P. O. BOX 871 SANTA FE, NEW MEXICO

wril 20, 1961

Dlackwood and Nichols Company 500 Mid-America Bank Building Oklahoma Caty 2, Oklahoma

attention: Mr. W. M. Little

Re: 1961 Plan of Development
Northeast Blanco Unit, San
Juan and Rio Arriba Counties,

New Mondeo

Jentiemen:

This is to advise that the New Mexico Oil Conservation Consission has this date approved the 1961 Plan of Development for the Northeast Blanco Unit, Jan Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Three approved copies of the plan are returned here-with.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/JEK/ig

cc: US Geological Survey Roswell, New Mexico

> Commissioner of Public Lands Santa Fe. New Mexico

C _ CONSERVATION COMMISS. N P. O. BOX 871

SANTA FE. NEW MEXICO

Case # 318

April 11, 1961

Blackwood and Nichols Company Mid-American Bank Building Oklahoma City 2, Oklahoma

Attention: Mr. John M. Rowntree

Re: Fifth Enlargement of the Mesaverde Participating Area Northeast Blanco Unit San Juan & Rio Arriba Counties, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Fifth Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit, Rio Arriba and San Juan Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

five approved copies of the application are returned herewith.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/JEK/ig

cc: USGS - Roswell
Commissioner Public Lands - Santa Fe

April 10, 1961

Blackwood & Nichols Company 500 Mid-America Bank Building Oklahoma City 2, Oklahoma

Re: 1961 Plan of Development

Northeast Blanco Unit

San Juan and Rio Arriba, Counties

ATTENTION: Mr. W. N. Little

Gentlemen:

The Commissioner of Public Lands has approved your 1961 Plan of Development for the Northeast Blanco Unit Area, as of April 10, 1961.

We are enclosing two approved copies of this plan.

Very truly yours, E. S. JOHNNY WALKER COMMISSIONER OF PUBLIC LANDS

ILLEGIBLE

BY: Ted Bilberry, Supervisor Oil and Gas Division

ESW/mmr/s

cc:

Oil Conservation Commission Santa Fe, New Mexico

United States Geological Survey Roswell, New Mexico

Case # 318

April 10, 1961

Blackwood and Nichols Company Mid-American Bank Building Oklahoma City 2, Oklahoma

> Re: Fifth Enlargement of the Mesaverde Participating Area Northeast Blanco Unit San Juan & Rio Arriba Counties, New Mexico

Attention: Mr. John M. Rowntree

Gentlemen:

15

The Commissioner of Public Lands has approved your Fifth Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit, as of April 10, 1961.

We are forwarding five approved copies to the Oil Conservation Commission for their consideration.

Please furnish us the dates of the approval by the Oil Conservation Commission and the US Geological Survey when obtained.

Very truly yours, E. S. JOHNNY WALKER COMMISSIONER OF PUBLIC LANDS

BY: Ted Bilberry, Supervisor Oil and Gas Division

ESW/mmr/s

cc:

USGS-Roswell OCC- Santa Fe



Blackwood & Nichols Company

MID-AMERICA BANK BUILDING FOrest 5-9465 OKLAHOMA CITY 2, OKLAHOMA

March 29, 1961

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Gentlemen:

Attached are two copies of the Application for Approval of Fifth Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit in San Juan and Rio Arriba Counties, New Mexico.

We are also attaching copy of a letter we have today sent to the Commission of Public Lands.

When the Commissioner has furnished you with the five copies of these documents with his approval noted thereon, we wish that you would also show your approval on these five copies and return them to us. We will then forward these instruments to the United States Geological Survey office in Roswell.

Thank you for your cooperation in this matter.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

John M. Rowntree Land Department

JMR:eq

Attachments

cc: United States Geological Survey Roswell, New Mexico

P

Y

March 29, 1961

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Dear Sir:

Attached are seven copies of Application for Approval of Fifth Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit in San Juan and Rio Arriba Counties, New Mexico.

The Supervisor of the United States Geological Survey has requested that five copies of this application should be furnished to him and should contain the approval of the Oil Conservation Commission and the Commissioner of Public Lands. At least one of the copies furnished to the U.S.G.S. should be an original signed copy.

We, therefore, request that you show your approval of such application on five copies and forward them to the Oil Conservation Commission of the State of New Mexico. Two copies of this application are for your files.

By separate letter, we are furnishing the Oil Conservation Commission two copies of this application and request their approval on the five copies which you will furnish them.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

JMR:eq Attachments

cc: Director of U.S.G.S. Roswell, New Mexico

Oil Conservation Commission Santa Fe, New Mexico

John M. Rowntree Land Department APPLICATION FOR APPROVAL

OF

FIFTH ENLARGEMENT OF THE MESAVERDE PARTICIPATING AREA FOR THE NORTHEAST BLANCO UNIT, I-SEC. NO. 929 SAN JUAN AND RIO ARRIBA COUNTIES, NEW MEXICO

TO:

THE DIRECTOR OF THE U. S. GEOLOGICAL SURVEY ROSWELL, NEW MEXICO

COMMISSIONER OF PUBLIC LANDS STATE OF NEW MEXICO SANTA FE, NEW MEXICO

OIL CONSERVATION COMMISSION STATE OF NEW MEXICO SANTA FE, NEW MEXICO

Pursuant to the provisions of Section 11 of the Unit Agreement approved by the Director of the U.S. Geological Survey on April 16, 1952, by the Commissioner of Public Lands of the State of New Mexico on October 23, 1951, and by the Oil Conservation Commission of the State of New Mexico on October 31, 1951, affecting lands in the Northeast Blanco Area in San $\,$ Juan and Rio Arriba Counties, New Mexico, Blackwood & Nichols Company, as Unit Operator, on behalf of itself and Pan American Petroleum Corporation, El Paso Natural Gas Company, Delhi-Taylor Oil Corporation, Southern Petroleum Exploration Co., Northeast Blanco Development Corp., Phillips Drilling Corporation, Jacqulyn M. Williams, Texaco, Inc., Earl M. Cranston and C. C. Thomas, owners of oil and gas leases or of operating rights under oil and gas leases covering lands within the area hereinafter described, hereby submit for your approval a selection of lands to constitute the enlarged participating area for the Mesaverde Zone, found to be productive in the following well which establishes that the enlarged participating area is now reasonably proved to be productive of unitized substances in paying quantities from the Mesaverde Formation:

Name of Well

Location

Unit #58-13

NE/4 Sec. 13-31N-7W

This well is in San Juan County, New Mexico. The lands selected by the applicant to constitute the enlarged participating area for said producing zone are as follows:

NEW MEXICO PRINCIPAL MERIDIAN

Township 30 North, Range 7 West

2: A11 Sec. Sec. 3: A11 Sec. 4: A11 Sec. 5: A11 Sec. 6: A11 7: A11 Sec. Sec. 8: A11 Sec. 9: A11 Sec. 10: All Sec. 16: A11 Sec. 17: Sec. 18: Sec. 19: A11 A11 A11 Sec. 20: A11 Sec. 21: A11 Sec. 22: W/2 Sec. 29: N/2 W/2 W/2

Township 30 North, Range 8 West

Sec. 1: A11 Sec. 12: A11 Sec. 13: A11 Sec. 24: A11

Township 31 North, Range 6 West

Sec. 6: All (Fractional)
Sec. 7: All
Sec. 18: All
Sec. 19: All
Sec. 20: All
Sec. 30: All

Township 31 North, Range 7 West

Sec. 1: All (Fractional) Sec. 9: S/2 Sec. 10: S/2 Sec. 11: A11 Sec. 12: Sec. 13: A11 A11 Sec. 14: A11 Sec. 15: A11 Sec. 16: A11 Sec. 19: A11 Sec. 20: A11 Sec. 21: A11 Sec. 22: A11 Sec. 23: A11 A11 Sec. 24: Sec. 25: A11 Sec. 26: A11 Sec. 27: A11

Sec. 28: A11
Sec. 29: A11
Sec. 30: A11
Sec. 31: A11
Sec. 32: A11
Sec. 33: A11
Sec. 34: A11
Sec. 35: A11
Sec. 36: A11

Township 31 North, Range 8 West

Sec. 25: A11 Sec. 36: A11

The working interest and operating rights in the Mesaverde Formation under leases on the above described land which have been committed to the unit are now vested:

Pan American Petroleum Corporation	33. 019124 %
El Paso Natural Gas Company	26.666160
Delhi-Taylor Oil Corporation	2.880277
Northeast Blanco Development Corporation	35.546165
Phillips Drilling Corporation	. 246093
Southern Petroleum Exploration, Inc.	.488311
Jacqulyn M. Williams	.260828
Texaco, Inc.	.861327
Earl M. Cranston	.015856
C. C. Thomas	.015857

100.000000 %

Royalties are payable on production from the lands subject to leases committed to the unit as follows:

(a) To The United States on:

SF	078581	SF	079010-A	SF	080557
SF	078581-A	SF	079042	MM	03356
SF	078615	SF	079043	NM	03357
SF	078615-A	SF	079045	NM	03358
SF	078970	SF	079053	NM	03845
SF	078988	SF	079060	NM	04417
SF	079001	SF	079073	NM	05058
SF	079001-A	SF	079082	MM	013706-A
SF	079003	SF	079082-A	NM	014226
SF	079010	SF	079511		

(b) To The State of New Mexico on:

E-178-1	E-292-9	E-3707- 5
E-289-3	E-453-4	E-3948
E-289-23	E-505-6	E-5382
E-289-24	E-3150-1	B-11125-30

The United States and the State of New Mexico each own 1/8th royalty with respect to the leases above enumerated covering lands committed to the unit.

In support of this application, the applicant attaches hereto, and makes a part hereof, the following items: (1) A map, marked Exhibit "A", showing the Northeast Blanco Unit and the proposed enlarged participating area for the Mesaverde Zone. (2) A schedule, marked Exhibit "B", showing the leases included in the proposed participating area. (3) A brief geological and engineering memorandum, marked Exhibit "C", discussing the area geology and the producing characteristics of the wells which demonstrates the productivity of the included acreage.

The applicant respectfully requests that the Director, the Commissioner and the Commission approve this selection of lands to constitute the Enlarged Mesaverde Participating Area to be effective as of the 1st day of April, 1960, the month in which well #58-13 was placed on production.

Dated this 28th day of February, 1961.

BLACKWOOD & NICHOLS COMPANY

General Partner

STATE OF OKLAHOMA SS. COUNTY OF OKLAHOMA

BEFORE ME, the undersigned authority, on this day personally appeared JNO. W. NICHOLS, a general partner of Blackwood & Nichols Company, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated, and as the act and deed of said partnership.

GIVEN under my hand and seal of office this 28th day of February,

1961.

My Commission Expires:

May 29, 1964

SEAL

Notary Publi

NEW MEXICO OIL CONSERVATION COMMISSION



UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

P.O. Box 6721 Roswell, New Mexico

March 16, 1961

Flackwood and Nichols Company 500 Mid-American Bank Fuilding Oklahoma City 2, Oklahoma

Attention: Mr. W. N. Livtle

Gentlemen:

Your plan of development for 1961, dated December 13, 1960. for the Northeast Planco unit area, San Juan and Rio Arriba Counties, New Mexico, which proposes the drilling of three Mesaverde formation wells, has been approved on this date subject to like approval by the appropriate State of ficials.

One approved copy of the plan is enclosed.

EDWIN M. THOMASSON

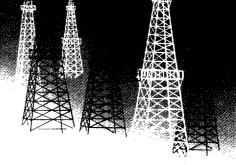
Acting Regional Oil and Gas Supervisor

Copy to: washington (w/cy of plan)

Farmington (w/cy of plan)
NMOCC, Santa Fe (ltr. only)

Blackwood & Nichols Company

500 MID-AMERICA BANK REDG ... OKLAHOMA CITY 2, OKLAHOMA



December 30, 1960

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

> Re: Plan of Development for the Calendar Year 1961, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico

Gentlemen:

We are submitting herewith four signed copies of the above referenced Plan of Development. Copies have also been submitted to the Oil and Gas Supervisor, United States Geological Survey, Roswell, New Mexico; and the Commissioner of Public Lands, State of New Mexico, Santa Fe, New Mexico.

We would appreciate your approval of this Plan of Development.

Yours very truly,

N. M. Little

W. N. Little, Chairman Northeast Blanco Unit Advisory Committee

WNL:bd

Enclosures - 4

Blackwood & Nichols Company

500 MID-AMERICA BANK BLDG S OKLAHOMA CITY 2, OKLAHOMA

December 13, 1960

Pian of Development for the Calendar Year 1961, Mesaverde Zone, Northeast Blanco Unit, 1 - Sec. 929, San Juan and Rio Arriba Counties, New Mexico

To: The Oil and Gas Supervisor
U. S. Geological Survey
Roswell, New Mexico

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Nichols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby submits the Plan of Development for the Mesaverde Zone of the Northeast Blanco Unit for the Calendar Year 1961.

I Description of Participating Area in Mesaverde Zone

A plat is included to show the Northeast Blanco Unit Area and also the Northeast Blanco Unit Mesaverde Participating Area.

II Past Development History of the Mesaverde Zone

Status of the wells in the Unit is as follows:

		Cumulative		
Northeast	October, 1960	MCF Prod	Date	Potential
Blanco Well	MCF Production	Nov. 1, 1960	<u>Completed</u>	MCF Remarks
FF 2-43	70,206 (28)	1,417,257	4-30-52	17,452
Howe11 1-B	-0-	560,802	Csg Failed	Abandoned
Howell 1-BX	62,296 (23)	1,002,808	10-6-57	20,334
Howe11 2-B	2,194 (1)	1,017,419	10-3-51	6,891
Howell 1-G	201 (1)	1,121,871	10-5-51	10,968
Howell 2-J	38,221 (27)	2,501,528	2-1-52	3,180
2-20	3,052 (21)	192,438	6-12-54	2,956
3 - 5	~O~	~ O ~	Csg Failed	Abandoned
3-5X	∞O∞	1,503,053	9-24-54	4,116
4-21	5,308 (20)	571,696	2-10-54	4,160
5-13	-0-	~0-	Csg Failed	Abandoned
5-13X	7,714 (16)	2,346,120	8-14-53	8,492

				rag	e 2
			Cumulative		
Northeast	October,	1960	MCF Prod	Date	Potentia1
	MCF Produ		Nov. 1, 1960	Completed	MCF Remarks
6-29	14,469		668, 136	12-4-53	13,185
	1,734		1,628,932	12-11-53	5,200
7-21				9-30-53	8,872
8-10	3,026		1,466,583	9-22-53	·
9-12	47,395		2,224,146		4,970
10-16	•	(25)	983,760	1-6-54	7,967
11-25		(27)	227,365	1-7-54	2,425
12-18		(5)	860,527	10-16-53	5,450
13-20		(16)	739,404	12-17-53	4,500
14-2	-	(23)	589,099	5-20-54	2,415
15-2	9,174		547,428	2-8-54	2,774
16-3	4,512		711,974	7-18-54	2,864
17-9	2,962	(1)	1,295,436	8-25-54	3,580
18-9	~O~		879,238	7-28-54	2,237
19-20	7,392		451,751	10-19-54	1,644
20-28	-	(22)	201,263	11-11-54	3,602
21-36	5,0 66	(31)	417,472	10-5-54	4,344
22-36	4,775	(31)	274,383	11-2-54	3,479
23-6	71,815	(25)	2,551,676	8-30-5 5	8,343
24-17	23,213	(22)	985,180	5 -22- 55	4,341
25-17	-0-		1,231,143	6-15-55	4,738
26-8	4,941	(2)	1,304,176	8-25-55	4,820
27-8	4,270	7 7	869,636	8-1-55	5,121
28-34	12,596		436,603	9-21-55	3,404
29-13	-0-	•	1,600,085	5-31-55	4,907
30-12		(1)	1,436,366	8-3-55	5,600
31-7		(1)	1,243,780	7-3-55	3,979
32-7		(1)	681,147	9-28-55	4,013
33-12		(26)	195,710	11-10-55	1,800
34-19	-	(25)	629,063	6-5-57	22,550
35-19	-	(31)	518,477	7-25-57	21,487
36-1		(24)	3,022,427	4-28-56	22,663
37-6		(22)	1,577,911	5-23-56	20,570
38-31	461		503,582	8-21-57	11,821
39-36	18,257	• •	893,162	6-3-57	13,142
40-36	28,213		785,081	7-6-57	11,250
	10,431		381,957	9-14-57	8,393
41-25		(18)	141,516	10-13-57	7,002
42-19	-	(30)	156,459	1-7-58	3,604
43-11			913,787	7-1-56	13,672
44-4		(23)		5-4-56	16,584
45-5		(24)	1,319,377	7-16-57	9,183
46-33	•	(22)	397,985	5-4-56	
47-32		(24)	686,400		10,676
48-32		(25)	521,343	7-28-57	9,620
49-30	-	(27)	241,710	11-5-57	6,375
50-25	•	(16)	385,581	8-3-57	8,582
51-29		(31)	449,164	9-19-57	14,743
52-15	•	(30)	298,351	5-21-57	4,783
53-28	•	(31)	246,329	8-23-57	8,873
54-33		(31)	378,490	6-18-57	11,809
55-22	6,700		111,360	9-2 6 -58	4,702
56-34	7,583	(28)	125,425	11-17-58	4,741
57-21	-0-		36,952	9-18-59	5,190
58-13	-0-		56,461	11-3-59	6,270
McElvain #2(.375)		(21)	372,760	6-1-55	4,300
TOTALS	879,394		54,088,490		

Page 3

The following notes pertain to table on preceding pages:

Note #1 - The specific gravity of the gas being produced from these wells varies from .580 to .670.

Note #2 - October, 1960 information indicates that the gas carries from 0 GPM for 4 wells to .325 gallons per thousand. The mathematical average gasoline content for all wells was .190 GPM during October, 1960.

III Information Concerning Dakota Horizon

Participants, in the drilling and completion of five Dakota wells, Northeast Blanco Unit wells #1-27, #55-22, #56-34, #57-21 and #58-13, now believe that these five wells are all incapable of producing unitized substances in commercial quantities, therefore they desire that these wells each be classified as non-commercial. A separate report will be sent to you regarding the pertinent information concerning this classification request.

IV Information on 1960 Work

Our Amended Plan of Development for the calendar year of 1960, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico, dated August 11, 1960 presents details of work carried on during 1960.

V Expansion of Participating Area

Well #58-13 was completed on November 3, 1959 for an open flow potential of 6,270 MCF per day. This well was connected to El Paso Natural Gas Company's gathering system on April 6, 1960. The well produced 28,397 MCF in 23 days during April; 14,978 MCF in 18 days during May; 633 MCF in 1 day during June; and 27,442 MCF in 14 days during July. The well has been shut-in for proration purposes since this time. On a deliverability test taken from 7/30/60 to 8/7/60, well showed to have a calculated deliverability of 561 MCF/day. We believe that this well is capable of producing unitized substances in commercial quantities, therefore we will recommend that it should be included in the Mesaverde Participating Area as of April 1, 1960.

Rosa Unit has completed Well #35-5X, a Mesaverde producer, in the NE/4 SW/4 of Section 5, T-31N, R-6W. This well has a 1960 deliverability of 216 MCF/day. This well produced 3,552 MCF during May; 10,975 MCF during June; 3,400 MCF during July; 3,031 MCF during August; 2,388 MCF during September; and 3,093 MCF during October. This zone was drilled with mud and yet produces some gas. It is, therefore, our opinion that this well proves that Mesaverde gas will be productive from under all the remaining non-participating acreage in the Northeast Blanco Unit. Therefore, we are making application for your approval to include the acreage in Section 1, T-31N, R-7W; the E/2 of Section 12, T-31N, R-7W; the E/2 of Section 13, T-31N, R-7W; the acreage in Section 6, T-31N, R-6W; Section 7, T-31N, R-6W; Section 18, T-31N, R-6W; and Section 20, T-31N, R-6W to be included in the Northeast Blanco Unit Mesaverde Participating Area effective April 1, 1960. Required supporting information will be submitted in a separate report.

VI Proposed Additional Wells

Recommendation is hereby made to drill Mesaverde development wells in the NE/4 of Section 7, T-31N, R-6W; the NE/4 of Section 19, T-31N, R-6W; and the SW/4 of Section 30, T-31N, R-6W.

VII Offset Obligations

Unit Operator, on behalf of the owners of working, royalty, or other interests in the Northeast Blanco Unit, will take appropriate and adequate measures to prevent drainage from lands subject to the Northeast Blanco Unit Agreement by wells on lands not subject to the agreement, or pursuant to applicable regulations, will pay a fair and reasonable compensatory royalty as provided in Section 17 of the Northeast Blanco Unit Agreement. It will be noted that even though the two wells, located in Section 31, T-31N, R-6W, could not be considered commercial in quality, a well is planned in the SW/4 of Section 30 to offset this obligation. Also, the well located in Section 5, T-31N, R-6W is not commercial in quality. However, the Northeast Blanco Unit plans to drill a well in the NE/4 of Section 7 during 1961 to protect the Unit from possible drainage. For your information, the offset wells, located in Sections 8 and 17, T-31N, R-7W, are all extremely poor producers. A table is attached to this Plan of Development showing the location of these critical offset wells and the recent monthly production of each.

VIII Well Casing Program

The well casing program will generally follow the program currently used in the Mesaverde wells drilled in the area, including such surface casing and other casing as may be required by the Supervisor, the Commissioner, and the Commission, or as set forth in approvals of the applicable U. S. Geological Survey and State of New Mexico forms. The producing string of casing may be set and cemented either on top or through, or partially through, the producing zone.

IX Effective Date

This Plan of Development shall be effective January 1, 1961.

X Modification

It is understood that portions of the Plan of Development herein outlined are dependent upon certain information to be obtained prior and subsequent to drilling, and other contingencies, such as the availability of well casing; and for these reasons, this Plan of Development may be modified from time to time, with the approval of the Federal Oil and Gas Supervisor, the New Mexico Commissioner of Public Lands, and the New Mexico Conservation Commission, to meet changing conditions.

Submitted this 30th day of December, 1960.

BLACKWOOD & NICHOLS COMPANY Unit Operator

by W. n. Little

Approved 4-28

Approved A-28

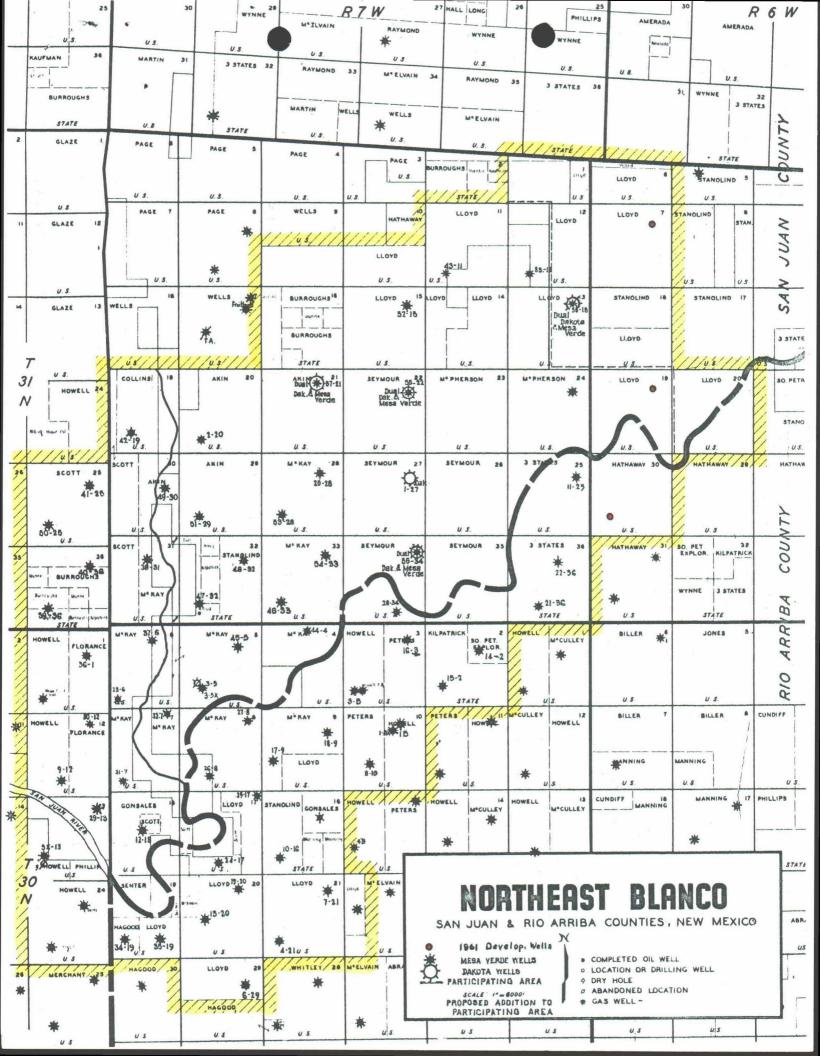
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Secretary - Director

THE MEXICO OIL THE WATION COMMISSION

NORTHEAST BLANCO OFFSET PRODUCTION

	San Juan Unit 32-7	t 32-7			San Juan Unit 31-6	31-6	Rosa Unit
Date	Well 5-8 8-31N-7W SE NE/4	Well 8-17 17-31N-7W SE/4	Well 17-17 17-31N-7W NE NE/4	Well 6-17 17-31N-7W NE/4	Well 5-31 31-31N-6W SW/4	Well 11-31 31-31N-6W NB/4	Well 35-5X S-31N-6W NE SW/4
Deliver- abilities	49 MCF	188 MCF	150 MCF	1	365 MCF	367 MCF	ŧ
1959							
November	1209 MCF	1454 MCF	2496 MCF	Fruitland	3224 MCF	4396 MCF	Deliver-
December	1359	1440	2358	•	2806	4049	216 MCF
1960							
January	1325	1696	2633	4741	1776	2605	ŧ
February	844	1279	2114	1954	710	2695	1
March	802	1493	2406	1889	3275	3910	C
April	958	1787	2092	5100	1717	3589	8
Мау	1101	1910	2193	1887	2118	3026	3452
June	1020	714	2203	2650	2701	3833	10975
July	803	1169	1449	3801	2782	3223	3400
August	1072	757	2132	4115	1920	2822	3031
September	854	1187	2646	4308	2519	3215	2388
October	1273	2122	3015	3379	3569	3294	3093
					-		



In reply refer to: Unit Division

150 EST 15 AF 1 25

October 25, 1960

Car 4 . 18

Blackwood & Nichols Company 500 Mid-American Bank Building Oklahoma City 2, Oklahoma

Re: Proposed Amendment

to the 1960 Plan of Development

Mesaverde Formation Northeast Blanco Unit

San Juan & Rio Arriba Counties

Gentlemen:

It is our understanding that your Amended Plan of Development dated August 11, 1960, for the Northeast Blanco Unit, requests that the drilling of Well No. 59-24 and the reworking of Well No. 12-18 be approved as constituting your drilling obligation for the 1960 calendar year on the Northeast Blanco Unit.

The Commissioner of Public Lands approves the above stated requirements for the 1960 calendar year. However, you have not made a determination on your Wells 1-27, 55-22, 56-34, 58-13 and 57-21 as to whether they are commercial wells, nor have you set up an Initial Dakota Participating Area. We request that this be done, also an expansion of the Mesaverde Participating Area based on the completion of well no. 58-13 should also be submitted.

Very truly yours, MURRAY E. MORGAN Commissioner of Public Lands BY: Marian M. Rhea, Supervisor Unit Division

MEM/mmr/s

USGS-Roswell
OCC - Santa Fe

ILLEGIBLE



UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
P. 0. Box 6721
Roswell, New Mexico

October 7, 1960

Blackwood & Nichols Company 500 Mid-America Bank Building Oklahoma City 2, Oklahoma

Attention: Mr. W. N. Little

Gentlemen:

Your amended 1960 plan of development dated August 11, 1960, for the Northeast Blanco unit, requests that the drilling of well No. 59-24 and the deepening of well No. 12-18 be approved as constituting the entire 1960 plan of development. Said plan also contains certain production history of the Dakota wells in the Northeast Blanco unit area, and advises that you desire for the present time to operate without a Dakota participating area in order to gather and study future production and completion information.

The portion of your amended plan of development substituting the drilling of unit well No. 59-24 and the deepening of unit well No. 12-18 to the Dakota as the entire requirements for the calendar year 1960, is hereby approved subject to like approval by the appropriate State officials. However, such approval is not to be construed as acceptance of your proposal to operate for an indefinite time Dakota wells 1-27, 55-22, 56-34, 58-13, and 57-21 without determinations as to whether they are commercial, or to delay further the submission of an application for the initial Dakota formation participating area.

Unit well No. 1-27 was recompleted in the Dakota on June 10, 1958, and production history obtained after the work-over indicates this well may be capable of producing unitized substances in paying quantities. You advise the deliverability test taken for this well on May 14, 1960, was 420,000 cubic feet of gas per day. However, the June production was 15,442,000 cubic feet delivered into the line in a 15-day period. There appears to be considerable discrepancy between the deliverability test and the actual delivery of the well. Your well No. 58-13 in the NE*k sec. 13, T. 31 N., R. 7 W., was dually completed on or about November 16, 1959, for an initial potential of 6,270,000 cubic feet of gas per day from the Mesaverde formation, and 2,461,000 cubic feet of gas per day from the Dakota formation. This well was connected to the pipeline on April 1, 1960.

It appears that the production history available on unit well No. 1-27 subsequent to June 10, 1958, should be adequate to permit you to make the necessary determination and submit the application for the initial Dakota participating area. An application for expansion of the Mesaverde participating area based on completion of well No. 58-13 may also be appropriate.

Maria Commence of the

JOHN A. ANDERSON

Copy to: Washington

NMOCC (ltr enly)

C CONSERVATION COMMISSIC

P. O. BOX 871

SANTA FE, NEW MEXICO

Cast # 318

September 29, 1960

Blackwood a Nichols Company Mid-America Bank Building Oklahoma City, Oklahoma

ATTENTION: MR. W. N. LITTLE

RE: Amendment to the 1960 Plan of Development Northeast Blanco Unit San Juan and Rio Arriba Counties, New

Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Amendment to the 1960 Plan of Development for the Northeast Blanco Unit Rio Arriba and San Juan Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Two approved copies of the Amendment are returned herewith.

Very truly yours,

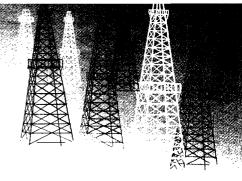
A. L. PORTER, Jr., Secretary-Director

ALP/JEK/ig

cc: US Geological Survey - Roswell, New Mexico
Commissioner of Public Lands - Santa Fe, New Mexico

Blackwood & Nicholsco Company

MID-AMERICA BANK BUILDING FOREST 5-9465 OKLAHOMA CTEMP 20 OM LOH 33 MA



September 6, 1960

Mr. A. L. Porter, Jr. Secretary-Director Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico

Re:

Request for Amendment to the Plan of Development for the Calendar Year 1960, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929 San Juan and Rio Arriba Counties, New Mexico

Dear Mr. Porter:

We are submitting, herewith, four signed copies of the above referenced request. Copies have also been submitted to the Oil and Gas Supervisor, United States Geological Survey, Roswell, New Mexico; and the Commissioner of Public Lands, State of New Mexico, Santa Fe, New Mexico.

We would appreciate your approval of this amendment.

Yours very truly,

n.A. Little

W. N. Little, Chairman Northeast Blanco Unit

Advisory Committee

WNL:bd

Enclosures (4)

Amendment to Plan of Development for the Calendar Year 1960, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan & Rio Arriba Counties, New Mexico

To: The Oil and Gas Supervisor
U. S. Geological Survey
Roswell, New Mexico

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Nichols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby submits a request for amendment to the Plan of Development for the Mesaverde Zone of the Northeast Blanco Unit for the calendar year 1960.

The original plan was submitted to all regulatory bodies on December 31, 1959 and was subsequently approved by the U. S. Department of Interior, Geological Survey on March 30, 1960, by New Mexico Oil Conservation Commission on April 22, 1960, and by the Commissioner of Public Lands, State of New Mexico on February 15, 1960.

The original plan, submitted on December 31, 1959, in Article V recommended that Unit Operator drill Mesaverde development wells and Dakota exploratory wells (completed as duals) in the Northeast quarter of Sections 26 & 24, T-31N, R-7W, San Juan County, New Mexico; to deepen the existing Mesaverde Well #12-18 in the Northeast quarter of Section 18, T-30N, R-7W, San Juan County, New Mexico, to test the Dakota Zone, recomplete the Mesaverde Zone, and dually produce both zones; finally to drill a third Mesaverde-Dakota dual well, the location to be chosen after observation of production performance of Well #58-13, Section 13, T-31N, R-7W, San Juan County, New Mexico, and the wells in Sections 26 and 24.

During 1960, the Northeast Blanco Unit made the following progress:

1. Northeast Blanco Unit Well #59-24 located in the NE/4 Section 24, T-31N, R-7W, San Juan County, New Mexico, was spudded on 4/16/60 and 7-5/8" intermediate casing was set at 3606 on 4/29/60. This well proposed to a depth of 8100. However, when contractor reached a depth of 7900, and while making a trip, drill pipe parted and 7750 of drill pipe dropped 150. After many days of fishing, drill pipe and collars below 5337 were given up as lost. On 5/27/60 a whipstock was set at 5085 and contractor attempted to continue drilling the hole with gas. On 6/21/60 contractor had reached a

depth of 6215' after many attempts to squeeze off water. On 6/22/60 contractor decided to try to complete hole by injecting "Afrox" and water to the gas. On 6/25/60, when hole was at a depth of 6707', drill pipe became stuck at 6700'. After recovering 5886' of drill pipe, contractor asked, and permission was given by a majority of the Dakota and Mesaverde working interest owners, that he be allowed to abandon the attempt to drill to the Dakota formation and that he be permitted to complete this well as a Mesaverde well only. 5-1/2" casing was run, set, and cemented at 5881'. The Mesaverde Zone was perforated and sand-water fractured, tubing was run and the well was completed 7/2/60. After being shut in 11 days, well had an AOF Potential of 3141 MCF/day and is now awaiting pipe line connection.

- 2. Northeast Blanco Unit Well #12-18, located in the NE/4 of Section 18, T-30N, R-7W, San Juan County, New Mexico, was deepened to a depth of 7815'. 5" casing was run and cemented. The Dakota Zone (7590-7784') was perforated and sand-water fractured in two stages. After cleaning and testing for several days, the Dakota Zone was capable of producing 200 MCF per day. Magnesium drillable bridge plugs were set at 7560 and 5548. The Mesaverde Zone was then perforated and sand-water fractured. After cleaning out the Mesaverde Zone and while drilling the bridge plug at 7560', the bit plugged and the drill collars became stuck. An effort was made to retrieve three drill collars and one joint of drill pipe without success. A majority of Dakota and Mesaverde working interest owners decided that it was not practical to spend additional money in an effort to recover the fish. On 6/11/60 a permanent bridge plug was set at 6505, tubing was run, and the well was completed in the Mesaverde Zone on 6/12/60. After being shut in 8 days, this well had an AOF Potential of 6474 MCF/day. Well is now on initial deliverability test after recompletion.
- 3. A tubing leak was repaired on Northeast Blanco Unit Well #56-34, located in the NE/4 of Section 34, T-31N, R-7W, San Juan County, New Mexico. The Dakota and Mesaverde Zones are now back on production.
- 4. A packer leak was found on Northeast Blanco Unit Well #55-22, located in the NE/4 of Section 22, T-31N, R-7W, San Juan County, New Mexico. A new packer was set and tubing rerun. The Dakota and Mesaverde Zones are now back on production.

Production information concerning the productivity of the Northeast Blanco Unit Dakota formation is presented on the following page.

Northeast Blanco Unit Dakota Formation Production

S. Los Pinos - Monthly Production M.C.F. Days Produced ()

Item	Well 1-27	We11 55-22	We11 56-34	Well 58-13	We11 57-21	We11 59-24	Well 12-18
Completed	8/28/52	9/26/58	11/17/58	11/3/59	9/18/59	11/3/59	10/16/53
Potential	536 MCF	288 MCF	2,839 MCF	1,235 MCF	2,461 MCF	**	*
Deliverability							
Date	5/14/60	11/14/59	11/14/59				
Deliverability	420 MCF	84 MCF	377 MCF	△ =		Aband.	Aband.
July, 1959	352 (1)	-0- (0)	-0- (0)				
August	9,849 (5)	1,013 (9)	7,337 (9)				
September	6,794 (5)	782 (7)	9,437 (17)				
October	26,827 (31)	1,607 (16)	8,642 (16)	-0- (0)			
November	23,248 (30)	1,574 (15)	7,392 (15)		W.O. Conn.		
December	23,236 (31)	1,070 (16)	Dual leak		11 11		
January, 1960	17,259 (29)	214 (5)	11 11		11 11		
February	15,886 (24)	Dual leak	31 11		11 11		
March	6,257 (5)	11 11	11 FF		11 If		
April	15,758 (15)	11 11	н н	13,306 (24)	11,145 (29)		
May	3,862 (8)	Repaired	Repaired	4,709 (14)	3,295 (13)		
•	•	Testing	Testing	· · ·			
June	15,442 (15)	816 (5)	10,722 (29)	94 (1)	46 (1)	Aband.	Aband.

Mesaverde recompletion only, lost 200 MCF/day Dakota Zone during completion effort.
 Never were able to reach Dakota Zone.

We now wonder whether we have any commercially productive Dakota gas in the S. Los Pinos Field inside the Northeast Blanco Unit Area (Note: #1-27 deliverability test 5/14/60 was 420 MCF/day); therefore, we desire for the present time to operate without a Dakota Participating Area, and to continue to gather and study production and completion information in an effort to determine the reasonable and prudent development of the Northeast Blanco Unit Area in the forthcoming future.

The participants in the Mesaverde Zone of the Northeast Blanco Unit ask the regulatory bodies to modify the Plan of Development for the calendar year of 1960, as originally submitted and approved, and accept the drilling of Mesaverde Development Well #59-24 and the Dakota test of Well #12-18 to be the complete Plan of Development for 1960.

Submitted this 11th day of August, 1960.

Of Partie

THE MINISON OF LINEAR PROPERTION CONSTRUCTS

Secretary-Director

BLACKWOOD & NICHOLS COMPANY Unit Operator

M. N. Little W. N. Little, Chair

W. N. Little, Chairman Northeast Blanco Unit Advisory Committee

WNL:bd

Amendment to Plan of Development for the Calendar Year 1960, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan & Rio Arriba Counties, New Mexico

To: The Oil and Gas Supervisor
U. S. Geological Survey
Roswell, New Mexico

-

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe. New Mexico

Blackwood & Nichols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby submits a request for amendment to the Plan of Development for the Mesaverde Zone of the Northeast Blanco Unit for the calendar year 1960.

The original plan was submitted to all regulatory bodies on December 31, 1959 and was subsequently approved by the U. S. Department of Interior, Geological Survey on March 30, 1960, by New Mexico Oil Conservation Commission on April 22, 1960, and by the Commissioner of Public Lands, State of New Mexico on February 15, 1960.

The original plan, submitted on December 31, 1959, in Article V recommended that Unit Operator drill Mesaverde development wells and Dakota exploratory wells (completed as duals) in the Northeast quarter of Sections 26 & 24, T-31N, R-7W, San Juan County, New Mexico; to deepen the existing Mesaverde Well #12-18 in the Northeast quarter of Section 18, T-30N, R-7W, San Juan County, New Mexico, to test the Dakota Zone, recomplete the Mesaverde Zone, and dually produce both zones; finally to drill a third Mesaverde-Dakota dual well, the location to be chosen after observation of production performance of Well #58-13, Section 13, T-31N, R-7W, San Juan County, New Mexico, and the wells in Sections 26 and 24.

During 1960, the Northeast Blanco Unit made the following progress:

1. Northeast Blanco Unit Well #59-24 located in the NE/4 Section 24, T-31N, R-7W, San Juan County, New Mexico, was spudded on 4/16/60 and 7-5/8" intermediate casing was set at 3606' on 4/29/60. This well proposed to a depth of 8100'. However, when contractor reached a depth of 7900', and while making a trip, drill pipe parted and 7750' of drill pipe dropped 150'. After many days of fishing, drill pipe and collars below 5337' were given up as lost. On 5/27/60 a whipstock was set at 5085' and contractor attempted to continue drilling the hole with gas. On 6/21/60 contractor had reached a

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Never were able to reach Dakota Zone.

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The participants in the Mesaverde Zone of the Northeast Blanco Unit ask the regulatory bodies to modify the Plan of Development for the calendar year of 1960, as originally submitted and approved, and accept the drilling of Mesaverde Development Well #59-24 and the Dakota test of Well #12-18 to be the complete Plan of Development for 1960.

Submitted this 11th day of August, 1960.

peopetary Director

Northeast Blanco Un Northeast Blanco Un Advisory Committee

BLACKWOOD & NICHOLS COMPANY
Unit Operator

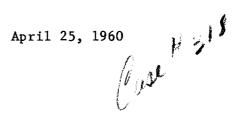
W. N. Little W. N. Little, Chair

W. N. Little, Chairman Northeast Blanco Unit Advisory Committee

WNL:bd

Blackwood & Nichols Company

500 MID-AMERICA BANK BLDG. • OKLAHOMA CITY 2, OKLAHOMA



Mr. A. L. Porter, Jr. Secretary-Director Oil Conservation Commission P. O. Box 871 Santa Fe, New Mexico

> Re: 1960 Plan of Development, Mesaverde Zone, Northeast Blanco Unit, San Juan and Rio

> > Arriba Counties, New Mexico

Dear Mr. Porter:

Please refer to your letter of April 19, 1960 approving the subject Plan of Development. We are enclosing approved copies of this plan from the Acting Oil and Gas Supervisor, United States Geological Survey, Roswell, New Mexico; and Commissioner of Public Lands, State of New Mexico, Santa Fe, New Mexico.

We hope this will complete your file.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

W. N. Little

W. J. Little

Manager of Operations

WNL:bd

Enc. - 2

O. CONSERVATION COMMISSIO

P. O. BOX 871 SANTA FE, NEW MEXICO

April 19, 1960

Blackwood & Nichols Company 500 Mid-America Bank Building Oklahoma City 2, Oklahoma

ATTENTION: Mr. W. N. Little

RE: 1960 Plan of Development, Mesaverde Zone, Mortheast Blanco Unit, Sam Juan and Rio Arriba Counties, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1960 Plan of Development, Mesaverde Zone for the Northeast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Three approved copies of the Plan of Development are returned herewith.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/JEK: esr Enclosures

cc: State Land Office Santa Fe, New Mexico

United States Geological Survey Roswell, New Mexico



P. O. Box 6721 Moswell, New Mexico

March 29, 1960

Blackwood & Nichola Company 500 Mid-America Bank Building Oklahoma City 2, Oklahoma

Attention: Mr. W. N. Little

Gentlemen:

Your plan of development for 1960, dated December 31, 1959, for the Mortheast Blanco unit area, I-Sec.No.929, Sen Juan and Rio Arriba Counties, New Maxico, which proposes the drilling of three Dakota formation wells and the despaning of one Measwards producer to the Dakota formation, has been approved on this date subject to like approval by the appropriate State officials. Please furnish this office with appropriate evidence of such State approval.

This plan provides for dual completion of these wells in the Mesaverde and Dakota formations.

One approved copy of the plan is enclosed.

Very truly yours.

EDWIN M. THOMASSON Acting Oil and Gas Supervisor

Enclosure

Copy to: Washington (w/cy plan)
Farmington (w/cy plan)

NMOCC, Santa Fe (1tr only)

Comm. of Pub. Lands, Santa Fe (ltr only)

ILLEGIBLE

mbruary 15, 1960

Plackwood & Nichols Company 500 Mid-American Bank Building O'datoma City 2, Oklahoma

ATTENTION: Er. . N. Little

Re: 1980 Plan of Development Mecaverde Zone, Northeast Elanco Unit, San Juan and Rio Arriba Counties, New Mexico

Gentlemen:

We are enclosing three copies of the 1960 Plan of Development for the Mesaverde Zone, Northeast Blanco Unit Area, which was approved by the Commissioner of Public Lands February 15, 1960.

This plan proposes two dual Mesaverde-Dakota wells in the northeast quarter of Sections 24 and 26, Township 31N, Range 7-V, one other dual Mesaverde-Dakota well the location to be selected from tests, also to deepen Vell # 12-18, which is located in Section 18, Township 30N, Range 7-W.

Please furnish this office one completely executed copy of this Plan of Development.

Yery truly yours, MURRAY E. MORGAN Commissioner of Public Lands

BY: Ted Bilberry, Supervisor Oil and Gas Division

MEM/MMR/m

cc:

OCC- Santa Fe USGS- Roswell January 21, 1960

Blackwood & Nichols Company 500 Mid-America Bank Building Onlahoma City 2, Oklahoma

ATTENTION: Mr. W. N. Little

Northeast Blanco Unit San Juan and Rio Arriba Counties, New Mexico

Gentlemen:

We have received your Plan of Development for the Calendar Year 1960.

This office requests well records for all wells drilled on this unit during 1958 and 1959 regardless of the location. We have previously pointed out to your company that it is necessary to receive these well reports if we are to expedite operations thereon.

We note there is an offset obligation due on the NW/4 of Section 16. Township 31-North, Range 7-West, may we please have an explanation as to why Section 16 has not been protected from drainage from outside the unit area.

It would also appear that the S/2 of Section 9, Township 31North, Range 7-West is due an offset well.

> Very truly yours, MURRAY E. MORGAN Commissioner of Public Lands

BY: Ted Bilberry, Supervisor Oil and Gas Division

MEM/MMR/m

Oil Conservation Commission Santa Fe, New Mexico

cc:

Page (2.) 1-21-60

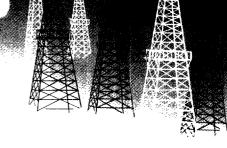
cc:

United States Geological Survey P. O. Box 6721 Roswell, New Mexico



Blackwood & Nichols Company

500 MID-AMERICA BANK BLDG. • OKLAHOMA CITY 2, OKLAHOMA



January 18, 1960

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

> Re: Plan of Development for the Calendar Year of 1960, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929 San Juan and Rio Arriba Counties, New Mexico

Gentlemen:

We are submitting herewith four copies of the above referenced Plan of Development. Copies have also been submitted to the Oil and Gas Supervisor, United States Geological Survey, Roswell, New Mexico; and the Commissioner of Public Lands, State of New Mexico, Santa Fe, New Mexico.

We would appreciate your approval of this Plan of Development.

Yours very truly,

W. N. Little, Chairman Northeast Blanco Unit Advisory Committee

WNL:bd

Enclosures (4)

Plan of Development for the Calendar Year 1960, Messverde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico

To: The Oil and Gas Supervisor U. S. Geological Survey Roswell, New Mexico

> Commissioner of Public Lands State of New Mexico Senta Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Michols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Mortheast Blanco Unit, hereby submits the Plan of Development for the Mesaverde Zone of the Mortheast Blanco Unit for the Calendar Year 1960.

I Description of Participating Area in Mesaverde Zone

A plat is included to show the Northeast Blanco Unit Area and also the Mortheast Blanco Unit Mesaverde Participating Area.

II Past Development Eistory of the Mesaverde Zone

Status of the wells in the Unit is as follows:

Northeast Blanco Well	October 1959 MCF Prod.	Cumulative MCF Prod. Nov. 1, 1959	Date Completed	Potential MCF Remarks
FF 2-43	56,675 (17)	1,026,241	4-30-52	17,452
Howell 1-B	-0-	560,802	Csg Failed	Abandoned
Howell 1-EX	291 (1)	651,324	10-6-57	20,334
Howell 2-B	13,697 (9)	843,726	10-3-51	6,891
Howell 1-G	2,551 (1)	973,196	10-5-51	10,968
Howell 2-J	291 (1)	2,262,091	2-1-52	3,180
2-20	3,034 (24)	163,431	6-12-54	2,956
3-5	-0-	- Q-	Csg Failed	Abandoned
3-5X	334 (1)	1,293,304	9-24-54	4,116
4-21	6,356 (21)	513,032	2-10-54	4,160
5-13	-0-	-0-	Csg Feiled	Abandoned
5-13X	18,190 (26)	2 <i>,22</i> 7, 16 1	8-14-53	8, 492
6-29	12,014 (8)	502,184	12-4-53	13,185
7-21	242 (1)	1,443,556	12-11-53	5,200
8-10	245 (1)	1,228,147	9-30-53	8,872
9-12	37,226 (17)	1,946,912	9-22-53	4,970
10-16	234 (1)	723,065	1-6-54	7,967
11-25	3,804 (27)	194,485	1-7-54	2,425
12-18	6,430 (3 0)	755,296	10-16-53	5,450

	October	Cumulative		Potential
Northeast	1959	MCF Prod.	Date	MCF
Blanco Well	MCF Prod.	Nov. 1, 1959	Completed	Remarks
13-20	11,171 (31)	658,735	12-17-53	4,500
14-2	9,187 (17)	510,730	5-20-54	2,415
15-2	6,127 (15)	487,944	2-8-54	2,774
16-3	11,032 (31)	628,724	7-18-54	2,864
17-9	295 (1)	1,063,226	8-25-54	3,580
18-9	12,164 (9)	754,912	7-28-54	2,237
19-20	7,359 (17)	373,641	10-19-54	1,644
20-28	5,940 (17)	148,719	11-11-54	3,602
21-36	7,920 (30)	350,470	10-5-54	4,344
22-36	4,588 (31)	224,048	11-2-54	3,479
23-6	41,823 (14)	2,144,803	8-30-55	8,343
24-17	196 (1)	809,891	5-22-55	4,341
25-17	239 (1)	1,005,360	6-15-55	4,738
26-8	256 (1)	1,027,559	6-25-55	4,820
27-8	252 (1)	738,985	8-1-55	5,121
28-34	7,696 (15)	360,575	9-21-55	3,404
29-13	27,675 (15)	1,369,133	5-31-55	4,907
30-12	2,703 (2)	1,200,892	8-3-55	5,600
31-7	2,236 (2)	993,107	7-3-55	3,9 7 9
	182 (1)	527,105	9-28 -55	¥,013
32-7	2,836 (23)	164,131	11-10-55	1,800
33-12 31: 10	10,028 (8)	418,991	6-5 -57	22,550
34-19		331,925	7-25-57	21,487
35-19	· · · · · · · · · · · · · · · · ·	ひ ろいり: りつコ プラブ・メビス	4-28-56	22,663
36-1	25,308 (7)	2,344,421 1,187,427	5-23-56	20,570
37- 6	17,317 (5)	1,101,9451	8-21- 5 7	11,821
38-31 30-36	273 (1)	336,994	6-3-57	
39-35	52,873 (21)	578,519	7 -6- 57	13,142
40-36	21,965 (14)	513,484		11,250
41-25	18,170 (17)	247,212	9-14-57	8,393
42-19	3,245 (28)	106,985	10-13-57	7,002
43-11	6,782 (20)	84,506	1-7-58	3,604
44-4	6,132 (5)	759,973	7-1-56	13,672
45-5	321 (1)	1,030,537	5-4-56	16,584
46-33	23,391 (17)	287,196	7-16-57	9,183
47-32	4,075 (5)	536,340	5-4-56	10,676
48-32	18,789 (31)	381,889	7-28-57	9,620
49-30	9,769 (31)	167,763	11-5-57	6,375
50-25	243 (1)	231,159	8-3-57	8,582
51-29	15,416 (31)	330,435	9-19-57	14,743
52-15	12,240 (31)	204,151	5-21-57	4,783
53-28	4,904 (30)	187,275	8-23-57	8,873
54-33	16,771 (31)	363,622	6-18-57	11,809
55-22	137 (1)	53,779	9-26-58	4,702
56-3 ⁴	104 (1)	69,032	11-17-58	4,741
57-21	-0-	hot connected	9-18-59	5,190
58-13	-0-	Not connected	11-3-59	6,270
McElvain #(.375)		312,429	6-1-55	4,300
	602,308	43,916,687		
Marker 112 Miles and	-466	-0 the man bedween more	Larrandin manch hans	7

Hote #1 - The specific gravity of the gas being produced from these wells varies from .580 to .670.

Note #2 - October, 1959 information indicates that the gas carries from O GPM for 3 wells to .312 gallons per thousand. The mathematical average gasoline content for all wells was .210 GPM during October, 1959

III Information Concerning Dakota Horizon

Well 1-27 was originally completed as a non-commercial well from the Dakota Formation on 8-28-52. The well was recompleted on 6-10-58 after a large sand water frac to produce as shown in the table below. Working interest owners in the Northeast Blanco Unit believe the well has now proven itself capable of producing unitized substances in commercial quantities and will prepare proper request to include section 27, T-31-N, R-7-W in the initial Dakota Participating Area for the Northeast Blanco Unit.

Wells 55-22 and 56-34 were connected for Dakota production in August 1959. It now appears that well 55-22 is of poor production capacity and is not commercial. On recent deliverability test for well 56-34 communication between zones was apparent; therefore some question exists concerning the source of gas production from each zone. Unit Operator will properly separate production in well 56-34 and if, thereafter, well has capacity to produce as indicated in the production table, the well will be considered capable of producing unitized substances in commercial quantities and section 34, T-31-N, R-7-W, will also be recommended for inclusion in the original Dakota Participating Area. The ownership of working interest and royalty will be identical before or after inclusion in the possible participating area mentioned.

Production MCF/day and Days Produced

					
Date	Well 1-27	Well 55-22	Well 56-34	Well 57-21	Well 58-13
Jan 1958	5,424 (29)	-	•	•	
February	3.842 (21)	-	-	-	•
March	3,748 (24)	-	•	••	•
April	5 ,37 9 (30)	-	•	~	-
May	5,073 (31)	••	~	-	-
June	18,309 (19)	-	•	-	••
July	22,515 (23)	•	•	-	-
August	-0- (0)	••	-	••	-
September	68 (1)	•	44.	•	-
October	13,514 (9)	-	-	-	-
Movember	5,123 (5)	-	•	-	-
December	2,978 (1)	•	-	-	-
Jan 1959	29,441 (23)	•	•		•
February	22,610 (28)	-	-	-	-
March	6,706 (8)	-	-	••	•
April	17,136 (15)	**	•	••	-
May	6,807 (8)	-	64	•	-
June	301 (1)		•	-	•
July	352 (1)	•		-	-
August	9,849 (5)	1,013 (9)	7,337 (9)	-	-
September	6,794 (5)	782 (7)	9,437 (17) 8,642 (16)	-	-
October	26,827 (31)	1,607 (16)	8,642 (16)	Not Connec te d	Not Connected
Completed	8-28-52	9-26-58	11-17-58	9-18-59	11-3-59
Potential	53 6	288	2,839	1,235	2,461

IV Information on 1959 Work

Dual well #57-21 was completed 9-18-59 in the northeast quarter of Section 21, T-31-M, R-7-W. This was a Mesaverde development well and a Dakota Exploratory well. This well was potentialed for 5,190 MCF/day from the Mesaverde zone and 1,235 MCF/day from the Dakota zone.

Dual well #58-13, an exploratory well in both the Mesaverde and Dakota horizons, was completed 11-3-59. The potential for these wells were: 6,270 MCF/day from the Mesaverde zone and 2,461 MCF/day from the Dakota zone.

V Proposed Additional Wells

Recommendation is hereby made to drill Mesaverde development wells in the north-east quarter of sections 26 and 24, T-31-N, R-7-W. These two wells also should be Dakota exploratory wells planned for dual Mesaverde-Dakota completions. Recommendation is made to deepen well #12-18, located near the center of Section 18, T-30-N, R-7-W, in an exploratory effort to the Dakota Horizon for possible Mesaverde-Dakota dual completion. Finally, the 1960 Plan of Development for the Mesaverde zone is suggested to include another dual Mesaverde-Dakota well; the location of which should be chosen after observation of production performance of well #58-13, section 13, T-31-N, R-7-W, Pacific Morthwest Pipeline Corporation's Mesaverde well in Section 5, T-31-N, R-6-W, and the first two dual wells recommended in this paragraph.

VI Offset Obligation

The Unit Operator, on behalf of the owners of working, royalty, or other interests in the Northeast Blanco Unit, will take appropriate and adequate measures to prevent drainage from lands subject to the Northeast Blanco Unit Agreement by wells on lands not subject to the agreement, or pursuant to applicable regulations, will pay a fair and reasonable compensatory royalty as provided in Section 17 of Northeast Blanco Unit Agreement.

VII Further Development

We report good progress has been made to develop an acceptable Amendment and Supplement to Unit Operating Agreement under Unit Agreement for the Development and Operation of the Northeast Blanco Unit Area, and 100% approval of participants is anticipated soon. This is necessary for operating two or more horizons having varying working interests. As discussed in Article V, this plan includes four exploratory wells to the Dakota Formation and pending the productivity of two wells that have been completed in or near the northeastern portion of the Northeast Blanco Unit Area, may include a Mesaverde Exploratory well.

VIII Expansion of Participating Area

As soon as well #58-13, completed 11-3-59, potential 6,270 MCF/day from Mesaverde and 2,461 MCF/day Dakota, has been connected to a gathering system and has demonstrated its capacity to produce, consideration of expansion of participating area will be made.

IX Spacing of Wells

The Unit Operator recommends developing the Mesaverde Formation on the basis of one well per 320-acre tract, also to locate the wells in the SW¹/₁ and NE¹/₃ of sections where this practice is practicable. The wells now completed in the participating area conform to this pattern with one exception. Approval was received to locate well #28-34, 770' from south line and 1790' from east line, for the reason that the San Juan River Channel occupies almost the entire southwest quarter of Section 34, T-31-N, R-7-W.

X Well Casing Program

The well casing program will generally follow the program currently used in the Mesaverde wells drilled in the area, including such surface casing and other casing as may be required by the Supervisor, the Commissioner, and the Commission, or as set forth in approvals of the applicable U. S. Geological Survey and State of New Mexico forms. The producing string of casing may be set and cemented either on top or through, or partially through, the producing zone.

XI Effective Date

This Plan of Development shall be effective January 1, 1960.

XII Modification

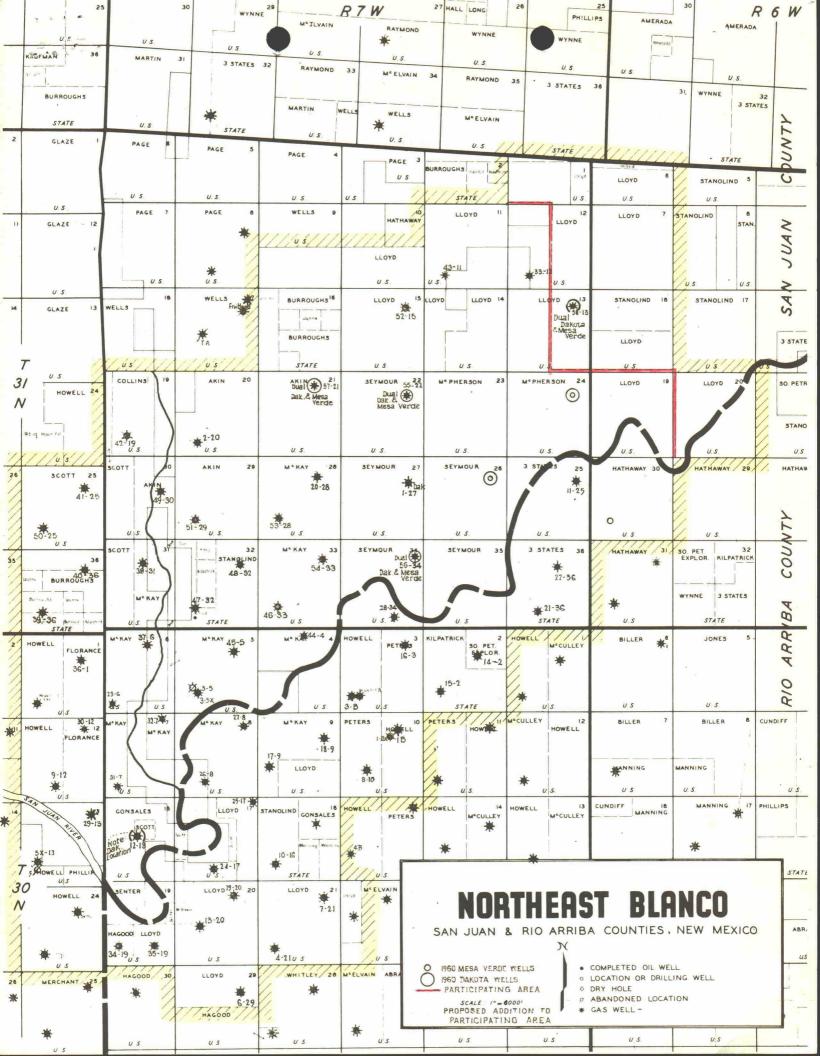
It is understood that portions of the Plan of Development herein outlined are dependent upon certain information to be obtained prior and subsequent to drilling, and other contingencies, such as the availability of well casing; and for these reasons, this Plan of Development may be modified from time to time, with the approval of the Federal Oil and Gas Supervisor, the New Mexico Commissioner of Publis Lands, and the New Mexico Conservation Commission, to meet changing conditions.

Submitted this 31st day of December, 1959.

BLACKWOOD & NICHOLS COMPANY Unit Operator

Manager of Operations

WEW MEXICO GIT, GONODUARGON, COMMISSION



L.L CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

(W) *318

February 11, 1960

Blackwood and Nichols Company 500 Mid-America Bank Building Oklahoma City 2, Oklahoma

Attention: Mr. John M. Rowntree

Re: Corrected Application for the Fourth Enlargement of the Mesaverde Participating Area, Northeast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Corrected Fourth Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Five approved copies of the Approved Application are returned herewith.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/JEK/pj

cc: United States Geological Survey Roswell, New Mexico

> State Land Office Santa Fe, New Mexico



Yr reply refer to:
 Unit Division

Contin

February 11, 1960

Blackwood and Nichols Company 500 Hid-America Bank Building Oklahoma City 2, Oklahoma

Re: Corrected Application for the Fourth Enlargement of the Mesaverde Participating Area, Northeast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico

ATTENTION: Mr. John M. Rowntree

Gentlemen:

We are handing to the Oil Conservation Commission, in compliance with your request, five copies of the above designated documents, which were approved by the Commissioner of Public Lands, February 11, 1960. Also enclosed is Official Receipt No. 30991 in the amount of \$5.00 to cover the filing fee.

Very truly yours, MURRAY E. MORGAN Commissioner of Public Lands

BY: Ted Bilberry, Supervisor Oil and Gas Division

MEM/MMR/m

cc:

OCC-Santa Fe USGS-Roswell



500 MID-AMERICA BANK BLDG. • OKLAHOMA CITY 2, OKLAHOMA

February 4, 1960

Mr. Ted Bilberry, Supervisor Cil and Gas Division State Land Office Santa Fe, New Mexico P315

Re: Mortheast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico

Dear Mr. Bilberry:

Thank you for your letter dated January 21, 1960.

We are, herewith, sending you copies of our U.S.G.S. well records for the four (4) wells drilled in the Mortheast Blanco Unit Area during the years 1958 and 1959. We have requested that our Durango, Coloredo office place you on their mailing list for receiving copies of all well records made in the future.

We have gathered the 1959 production on all wells known to be offsetting the Northeast Blanco Unit Area, which are not offset by wells producing in the Northeast Blanco Unit. A table showing this production, by months, is enclosed for your examination. The information on the Mesaverde wells was secured from the New Maxico Oil Conservation Commission Monthly Projection Book. Since all of these Mesaverde wells are small producers, it is our opinion that they were on the line producing almost all of the time. The production history of the Fruitland well also shows the number of days produced. All six of the wells listed have actual capacity to produce 150 MCF/day, or less. In Unit Operator's opinion, these wells could not be considered commercial in quality or capable of draining unitized substance from under the Northeast Blanco Unit Area. However, we ask your permission to continue observing the productivity of these wells end when any of the wells show commercial quantities for any reason, to poll the interest owners of the Northeast Blanco Unit concerning meeting the offset obligation which results. Unit Operator hopes that future completion practices may improve sufficiently to make it desirable to offset the wells in question.

Unit Operator is submitting a copy of your letter to us, dated January 21, 1960, and a copy of our letter to you, dated February 4, 1960, to all working interest owners in the Northeast Blanco Unit; the Oil Conservation Commission, Santa Fe, New Mexico; and United States Geological Survey, Roswell, New Mexico.

We will be happy to hear from you again on this subject and will furnish you any other information you desire, upon request.

Yours very truly,

Qu'u Little

W. H. Little, Chairman Northeast Blanco Unit Advisory Committee

WML: bd Enclosures

BLACKWOOD & NICHOLS CO. OKLAHOMA CITY 2, OKLAHOMA

E Care

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Dear Sir:

The Regional Oil and Gas Supervisor for the U.S.G.S. has returned to us unapproved our Application for the Fourth Enlargement of the Mesaverde Participating Area of the Northeast Blanco Unit, requesting the effective date of such revision be August 1, 1959, rather than May 1, 1958, as shown on the original application. Attached is a thermo-fax copy of the Supervisor's letter dated January 11, 1960, making such request.

We have therefore changed page 4 of our application to show August 1, 1959, as the requested effective date. We have also included a production schedule on well #43-11. All other matter in our original application remains the same.

Attached are two additional copies of page 4 and two additional copies of the well production schedule and we ask that they be substituted . in the applications which were originally furnished to you.

Also enclosed are five copies of the corrected Application for Approval of the Fourth Enlargement of the Mesaverde Participating Area. If such changes as requested by the U.S.G.S. are satisfactory to you, we would appreciate your showing your approval of this application and forwarding it to the Oil Conservation Commission for their approval.

By copy of this letter we request that the Oil Conservation Commission also show their approval on these five copies of the application and return them to us. We will then submit them to the U.S.G.S. for their final approval.

Yours very truly,

BLACKWOOD & NICHOL'S COMPANY

John M. Rowntree Land Department

JMR:cr Enclosures

cc: Director of U.S.G.S. Roswell, New Mexico

1 011 Conservation Commission Santa Fe, New Mexico



UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

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Autorio di revità, s'approved, are ffilo e uses of polit appoint to the fourth revision of plants. I was 15, 1650, for approval of the fourth revision of the filosophic appoint the filosophic and the filosophic appoint appoint the filosophic appoint appoint

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See' on II of the Northeast Blanco unit agreement provides, "The effective date of any revision shall be the first of the month to which show the first of the month of the shall be after proposed."

The effective date of any revision shall be the first of the month of the fourth revision is May 1. 1978.

The effect of the month to which well No. 63-11 was played to profession, which sate a relative set of May 1, 1979, were loaded attended to a relative such all was connected, and it can be at 19, 100, ther a determination was made the other lines. A still, it is our approved that the first interest that a payer quantities, it is our approved that the order of the unit agreement, and its use will removed to much least work in adjusting royalty accounts than would the agrifier fate.

A coordingly, please revise the application for approval of the fearth Makaverde participating area revision to establish the effective data thereof as August 1, 1959, and return it to us. The plat should be revised to show by cross batching or otherwise the lend peter added to the participating area.



The gaological report to your application (Exhibit "C") states that a table is estached thowing the monthly production from well No. 43-11, number of days produced during each south, and its daily average producing rate since its connection date until the present time. However, this table was omitted from your application and should be attached to the revised application.

The part of parties

It is noted that unit alls No. 55-2 in the NWINEL sec. 22 and 56-34 in NELNEL sec. 34, T. A. N., R. 7 %, were dually completed from the Mesaverde and Dakota formations on October 27 and December 3, 1958, respectively. Our records show that these wells were connected to a pipeline in July 1959 and the first sales occurred in August 1959. Should a participating area for the Dakota be established now?

Very truly yours,

JOHN A. ANDERSON Regional Cil and Gas Supervisor

Enc losures

ILLEGIBLE

Flon of Development for the Calendar Year 1960, Messverde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico

To: The Oil and Gas Supervisor U. S. Geological Survey Rosvell, New Mexico

> Commissioner of Public Lands State of New Mexico Senta Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Nichols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby submits the Plan of Development for the Mesaverde Zone of the Northeast Blanco Unit for the Calendar Year 1960.

I Description of Participating Area in Mesaverde Zone

A plat is included to show the Northeast Blanco Unit Area and also the Mortheast Blanco Unit Mesaverde Participating Area.

II Past Development Elstory of the Mesaverde Zone

Status of the wells in the Unit is as follows:

	October	Cumulative		Potential
Northeast	1959	MIT Prod.	Date	MCF
Blance Well	MCF Prod.	Eov. 1, 1959	Completed	Remarks
FF 2-43	56,675 (17)	1,026,241	4-30-52	17,452
Howell 1-P	-0-	560,802	Csg Failed	Abandonee
Howell 1-BX	291 (1)	651,324	10-6-57	20,33 ¹ 4
Howell 2-B	13,697 (9)	843,726	10-3-51	6,891
Howell 1-G	2,551 (1)	973,196	10-5-51	10,963
Howell 2-J	291 (1)	2,262,091	2-1-52	3,180
2-20	3,034 (24)	163,431	6-12-5 ⁱ ;	2,956
3-5	-0-	and an	Csg Failed	Abandoned
3-5X	334 (1)	1,293,304	9-24-54	4,116
4-21	6,356 (21)	513,032	2-10-5 [‡]	4,260
5-13	-0-	- O	Csg Feiled	Abandoned
5-13X	18,190 (26)	2,227,161	8-14-53	8,492
6-29	12,014 (8)	502,184	12-4-53	13,185
7-21	242 (1)	1,443,556	12-11-53	5,200
8-10	245 (1)	1,228,147	9-30-53	8,872
9-12	37,226 (17)	1,946,912	9-22-53	4,970
10-16	234 (1)	723,065	1-6-54	7,957
11-25	3,804 (27)	194,485	1-7-54	2,425
12-18	6,430 (30)	755,296	10-16-53	5,450

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	October	Cumulative		Potential
Northeast	1959	MCF Prod.	Date	MCF
Blanco Well	MCF Prod.	Mov. 1, 1959	Completed	Remarks
13-20	11,171 (31)	658,735	12-17-53	4,500
14-2	9,187 (17)	510,730	5-20-54	2,415
15-2	6,127 (15)	487,944	2-8-54	2,774
16-3	11,032 (31)	628,724	7-18-54	2,864
17-9	295 (1)	1,063,226	8-25-54	3,580
18-9	12,164 (9)	754,912	7-28-54	2,237
19-20	7,359 (17)	373,641	10-19-54	1,644
20-28	5,940 (17)	148,719	11-11-54	3,602
21-36	7,920 (30)	350,470	10-5-54	4,344
22-36	4,588 (31)	224,048	11-2-54	3,479
23-6	41,823 (14)	2,144,803	8-30-55	8,343
24-17	196 (1)	809,891	5-22-55	4,341
25-17	239 (1)	1,005,360	6-15-55	4,738
26-8	256 (1.)	1,027,559	8-25-55	4,820
27-8	252 (1)	738,985	8-1-55	5,121
2 8- 34	7,696 (15)	360,575	9-21-55	3,404
29-13	27,675 (15)	1,369,133	5-31-55	4,907
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46-33	23,391 (17)	267,196	7-16-57	9,183
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56-34		53,779 60,022		4,702
57-21	10½ (1) -0-	69,032 Not connected	11-1 7 -58 9-18-59	4,741
58-13	~0-	Not connected	y-20-3y 11-3-59	5,190 6,270
McElvain 提(312,429	6-2-55	6,270 4,300
·	A designation of the second se		6-4-7,1	T, JOU
Totals	602,308	43,916,687		

Note #1 - The specific gravity of the gas being produced from these wells varies from .580 to .670.

Note #2 - October, 1959 information indicates that the gas carries from O GPM for 3 wells to .312 gallons per thousand. The mathematical average gasoline content for all wells was .210 GPM during October, 1959

III Information Concerning Dakota Horizon

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Production MCF/day and Days Produced

Date	Well 1-27	Well 55-22	Well 56-34	Well 57-21	Well 58-13
Jan 1958	5,424 (29)	•	-	-	949
February	3,842 (21)	-	•	-	
March	3,748 (24)	-	••	40	adio-
April	5,379 (30)	~	•	~	-
May	5,073 (31)	65	-	-	-
June	18,309 (19)	-	***	••	-
July	22,515 (23)	-	100	**	•
August	-0- (0)	-		-	•
September	68 (1)	•	•	-	-
October	13,514 (9)	-	w	•	-
Movember	5,123 (5)	₩	**	•	-
December	2,978 (1)	-	-	-	-
Jan 1959	29,441 (23)	•	•	•	-
February	22,610 (28)	-	490	-	-
March	6,706 (8)	**	•	-	-
April	17,136 (15)	-	**	-	-
May	6,807 (8)	496	-	-	-
June	301 (1)	-	•	-	•
July	352 (1)	**	***	•	•
August	9,849 (5)	1,013 (9)	7,337 (9)	t=	-
September	6,794 (5)	782 (7)	9,437 (17) 8,642 (16)	-	-
October	26,827 (31)	1,607 (16)	8,642 (16)	Not Connected	Not Connected
Completed	8-28-52	9-26-58	11-17-58	9-18-59	11-3-59
Potential	536	28 8	2,839	1,235	2,461



IV Information on 1959 Work

Dual well #57-21 was completed 9-18-59 in the northwast quarter of Section 21, T-31-N, R-7-N. This was a Mesaverde development well and a Dakota Exploratory well. This well was potentialed for 5,190 MCF/day from the Mesaverde zone and 1,235 MCF/day from the Dakota zone.

Dual well #58-13, an exploratory well in both the Mesaverde and Dakota horizons, was completed 11-3-59. The potential for these wells were: 5,270 MCF/day from the Mesaverde zone and 2,461 MCF/day from the Dakota zone.

V Proposed Additional Wells

Recommendation is hereby made to drill Mesaverde development wells in the northeast quarter of sections 26 and 24, T-31-N, R-7-W. These two wells also should be Dakota exploratory wells planned for dual Mesaverde-Dakota completions. Recommendation is made to deepen well #12-18, located near the center of Section 18, T-30-N, R-7-W, in an exploratory effort to the Dakota Horizon for possible Mesaverde-Dakota dual completion. Finally, the 1960 Plan of Development for the Mesaverde zone is suggested to include another dual Mesaverde-Dakota well; the location of which should be chosen after observation of production performance of well #58-13, section 13, T-31-N, R-7-W, Facific Morthwest Pipeline Corporation's Mesaverde well in Section 5, T-31-N, R-6-W, and the first two dual wells recommended in this paragraph.

VI Offset Obligation

The Unit Operator, on behalf of the owners of working, royalty, or other interests in the Northeast Blenco Unit, will take appropriate and adequate measures to prevent drainage from lands subject to the Northeast Blanco Unit Agreement by wells on lands not subject to the agreement, or pursuant to applicable regulations, will pay a fair and reasonable compensatory royalty as provided in Section 17 of Northeast Blanco Unit Agreement.

VII Further Development

We report good progress has been made to develop an acceptable Amendment and Supplement to Unit Operating Agreement under Unit Agreement for the Development and Operation of the Northeast Blanco Unit Area, and 100% approval of participants is anticipated soon. This is necessary for operating two or more horizons having varying working interests. As discussed in Article V, this plan includes four exploratory wells to the Dakota Formation and pending the productivity of two wells that have been completed in or near the northeastern portion of the Northeast Blanco Unit Area, may include a Mesaverde Exploratory well.

VIII Expansion of Participating Area

As soon as well #58-13, completed 11-3-59, pomential 6,270 MCF/day from Mesaverde and 2,461 MCF/day Dakota, has been connected to a gathering system and has demonstrated its capacity to produce, consideration of expansion of participating area will be made.

IX Spacing of Wells

The Unit Operator recommends developing the Mesaverde Formation on the basis of one well per 320-acre tract, also to locate the wells in the SWH and NEH of sections where this practice is practicable. The wells now completed in the participating area conform to this pattern with one exception. Approval was received to locate well #28-34, 770' from south line and 1790' from east line, for the reason that the San Juan River Channel occupies almost the entire southwest quarter of Section 34, T-31-M, R-7-W.

X Well Casing Program

The well casing program will generally follow the program currently used in the Mesaverde wells drilled in the area, including such surface casing and other casing as may be required by the Supervisor, the Commissioner, and the Commission, or as set forth in approvals of the applicable U.S. Geological Survey and State of New Mexico forms. The producing string of casing may be set and cemented either on top or through, or partially through, the producing zone.

XI Effective Date

This Plan of Development shall be effective January 1, 1960.

XII Modification

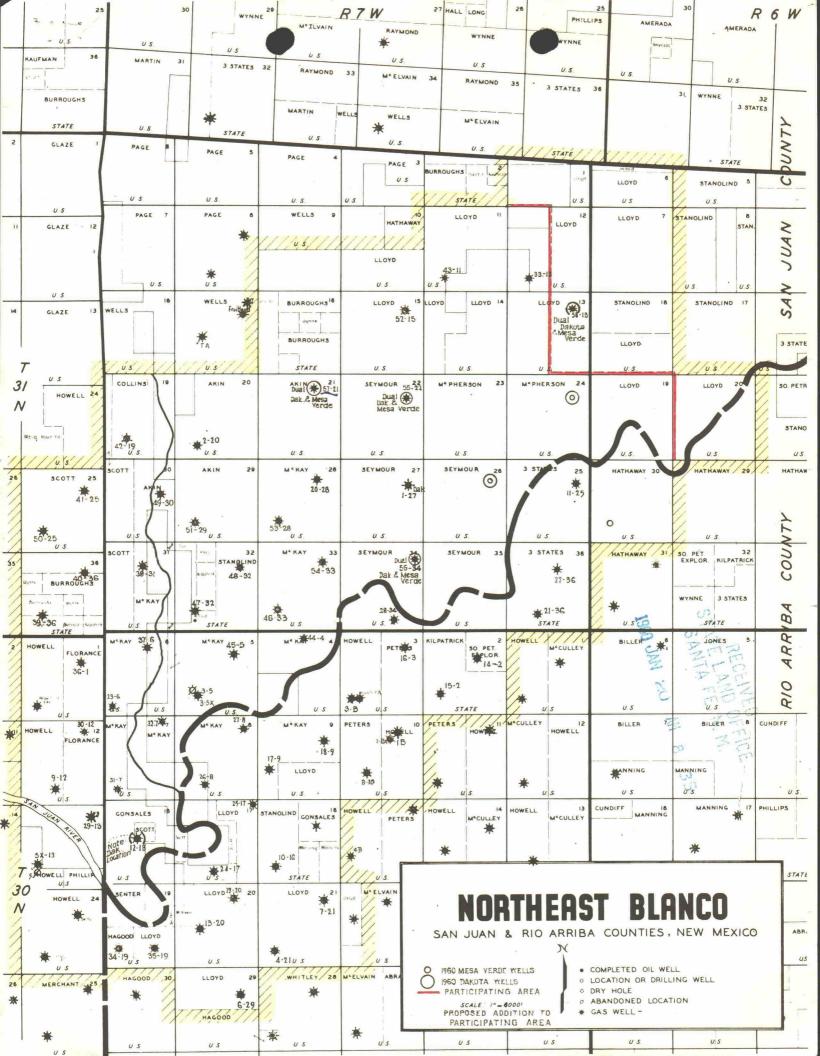
It is understood that portions of the Plan of Development herein outlined are dependent upon certain information to be obtained prior and subsequent to drilling, and other contingencies, such as the availability of well casing; and for these reasons, this Plan of Development may be modified from time to time, with the approval of the Federal Cil and Gas Supervisor, the New Mexico Commissioner of Publis Lands, and the New Mexico Conservation Commission, to meet changing conditions.

Submitted this 31st day of December, 1959.

Memoria February 15, 1960

BLACHWOOD & NECHOLS COMPANY Unit Operator

Manager of Operations



STATE LAND OFFICE

Santa Fo, New Morriso

In reply refer to:



MURRAY E. MORGAN

Blackwood & Wichols Company 500 Mid-America Bank Building Oklahoma City 2, Oklahoma

ATTENTION: Mr. W. N. Little

Re: Northeast Blanco Unit
San Juan and Rio Arriba
Counties, New Mexico

Centlemen:

We have received your Plan of Development for the Calendar Year 1960.

This office requests well records for all wells drilled on this unit during 1958 and 1959 regardless of the location. We have previously pointed out to your company that it is necessary to receive these well reports if we are to expedite operations thereon.

We note there is an offset obligation due on the NW/4 of Section 16. Township 31-North, Range 7-West, may we please have an explanation as to why Section 16 has not been protected from draining from outside the unit area.

Fr would also appear that the 8/2 of Section 9, Township 31North, Range 7-West is due an offset well.

Very truly yours, MURRAY E. MORGAN Commissioner of Public Lands

BY: Ted Bilberry, Supervisor Oil and Gas Division

MEN/MMR/m.

Oil Conservation Commission Santa Fe, New Mexico

Inited States Geological Survey, Box 6721, Roswell, New Medic

Blackwood & Nichols Company

500 MID-AMERICA BANK BLDG. • OKLAHOMA CITY, 2, OKLAHOMA

December 18, 1959

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

> Re: Request for Amendment to the Plan of Development for the Calendar Year 1959, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929 San Juan and Rio Arriba Counties, New Mexico.

Gentlemen:

We are submitting herewith four signed copies of the above referenced request. Copies have also been submitted to the Oil and Gas Supervisor, United States Geological Survey, Roswell, New Mexico; and the Commissioner of Public Lands, State of New Mexico, Santa Fe, New Mexico.

We would appreciate your approval of this amendment.

Yours very truly,

W. M. Little

W. N. Little, Chairman Northeast Blanco Unit Advisory Committee

WNL: bd

Enclosures (4)

Amendment to Plan of Development for the calendar year 1959, Mesaverde Zone, Mortheast Blanco Unit, 1-Sec. 929, San Juan & Rio Arriba Counties, New Mexico

To: The Oil and Gas Supervisor U. S. Geological Survey Roswell, New Mexico

> Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Nichols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby submits a request for smendment to the Plan of Development for the Mesaverde zone of the Northeast Blanco Unit for the calendar year 1959.

The original plan was submitted to all regulartory bodies on December 31, 1958 and was subsequently approved by the U. S. Department of Interior, Geological Survey on March 24, 1959, by New Mexico Oil Conservation Commission on January 29, 1959, and by the Commissioner of Public Lands, State of New Mexico on January 23, 1959.

The original plan, submitted on December 31, 1958, in Article III promised to attempt to secure Dakota gas contracts and connections for wells #55-22 and #56-34. This plan also asked for permission to drill four wells for development in the undeveloped portion of the Mesaverde participating area and to explore the Dakota formation in the area ajoining the wells completed in the Dakota formation.

Gas contracts were negotiated for wells #55-22 and #56-34 and these wells were connected to El Paso Natural Gas Company's gathering system in August, 1959. A summary of the operation of these two wells and also Dakota well #1-27 will be included in our 1960 Plan of Development.

During 1959, the Northeast Blanco Unit made the following development and exploration progress:

- 1. Unit participants worked hard together to develop an equitable plan for drilling and operating separate horizons having different working interest ownership. (Mesaverde and Dakota)
- 2. Dual well #57-21 was drilled in the northeast 1/4 of Section 21, T-31-N, R-7-W. This was a Meseverde development well and a Dakota exploratory well. This well was completed for a Mesaverde potential of 5190 MCF/day, and a Dakota potential of 1235 MCF/day.

- 3. Dual well #58-13, an exploratory well in both the Mesaverde and Dakota horizons, was drilled in the northeast 1/4 of Section 13, T-31-N, R-7-W. This well was completed for a Mesaverde potential of 6270 MCF/day, and a Dakota potential of 2461 MCF/day.
- 4. The large majority of the Mesaverde and Dakota participants agreed to use the 7" CD cased well #12-18, located near the center of Section 18, T-30-N, R-7-W, to explore for Dakota production by deepening the well and recompleting in the Mesaverde zone. Unit Operator was unable to find 5" CD liner for casing the well and although such material was ordered from an eastern mill months ago, delivery was made impossible by the steel strike. We now expect delivery soon; however, it is Unit Operator's opinion that it is not practical to start this difficult exploration in the mountainous and canyon area of the Northeast Blanco Unit during the winter months.

The participants in the Mesaverde zone of Northeast Blanco Unit, for the reasons given above, ask the regulatory bodies to modify the Plen of Development for the calendar year of 1959 as originally submitted on December 31, 1958; and, as originally approved, as stated in the first paragraph of this report, to accept the drilling of Mesaverde development well #57-21, Mesaverde exploratory well #58-13 and Dakota exploratory wells #57-21 and #58-13 to be the complete Plan of Development for 1959, rather than the program originally proposed. These wells have not received pipe line connections, for performance information, at the time of this writing.

Submitted this 17th day of December, 1959.

BLACKWOOD & NICHOLS COMPANY Unit Operator

by N. n. Little

Manager of Operations

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

November 23, 1959

Blackwood and Nichols Company 500 Mid-America Bank Building Oklahoma City 2, Oklahoma

ATTENTION: Mr. John M. Bowntree

Re: Application for Approval of Fourth Enlargement of the Nesaverde Participating Area, Northeast Blanco Unit, in San Juan and Rio Arriba Counies, New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Application of the Fourth Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Six approved copies of the approved application are returned herewith.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/JEK/pj

cc: Land Office - Santa Fe, Ne : Mexico United States Geological Survey - Moswell, New Mexico November 23, 1959

Blackwood and Nichols Company 500 Mid-America Bank Building Oklahoma City 2, Oklahoma

Re: Northeast Blanco Unit San Juan & Rio Arriba Counties, New Mexico

ATTENTION: Mr. John M. Rowntree

Gentlemen:

The Commissioner of Public Lands has approved as of November 19, 1959, your application for the Fourth Enlargement of the Messverde Participating Area for the Northeast Blanco Unit.

We are retaining one copy for our files and handing six copies to the New Mexico Oli Conservation Commission for their consideration.

May we please have another copy when this application is fully executed.

Very truly yours, MURRAY E. MCRGAN Commissioner of Public Lands

BY:

Ted Bilberry, Supervisor Oil and Gas Division

MEM/MMR/III

cc:

Oil Conservation Commission- Santa Fe, New Mexico United States Geological Survey-Roswell, New Mexico

November 10, 1959

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Dear Sir:

Attached are seven copies of Application for Approval of Fourth Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit in Sen Juan and Rio Arribe Counties, New Mexico.

The Supervisor of the U.S. Geological Survey has requested that five copies of this application should be furnished to him and should contain the approval of the Oil Conservation Commission and the Commissioner of Public Lands. At least one of the copies furnished to the U.S.G.S. should be an original signed copy.

We therefore request that you show your approval of such application on five copies and forward them to the Oil Conservation Commission of the State of New Mexico. Two copies of this application are for your files.

By separate letter, we are furnishing the Oil Conservation Commission two copies of this application and request their approval on the five copies which you will furnish to them.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

John M. Rowntree Land Department

JMR:cr

Attachments

cc: Director of U.S.G.S.
Roswell, New Mexico

Oil Conservation Commission Santa Fe, New Mexico

Blackwood & Nichols Companity

500 MID-AMERICA BANK BLDG. • OKLAHOMA CITY 2, OKLAHOMA



100 p 318

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Gentlemen:

Attached are two copies of the Application for Approval of Fourth Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit, in San Juan and Rio Arriba Counties, New Mexico.

We are also attaching a copy of a letter we have today sent to the Commissioner of Public Lands.

When the Commissioner has furnished you with the five copies of these documents, with his approval noted thereon, we wish that you would also show your approval on these five copies and return them to us. We will then forward these instruments to the U.S. Geological Survey office in Roswell.

Thank you.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

John M. Rowntree Land Department

JMR:cr Attachments cc: U.S.G.S.

Roswell, New Mexico

Opproved Nov 19, 1959 - Jand Commission

APPLICATION FOR APPROVAL

OF

FOURTH ENLARGEMENT OF THE MESAVERDE PARTICIPATING AREA FOR THE NORTHEAST BLANCO UNIT, I-SEC. NO. 929 SAN JUAN AND RIO ARRIBA COUNTIES, NEW MEXICO

(40° + 318

TO:

THE DIRECTOR OF THE U.S. GEOLOGICAL SURVEY ROSWELL, NEW MEXICO

COMMISSIONER OF PUBLIC LANDS STATE OF NEW MEXICO SANTA FE, NEW MEXICO

OIL CONSERVATION COMMISSION STATE OF NEW MEXICO SANTA FE, NEW MEXICO

Pursuant to the provisions of Section 11 of the Unit Agreement approved by the Director of the U.S. Geological Survey on April 16, 1952, by the Commissioner of Public Lands of the State of New Mexico on October 23, 1951, and by the Oil Conservation Commission of the State of New Mexico on October 31, 1951, affecting lands in the Northeast Blanco Area in San Juan and Rio Arriba Counties, New Mexico, Blackwood & Nichols Company, as Unit Operator, on behalf of itself and Pan American Petroleum Corporation, El Paso Natural Gas Company, Delhi-Taylor Oil Corporation, Southern Petroleum Exploration Co., Northeast Blanco Development Corp., Pacific Northwest Pipeline Corp., Phillips Drilling Corporation and K. E. McAfee, owners of oil and gas leases or of operating rights under oil and gas leases covering lands within the area hereinafter described, hereby submit for your approval a selection of lands to constitute the enlarged participating area for the Mesaverde Zone, found to be productive in the following well which establishes that the enlarged participating area is now reasonably proved to be productive of unitized substances in paying quantities from the Mesaverde Formation:

Name of Well

Location

Unit #43-11

SW/4 Sec. 11-31N-7W

This well is in San Juan County, New Mexico. The lands selected by the applicant to constitute the enlarged participating area for said producing zone are as follows:

NEW MEXICO PRINCIPAL MERIDIAN

Township 30 North, Range 7 West:

Sec. 2: All
Sec. 3: All
Sec. 4: All
Sec. 5: All
Sec. 6: All
Sec. 6: All
Sec. 7: All
Sec. 8: All
Sec. 9: All
Sec. 10: All
Sec. 16: All
Sec. 16: All
Sec. 17: All
Sec. 18: All
Sec. 19: All
Sec. 20: All

Township 30 North, Range 8 West:

Sec. 1: All Sec. 12: All Sec. 13: All Sec. 24: All

Township 31 North, Range 6 West:

Sec. 19: All Sec. 30: All

Township 31 North, Range 7 West:

Sec. 9: S/2
Sec. 10: S/2
Sec. 11: All
Sec. 12: W/2
Sec. 13: W/2
Sec. 14: All
Sec. 15: All
Sec. 16: All
Sec. 16: All
Sec. 20: All
Sec. 21: All
Sec. 22: All
Sec. 23: All
Sec. 24: All
Sec. 25: All
Sec. 26: All
Sec. 27: All
Sec. 28: All
Sec. 29: All
Sec. 29: All
Sec. 29: All
Sec. 30: All
Sec. 31: All
Sec. 33: All
Sec. 35: All
Sec. 35: All
Sec. 35: All

Township 31 North, Range 8 West:

Sec. 25: All Sec. 36: All

The working interest and operating rights in the Mesaverde

Formation under leases on the above described land which have been committed to the unit are now vested:

Pan American Petroleum Corporation	32.480915%
El Paso Natural Gas Company	21.984015%
Pacific Northwest Pipeline Corporation	6.155392%
Delhi-Taylor Oil Corporation	3.203393 %
Northeast Blanco Development Corporation	34.111453%
Phillips Drilling Corporation	.273701%
Southern Petroleum Exploration, Inc.	.543090%
K. E. McAfee	.290089%
The Texas Company	<u>957952%</u>
Total	100.00000%

Royalties are payable on production from the lands subject to leases committed to the unit as follows:

(a) To United States on:

SF	078581	SF	079043	SF	080557
SF	078581 A	SF	079053	SF	079045
SF	078615	SF	079060	SF	079003
SF	078615 A	SF	079073	SF	078988
SF	079001	SF	079082	SF	079010
SF	079001 A	SF	079082 A	NM	03356
SF	079042	SF	079511	NM	03357
NM	079010 A	NM	03845	NM	03358
NM	013706 A			NM	014226

(b) To the State of New Mexico on:

E-2 89-3	E- 178-1	E-292-9
E-505-6	E-3150-1	E-3707-4
E-3707-5	E- 3948-1	B-11125-30
E-289-24		E-289-23

The United States and the State of New Mexico each own 1/8th royalty with respect to the leases above enumerated covering lands committed to the unit.

In support of this application, the applicant attaches hereto, and makes a part hereof, the following items: (1) A map, marked Exhibit "A", showing the Northeast Blanco Unit and the proposed enlarged participating area for the Mesaverde Zone. (2) A schedule, marked Exhibit "B", showing the leases included in the proposed participating area. (3) A brief Geological and Engineering Memorandum, marked Exhibit "C", discussing the area geology and the producing characteristics of the wells which

demonstrates the productivity of the included acreage.

The applicant respectfully requests that the Director, the Commissioner, and the Commission approve this selection of lands to constitute the Enlarged Mesaverde Participating Area to be effective as of the 1st day of May, 1958, the month in which well #43-11 was placed on production.

Dated this 15th day of August, 1959.

BLACKWOOD & NICHOLS COMPANY

By A General Partner

STATE OF OKLAHOMA
COUNTY OF OKLAHOMA

BEFORE ME, the undersigned authority, on this day personally appeared Jno. W. Nichols, a general partner of Blackwood & Nichols Company, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated, and as the act and deed of said partnership.

GIVEN under my hand and seal of office this 15th day of August, 1959.

Notary Public

My commission expires:

May 29, 1960

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App. and 11-22-1959
Superior Control of the Superior
memor fa
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THE THE STATE OF T
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-4-	Approved19
	Secretary-Director
	NEW MEXICO OIL CONSERVATION COMMISSION

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

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3/3

January 29, 1959

Blackwood & Nichols Company 14 N. Robinson Oklahoma City, Oklahoma

Attention: Mr. W. N. Little

Re: Plan of Development for the Calendar Year 1959, Northeast Blanco Unit, San Juan & Rio Arriba Counties, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Plan of Development for the Calendar Year 1959, for the Northeast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Three approved copies of the application are returned herewith.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/RLS/ir

cc: State Land Office - Santa Fe, New Mexico
U. S. Geological Survey - Roswell, New Mexico

1919 07 Decomber 31, 1958

Plan of Development for the Calendar Year 1959, Megayerde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico

To: The Oil and Gas Supervisor U. S. Geological Survey Reswell, New Mexico

> Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Oir Conservation Commission State of New Mexico Santa Fe, New Mexico

Hlackwood & Michols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby submits the Plan of Development for the Mesaverde Zone of the Northeast Blanco Unit for the Calendar Year 1959.

I Description of Participating Area in Meseverde Zone

A plat is included to show the Northeast Blanco Unit Area and also the Northeast Blanco Unit Mesaverde Participating Area.

II Past Development History of the Mesaverde Zone

Status of the wells in the Unit is as follows:

Northeast Blanco Well	November 1958 MCF Prod.	Cumulative MCF Prod. Dec. 1, 1958	Date Completed	Potential MCF Remarks
FF 2-43	-0- (0)	844,866	4-30-52	17,452
Eowell 1-B	••• O e e	560,802	Csg. Failed	Abandoned
Fowell 1-BX	586(2)	340,933	10-6-57	20,334
Howell 2-B	24,080(14)	692,096	3.0-3-51	6,891
Howell 1-G	21,692(9)	840,972	10-5-51	10,968
Howell 2-J	-0- (0)	2,120,870	2-1-52	3,180
2-20	3,150(26)	134,672	6-12-54	2,956
<u> 5-5</u>	O.	-0-	Csg. Failed	Abandoned
3-5 x	22,202(12)	1,214,123	9-24-54	4,116
4-21	3 ,9 99(11)	462,503	2-10-54	4,160
j <u>13</u>	-0-	~Q~	Csg. Failed	A ban doned
5~1 3 %	-O- (O)	2,097,728	8-14-53	8,492
ე-29	31,533(29)	363,963	12-4-53	13, 185
7-21	202(1)	1,308,794	12-11-53	5,200
È-10	214(2)	1,026,074	9-30-53	8,872

Northeast Blanco Well	November 1958 MCF Prod.	Cumulative MCF Prod. Dec. 1, 1958	Date Complet e d	Potential MCF Remarks
	ENA TECH	and the contraction of the property of the contraction of the contract	Comments of the second	nder in der Steinbergelage der Steinbergelagen und der
9-12	-0- (0)	1,735,185	9-22-53	4,970
10-16	297(2)	506 ,5 24	1-6-54	7,967
11-25	1,452(7)	158,578	1-7-54	2,425
12-18	6,606(22)	692,902	10-16-53	5,450
13-20	9,139(14)	574,031	12-17-53	4,500
14-2	7,701(16)	449,093	5-20-54	2,415
15-2	5,349(9)	426,443	2-8-54	2,774
16-3	8,478(9)	550,126	7-18-54	2,864 2,590
17-9	399(2)	1,062,931	8-25-54	3,580
18-9	114(2) 6,660(15)	6 59,2 39	7-28-54 10-19-54	2,237
19 -2 0 20-28	4,639(12)	306,885 115,542	11-11-5h	1,644 3,602
21-36	8,087(22)	280,422	10-5-54	4,344
22-36	4,730(22)	177,744	11-2-54	3,479
23 - 6	84,606(30)	1,764,759	8-30-55	8,343
24-17	157(2)	684,896	5-22 - 55	4,341
25-17	83(1)	837,053	6-15-55	4,738
26-8	222(2)	841,718	8-25-55	4,820
27-8	12,789(8)	626,832	8 - 1-55	5,121
28-34	6,712(8)	292,474	9-21-55	3,404
29-13	-0- (0)	1,088,574	5-31-55	4,907
30-12	33,235(18)	1,065,822	8 - 3- 5 5	5,600
3 1-7	-0- (0)	821,896	7-3-55	3 ,97 9
32 -7	12,982(10)	466,354	9-28-55	4,013
3 3-12	2,951(30)	132,044	11-10-55	1,800
34-19	-0- (0)	221,526	6-5-57	22,550
35-19	-0- (0)	165,304	7-25-57	21,487
36-1	90,402(30)	1,909,929	4-28-56	22 ,6 63
3 7- 6	17,118(5)	1,013,642	5-23-56	20,570
3 8-3 1	42,211(30)	231,534	8-21-57 6-3-57	11,821
39 -36 40 -3 6	339(1) 403(1)	3 73,71 8 3 21,75 9	7 - 6-5 7	13,142 11,250
41-25	302(1)	132,961	9-14-57	8,393
42-19	10,194(19)	68,085	10-13-57	7,002
43-11	1,894(5)	46,025	1-7-58	3,604
44-4	20,216(30)	631,599	7-1-56	13,672
45-5	29,711(20)	904,330	5-4-56	16,584
46-33	14,774(12)	207,079	7-16-57	9,183
47-32	11,089(10)	431,690	5-4-56	10,676
48-32	9,162(7)	26 8, 839	7-28-57	9,620
49-30	17,433(29)	108,632	11-5-57	6,375
50-25	242(1)	168,131	8-3-57	8,582
51-29	15,622(11)	221,376	9-19-57	14,743
52-15	-0- (0)	136,881	5-21-57	4,783
53-28	6,803(12)	123,367	8-23-57	8,873
54-33 55 22	13,761(11)	229,099	6-18-57 9-26-58	11,809
55-22 56-34	-0- -0-	conn. 12-58 conn. 12-58	9-20-50 11-1 7- 58	4,702 4,741
McElvain #2(.375)	2,983(4)	292,885	6-1-55	4,300
		And the second s		
Totals	629,735	36,534,854		

Note #1 - The specific gravity of the gas being produced from these wells varies from .580 to .670.

Note #2 - The November, 1958, report indicates that the gas carries from 0 for 15 wells to .342 gallons per thousand.

III Proposed Additional Wells

Unit Operator is negotiating to sell Dakota gas from Wells #55-22 and #56-34. Other working interest owners are also negotiating to sell their interest Dakota gas. The Dakota Formation interest owners in the area of Sections 22. 27 and 34, T-31-N, R-7-W, San Juan County, New Mexico, have asked the Mesaverde Participating Area to delay the choosing of their Mesaverde development well locations until such time as Dakota working interest owners can arrange to sell the Dakota gas so that a test period can result and the capacity of the Dakota gas wells can be determined. For this reason, Unit Operator asks that the regulatory bodies accept the Northeast Blanco Unit 1959 Plan of Development without a specific schedule of wells. It is the intention of Unit Operator to drill at least four wells for development at strategic locations in the undeveloped portion of the Mesaverde Participating Area. It is also the intention of working interest owners to explore the Dekota formation in the area adjoining the current three-section area where Dakota gas has already been explored. We ask that we be allowed to choose the locations of these wells one or more at a time after testing the currently completed wells and also after drilling and testing future 1959 Development and Exploratory wells.

IV Offset Obligation

The Unit Operator, on behalf of the owners of working, royalty, or other interests in the Northeast Blanco Unit, will take appropriate and adequate measures to prevent drainage from lands subject to the Northeast Blanco Unit Agreement by wells on lands not subject to the agreement, or pursuant to applicable regulations, will pay a fair and reasonable compensatory royalty as provided in Section 17 of Northeast Blanco Unit Agreement.

V Further Development

As discussed in Paragraph III, Unit Operator prefers to be allowed to do Dakota exploratory work rather than Mesaverde exploratory work during the year 1959. Since the working interest owners do not have a contract to sell their Dakota gas, a contract must be arranged by the owners of the Dakota producing wells. An effort will be made to secure a gas connection for Dakota wells #55-22 and #56-34 as soon as possible. Also, Advisroy Committee members of the Mesaverde Participating Area and working interest owners of the Dakota Formation are cooperatively working to prepare an acceptable operating agreement concerning operations of two or more horizons having varying working interests on a unified basis. After a two or three-month test period of Dakota wells, Unit Operator will recommend drilling one or more Dakota exploratory wells during the year 1959.

VI Expension of Participating Area

Hortheast Blanco Unit Well #43-11 has not been classified capable of producing unitized substances in commercial quantities. We would prefer to leave this well unclassified for perhaps one more year. At the end of this period, we will request classification of the well.

VII Spacing of Wells

The Unit Operator recommends developing the Mesaverde Formation on the basis of one well per 320-acre tract, also to locate the wells in the SWA and NEt of sections where this practice is practicable. The wells now completed in the participating area conform to this pattern with one exception. Approval was received to locate Well #28-34, 770' from south line and 1790' from east line, for the reason that the San Juan River Channel occupies almost the entire southwest quarter of Section 34, T-31-W, R-7-W.

VIII Well Casing Program

The well casing program will generally follow the program currently used in the Mesaverde wells drilled in the area, including such surface casing and other casing as may be required by the Supervisor, the Commissioner, and the Commission, or as set forth in approvals of the applicable U. S. Geological Survey and State of New Mexico forms. The producing string of casing may be set and cemented either on top or through, or partially through, the producing zone.

IX Effective Date

This Plan of Development shall be effective January 1, 1959.

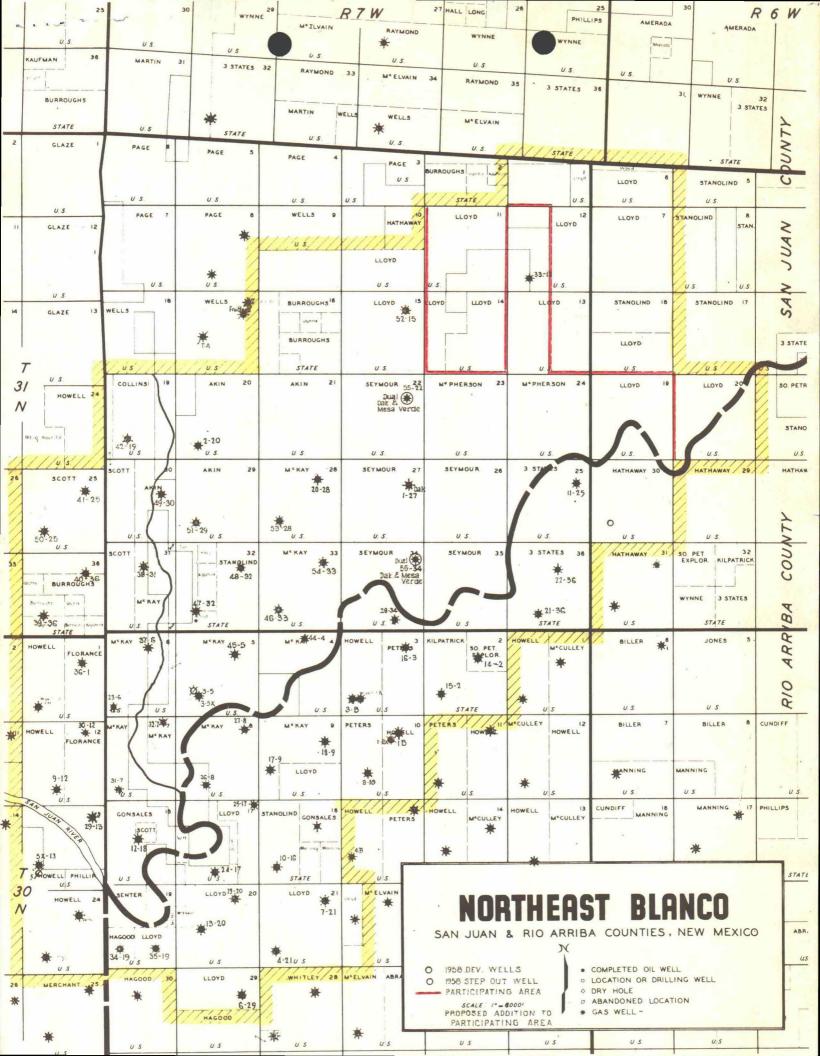
Modification

It is understood that portions of the Plan of Development herein outlined are dependent upon certain information to be obtained prior and subsequent to drilling, and other contingencies, such as the availability of well casing; and for these reasons, this Plan of Development may be modified from time to time, with the approval of the Federal Oil and Gas Supervisor, the New Mexico Commissioner of Public Lands, and the New Mexico Conservation Commission, to meet changing conditions.

Submitted this 31st day of December, 1958.

NEW MEXICO OIL CONSERVATION COMMISSION

BLACKWOOD & NICHOLS COMPANY Unit Operator



ICEO UNY EL AN 8:17

In reply refer to: Unit Division

January 26, 1959

United States Geological Survey P. O. Box 6721
Roswell, New Maxico

Oil Conservation Commission P. O. Box 371 Santa Fe, New Mexico

> Re: 1959 Plan of Development, Mesaverde Zone, Northeast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico

Gentlemen:

The Commissioner of Public Lands has of this date approved the 1959 Plan of Development for the Northeast Blanco Unit.

We understand this plan does not call for any specific schedule of wells but anticipates the drilling of four wells in the undeveloped portion of the Mesaverde Participating Area probably testing the Oskota Formation.

Very truly yours, MURRAY E. MORGAN Commissioner of Public Lands

BY: Ted Bilberry, Supervisor Oil and Gas Division

MEM/ME/m

Blackwood & Nichols Company

14 N. ROBINSON

OKLAHOMÁ CITY, OKLAHOMA

გე December 22, 1958

> Hold till hear from

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

> Re: Request for Amendment to the Plan of Development for the Calendar Year 1958, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929 San Juan and Rio Arriba Counties, New Mexico.

Gentlemen:

We are submitting herewith four signed copies of the above referenced request. Copies have also been submitted to the Oil and Gas Supervisor, United States Geological Survey, Roswell, New Mexico; and the Commissioner of Public Lands, State of New Mexico, Santa Fe, New Mexico.

We would appreciate your approval of this amendment.

Yours very truly,

W. N. Little, Chairman Northeast Blanco Unit Advisory Committee

WNL: dw

Enclosures (4)

CONTRACTION FOR

PIAN OF DEVELOPMENT FOR THE CALENDAR
YEAR 1958. MEGANDON TO BLANCO UNIT, 1-SEC. 929 SAN JUAN AND RIO ARRIBA COUNTIES, NEW MEXICO

The Oil and Gas Supervisor U. S. Geological Survey Roswell, New Mexico

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Nichols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby requests an amendment to the 1958 Mesaverde Zone Plan of Development criginally submitted December 28, 1957.

Section III, Proposed Additional Wells, on Page 3 of the original plan called for drilling 13 development wells; and Section V, also on Page 3, called for drilling an exploratory well to test the Mesaverde Zone in Section 7, T-31-N, R-7-W. We now request that all of these wells be deleted from the 1958 Plan of Development.

Under Section III, we have completed Well #55-22 in the MET of Section 22 and Well #56-34 in the NET of Section 34, both in T-31-N, R-7-W, Sen Juan County, New Mexico. The absolute open flow potential of wells #55-22 and #56-34 in the Mesaverde Horizon were 4702 and 4741 MCF per day, respectively. Please note that Well #56-34 is at the identical location as Well #58-34 in the original Plan of Development for 1958. We would appreciate wells #55-22 and #56-34, which are Mesaverde producers, being accepted as Mesaverde Development Wells during 1958.

Both of the above wells were drilled through the productive zone of the Dakota Formation and both wells were completed to produce gas from the Dakota Formation. The Dakota Zone of Well #55-22, 7897' to 8016', after a 60,000 gallon water frac and dual completion, produced at the rate of 288 MCF per day. The Dakota Zone of Well #56-34, 7660' to 7805', after a 63,000 gallon water frac, tested to produce 1,300 MCF per day.

Besides the above, Well #1-27, located in the NET of Section 27, T-31-N, R-7-W, was reworked from 6-3-58 to 6-10-58. A 42" OD liner was cemented from 7638' to 7961'; and the Dakota Zone, 7812' to 7924', was sand fraced with 55,000 gallons of water and 40,000 pounds of sand. The well averaged producing 964 MCF per day during 19 days in June; 979 MCF per day during 23 days in July; was shut in during August; produced 68 MCF in one day during September, and 1,040 MCF per day during 9 days in October of 1958.

We herewith request that these three Dakota completions be considered as the Northeast Blanco Unit's Exploratory Program for the Calendar Year 1958. Northeast Blanco participants desire to delay further exploration and development work in both Mesaverde and Dakota Horizons until Spring because of winter weather conditions which prevail in the Northeast Blanco Unit mountains and canyons during the winter months and until it is possible to test and evaluate the Dakota wells for a time to determine deliverabilities.

Reasons for Changed Plan of Development:

The 1958 Plan of Development was planned in November and December of 1957 for actual drilling during the Summer of 1958. By April, good weather time, it became appartent to working interest owners in the Northeast Blanco Unit that the locations of their 1958 Plan of Development wells were all in an area which would possibly result in wells of limited capacity with poor reserves. Working interest owners needed to take a good look at Mesaverde payout prospect as well as consider other methods of doing a more efficient job of developing and exploring.

It was decided that some of the poorer and older Mesaverde wells should be reworked by setting liners and water fracing, also that Well #1-27 should be reworked in the Dakota Formation. The result of our workover program is shown in Table #1 and is also reflected on the attached plat.

Dakota development in the San Juan Basin began to indicate some promise of that formation being an important gas reserve; end, because the #1-27 well on the Northeast Blanco Unit was drilled with mud and shot with glycerin, it was decided that the Dakota Formation should be explored with the view that it might contain commercial production and, if so, the remaining undrilled acreage in the unit could be developed with wells dually completed in Mesaverde and Dakota formations.

The first step was to re-work Well #1-27 in the Dakota Formation. The results of the workover offered encouragement and the advisory committee authorized north and south offsets to Well #1-27 to be drilled with gas below the Pictured Cliff Formation and dually completed in Mesaverde and Dakota.

The results of these completions are stated above and in our opinion do not indicate as yet that the Dekota Formation contains gas in commercial quantities.

We hope to complete some testing that will give an indication of deliverability and after that make the decision whether or not to drill any more Dakota wells.

The owners of Mesaverde participating area feel that a delay in Mesaverde development until such time as the Dekota owners are able to evaluate the Dekota completions is worthwhile because of the savings that can be realized in dual completions. The reserves in both the Mesaverde and Dakota reservoirs in the unit acreage that is now undeveloped may be such that dual completions would be advisable because of the low capacity but that single completions would be so costly that the acreage might have to be declared non-commercial or remain undeveloped.

Section VI, Expansion of Participating Area: Our 2nd exploratory well in the 1957 Plan of Development, Well #43-11, located in the SWH of Section 11, T-31-N, R-7-W, San Juan County, New Mexico, was completed January 7, 1958; had an absolute open flow potential test of 3604 MCF per day on January 22, 1958, and started producing into El Paso Natural Gas Company's line in March, 1958. The well has produced as follows:

Month	MCF	Lays	Average MCF/Day
May	20989	27	717
June	11685	29	403
July	7513	23	327
August	-0-	-0-	-0-
September	30	1	30
October	3914	9	435

This well has not been classified as capable of producing unitized substances in commercial quantities.

We request that the Plan of Development for the Calendar Year 1958, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico, as originally submitted on December 28, 1958, be modified and changed as outlined in this letter, with approval of the Federal Oil and Gas Supervisor, the New Mexico Commissioner of Public Lands, and the New Mexico Conservation Commission.

Submitted this 12th day of December, 1958.

BLACKWOOD & NICHOLS COMPANY Unit Operator

Manager of Operations

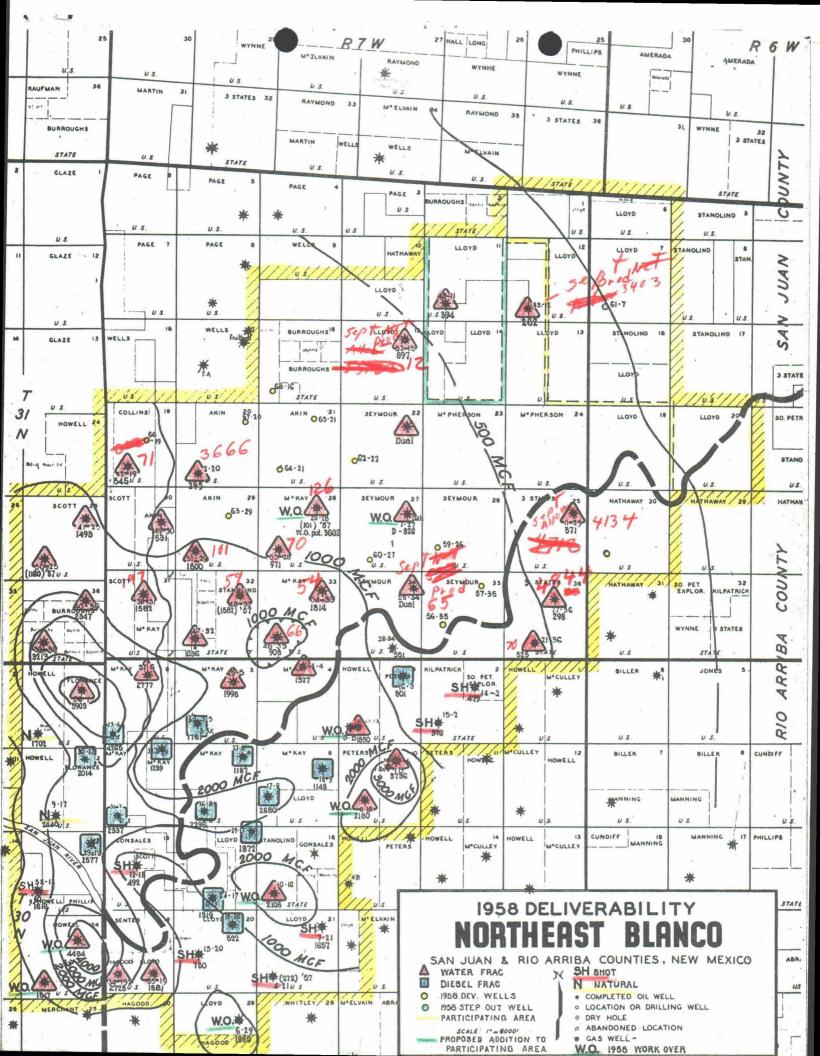
WNL:dw

NORTHEAST BLANCO UNIT

RESULTS OF RECENT WORKOVERS

	New Potential Remr g	not taken Dakota	6891. Wesaverd	10968 Mesaverd	17452 Mesaverd	13185 Messverd	8872 Mesaverd	7967 Mesaverd	3602 Massingta
Deliverability	After Workover Date MDF/day Pr	1040	1647	1386	405¢	हें	1932	2017	334
Delive.	After	10~58	6-58	6-58	5-58	7-58	7-58	7~58	10-58
Capacity	Prior to W. O. Date MCF/day	165	324	344	365	136	525	592	58
Cal	Prior	5-58	4-58	2-58	3-58	2-58	4-58	3-58	7-58
	# Sand	3,0000	46000	00006	00006	100000	00006	72000	00006
	Treatment Gals. Wir.	55000	106000	122000	000 MS1	126000	000911	107000	104000
Liner	Cemented om To	7961	1295	2444	6795	5573	5529	5416	5675
177	From	7638	5224	1621	3786	4851	14827	649H	1864
,	Date Workover urted Completed	6-10-58	5-21-58	4-5-58	4-23-58	3-15-58	5-31-58	5-3-58	9-18-58
	Date W	6-3-58	5-4-58	3-19-58	4-6-58	3-6-58	5-22-58	42458	9-3-58
•	Well No.	1.5	R . 07	<u>۴</u>	5773	68-9	8-10	10-16	20-28

TABLE I



OIL CONSERVATION COMMISSION P. O. BOX 871

SANTA FE, NEW MEXICO

March 31, 1958

Blackwood and Nichols Company 14 North Robinson Oklahoma City, Oklahoma

Attention: Mr. John M. Rowntree

Re: Third Enlargement of the Mesaverde
Participating Area Northeast Blanco

Unit, San Juan and Rio Arriba Counties,

New Mexico.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the Third Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit Area, dated January 20, 1958, subject to like approval by the United States Geological Survey and by the Commissioner of Public Lands of the State of New Mexico.

Four approved copies of the Proposed Extension are returned herewith.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/RLS/ga

Enclosure

O.L. CONSERVATION COMMISSION P. O. BOX 871 SANTA FE, NEW MEXICO

March 28, 1958

Blackwood and Nichols Company 1313 Liberty Bank Building Oklahoma City 2, Oklahoma

Attention: Mr. W. N. Little

Re: Mesaverde Zone, Northeast Blanco Unit, San Juan and Rio Arriba Counties, New Mexico. Plan of Development for the

Calendar Year 1958.

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1958 Plan of Development for the Mesaverde Zone of the Northeast Blanco Unit Area, dated December 28, 1957, subject to like approval by the United States Geological Survey and by the Commissioner of Public Lands of the State of New Mexico.

One approved copy of the Plan is returned herewith.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/RLS/ga

Enclosure

Blackwood & Nichols Company

MID-AMERICA BANK BUILDING FOrest 5-9465

March 26, 1958

Oil and Gas Supervisor U. S. Geological Survey Roswell, New Mexico

Commissioner of Public Leads State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Subject: Plan of Development for the

Calendar Year 1958, Mesaverde Mans, Northeast Blanco Unit, 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico.

3/8

Gentlemen:

Page 4 Paragraph 2 of the subject Plan of Development is as follows:

Well #43-11, was completed January 7, 1958; and, on potential test, flowed at the rate of 2862 MF per day for an absolute open flow potential of 3604 MF. We have been anxious to have this well connected to El Paso Matural das Company's gathering system; however, we have a letter from their Project Engineer stating that although the contract for connecting this well was let on February 3, 1958, weather conditions in the area have not allowed them to proceed with the construction. It is therefore apparent that we will be unable to test the well by April 15, 1958, however, that we will test the well during the two months following its connection and report our findings to you.

Yours very truly,

W. M. Little

W. M. Little, Chairman Northeast Blanco Unit

Advisory Committee

WEL: CV

ce's: Alvisory Consistee

Blackwood & Nichols Company

14 N. ROBINSON OKLAHOMA CITY, OKLAHOMA

17 22 6. 13 0:19

March 19, 1958

File case 318

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Gentlemen:

Blackwood & Nichols Company submitted their plan of development for the Calendar Year 1958, Mesaverde Zone, Northeast Blanco Unit 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico to you for your approval on December 28, 1957.

For your information, Mr. John Anderson, Regional Oil and Gas Supervisor for the United States Geological Survey, Roswell, New Mexico, approved this plan of development on February 19, 1958. Murrey E. Morgan, Commissioner of Public Lands, Santa Fe, New Mexico, approved our plan on 1-16-58.

Since we will be ready to start our 1958 operations sometime during April, we would appreciate hearing from you in the next few weeks.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

W. N. Little, Chairman Northeast Blanco Unit

Advisory Committee

WNL:dw

February 24, 1958

Blackwood & Nichols Company 14 N. Robinson Oklahoma City, Oklahoma

Re: Northeast Blanco Unit

Attention: Mr. John M. Rowntree

Gentlemen:

We are today handing to the New Mexico Oil Conservation Commission, five copies of Application for Approval of Third Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit. This was approved by the Commissioner of Public Lands February 24, 1958.

The above enlargement is to be effective June 1, 1957.

When may we expect another enlargement including tracts 2% and 45, both of which should participate effective September 1, 195%?

Very truly yours, MURRAY E. MORGAN, Commissioner of Public Lands

BY:

Ted Bilberry, Supervisor Oil and Gas Division

MEM/MMR/s

cc: Oil Conservation Commission

P. O. Box 871

Santa Fe, New Mexico

APPLICATION FOR APPROVAL OF THIRD ENLARGEMENT OF THE MESAVERDE PARTICIPATING AREA FOR THE NORTHEAST BLANCO UNIT, 1-SEC. NO. 929 SAN JUAN AND RIO ARRIBA COUNTIES, NEW MEXICO rg ra THE DIRECTOR OF THE U. S. GEOLOGICAL SURVEY TO: ROSWELL, NEW MEXICO COMMISSIONER OF PUBLIC LANDS STATE OF NEW MEXICO SANTA FE, NEW MEXICO OIL CONSERVATION COMMISSION STATE OF NEW MEXICO SANTA FE, NEW MEXICO Pursuant to the provisions of Section 11 of the Unit Agreement approved by the Director of the U.S. Geological Survey on April 16, 1952, by the Commissioner of Public Lands of the State of New Mexico on October 23, 1951, and by the Oil Conservation Commission of the State of New Mexico on October 31, 1951, affecting lands in the Northeast Blanco Area in San Juan and Rio Arriba Counties, New Mexico, Blackwood & Nichols Company, as Unit Operator, on behalf of itself and Pan American Petroleum Corporation, El Paso Natural Gas Company, Delhi-Taylor Oil Corporation, Southern Petroleum Exploration Co., Northeast Blanco Development Corp., Pacific Northwest Pipeline Corp., Phillips Drilling Corporation and K. E. McAfee, owners of oil and gas leases or of operating rights under oil and gas leases covering lands within the area hereinafter described, hereby submit for your approval a selection of lands to constitute the enlarged participating area for the Mesaverde Zone, found to be productive in the following well which establishes that the enlarged participating area is now reasonably proved to be productive of unitized substances in paying quantities from the Mesaverde Formation: Name of Well Location NE/4 Sec. 15-31N-7W Unit #52-15

This well is in San Juan County, New Mexico. The lands selected by the applicant to constitute the enlarged participating area for said producing zone are as follows:

NEW MEXICO PRINCIPAL MERIDIAN

Township 30 North, Range 7 West:

Sec. 2: All Sec. 3: All Sec. 4: All Sec. 5: All Sec. 6. All Sec. 7: Sec. 8: All All Sec. 9: All Sec. 10: All Sec. 16: Sec. 17: Sec. 18: All All All Sec. 19: All Sec. 20: All Sec. 21: All Sec. 22: W/2 W/2 Sec. 29: N/2

Township 30 North, Range 8 West:

Sec. 1: All Sec. 12: All All Sec. 13: All Sec. 24: All

Township 31 North, Range 6 West:

Sec. 19: All Sec. 30: All

Township 31 North, Range 7 West:

s/2 Sec. 9: Sec. 10: s/2 Sec. 12: Sec. 13: W/2 W/2 Sec. 15: All Sec. 16: All Sec. 19: Sec. 20: All All Sec. 21: All Sec. 22: All Sec. 23: All Sec. 24: All Sec. 25: Sec. 26: All All Sec. 27: All Sec. 28: All Sec. 29: All Sec. 30: Sec. 31: All All Sec. 32: All Sec. 33: Sec. 34: Sec. 35: Sec. 36: All All All

All

Township 31 North, Range 8 West:

Sec. 25: All Sec. 36: All

The working interest and operating rights in the Mesaverde Formation under leases on the above described land which have been committed to the unit are now vested:

Pan American Petroleum Corporation	34.247875%
El Paso Natural Gas Company	22.457387%
Pacific Northwest Pipeline Corporation	5.624474%
Delhi-Taylor Oil Corporation	3.467048%
Northeast Blanco Development Corporation	33.036122%
Phillips Drilling Corporation	.288590%
Southern Petroleum Exploration, Inc.	.572635%
K. E. McAfee	.305869%
Total	100.000000%

Royalties are payable on production from the lands subject to leases committed to the unit as follows:

(a) To United States on:

SF 078581	L	SF	079043	SF	080557
SF 078581	_ A	SF	079053	SF	079045
SF 078615	, S	SF	079060	SF	079003
SF 078615	5 A	SF	079073	SF	078988
SF 079001	L	SF	079082	SF	079010
SF 079001	L A	SF	079082 A	NM	03356
SF 079042	2	SF	079511	NM	03357
NM 079010	Α (NM	03845	NM	03358
NM 013706	5 A			NM	014226

(b) To the State of New Mexico on:

E-289-3	E-178-1	E-292-9
E-505-6	E-3150-1	E-3707-4
E-3707-5	E-3948-1	B-11125-30
E-289-24		E-289-23

The United States and the State of New Mexico each own 1/8th royalty with respect to the leases above enumerated covering lands committed to the unit.

In support of this application, the applicant attaches hereto, and makes a part hereof, the following items: (1) A map, marked Exhibit "A", showing the Northeast Blanco Unit and the proposed enlarged participating area for the Mesaverde Zone. (2) A schedule, marked Exhibit "B", showing the leases included in the proposed participating area. (3) A brief Geological and Engineering Memorandum, marked Exhibit "C", discussing the area geology and the producing characteristics of the wells which

demonstrates the productivity of the included acreage.

The applicant respectfully requests that the Director, the Commissioner, and the Commission approve this selection of lands to constitute the Enlarged Mesaverde Participating Area to be effective as of the 1st day of June, 1957, the month in which well #52-15 was completed.

Dated this 20th day of January, 1958.

BLACKWOOD & NICHOLS COMPANY

A General Partner

STATE OF OKLAHOMA

COUNTY OF OKLAHOMA

BEFORE ME, the undersigned authority, on this day personally appeared Jno. W. Nichols, a general partner of Blackwood & Nichols Company, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated, and as the act and deed of said partnership.

GIVEN under my hand and seal of office this 20th day of January, 1958.

Notary Public

My commission expires:

May 29, 1960

SEAL



UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

P. C. Box 6721 Roswell, New Mexico

February 19, 1958

Blackwood & Nichols Company 14 N. Robinson Oklahoma City 2, Oklahoma

Gentlemen:

Your plan of development dated December 28, 1957, for the Northeast Blanco unit area, New Mexico, for the calendar year 1958, has been approved on this date subject to like approval by the appropriate State of New Mexico officials.

One approved copy of the plan is enclosed.

Very truly yours,

SONE SECTION A. ANDERSON

JOHN A. ANDERSON Regional Oil and Gas Supervisor

Copy to: Cons. Div., Wash. (w/copy of plan)

Farmington

▶ 011 Conservation Commission (letter only)

C
O 1100 (40 to 100)
P. 1000 (10 to 100)

BLACKWOOD & NICHOLS CO. OKLAHOMA CITY 2, OKLAHOMA

F16 318

Fig. 1953 at 151 34

February 14, 1958

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Dear Sir:

Attached are seven copies of Application for Approval of Third Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit in San Juan and Rio Arriba Counties, New Mexico.

The Supervisor of the U.S. Geological Survey has requested that five copies of this application should be furnished to him and should contain the approval of the Oil Conservation Commission and the Commissioner of Public Lands.

We therefore request that you show your approval of such application on five copies and forward them to the Oil Conservation Commission of the State of New Mexico. Two copies of this application are for your files.

By separate letter we are furnishing the Oil Conservation Commission two copies of this application and request their approval on the five copies which you will furnish to them.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

John M. Rowntree Land Department

JMR:cr Attachments cc Director of USGS Roswell, New Mexico

> Oil Conservation Commission Santa Fe, New Mexico

Blackwood & Nichols Company

14 N. ROBINSON

A 27 1 2 20

OKLAHOMA CITY, OKLAHOMA

February 14, 1958

31

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Gentlemen:

Attached are two copies of the Application for Approval of Third Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit, in San Juan and Rio Arriba Counties, New Mexico.

We are also attaching a copy of a letter we have today sent to the Commissioner of Public Lands.

When the Commissioner has furnished you with the five copies of these documents, with his approval noted thereon, we wish that you would also show your approval on these five copies and return them to us. We will then forward these instruments to the U_{\bullet} S. Geological Survey office in Roswell.

Thank you.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

John M. Rowntree Land Department

JMR:cr Attachments cc USGS

Roswell, New Mexico

In Reply refer to: Unit Division

January 16, 1958

Blackwood & Michols Company 14N. Robinson Oklahoms City, Oklahoms

> He: PIAN OF DEVELOPMENT for 1955, Nesaverde Home, Northeast Blanco Unit

Attention: W. N. Little

Gentlemen:

We are enclosing two copies of the 1958 Plan of Development, for Mortheast Blanco Unit, which were approved by the Commissioner of Public Lands January 16, 1958. This approval is subject to like approval by the U.S.C.b. and the Oil Conservation Commission.

Very truly yours,

MARAY E. MORCAN, Commissioner of Public Lands

74V:

Ted Bilberry, Supervisor Oil and Oss Division

MEH/AMR/s

cc:

Oil Conservation Commission / Capitol Annex Building Santa Fe, New Mexico

United States Geological survey P. O. Box 5781 Rosvell, New Mexico Blackwood & Nichols Company
14 N. ROBINSON DECEmber 28, 1957

1 71 / /

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Re: Request for Approval of Plan of Development for the Calendar Year 1958,
Mesaverde Zone, Northeast Blanco Unit,
I-Sec. 929, San Juan and Rio Arriba
Counties, New Mexico.

Gentlemen:

We are submitting herewith four signed copies of the above referenced request. Copies have also been submitted to the Oil and Gas Supervisor, United States Geological Survey, Roswell, New Mexico; and the Commissioner of Public Lands, State of New Mexico, Santa Fe, New Mexico. We would appreciate your approval of this Plan of Development.

Yours very truly,

W. N. Little, Chairman Northeast Blanco Unit Advisory Committee

WNL:dw

Enclosures - 4

MAN ENTICE GCC

December 28, 1957

1038 U/01 1 AM

Plan of Development for the Calendar Year 1958, Mesaverde Zone, Northeast Blanco Unit, 1-Sec. 929, San Juan and Rio Arriba Counties, New Mexico

Approved Morch 28 1958

To: The Oil and Gas Supervisor U. S. Geological Survey Roswell, New Mexico

Secretary-Director

Commissioner of Public Lands State of New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Nichols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby submits the Plan of Development for the Mesaverde Zone of the Northeast Blanco Unit for the Calendar Year 1958.

I Description of Participating Area in Mesaverde Zone

A plat is included to show the Northeast Blanco Unit Area and also the Northeast Blanco Unit Mesaverde Participating Area. This plat also Shows the proposed addition to the Northeast Blanco Unit Mesaverde Participating Area.

II Past Development History of the Mesaverde Zone

Status of the wells in the Unit is as follows:

Northeast Blanco Well	October 1957 MCF Prod.	Cumulative MCF Prod. Nov. 1, 1957	Date Completed	Potential MCF Remarks
FF 2-43	3,409(13)	400,987	4-30-52	3,120
Howell 1-B	-O-	560,802	Csg. Failed	Abendoned
Howell 1-BX	-0-	Conn. 12-57	10-6 -57	20,334
Howell 2-B	10,942(30)	555,904	10-3 -51	3,300
Howell 1-G	15,942(24)	690,334	10 -5-51	3,300
Howell 2-J	54,196(31)	1,955,764	2-1-52	3,180
2-20	4,737(30)	93,481	6-12-54	2,956
3 -5	-0-	-0-	Csg. Failed	Abandoned.
3 -5X	45,689(28)	907,802	9-24-54	4,116
4-21	5,530(21)	369,775	2-10-54	4,160
5-13	-0-	-0-	Csg. Failed	Abandoned
5-13 X	36,091(16)	1 ,8 49 ,5 86	8-14-53	8,492
6-29	2, 211(11)	211,258	12-4-53	4,260
7-21	39,088(31)	1,147,615	12-11 -5 3	5,200
8-10	20,617(30)	873 ,7 28	9-30-53	5,210

Northeast Blanco Well	October 1957 MCF Prod.	Cumulative MCF Prod. Nov. 1, 1957	Date Completed	Potential MCF Remarks
9-12	60,213(31)	1,562,608	9-22-53	4,970
10-16	5,252(14)	389,177	1-6-54	2,820
11-25	3 ,889(24)	117,887	1-7-54	2,425
12-18	8,186(31)	604,745	10-16-53	5,450
13-20	15,006(16)	471,016	12-17-53	4,500
14-2	11,726(30)	348,931	5-20-54	2,415
15-2	12,322 (30)	333,611	2-8-54	2,774
16-3	19,673 (30)	456,121	7-18-54	2,864
17-9	38,394 (18)	811,093	8-25-54	3 ,58 0
18-9	24,157(30)	553,370	7-28-54	2,237
19-20	11,006 (29)	223,260	10-19-54	1,644
20-28	2,499 (30)	89,084	11-11-54 10-5-54	1,37 ¹ 4 4,344
21-36	14,068 (30)	189,056	11-2-54	3,479
22-36	7,849(21)	112,140 1,168,022	8-30-55	8,343
23 - 6 24-17	31,176(9)	536,725	5-22 -5 5	4,341
25-17	32,617(31) 50,728(30)	63 7,55 9	5-15-55	4,738
26-8	33,779(18)	658,875	8-25-55	4,820
27-8	30,847(30)	426,791	8-1-55	5.121
28-34	10,662 (28)	193,006	9-21-55	3,404
29-13	57,878(31)	838,130	5-31 -5 5	4,907
30-12	50,796 (31)	796,542	8-3-55	5,600
31-7	43,918 (23)	662,164	7- 3 -55	3,979
32-7	35,748 (31)	307,479	9-2 8-55	4,013
33-12	4,376 (29)	87,998	11-10-55	1,800
34-19	- C-	Com. 12-57	6-5 -5 7	22,550
35-19	-0-	Com. 12-57	7-25-57	21,487
36 -1	93,880 (31)	1,054,257	4-28-56	22,663
3 7- 6	52,105 (31)	619,084	5-23 -5 6	20,570
38-31	-0-	Conn. 11-57	8-21-57	11,821
39-36	58,588 (31)	119,060	6-3-57	13,142
40-36	51,129(31)	109,763	7-6-57	11,250
41-25	- 0~	Conn. 12-57	9-14-57	8,393
42 - 19	-0- -0-	Conn. 12-57 Drilling	10-13-57 Drilling	7,002 Drilling
43-11 <u>կ</u> կ-կ	32,505 (31)	367,851	7-1-56	13,672
45-5	37,277 (27)	530,730	5-4- 5 6	16,584
46-33	27,889 (23)	55,436	7-16-57	9,183
47-32	31,939 (31)	230,901	5-4-56	10,676
48-32	45,110 (31)	72,030	7-28-57	9,620
49-30	-0-	Conn. 12-57	11-5-57	6,375
50-25	-0-	Cona. 11-57	8-3-57	8,582
51-29	- 0-	Conn. 11-57	9-19-57	14,743
52-15	13,368 (20)	67,871	5-21-57	4,783
53-28	- ()-	Conn. 11-57	8-23-57	8,873
54-33	-0-	Conn. 11-57	6-18-57	11,809
McElvain #2 (.	375) <u>3,359</u> (8)	211,372	6-1-55	4,300
Totals	1,302,366	25,630,781		

Note #1 - The specific gravity of the gas being produced from these wells varies from .580 to .670.

Note #2 - The August, 1957, report indicates that the gas carries from 0 for 5 wells to .352 gallons per thousand.

III Proposed Additional Wells

We recommend the drilling of thirteen Mesaverde wells within the boundaries of the participating area during the year, 1958. The tentative locations of the proposed additional wells are as follows:

Well			Lo	cation			
55-30	SW S	ec. 30,	T-31-N,	R-6-W,	Rio	Arrit	a County
56-35	SW S	ec. 35,	T-31-N,	R-7-W,	San	Juan	County
57-35	ne s	ec. 35,	T-31-N,	R-7-W,	San	Juan	County
58-34	NE S	lec. 34,	T-31-N,	R-7-W,	San	Juan	County
59-26	SW S	iec. 26,	T-31-N,	R-7-W,	San	Juan	County
60-27	SW S	ec. 27,	T-31-N,	R-7-W,	San	Juan	County
62-22	SW S	ec. 22,	T-31-N,	R-7-W,	San	Juan	County
63 - 29	NE S	ec. 29,	T-31-N,	R-7-W,	San	Juan	County
64-21	SW S	ec. 21,	T-31-N,	R-7-W,	San	Juan	County
65-21	NE S	ec. 21,	T-31-N,	R-7-W,	San	Juan	County
66-19	NE S	ec. 19,	T-31-N,	R-7-W,	San	Juan	County
67-20	NE S	ec. 20,	T-31-N,	R-7-W,	San	Juan	Connty
68-16	SW S	lec. 16,	T-31-N,	R-7-W,	San	Juan	County

IV Offset Obligation

The Unit Operator, on behalf of the owners of working, royalty, or other interests in the Northeast Blanco Unit, will take appropriate and adequate measures to prevent drainage from lands subject to the Northeast Blanco Unit Agreement by wells on lands not subject to the agreement, or pursuant to applicable regulations, will pay a fair and reasonable compensatory royalty as provided in Section 17 of Northeast Blanco Unit Agreement.

Your attention is called to the conditions existing offsetting Unit acreage in the $S_2^{\frac{1}{2}}$ of Section 9, T-31-N, R-7-W, San Juan County. Pacific Northwest completed a well located in the NE $_4^{\frac{1}{4}}$ of Section 8, T-31-N, R-7-W, which started producing gas in November of 1956. The production by months starting with November, 1956, and ending with October, 1957, has been 1822, 1854, 2073, 1646, 1649, 1466, 1748, 1470, 1419, 1383, 1069, and 1283 MCF per month. This is a total of 18,882 MCF for the first 12 month's production. We do not consider this well as being commercial at this time, or capable of draining gas from Unit acreage, therefore, we are not asking for your permission to offset this well at this time.

V Further Development

Unit Operator recommends the drilling of an exploratory well to test the Mesaverde Zone in Section 7, T-31-N, R-6-V, San Juan County, New Mexico. The exact location of the well will be requested through all regulatory bodies prior to the time of drilling the well. This well will be numbered 61-7.

VI Expansion of Participating Area

Northeast Blanco Unit Well 52-15, located in the NW of Section 15, T-31-N, R-7-W, San Juan County, New Mexico was completed 5-21-57 with a potential of 4,783 MCF, from the Mesaverde formation 5416' to 5895'. During July the well produced 21,621 MCF in 29 days, in August 20,806 MCF in 31 days, in September 12,076 MCF in 16 days, in October 13,368 in 20 days. Unit Operator, on behalf of

of owners of working, royalty, or other interest, requests that this well be classified as capable of producing unitized substances in paying quantities and that the adjoining acreage which is contiguous to the Mesaverde Participating Area, consisting of the $S_2^{\frac{1}{2}}$ of Section 10, and all of Section 15, both in T-31-N, R-7-W, San Juan County, New Mexico be included in the Northeast Blanco Mesaverde Participating Area effective June 1, 1957, in accordance with the Northeast Blanco Unit Agreement.

A second exploratory well, #3-11, located in the SW_{li}^{1} of Section 11, T-31-N, R-7-W, San Juan County, New Mexico, was drilling at 2310' in Sand on 12-13-57. This well will not be completed prior to the 1st of 1958, and we would appreciate time to properly test the well prior to the time the well is classified. It is our opinion that the well can be classified and recommendations made in a Supplement to the Plan of Development for the Mesaverde Zone-Northeast Blanco Unit for the Calendar Year 1958, by April 15, 1958.

VII Spacing of Wells

The Unit Operator recommends developing the Mesaverde formation on the basis of one well per 320-acre tract, also to locate the wells in the $SW_R^{\frac{1}{4}}$ and $NE_R^{\frac{1}{4}}$ of Sections where this practice is practicable. The wells now completed in the participating area conform to this pattern with one exception. Approval was received to locate Well #28-34, 770' from south line and 1790' from east line, for the reason that the San Juan River Channel occupies almost the entire southwest $\frac{1}{4}$ of Section 34, T-31-N, R-7-W.

VIII Well Casing Program

The well casing program will generally follow the program currently used in the Mesaverde wells drilled in the area, including such surface casing and other casing as may be required by the Supervisor, the Commissioner, and the Commission, or as set forth in approvals of the applicable U. S. Geological Survey and State of New Mexico forms. The producing string of casing may be set and cemented either on top or through, or partially through, the producing zone.

IX Effective Date

This plan of Development shall be effective January 1, 1958.

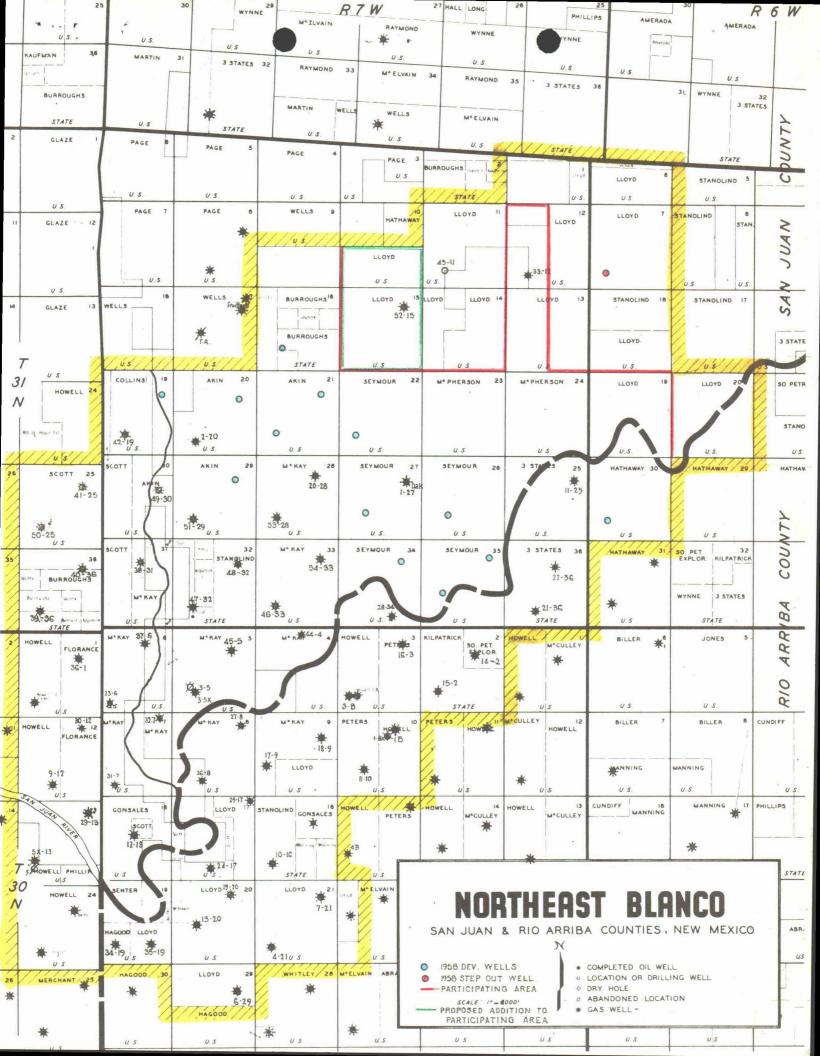
XI Modification

It is understood that portions of the Plan of Development herein outlined are dependent upon certain information to be obtained prior and subsequent to drilling, and other contingencies, such as the availability of well casing; and for these reasons, this Plan of Development may be modified from time to time, with the approval of the Federal Oil and Gas Supervisor, the New Mexico Commissioner of Public Lands, and the New Mexico Conservation Commission, to meet changing conditions.

Submitted this 28th day of December, 1957.

BLACKWOOD & NICHOLS COMPANY Unit Operator

by W. H. L. H. Manager of Operations



OIL CONSERVATION COMMISSION P. C. BOX 871 SANTA FE, NEW MEXICO

November 26, 1957

Blackwood & Nichols Company 14 N. Robinson Oklahoma City, Oklahoma

Attention: Mr. W. N. Little

Re: Northeast Blanco Unit
San Juan and Rio Arriba Counties
Amendment to 1957 Plan of
Development

fell Cre 3/8

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved your amendment to the Plan of Development for the calendar year 1957 for the subject unit area which calls for the drilling of an additional well in the SW/4 of Section 11, Township 31 North, Range 7 West. One approved copy of the amendment is returned herewith.

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

DSN: omg

cc: U. S. Geological Survey - Roswell
Commissioner of Public Lands - Santa Fe

October 16, 1957

Request for Addition to

Plan of Development for the Calendar

Year 1957, Mesaverde Zone, Northeast

Blanco Unit, I-Sec. 929, San Juan
and Rio Arriba Counties, New Mexico

OCC

To: The Oil and Gas Supervisor U. S. Geological Survey Roswell, New Mexico

> Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Nichols Company, as Unit Operator, on behalf of itself and all other owners of oil and gas leases in the Northeast Blanco Unit, hereby requests an addition to the 1957 Mesaverde Zone Plan of Development.

Paragraph V, Further Development, of our approved 1957 Plan of Development suggests after drilling an exploratory well in the NE/4 of Section 15, T-31-N, R-7-W, and evaluating the well, consideration should be given to drilling a second stepout well. Well #52-15 was completed at this location on 5-21-57 and was tested to have an absolute potential of 4783 MCF per day. This well produced 21,621 MCF in 29 days during July and 20,806 MCF in 31 days during August. We now request approval to drill the second exploratory well, Northeast Blanco Unit Well #43-11, in the SW/4 of Section 11, T-31-N, R-7-W, San Juan County, New Mexico.

We request your approval of this addition to our 1957 Plan of Development which was submitted to you on the 28th day of December, 1956, and subsequently approved by your Directors.

Submitted this 17th day of October, 1957.

Approved

Secretary-Director

NEW MEXICO OIL CONSERVATION COMMISSION

THIS APPROVAL GRANTED SUBJECT TO LIME APPROVAL POUR COMMENCE FOR THE UNITED STATES CEOLOGICAL SURVEY, MED BY THE COMMENCERIES OF PUBLIC LANDS, OF THE CHATE OF NEW MERICO.

BLACKWOOD & NICHOLS COMPANY Northeast Blanco Unit Operator

Chairman Advisory Committee

Blackwood & Nichols Company 14 N. ROBINSON OKLAHOMA CITY, OKLAHOMA October 16, 1957 Oil Conservation Commission State of New Mexico Santa Fe, New Mexico Gentlemen: We are submitting herewith four signed copies of the Request for Addition to Plan of Development for the Calendar Year 1957, Mesaverde Zone, Northeast Blanco Unit, I-Sec. 929, San Juan and Rio Arriba Counties, New Mexico. Copies have also been submitted to the Oil and Gas Supervisor, United States Geological Survey, Roswell, New Mexico; and the Commissioner of Public Lands, State of New Mexico, Santa Fe, New Mexico. We would appreciate your approval of these plans.

Yours very truly,

W. N. Little, Chairman Northeast Blanco Unit Advisory Committee

WNL:dw

Enclosures - 4



UNITED STATES MAIN OFFICE DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

1957 CCT 25 PM 1:00 P. O. Box 6721

October 23, 1957

Blackwood and Hichols Company 14 North Robinson Oklahoma City, Gklahoma

Attention: Mr. W. M. Little

Contiemen:

file Cas a 318

Your supplemental plan of development of October 17, 1957, for the Northeast Blanco unit area, New Mexico, I-Sec. No. 929, has been approved on this date subject to like approval by the appropriate officials of the State of New Mexico. The supplemental plan proposes the drilling of one additional Messwerde exploratory well during the calendar year of 1957 in addition to the fifteen infill wells and one emploratory well to the Messwerde formation included in the 1957 plan of development.

One approved copy of the plan is enclosed.

Very truly yours,

TORE. Sed.) JOHN A. ANDERSON

JOHN A. AMMINSON Regional Cil and Gas Supervisor

Copy to: Gone. Div., Wash. (w/copy of plan)
Farmington
MMCC (letter only)

ILLEGIBLE

MAIN OFFICE OCC

1957 GOT 155 M 7:57

October 22, 1957

In reply refer to:
Unit Division

Blackwood & Nichols Co. 14 N. Robinson Okiahoma City, Oklahoma

To te

Re: Northeast Blanco Unit -Addition to 1957 Plan of Development

Attention: Mr. W. N. Little

Gentlemen:

We are enclosing three copies of your proposed addition to your 1957 Plan of Development for the Northeast Blanco Unit, which was approved by the Commissioner of Public Lands October 22, 1957.

Will you please send us a completely approved copy at such time as you receive approval from the United States Geological Survey and the New Mexico Oil Conservation Commission.

Very truly yours,

MURRAY E. MORGAN Commissioner of Public Lands

By: Ted Bilberry, Supervisor Oil and Gas Department

MEM: MMR/m Enc.

cc: USGS-Roswell OCC-Santa Fe

Blackwood & Nichols Company

14 N. ROBINSOIN OFFICEROPHOMA CITY, OKLAHOMA

1957 OCT 18 AM 8:02

October 14, 1957

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To all the working interest owners of the <u>Northeast Blanco Unit</u>

Gentlemen:

Our Application for Approval of the Second Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit was approved by the Commissioner of Public Lands in the State of New Mexico on August 29, 1957, by the New Mexico Oil Conservation Commission on August 29, 1957, and by the Director of the U. S. G. S. on October 7, 1957. The effective date of this revision is September 1, 1956.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

John M. Rowntree Land Department

JMR:cr

OIL CONSERVATION COMMISSION P. O. BOX 871 SANTA FE, NEW MEXICO

718

SANTA FE, NEW MEXICO

August 29, 1957

file

Blackwood & Nichols Company Cklahoma City 2, Cklahoma

Attention: Mr. John M. Rowntree

Re: Northeast Blanco Unit,
San Juan and Rio Arriba
Counties, New Mexico;
Second Enlargement,
Mesaverde Participating Area

Gentlemen:

This is to advise that the New Mexico Gil Conservation Commission has this date approved your application for the Second Enlargement of the Blanco Mesaverde Participating Area for the Northeast Blanco Unit, dated March 4, 1957, subject to like approval by the United States Geological Survey and by the Commissioner of Public Lands of the State of New Mexico.

Five such approved copies of the application, already approved by the Land Commissioner, are today being sent the Regional Supervisor of the Geological Survey for his consideration.

Very truly yours,

A. L. PORTER, Jr., Secretary-Director

ALP/DSN/ir

cc: U. S. G. S. - Roswell, New Mexico Commissioner of Public Lands - Santa Fe

August 29, 1957

In reply refer to: Unit Division

Blackwood & Wichols Company Oklahoma City, Oklahoma

Re: Northeast Blanco Unit Enlargement of the Mesaverde
Participating Area

Gentlemen:

We are today handing to the New Mexico Oil Conservation Commission six copies of the Enlargement of the Mesaverde Participating Area, which was approved by the Commissioner of Public Lands August 29, 1957.

It is agreed that this enlargement shall be effective retroactive to September 1, 1956.

Very truly yours,

MURRAY E. MORGAN
Commissioner of Public Lands

By: Ted Bilberry, Supervisor Oil and Gas Department

MEN: MMR/m

cc: OCC-Santa Fe USGS-Roswell

APPLICATION FOR APPROVAL

SECOND ENLARGEMENT OF THE MESAVERDE PARTICIPATING AREA FOR THE NORTHEAST BLANCO UNIT, I-SEC. NO. 929
SAN JUAN AND RIO ARRIBA COUNTIES, NEW MEXICO

MAIN 50

THE DIRECTOR OF THE U. S. GEOLOGICAL SURVEY ROSWELL, NEW MEXICO

COMMISSIONER OF PUBLIC LANDS STATE OF NEW MEXICO SANTA FE, NEW MEXICO

OIL CONSERVATION COMMISSION STATE OF NEW MEXICO SANTA FE, NEW MEXICO

Pursuant to the provisions of Section 11 of the Unit Agreement approved by the Director of the U. S. Geological Survey on April 16, 1952, by the Commissioner of Public Lands of the State of New Mexico on October 23, 1951, and by the Oil Conservation Commission of the State of New Mexico on October 31, 1951, affecting lands in the Northeast Blanco Area in San Juan and Rio Arriba Counties, New Mexico, Blackwood & Nichols Company, as Unit Operator, on behalf of itself and Pan American Petroleum Corporation, formerly Stanolind Oil and Gas Company, El Paso Natural Gas Company, Delhi-Taylor Oil Corporation, Southern Petroleum Exploration Co., Northeast Blanco Development Corp., Pacific Northwest Pipeline Corp., Phillips Drilling Corporation and K. E. McAfee, owners of oil and gas leases or of operating rights under oil and gas leases covering lands within the area hereinafter described, hereby submit for your approval a selection of lands to constitute the enlarged participating area for the Mesaverde Zone, found to be productive in the following well which establishes that the enlarged participating area is now reasonably proved to be productive of unitized substances in paying quantities from the Mesaverde formation:

Name of Well

Location

Unit #33-12

SW/4 12-31N-7W

This well being in San Juan County, New Mexico. The lands selected by the applicant to constitute the enlarged participating area for said producing zone are as follows:

NEW MEXICO PRINCIPAL MERIDIAN

Township 30 North, Range 7 West:

Sec. 2: All 3: All Sec. 4: All Sec. Sec. 5: All 6: All Sec. Sec. 7: All Sec. 8: All 9: Sec. All Sec. 10: All Sec. 16: Sec. 17: All All Sec. 18: All Sec. 19: All Sec. 20: All Sec. 21: Sec. 22: All W/2 W/2Sec. 29: N/2

Township 30 North, Range 8 West:

Sec. 1: All Sec. 12: All Sec. 13: All Sec. 24: All

Township 31 North, Range 6 West:

Sec. 19: All Sec. 30: All

Township 31 North, Range 7 West:

Sec. 9: South One-Half (S/2)West One-Half (W/2)West One-Half (W/2)Sec. 12: Sec. 13: Sec. 16: All Sec. 19: All Sec. 20: All Sec. 21: Sec. 22: All All Sec. 23: All Sec. 24: All Sec. 25: All Sec. 26: Sec. 27: All All Sec. 28: All Sec. 29: All Sec. 30: All Sec. 31: Sec. 32: Sec. 33: A11 All All Sec. 34: A11 Sec. 35: Sec. 36: All All

Township 31 North, Range 8 West:

Sec. 25: All Sec. 36: All

The working interests and operating rights in the Mesaverde formation under leases on the above described land which have been committed to the unit are now vested:

Pan American Petroleum Corporation	35.476453%
El Paso Natural Gas Company	22.478279%
Pacific Northwest Pipeline Corporation	5.826243%
Delhi-Taylor Oil Corporation	3.591421%
Northeast Blanco Development Corporation	31.418643%
Phillips Drilling Corporation	.298943%
Southern Petroleum Exploration, Inc.	۶5931 77% -
K. E. McAfee	316841%

Royalties are payable on production from the lands subject to

Total

100.000000%

(a) To United States on:

leases committed to the unit as follows:

SF 079001 A SF 079511 SF 079010 SF 079042 NM 03845 SF 079010	SF 078699 SF 079001 SF 079001 A	1.5.5	SF 079 0 10
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(b) To the State of New Mexico on:

E-289-3	E-3707-5
E-178-1	E-3948-1
E-292-9	B 11125 - 30
E-505-6	E-289-24
E-3150-1	E-289-23
E-3707-4	

The United States and the State of New Mexico each owns 1/8th royalties with respect to the leases above enumerated covering lands committed to the unit.

In support of this application, the applicant attaches hereto, and makes a part hereof, the following items: (1) A map, marked Exhibit "A" showing the Northeast Blanco Unit and the proposed enlarged participating area for the Mesaverde Zone. (2) A schedule, marked Exhibit "B", showing the leases included in the proposed participating area. (3) A brief Geological and Engineering Memorandum, marked Exhibit "C", discussing the

area geology and the producing characteristics of the wells which demonstrate the productivity of the included acreage.

The applicant respectfully requests that the Director, the Commissioner, and the Commission approve this selection of lands to constitute the Enlarged Mesaverde Participating Area to be effective as of the 1st day of September, 1956, the month in which well #33-12 was reworked and demonstrated the ability to produce gas in commercial quantities.

Dated this 4th day of March, 1957.

BLACKWOOD & NICHOLS COMPANY

By A General Partner

STATE OF OKLAHOMA
COUNTY OF OKLAHOMA

BEFORE ME, the undersigned authority, on this day personally appeared Jno. W. Nichols, a general partner of Blackwood & Nichols Company, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated, and as the act and deed of said partnership.

GIVEN under my hand and seal of office this 4th day of March, 1957.

Notary Public

My commission expires:

May 29, 1960

SEAL

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NEW MEXICO OIL CONSERVATION COMMISSION

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August 27, 1957

airmail

134999 - State of New Mexico Lease, San Juan County, New Mexico

United States Geological Survey Roswell, New Mexico

Gentlemen:

At the request of Blackwood & Nichols Company of Oklahoma City, we are enclosing by air mail five (5) copies of Ratification and Joinder of Unit Operating Agreement affecting the Northeast Blanco Unit in San Juan County, New Mexico, executed by The Texas Company.

We are sending two copies to the Commissioner of Public Lands and one copy to the Oil Conservation Commission of the State of New Mexico with their respective copies hereof.

Very truly yours,

E. W. Lewis

Assistant/to the Division Manager

EWL-DH Encls.

cc: Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

> Oil Conservation Commission State of New Mexico Santa Fe, New Mexico

Blackwood & Nichols Company 14 North Robinson Oklahoma City, Oklahoma RATIFICATION AND JOINDER OF UNIT OPERATING AGREEMENT UNDER UNIT AGREEMENT FOR THE DEVELOPMENT AND OPERATION OF THE NORTHEAST BLANCO UNIT AREA, COUNTY OF SAN JUAN, STATE OF NEW MEXICO

In consideration of the execution of the Unit Operating Agreement under Unit Agreement for the Development and Operation of the Northeast Blanco Unit Area, County of San Juan, State of New Mexico, the undersigned owners of lands and leases or interests therein presently held or which may arise under existing option agreements or other interest in production covered by said Unit Operating Agreement, each to the extent of its particular ownership or interest, briefly described opposite its signature, have consented to the inclusion of said lands within the Unit Area therein defined, and do hereby approve, adopt and ratify the said Unit Operating Agreement in the form and as submitted to the United States Geological Survey in connection with the submission of Unit Agreement for the Development and Operation of the Northeast Blanco Unit Area, Counties of San Juan and Rio Arriba, New Mexico.

This Ratification and Joinder of Unit Operating Agreement may be executed in any number of counterparts with the same force and effect as if all parties had signed the same document and shall be binding upon all those who execute a counterpart hereof, regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands affected hereby, and when so executed shall be binding upon the undersigned, its successors or assigns, subject to all the terms, provisions and conditions of said Unit Operating Agreement.

Attest:	THE TEXAS COMPANY
nuest.	By: Markley or
Secretary	Attorney in Fact
Date: August 19, 1957	Address: P. O. Box 1720 Fort Worth, Texas
STATE OF Texas)
COUNTY OF Tarrant	ss.
On this 19th personally appeared J. known, who, being by me du	day of August , 1953, before me H. Markley, Jr , to me personally aly sworn did say that he is the Attorney-in-Fact
of The Texas Company instrument is the corporate was signed and sealed in bel of Directors, and said	and that the seal affixed to the foregoing seal of said corporation and that said instrument half of said corporation by authority of its Board
	HEREOF, I have hereunto set my hand and affixed my and year first above written. Ann Hatthews Notary Public
My commission expires	June 1, 1959
APPROVED: BLAG	CKWOOD & NICHOLS COMPANY Unit Operator

8-26-57

BLACKWOOD & NICHOLS CO.
OKLAHOMA CITY 2, OKLAHOMAN OFFICE OCC

1957 AUG
August 22, 1957

U. S. Geological Survey Roswell, New Mexico

Gentlemen:

Attached are two originals and three photostatic copies of Ratification and Joinder of the Texas Company to the Northeast Blanco Unit. These are the only executed copies which the Texas Company has furnished to us. We trust that these will be sufficient.

According to the terms of the Unit Agreement, the joinder of the Texas Company will be effective the first day of the month following the filing of these documents with your office. If possible, we would appreciate your advising us if this filing is sufficient so that the Texas Company will participate in the Unit effective September 1, 1957.

The Texas Company is the working interest owner of Tracts 27 and 45 of the Northeast Blanco Unit.

Yours very truly,

BLACKWOOD & MICHOLS COMPANY

John M. Rowntree Land Department

JMR:cr Enclosures (5)

cc Commissioner of Fublic Lands (2) State of New Mexico Santa Fe, New Mexico

> Oil Conservation Commission (1) Santa Fe, New Mexico

RATIFICATION AND JOINDER OF UNIT A

In consideration of the execution of the Unit Agreement for the development and operation of the Northeast Blanco Unit Area located within the Counties of San Juan and Rio Arriba, State of New Mexico, in form approved on behalf of the Secretary of the Interior, the undersigned owners of lands or leases, or interests therein or royalties presently held or which may arise under existing option agreements, or other interests in production covered by said Unit Agreement hereby severally, each to the extent of his or her particular ownership or interest, as may appear, consent to the inclusion of said lands within the Unit Area therein defined, ratify, approve and adopt the terms of said Unit Agreement and any modifications thereof approved by the Secretary of the Interior or his duly authorized representative as applicable to said several lands and interests, agree that the term of any lease given by the undersigned or under which the undersigned claims an interest herein is extended and modified to the extent necessary to make the same conform to the terms of said Unit Agreement, agree that the drilling, development and producing requirements of all leases and other contracts in which their several rights and interests are created or defined shall be deemed fully performed by performance of the provisions of said Unit Agreement, and agree that payment for or delivery of (whichever may be required under prior agreements) oil and gas duly made at contract rates applied to the production allocated under said Unit Agreement to the particular lands to which such rights or interests do or shall apply, regardless of actual production therefrom, shall constitute full performance of all such obligations to the undersigned existing under such leases or other contracts.

The said Unit Agreement having been filed of record in the Office of the County Clerk and Recorder of Rio Arriba County in Volume 11, at Pages 310 to 361-A and in the Offices of the Probate Clerk and Ex Officio Recorder of San Juan County in Book 182 at Page 52.

This Ratification and Joinder of Unit Agreement may be executed in any number of counterparts with the same force and effect as if all parties had signed the same document and shall be binding upon all those who execute a counterpart hereof, regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands affected hereby, and when so executed shall be binding upon the undersigned, his or her assigns or successors in interest.

ADDRESS

0. Box 1720 Fort Worth 1, Texas

SIGNATURE THE TEXAS COMPAN

APPROVED: Terms: form:

Acctg

ttorney-in-Fact

STATE OF TEXAS

COUNTY OF TARRANT

On this 1974 day of August, 1957, before me personally appeared J. H. MARKLEY, JR., to me personally known, who being by me duly sworn did say that he is Attorney-in-Fact of The Texas Company, a Delaware corporation, and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed in behalf of said corporation by authority of its Board of Directors, and the said J. H. MARKLEY, JR., acknowledged said instrument to be the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal on this the day and year first above written.

Commission Expires:

BLACKWOOD & NICHOLS CO. OKLAHOMA CITY 2, OKLAHOMA

MAIN OFFICE OCC 1957 AUS 25 AM 8:22

August 20, 1957

Commissioner of Public Lands State of New Mexico Santa Fe, New Mexico

Attention: Ted Bilberry, Supervisor

Dear Sir:

It appears the seven copies of the Application for Approval of Second Enlargement of the Mesaverde Participating Area of the Northeast Blanco Unit which were mailed to you on March 8, 1957, have been misdirected.

We are furnishing herewith seven additional copies of this application. Please expedite your approval of these applications and forward five copies to the Oil Conservation Commission for their approval.

By copy of this letter to the Oil Conservation Commission, we request that they also approve the five copies furnished to them and forward them as soon as possible to the Director of the U. S. Geological Survey in Roswell, New Mexico.

Yours very truly,

BLACKWOOD & NICHOLS COMPANY

John M. Rowntree Land Department

JMR:cr

cc Director of USGS Roswell, New Mexico

Oil Conservation Commission Santa Fe, New Mexico

14770 1 1 1 0:43

August 15, 1957

In reply refer to: Unit Division

> Blackwood & Nichols Co. 14 N. Robinson Oklahoma City, Oklahoma

> > Re: Northeast Blanco Unit -

San Juan and Rio Arriba Counties.

New Mexico

Attention: Mr. John M. Rowntree Land Department

Gentlemen:

In reply to your letter of August 9, 1957, in which you state that on March 3, 1957, you furnished us seven copies of Application for Approval of Second Enlargement of the Mesaverde Participating Area for the Northeast Blanco Unit:

We find nothing in our files from you as of that date, however, we have a letter from you dated June 26, 1957, to the Commissioner of Public Lands, but in the second paragraph of this letter you state "We requested in this letter that you approve five copies and forward them to the Commissioner of Public Lands. . . " We assumed from this letter that you had sent them to the New Mexico Oil Conservation Commission. We checked at a later date with the Oil Conservation Commission, but they had not received them either.

We are sorry, but we aid not receive these copies, and at such time as we are furnished with further copies we will be glad to consider them.

Very truly yours,

MURRAY E. MORGAN Commissioner of Public Lands

By: Ted Bilberry, Supervisor Oil and Gas Department

MAMA: MMR/m cc: USGS-Roswell OCC-Santa Fe