

CASE 7316: BLACKWOOD & NICHOLS COMPANY,
LTD. FOR AMENDMENT OF ORDER NO. R-6636,
SAN JUAN COUNTY, NEW MEXICO

Case No.

7316

Application

Transcripts

Small Exhibits

ETC

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

EXAMINER HEARING

IN THE MATTER OF:

Application of Blackwood & Nichols
Company, Ltd., for amendment of
Order No. R-6636, San Juan County,
New Mexico.

CASE
7316

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

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I N D E X

DELESSO

Direct Examination by Mr. Carr

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Cross Examination by Mr. Stamets

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E X H I B I T S

Applicant Exhibit One, Report

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MR. STAMETS: We'll call next case 7316.

MR. PADILLA: Application of Blackwood and Nichols Company, Ltd., for amendment of Order No. R-6636, San Juan County, New Mexico.

MR. CARR: May it please the Examiner, my name is William F. Carr, with the law firm of Campbell, Byrd, and Black, P. A., Santa Fe, New Mexico, appearing on behalf of Blackwood and Nichols Company, Limited.

I have one witness who needs to be sworn.

(Witness sworn.)

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

DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your name and place of residence?

A DeLasso Loos, Durango, Colorado.

Q Mr. Loos, by whom are you employed and in what capacity?

1
2 A. Blackwood and Nichols Company, District
3 Manager.

4 Q. Have you previously testified before
5 this Commission or one of its examiners and had your credentials
6 as an engineer accepted and made a matter of record?

7 A. Yes, sir.

8 Q. Are you familiar with the application of
9 Blackwood and Nichols in the subject case?

10 A. Yes, sir.

11 Q. And are you familiar with the Northeast
12 Blanco Unit Well No. 32-A?

13 A. Yes.

14 MR. CARR: Are the witness' qualifications
15 acceptable?

16 MR. STAMETS: They are.

17 Q. Mr. Locs, have you prepared certain
18 exhibits for introduction in this case?

19 A. Yes.

20 Q. Will you please refer to what has been
21 marked for identification as Blackwood and Nichols Company
22 Exhibit Number One, and using this exhibit explain to Mr.
23 Stamets what problems were encountered in drilling the North-
24 east Blanco Unit Well No. 32-A?

25 A. We began this, the 32-A as a directionally

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drilled hole with a target of 1850 from the south line, and
990 from the east line of Section 7, 30 North, 7 West, San
Juan County.

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After -- we began our direction drilling
procedures at 1000 feet in a mud drilled hole and we encountered
no problems with the 7-inch casing, was set at 3571, I believe.
Yeah, 3570.

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Then we drilled out a 6-1/4 hole with
gas or air, whichever we decided to use at the time. We
started out with air. And we reached a depth then of approx-
imately 5400 feet. We were on target and direction and on
target at that depth. And at that depth, with the bottom
hole assemblies on the drill pipe, the torque became so great
that it was practically impossible to rotate the drill string.

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So at that point we decided that we
would take the drilling assemblies off to maintain a straight
directional hole and just let the bit go where it wanted to
in order to complete the well.

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And so what we did, we took those bottom
hole assemblies off of the drill pipe and went in with just
bit and collars and at that, plus 5400 feet, then, we had
17 degrees and south 28 degrees east, and after that depth
the bit followed the structure. It veered east and went
towards the vertical.

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2 We ended up 6-1/2 degrees and south 35
3 east; therefor, we missed our target and ended up 2213 feet
4 from the south line and 815 feet from the east line, which is
5 still in the south southeast quarter of this section but makes
6 it a nonstandard drill site.

7 Q Mr. Loos, Blackwood and Nichols Exhibit
8 Number One consists a report of the directional survey and
9 a plat which shows the surface location, the original bottom
10 hole location, and the actual bottom hole location, is that
11 correct?

12 A Correct.

13 Q Who owns all offsetting acreage to the --

14 A Northeast Blanco Unit.

15 Q And you are requesting that Order R-6636
16 be amended to approve the actual bottom hole location for
17 this well?

18 A Correct.

19 Q Was Exhibit One prepared by you or can
20 you testify to its accuracy?

21 A Yes, under my supervision.

22 MR. CARR: At this time, Mr. Stamets,
23 we would offer Blackwood and Nichols Company Exhibit Number
24 One.

25 MR. STAMETS: The exhibit will be ad-

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2 mitted.

3 Q Mr. Loos, in your opinion will granting
4 this application be in the best interest of conservation, the
5 prevention of waste, and the protection of correlative rights?

6 A Yes, sir.

7 MR. CARR: I have nothing further of
8 Mr. Loos on direct.

9
10 CROSS EXAMINATION

11 BY MR. STAMETS:

12 Q Mr. Loos, what was the downhole equipment
13 which you had to remove?

14 A We had -- in order to maintain -- we --
15 underneath the 7-inch casing we predicted or projected that
16 we would have to maintain 26-1/2 degrees to TD, and everything
17 was fine there.

18 Then, in order to maintain this angle,
19 we had two stabilizers immediately above the bit. One
20 Menaul (sic) collar, two collars up we had another stabilizer.
21 And in order to maintain that angle; and for direction we used
22 Dynadrills and we could get about a 3-hour run out of each
23 Dynadrill and then with air the rubbers would come out of
24 it and plug the bit. And so -- but as far as direction was
25 concerned, we weren't too -- too bothered till we -- till we

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2 released it in the bottom of the hole, and we used three
3 Dynadrills. Then we gave up on the Dynadrills and went to a
4 Nava (sic) drill, which is another brand name of another com-
5 pany. And the same thing happened to those.

6 And those, the Dynadrills, then, when
7 you go in with a Dynadrill you maintain direction, which was
8 due south, theoretical, and in order to maintain that you use
9 this Dynadrill to correct your angle. And also, if your angle
10 dip is declining, then you use this also with two degree
11 builtin sub immediately on top of the Dynadrill to build angle
12 again.

13 But we had so much difficulty with that
14 equipment that we tried to maintain it with just regular
15 drilling assemblies to maintain angle, which in a dry hole,
16 gas drilled hole or an air drilled hole we found is practi-
17 cally impossible with this much angle to maintain.

18 Q. So just air drilling without the Dyna-
19 drill the stabilizers gave too much friction in the hole?

20 A. Correct.

21 Q. And you did indicate that the Northeast
22 Blanco Unit completely surrounds the proration unit?

23 A. Yes, sir.

24 MR. STAMETS: Any other questions of
25 the witness? He may be excused.

Anything further in this case?

MR. CARR: Nothing further.

MR. STAMETS: The case will be taken
under advisement.

(Hearing concluded.)

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 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 CSR

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B

Sanita Fe, New Mexico 87501

Phone (505) 455-7409

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7316, heard by me on 7-24 19 81.

Richard L. Stum, Examiner
Oil Conservation Division

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

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EXAMINER HEARING

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DELA SSO

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Anything further in this case?

MR. CARR: Nothing further.

MR. STAMETS: The case will be taken
under advisement.

(Hearing concluded.)

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 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 CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. _____, heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409



BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

August 7, 1981

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

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

Re: CASE NO. 7316
ORDER NO. R-6636-A

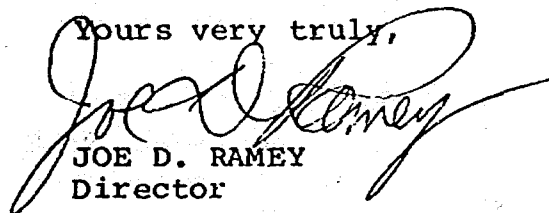
Applicant:

Blackwood & Nichols Company, 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. 3316
Order No. R-6636-A

APPLICATION OF BLACKWOOD & NICHOLS
COMPANY, LTD. FOR AMENDMENT OF
ORDER NO. R-6636, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 29, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 7th day of August, 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 Company, Ltd., seeks the amendment of Division Order No. R-6636 which authorized directional drilling for its Northeast Blanco Unit Well No. 32-A in Section 7, Township 30 North, Range 7 West, to provide for an amended bottom hole location 2213 feet from the South line and 915 feet from the East line of said Section 7.

(3) That Division Order No. R-6636 authorized the applicant 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.

-2-

Case No. 7316

Order No. R-6636-A

(4) That mechanical problems during the course of drilling resulted in a final bottom hole location 2213 feet from the South line and 815 feet from the East line of said Section 7.

(5) That Blackwood & Nichols Company, Ltd. is the operator of all acreage offsetting the directionally drilled well.

(6) That approval of the application will not cause waste nor violate correlative rights.

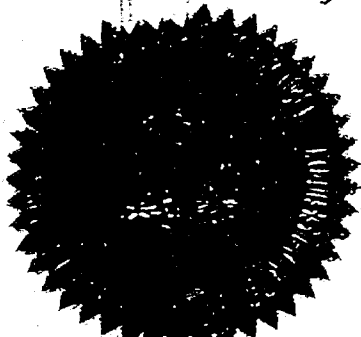
IT IS THEREFORE ORDERED:

(1) That the initial paragraph of Order (2) of Division Order No. R-6636 is hereby amended to read in its entirety as follows:

"(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 2213 feet from the South line and 815 feet from the East line of said Section 7, the E/2 of the section to be dedicated to the well."

(2) 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
Director

fd/

CASE 7315: Application of Rhema Oil Processing for an oil treating plant permit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant for the purpose of treating and reclaiming sediment oil at a site in the NW/4 of Section 30, Township 18 South, Range 38 East.

CASE 7274: (Continued from June 17, 1981, Examiner Hearing)

Application of Bass Enterprises Production Company for directional drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to directionally drill its James Ranch Unit Well No. 13 from an unorthodox surface location 660 feet from the South line and 1340 feet from the East line of Section 36, Township 22 South, Range 30 East, in such a manner as to bottom said well in the Morrow formation at a standard location at least 660 feet from the South line and 1980 feet from the West line of Section 31, Township 22 South, Range 31 East, the S/2 of said Section 31 to be dedicated to the well.

CASE 7303: (Continued from July 15, 1981, Examiner Hearing)

Application of Florida Hydrocarbons Company for surface commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the surface commingling of Morrow, Strawn, Atoka, and Wolfcamp gas produced from five wells located in Unit F of Section 10, Units C and O of Section 15, and Units A and I of Section 22, all in Township 23 South, Range 34 East, Antelope Ridge Field, after separately metering the gas produced from each well and each zone. Lease liquids would be separated out at the wellhead and the gas processed in a plant, allocating plant production back to each well on the basis of meter readings. Applicant further seeks a procedure whereby additional wells could be similarly commingled in said system.

CASE 7316: Application of Blackwood & Nichols Company, Ltd. for amendment of Order No. R-6636, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Division Order No. R-6636 which authorized directional drilling for its Northeast Blanco Unit Well No. 32-A in Section 7, Township 30 North, Range 7 West, to provide for an amended bottom hole location 2213 feet from the South line and 815 feet from the East line of said Section 7.

CASE 7317: Application of Four Corners Gas Producers Association for designation of a tight formation, San Juan and Rio Arriba Counties, New Mexico. Applicant, in the above-styled cause, seeks the designation of the Dakota formation underlying Townships 30 and 31 North, Ranges 2 thru 7 West, containing 270,260 acres, more or less, as a tight formation pursuant to Section 107 of the Natural Gas Policy Act and 18 CFR Section 271.701-705.

CASE 7318: Application of Phillips Petroleum Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Wolfcamp formation in the interval from 7332 feet to 7341 feet in its Peterson "H" Well No. 1 in Unit M of Section 29, Township 5 South, Range 33 East, South Peterson Field.

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

B+N EXHIBIT NO. 1

CASE NO. 7316

Submitted by Loos

Hearing Date 7-29-81

**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

BLACKWOOD AND NICHOLS
COMPANY

NORTHEAST BLANCO UNIT 32-A
WELL NAME

SAN JUAN COUNTY, NEW MEXICO
LOCATION

JOB NUMBER
RM681-D1118

TYPE OF SURVEY
MAGNETIC SINGLE SHOT

DATE
JUNE 1981

SURVEY BY
BILL LAYHE

OFFICE
ROCKY MOUNTAIN

BLACKWOOD AND NICHOLS (COMPLETION REPORT)
WELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO
FILE NO.: A1-220
DATE: 9 JUNE 1981
JOB NO.: RM681-D1118
TYPE: MAGNETIC SINGLE SHOT
SURVEYOR: BILL LAYHE
COMPUTER OPERATOR: STEVE THURSTON

VERTICAL SECTION CALCULATED IN PLANE OF PROPOSAL
DIRECTION: S 0 DEG, 0 MIN. E
SLOPE: 0.0000
WATERFALL COMPANY

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

ACKWOOD AN NICHOLS
 WELL NAME: NORTHEAST BLANCO UNIT 32-A
 LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION
 TIME DATE
 16:48:51 26-JUN-81

P. 1 NO.

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	DOGLEG SEVERITY DG/100FT
900.00	0 0	0 0	0.0	900.00	0.00	0.00 0.00	0.00
ASSUMED VERTICAL TO 900 FEET							
945.00	1 30	S 54 0 W	45.0	944.99	0.35	0.35 S 0.48 W	3.33
976.00	1 30	S 25 0 W	31.0	975.98	0.97	0.97 S 0.99 W	2.42
1007.00	2 30	S 32 0 W	31.0	1006.96	1.92	1.92 S 1.50 W	3.31
1039.00	4 0	S 29 0 W	32.0	1038.91	3.48	3.48 S 2.42 W	4.72
1071.00	5 0	S 26 0 W	32.0	1070.81	5.71	5.71 S 3.58 W	3.21
1102.00	6 0	S 22 0 W	31.0	1101.67	8.42	8.42 S 4.79 W	3.45
1133.00	7 15	S 18 0 W	31.0	1132.46	11.78	11.78 S 6.01 W	4.30
1166.00	8 0	S 11 0 W	33.0	1165.17	16.02	16.02 S 7.11 W	3.61
1229.00	9 15	S 4 0 W	63.0	1227.46	25.38	25.38 S 8.34 W	2.59
1292.00	10 15	S 6 0 W	63.0	1289.55	36.00	36.00 S 9.27 W	1.63
1355.00	11 30	S 2 0 W	63.0	1351.41	47.86	47.86 S 10.10 W	2.32
1447.00	13 30	S 5 0 W	92.0	1441.23	67.73	67.73 S 11.32 W	2.28
1541.00	14 0	S 0 0 E	94.0	1532.53	90.05	90.05 S 12.29 W	1.37
1632.00	15 30	S 1 0 E	91.0	1620.53	113.21	113.21 S 12.09 W	1.67
1724.00	17 0	S 0 0 E	92.0	1708.86	138.95	138.95 S 11.86 W	1.66
1817.00	18 30	S 3 0 E	93.0	1797.43	167.29	167.29 S 11.12 W	1.89
1911.00	19 0	S 3 0 E	94.0	1886.44	197.47	197.47 S 9.54 W	0.53
2005.00	20 0	S 3 0 E	94.0	1975.04	228.80	228.80 S 7.90 W	1.06
2098.00	21 15	S 5 0 E	93.0	2062.08	261.48	261.48 S 5.61 W	1.54
2190.00	22 15	S 5 0 E	92.0	2147.53	295.44	295.44 S 2.64 W	1.09
2286.00	23 0	S 7 0 E	96.0	2236.14	332.17	332.17 S 1.22 E	1.12
2378.00	24 0	S 8 0 E	92.0	2320.51	368.54	368.54 S 6.01 E	1.17
2471.00	25 0	S 8 0 E	93.0	2405.14	406.73	406.73 S 11.37 E	1.08
2564.00	25 30	S 8 0 E	93.0	2489.25	446.01	446.01 S 16.89 E	0.54
2657.00	26 0	S 8 0 E	93.0	2573.01	486.02	486.02 S 22.52 E	0.54
2750.00	26 30	S 8 0 E	93.0	2656.42	526.76	526.76 S 28.24 E	0.54
2845.00	26 30	S 7 0 E	95.0	2741.44	568.78	568.78 S 33.78 E	0.47

ACKWOOD AN NICHOLS
 WELL NAME: NORTHEAST BLANCO UNIT 32-A
 LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION
 TIME DATE
 16:48:51 26-JUN-81

F E NO.

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	DOUBLED SEVERITY DG/100FT
2933.00	26 0	S 4 0 E	93.0	2824.85	609.72	609.72 S 37.72 E	1.52
3030.00	25 30	S 0 0 E	92.0	2907.71	649.66	649.66 S 39.11 E	1.97
3123.00	25 0	S 3 0 W	93.0	2991.83	689.31	689.31 S 38.07 E	1.48
3216.00	25 15	S 6 0 W	93.0	3076.03	728.67	728.67 S 34.98 E	1.40
3307.00	25 30	S 5 0 W	91.0	3158.25	767.49	767.49 S 31.24 E	0.55
3333.00	25 30	S 4 0 W	26.0	3181.72	778.65	778.65 S 30.36 E	1.66
3370.00	24 15	S 0 0 E	37.0	3215.28	794.20	794.20 S 29.82 E	5.66
3463.00	25 15	S 3 0 E	93.0	3299.74	833.12	833.12 S 30.84 E	1.73
3525.00	26 30	S 4 0 E	62.0	3355.52	860.12	860.12 S 32.49 E	2.14
3616.00	25 0	S 5 0 E	91.0	3437.48	899.53	899.53 S 35.59 E	1.72
3707.00	23 0	S 4 0 E	91.0	3520.61	936.43	936.43 S 38.49 E	2.24
3754.00	22 30	S 3 0 E	47.0	3563.96	954.57	954.57 S 39.60 E	1.34
3825.00	22 0	S 3 0 E	71.0	3629.67	981.42	981.42 S 41.01 E	0.70
3887.00	22 0	S 3 0 E	62.0	3687.15	1004.61	1004.61 S 42.23 E	0.00
3980.00	20 0	S 6 0 E	93.0	3773.97	1037.83	1037.83 S 44.84 E	2.44
4009.00	19 45	S 7 0 E	29.0	3801.25	1047.63	1047.63 S 45.96 E	1.46
4041.00	19 30	S 6 0 E	32.0	3831.39	1058.31	1058.31 S 47.17 E	1.31
4073.00	20 0	S 8 0 E	32.0	3861.50	1069.04	1069.04 S 48.49 E	2.63
4137.00	21 0	S 0 0 E	64.0	3921.45	1091.38	1091.38 S 50.05 E	4.64
4200.00	21 0	S 0 0 E	63.0	3980.27	1113.96	1113.96 S 50.05 E	0.00
4294.00	19 0	S 2 0 E	94.0	4068.59	1146.10	1146.10 S 50.61 E	2.25
4388.00	18 0	S 3 0 E	94.0	4157.73	1175.90	1175.90 S 51.92 E	1.12
4481.00	16 30	S 6 0 E	93.0	4246.55	1203.38	1203.38 S 54.08 E	1.87
4574.00	16 15	S 8 0 E	93.0	4335.78	1229.41	1229.41 S 57.27 E	0.66
4668.00	15 0	S 12 0 E	94.0	4426.30	1254.34	1254.34 S 61.67 E	1.75
4762.00	15 0	S 12 0 E	94.0	4517.10	1278.13	1278.13 S 66.73 E	0.00
4857.00	14 0	S 15 0 E	95.0	4609.07	1301.26	1301.26 S 72.28 E	1.32
4917.00	14 30	S 5 0 E	60.0	4667.22	1315.78	1315.78 S 74.84 E	4.18
4947.00	16 30	S 3 0 E	30.0	4696.13	1323.78	1323.78 S 75.40 E	6.90
4978.00	18 30	S 7 0 E	31.0	4725.70	1333.07	1333.07 S 76.21 E	7.52

ACKWOOD AN NICHOLS
ELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION TIME DATE
16:48:51 26-JUN-81

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	DOUBLE SEVERITY DG/100FT
5010.00	19 0	S 15 0 E	32.0	4756.00	1343.15	1343.15 S 78.17 E	8.18
5069.00	14 0	S 20 0 E	59.0	4812.55	1359.13	1359.13 S 83.21 E	8.80
5133.00	13 0	S 18 0 E	64.0	4874.78	1373.25	1373.25 S 88.07 E	1.72
5197.00	14 0	S 17 0 E	64.0	4937.01	1387.50	1387.50 S 92.57 E	1.60
5291.00	15 0	S 23 0 E	94.0	5028.02	1409.61	1409.61 S 100.61 E	1.92
5385.00	17 0	S 28 0 E	94.0	5118.37	1432.98	1432.98 S 111.76 E	2.58
5416.00	17 0	S 31 0 E	31.0	5148.02	1440.87	1440.87 S 116.22 E	2.83
5506.00	17 30	S 32 0 E	90.0	5233.97	1463.63	1463.63 S 130.17 E	0.65
5694.00	12 0	S 32 0 E	188.0	5415.70	1504.20	1504.20 S 155.92 E	2.90
5882.00	6 30	S 35 0 E	188.0	5601.19	1529.39	1529.39 S 172.19 E	2.94

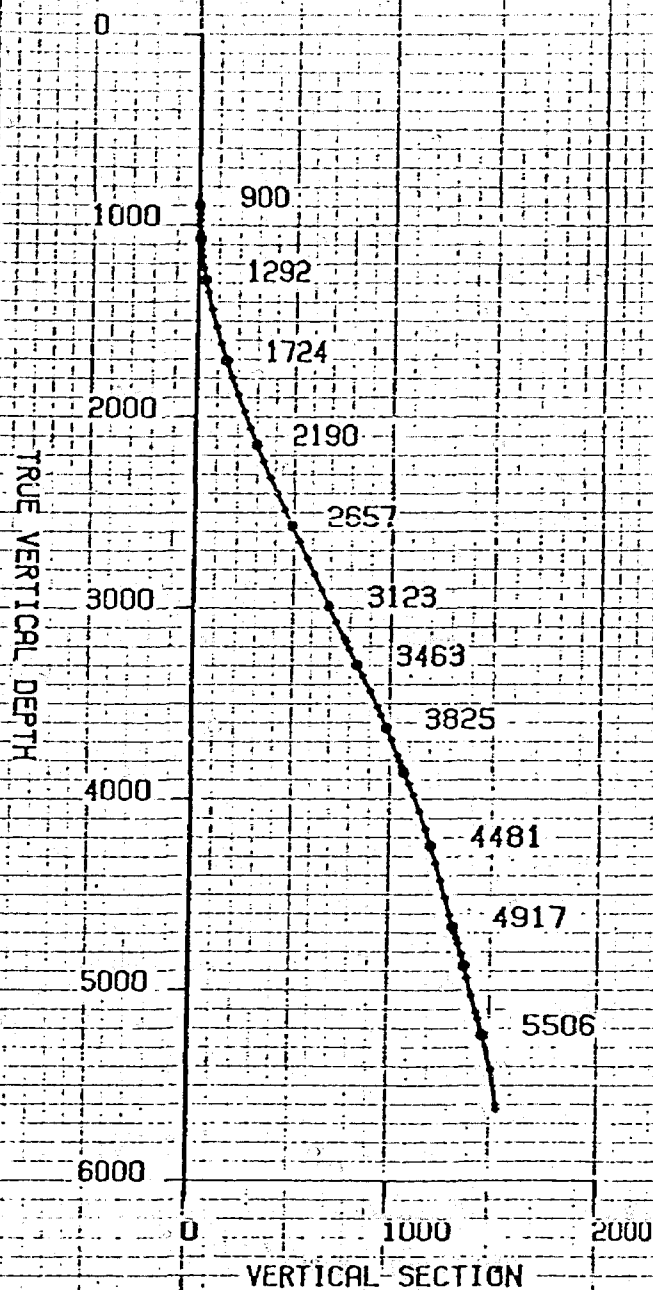
THE NEXT STATION IS A PROJECTION.

5906.00	6 30	S 35 0 E	24.0	5625.03	1531.61	1531.61 S 173.75 E	0.00
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FINAL CLOSURE - DIRECTION: S 6 DEGS 28 MINS 20 SECS E
DISTANCE: 1541.44 FEET

BLACKWOOD AND NICHOLS
WELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO
EASTMAN WHIPSTOCK, INC.

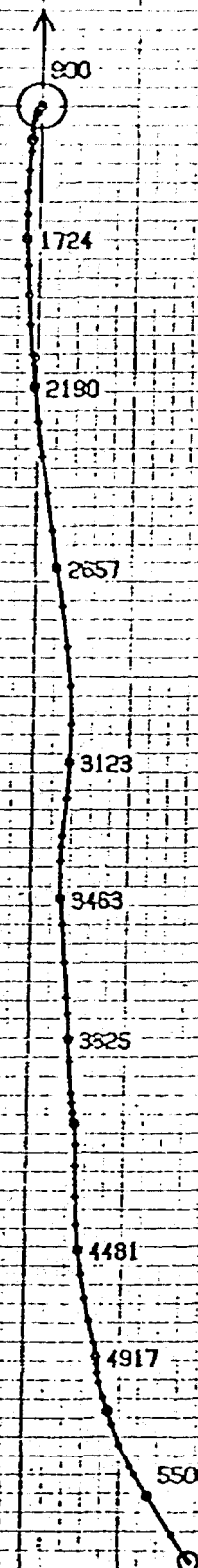
VERTICAL PROJECTION
SCALE 1 IN. = 1000 FEET



CLOSURE 1541.43 S 6 28 20 E

BLACKWOOD AND NICHOLS
WELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO
EASTMAN WHIPSTOCK, INC.

HORIZONTAL PROJECTION
SCALE 1 IN. = 200 FEET
DEPTH INDICATOR: MD



FINAL STATION:
DEPTH 5906 MD. 5625.03 TVD
SOUTH 1531.61 EAST 173.75
CLOSURE 1541.43 S 6 28 20 E

N

FEDERAL

7

FEE

SOUTH

1980'

FEDERAL

1450'

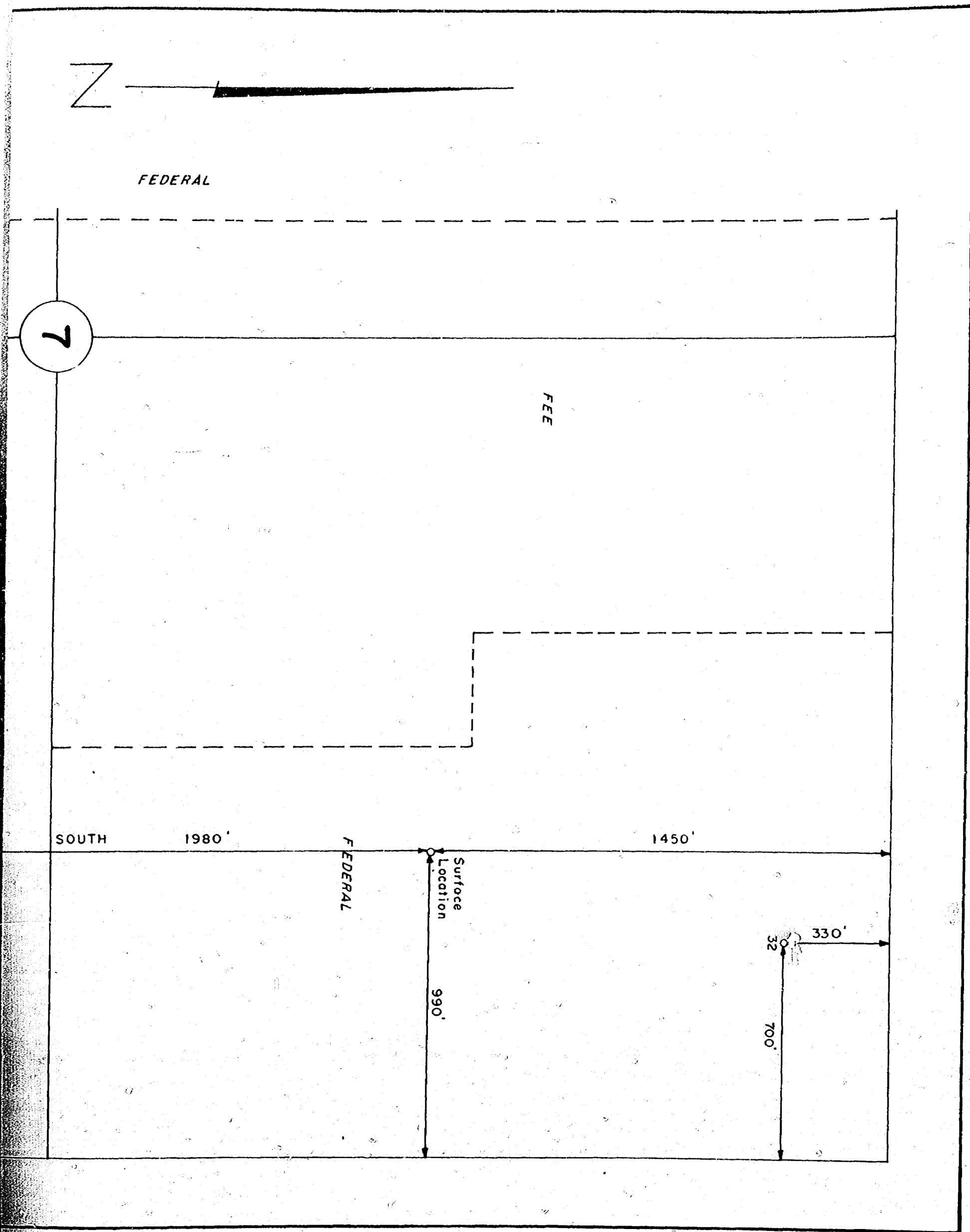
Surface
Location

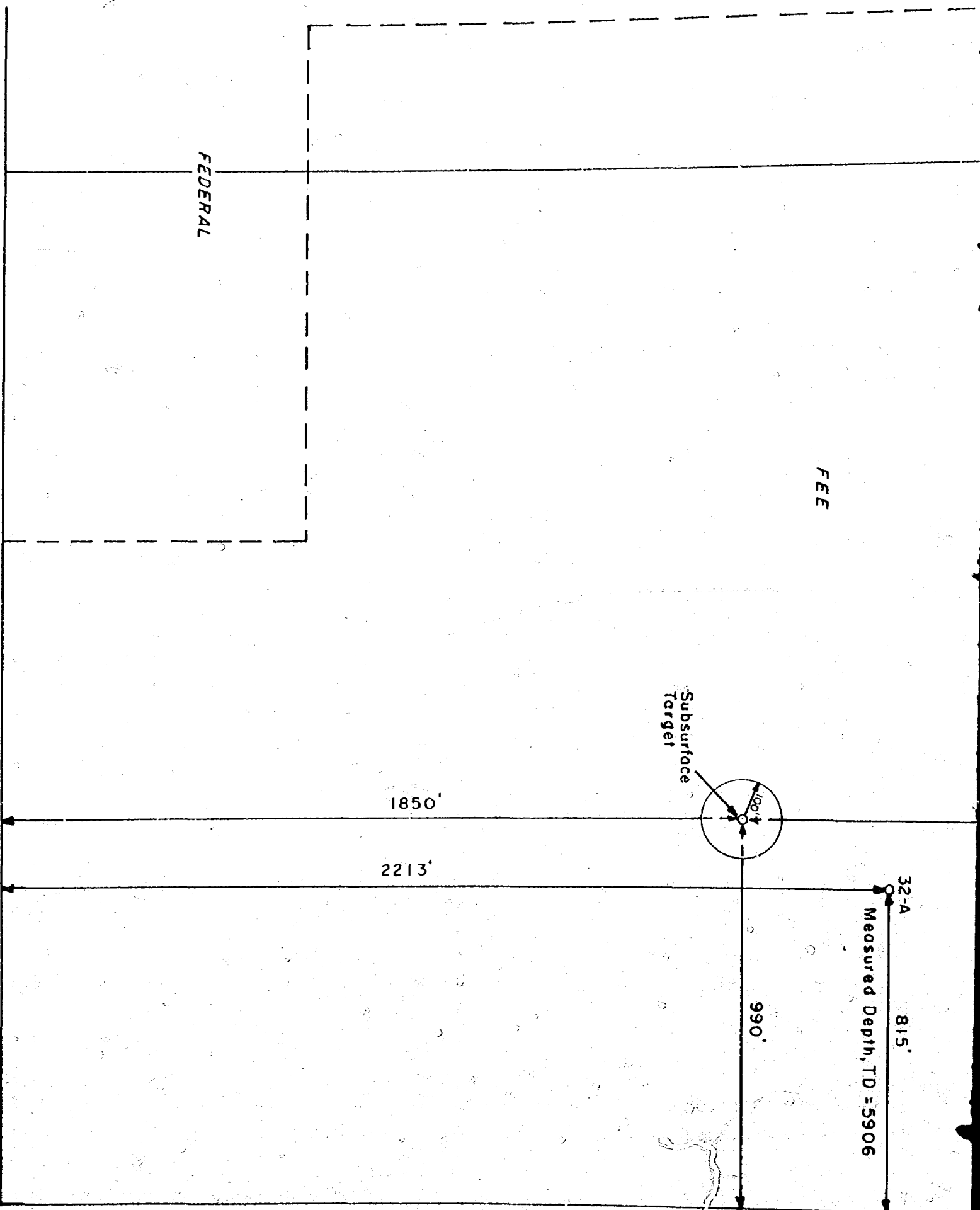
990'

32

330'

700'





BLACKWOOD & NICHOLS CO., LTD.

DIRECTIONAL WELL LOCATION PLAT

NEBU 32-A

**E/2-SE/4 Sec. 7
T.30 N., R. 7W., N.M.P.M.
San Juan County, N.M.**

Date: July, 1981

Scale: 1" = 300'

**Kroeger Engineering Co.
Durango, Colo.**

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
B.N. EXHIBIT NO. 1
CASE NO. 7316
Submitted by Loos
Hearing Date 7-29-81

**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

BLACKWOOD AND NICHOLS
COMPANY

NORTHEAST BLANCO UNIT 32-A
WELL NAME

SAN JUAN COUNTY, NEW MEXICO
LOCATION

JOB NUMBER
RM681-D1118

TYPE OF SURVEY
MAGNETIC SINGLE SHOT

DATE
JUNE 1981

SURVEY BY
BILL LAYHE

OFFICE
ROCKY MOUNTAIN

BLACKWOOD AND NICHOLS

(COMPLETION REPORT)

WELL NAME: NORTHEAST BLANCO UNIT 32-A

LOCATION: SAN JUAN COUNTY, NEW MEXICO

FILE NO.: A1-220

DATE: 9 JUNE 1981

JOB NO.: RM681-D1118

TYPE: MAGNETIC SINGLE SHOT

SURVEYOR: BILL LAYHE

COMPUTER OPERATOR: STEVE THURSTON

VERTICAL SECTION CALCULATED IN PLANE OF PROPOSAL

DIRECTION: S 0 DEG, 0 MIN. E

ATLANTIC COMPANY

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

ACKWOOD AN NICHOLS
ELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION
TIME DATE
16:48:51 26 JUN-81

P. 1 NO. 1

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	DOGLEG SEVERITY DG/100FT
900.00	0 0	0 0	0.0	900.00	0.00	0.00 0.00	0.00
ASSUMED VERTICAL TO 900 FEET							
945.00	1 30	S 54 0 W	45.0	944.99	0.35	0.35 S 0.48 W	3.33
976.00	1 30	S 25 0 W	31.0	975.93	0.97	0.97 S 0.99 W	2.42
1007.00	2 30	S 32 0 W	31.0	1006.96	1.92	1.92 S 1.50 W	3.31
1039.00	4 0	S 29 0 W	32.0	1038.91	3.48	3.48 S 2.42 W	4.72
1071.00	5 0	S 26 0 W	32.0	1070.81	5.71	5.71 S 3.58 W	3.21
1102.00	6 0	S 22 0 W	31.0	1101.67	8.42	8.42 S 4.79 W	3.45
1133.00	7 15	S 18 0 W	31.0	1132.46	11.78	11.78 S 6.01 W	4.30
1166.00	8 0	S 11 0 W	33.0	1165.17	16.02	16.02 S 7.11 W	3.61
1229.00	9 15	S 4 0 W	63.0	1227.46	25.38	25.38 S 8.34 W	2.59
1292.00	10 15	S 6 0 W	63.0	1289.55	36.00	36.00 S 9.27 W	1.63
1355.00	11 30	S 2 0 W	63.0	1351.41	47.86	47.86 S 10.10 W	2.32
1447.00	13 30	S 5 0 W	92.0	1441.23	67.73	67.73 S 11.32 W	2.28
1541.00	14 0	S 0 0 E	94.0	1532.53	90.05	90.05 S 12.29 W	1.37
1632.00	15 30	S 1 0 E	91.0	1620.53	113.21	113.21 S 12.09 W	1.67
1724.00	17 0	S 0 0 E	92.0	1708.86	138.95	138.95 S 11.86 W	1.66
1817.00	18 30	S 3 0 E	93.0	1797.43	167.29	167.29 S 11.12 W	1.89
1911.00	19 0	S 3 0 E	94.0	1886.44	197.47	197.47 S 9.54 W	0.53
2005.00	20 0	S 3 0 E	94.0	1975.04	228.80	228.80 S 7.90 W	1.06
2098.00	21 15	S 5 0 E	93.0	2062.08	261.48	261.48 S 5.61 W	1.54
2190.00	22 15	S 5 0 E	92.0	2147.53	295.44	295.44 S 2.64 W	1.09
2286.00	23 0	S 7 0 E	96.0	2236.14	332.17	332.17 S 1.22 E	1.12
2378.00	24 0	S 8 0 E	92.0	2320.51	368.54	368.54 S 6.01 E	1.17
2471.00	25 0	S 8 0 E	93.0	2405.14	406.73	406.73 S 11.37 E	1.08
2564.00	25 30	S 8 0 E	93.0	2489.25	446.01	446.01 S 16.89 E	0.54
2657.00	26 0	S 8 0 E	93.0	2573.01	486.02	486.02 S 22.52 E	0.54
2750.00	26 30	S 8 0 E	93.0	2656.42	526.76	526.76 S 28.24 E	0.54
2845.00	26 30	S 7 0 E	95.0	2741.44	568.78	568.78 S 33.78 E	0.47

ACKWOOD AN NICHOLS
 WELL NAME: NORTHEAST BLANCO UNIT 32-A
 LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION
 TIME DATE
 16:43:51 26-JUN-81

F E NO.

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	DOUBLE SEVERITY 03/100FT
2938.00	26 0	S 4 0 E	93.0	2824.85	609.72	609.72 S 37.72 E	1.52
3030.00	25 30	S 0 0 E	92.0	2907.71	649.66	649.66 S 39.11 E	1.97
3123.00	25 0	S 3 0 W	93.0	2991.83	689.31	689.31 S 38.07 E	1.48
3216.00	25 15	S 6 0 W	93.0	3076.03	728.67	728.67 S 34.98 E	1.40
3307.00	25 30	S 5 0 W	91.0	3158.25	767.49	767.49 S 31.24 E	0.55
3333.00	25 30	S 4 0 W	26.0	3181.72	778.65	778.65 S 30.36 E	1.66
3370.00	24 15	S 0 0 E	37.0	3215.28	794.20	794.20 S 29.82 E	5.66
3463.00	25 15	S 3 0 E	93.0	3299.74	833.12	833.12 S 30.84 E	1.73
3525.00	26 30	S 4 0 E	62.0	3355.52	860.12	860.12 S 32.49 E	2.14
3616.00	25 0	S 5 0 E	91.0	3437.48	899.53	899.53 S 35.59 E	1.72
3707.00	23 0	S 4 0 E	91.0	3520.61	936.43	936.43 S 38.49 E	2.24
3754.00	22 30	S 3 0 E	47.0	3563.96	954.57	954.57 S 39.60 E	1.34
3825.00	22 0	S 3 0 E	71.0	3629.67	981.42	981.42 S 41.01 E	0.70
3887.00	22 0	S 3 0 E	62.0	3687.15	1004.61	1004.61 S 42.23 E	0.00
3980.00	20 0	S 6 0 E	93.0	3773.97	1037.83	1037.83 S 44.84 E	2.44
4009.00	19 45	S 7 0 E	29.0	3801.25	1047.63	1047.63 S 45.96 E	1.46
4041.00	19 30	S 6 0 E	32.0	3831.39	1058.31	1058.31 S 47.17 E	1.31
4073.00	20 0	S 8 0 E	32.0	3861.50	1069.04	1069.04 S 48.49 E	2.63
4137.00	21 0	S 0 0 E	64.0	3921.45	1091.38	1091.38 S 50.05 E	4.64
4200.00	21 0	S 0 0 E	63.0	3980.27	1113.96	1113.96 S 50.05 E	0.00
4294.00	19 0	S 2 0 E	94.0	4068.59	1146.10	1146.10 S 50.61 E	2.25
4388.00	18 0	S 3 0 E	94.0	4157.73	1175.90	1175.90 S 51.92 E	1.12
4481.00	16 30	S 6 0 E	93.0	4246.55	1203.38	1203.38 S 54.08 E	1.87
4574.00	16 15	S 8 0 E	93.0	4335.78	1229.41	1229.41 S 57.27 E	0.66
4668.00	15 0	S 12 0 E	94.0	4426.30	1254.34	1254.34 S 61.67 E	1.75
4762.00	15 0	S 12 0 E	94.0	4517.10	1278.13	1278.13 S 66.73 E	0.00
4857.00	14 0	S 15 0 E	95.0	4609.07	1301.26	1301.26 S 72.28 E	1.32
4917.00	14 30	S 5 0 E	60.0	4667.22	1315.78	1315.78 S 74.84 E	4.18
4947.00	16 30	S 3 0 E	30.0	4696.13	1323.78	1323.78 S 75.40 E	6.90
4978.00	18 30	S 7 0 E	31.0	4725.70	1333.07	1333.07 S 76.21 E	7.52

LACKWOOD AN NICHOLS
ELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION
TIME DATE
16:48:51 26-JUN-81

F E NO.

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	DOGLEG SEVERITY DG/100FT
5010.00	19 0	S 15 0 E	32.0	4756.00	1343.15	1343.15 S 78.17 E	8.18
5069.00	14 0	S 20 0 E	59.0	4812.55	1359.13	1359.13 S 83.21 E	8.80
5133.00	13 0	S 18 0 E	64.0	4874.78	1373.25	1373.25 S 83.07 E	1.72
5197.00	14 0	S 17 0 E	64.0	4937.01	1387.50	1387.50 S 92.57 E	1.60
5291.00	15 0	S 23 0 E	94.0	5028.02	1409.61	1409.61 S 100.61 E	1.22
5385.00	17 0	S 28 0 E	94.0	5118.37	1432.98	1432.98 S 111.76 E	2.58
5416.00	17 0	S 31 0 E	31.0	5148.02	1440.87	1440.87 S 116.22 E	2.83
5506.00	17 30	S 32 0 E	90.0	5233.97	1463.63	1463.63 S 130.17 E	0.65
5694.00	12 0	S 32 0 E	188.0	5415.70	1504.20	1504.20 S 155.52 E	2.93
5882.00	6 30	S 35 0 E	188.0	5601.19	1529.39	1529.39 S 172.19 E	2.94

THE NEXT STATION IS A PROJECTION.

5906.00	6 30	S 35 0 E	24.0	5625.03	1531.61	1531.61 S 173.75 E	0.00
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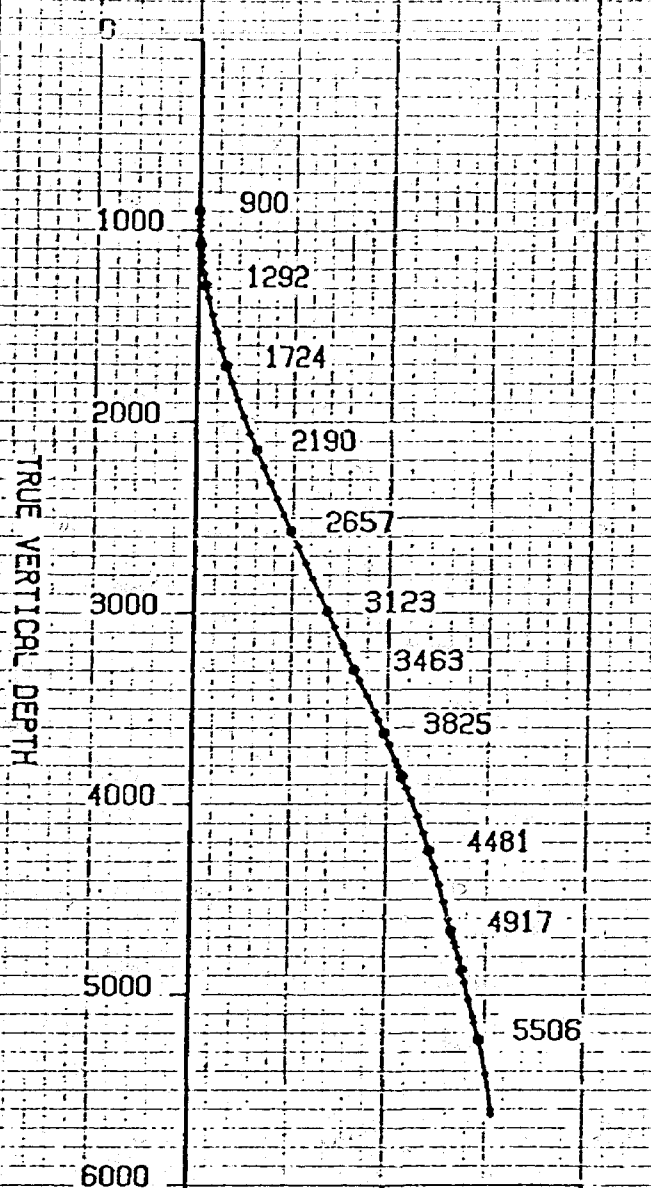
FINAL CLOSURE - DIRECTION: S 6 DEGS 28 MINS 20 SECS E
DISTANCE: 1541.44 FEET

BLACKWOOD AND NICHOLS
WELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO

EASTMAN WHIPSTOCK, INC.

VERTICAL PROJECTION

SCALE 1 IN. = 1000 FEET



CLOSURE 1541.43 S 6 28 20 E

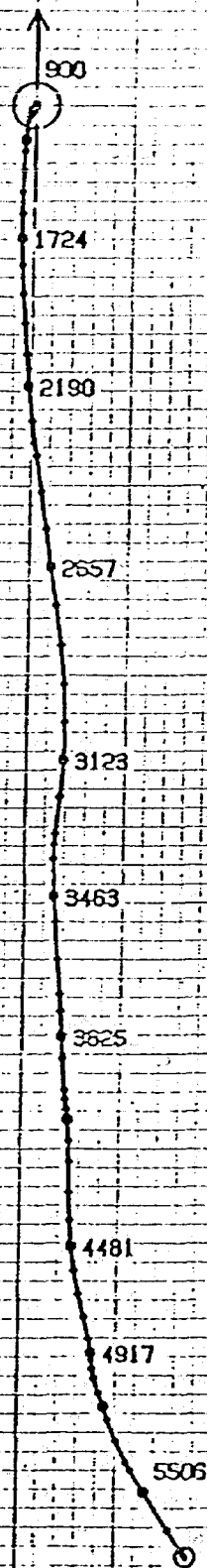
BLACKWOOD AND NICHOLS
WELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO

EASTMAN WHIPSTOCK, INC.

HORIZONTAL PROJECTION

SCALE 1 IN. = 200 FEET
DEPTH INDICATOR: MD

FINAL STATION:
DEPTH 5906 MD. 5625.03 TVD
SOUTH 1531.61 EAST 173.75
CLOSURE 1541.43 S 6 28 20 E





FEDERAL

FEE

SOUTH

1980'

FEDERAL

1450'

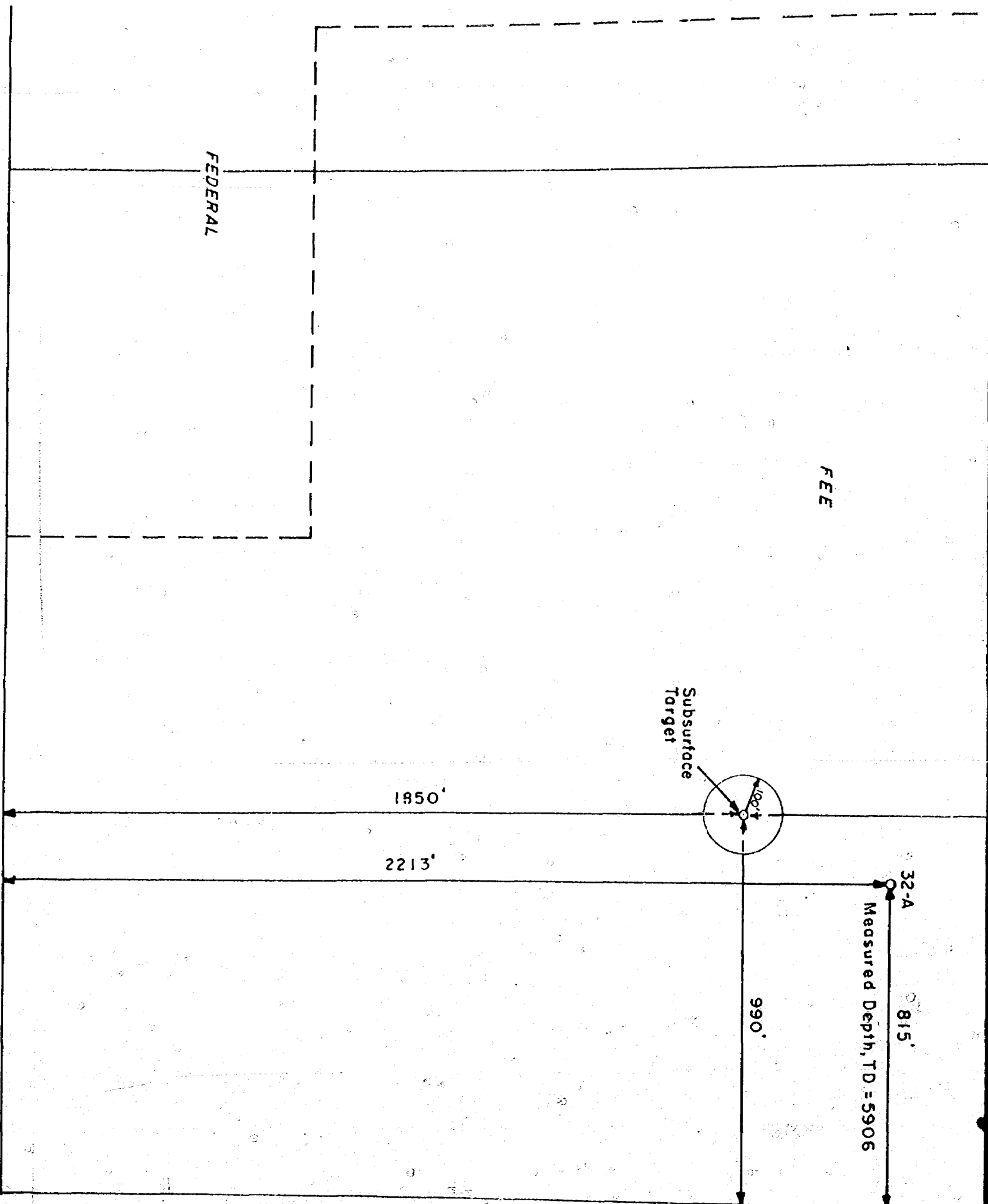
Surface
Location

990'

32

700'

330'



BLACKWOOD & NICHOLS CO., LTD.

DIRECTIONAL WELL LOCATION PLAT

NEBU 32-A

**E/2-SE/4 Sec. 7
T.30N., R. 7W., N.M.P.M.
San Juan County, N.M.**

Date: July, 1981

Scale: 1" = 300'

**Kroeger Engineering Co.
Durango, Colo.**

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION

B+N EXHIBIT NO. 1

CASE NO. 7316

Submitted by Loos

Hearing Date 7-29-81

**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

BLACKWOOD AND NICHOLS
COMPANY

NORTHEAST BLANCO UNIT 32-A
WELL NAME

SAN JUAN COUNTY, NEW MEXICO
LOCATION

JOB NUMBER
RM681-D1118

TYPE OF SURVEY
MAGNETIC SINGLE SHOT

DATE
JUNE 1981

SURVEY BY
BILL LAYHE

OFFICE
ROCKY MOUNTAIN

BLACKWOOD AND NICHOLS

(COMPLETION REPORT)

WELL NAME: NORTHEAST BLANCO UNIT 32-A

LOCATION: SAN JUAN COUNTY, NEW MEXICO

FILE NO.: A1-220

DATE: 9 JUNE 1981

JOB NO.: RM681-D1118

TYPE: MAGNETIC SINGLE SHOT

SURVEYOR: BILL LAYHE

COMPUTER OPERATOR: STEVE THURSTON

VERTICAL SECTION CALCULATED IN PLANE OF PROPOSAL.

DIRECTION: S 0 DEG, 0 MIN. E

ADDITIONAL COMPANY

RECORD OF SURVEY

RADIUS OF CURVATURE METHOD

ACKWOOD AN NICHOLS
 WELL NAME: NORTHEAST BLANCO UNIT 32-A
 LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION
 TIME DATE
 16:48:51 26-JUN-81

P. E. NO. 1

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET		DOGLEG SEVERITY DB/100FT
900.00	0 0	0 0	0.0	900.00	0.00	0.00	0.00	0.00
ASSUMED VERTICAL TO 900 FEET								
945.00	1 30	S 54 0 W	45.0	944.99	0.35	0.35 S	0.48 W	3.33
976.00	1 30	S 25 0 W	31.0	975.93	0.97	0.97 S	0.99 W	2.42
1007.00	2 30	S 32 0 W	31.0	1006.96	1.92	1.92 S	1.50 W	3.31
1039.00	4 0	S 29 0 W	32.0	1038.91	3.48	3.48 S	2.42 W	4.72
1071.00	5 0	S 26 0 W	32.0	1070.81	5.71	5.71 S	3.58 W	3.21
1102.00	6 0	S 22 0 W	31.0	1101.67	8.42	8.42 S	4.79 W	3.45
1133.00	7 15	S 18 0 W	31.0	1132.46	11.78	11.78 S	6.01 W	4.30
1166.00	8 0	S 11 0 W	33.0	1165.17	16.02	16.02 S	7.11 W	3.61
1229.00	9 15	S 4 0 W	63.0	1227.46	25.38	25.38 S	8.34 W	2.59
1292.00	10 15	S 6 0 W	63.0	1289.55	36.00	36.00 S	9.27 W	1.63
1355.00	11 30	S 2 0 W	63.0	1351.41	47.86	47.86 S	10.10 W	2.32
1447.00	13 30	S 5 0 W	92.0	1441.23	67.73	67.73 S	11.32 W	2.28
1541.00	14 0	S 0 0 E	94.0	1532.53	90.05	90.05 S	12.29 W	1.37
1632.00	15 30	S 1 0 E	91.0	1620.53	113.21	113.21 S	12.09 W	1.67
1724.00	17 0	S 0 0 E	92.0	1708.86	138.95	138.95 S	11.86 W	1.66
1817.00	18 30	S 3 0 E	93.0	1797.43	167.29	167.29 S	11.12 W	1.89
1911.00	19 0	S 3 0 E	94.0	1886.44	197.47	197.47 S	9.54 W	0.53
2005.00	20 0	S 3 0 E	94.0	1975.04	228.80	228.80 S	7.90 W	1.06
2098.00	21 15	S 5 0 E	93.0	2062.08	261.48	261.48 S	5.61 W	1.54
2190.00	22 15	S 5 0 E	92.0	2147.53	295.44	295.44 S	2.64 W	1.09
2286.00	23 0	S 7 0 E	96.0	2236.14	332.17	332.17 S	1.22 E	1.12
2378.00	24 0	S 8 0 E	92.0	2320.51	368.54	368.54 S	6.01 E	1.17
2471.00	25 0	S 8 0 E	93.0	2405.14	406.73	406.73 S	11.37 E	1.08
2564.00	25 30	S 8 0 E	93.0	2489.25	446.01	446.01 S	16.89 E	0.54
2657.00	26 0	S 8 0 E	93.0	2578.01	486.02	486.02 S	22.52 E	0.54
2750.00	26 30	S 8 0 E	93.0	2656.42	526.76	526.76 S	28.24 E	0.54
2845.00	26 30	S 7 0 E	95.0	2741.44	568.78	568.78 S	33.78 E	0.47

ACKWOOD AN NICHOLS
 WELL NAME: NORTHEAST BLANCO UNIT 32-A
 LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION F E NO.
 TIME DATE
 16:48:51 26-JUN-81

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET		DOUBLED SEVERITY DG/100FT
2938.00	26 0	S 4 0 E	93.0	2824.85	609.72	609.72 S	37.72 E	1.52
3030.00	25 30	S 0 0 E	92.0	2907.71	649.66	649.66 S	39.11 E	1.97
3123.00	25 0	S 3 0 W	93.0	2991.83	689.31	689.31 S	38.07 E	1.48
3216.00	25 15	S 6 0 W	93.0	3076.03	728.67	728.67 S	34.98 E	1.40
3307.00	25 30	S 5 0 W	91.0	3158.25	767.49	767.49 S	31.24 E	0.55
3333.00	25 30	S 4 0 W	26.0	3181.72	778.65	778.65 S	30.36 E	1.66
3370.00	24 15	S 0 0 E	37.0	3215.28	794.20	794.20 S	29.82 E	5.66
3463.00	25 15	S 3 0 E	93.0	3299.74	833.12	833.12 S	30.84 E	1.73
3525.00	24 30	S 4 0 E	62.0	3355.52	840.12	840.12 S	32.49 E	2.14
3616.00	25 0	S 5 0 E	91.0	3437.48	899.53	899.53 S	35.59 E	1.72
3707.00	23 0	S 4 0 E	91.0	3520.61	936.43	936.43 S	38.49 E	2.24
3754.00	22 30	S 3 0 E	47.0	3563.96	954.57	954.57 S	39.60 E	1.34
3825.00	22 0	S 3 0 E	71.0	3629.67	981.42	981.42 S	41.01 E	0.70
3887.00	22 0	S 3 0 E	62.0	3687.15	1004.61	1004.61 S	42.23 E	0.00
3980.00	20 0	S 6 0 E	93.0	3773.97	1037.83	1037.83 S	44.84 E	2.44
4009.00	19 45	S 7 0 E	29.0	3801.25	1047.63	1047.63 S	45.96 E	1.46
4041.00	19 30	S 6 0 E	32.0	3831.39	1058.31	1058.31 S	47.17 E	1.31
4073.00	20 0	S 8 0 E	32.0	3861.50	1069.04	1069.04 S	48.49 E	2.63
4137.00	21 0	S 0 0 E	64.0	3921.45	1091.38	1091.38 S	50.05 E	4.64
4200.00	21 0	S 0 0 E	63.0	3980.27	1113.96	1113.96 S	50.05 E	0.00
4294.00	19 0	S 2 0 E	94.0	4068.59	1146.10	1146.10 S	50.61 E	2.25
4388.00	18 0	S 3 0 E	94.0	4157.73	1175.90	1175.90 S	51.92 E	1.12
4481.00	16 30	S 6 0 E	93.0	4246.55	1203.38	1203.38 S	54.08 E	1.87
4574.00	16 15	S 8 0 E	93.0	4335.78	1229.41	1229.41 S	57.27 E	0.66
4668.00	15 0	S 12 0 E	94.0	4426.30	1254.34	1254.34 S	61.67 E	1.75
4762.00	15 0	S 12 0 E	94.0	4517.10	1278.13	1278.13 S	66.73 E	0.00
4857.00	14 0	S 15 0 E	95.0	4609.07	1301.26	1301.26 S	72.28 E	1.32
4917.00	14 30	S 5 0 E	60.0	4667.22	1315.78	1315.78 S	74.84 E	4.18
4947.00	16 30	S 3 0 E	30.0	4696.13	1323.78	1323.78 S	75.40 E	6.90
4978.00	18 30	S 7 0 E	31.0	4725.70	1333.07	1333.07 S	76.21 E	7.52

LACKWOOD AN NICHOLS
ELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO

(COMPLETION REPORT)

COMPUTATION
TIME DATE
16:48:51 26-JUN-81

F E NO.

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	DOUBLED SEVERITY DG/100FT
5010.00	19 0	S 15 0 E	32.0	4756.00	1343.15	1343.15 S 78.17 E	8.18
5069.00	14 0	S 20 0 E	59.0	4812.55	1359.13	1359.13 S 83.21 E	8.80
5133.00	13 0	S 18 0 E	64.0	4874.78	1373.25	1373.25 S 88.07 E	1.72
5197.00	14 0	S 17 0 E	64.0	4937.01	1387.50	1387.50 S 92.57 E	1.60
5291.00	15 0	S 23 0 E	94.0	5028.02	1409.61	1409.61 S 100.61 E	1.92
5385.00	17 0	S 28 0 E	94.0	5118.37	1432.98	1432.98 S 111.76 E	2.58
5416.00	17 0	S 31 0 E	31.0	5148.02	1440.87	1440.87 S 116.22 E	2.83
5506.00	17 30	S 32 0 E	90.0	5233.97	1463.63	1463.63 S 130.17 E	0.65
5694.00	12 0	S 32 0 E	188.0	5415.70	1504.20	1504.20 S 155.52 E	2.93
5882.00	6 30	S 35 0 E	188.0	5601.19	1529.39	1529.39 S 172.19 E	2.94

THE NEXT STATION IS A PROJECTION.

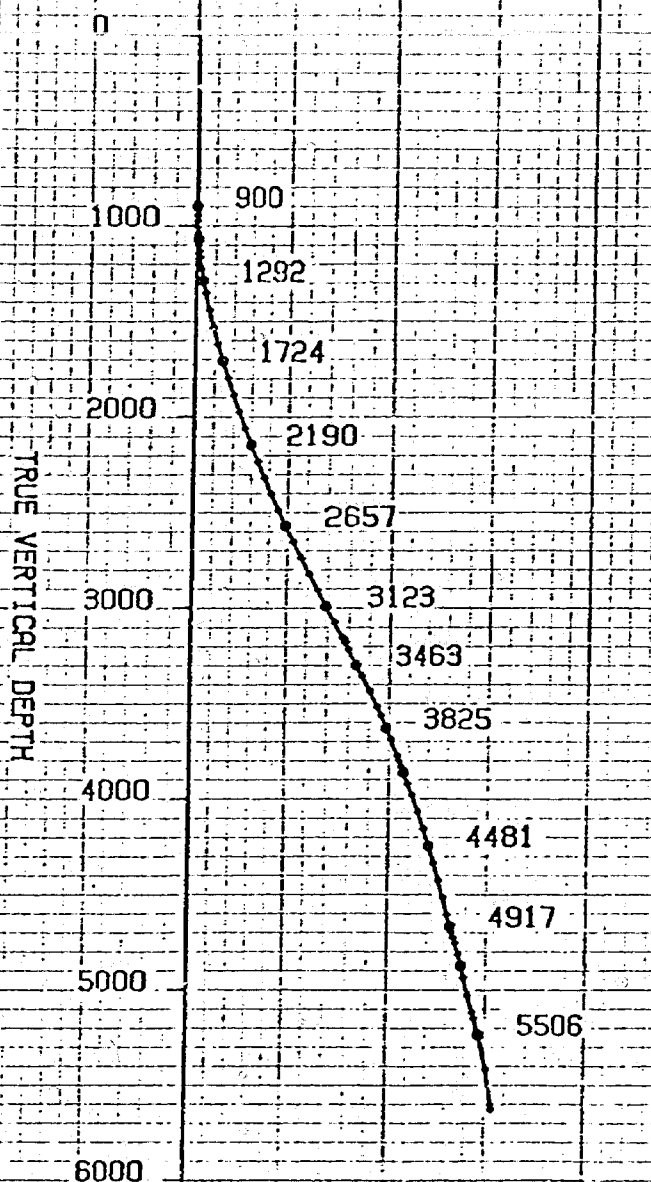
5906.00	6 30	S 35 0 E	24.0	5625.03	1531.61	1531.61 S 173.75 E	0.00
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FINAL CLOSURE - DIRECTION: S 6 DEGS 28 MINS 20 SECS E
DISTANCE: 1541.44 FEET

BLACKWOOD AND NICHOLS
WELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO

VERTICAL PROJECTION
SCALE 1 IN. = 1000 FEET

EASTMAN WHIPSTOCK, INC.



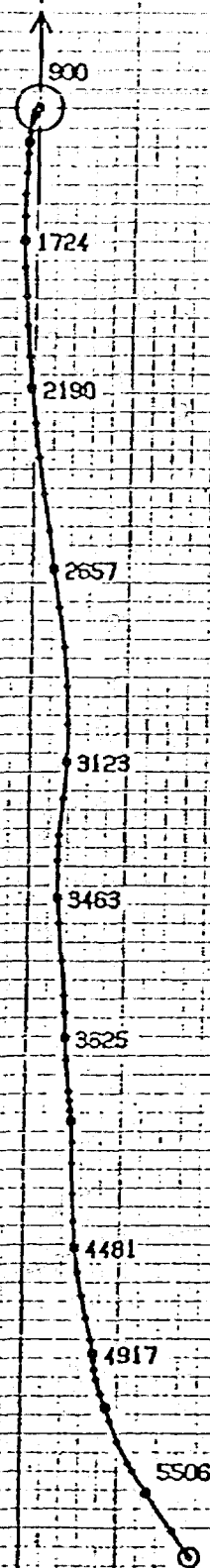
CLOSURE 1541.43 S 6 28 20 E

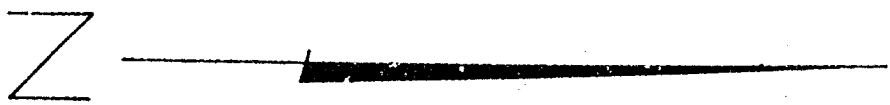
BLACKWOOD AND NICHOLS
WELL NAME: NORTHEAST BLANCO UNIT 32-A
LOCATION: SAN JUAN COUNTY, NEW MEXICO
EASTMAN WHIPSTOCK, INC.

HORIZONTAL PROJECTION

SCALE 1 IN. = 200 FEET
DEPTH INDICATOR: MD

FINAL STATION:
DEPTH 5906 MD. 5625.03 TVD
SOUTH 1531.61 EAST 173.75
CLOSURE 1541.43 S 6 28 20 E





FEDERAL

7

FEE

SOUTH

1980'

FEDERAL

1450'

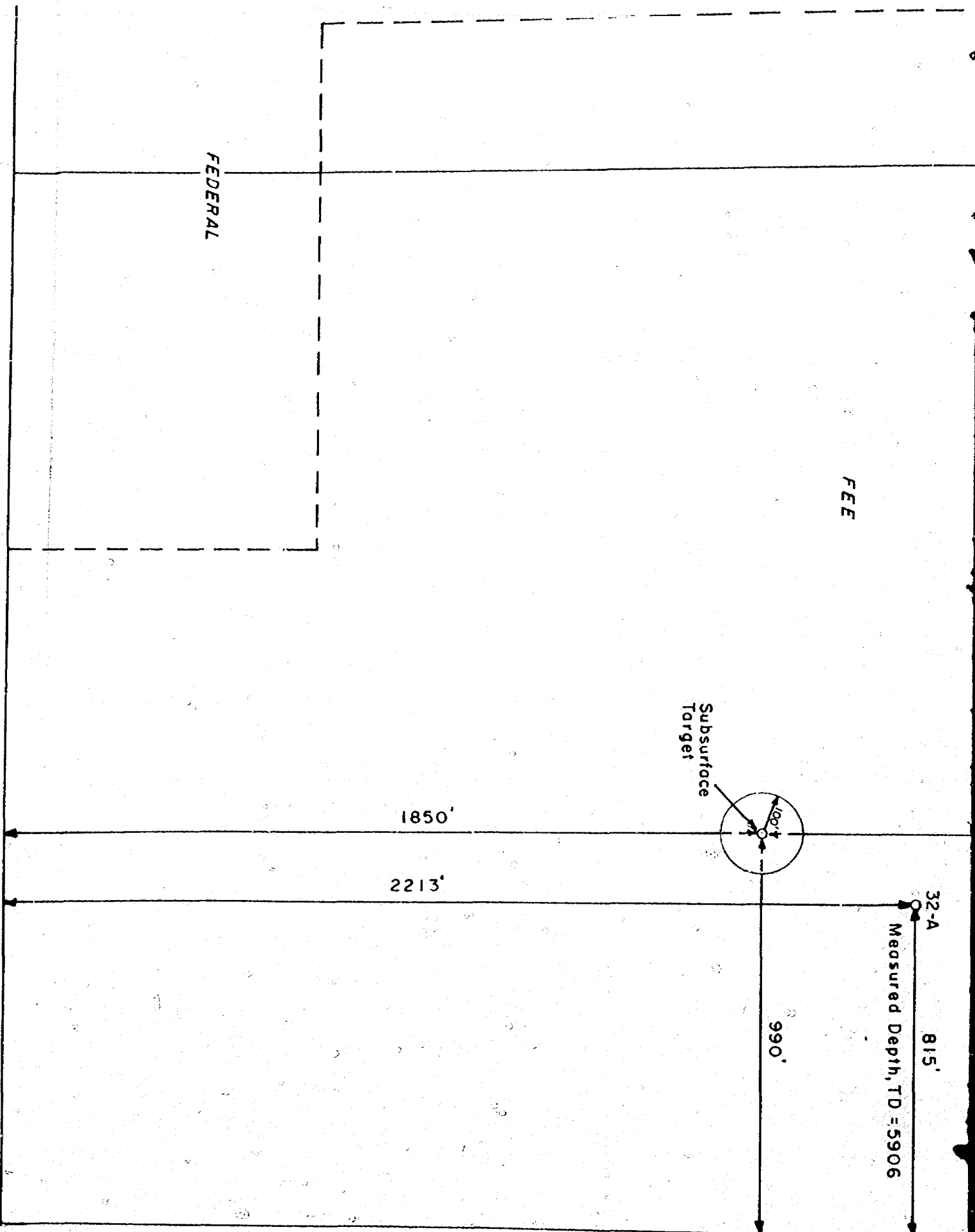
Surface
Location

990'

32

330'

700'



BLACKWOOD & NICHOLS CO., LTD.

DIRECTIONAL WELL LOCATION PLAT

NEBU 32-A

**E/2-SE/4 Sec. 7
T.30 N., R. 7W., N.M.P.M.
San Juan County, NM.**

Date: July, 1981

Scale: 1" = 300'

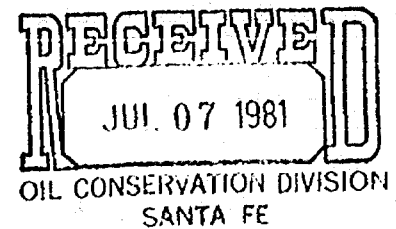
**Kroeger Engineering Co.
Durango, Colo.**

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 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87501
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

July 7, 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 7316

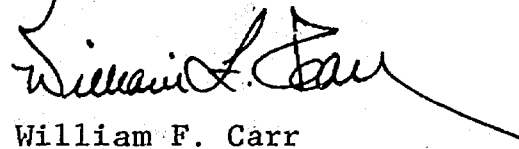
Re: Application of Blackwood & Nichols Co., Ltd.
for Amendment of Order No. R-6636, San Juan
County, New Mexico

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 July 29, 1981.

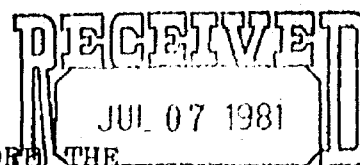
Very truly yours,


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 COMPANY, LTD.
FOR AMENDMENT OF ORDER NO. R-6636,
SAN JUAN COUNTY, NEW MEXICO.

Case 2316

APPLICATION

Comes now, Blackwood & Nichols Company, Ltd., by and through its undersigned attorneys, and hereby makes application for an order amending certain provisions of Oil Conservation Division Order No. R-6636 to provide for directional drilling of the Northeast Blanco Unit Well No. 32-A to a bottom hole location in the Mesaverde Formation 2213 feet from the South line and 815 feet from the East line of Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico and in support thereof would show the division:

- 1) That applicant is the operator of the Northeast Blanco Unit Well No. 32-A, located 1450 feet from the North line and 990 feet from the East line of Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico.
- 2) That the Oil Conservation Division by Order No. R-6636 approved the directional drilling of 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 East half of the section to be dedicated to the well.
- 3) That due to downhole mechanical problems, the well was bottomed at a location 2213 feet from the South line and 815 feet from the East line of said Section 7.

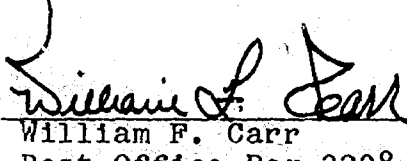
4) That applicant seeks amendment of Order paragraph 2 of Order No. R-6636 to approve the bottom hole location of said well at a point 2213 feet from the South line and 815 feet from East line of said Section 7.

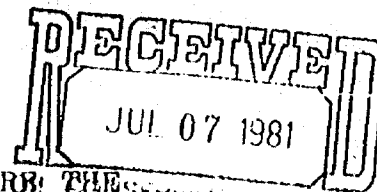
WHEREFORE, applicant prays that this application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law the Division enter its order amending Order paragraph 2 of Order No. R-6636 to approve the bottom hole location of the Northeast Blanco Unit Well No. 32-A and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL, BYRD & BLACK P.A.

By


William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
(505) 988-4421
Attorneys for Applicant



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

IN THE MATTER OF THE APPLICATION
OF BLACKWOOD & NICHOLS COMPANY, LTD.
FOR AMENDMENT OF ORDER NO. R-6636,
SAN JUAN COUNTY, NEW MEXICO.

Case 23/6

APPLICATION

Comes now, Blackwood & Nichols Company, Ltd., by and through its undersigned attorneys, and hereby makes application for an order amending certain provisions of Oil Conservation Division Order No. R-6636 to provide for directional drilling of the Northeast Blanco Unit Well No. 32-A to a bottom hole location in the Mesaverde Formation 2213 feet from the South line and 815 feet from the East line of Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico and in support thereof would show the division:

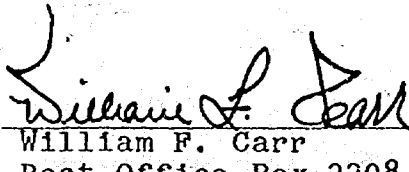
- 1) That applicant is the operator of the Northeast Blanco Unit Well No. 32-A, located 1450 feet from the North line and 990 feet from the East line of Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico.
- 2) That the Oil Conservation Division by Order No. R-6636 approved the directional drilling of 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 East half of the section to be dedicated to the well.
- 3) That due to downhole mechanical problems, the well was bottomed at a location 2213 feet from the South line and 815 feet from the East line of said Section 7.

4) That applicant seeks amendment of Order paragraph 2 of Order No. R-6636 to approve the bottom hole location of said well at a point 2213 feet from the South line and 815 feet from East line of said Section 7.

WHEREFORE, applicant prays that this application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law the Division enter its order amending Order paragraph 2 of Order No. R-6636 to approve the bottom hole location of the Northeast Blanco Unit Well No. 32-A and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL, BYRD & BLACK P.A.

By 
William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
(505) 988-4421
Attorneys for Applicant

RECEIVED
JUN 07 1981
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS
SANTA FE

IN THE MATTER OF THE APPLICATION
OF BLACKWOOD & NICHOLS COMPANY, LTD.
FOR AMENDMENT OF ORDER NO. R-6636,
SAN JUAN COUNTY, NEW MEXICO.

Case 2316

APPLICATION

Comes now, Blackwood & Nichols Company, Ltd., by and through its undersigned attorneys, and hereby makes application for an order amending certain provisions of Oil Conservation Division Order No. R-6636 to provide for directional drilling of the Northeast Blanco Unit Well No. 32-A to a bottom hole location in the Mesaverde Formation 2213 feet from the South line and 815 feet from the East line of Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico and in support thereof would show the division:

- 1) That applicant is the operator of the Northeast Blanco Unit Well No. 32-A, located 1450 feet from the North line and 990 feet from the East line of Section 7, Township 30 North, Range 7 West, N.M.P.M., San Juan County, New Mexico.
- 2) That the Oil Conservation Division by Order No. R-6636 approved the directional drilling of 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 East half of the section to be dedicated to the well.
- 3) That due to downhole mechanical problems, the well was bottomed at a location 2213 feet from the South line and 815 feet from the East line of said Section 7.

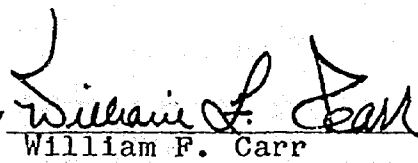
4) That applicant seeks amendment of Order paragraph 2 of Order No. R-6636 to approve the bottom hole location of said well at a point 2213 feet from the South line and 815 feet from East line of said Section 7.

WHEREFORE, applicant prays that this application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law the Division enter its order amending Order paragraph 2 of Order No. R-6636 to approve the bottom hole location of the Northeast Blanco Unit Well No. 32-A and making such other and further provisions as may be proper in the premises.

Respectfully submitted,

CAMPBELL, BYRD & BLACK P.A.

By


William F. Carr
Post Office Box 2208
Santa Fe, New Mexico 87501
(505) 988-4421
Attorneys for Applicant

ROUGH

dr/

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. 7316

Order No. R-6636-A

APPLICATION OF BLACKWOOD & NICHOLS
COMPANY, LTD. FOR AMENDMENT OF
ORDER NO. R-6636, SAN JUAN COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on July 29,
19 81, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of _____, 19 81, 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 Company, Ltd.
seeks the amendment of Division Order No. R-6636 which authorized
directional drilling for its Northeast Blanco Unit Well No. 32-A

in Section 7, Township 30 North, Range 7 West, to provide for an amended bottom hole location 2213 feet from the South line and 815 feet from the East line of said Section 7.

(3) That Division Order No R-6636 authorized the applicant 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 mechanical problems during the course of drilling resulted in a final bottom hole location 2213 feet from the South line and 815 feet from the East line of said Section 7.

(5) That Blackwood and Nichols Company, Ltd. is the operator of all acreage offsetting the directionally drilled well.

(6) That ~~the~~ approval of this application will not cause waste nor violate correlative rights.

IT IS THEREFORE ORDERED:

(1) That the initial paragraph of Order (2) of Division Order No R-6636 is hereby amended to read in its entirety as follows:

" (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. "

815

2213

(2) Jurisdiction