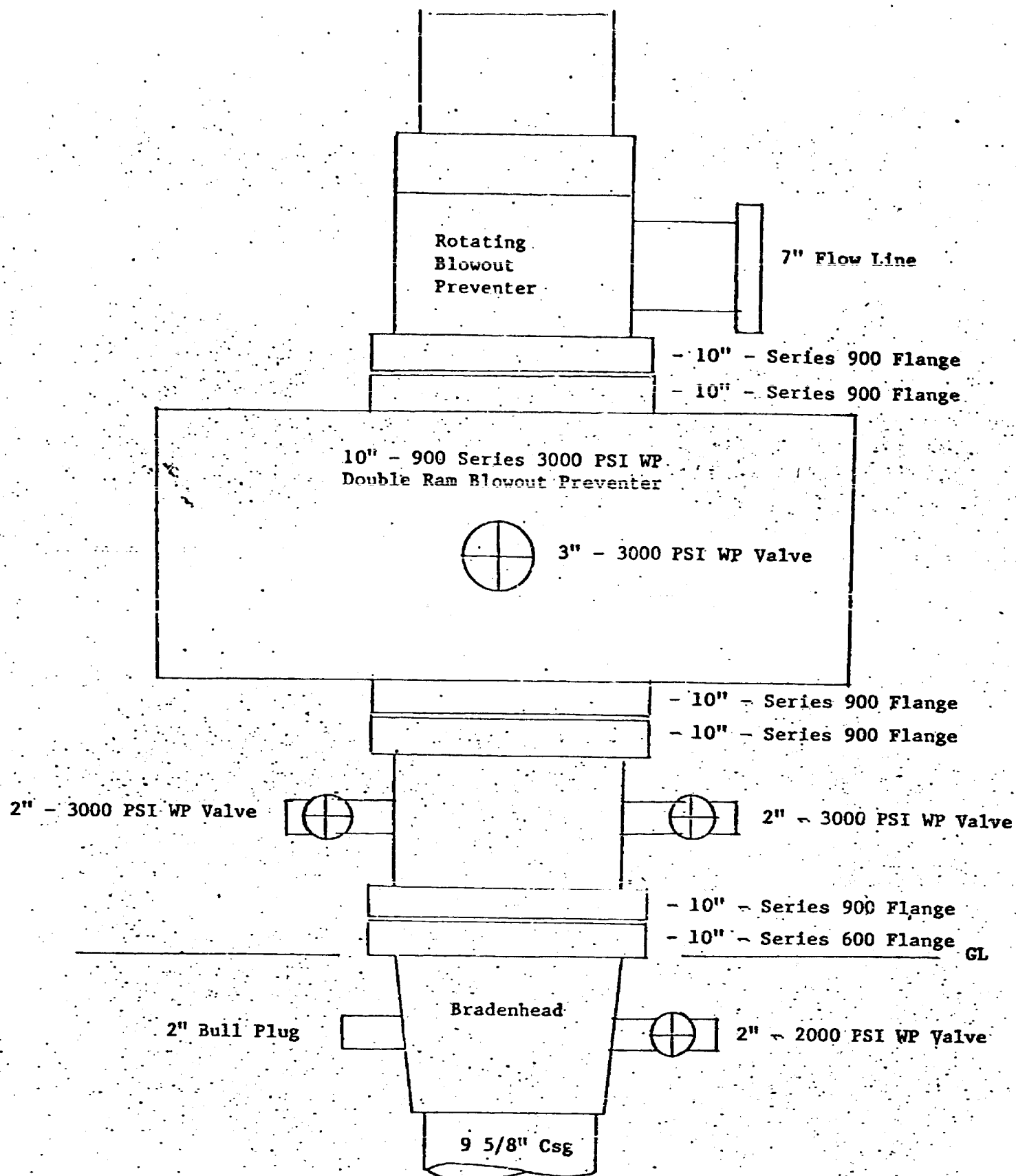




BLACKWOOD AND NICHOLS CO., LTD.
Northeast Blanco Unit No. 26A
1160' F/NL - 60' F/WL D-8-30N-7W
San Juan County, New Mexico



BLowout PREVENTER SCHEMATIC DIAGRAM



Not to scale

NO. OF COPIES RECEIVED	
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SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 11-85

5A. Indicate Type of Lease	
STATE <input type="checkbox"/>	FEE <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well		Northeast Blanco Unit	
DRILL <input checked="" type="checkbox"/>	DEEPEN <input type="checkbox"/>	Agmt. #1, Sec. 929	
OIL WELL <input type="checkbox"/>	SAB WELL <input checked="" type="checkbox"/>	8. Form or Lease Name	
OTHER <input type="checkbox"/>	SINGLE ZONE <input type="checkbox"/>	Northeast Blanco Unit	
2. Name of Operator		9. Well No.	
Blackwood & Nichols Co., Ltd.		32A	
3. Address of Operator		10. Field and Pool, or Wildcat	
P. O. Box 1237, Durango, Colorado 81301		Blanco Mesaverde	
4. Location of Well		12. County	
UNIT LETTER <u>I</u> LOCATED <u>1850'</u> FEET FROM THE <u>South</u> LINE		San Juan	
AND <u>990'</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>7</u> TWP. <u>30N</u> RCE. <u>7W</u> NMPM			
19. Proposed Depth		19A. Formation	20. Rotary or C.T.
6317'		Mesaverde	Rotary
21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
6132' GL		Unknown	April 1, 1981

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"	36.00#	300'	250 Sacks	Circulate
8 3/4"	7"	23.00#	3690'	400 Sacks	1000'
6 1/4"	4 1/2"	11.6#	6317'	350 Sacks	3500'

Surface Location: 1450' F/NL - 990' F/EL; Well to be Drilled Directionally Controlled to the above target. Well site located on Water & Power Resources Services Controlled Land.

We propose to perforate the Point Lookout and Cliffhouse Zones and sand-water fracture with 200,000 gals water and 200,000 lbs. sand in two stages. Estimated tops: Fruitland 2120', Lewis 3295', Cliffhouse 5190', Point Lookout 5867', Mancos 6017'. A 3000 PSI WP; Series 10" - 900 adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with adequate kill and bleed off lines. A mud of sufficient weight to control the Fruitland Formation will be used, well to be drilled with gas below 7" casing point.

Compensated Density-Neutron logs will be run in open hole below 7" casing point.

Blow out preventers will be tested every trip. Gas is dedicated to Northwest Pipeline Corp.

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.

Signed DeLasso Loos Title District Manager Date January 26, 1981

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator BLACKWOOD & NICHOLS		Lease NORTHEAST BLANCO UNIT		Well No. 32A
Unit Letter I	Section 7	Township 30 N.	Range 7W., N.M.P.M.	County SAN JUAN
Actual Footage Location of Wells 1850 feet from the south line and 990 feet from the east line				
Ground Level Elev. 6132 U.G.	Producing Formation Mesaverde	Pool Blanco-Mesaverde	Dedicated Acreage 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 Unitization

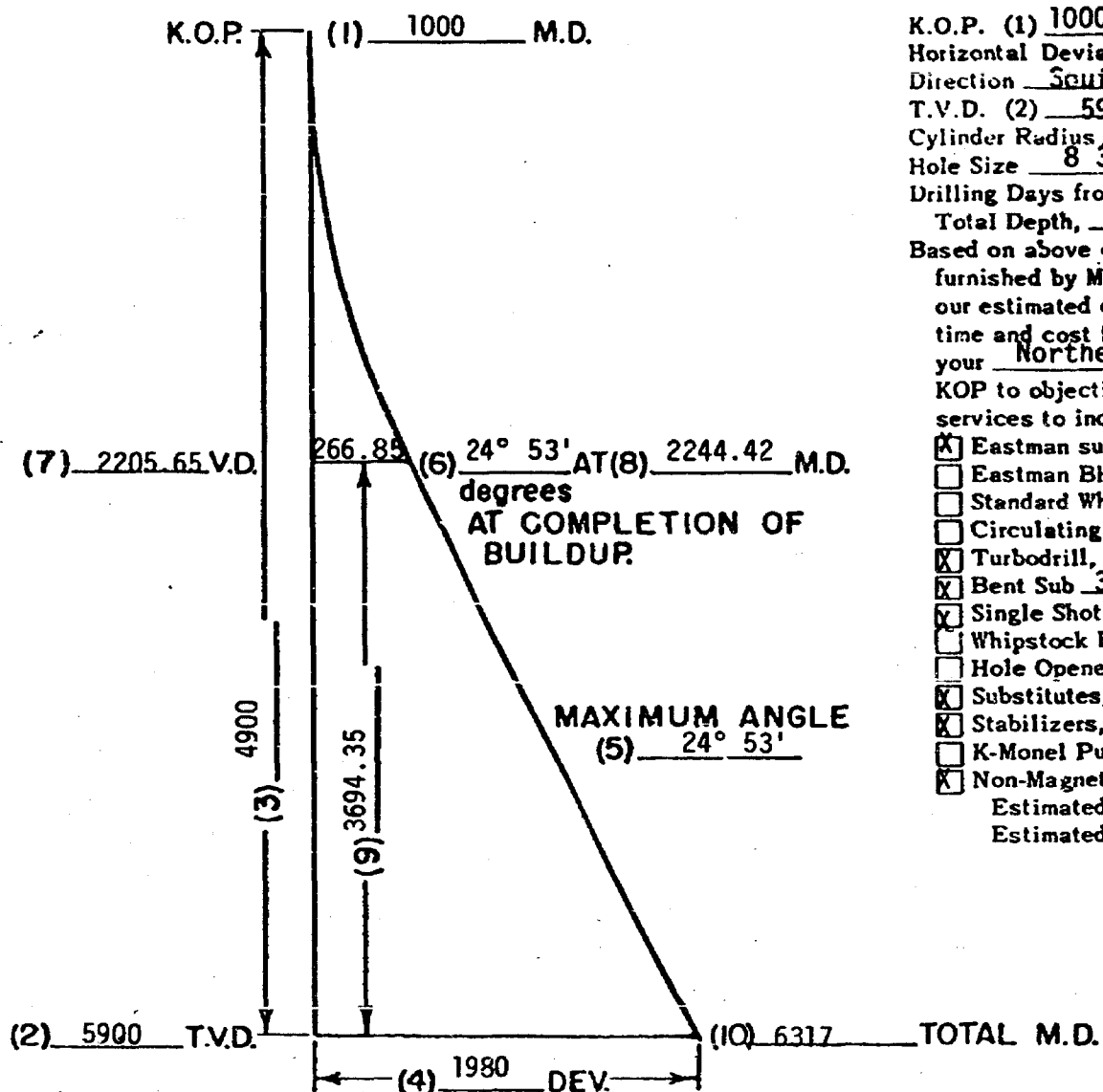
If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

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 interests, has been approved by the Commission.

	<p align="center">CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>De Lasso Loos</i></p> <p>Name DeLasso Loos</p> <p>Position District Manager</p> <p>Company Blackwood & Nichols Co., Ltd.</p> <p>Date October 20, 1980</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 October 14, 1980</p> <p>Registered Professional Engineer and/or Land Surveyor <i>John A. K... LS</i> John A. K... LS</p> <p>Certificate No. 1941</p>
	<p>320' 8-700'</p> <p>32</p> <p>1450'</p> <p>FEDERAL</p> <p>990'</p> <p>Surface Location</p> <p>South 1980'</p> <p>FEE</p> <p>32A</p> <p>990'</p> <p>Subsurface Target</p> <p>1850'</p> <p>FEE</p> <p>FEDERAL</p>

Preliminary Proposal and Cost Estimate for:

COMPANY Blackwood & Nichols Well Name Northeast Blanco Unit 32-A Location San Jaun Co., New Mexico

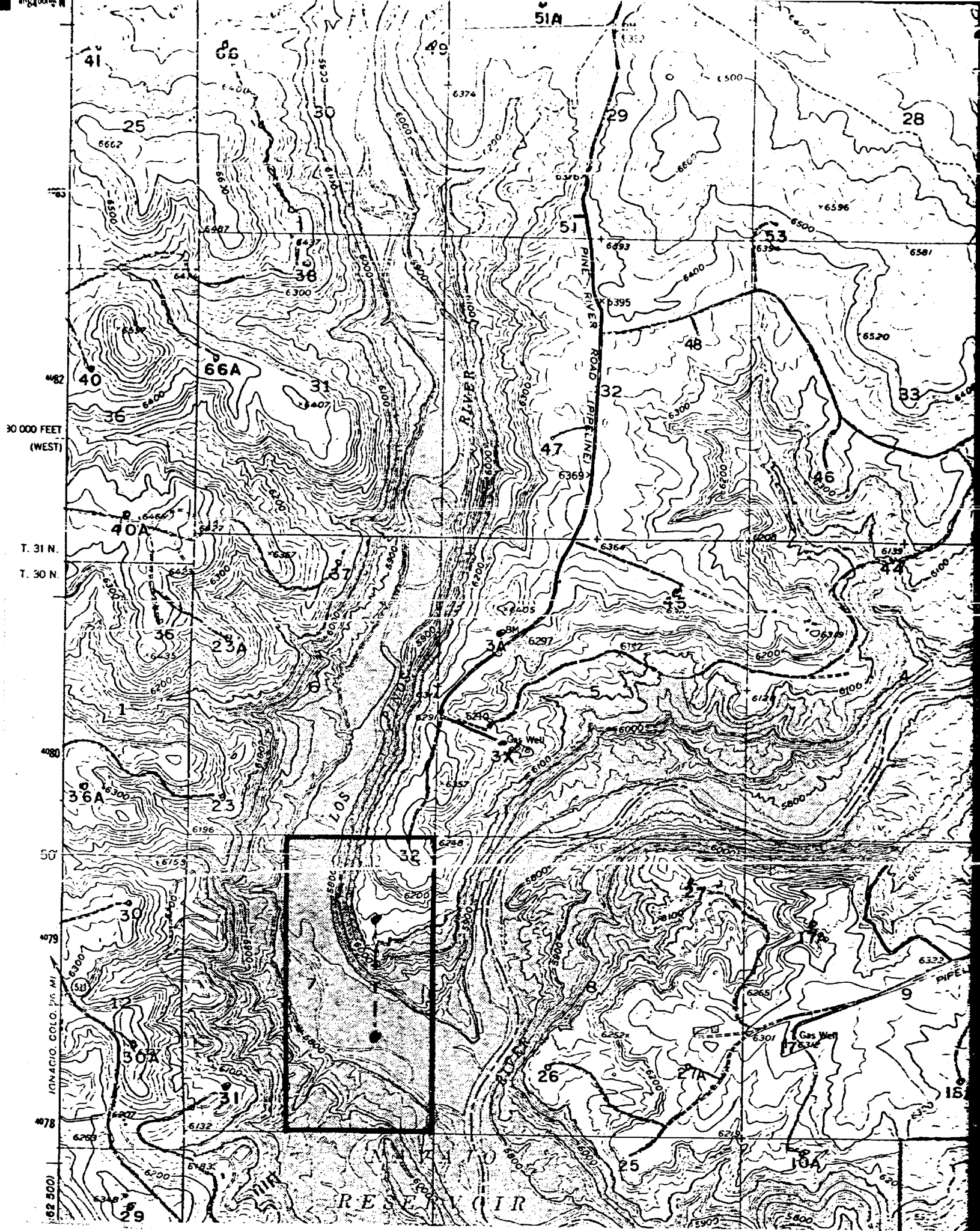


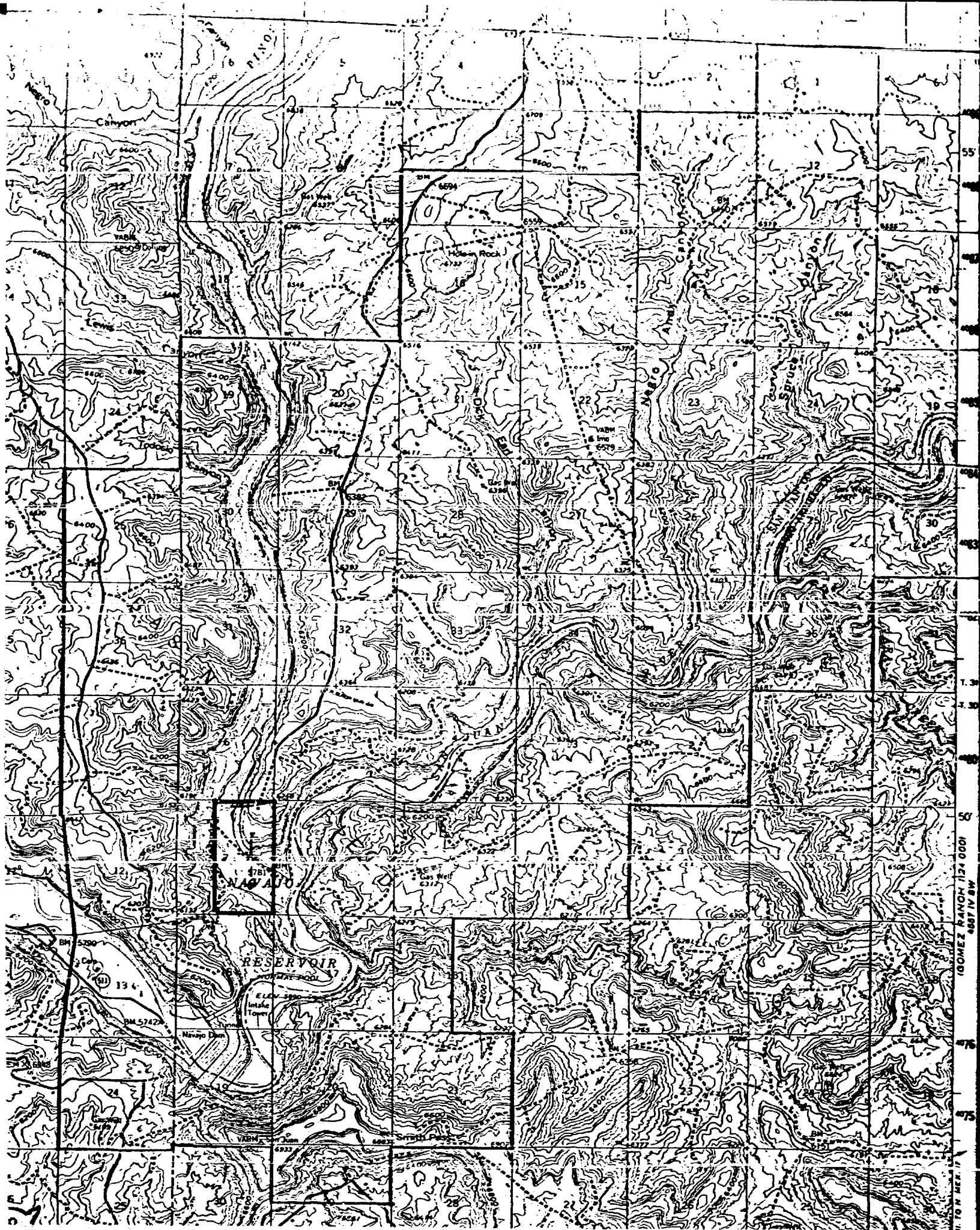
OBJECTIVE:

K.O.P. (1) 1000
 Horizontal Deviation (4) 1980
 Direction South
 T.V.D. (2) 5900
 Cylinder Radius 50'
 Hole Size 8 3/8 & 6 1/4
 Drilling Days from KOP to
 Total Depth, 23 days
 Based on above objective data
 furnished by Mr. Loos
 our estimated directional drilling
 time and cost for controlling
 your Northeast Blanco unit from
 KOP to objective, with Eastman
 services to include:
☒ Eastman supervision,
☐ Eastman BHO instruments,
☐ Standard Whipstock,
☐ Circulating Whipstock,
☒ Turbodrill, Dyna Drill
☒ Bent Sub 3 & 2 Degree,
☒ Single Shot instruments,
☐ Whipstock Bits,
☐ Hole Openers.
☒ Substitutes,
☒ Stabilizers,
☐ K-Monel Pup Joints
☒ Non-Magnetic D.C., is as follows:
 Estimated time 23 days.
 Estimated cost \$ 42,984.00

ALL INFORMATION ON PRELIMINARY PROPOSAL DETERMINED GRAPHICALLY.
 FINAL WORK PROPOSAL TO BE COMPUTED BY EASTMAN WHIPSTOCK ENGINEERING DEPT.

H. T. Reuser
 Eastman Whipstock Representative - Date





CASE 7185: Application of El Paso Exploration Company for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blanco Mesaverde and Basin-Dakota production in the wellbore of its Turner Hughes Well No. 17 located in Unit H of Section 10, Township 27 North, Range 9 West.

CASE 7161: (Continued from February 25, 1981, Examiner Hearing)

Application of John Yuronka for four compulsory poolings, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Langlie Mattix Pool underlying the four 40-acre proration units comprising the SW/4 of Section 31, Township 22 South, Range 37 East, to be dedicated to wells to be drilled at standard locations thereon. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.

CASE 7164: (Continued from February 25, 1981, Examiner Hearing)

Application of ARCO Oil and Gas Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Devonian and Ellenburger formations, Custer Field, underlying the N/2 of Section 6, Township 25 South, Range 37 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7165: (Continued from February 25, 1981, Examiner Hearing)

Application of ARCO Oil and Gas Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Langley-Ellenburger Pool underlying the N/2 of Section 33, Township 22 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7175: (Continued from February 25, 1981, Examiner Hearing)

Application of Conoco Inc. for compulsory pooling and a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp-Ellenburger formations underlying the S/2 of Section 19, Township 25 South, Range 37 East, to be dedicated to a well to be drilled at a standard location and dually completed in the Devonian and Ellenburger formations. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7186: Application of Sun Texas Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation in the interval from 10,856 feet to 11,370 feet in its State C Account 1 Well No. 3 in Unit L of Section 2, Township 12 South, Range 33 East, Bagley Siluro-Devonian Pool.

CASE 7187: Application of Blackwood & Nichols Co., Ltd. for four non-standard proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of the following four Fruitland and Pictured Cliffs non-standard gas proration units: a 185.68-acre unit comprising the SW/4 of Section 1, Township 31 North, Range 7 West; a 181.4-acre unit comprising the SE/4 of said Section 1; a 176.68-acre unit comprising the SW/4 of Section 6, Township 31 North, Range 6 West; and a 175.21-acre unit comprising the SE/4 of said Section 6. All units are to be dedicated to wells drilled at standard locations thereon.

CASE 7188: Application of Blackwood & Nichols Co., Ltd. for directional drilling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill its Northeast Blanco Unit Well No. 26-A, the surface location of which is 1160 feet from the North line and 60 feet from the West line of Section 8, Township 30 North, Range 7 West, and directionally drill said well in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1190 feet from the North line and 790 feet from the West line of said Section 8, the W/2 of the section to be dedicated to the well; applicant further seeks authority to drill its Northeast Blanco Unit Well No. 32-A, the surface location of which is 1450 feet from the North line and 990 feet from the East line of Section 7, Township 30 North, Range 7 West, and directionally drill said well in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1850 feet from the South line and 990 feet from the East line of said Section 7, the E/2 of the section to be dedicated to the well.

CAMPBELL, BYRD & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
HARL D. BYRD
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
WILLIAM G. WARDLE

JEFFERSON PLACE
SUITE 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87501
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

February 19, 1981

Mr. Joe D. Ramey
Director
Oil Conservation Division
New Mexico Department of
Energy and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Case 7188

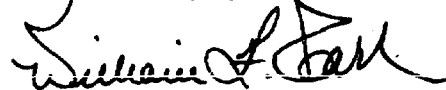
Re: Application of Blackwood & Nichols Co., Ltd.
for Directional Drilling, San Juan County,
New Mexico

Dear Mr. Ramey:

Enclosed in triplicate is the application of Blackwood & Nichols Co., Ltd. in the above-referenced matter.

The applicant requests that this matter be included on the docket for the examiner hearing scheduled to be held on March 11, 1981.

Very truly yours,



William F. Carr

WFC:lr

Enclosures

cc: Mr. Charles Blackwood
Mr. DeLasso Loos

BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF
BLACKWOOD & NICHOLS CO., LTD. FOR
DIRECTIONAL DRILLING, SAN JUAN COUNTY,
NEW MEXICO.

CASE 7188

APPLICATION

Comes now Blackwood & Nichols Co., Ltd., by and through its undersigned attorneys, and hereby makes application pursuant to Oil Conservation Division Rule 111 to directionally drill its Northeast Blanco Unit Wells No. 26A and 32A, Blanco Mesaverde Pool, and in support thereof would show the Division:

1. Applicant is the operator of the Blanco Mesaverde Pool underlying the E/2 of Section 7 and the W/2 Section 8, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico.

2. Applicant proposes to directionally drill its Northeast Blanco Unit Well No. 26A from a surface location of 1160 feet from the north line and 60 feet from the west line to a bottom hole location of 1190 feet from the north line and 790 feet from the west line of Section 8, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico with the intent of testing the Blanco Mesaverde Pool at an approximate depth of 5955 feet.

3. Applicant further proposes to directionally drill its Northeast Blanco Unit Well No. 32A from a surface location 1450 feet from the north line and 990 feet from the east line to a bottom hole location 1850 feet from the south line and 990 feet

from the east line in Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico with the intent of testing the Blanco Mesaverde Pool at an approximate depth of 6317 feet.

4. Applicant proposes to dedicate to the Northeast Blanco Unit Well No. 26A a standard proration unit comprised of the W/2 of said Section 8 and further proposes to dedicate to its northeast Blanco Unit Well No. 32A a standard proration unit to be comprised of the E/2 of said Section 7.

5. Both of the subject wells lie in close proximity to Navajo Lake and both wells must be directionally drilled to enable the applicant to produce the reserves which underlie the above-referenced proration units.

6. Attached hereto and incorporated herein are copies of applications for permit to drill each of the subject wells, OCD Forms C-102 showing the proposed surface and bottom hole locations for each of the subject wells, a plat showing the general topography of the proposed proration units and a preliminary proposal from Eastman Wipstock showing the proposed deviation of the hole for each of the subject wells.

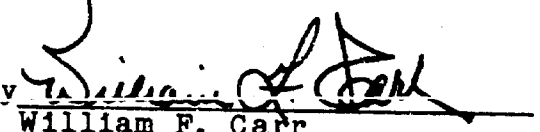
7. That approval of this Application will enable the applicant to produce hydrocarbons that otherwise would not be produced and will otherwise be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing before a duly appointed examiner of the Oil Conservation Division on March 11, 1981, that notice be given as required by law and the rules of the Rules of the Division, and that the Division enter its order granting the applicant permission to directionally drill its Northeast Blanco Unit Wells No. 26A and 32A and granting such other and further relief as is appropriate.

Respectfully submitted,

CAMPBELL, BYRD AND BLACK, P.A.

By



William F. Carr

P.O. Box 2208

Santa Fe, New Mexico 87501

Attorneys for Applicant

**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

SUBMIT IN TRIPLICATE*
(Other Instructions on
Revised Form)

Form No. 42 (11-20-79)

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

2. TYPE OF WELL

WELL ☐

CAS ☒

OTHER

SINGLE ☒

MULTIPLE ☐

3. NAME OF OPERATOR

Blackwood & Nichols Co., Ltd.

4. ADDRESS OF OPERATOR

P. O. Box 1237, Durango, Colorado 81301

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

At surface

1160' F/NL - 60' F/WL

At proposed prod. zone

1190' F/NL - 790' F/WL

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

Fifteen Miles

7. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)

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

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

6136' GL

10.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36.00# H-40	350'	Circulate
8 3/4"	7"	23.00# K-55	3650'	Two stage circulate to surface
6 1/4"	4 1/2"	10.50# K-55	5955'	Connect to 7"

NTL-6

(3) San Jose

(6) Ojo Alamo 1985'; Kirtland 2115'; Lewis 3490'; Cliffhouse 4890'; Mancos 5720'.

(7) Fruitland 3000'; Pictured Cliffs 3240'; Massive Cliffhouse 5180'; Menefee 5220'; Point Lookout 5505'.

(9) 9 5/8" surface; 300 sacks Class B cement with 2% CaCl₂; circulate to surface. 7" intermediate; 200 sacks Lite cement with 1/4# flocele per sack followed with 100 sacks Class B with 2% CaCl₂ and 1/4# flocele per sack. Second stage; 200 sacks Lite with 1/4# flocele per sack; to circulate to surface. 4 1/2" liner; 300 sacks 50-50 Pozmix with 2% gel, 0.6% FLA, 1/4# flocele per sack and 6 1/4# Gilsomite per sack to circulate to top of liner.

(10) A 3000 PSI WP; Series 10" - 900 - adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with

(Over) adequate kill and bleed off lines. Blowout preventer will be pressure tested after

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.

SIGNED DeLasso Loos TITLE District Manager DATE January 2, 1981

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

★ U.S. GOVERNMENT PRINTING OFFICE: 1974-781-025/VIII-239

(continued)

9 5/8" and 7" casing is set and will be tested as to operating condition during each trip while drilling. A rotating blowout preventer will be used while drilling with gas. (See schematic diagram)

- (11) A water base drilling mud of sufficient weight to control the Fruitland Formation will be used while drilling the 8 3/4" hole.
- (12) Compensated Density Gamma Ray-Neutron logs will be run in open hole. No testing or coring is anticipated.
- (13) Normal Fruitland field pressures are anticipated to be controlled with sufficient weighted mud. No hydrogen sulfide is anticipated.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-66

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

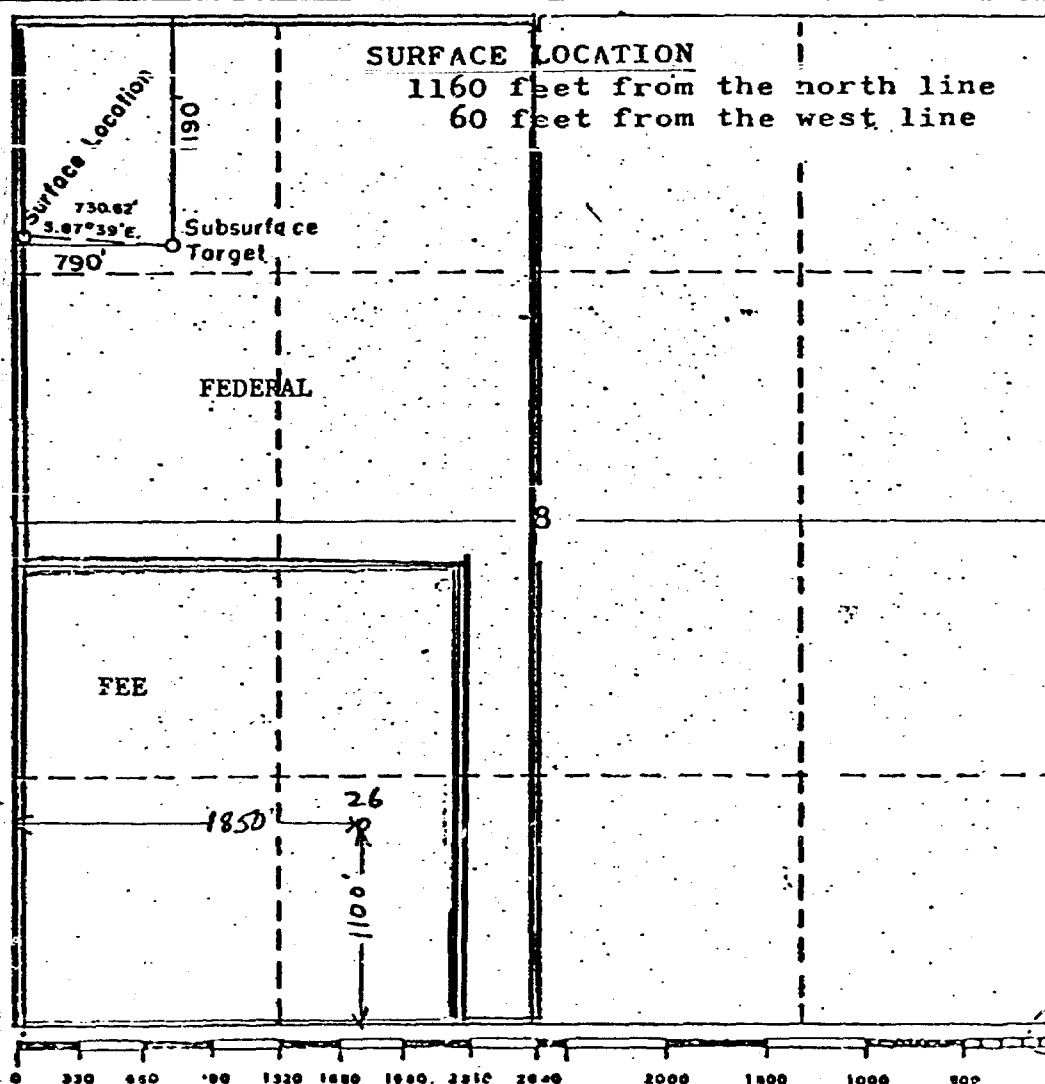
Operator BLACKWOOD & NICHOLS			Lease NORTHEAST BLANCO UNIT		Well No. 26A
Unit Letter D	Section 8	Township 30 N.	Range 7W., N.M.P. 31.	County SAN JUAN	
Actual Footage Location of Well <div style="display: flex; justify-content: space-between;"> 1100 feet from the north line and 790 feet from the west line </div>					
Ground Level Elev. Surface Loc. 6136 U.G.	Producing Formation Mesaverde	Pool Blanco-Mesaverde	Dedicated Acreage: 319.99 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 Unitization

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 interests, has been approved by the Commission.



CERTIFICATION

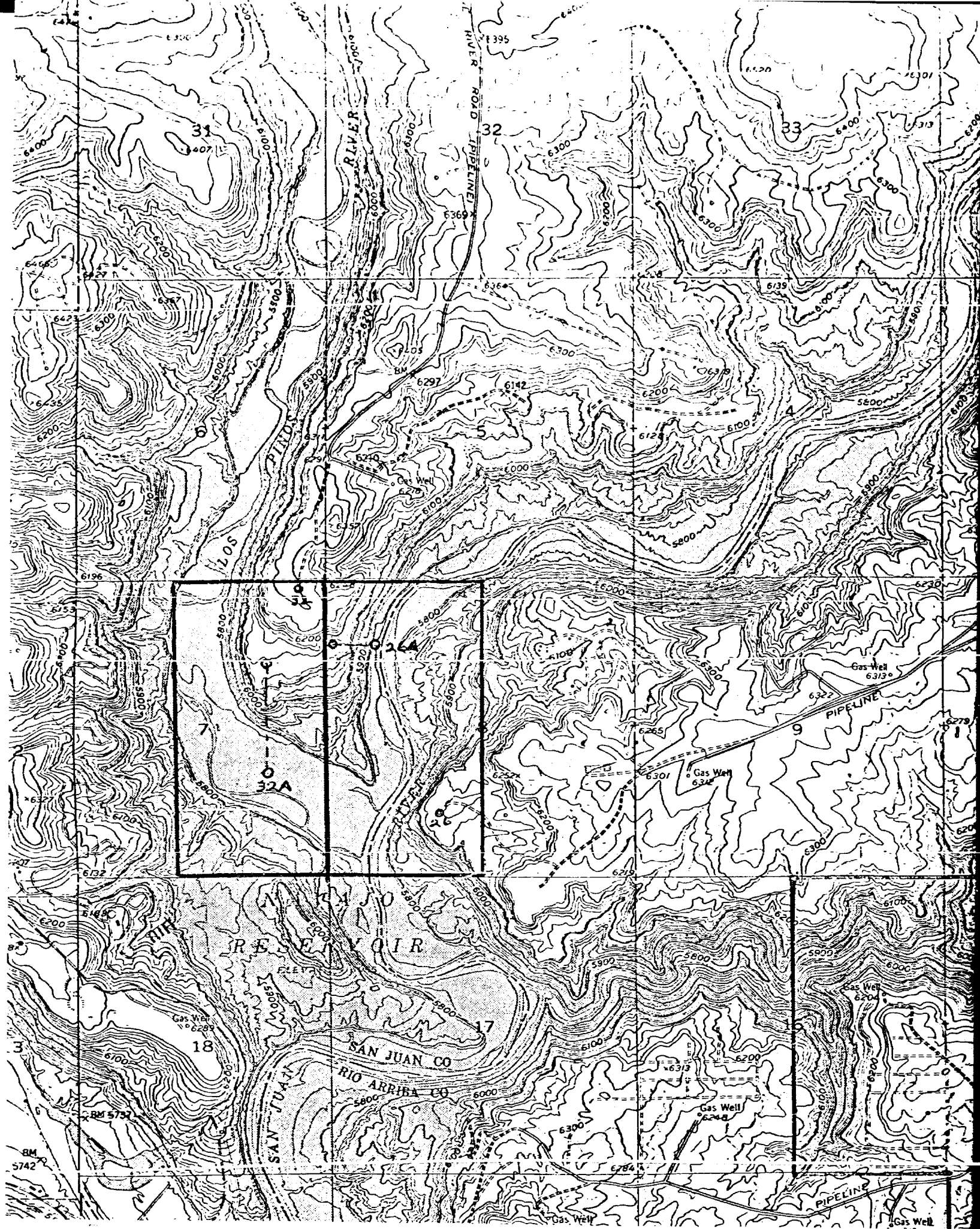
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name
DeLasso Loos
Position
District Manager
Company
Blackwood & Nichols Co., Ltd.
Date
October 20, 1980

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
October 14, 1980

Registered Professional Engineer and/or Land Surveyor
John A. [Signature] LS
Certificate No.
1941



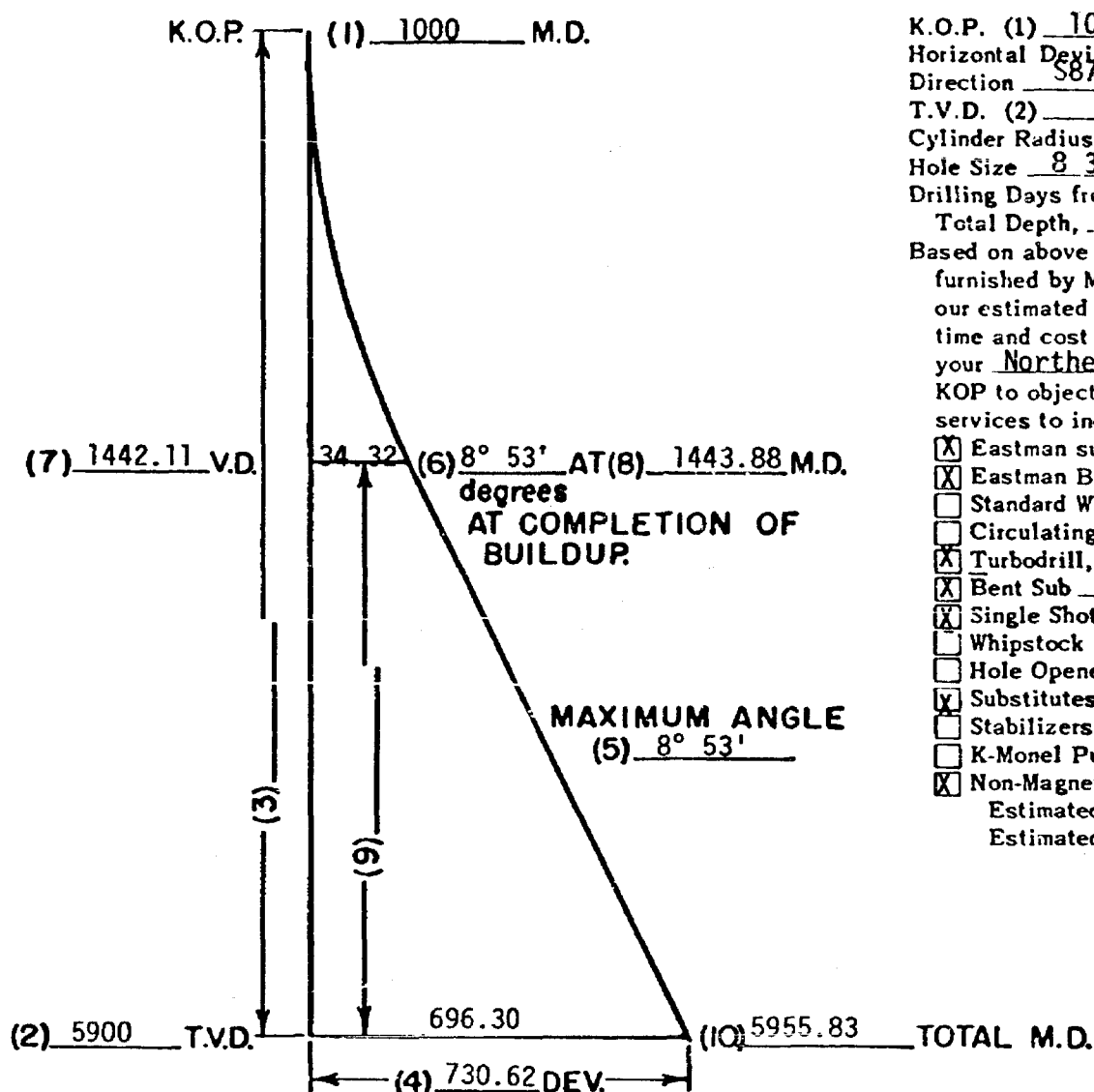


Preliminary Proposal and Cost Estimate for:

COMPANY Blackwood & Nichols Well Name Northeast Blanco unit 26-A Location San Jaun Co., New Mexico

OBJECTIVE:

K.O.P. (1) 1000
 Horizontal Deviation (4) 730.62
 Direction S87° 39' E
 T.V.D. (2) 5900
 Cylinder Radius 50'
 Hole Size 8 3/8 and 6 1/4
 Drilling Days from KOP to
 Total Depth, 19 days
 Based on above objective data
 furnished by Mr. Loos
 our estimated directional drilling
 time and cost for controlling
 your Northeast Blanco unit 26-A
 KOP to objective, with Eastman
 services to include:
☒ Eastman supervision,
☒ Eastman BHO instruments,
☐ Standard Whipstock,
☐ Circulating Whipstock,
☒ Turbodrill, Dyna Drills
☒ Bent Sub 1 1/2 Degree, 2°, 2 1/2°
☒ Single Shot instruments,
☐ Whipstock Bits,
☐ Hole Openers,
☒ Substitutes,
☐ Stabilizers,
☐ K-Monel Pup Joints
☒ Non-Magnetic D.C., is as follows:
 Estimated time 19 days.
 Estimated cost \$ 33,906.00.



ALL INFORMATION ON PRELIMINARY PROPOSAL DETERMINED GRAPHICALLY.
 FINAL WORK PROPOSAL TO BE COMPUTED BY EASTMAN WHIPSTOCK ENGINEERING DEPT.

A. J. Reeves
 Eastman Whipstock Representative - Date

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U.S.C.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well		Northeast Blanco Unit	
DRILL <input checked="" type="checkbox"/>	DEEPEN <input type="checkbox"/>	Agmt. #1, Sec. 929	
PLUG BACK <input type="checkbox"/>		8. Farm or Lease Name	
GIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	Northeast Blanco Unit	
OTHER	SINGLE ZONE <input checked="" type="checkbox"/>	9. Well No.	
	MULTIPLE ZONE <input type="checkbox"/>	32A	
2. Name of Operator		10. Field and Pool, or Wildcat	
Blackwood & Nichols Co., Ltd.		Blanco Mesaverde	
3. Address of Operator		12. County	
P. O. Box 1237, Durango, Colorado 81301		San Juan	
4. Location of Well		19. Proposed Depth	
UNIT LETTER I	LOCATED 1850'	6317'	
FEET FROM THE South	LINE	19A. Formation	
AND 990'	FEET FROM THE East	Mesaverde	
LINE OF SEC. 7	TWP. 30N	20. Rotary or C.T.	
SEC. 7W	NMPM	Rotary	
21. Elevations (Show whether DF, RT, etc.)		22. Approx. Date Work will start	
6132' GL		April 1, 1981	

25.

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"	36.00#	300'	250 Sacks	Circulate
8 3/4"	7"	23.00#	3690'	400 Sacks	1000'
6 1/4"	4 1/2"	11.6#	6317'	350 Sacks	3500'

Surface Location: 1450' F/NL - 990' F/EL; Well to be Drilled Directionally Controlled to the above target. Well site located on Water & Power Resources Services Controlled Land.

We propose to perforate the Point Lookout and Cliffhouse Zones and sand-water fracture with 200,000 gals water and 200,000 lbs. sand in two stages. Estimated tops: Fruitland 2120', Lewis 3295', Cliffhouse 5190', Point Lookout 5867', Mancos 6017'. A 3000 PSI WP; Series 10" - 900 adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with adequate kill and bleed off lines. A mud of sufficient weight to control the Fruitland Formation will be used, well to be drilled with gas below 7" casing point.

Compensated Density-Neutron logs will be run in open hole below 7" casing point.

Blow out preventers will be tested every trip. Gas is dedicated to Northwest Pipeline Corp.

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.

Signed DeLasso Loos Title District Manager Date January 26, 1981

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-178
Effective 1-1-55

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

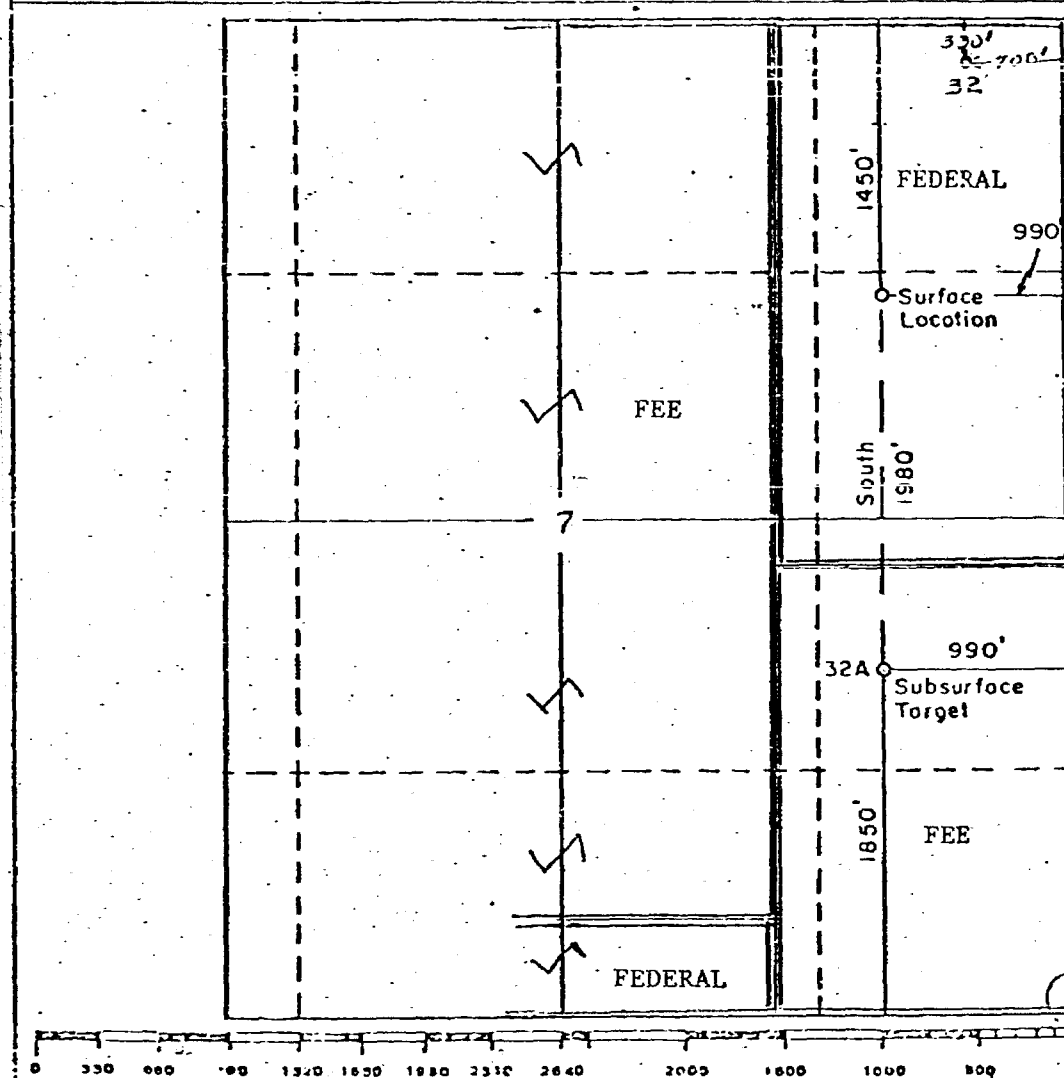
Operator BLACKWOOD & NICHOLS			Lease NORTHEAST BLANCO UNIT		Well No. 32A
Unit Letter I	Section 7	Township 30 N.	Range 7W., N.M.P.M.	County SAN JUAN	
Actual Footage Location of Well: 1850 feet from the south line and 990 feet from the east line					
Ground Level Elev. Surface Loc. 6132 U.G.	Producing Formation Mesaverde		Pool Blanco-Mesaverde		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 Unitization

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 interests, has been approved by the Commission.



CERTIFICATION

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

DeLasso Loos

Name
DeLasso Loos
Position
District Manager
Company
Blackwood & Nichols Co., Ltd.
Date
October 20, 1980

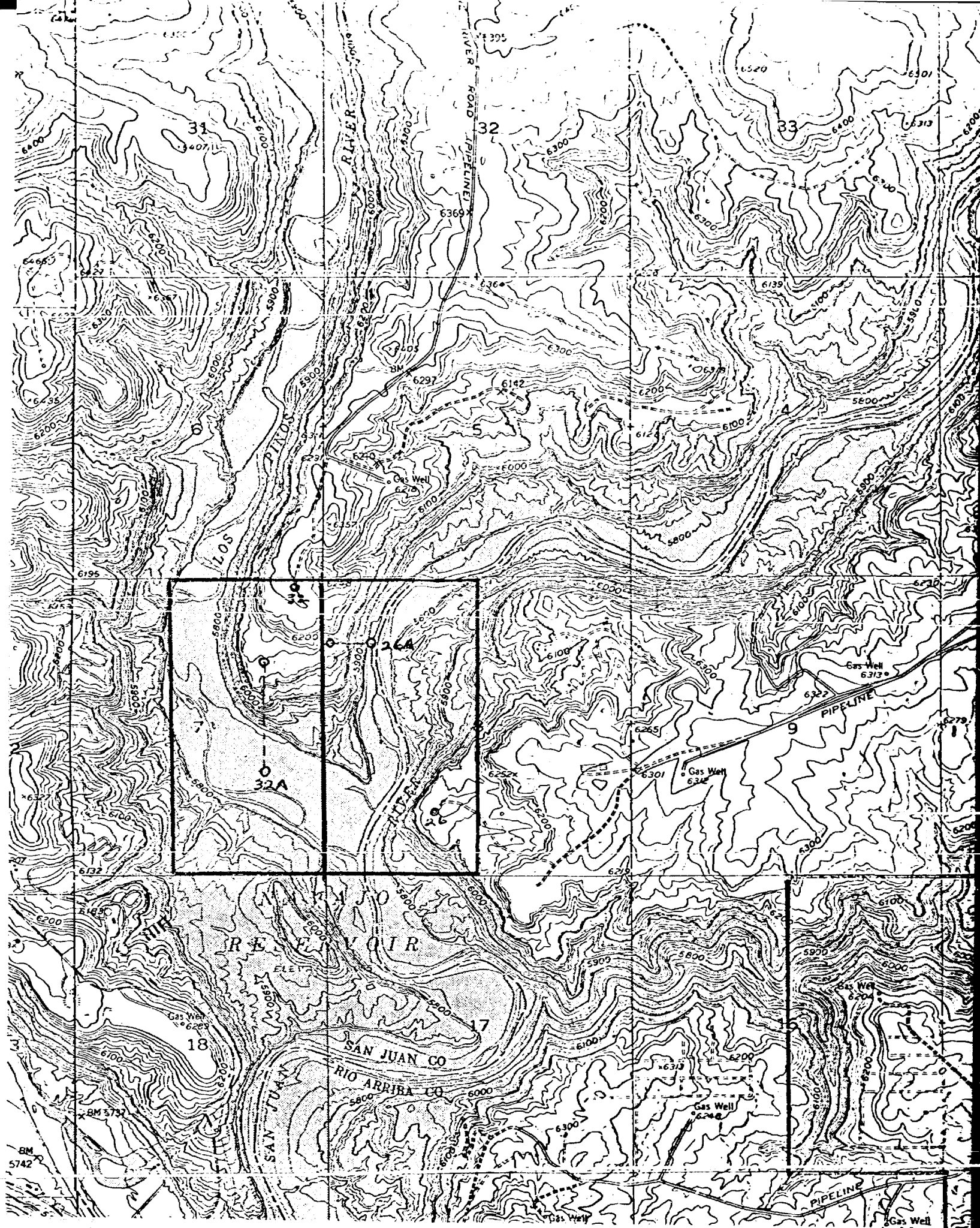
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
October 14, 1980

Registered Professional Engineer and/or Land Surveyor

John A. Krueger
John A. Krueger, LS

Certificate No.
1941



Preliminary Proposal and Cost Estimate for:

COMPANY Blackwood & Nichols Well Name Northeast Blanco Unit 32-A Location San Jaun Co., New Mexico

OBJECTIVE:

K.O.P. (1) 1000
Horizontal Deviation (4) 1980
Direction South
T.V.D. (2) 5900
Cylinder Radius 50'
Hole Size 8 3/8 & 6 1/4
Drilling Days from KOP to
Total Depth, 23 days

Based on above objective data

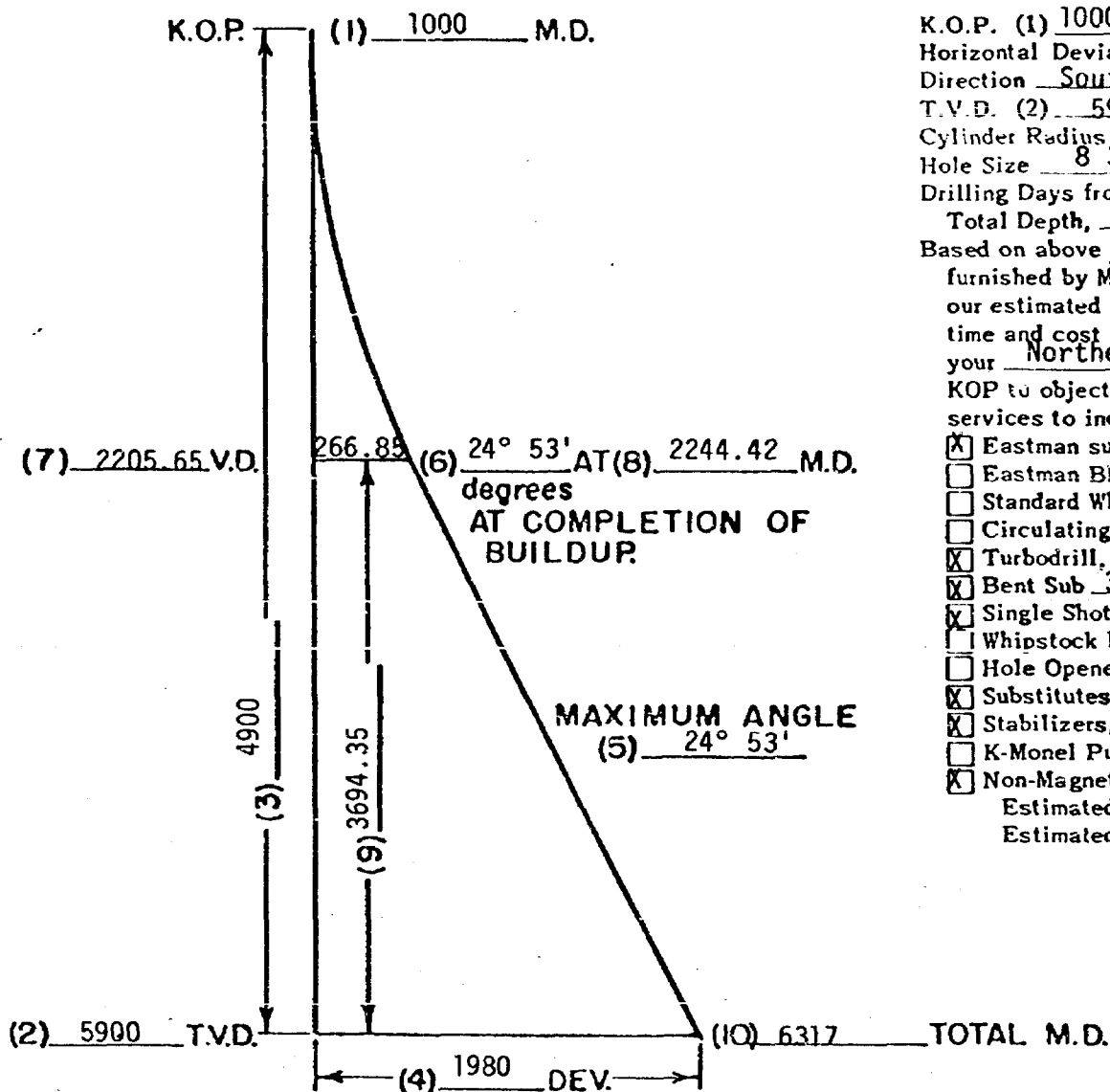
furnished by Mr. Loos

our estimated directional drilling
time and cost for controlling 32-A
your Northeast Blanco unit from

KOP to objective, with Eastman
services to include:

- ☒ Eastman supervision,
- ☐ Eastman BHO instruments,
- ☐ Standard Whipstock,
- ☐ Circulating Whipstock,
- ☒ Turbodrill, Dyna Drill
- ☒ Bent Sub 3 & 2 Degree,
- ☒ Single Shot instruments,
- ☐ Whipstock Bits,
- ☐ Hole Openers,
- ☒ Substitutes,
- ☒ Stabilizers,
- ☐ K-Monel Pup Joints

☒ Non-Magnetic D.C., is as follows:
Estimated time 23 days.
Estimated cost \$ 42,984.00



ALL INFORMATION ON PRELIMINARY PROPOSAL DETERMINED GRAPHICALLY.
FINAL WORK PROPOSAL TO BE COMPUTED BY EASTMAN WHIPSTOCK ENGINEERING DEPT.

J. J. Reimer
Eastman Whipstock Representative - Date

BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF
BLACKWOOD & NICHOLS CO., LTD. FOR
DIRECTIONAL DRILLING, SAN JUAN COUNTY,
NEW MEXICO.

CASE 7188

APPLICATION

Comes now Blackwood & Nichols Co., Ltd., by and through its undersigned attorneys, and hereby makes application pursuant to Oil Conservation Division Rule 111 to directionally drill its Northeast Blanco Unit Wells No. 26A and 32A, Blanco Mesaverde Pool, and in support thereof would show the Division:

1. Applicant is the operator of the Blanco Mesaverde Pool underlying the E/2 of Section 7 and the W/2 Section 8, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico.

2. Applicant proposes to directionally drill its Northeast Blanco Unit Well No. 26A from a surface location of 1160 feet from the north line and 60 feet from the west line to a bottom hole location of 1190 feet from the north line and 790 feet from the west line of Section 8, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico with the intent of testing the Blanco Mesaverde Pool at an approximate depth of 5955 feet.

3. Applicant further proposes to directionally drill its Northeast Blanco Unit Well No. 32A from a surface location 1450 feet from the north line and 990 feet from the east line to a bottom hole location 1850 feet from the south line and 990 feet

from the east line in Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico with the intent of testing the Blanco Mesaverde Pool at an approximate depth of 6317 feet.

4. Applicant proposes to dedicate to the Northeast Blanco Unit Well No. 26A a standard proration unit comprised of the W/2 of said Section 8 and further proposes to dedicate to its northeast Blanco Unit Well No. 32A a standard proration unit to be comprised of the E/2 of said Section 7.

5. Both of the subject wells lie in close proximity to Navajo Lake and both wells must be directionally drilled to enable the applicant to produce the reserves which underlie the above-referenced proration units.

6. Attached hereto and incorporated herein are copies of applications for permit to drill each of the subject wells, OCD Forms C-102 showing the proposed surface and bottom hole locations for each of the subject wells, a plat showing the general topography of the proposed proration units and a preliminary proposal from Eastman Wipstock showing the proposed deviation of the hole for each of the subject wells.

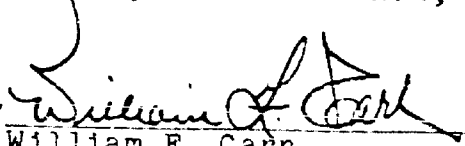
7. That approval of this Application will enable the applicant to produce hydrocarbons that otherwise would not be produced and will otherwise be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing before a duly appointed examiner of the Oil Conservation Division on March 11, 1981, that notice be given as required by law and the rules of the Rules of the Division, and that the Division enter its order granting the applicant permission to directionally drill its Northeast Blanco Unit Wells No. 26A and 32A and granting such other and further relief as is appropriate.

Respectfully submitted,

CAMPBELL, BYRD AND BLACK, P.A.

By


William F. Carr

P.O. Box 2208

Santa Fe, New Mexico 87501

Attorneys for Applicant

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE
TO THE DISTRICT MANAGER
OF THE GEOLOGICAL SURVEY

1. NAME OF OPERATOR
2. ADDRESS OF OPERATOR
3. CITY AND STATE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF OPERATION: DRILL ☒ DEEPEN ☐ PLUG BACK ☐

2. TYPE OF WELL: OIL ☐ GAS ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

3. NAME OF OPERATOR: Blackwood & Nichols Co., Ltd.

4. ADDRESS OF OPERATOR: P. O. Box 1237, Durango, Colorado 81301

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.):
At surface: 1160' F/NL - 60' F/WL

At proposed prod. zone: 1190' F/NL - 790' F/WL

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: Fifteen Miles

7. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also give distance from well to nearest town or post office, if any): 1779.91

8. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 5955

9. ELEVATIONS (Show whether DE, RT, GR, etc.): 6136' GL

10. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36.00# K-40	350'	Circulate
8 3/4"	7"	23.00# K-55	3650'	Two stage circulate to surface
6 1/4"	4 1/2"	10.50# K-55	5955'	Connect to 7"

NTL-6

- (3) San Jose
(6) Ojo Alamo 1985'; Kirtland 2115'; Lewis 3490'; Cliffhouse 4890'; Mancos 5720'.
(7) Fruitland 3000'; Pictured Cliffs 3240'; Massive Cliffhouse 5180'; Menefee 5220'; Point Lookout 5505'.
(9) 9 5/8" surface; 300 sacks Class B cement with 2% CaCl₂; circulate to surface. 7" intermediate; 200 sacks Lite cement with 1/4# flocele per sack followed with 100 sacks Class B with 2% CaCl₂ and 1/4# flocele per sack. Second stage; 200 sacks Lite with 1/4# flocele per sack; to circulate to surface. 4 1/2" liner; 300 sacks 50-50 Pozmix with 2% gel, 0.6% FLA, 1/4# flocele per sack and 6 1/4# Gilsomite per sack to circulate to top of liner.
(10) A 3000 PSI WP; Series 10" - 900 - adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with adequate kill and bleed off lines. Blowout preventer will be pressure tested after

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.

24. DeLasso Loos TITLE District Manager DATE January 2, 1981

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plate, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

★ U.S. GOVERNMENT PRINTING OFFICE: 1974-781-025/VIII-209

(continued)

- 9 5/8" and 7" casing is set and will be tested as to operating condition during each trip while drilling. A rotating blowout preventer will be used while drilling with gas. (See schematic diagram)
- (11) A water base drilling mud of sufficient weight to control the Fruitland Formation will be used while drilling the 8 3/4" hole.
- (12) Compensated Density Gamma Ray-Neutron logs will be run in open hole. No testing or coring is anticipated.
- (13) Normal Fruitland field pressures are anticipated to be controlled with sufficient weighted mud. No hydrogen sulfide is anticipated.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-107
Supersedes C-128
Effective 1-1-85

All distances must be from the center line of the section.

BLACKWOOD & NICHOLS			NORTHEAST BLANCO UNIT			Well No. 26A
Section	Range	Township	Range	County		
D	8	30 N.	7W., N.M.P.M.	SAN JUAN		

Approximate Location of Well:

1190 feet from the north line and	790 feet from the west line
Surface Elev. 6136 U.G.	Producing Formation Mesaverde
Pool Blanco-Mesaverde	Estimated Acreage: 319.99 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 Unitization

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 interests, has been approved by the Commission.

	<p>CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>DeLasso Loos</i> Name DeLasso Loos Position District Manager Company Blackwood & Nichols Co., Ltd. Date October 20, 1980</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 October 14, 1980 Registered Professional Engineer and/or Land Surveyor <i>John A. [Signature]</i> John A. [Signature], P.E. Certificate No. 1941</p>
--	--



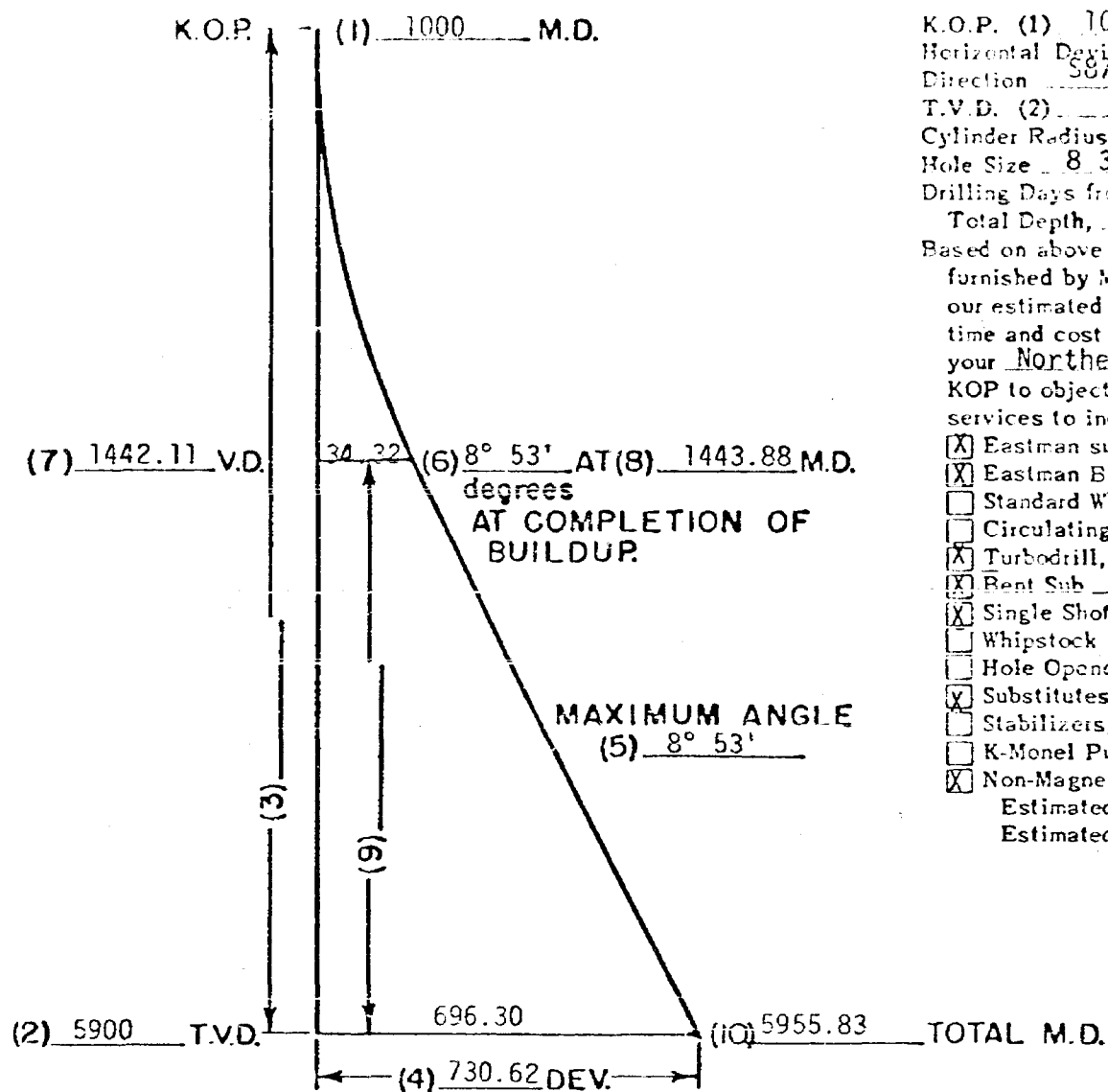


Drilling, Directional and Cost Estimate for:

COMPANY: Shelton & Nichols Well Name: Northeast Blanco unit 26-A Location: San Juan Co., New Mexico

OBJECTIVE:

K.O.P. (1) 1000
 Horizontal Deviation (4) 730.62
 Direction S87° 39' E
 T.V.D. (2) 5900
 Cylinder Radius 50'
 Hole Size 8 3/8 and 6 1/4
 Drilling Days from KOP to
 Total Depth, 19 days
 Based on above objective data
 furnished by Mr. LOOS
 our estimated directional drilling
 time and cost for controlling
 your Northeast Blanco unit 26-A
 KOP to objective, with Eastman
 services to include:
☒ Eastman supervision,
☒ Eastman BHO instruments,
☐ Standard Whipstock,
☐ Circulating Whipstock,
☒ Turbodrill, Dyna Drills
☒ Bent Sub 1 1/2 Degree, 2°, 2 1/2°
☒ Single Shot instruments,
☐ Whipstock Bits,
☐ Hole Openers,
☒ Substitutes,
☐ Stabilizers,
☐ K-Monel Pup Joints
☒ Non-Magnetic D.C., is as follows:
 Estimated time 19 days.
 Estimated cost \$ 33,906.00



ALL INFORMATION ON PRELIMINARY PROPOSAL DETERMINED GRAPHICALLY.
 FINAL WORK PROPOSAL TO BE COMPUTED BY EASTMAN WHIPSTOCK ENGINEERING DEPT.

S. I. Reeves
 Eastman Whipstock Representative - Date

NO. OF COPIES RECEIVED
 DATE
 TIME
 BY
 FOR
 BY
 FOR

NEW MEXICO OIL CONSERVATION COMMISSION

Form O-101
 Revised 1-1-75

1A. Type of Lease
 STATE ☐ FEDERAL ☒
 1. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
 b. Type of Well
 DRILL ☒ DEEPEN ☐ PLUG BACK ☐
 OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. Unit Agreement Name
 Northeast Blanco Unit
 Agrmt. #1, Sec. 929
 6. Name of Lease Name
 Northeast Blanco Unit

2. Name of Operator
 Blackwood & Nichols Co., Ltd.

9. Well No.
 32A

3. Address of Operator
 P. O. Box 1237, Durango, Colorado 81301

10. Field and Pool, or Wildcat
 Blanco Mesaverde

4. Location of Well
 UNIT LETTER I LOCATED 1850' FEET FROM THE South LINE
 AND 990' FEET FROM THE East LINE OF SEC. 7 TWP. 30N RGE. 7W NMPM

12. County
 San Juan

19. Proposed Depth 6317' 19A. Formation Mesaverde 20. Rotary or C.T. Rotary
 21. Elevations (Show whether DF, RT, etc.) 6132' GL 21A. Kind & Status Plug. Bond 21B. Drilling Contractor Unknown 22. Approx. Date Work will start April 1, 1981

23. 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"	36.00#	300'	250 Sacks	Circulate
8 3/4"	7"	23.00#	3690'	400 Sacks	1000'
6 1/4"	4 1/2"	11.6#	6317'	350 Sacks	3500'

Surface Location: 1450' F/NL - 990' F/EL; Well to be Drilled Directionally Controlled to the above target. Well site located on Water & Power Resources Services Controlled Land.

We propose to perforate the Point Lookout and Cliffhouse Zones and sand-water fracture with 200,000 gals water and 200,000 lbs. sand in two stages. Estimated tops: Fruitland 2120', Lewis 3295', Cliffhouse 5190', Point Lookout 5867', Mancos 6017'. A 3000 PSI WP; Series 10" - 900 adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with adequate kill and bleed off lines. A mud of sufficient weight to control the Fruitland Formation will be used, well to be drilled with gas below 7" casing point.

Compensated Density-Neutron logs will be run in open hole below 7" casing point.

Blow out preventers will be tested every trip. Gas is dedicated to Northwest Pipeline Corp.

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.

Signed DeLasso Loos Title District Manager Date January 26, 1981

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-102
Supersedes O-128
Effective 12-65

All distances are in feet from the corner of the Section.

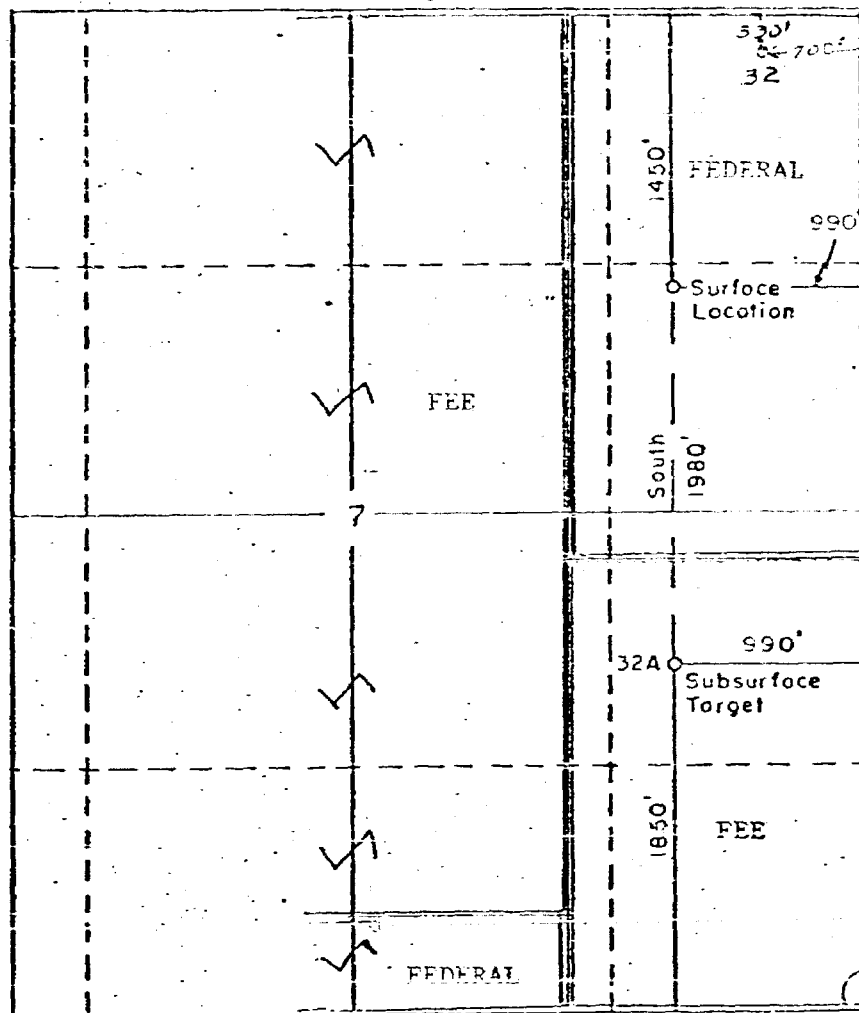
BLACKWOOD & NICHOLS			NORTHEAST BLANCO UNIT		Well No. 32A
Section	Range	Township	Range	County	
I	7	30 N.	7W., N.M.P.M.	SAN JUAN	
Surface Location of Well					
1850 feet from the south line		990 feet from the east line			
Surface Loc.	Producing Formation	Pool	Dedicated Acreage		
6132 U.G.	Mesaverde	Blanco-Mesaverde	320 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 Unitization

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 interests, has been approved by the Commission.



CERTIFICATION

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

DeLasso Loos

Name DeLasso Loos

Position District Manager

Company Blackwood & Nichols Co., Ltd.

Date October 20, 1980

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 October 14, 1980

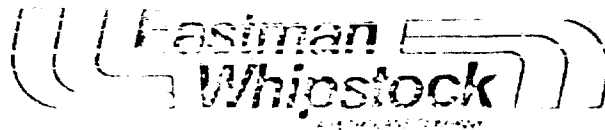
Registered Professional Engineer and/or Land Surveyor

John A. Kessner

John A. Kessner, L.S.

Certificate No. 1941





Drilling by Proposal and Cost Estimate for:

COMPANY Blackwood & Nichols

Well Name Unit 32-A

Location San Juan Co., New Mexico

OBJECTIVE:

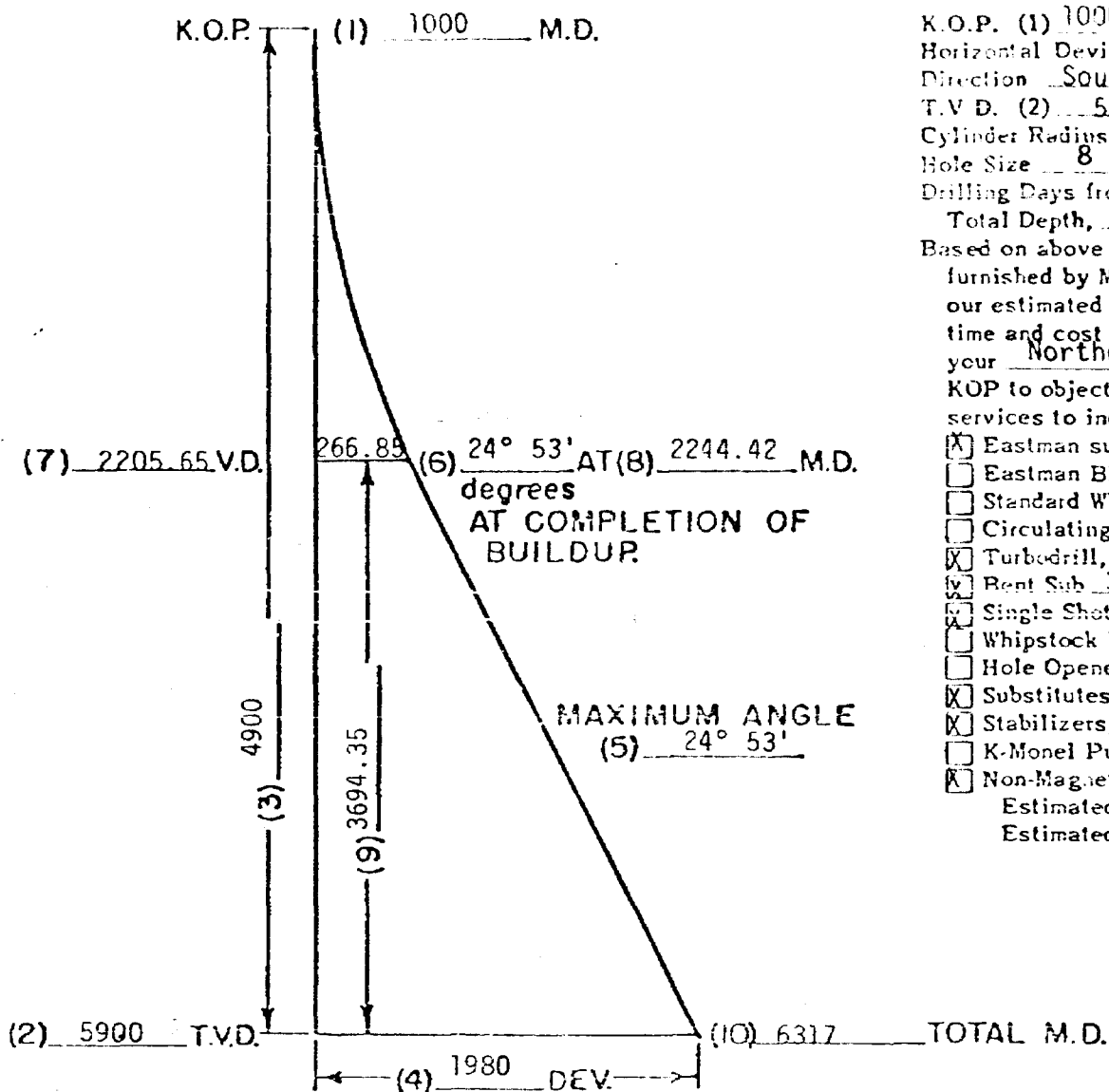
K.O.P. (1) 1000
Horizontal Deviation (4) 1980
Direction South
T.V.D. (2) 5900
Cylinder Radius 50'
Hole Size 8 3/8 & 6 1/4
Drilling Days from KOP to
Total Depth, 23 days

Based on above objective data
furnished by Mr. Lons
our estimated directional drilling
time and cost for controlling 32-A
your Northeast Blanco unit from

KOP to objective, with Eastman
services to include:

- ☒ Eastman supervision,
- ☐ Eastman BHO instruments,
- ☐ Standard Whipstock,
- ☐ Circulating Whipstock,
- ☒ Turbodrill, Dyna Drill
- ☒ Rent Sub 3 & 2 Degree,
- ☒ Single Shot instruments,
- ☐ Whipstock Bits,
- ☐ Hole Openers,
- ☒ Substitutes,
- ☒ Stabilizers,
- ☐ K-Monel Pup Joints
- ☒ Non-Magnetic D.C., is as follows:

Estimated time 23 days.
Estimated cost \$ 42,984.00



ALL INFORMATION ON PRELIMINARY PROPOSAL DETERMINED GRAPHICALLY.
FINAL WORK PROPOSAL TO BE COMPUTED BY EASTMAN WHIPSTOCK ENGINEERING DEPT.

J. J. Reeves
Eastman Whipstock Representative - Date

BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF
BLACKWOOD & NICHOLS CO., LTD. FOR
DIRECTIONAL DRILLING, SAN JUAN COUNTY,
NEW MEXICO.

CASE 7188

APPLICATION

Comes now Blackwood & Nichols Co., Ltd., by and through its undersigned attorneys, and hereby makes application pursuant to Oil Conservation Division Rule 111 to directionally drill its Northeast Blanco Unit Wells No. 26A and 32A, Blanco Mesaverde Pool, and in support thereof would show the Division:

1. Applicant is the operator of the Blanco Mesaverde Pool underlying the E/2 of Section 7 and the W/2 Section 8, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico.

2. Applicant proposes to directionally drill its Northeast Blanco Unit Well No. 26A from a surface location of 1160 feet from the north line and 60 feet from the west line to a bottom hole location of 1190 feet from the north line and 790 feet from the west line of Section 8, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico with the intent of testing the Blanco Mesaverde Pool at an approximate depth of 5955 feet.

3. Applicant further proposes to directionally drill its Northeast Blanco Unit Well No. 32A from a surface location 1450 feet from the north line and 990 feet from the east line to a bottom hole location 1850 feet from the south line and 990 feet

from the east line in Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico with the intent of testing the Blanco Mesaverde Pool at an approximate depth of 6317 feet.

4. Applicant proposes to dedicate to the Northeast Blanco Unit Well No. 26A a standard proration unit comprised of the W/2 of said Section 8 and further proposes to dedicate to its northeast Blanco Unit Well No. 32A a standard proration unit to be comprised of the E/2 of said Section 7.

5. Both of the subject wells lie in close proximity to Navajo Lake and both wells must be directionally drilled to enable the applicant to produce the reserves which underlie the above-referenced proration units.

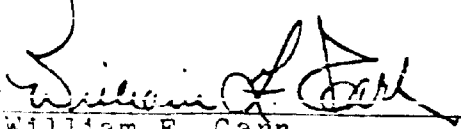
6. Attached hereto and incorporated herein are copies of applications for permit to drill each of the subject wells, OCD Forms C-102 showing the proposed surface and bottom hole locations for each of the subject wells, a plat showing the general topography of the proposed proration units and a preliminary proposal from Eastman Wipstock showing the proposed deviation of the hole for each of the subject wells.

7. That approval of this Application will enable the applicant to produce hydrocarbons that otherwise would not be produced and will otherwise be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing before a duly appointed examiner of the Oil Conservation Division on March 11, 1981, that notice be given as required by law and the rules of the Rules of the Division, and that the Division enter its order granting the applicant permission to directionally drill its Northeast Blanco Unit Wells No. 26A and 32A and granting such other and further relief as is appropriate.

Respectfully submitted,

CAMPBELL, BYRD AND BLACK, P.A.

By 
William F. Carr
P.O. Box 2208
Santa Fe, New Mexico 87501
Attorneys for Applicant

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE
(Other Instructions on
Reverse Side)

Form No. 42 (11-42)

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK: DRILL ☒ DEEPEN ☐ PLUG BACK ☐

2. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

3. NAME OF OPERATOR:
Blackwood & Nichols Co., Ltd.

4. ADDRESS OF OPERATOR:
P. O. Box 1237, Durango, Colorado 81301

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface
1160' F/NL - 60' F/WL

At proposed prod. zone

1190' F/NL - 790' F/WL

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

Fifteen Miles

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drg. unit line, if any)

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

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

6136' GL

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36.00# H-40	350'	Circulate
8 3/4"	7"	23.00# K-55	3650'	Two stage circulate to surface
6 1/4"	4 1/2"	10.50# K-55	5955'	Connect to 7"

NTL-6

- (3) San Jose
(6) Ojo Alamo 1985'; Kirtland 2115'; Lewis 3490'; Cliffhouse 4890'; Mancos 5720'.
(7) Fruitland 3000'; Pictured Cliffs 3240'; Massive Cliffhouse 5180'; Menefee 5220';
Point Lookout 5505'.
(9) 9 5/8" surface; 300 sacks Class B cement with 2% CaCl₂; circulate to surface. 7"
intermediate; 200 sacks Lite cement with 1/4# flocele per sack followed with 100
sacks Class B with 2% CaCl₂ and 1/4# flocele per sack. Second stage; 200 sacks Lite
with 1/4# flocele per sack; to circulate to surface.
4 1/2" liner; 300 sacks 50-50 Pozmix with 2% gel, 0.6% FLA, 1/4# flocele per sack and
6 1/4# Gilsontite per sack to circulate to top of liner.
(10) A 3000 PSI WP; Series 10" - 900 - adapted to Series 10" - 600 and 6" - 600 hydraulic
blowout preventer equipped with blind and necessary pipe rams will be used with
adequate kill and bleed off lines. Blowout preventer will be pressure tested after

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.

24. Delasso Loos TITLE District Manager DATE January 2, 1981

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal offices for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plat, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

* U.S. GOVERNMENT PRINTING OFFICE: 1974-781-025/V111-239

(continued)

9 5/8" and 7" casing is set and will be tested as to operating condition during each trip while drilling. A rotating blowout preventer will be used while drilling with gas. (See schematic diagram)

(11) A water base drilling mud of sufficient weight to control the Fruitland Formation will be used while drilling the 8 3/4" hole.

(12) Compensated Density Gamma Ray-Neutron logs will be run in open hole. No testing or coring is anticipated.

(13) Normal Fruitland field pressures are anticipated to be controlled with sufficient weighted mud. No hydrogen sulfide is anticipated.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-85

All distances are in feet from the corner to a corner of the section.

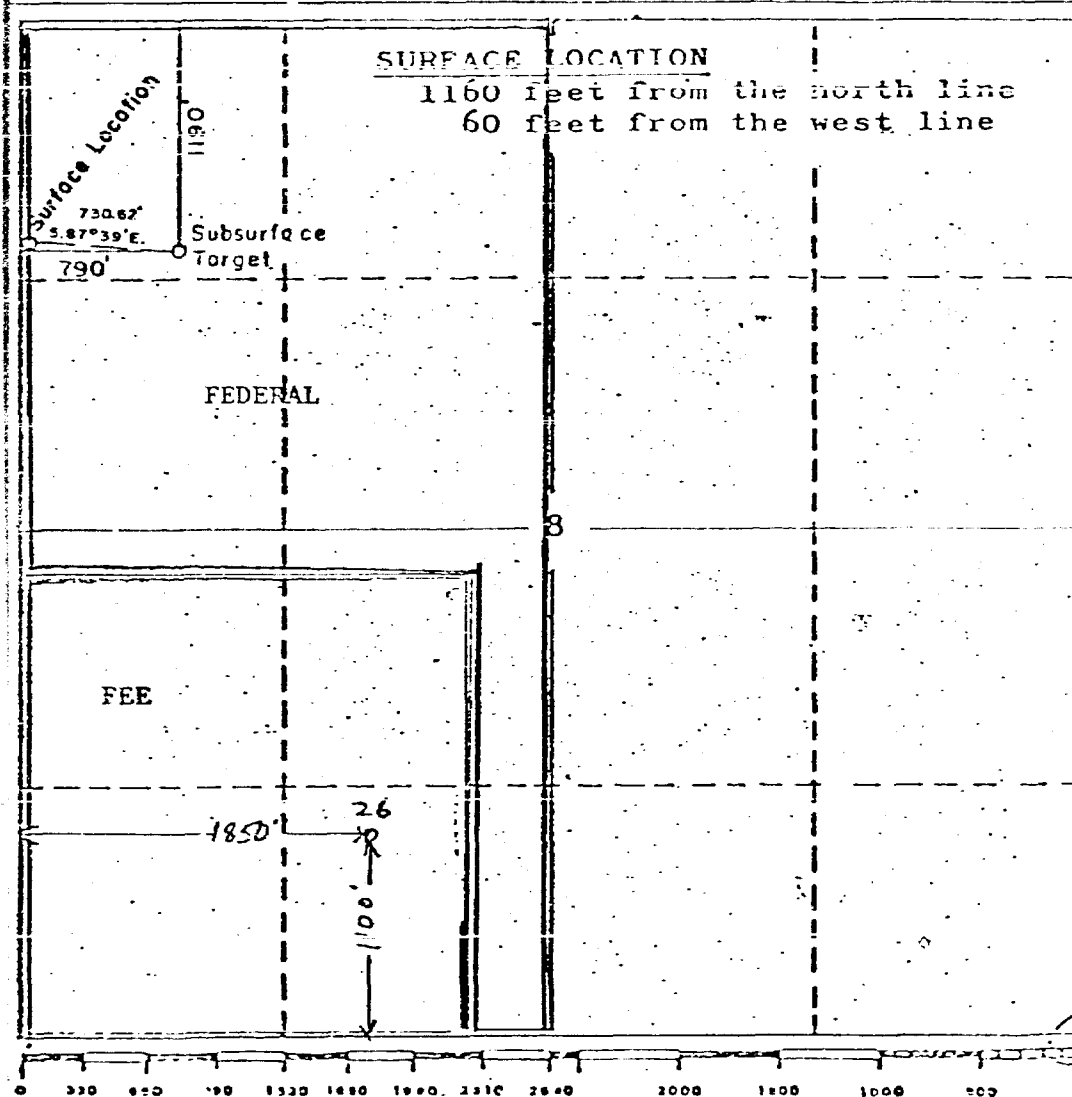
BLACKWOOD & NICHOLS			NORTHEAST BLANCO UNIT			Well No.	26A
Section	30 N.	Range	7W., N.M.P.M.	County	SAN JUAN		
Section	8	Range	30 N.	County	SAN JUAN		
1190 feet from the north line and				790 feet from the west line			
Surface Loc.	6136 U.G.	Producing Formation	Mesaverde	Pool	Blanco-Mesaverde	Dedicated Acreage:	319.99 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 Unitization

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 interests, has been approved by the Commission.



CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	DeLasso Loos
Position	District Manager
Company	Blackwood & Nichols Co., Ltd.
Date	October 20, 1980
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	October 14, 1980
Registered Professional Engineer and/or Land Surveyor	John A. DeLasso, L.S.
Certificate No.	1941



A. J. Reeves
Eastman Whipstock Representative - Date

COUNTY OF _____
 STATE OF _____
 TITLE _____
 COUNTY OF _____
 COUNTY OF _____
 COUNTY OF _____

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 11-65

1A. Indicate Type of Lease
 STATE ☐ FEDERAL ☒
 1. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work
 b. Type of Well
 OIL WELL ☐ GAS WELL ☒ OTHER ☐
 DRILL ☒ DEEPEN ☐ PLUG BACK ☐
 SINGLE ZONE ☒ MULTIPLE ZONE ☐
 2. Name of Operator
 Blackwood & Nichols Co., Ltd.
 3. Address of Operator
 P. O. Box 1237, Durango, Colorado 81301
 4. Location of Well
 UNIT LETTER I LOCATED 1850' FEET FROM THE South LINE
 AND 990' FEET FROM THE East LINE OF SEC. 7 TWP. 30N RGE. 7W NMPM
 7. Unit Agreement Name
 Northeast Blanco Unit
 Agrmt. #1, Sec. 929
 8. Farm or Lease Name
 Northeast Blanco Unit
 9. Well No.
 32A
 10. Field and Pool, or Wildcat
 Blanco Mesaverde
 12. County
 San Juan
 19. Proposed Depth
 6317'
 19A. Formation
 Mesaverde
 20. Rotary or C.T.
 Rotary
 21. Elevations (Show whether DF, RT, etc.)
 6132' GL
 21A. Kind & Status Plug. Bond
 21B. Drilling Contractor
 Unknown
 22. Approx. Date Work will start
 April 1, 1981

23.

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"	36.00#	300'	250 Sacks	Circulate
8 3/4"	7"	23.00#	3690'	400 Sacks	1000'
6 1/4"	4 1/2"	11.6#	6317'	350 Sacks	3500'

Surface Location: 1450' F/NL - 990' F/EL; Well to be Drilled Directionally Controlled to the above target. Well site located on Water & Power Resources Services Controlled Land.

We propose to perforate the Point Lookout and Cliffhouse Zones and sand-water fracture with 200,000 gals water and 200,000 lbs. sand in two stages. Estimated tops: Fruitland 2120', Lewis 3295', Cliffhouse 5190', Point Lookout 5867', Mancos 6017'. A 3000 PSI WP; Series 10" - 900 adapted to Series 10" - 600 and 6" - 600 hydraulic blowout preventer equipped with blind and necessary pipe rams will be used with adequate kill and bleed off lines. A mud of sufficient weight to control the Fruitland Formation will be used, well to be drilled with gas below 7" casing point.

Compensated Density-Neutron logs will be run in open hole below 7" casing point.

Blow out preventers will be tested every trip. Gas is dedicated to Northwest Pipeline Corp.

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.

Signed DeLasso Loos Title District Manager Date January 26, 1981

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-102
Effective 1-1-75

BLACKWOOD & NICHOLS			NORTHEAST BLANCO UNIT		Well No. 32A
Section I	Section 7	Township 30 N.	Range 7W., N.M.P.M.	County SAN JUAN	
Approximate Location of Well					
1850 feet from the south line and		990 feet from the east line.			
Surface Loc. 6132 U.G.	Producing Formation Mesaverde	Pool Blanco-Mesaverde	Dedicated Acreage: 320	Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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?

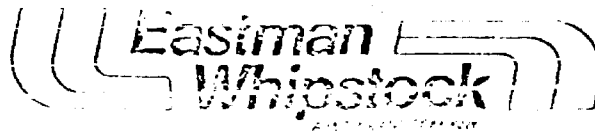
☒ Yes ☐ No If answer is "yes," type of consolidation Unitization

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 interests, has been approved by the Commission.

	<p>CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>DeLasso Loos</i></p> <p>Name <u>DeLasso Loos</u></p> <p>Position <u>District Manager</u></p> <p>Company <u>Blackwood & Nichols Co., Ltd.</u></p> <p>Date <u>October 20, 1980</u></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 <u>October 14, 1980</u></p> <p>Registered Professional Engineer and/or Land Surveyor <i>John A. Haggan</i></p> <p>John A. Haggan, L.S.</p> <p>Certificate No. <u>1941</u></p>
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Preliminary Proposal and Cost Estimate for:

COMPANY Blackwood & Nichols Well Name Northeast Blanco Unit 32 A Location San Juan Co., New Mexico

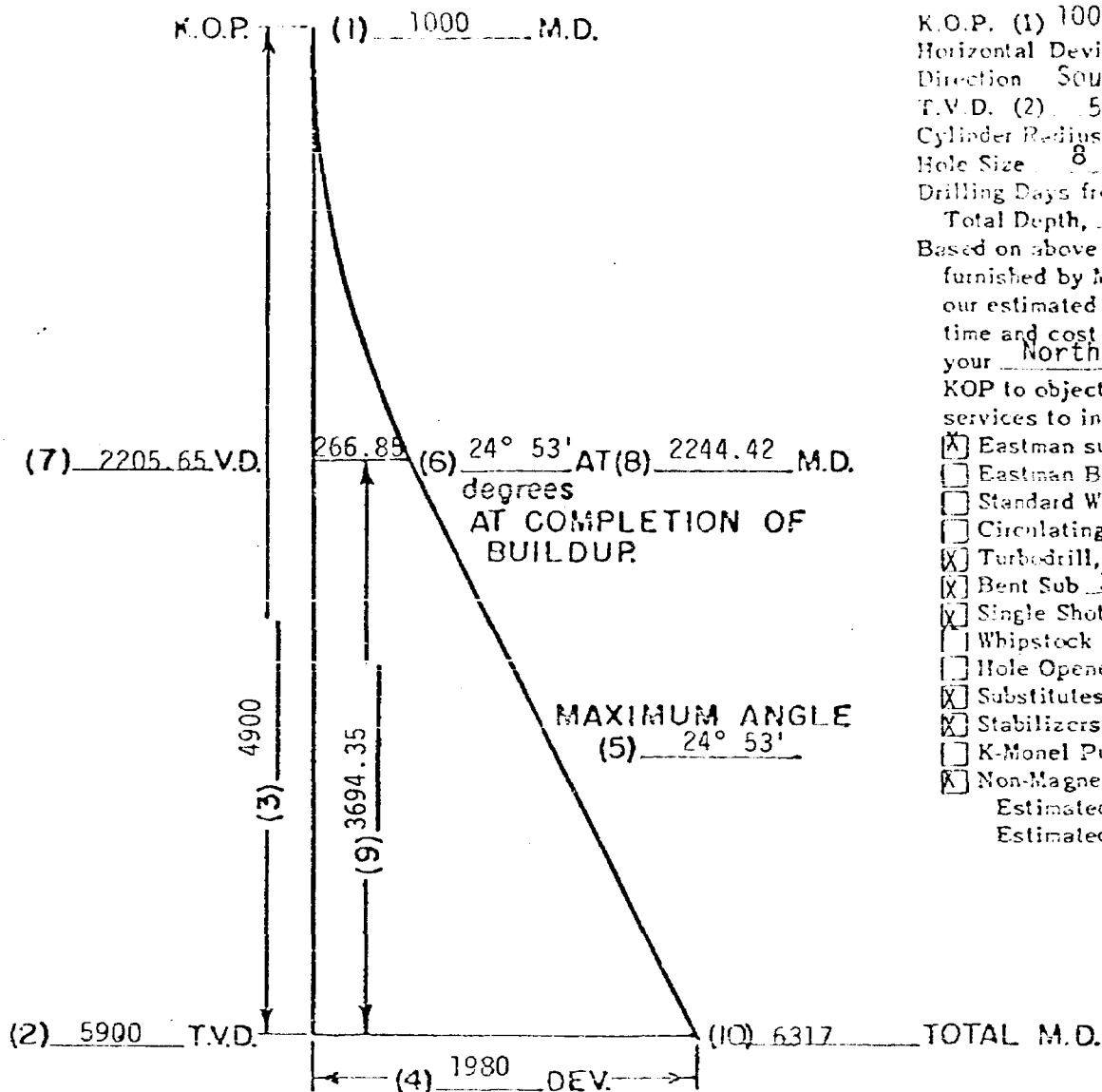
OBJECTIVE:

K.O.P. (1) 1000
Horizontal Deviation (4) 1980
Direction South
T.V.D. (2) 5900
Cylinder Radius 50'
Hole Size 8 3/8 & 6 1/4
Drilling Days from KOP to
Total Depth, 23 days

Based on above objective data
furnished by Mr. Loos
our estimated directional drilling
time and cost for controlling
your Northeast Blanco unit from
KOP to objective, with Eastman

services to include:

- ☒ Eastman supervision,
- ☐ Eastman BHO instruments,
- ☐ Standard Whipstock,
- ☐ Circulating Whipstock,
- ☒ Turbodrill, Dyna Drill
- ☒ Bent Sub 3 & 2 Degree,
- ☒ Single Shot instruments,
- ☐ Whipstock Bits,
- ☐ Hole Openers,
- ☒ Substitutes,
- ☒ Stabilizers,
- ☐ K-Monel Pup Joints
- ☒ Non-Magnetic D.C., is as follows:
Estimated time 23 days.
Estimated cost \$ 42,984.00



ALL INFORMATION ON PRELIMINARY PROPOSAL DETERMINED GRAPHICALLY.
FINAL WORK PROPOSAL TO BE COMPUTED BY EASTMAN WHIPSTOCK ENGINEERING DEPT.

J. J. Reuss
Eastman Whipstock Representative - Date

ROUGH

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

dr/

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

CASE NO. 7188

Order No. R-6636

APPLICATION OF BLACKWOOD &
NICHOLS CO., LTD. FOR DIRECTIONAL
DRILLING, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 11
19 81, at Santa Fe, New Mexico, before Examiner Richard L. Stamey

NOW, on this _____ day of March, 1981, the
Division Director, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) That the applicant, Blackwood & Nichols Co., Ltd., seeks
authority to directionally drill its Northeast Blanco Unit Well
No. 26-A, the surface location of which is 1160 feet from the
North line and 60 feet from the West line of Section 8, Township
30 North, Range 7 West, ~~and directionally drill said well~~ in
such a manner as to bottom it in the Mesaverde formation within
100 feet of a point 1190 feet from the North line and 790 feet from
the West line of said Section 8, the W/2 of the section to be
dedicated to the well.

directionally

(3) That applicant further seeks authority to ~~drill~~ ^{directionally} its Northeast Blanco Unit Well No. 32-A, the surface location of which is 1450 feet from the North line and 990 feet from the East line of Section 7, Township 30 North, Range 7 West, ~~and directionally drill said well~~ in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1850 feet from the South line and 990 feet from the East line of said Section 7, the E/2 of the section to be dedicated to the well.

(4) That the directional drilling of each of the above-described wells is necessitated ~~in order to~~ ^{by the presence of Navajo Lake which covers most of the surface of said proration units}

(5) That the applicant should be required to determine the subsurface location of the kick-off point on each well prior to directional drilling, and to determine the subsurface location of the bottom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said wells are to be completed as producing wells.

IT IS THEREFORE ORDERED:

(1) That the applicant, Blackwood & Nichols Co., Ltd., is hereby authorized to directionally drill its Northeast Blanco Unit Well No. 26-A, the surface location of which ^{shall be} 1160 feet from the North line and 60 feet from the West line of Section 8, Township 30 North, Range 7 West, ~~and directionally drill said well~~ in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1190 feet from the North line and 790 feet from the West line of said Section 8, the W/2 of the section to be dedicated to the well.

(2) That applicant is further hereby authorized to ^{directionally} drill its Northeast Blanco Unit Well No. 32-A, the surface location of which is 1450 feet from the North line and 990 feet from the East line of Section 7, Township 30 North, Range 7 West, ~~and directionally drill said well~~ in such a manner as to bottom it in the Mesaverde formation within 100 feet of a point 1850 feet from the South line and 990 feet from the East line of said Section 7, the E/2 of the section to be dedicated to the well.

PROVIDED HOWEVER, that prior to directional drilling of each well, the operator shall determine the subsurface location of the kick-off point; and

PROVIDED FURTHER, that subsequent to the above-described directional drilling, should said wells be ~~producers~~, a continuous multi-shot directional survey shall be made of the wellbore of each well from total depth to the kick-off point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico, and that the operator shall notify the Division's Aztec District Office of the date and time said survey is to be commenced.

(3) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(4) That jurisdiction of this cause is 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.