



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

February 25, 1993

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

ARCO Oil and Gas Corporation
P.O. Box 1610
Midland, TX 79702

Attention: David K. Newell

Administrative Order NSP-1570(L)(SD)-A

Dear Mr. Newell:

By Division Administrative Order NSP-1570(L)(SD), dated April 6, 1989, ARCO was authorized a 320-acre non-standard gas spacing and proration unit in the Eumont Gas Pool comprising the W/2 of Section 21, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico, in which was simultaneously dedicated the following three wells:

- W.C. Roach Well No. 1 located at a non-standard gas well location 330 feet from the North and West lines (Unit D);
- W.C. Roach Well No. 6 located at a non-standard gas well location 660 feet from the North line and 1980 feet from the West line (Unit C); and,
- W.C. Roach Well No. 7 located at a standard gas well location 1980 feet from the South and West lines (Unit K).

By Division Administrative Order SD-92-6, dated November 24, 1992, an additional well, the W.C. Roach Well No. 5 located in Unit F at a standard gas well location 1650 feet from the North and West lines of said Section 21, was included in the 320-acre Eumont Gas spacing unit.

Reference is now made to your application dated January 29, 1993 to reduce said 320-acre unit by deleting the SE/4 NW/4 (Unit F) of said Section 21, which is to be utilized as a standard 40-acre oil spacing and proration unit in the Eumont Oil Pool for the above-described W.C. Roach Well No. 5.

Administrative Order NSP-1570(L)(SD)-A

ARCO Oil and Gas Company

February 25, 1993

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By authority granted me under the provisions of Rule 2(a)4 of the Special Rules and Regulations for the Eumont Gas Pool, as promulgated by Division Order No. R-8170, as amended, the following described 280-acre non-standard gas spacing and proration unit is hereby approved:

LEA COUNTY, NEW MEXICO

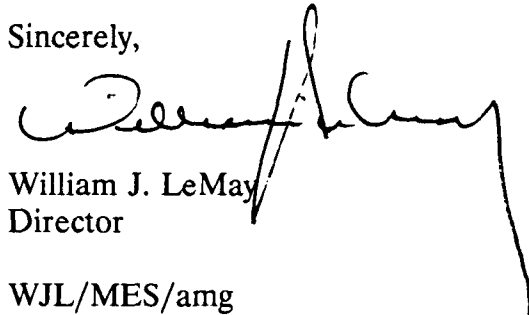
TOWNSHIP 20 SOUTH, RANGE 37 EAST

Section 21: N/2 NW/4, SW/4 NW/4 and SW/4

Said unit to remain simultaneously dedicated to the original wells approved by Division Order NSP-1570(L)(SD).

Division Administrative Order SD-92-6 is hereby placed in abeyance until further notice and that portion of NSP-1570(L)(SD) authorizing the 320-acre non-standard unit is also placed in abeyance. All other provisions of that order shall remain in full force and effect.

Sincerely,



William J. LeMay
Director

WJL/MES/amg

cc: Oil Conservation Division - Hobbs
Files: NSP-1196
NSP-1570(L)(SD)
SD-92-6



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

hsp-1196

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

March 13, 1980

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

ARCO Oil and Gas Company
P. O. Box 1610
Midland, Texas 79702

Attention: Ms. Carolyn Dawson

Re: Application for two Non-Standard
Proration Units, Simultaneous
Dedication and Infill Findings,
W/2 of Sec. 21, T-20-S, R-37-E,
Lea County, New Mexico

Dear Ms. Dawson:

By letter of March 3, 1980, ARCO Oil and Gas submitted the subject application. We may not process the application for non-standard units and simultaneous dedication until we receive waivers from offset operators or until you notify us that such offsets were notified of the application by certified mail.

Order No. R-6013 has been modified by Order No. R-6013-A to provide for administrative approval of infill findings only after completion of the well. Therefore your request for infill findings may not be approved at this time.

Sincerely,

R. L. STAMETS
Technical Support Chief

RLS/dr

DEPARTMENT OF OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 235
Order No. A-312

THE APPLICATION OF THE COMMISSION
UPON ITS OWN MOTION, DIRECTED TO
SINCLAIR OIL AND GAS COMPANY, FOR
THE RECONSIDERATION OF ADMINISTRATIVE
ORDER NSP-46 WHICH CREATED A NON-
STANDARD GAS PRODUCTION UNIT IN THE
SUMONT GAS POOL CONSISTING OF THE W/2
OF SECTION 21, TOWNSHIP 20 SOUTH, RANGE
37 EAST, NMPL, LEE COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February
16, 1955, at Santa Fe, New Mexico, before the Oil Conservation Com-
mission, hereinafter referred to as the "Commission".

NOW, on this ⁴⁶20th day of April, 1955, the Commission, a
quorum being present, having considered the records and testimony
adduced, and being fully advised in the premises,

FINDS:

(1) That due notice of the time and place of hearing, and the
purpose thereof having been given as required by law, the Commission
has jurisdiction of this case and the subject matter thereof.

(2) That pursuant to provisions of Rule 5 (c) of the Special Rules
and Regulations for the Sumont Gas Pool of Order No. A-326, the Com-
mission has power and authority to permit the formation of a gas production
unit consisting of other than a legal section after notice and hearing by the
Commission.

(3) That applicant, Sinclair Oil and Gas Company, is the owner
of an oil and gas lease in Lee County, New Mexico, the land consisting
of other than a legal section, and described as follows, to-wit:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, NMPL
W/2 of Section 21

containing 320 acres, more or less.

(4) That applicant, Sinclair Oil and Gas Company, has a
producing well on the aforesaid lease known as W. C. Ranch Well #1,
located 530 feet from the north and west lines of Section 21, Township 20

APR 25 1955

Wm. J. G. Smith

South, Range 37 East, T14N24, Lea County, New Mexico.

(5) That the above described 320-acre non-standard gas proration unit has been producing under the provisions of Administrative Order NEP-15, and that the Sinclair Oil and Gas Company was required to, and did, show cause why this 320-acre proration unit should not be reduced in size.

(6) That it is impractical to pool applicant's said lease with adjoining acreage in the Eminent Gas Pool, and that the owners of adjoining acreage in said area have not objected to the formation of the proposed proration unit of 320 acres.

(7) That unless a proration unit consisting of applicant's aforesaid acreage is permitted, applicant will be deprived of the opportunity to recover its just and equitable share of the natural gas in the Eminent Gas Pool.

(8) That creation of a proration unit consisting of the aforesaid acreage will not cause but will prevent waste, and will protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the application of Sinclair Oil and Gas Company for approval of an unorthodox proration unit consisting of the following described acreage:

TOWNSHIP 20 SOUTH, RANGE 37 EAST, T14N24
W/3 of Section 21

be and the same is hereby approved, and a proration unit consisting of aforesaid acreage is hereby created.

(2) That applicant's well, W. C. Reach Well No. 1, located in the NW/4 NW/4 of Section 21, Township 20 South, Range 37 East, T14N24, Lea County, New Mexico, shall be granted an allowable in the proportion that the above described 320-acre unit bears to the standard or orthodox proration unit for said pool, all until further order of the Commission.

DONE at Santa Fe, New Mexico, the day and year hereinafore designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

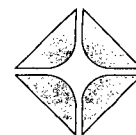
JOHN F. SLIMS, Chairman

R. S. WALSH, Member

W. D. MAGEY, Member and Secretary

S E A L

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0100



March 3, 1980

Oil Conservation Division of the
New Mexico Department of Energy & Minerals
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: W. C. Roach Lease
Application for non-standard proration unit
and Simultaneous Dedication
Eumont Yates, Seven Rivers Queen Gas Pool
Section 21, T20S, R37E
Lea County, New Mexico

Gentlemen:

ARCO Oil & Gas Company respectfully requests administrative approval to replace the existing 320 acre non-standard proration unit on the W. C. Roach Lease with two 160 acre non-standard proration units. Currently, the 320 acre non-standard proration unit comprises the W/2 of Section 21, T20S, R37E. Approval is requested to replace this proration unit with two 160 acre proration units comprising the NW/4 of Section 21, T20S, R37E and the SW/4 of Section 21, T20S, R37E. (SD)

This letter also requests administrative approval of a simultaneous dedication of the W. C. Roach No. 6 with the W. C. Roach No. 1, which is currently producing as a marginal gas well from the subject field. The subject wells are located in the NW/4 of Section 21, T20S, R37E. It is requested that the Division issue certification that there is a need for a second well on the non-standard proration unit. This certification is necessary to meet the requirements of the NGPA of 1978 and we request the certification be handled administratively under Division Order No. R-6013. The volume of increased ultimate recovery from the drilling of the subject well is estimated to be 4.58 BCF. The reserve calculations and supporting data are attached.

In accordance with special rules and regulations set forth under Order R-6013, the following data is submitted:

RECEIVED
MAR 12 1980
OIL CONSERVATION DIVISION
SANTA FE

1. Copies of Forms C-101 and C-102 are attached.
2. A completion attempt will be made in the Eumont Gas Pool which has a standard proration unit size of 640 acres.
3. The W. C. Roach No. 1 is currently producing as a marginal well on a 320 acre non-standard proration unit. The proration unit was established under Division Order R-612.
4. The W. C. Roach No. 6 has not been spudded.
5. The W. C. Roach No. 1 is the only other well on the subject proration unit that has been drilled and completed in the Eumont gas pool. This well is located 330' FNL & 330' FWL in Section 21, T20S, R37E, Lea County, New Mexico. The No. 1 well was spudded April 2, 1936 and completed May 25, 1936 as an oil well in the Grayburg zone. In November 1954, a hole in the casing was discovered at 1350'. The well was successfully squeezed and then dually completed for Queen gas production on November 12, 1954. In February 1978, the wellbore was entered and a hole in the tubing was discovered and repaired. The Eumont perforations were acidized and the well was put on production. The leak in the tubing allowed the annulus to load up with fluid. This resulted in apparent formation damage, since production remains low. Average production for the well for September 1979 was 64 MCFD.
6. A structure map on the top of the lower Queen formation is attached. The proposed location is shown in red.
7. The volume of increased ultimate recovery is anticipated to be 4.58 BCF. The reserve calculations and supporting data are attached.
8. A list of all offset operators is attached. These operators have been sent a copy of this application by certified mail.
9. Attached is a summary of the last 12 months production for the W. C. Roach No. 1 and the allowable for a normal 160 acre spacing unit.

Page 3
3/3/80

At no time during the past year has the No. 1 made the allowable. With the additional well-bore, the Roach lease should return to full allowable and will help prevent waste and eliminate unnecessary drainage.

Atlantic Richfield Company believes approval of these requests will be in the interest of conservation, protection of correlative rights, and allow for more complete recovery of Eumont gas reserves from the subject acreage.

Respectfully,

Carolyn Dawson

Carolyn Dawson

Attachments

RBM:ad

LIST OF OFFSET OPERATORS

Amerada Hess Corporation
1209 S. Main
Lovington, New Mexico 88260

Amoco Production Company
P. O. Box 68
Hobbs, New Mexico 88240

B.W.P. Incorporated
1012 Alpine
Midland, Texas 79701

W. K. Byrom, Oil Operator
P. O. Box 147
Hobbs, New Mexico 88240

Conoco, Inc.
P. O. Box 460
Hobbs, New Mexico 88240

Getty Oil Company
P. O. Box 1231
Midland, Texas 79702

Gulf Oil Company
P. O. Box 1150
Midland, Texas 79702

Sun Production Company
P. O. Box 1861
Midland, Texas 79702

Texaco, Inc.
P. O. Box 3109
Midland, Texas 79701

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

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

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

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		8. Farm or Lease Name W. C. Roach	
2. Name of Operator ARCO OIL AND GAS COMPANY		9. Well No. 6	
3. Address of Operator Box 1710, Hobbs, New Mexico 88240		10. Field and Pool, or Wildcat Eumont Yates 7R Queen Gas	
4. Location of Well UNIT LETTER <u>C</u> LOCATED <u>660</u> FEET FROM THE <u>North</u> LINE AND <u>1980</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>21</u> TWP. <u>20S</u> RGE. <u>37E</u> NMPM		12. County LEA	
19. Proposed Depth 3595'		19A. Formation Yates 7R On Gas	
20. Rotary or C.T. Rotary		21. Elevations (Show whether DF, RT, etc.) 3509.7' GR	
21A. Kind & Status Plug. Bond CCA #8		21B. Drilling Contractor Not selected	
22. Approx. Date Work will start 2/15/80		23.	

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11"	8-5/8" OD	24# K-55	1200'	525	circ to surf
7-7/8"	4-1/2" OD	9.5# K-55	3595'	875	circ to surf

Propose to drill a development well and test the producing capabilities of the Eumont Queen Gas zone. This location will be subject to NMOC approval of simultaneous dedication of acreage with existing W. C. Roach No. 1.

Blowout Preventer Program attached.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed [Signature] Title Operations Engineer Date 3/3/80
(This space for State Use)

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

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

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

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

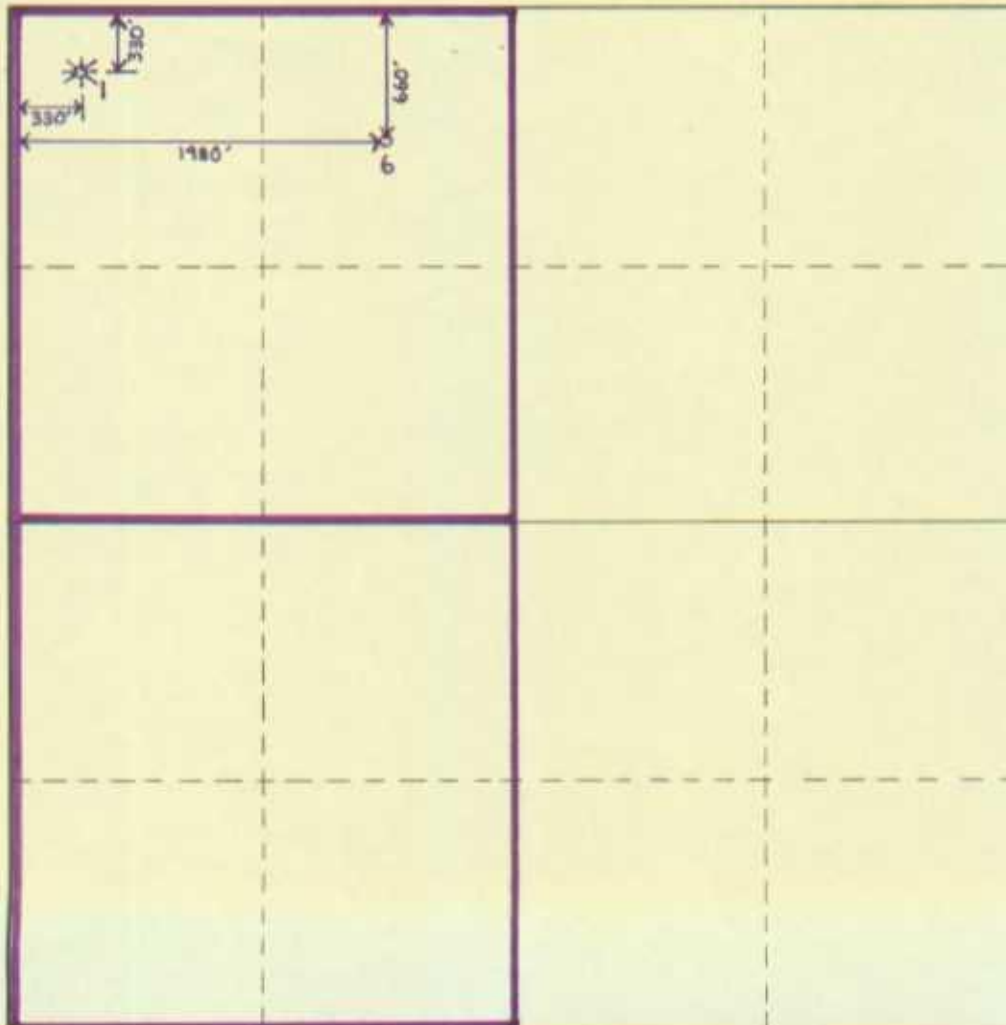
Operator ARCO OIL & GAS COMPANY			Lease William C. Roach		Well No. 6
Unit Letter C	Section 21	Township 20 South	Range 37 East	County Lea	
Actual Footage Location of Well: 660 feet from the North line and 1980 feet from the West line					
Ground Level Elev. 3509.7	Producing Formation Yates 7R Queen Gas		Pool Eumont Gas		Dedicated Acreage: 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

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

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

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: *Paul B. Mung*
 Position: Operations Engineer
 Company: ARCO OIL & GAS

Date:
3/3/80

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

Date Surveyed _____

Registered Professional Engineer
and/or Land Surveyor

Certificate No. _____

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 0

EUMONT GAS POOL
W. C. ROACH NO. 1
Production vs. Allowable

	MONTHLY GAS PRODUCTION W. C. ROACH NO. 1			EUMONT GAS NON- MARGINAL ALLOWABLE, 160 Acres - MCF
	<u>MCF</u>	<u>AF</u>	<u>STATUS</u>	
Oct., 1979	1999	2.0	M	28642
Sept., 1979	1919	2.0	M	27443
Aug., 1979	2212	2.0	M	27267
July, 1979	2103	2.0	M	27267
June, 1979	1944	2.0	M	25471
May, 1979	1772	2.0	M	27078
April, 1979	1805	2.0	M	28987
March, 1979	2002	2.0	M	31267
Feb., 1979	1915	2.0	M	28241
Jan., 1979	1867	2.0	M	33266
Dec., 1978	1842	2.0	M	33228
Nov., 1978	1806	2.0	M	31159

No.	Given By	Date
Date	Received By	Date

W. C. ROACH LEASE
EUMONT GAS ZONE
CALCULATION OF AVERAGE NET
PAY

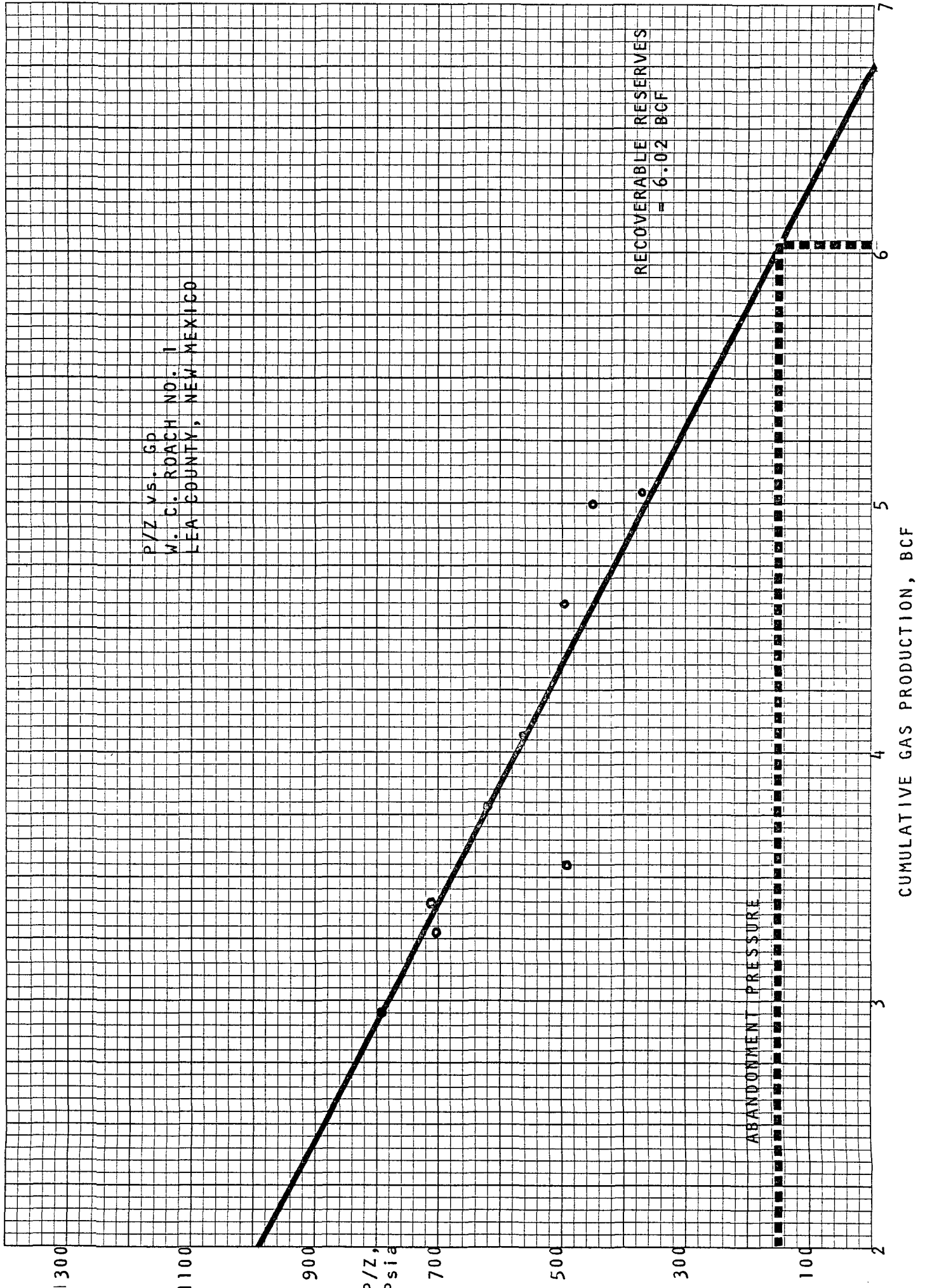
<u>Isopach</u>	<u>Planimeter Area</u>	<u>Area, Acres</u>
125 - 150	.010	38
150 - 175	.020	74
175 - 200	<u>.013</u>	<u>48</u>
	.043	160

160 acres = .043

	<u>V, acre - ft</u>
137.5 (38)	5225
162.5 (75)	12186
187.5 (48)	<u>9000</u>
	26411

$\frac{26411 \text{ ac-ft}}{160 \text{ ac}} = 165 \text{ ft}$

P/Z vs. GP
W. C. ROACH NO. 1
LEA COUNTY, NEW MEXICO



RESERVE CALCULATIONS
W. C. ROACH NO. 1
160 Acre Proration Unit
(Eumont Gas)
2/2 Section 21-T20S-R37E
Lea County, NM

1. Calculation of Gas in Place by Volumetric Method

$$G = 43560 \times V_b \times \emptyset \times (1-S_w) \times B_{gi}$$

Where:

$$V_b = \text{Acre} \times \text{Avg. Net Pay, Ft} *$$

$$= 160 \times 165'$$

$$= 26411 \text{ ac-ft}$$

$$\emptyset = 11.5\% \text{ (Average from available logs)}$$

$$S_w = 27.1\% **$$

$$B_{gi} = 35.35 \frac{P}{ZT} ** \frac{SCF}{Cu \text{ Ft.}}$$

$$= \frac{(35.35)(1450)}{(.773)(554)}$$

$$= 119.69 \frac{SCF}{CU.FT.}$$

Therefore,

$$G = (43560)(26511)(.115)(1-.271)(119.69)$$

$$= 11.54 \text{ BCF}$$

* See attached isopach map and calculation

** Published in Oil & Gas Fields of Southeast New Mexico, 1956,
by Roswell Geological Society

Page 2
Reserve Calculations
W. C. Roach No. 1
160 Acre Proration Unit
W/2 Section 21-T20S-R37E
Lea County, New Mexico

11. Calculation of Recoverable Gas on 160 acres

Assume Abandonment P/Z = 150 psia

$$G = 43560 \times B_v \times \emptyset \times (1 - S_w) \times (B_{gi} - B_{ga})$$

Where,

$$B_{ga} = \frac{(35.35)(150)}{(.980)(554)}$$

$$= 9.77 \frac{\text{SCF}}{\text{Cu.Ft.}}$$

Therefore,

$$\begin{aligned} G &= (43560)(26411)(.115)(1 - .271)(119.69 - 9.77) \\ &= 10.60 \text{ BCF} \end{aligned}$$

111. Calculation of Unrecoverable Reserves - 160 Acre Proration Unit

Unrecoverable Reserves = Recoverable Reserves to P/Z of 150 psia

- Economic Recovery from W. C. Roach No. 1 *

$$= 10.60 \text{ BCF} - 6.02 \text{ BCF}$$

$$= 4.58 \text{ BCF}$$

* See attached P/Z graph and supporting data.

PRODUCTION HISTORY*
W. C. ROACH No.1
Sec. 21-T20S-R37E
Lea County, N.M.

<u>DATE</u>	<u>BHP/Z</u>	<u>Cumulative Gas Production, MMCF</u>
7-16-70	792	2947.4
7-12-71	706	3272.3
6-16-72	713	3395.2
10-15-72	491	3533.5
3-29-73	621	3783.8
3-1-74	564	4068.6
4-24-75	491	4592.6
5-17-76	451	4991.5
2-4-77	367	5031.9

* Published in Natural Gas Well Production Histories,
Gas Graph Report, by Dwight's, Dallas, Tx.

W. C. ROACH LEASE
EUMONT GAS ZONE
SUMMARY OF WELLS
USED IN
ISOPACH MAP

<u>WELL & LEASE</u>	<u>LOCATION</u>	<u>OPERATOR</u>	<u>DATE COMPLETED</u>	<u>LOGS</u>	<u>NET PAY, FT</u>
Britt B-15#3	1980 FSL, 330 FWL 15-T20S-R37E	Conoco	12-13-38	Lane Wells GR-NL 11-30-49 2300-3845'	175
Britt B #10	1980 FNL, 1980 FWL 15-T20S-R37E	Conoco	6-11-64	Frontier GR-NL 3-17-60 Surf-6947'	150
State I #1	330 FSL, 1650 FWL 16-T20S-R37E	Getty	10-21-36	Western GR-NL 7-3-53 Surf-3835	185
State I#2	1980 FSL, 1980 FWL 16-T20S-R37E	Getty	3-20-37	Welex GR-NL 3-22-58 50-3811'	185
State I #3	990 FSL, 1650 FWL 16-T20S-R37E	Getty	1-11-56	McCullough GR-NL 12-30-55 Surf-3542'	190
State Q #1	1980 FSL, 2310 FEL 16-T20S-R37E	Amerada	6-13-37	Schlumberger GR-NL 5-31-59 Surf-6939'	150
State Q #2	1980 FSL, 990 FEL 16-T20S-R37E	Amerada	10-6-55	Lane Wells GR-NL 7-10-61 Surf-3834'	180
State Q #3	1980 FEL, 660 FSL 16-T20S-R37E	Amerada	8-22-51	Lane Wells GR-NL 7-1-51 Surf-3875'	180
State Q #6	660 FSL, 660 FEL 16-T20S-R37E	Amerada	10-13-75	Schlumberger CNL-FDC 9-24-75 Surf-5255'	110
State X #1	1980 FSL, 660 FWL 16-T20S-R37E	Amerada	5-6-37	Welex GR-NL 1-6-61 Surf-3834'	190

Page 2
Summary of Wells used in Isopach Map

<u>WELL & LEASE</u>	<u>LOCATION</u>	<u>OPERATOR</u>	<u>DATE COMPLETED</u>	<u>LOGS</u>	<u>NET PAY, FT</u>
State GA #1	330 FWL, 990 FSL 16-T20S-R37E	W.K.Byrom	7-10-59	Schlumberger GR-NL 7-1-59 2180-3850'	160
Hansen State #1	660 FNL, 2310 FEL 16-T20S-R37E	Marathon	5-14-37	Welex GR-NL 10-8-54 50-3834'	150
Hansen State #4	1980 FNL, 990 FEL 16-T20S-R37E	Continental	2-18-38	Western GR-NL 6-11-54 50-3845'	150
Wood A State #2	1980 FNL, 1650 FWL 16-T20S-R37E	Wilbanks & Rasmussen	3-22-37	Schlumberger GR-NL 4-4-57 2360-3802'	150
State F #1	330 FSL, 330 FEL 17-T20S-R37E	Skelly	8-20-36	Lane Wells GR-NL 11-19-55 Surf-3767'	195
State F #2	1980 FEL, 660 FSL 17-T20S-R37E	Skelly	3-20-37	Lane Wells GR-NL 6-7-56 Surf-3861'	190
State Y #1	1980 FSL, 660 FEL 17-T20S-R37E	Amerada	5-15-37	Schlumberger GR-NL 7-27-62 100-3794'	155
State Y #2	1980 FSL, 1980 FEL 17-T20S-R37E	Amerada	5-28-37	Lane Wells GR-NL 11-15-55 Surf-3808'	155
New Mexico State F #1	1980 FSL, 1980 FWL 17-T20S-R37E	MKA Oil Properties	2-26-37	Perf.Guns Atlas Corp GR-NL 6-15-52 Surf.3845	115
New Mexico State F #4	660 FSL, 660 FWL 17-T20S-R37E	MKA Oil Properties	5-10-37	Lane Wells GR-NL 8-3-54 Surf.3855'	145
Eunice Monument #7	660 FNL, 1980 FEL 20-T20S-R37E	Texaco	3-6-37	Lane Wells Gr-NL 10-31-50 Surf.3840'	165

Page 3
Summary of Wells used in Isopach Map

<u>WELL & LEASE</u>	<u>LOCATION</u>	<u>OPERATOR</u>	<u>DATE COMPLETED</u>	<u>LOGS</u>	<u>NET PAY, FT</u>
Eunice Monument Unit #8	330 FNL, 330 FEL 20-T20S-R37E	Texaco	10-29-36	Lane Wells GR-NL 10-31-50 Surf-3840'	190
Eunice Monument Unit #32	660 FSL, 660 FWL 20-T20S-R37E	Texaco	8-14-37	Welex GR-NL 4-12-61 Surf-3848'	110
State A 20 #2-X	2100 FEL, 2310 FSL 20-T20S-R37E	B.W.P. INC.	11-28-58	Welex GR-NL 7-10-58 2500-3817'	120
Eunice Monument Unit #10	330 FNL, 1650 FWL 21-T20S-R37E	Texaco	12-12-36	McCullough GR-NL 6-21-54 Surf-3833'	170
Eunice Monument Unit #19	1650 FNL, 330 FWL 21-T20S-R37E	Texaco	9-27-54	McCullough GR-NL 9-12-54 Surf-3854'	175
W.C.Roach #5	1650 FNL, 330 FWL 21-T20S-R37E	ARCO	5-21-73	Schlumberger NPL 5-12-73 Surf-3801'	150
Gilluly B#6X	330 FNL, 660 FEL 21-T20S-R37E	Pan American	2-12-40	Schlumberger GR-NL 3-30-54 Surf-3835'	160
Gilluly B#17	660 FNL, 1650 FEL 21-T20S-R37E	Amoco	5-16-78	Schlumberger CNL-FDC 3-26-78 1250-6701	195
Gilluly B#4	330 FNL, 330 FWL 22-T20S-R37E	Pan American	6-1-39	Lane Wells GR-NL 3-5-54 Surf-3834'	140
Gilluly B#7	1980 FSL, 1980 FWL 22-T20S-R37E	Pan American	3-29-56	Welex GR-NL 1-1-56 3310-3519	110

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 ary of Wells used in Isopach Map

<u>& LEASE</u>	<u>LOCATION</u>	<u>OPERATOR</u>	<u>DATE COMPLETED</u>	<u>LOGS</u>	<u>NET PAY, FT</u>
uly B #8	660 FNL, 1980 FEL 22-T20S-R37E	Pan Ameri- can	10-4-52	Pan.Geo. Atlas Corp GR-NL LL 9-11-62 Surf-6603	135
uly B #11	1980 FNL, 1980 FWL 22-T20S-R37E	Pan Ameri- can	4-24-64	Pan Geo. Atlas Corp GR-AL 11-18-63 200-6818'	125