

JAN 8 1970

ANADARKO PRODUCTION COMPANY

3109 WINTHROP AVENUE P. O. BOX 9317 FORT WORTH, TEXAS 76107

CABLE ADDRESS: ANDARK

January 5, 1970

WFX - 338

Rec Jan 7 5

State of New Mexico
Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

RE: Langlie-Mattix Penrose Sand Unit,
Langlie-Mattix Oil Pool, Lea County,
New Mexico

Gentlemen:

Anadarko Production Company, as Unit Operator of the Langlie-Mattix Penrose Sand Unit, Langlie-Mattix Oil Pool, Lea County, New Mexico that was originally authorized by OCC Order No. R-2617, hereby requests administrative approval to expand Unit waterflood development under the provisions of OCC Rule 701-E-5.

The expansion of the waterflood development on the referenced Unit includes the conversion of sixteen (16) Unit wells to water injection. These sixteen (16) wells, including twelve (12) existing Unit producing wells and four (4) Unit wells that were recently drilled for the purpose of water injection, are listed on the attached Table I with well location and pertinent well data.

The OCC Rule 701-E-5 requirement of the showing of oil production response to water injection operations prior to expansion of waterflood development was waived by OCC Order No. R-3247.

Expansion of waterflood development under OCC Rule 701-E-5 also requires that the application be made in accordance with OCC Rule 701-B. In accordance with OCC Rule 701-B, the following data and information is enclosed:

- (1) Plat of Unit Area showing location of proposed water injection wells.
- (2) Well bore diagram of Langlie-Mattix Penrose Sand Unit Well No. 25-2 showing well total depth, open hole producing intervals, casing and cementing

program, proposed tubing and packer setting, and type and quantity of water to be injected. This well has been selected as typical of the twelve (12) existing Unit producing wells proposed for conversion to water injection.

- (3) Driller's log of Langlie-Mattix Penrose Sand Unit Well No. 25-2 (no electrical surveys available).
- (4) Well bore diagram of Langlie-Mattix Penrose Sand Unit Well No. 25-3 showing well total depth, perforated producing intervals, casing and cementing program, proposed tubing and packer setting, and type and quantity of water to be injected. This well has been selected as typical of the four (4) Unit wells that were recently drilled for the purpose of water injection.
- (5) Gamma Ray-Density log of Langlie-Mattix Penrose Sand Unit Well No. 25-3.

The expansion of waterflood development on this Unit is needed for the maximum recovery of oil and the conservation of natural resources.

Your approval at your earliest convenience will be appreciated.

Very truly yours,

ANADARKO PRODUCTION COMPANY

C. W. Stumhoffer

C.W. Stumhoffer
Superintendent
Secondary Recovery Division

CWS/nl

Encl:

cc: USGS-Roswell

New Mexico Commissioner of Public Lands

Offset Operators - Skelly Oil Company

Wood, McShane, and Thams-Colorado

Gulf Oil Corporation

Continental Oil Company

Atlantic-Richfield

OFFSET OPERATORS

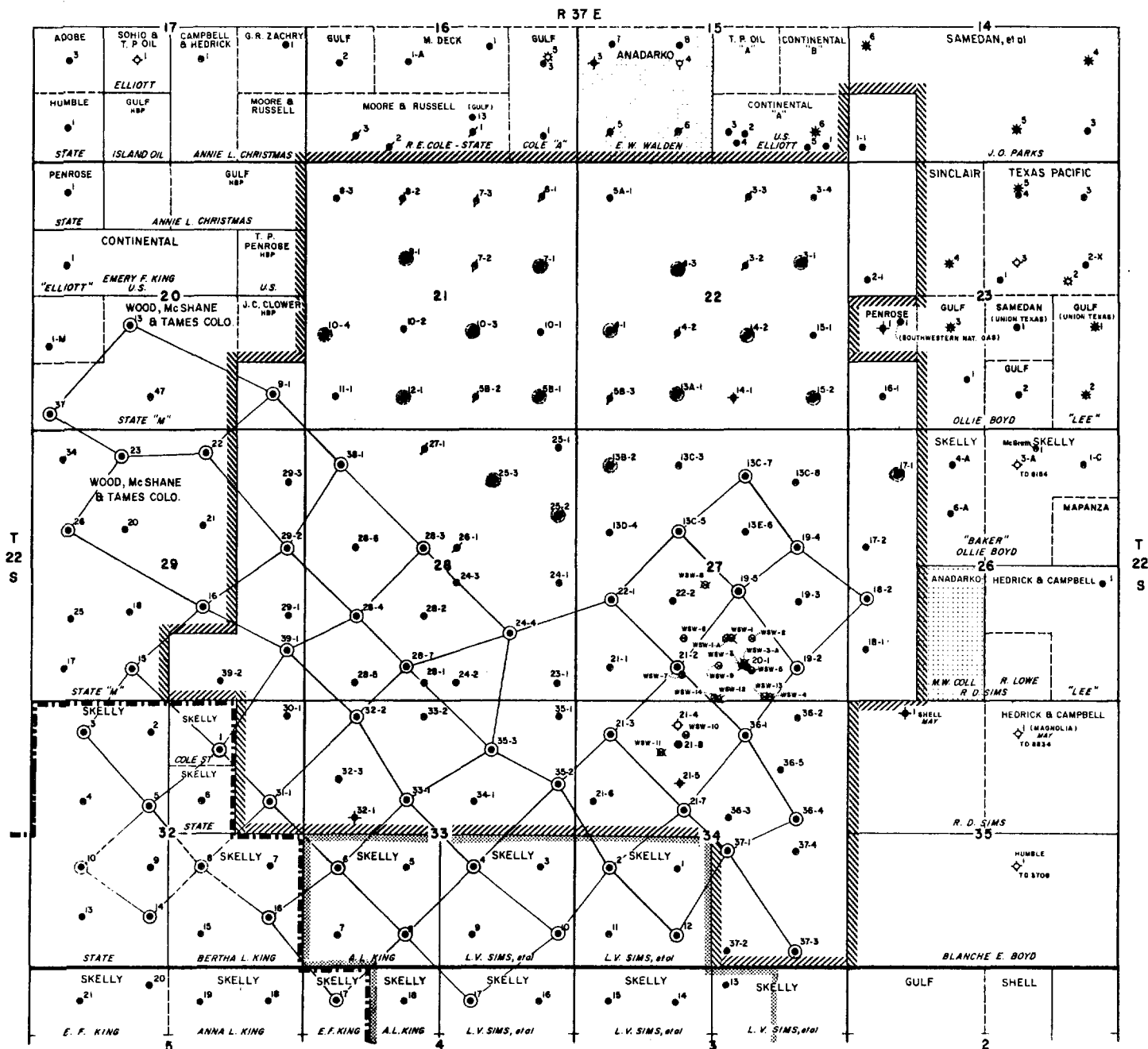
Skelly Oil Company
P.O. Box 1727
Midland, Texas 79701

Gulf Oil Corporation
P.O. Box 670
Hobbs, New Mexico 88240

Continental Oil Company
P.O. Box 460
Hobbs, New Mexico 88240

Atlantic-Richfield Company
P.O. Box 1978
Roswell, New Mexico 88201
Attn: A.D. Kloxin

Wood, McShane & Thams-Colorado
P.O. Box 968
Monahans, Texas 79756



LEGEND

- - Oil Well
- ◆ - Plugged & Abandoned
- ✱ - Temporarily Abandoned
- ◇ - Dry & Abandoned
- ✱ - Gas Well
- ✱ - Dual Completion (Oil & Gas)
- ⊙ - Water Injection Well
- ⊙ - Proposed Water Injection Well
- ⊙ - Water Supply Well
- ✱ - WSW - Plugged & Abandoned
- //// Unit Boundary
- ▨ Anadarko Acreage
- ▨ Non-Participating Tract
- ▨ Skelly Penrose "A" Unit
- ▨ Skelly Penrose "B" Unit

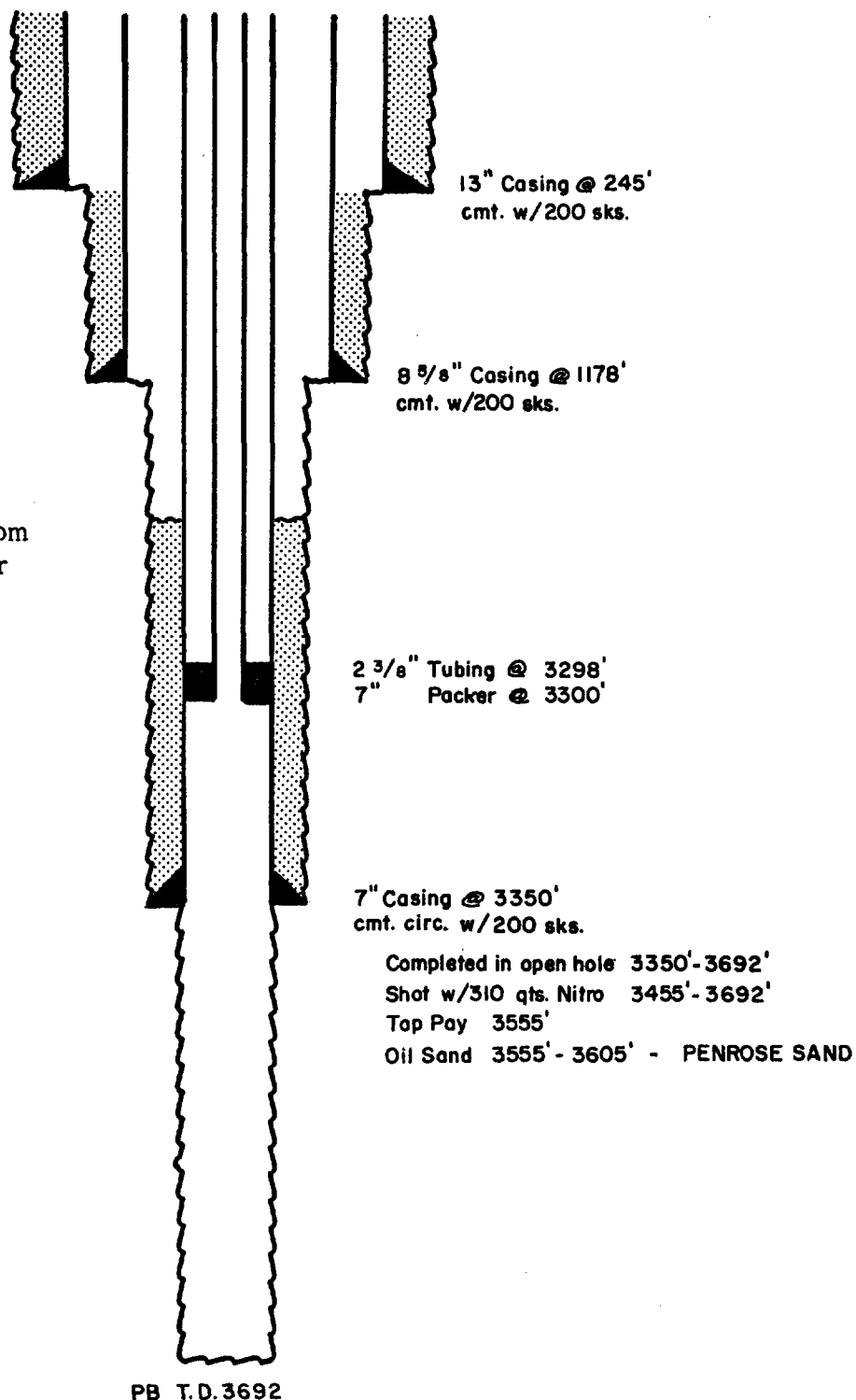


**ANADARKO
PRODUCTION COMPANY**

**LANGLIE MATTIX PENROSE
SAND UNIT
LEA COUNTY, NEW MEXICO
FLOOD NO. 36**



Proposed Injection Rate:
350 B/D
Injection Water Source:
Nonpotable water purchased from
Skelly Oil Company's Jal Water
System.



**ANADARKO
PRODUCTION COMPANY**

WELL BORE DIAGRAM
LANGLIE MATTIX PENROSE SAND UNIT
WELL NO. 25-2
LEA COUNTY, NEW MEXICO

DRILLERS LOG

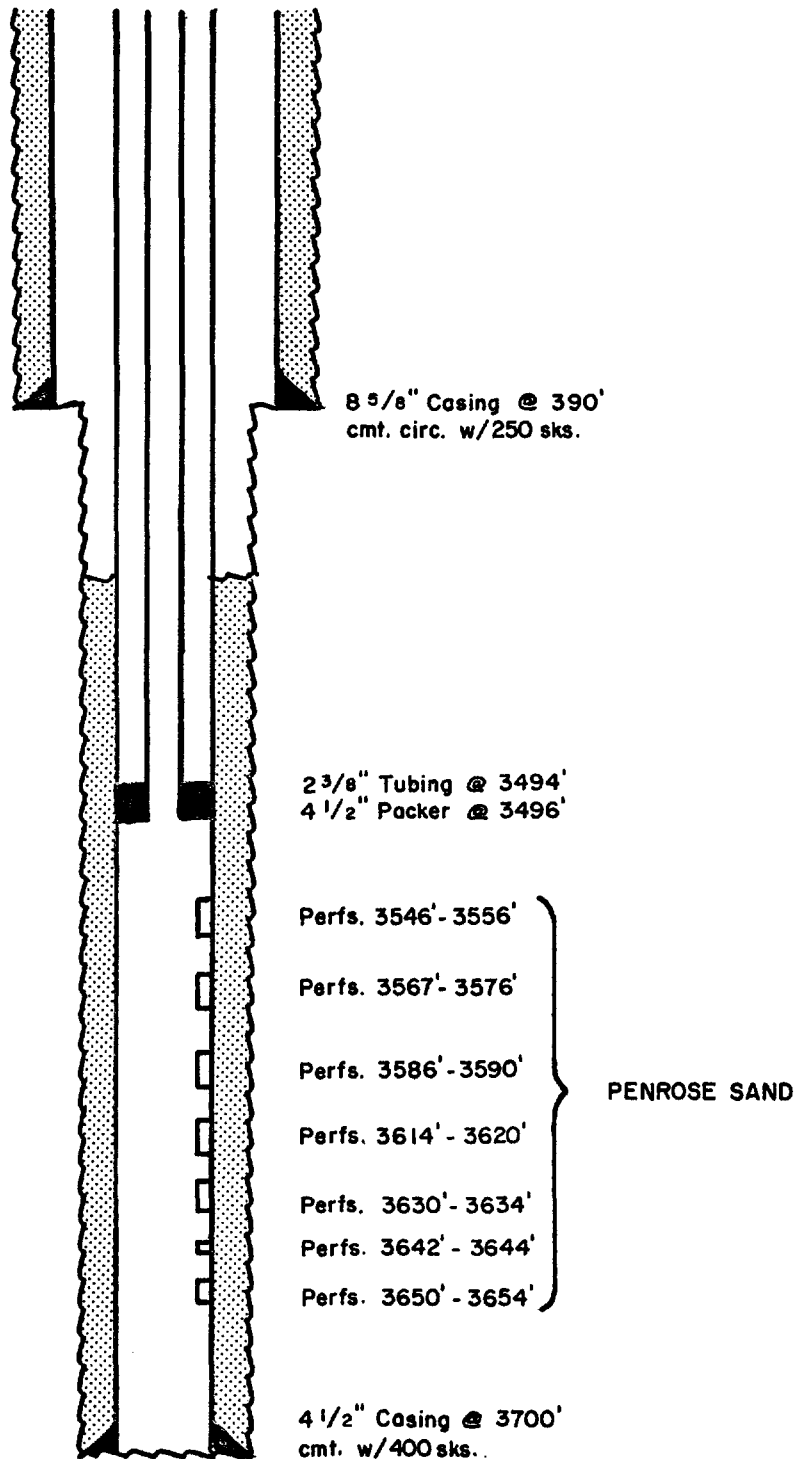
Langlie-Mattix Penrose Sand Unit Well No. 25-2
990' North of South line & 330' West of East line of
NE/4 Section 28, T22S-R37E, Lea County, New Mexico

<u>From</u>	<u>To</u>	<u>Thickness in Feet</u>	<u>Formation</u>
0	192	192	Caliche, Red Sand & Red Rock
192	204	12	White Sand
204	213	9	Red Shale
213	218	5	Blue Shale
218	650	432	Red Rock
650	735	85	Grey Shale
735	745	10	Lime
745	830	85	Sand
830	845	15	Blue Clay
845	875	30	Lime
875	935	80	Sand
935	1035	100	Red Rock
1035	1065	30	Anhydrite
1065	1125	60	Red Rock
1125	1205	140	Anhydrite
1265	1275	10	Red Rock
1275	1290	15	Potash
1290	1445	155	Salt
1445	2490	1045	Salt & Anhydrite
2490	3020	830	Anhydrite & Lime
3020	3622	602	Lime
3622	3639	17	Sand
3639	3650	11	Sandy Lime
3650	3834	184	Lime
3834	3854	20	Sandy Lime
3854	3862	8	Lime
3862	3874	12	Sandy Lime
3874	3975	101	Lime
3975	3985	10	Brown Lime
3985	4058	53	Lime
4058	4047	9	Brown Lime
4047	4073	26	Lime - 7 Bailer Water in 6 Hrs. @ 4066'

Well plugged back to 3692'
w/gravel, cement, and lead wool.

Proposed Injection Rate:
350 B/D
Injection Water Source:
Nonpotable water purchased from
Skelly Oil Company's Jal Water
System.

WELL LOCATION
L. M. P. S. U. 25-3
1650 FEL & 990 FNL
Sec. 28, T-22-S, R-37-E
Lea Co., New Mexico



**ANADARKO
PRODUCTION COMPANY**

WELL BORE DIAGRAM
LANGLIE MATTIX PENROSE SAND UNIT
WELL NO. 25-3
LEA COUNTY, NEW MEXICO

TABLE I
LANGLIE-MATTIX PENROSE SAND UNIT
Langlie-Mattix Oil Pool
Lea County, New Mexico

Well Location and Data
Expansion Water Injection Wells

Well No.	LOCATION T22S, R37E	CASING RECORD										Total Depth Feet	Perforations or Open Hole	Packer Set @
		Surface		Long String										
		Size (inches)	Depth (feet)	Cement (sx)	Size (inches)	Depth (feet)	Cement (sx)							
3-1	1980' FN & 860' FEL, Sec. 22	12½ 8¼	250 1120	90 150	6-5/8	3380	250	3685	O.H.	3332'				
4-1	660' FW & 1980' FSL, Sec. 22	8¼	1069	75	7	3370	150	3620	O.H.	3320'				
4-3	1980' FW & 1980' FNL, Sec. 22	8-5/8	1150	275	7	3394	250	3680	O.H.	3344'				
5B-1	660' FS & 660' FEL, Sec. 21	13 8-5/8	111 1125	75 200	7	3387	200	3648	O.H.	3337'				
7-1	660' FE & 1980' FNL, Sec. 21	15½ 13	102 237	75 100	8¼ 6-5/8	1154 3385	100 150	3620	O.H.	3335'				
8-1	1980' FW & 1980' FNL, Sec. 21	13½ 8¼	227 1112	350 65	7	3383	100	3600	O.H.	3333'				
10-3	1980' FE & 1980' FSL, Sec. 21	8-5/8	1300	450	7	3364	200	3620	O.H.	3314'				
10-4	330' FW & 1980' FSL, Sec. 21	8-5/8	390	250	4½	3710	400	3702	3496-3631	3446'				
12-1	1980' FW & 660' FSL, Sec. 21	8-5/8	1125	650	7	3377	125	3670	O.H.	3327'				
3A-1	1980' FW & 660' FSL, Sec. 22	13	263	240	7	1225 3360	200 200	3695	O.H.	3310'				

TABLE I
 LANGLEIE-MATTIX PENROSE SAND UNIT
 Langlie-Mattix Oil Pool
 Lea County, New Mexico
 Well Location and Data
Expansion Water Injection Wells

Well No.	LOCATION T22S, R37E	CASING RECORD						Total Depth Feet	Perforations or Open Hole	Packer Set @
		Surface			Long String					
		Size (inches)	Depth (feet)	Cement (sx)	Size (inches)	Depth (feet)	Cement (sx)			
13B-2	660' FW & 660' FNL, Sec.27	13 8-5/8	220 1139	150 150	7	3363	300	3679	O.H.	3313'
14-2	1980' FE & 1980' FSL,Sec.22	12½ 8¼	250 1125	125 275	7	3375	250	3685	O.H.	3325'
15-2	660' FS & 660' FEL, Sec. 22	8-5/8	371	200	4½	3708	375	3701	3476-3618	3426'
17-1	990' FW & 840' FNL, Sec.26	8-5/8	363	400	4½	3700	400	3697	3496-3654	3446'
25-2	330' FEL & 1650' FNL,Sec.28	13 8-5/8	245 1178	200 250	7	3350	200	3692	O.H.	3300'
25-3	1650' FEL & 990' FNL,Sec.28	8-5/8	390	250	4½	3700	400	3691	3546-3654	3496'

JAN 12 1970

WOOD-McSHANE, INC.

MANAGEMENT AND OPERATIONS

TELEPHONE 915 - 943-3092

P. O. BOX 968

MONAHANS, TEXAS 79756

January 10, 1970

State of New Mexico
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Anadarko Production Company
Langlie-Mattix Penrose Sand Unit
Langlie-Mattix Oil Pool
Lea County, New Mexico

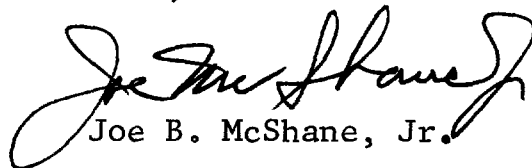
Gentlemen:

Wood, McShane & Thams-Colorado, as an offset operator, have been notified by Anadarko Production Company of their request for administrative approval to expand waterflood development of the Langlie-Mattix Oil Pool, Lea County, New Mexico.

You are respectfully advised that Wood, McShane & Thams-Colorado has no objection to the proposed expansion program by Anadarko Production Company.

Yours very truly,

WOOD-McSHANE, INC., For
Wood, McShane & Thams-Colorado



Joe B. McShane, Jr.

JBM:vc

cc: Anadarko Production Company

JAN 16 1970

January 15, 1970

C
O
P
Y

Ansdarko Production Company
P. O. Box 9317
Fort Worth, Texas 76107

Re: Langlie-Mattix Penrose Sand
Unit-Expansion of operation,
Lee County, New Mexico

ATTENTION: Mr. C. W. Stumhoffer

Gentlemen:

We are in receipt of your proposed expansion of the operation on the above captioned unit. We find this expansion of the waterflood development to be in line with all rules and regulations of the Oil Conservation Commission, therefore, the Commissioner of Public Lands has this date approved your application.

Very truly yours,

Ted Bilberry, Director
Oil and Gas Department

TE/ML/s

cc: USGS-Roswell, New Mexico
OCC-Santa Fe, New Mexico