

CASE 3591: Appli. of ANADARKO  
PRODUCTION CO. for a waterflood  
expansion, Lea County, N. Mex.

CASE NO.  
35 91

Application,  
TRANSCRIPTS,  
SMALL Exhibits  
ETC.



**ANADARKO PRODUCTION COMPANY**

3109 WINTHROP AVENUE P. O. BOX 9317 FORT WORTH, TEXAS 76107  
CABLE ADDRESS: ANADARK

RECEIVED  
MAY 19 8 56 AM '67

May 17, 1967

Mr. A. L. Porter, Jr.  
Secretary-Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

*File*  
Re: Case No. 3591 Anadarko  
Application to Expand and  
Complete Waterflood Operations  
in Langlie-Mattix Pennrose  
Sand Unit, Township 22 South,  
Range 37 East, Lea County,  
New Mexico

Dear Mr. Porter:

Attached is the original and three copies of executed New Mexico Oil Conservation Commission forms, C-101 and C-102, Notice of Intent To Drill Injection Well No. 24-4. This has been designated as Exhibit "E" and is forwarded in connection with the captioned application.

Yours very truly,

*T. J. Guinan*  
T. J. Guinan  
Attorney

TJG/nw

Attachment

cc: State Engineer Office (with attachment)

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE No. 3591  
Order No. R-3247

APPLICATION OF ANADARKO PRODUCTION  
COMPANY FOR A WATERFLOOD EXPANSION,  
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 24, 1967,  
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 5th day of June, 1967, the Commission, a  
quorum being present, having considered the testimony, the record,  
and the recommendations of the Examiner, and being fully advised  
in the premises,

FINDS:

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

(2) That the applicant, Anadarko Production Company, seeks  
permission to expand its Langlie-Mattix Penrose Sand Unit Water-  
flood Project in the Langlie-Mattix Penrose Sand Unit Area,  
Langlie-Mattix Pool, by the injection of water into the Penrose  
Sand of the Queen formation through eight additional injection  
wells in Sections 20, 28, 29, 32, and 33, Township 22 South,  
Range 37 East, NMFM, Lea County, New Mexico.

(3) That the applicant further seeks an administrative  
procedure whereby said project could be expanded to include  
additional lands and injection wells in the area of the said  
project as may be necessary in order to complete an efficient  
injection pattern; that said administrative procedure should  
provide for administrative approval for conversion to water

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CASE No. 3591  
Order No. R-3247

injection in exception to the well response requirements of Rule 701 E-5 of the Commission Rules and Regulations.

(4) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(5) That the proposed expansion of the Langlie-Mattix Penrose Sand Unit Waterflood Project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) That the subject application should be approved and the expanded project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicant, Anadarko Production Company, is hereby authorized to expand its Langlie-Mattix Penrose Sand Unit Waterflood Project in the Langlie-Mattix Penrose Sand Unit Area, Langlie-Mattix Pool, by the injection of water into the Penrose Sand of the Queen formation through the following-described wells in Township 22 South, Range 37 East, NMPM, Lea County, New Mexico:

Operator	Well No.	Unit	Section
Langlie-Mattix Penrose Sand Unit	9-1	P	20
Langlie-Mattix Penrose Sand Unit	28-1	N	28
Langlie-Mattix Penrose Sand Unit	28-4	L	28
Langlie-Mattix Penrose Sand Unit	29-2	H	29
Langlie-Mattix Penrose Sand Unit	31-1	H	32
Langlie-Mattix Penrose Sand Unit	32-2	D	33
Langlie-Mattix Penrose Sand Unit	38-1	D	28
Langlie-Mattix Penrose Sand Unit	39-1	P	29

(2) That the expanded waterflood project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Langlie-Mattix Penrose Sand

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CASE No. 3591  
Order No. R-3247

Unit Waterflood Project to include such additional lands and injection wells in the area of said project as may be necessary to complete an efficient water injection pattern; that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(3) That monthly progress reports of the expanded waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.


(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

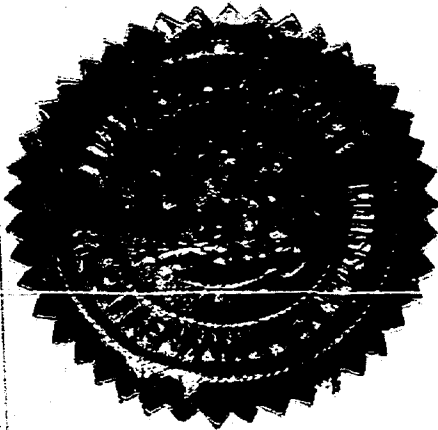
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
DAVID F. CARGO, Chairman

  
GUYTON B. HAYS, Member

  
A. L. PORTER, Jr., Member & Secretary



esr/

Docket No. 16-67

DOCKET: EXAMINER HEARING - WEDNESDAY - MAY 24, 1967

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 3572: Application of Jones Exploration Company for a dual completion and for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State Well No. 1 located in Unit H of Section 35, Township 17 South, Range 35 East, Vacuum Field, Lea County, New Mexico, in such a manner as to permit the production of Abo Reef oil through the tubing and the disposal of produced salt water down the casing-tubing annulus into the Paddock formation in the perforated interval from 6955 to 6995 feet.
- CASE 3573: Application of Aztec Oil & Gas Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the South Corbin Strawn Oil Pool, including a provision for 160-acre proration units and the establishment of a 4000 to one gas-oil ratio limitation.
- CASE 3574: Application of Cima Capitan, Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andrés formations through one well located in Unit C of Section 3, Township 17 South, Range 32 East, Maljamar Pool, Lea County, New Mexico.
- CASE 3575: Application of Harvey E. Yates for a triple completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the triple completion of his Stebbins Deep Federal Well No. 1 located in Unit H of Section 30, Township 20 South, Range 29 East, Eddy County, New Mexico, to produce oil from the Scanlon Delaware Oil Pool through one string of tubing and to selectively produce gas from an undesignated Strawn gas pool and from an undesignated Morrow gas pool through another string of tubing. Selective production of one of the two gas zones at a time would be accomplished by means of a sliding side door and tubing plug.
- CASE 3576: Application of Jomar Industries, Inc. for water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, has proposed to drill certain wells in the S/2 NW/4 SE/4 and the N/2 SW/4 SE/4 of Section 30, Township 18 South, Range 38 East, Lea County, New Mexico, for production of oil from the Ogallala formation. Applicant anticipates that fresh water will be produced from the Ogallala formation incidental to the production of said oil and now seeks authority to dispose of said water back into the Ogallala formation through an injection well or wells to be located no nearer than 330 feet to the outer boundaries of the above-described acreage.

CASE 3577: Application of El Paso Natural Gas Company for four non-standard units, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the following non-standard gas proration units in Township 29 North, Range 7 West, Basin-Dakota Gas Pool, Rio Arriba County, New Mexico:

A 327.78-acre non-standard unit comprising the W/2 of Section 6 and the NW/4 of Section 7, to be dedicated to the San Juan 29-7 Unit Well No. 100 located 790 feet from the South line and 950 feet from the West line of said Section 6;

A 345.19-acre non-standard unit comprising the SW/4 of Section 7 and the W/2 of Section 18;

A 361.64-acre non-standard unit comprising the W/2 of Section 19 and the NW/4 of Section 30;

A 375.28-acre non-standard unit comprising the SW/4 of Section 30 and the W/2 of Section 31.

Each of the latter three non-standard units will be dedicated to a well to be drilled at an as yet undetermined standard location on the respective unit.

CASE 3578: Application of Texas Pacific Oil Company for several non-standard gas proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the dedication and rededication of certain acreage and the establishment of the following non-standard gas proration units in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico.

A 120-acre non-standard gas proration unit comprising the N/2 NE/4 and the SE/4 NE/4 of Section 7, to be dedicated to the State "A" A/c-2 Well No. 5, located in Unit A of said Section 7, and also to the State "A" A/c-2 Well No. 6 located in Unit B of said Section 7;

A 160-acre non-standard gas proration unit comprising the W/2 W/2 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 41, located in Unit M of said Section 5;

An 80-acre non-standard gas proration unit comprising the E/2 NW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 44, located in Unit F of said Section 5;

A 160-acre non-standard gas proration unit comprising the N/2 SE/4 and the E/2 SW/4 Section 5, to be dedicated to the State "A" A/c-2 Well No. 28, located in Unit I of said Section 5;



(Case 3578 continued)

An 80-acre non-standard gas proration unit comprising the S/2 SE/4 of Section 5, to be dedicated to the State "A" A/c-2 Well No. 27, located in Unit P of said Section 5;

A 160-acre non-standard gas proration unit comprising the W/2 SW/4, SE/4 SW/4, and SW/4 SE/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 54, located in Unit O of said Section 8;

A 160-acre non-standard gas proration unit comprising the S/2 NW/4, NE/4 SW/4, and NW/4 SE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 56, located in Unit J of said Section 8;

An 80-acre non-standard gas proration unit comprising the S/2 NE/4 of Section 8, to be dedicated to the State "A" A/c-2 Well No. 43, located in Unit H of said Section 8;

An 80-acre non-standard gas proration unit comprising the N/2 NW/4 Section 8, to be dedicated to the State "A" A/c-2 Well No. 49, located in Unit C of said Section 8;

A 240-acre non-standard gas proration unit comprising the NE/4 and E/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 40, located in Unit A of said Section 9;

A 240-acre non-standard gas proration unit comprising the E/2 SE/4 Section 8, and the SW/4 Section 9, to be dedicated to the State "A" A/c-2 Well No. 38, located in Unit K of said Section 9;

A 160-acre non-standard gas proration unit comprising the N/2 NE/4 Section 8, and the W/2 NW/4 of Section 9, to be dedicated to the State "A" A/c-2 Well No. 29, located in Unit D of said Section 9.

CASE 3579: Application of Texas Pacific Oil Company for three dual completions, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "A" A/c-2 Wells Nos. 28, 54, and 29, located in Unit I of Section 5, Unit O of Section 8, and Unit D of Section 9, respectively, Township 22 South, Range 36 East, Lea County, New Mexico, in such a manner as to produce gas from the Jalmat Gas Pool and oil from the South Eunice Oil Pool.

CASE 3580: Application of Sunray DX Oil Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg formation through one well located in Unit C of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

- CASE 3581: Application of Sunray DX Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation from 4248 feet to 4286 feet in its Harris State Well No. 5 located in Unit I of Section 23, Township 10 South, Range 32 East, Mescalero-San Andres Pool, Lea County, New Mexico.
- CASE 3582: Application of Tenneco Oil Company for two unorthodox gas well locations, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Blanco-Mesaverde Gas Pool location of its Jicarilla C Well No. 6, located 1780 feet from the North line and 1455 feet from the West line of Section 14, and its Jicarilla C Well No. 4 located 1650 feet from the North and West lines of Section 24, all in Township 26 North, Range 5 West, Rio Arriba County, New Mexico.
- CASE 3583: Application of Stoltz & Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the North Bagley-Lower Pennsylvanian Pool, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 3584: Application of Gulf Oil Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Eddy "BD" State Well No. 1 at an unorthodox location 660 feet from the South line and 990 feet from the East line of Section 32, Township 20 South, Range 30 East, in an undesignated Strawn gas pool, Eddy County, New Mexico.
- CASE 3585: Application of Gulf Oil Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the force-pooling of all mineral interests in the North Bagley-Pennsylvanian Oil Field, SW/4 SE/4 and SE/4 SE/4 of Section 9, Township 11 South, Range 33 East, Lea County, New Mexico, to be dedicated to the Lea State "OE" Well No. 1 to be drilled 660 feet from the South line and 1980 feet from the East line of said Section 9.
- CASE 3586: Application of Morris R. Antweil for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Malaga Unit Area comprising 839 acres, more or less, of Federal and Fee lands in Sections 12 and 13, Township 24 South, Range 28 East, and Sections 7 and 18, Township 24 South, Range 29 East, Eddy County, New Mexico.
- CASE 3587: Application of Morris R. Antweil for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Delaware Sand through seven injection wells located in Sections 12 and 13, Township 24 South, Range 28 East, and Section 18, Township 24 South, Range 29 East, Malaga Pool, Eddy County, New Mexico.

CASE 3588: Application of Pan American Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the unorthodox location in an undesignated Morrow and/or Devonian gas pool for its Poker Lake Unit Federal Well No. 26 at a location 660 feet from the South and East lines of Section 28, Township 24 South, Range 31 East, Eddy County, New Mexico, to be dedicated to a standard unit comprising the S/2 of said Section 28.

CASE 3589: Application of Claude C. Kennedy for special pool rules, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the Slick Rock-Dakota Oil Pool comprising the S/2 SE/4 of Section 36, Township 30 North, Range 17 West, including a provision for development on 2 1/2 acre spacing with the provision that each 40-acre tract be subject to the Northwest New Mexico normal unit allowable.

CASE 3590: Application of Texaco Inc. for a pilot waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pilot waterflood project by the injection of water into the Pennsylvanian formation in the interval from 9650 feet to 9800 feet in its State BV Well No. 1 located in Unit E of Section 26, Township 13 South, Range 33 East, Lazy-J Pennsylvanian Pool, Lea County, New Mexico.

CASE 3591: Application of Anadarko Production Company for a waterflood expansion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Langlie-Mattix Penrose Sand Unit Waterflood Project by the injection of water into the Penrose Sand through eight additional injection wells located in Sections 20, 28, 29, 32, and 33, all in Township 22 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF ANADARKO PRODUCTION COMPANY  
FOR AUTHORITY TO EXPAND AND  
COMPLETE WATERFLOOD DEVELOPMENT  
OF THE LANGLIE-MATTIX PENROSE  
SAND UNIT, LOCATED IN TOWNSHIP 22  
SOUTH, RANGE 37 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO

CASE NO.

2591

A P P L I C A T I O N

COMES NOW the Applicant and alleges that:

1. It is the Operator of the Langlie-Mattix Penrose Sand Unit located within Township 22 South, Range 37 East, N.M.P.M., Lea County, New Mexico, and as such Operator makes this application for authority to expand and complete development of waterflood operations within said Unit.

2. It seeks approval to complete waterflood development in said Unit in three stages, the first stage to be accomplished upon this Commission entering an order approving this application, the second and third stages to be accomplished at 12-month intervals on or about July 1, 1968 and July 1, 1969 respectively.

3. Wells to be converted to and drilled and completed as water injection wells in the Penrose Sand common source of supply in said Langlie-Mattix Penrose Sand Unit in Township 22 South, Range 37 East, N.M.P.M., Lea County, New Mexico in said first stage are as follows:

Well Number	Location	Section	Unit Letter Designation
09-1	SE SE	20-	P
13-5	SE NW	27	F
13-7	NW NE	27	B
18-2	NW SW	26	L
19-4	SE NE	27	H
22-1	NW SW	27	L
24-4	NW SE	28	J
28-1	SE SW	28-	N
28-4	NW SW	28-	L
29-2	SE NE	29-	H
31-1	SE NE	32-	H
32-2	NW NW	33-	D
33-1	SE NW	33	F
35-3	NW NE	33	B
38-1	NW NW	28	D
39-1	SE SE	29	P

1st stage

16

+ new wells by ...

Subingcoating? Cement lined ...  
... with ...

With the exception of Well No. 24-4, it is proposed that all of the above listed wells will be converted from producing wells to water injection wells in said Penrose Sand at an approximate depth of 3,550 feet below surface. It is proposed that Well No. 24-4 be permitted to be drilled and completed as a water injection well in said Penrose Sand at an unorthodox location 1,330 feet from the east line and 1,330 feet from the south line (Unit J) of the above described Section 28. The water to be injected into the Penrose Sand is non-potable received from Skelly Oil Company's Jal Water System to be injected at the approximate rate of 500 barrels per well per day.

4. It is requested that of the above listed wells, Well Nos. 13C-5, 13C-7, 18-2, 19-4, 22-1, 24-4, 33-1 and 35-3 be granted administrative approval for conversion to water injection wells pursuant to this Commission's Rule 701-E-5, because the direct or diagonally offsetting wells have experienced response to water injection. It is proposed that Well Nos. 9-1, 28-1, 28-4, 29-2, 31-1, 32-2, 38-1 and 39-1 be permitted to be converted to water injection wells to meet obligations to Humble Oil & Refining Company and Skelly Oil Company, the operators of adjoining waterflood units.

5. The proposed plan of development of the balance of said Langlie-Mattix Penrose Sand Unit in two stages (the second on or about July 1, 1968 and the third on or about July 1, 1969), is outlined on Exhibit "F" attached hereto and made a part hereof, and it is requested that this procedure be approved as to staging and that wells to be utilized for water injection purposes be administratively approved as each stage is developed.

6. This Commission, by its Order No. R-2617 originally, authorized the creation of the Langlie-Mattix Penrose Sand Unit as a waterflood project, and the expansion and completion of waterflood development within said Unit is necessary to allow Applicant to prevent waste and promote the conservation of oil and gas.

7. Attached hereto and made a part hereof are the following Exhibits:

- (a) Exhibit "A", a plat showing the location of the proposed first stage injection wells and all other wells within a two-mile radius.
- (b) Exhibit "B", this Commission's Form C-116 (Gas-Oil Ratio Tests) executed by Applicant.
- (c) Exhibit "C", a diagrammatic sketch showing casing and tubing data for the proposed injection wells.
- (d) Exhibit "D", Casing and Cementing Record of wells to be converted to injection.
- (f) Exhibit "F", a map of the Unit Area showing injection wells in each proposed stage of development.

WHEREFORE, Applicant prays:

1. That this matter be set down for hearing before the Examiner;

2. That notice thereof be given as required by law;

3. That upon such hearing, this Commission enter an order authorizing the expansion and completion of said Langlie-Mattix Penrose Sand Unit and permit the requisite conversion of wells to injection wells and the drilling of the aforesaid well as a water injection well, and the injection of water into said Unit as herein set out.

ANADARKO PRODUCTION COMPANY

By T. J. Guinan  
T. J. Guinan, Attorney  
P. O. Box 9317  
Fort Worth, Texas 76107

CERTIFICATE OF MAILING

STATE OF TEXAS       )  
                              ) SS  
COUNTY OF TARRANT )

T. J. Guinan, being first duly sworn, on oath deposes and states:

That he is attorney for Applicant herein and that, according to his best information and belief, the parties of interest and the addresses of such parties are as follows:

The State of New Mexico  
State Engineer Office  
State Capitol  
Santa Fe, New Mexico 87501

Skelly Oil Company  
P. O. Box 1650  
Tulsa, Oklahoma 73101

Humble Oil and Refining Company  
Box 1600  
Midland, Texas 79701

Mobil Oil Company  
Box 3128  
Houston, Texas 77001

That on May 3, 1967, a true and complete copy of the foregoing application, together with all exhibits, was mailed to such persons or firms at the addresses shown above, with postage thereon fully paid.

T. J. Guinan  
T. J. Guinan

Subscribed and sworn to before me this 3rd day of May, 1967.

Virginia L. King  
Notary Public

My Commission Expires:

6-1-67

## Unit and Surrounding Area

- ⊙ Present Injection Wells
- Stage 1 - Injection Wells 7-1-67

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator Anadarko Production Company		Pool Langlie-Mattix				County Lea										
Address P. O. Box 9317, Fort Worth, Texas 76107						TYPE OF TEST (X)		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>				
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKESIZE	T.B.G. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL.
		U	S	T	R							WATER BBL.	GRAV. OIL	OIL BBL.	GAS M.C.F.	
Langlie-Mattix Penrose Sand Unit																
Tract 13E	6	G	27	22S	37E	2-26-65	P	-	-	3	24	0	36.7	2.57	4.3	1670
Tract 13E	6	G	27	22S	37E	6-27-67	P	-	-	3	24	0	36.9	8.51	TSTM	
Tract 18	1	M	26	22S	37E	2-8-62	P	-	-	4	24	0	37.4	3.4	7.1	2090
Tract 18	1	M	26	22S	37E	2-4-67	P	-	-	11	24	0	38.1	10.74	TSTM	
Tract 21	1	M	27	22S	37E	1-13-65	P	-	-	5	24	1.2	38.5	4.87	5.4	1100
Tract 21	1	M	27	22S	37E	3-21-67	P	-	-	5		6.0	38.7	35.41	TSTM	
Tract 23	1	P	28	22S	37E	3-4-65	P	-	-	4	24	0	38.1	2.57	12.8	5000
Tract 23	1	P	28	22S	37E	2-24-67	P	-	-	4	24	0	38.8	7.05	TSTM	
Tract 22	2	K	27	22S	37E	1-15-66	P	-	-	1	24	0	37.1	1.64	TSTM	-
Tract 22	2	K	27	22S	37E	3-1-67	P	-	-	0	24	0	37.4	5.21	TSTM	
Tract 34	1	G	33	22S	37E	2-2-65	P	-	-	1	24	0	36.7	1.44	4.2	8650
Tract 34	1	G	33	22S	37E	7-15-66	P	-	-	1	24	0	36.7	1.75	TSTM	
Tract 35	1	B	33	22S	37E	1-6-65	P	-	-	2	24	0	36.4	1.78	TSTM	-
Tract 35	1	B	33	22S	37E	3-24-67	P	-	-	2	24	55.0	36.5	37.14	TSTM	

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

EXHIBIT "B"

Langlie-Mattix Penrose Sand Unit  
Lea County, New Mexico  
Production History Wells Responding to Water Injection

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

C. W. Stumhoffer

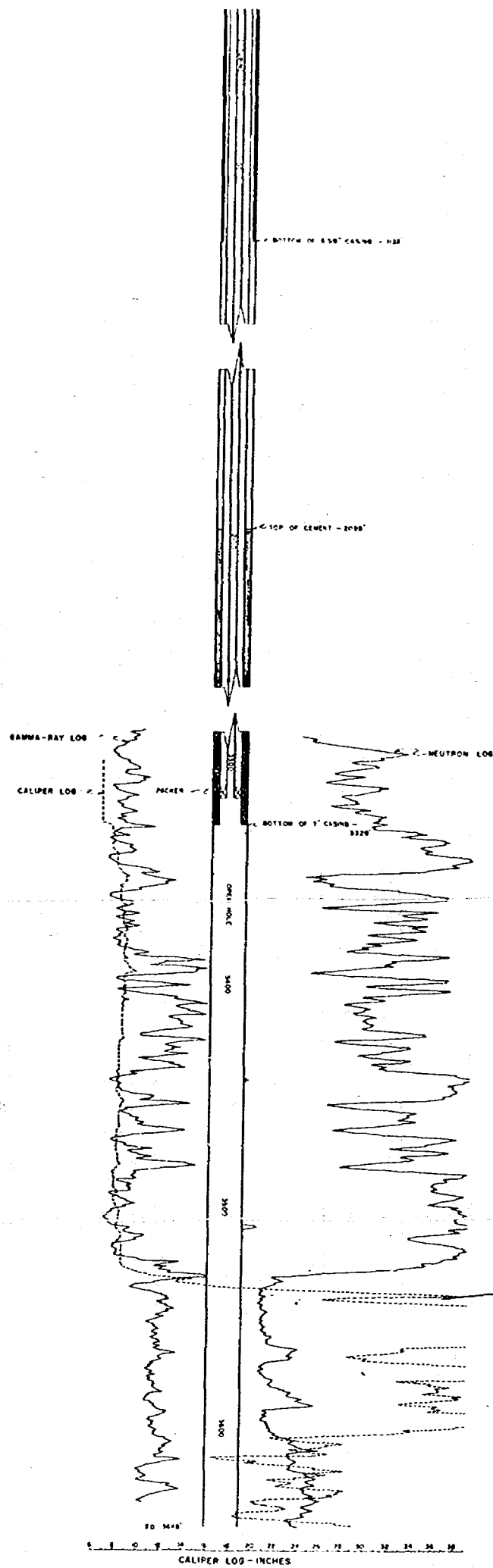
*C. W. Stumhoffer*  
(Signature)

Superintendent Secondary Recovery Div.

May 3, 1967

(Date)





ANADARKO  
 PRODUCTION COMPANY  
 EXHIBIT "C"  
 TYPICAL  
 OPEN HOLE COMPLETION  
 WATER INJECTION WELL  
 LANGLIE MATTIX PENROSE SAND UNIT  
 LEA COUNTY, NEW MEXICO

ANADARKO PRODUCTION COMPANY  
LANGLIE-MATTIX PENROSE SAND UNIT  
LEA COUNTY, NEW MEXICO  
CASING AND CEMENTING RECORD  
OF WELLS TO BE CONVERTED TO INJECTION

*TD minus Log*

TRACT NO. & WELL NO.	DATE OF COMPLETION	SURFACE CASING			LONG STRING CASING			TOP OF CEMENT	TOTAL DEPTH
		SIZE	DEPTH	SX. CMT.	SIZE	DEPTH	SX. CMT.		
9-1	12-13-59	8 5/8"	315	Circ.	5½	3715	200 sx.	2150	3746
13C-5	8-31-37	9 5/8	1123	250	7	3399	200	2070	3620
13C-7	3-29-39	16	114	65	7	3433	200	2005	3655
18-2	5-27-39	8 5/8	1135	100	7	3349	175	2095	3646
19-4	10-5-38	10	95	75	7	3360	150	2050	3635
		8 5/8	1140	150					
22-1	10-12-37	8 5/8	1167	500	7	3378	150	2080	3665
28-1	5-23-39	15½	135	100	7	3412	150	2105	3690
28-4	11-23-39	15½	114	100	7	3419	150	2095	3618
29-2	7-27-40	16	119	100	7	3424	150	2150	3682
31-1	11-25-56	9 5/8	251	200	6	3400	350	2025	3700
32-2	7-12-41	15	121	125	7	3402	150	2005	3681
33-1	2-12-39	15½	132	100	7	3395	150	2085	3691
35-3	5-25-40	15½	128	50	7	3395	200	2015	3680
38-1	7-25-57	8 5/8	1160	600	4½	3725	300	2075	3725
39-1	8-30-40	10 3/4	292	125	7	3412	550	1090	3616

31  
221  
222  
217  
275  
288  
278  
199  
258  
300  
279  
296  
285  
0  
204

EXHIBIT "D"

ANADARKO PRODUCTION COMPANY  
 LANGLIE-MATTIX PENROSE SAND UNIT  
 LEA COUNTY, NEW MEXICO  
 CASING AND CEMENTING RECORD  
 OF WELLS TO BE CONVERTED TO INJECTION

*1 D inches Casing Depth*

WELL IDENTIFICATION	SURFACE CASING			LONG STRING CASING			TOP OF CEMENT	TOTAL DEPTH
	SIZE	DEPTH	SX. CMT.	SIZE	DEPTH	SX. CMT.		
59	8 5/8"	315	Circ.	5 1/2	3715	200 sx.	2150	3746
37	9 5/8	1123	250	7	3399	200	2070	3620
39	16	114	65	7	3433	200	2005	3655
39	8 5/8	1135	100	7	3349	175	2095	3646
8	10	95	75	7	3360	150	2050	3635
	8 5/8	1140	150					
37	8 5/8	1167	500	7	3378	150	2080	3665
39	15 1/2	135	100	7	3412	150	2105	3690
39	15 1/2	114	100	7	3419	150	2095	3618
40	16	119	100	7	3424	150	2150	3682
56	9 5/8	251	200	6	3400	350	2025	3700
41	15	121	125	7	3402	150	2005	3681
39	15 1/2	132	100	7	3395	150	2085	3691
40	15 1/2	128	50	7	3395	200	2015	3680
57	8 5/8	1160	600	4 1/2	3725	300	2075	3725
40	10 3/4	292	125	7	3412	550	1090	3616

31  
 221  
 222  
 217  
 275  
 288  
 278  
 199  
 358  
 300  
 229  
 296  
 285  
 0  
 204

EXHIBIT "D"

OIL CONSERVATION COMMISSION

P. O. BOX 2088

SANTA FE, NEW MEXICO

June 6, 1967

C

Mr. T. J. Guinan  
Anadarko Production Company  
Post Office Box 9317  
Fort Worth, Texas 76107

O

Dear Sir:

P

Enclosed herewith is Commission Order No. R-3247, entered in Case No. 3591, approving the expansion of Anadarko's Langlie-Mattix Penrose Sand Unit Waterflood Project.

Y

Injection is to be through the eight additional authorized injection wells, which, together with the eight recently authorized for conversion by administrative approval, shall each be equipped with a string of tubing and a packer, said packer being set as near to the top of the perforations as practicable, or in the case of open-hole completions, as near to the casing shoe as practicable. The tubing shall be cement-lined, and the casing tubing annulus filled with inert fluid and a pressure gauge installed to detect tubing or packer leaks.

As to allowable, calculations indicate that when all of the presently authorized injection wells have been placed on active injection, the maximum allowable which this project will be eligible to receive under the provisions of Rule 701-E-3 is 2926 barrels per day.

Please report any error in this calculated maximum allowable immediately, both to the Santa Fe office of the commission and the appropriate district proration office.

In order that the allowable assigned to the project may be kept current, and in order that the operator may fully benefit from the allowable provisions of Rule 701, it behooves him to promptly notify

**OIL CONSERVATION COMMISSION**

P. O. BOX 2088

SANTA FE, NEW MEXICO

-2-

Mr. T. J. Guinan  
Anadarko Production Company  
Fort Worth, Texas 76107  
June 6, 1967

C

both of the aforementioned commission offices by letter of any change in the status of wells in the project area, i.e., when active injection commences, when additional injection or producing wells are drilled, when additional wells are acquired through purchase or unitization, when wells have received a response to water injection, etc.

O

Your cooperation in keeping the commission so informed as to the status of the project and the wells therein will be appreciated.

P

Very truly yours,

Y

A. L. PORTER, Jr.  
Secretary-Director

ALP/DSN/ir

cc: Mr. Frank Irby  
State Engineer Office  
Santa Fe, New Mexico

U. S. Geological Survey  
Hobbs, New Mexico

Oil Conservation Commission  
Hobbs, New Mexico

Mr. Sim Christy  
Roswell, New Mexico

Case 3591

Heard 5-24-67

Rec. 5-25-67

1. Grant Anadarko 8 new injection wells for their Langlie-Mattie Pennrose water flood.

The 8 wells are circled in blue on ~~the~~ page of application.

2. Allow admin. approval for further expansion for the flood in Langlie ~~Sand~~ Pennrose Sand unit by specific approval of further injection wells.

Thos. J. P.



**ANADARKO PRODUCTION COMPANY**

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

CABLE ADDRESS: ANOARK

May 3, 1967

*Che 3591*

OFFICE OGC

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

51 MAY 4 PM 3 50

Re: Anadarko Application to  
Expand and Complete Waterflood  
Operation on Langlie-Mattix  
Penrose Sand Unit, Township  
22 South, Range 37 East,  
N.M.P.M., Lea County, New  
Mexico

Gentlemen:

Enclosed is original of captioned application along  
with three copies of same.

Will you please cause the same to be filed and noticed,  
and advise me of the date the matter is set for hearing.

Yours very truly,

T. J. Guinan  
Attorney

TJG/rc  
Encl.

DOCKET MAILED

Date

*5/12/67*

*R*



# SKELLY OIL COMPANY

P. O. BOX 1650

TULSA, OKLAHOMA 74102

PRODUCTION DEPARTMENT

C.L. BLACKSHER, VICE PRESIDENT

W.P. WHITMORE, MGR. PRODUCTION

W.D. CARSON, MGR. TECHNICAL SERVICES

BARTON W. RATLIFF, MGR. JOINT OPERATIONS

GEORGE W. SELINGER, MGR. CONSERVATION

May 10, 1967

Re: Case No. 3591  
Hearing May 24, 1967  
Langlie-Mattix Penrose Sand Unit

Mr. A. L. Porter, Jr., Secretary-Director  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Porter:

On May 24, 1967, the Oil Conservation Commission will hear the application of Anadarko Production Company for authority to expand and complete water-flood development of the Langlie-Mattix Penrose Sand Unit, located in Township 22 South, Range 37 East, Lea County, New Mexico.

This is to advise that Skelly Oil Company, not only as an interested party in the Unit, but also as an interested operator of offset acreage, supports the application of Anadarko and urges the Commission to grant the relief requested.

Yours very truly,

RJJ:br

cc-Anadarko Production Company  
P. O. Box 9317  
Fort Worth, Texas  
Attn: Mr. T. J. Guinan



44-100-1000  
67 MAY 23 AM 3 07

May 22, 1967

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

Attn. Mr. T. J. Guinane, Attorney

Gentlemen:

Reference is made to the application of Anadarko Production Company which seeks to expand waterflood operations in the ~~Langlie-Mattix~~ Penrose Sand Unit which is docketed as Oil Conservation Commission case #3591. Receipt of your letter under date May 17, 1967 and the copies of Forms C-101 and C-102 attached thereto are gratefully acknowledged.

FEI/ma

cc-A. L. Porter, Jr.  
P. H. Hennighausen

Yours truly,

S. E. Reynolds  
State Engineer

By:

Frank E. Irby  
Chief  
Water Rights Div.

CLARENCE E. HINKLE  
W. E. BONDURANT, JR.  
S. B. CHRISTY IV  
LEWIS C. COX, JR.  
PAUL W. EATON, JR.  
CONRAD E. COFFIELD  
HAROLD L. HENSLEY, JR.  
MICHAEL R. WALLER  
STUART D. SHANOR

LAW OFFICES  
HINKLE, BONDURANT & CHRISTY  
600 HINKLE BUILDING  
ROSWELL, NEW MEXICO 86201

May 22, 1967

MIDLAND, TEXAS OFFICE  
521 MIDLAND TOWER  
(915) MU 3-4691  
OF COUNSEL: MIRAM M. DOW

TELEPHONE (505) 622-6510  
POST OFFICE BOX 10

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

Re: NMOCC Case 3591  
Anadarko Production Company

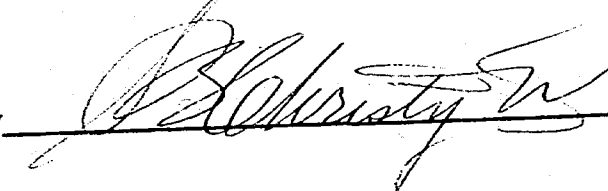
Gentlemen:

We enclose herewith Entry of Appearance of the undersigned in behalf of the applicant, Anadarko Production Company, in the above case.

Respectfully,

HINKLE, BONDURANT & CHRISTY

By



SBC:jy  
Encl.

cc: Anadarko Production Company (Mr. Guinan)

MAILED  
23 MAY 1967

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION )  
OF ANADARKO PRODUCTION COMPANY FOR )  
AUTHORITY TO EXPAND AND COMPLETE )  
WATERFLOOD DEVELOPMENT OF THE ) CASE NO. 3 5 9 1  
LANGLIE-MATTIX PENROSE SAND UNIT, )  
LOCATED IN TOWNSHIP 22 SOUTH, RANGE )  
37 EAST, N.M.P.M., LEA COUNTY, )  
NEW MEXICO )

ENTRY OF APPEARANCE

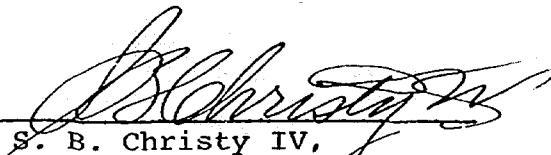
COMES NOW the undersigned attorneys, duly licensed  
to practice law in the State of New Mexico, and enter  
their appearance in this cause in behalf of the  
applicant, ANADARKO PRODUCTION COMPANY.

The undersigned attorneys have associated in this  
case with Mr. T. J. Guinan, an attorney licensed to  
practice law in the State of Kansas, and request that  
the Commission permit Mr. T. J. Guinan to present  
evidence in behalf of the applicant in the hearing in  
this cause.

Respectfully,

HINKLE, BONDAURANT & CHRISTY

BY:

  
S. B. Christy IV,  
A Member of the Firm

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
May 24, 1967

EXAMINER HEARING

IN THE MATTER OF:

Application of Anadarko Production  
Company for a waterflood expansion,  
Lea County, New Mexico

CASE NUMBER  
3591

BEFORE:

ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 3591.

MR. HATCH: Case 3591, Application of Anadarko Production Company for a waterflood expansion, Lea County, New Mexico.

MR. GUINAN: If the Commission please, my name is T. J. Guinan, G-u-i-n-a-n. I am a staff attorney with Anadarko Production Company, the applicant herein, and for the purposes of this Hearing, the New Mexico law firm of Hinkle, Bondurant and Christy of Roswell, New Mexico has been associated. I have one witness, Clarence Stumhoffer.

(Witness sworn.)

CLARENCE STUMHOFFER

called as a witness on behalf of the Applicant, first having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. GUINAN:

Q Would you please state your name?

A My name is Clarence W. Stumhoffer, S-t-u-m-h-o-f-f-e-r.

Q Would you please state your employer and your position, please?

A I am secondary recovery superintendent for Anadarko Production Company in Fort Worth, Texas.

Q Have you previously qualified to testify before this Commission in an expert capacity and have those qualifications

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been accepted?

A Yes, sir, I have.

MR. GUINAN: If there is no objection, I would like to move that Mr. Stumhoffer's qualifications be accepted.

MR. UTZ: He is qualified.

Q (By Mr. Guinan) Are you familiar with the application in this Case 3591?

A Yes, sir, I am.

Q Would you briefly summarize, very briefly, what this entails?

A In this application of Anadarko as operator of the Langlie-Mattix Penrose San Unit seeks approval to expand and complete waterflood development on this unit.

In this plan, we seek to complete development of this project in three stages, the first stage to be initiated upon approval by the Commission, the second and third stages to be initiated at Twelve-month intervals after this initial stage. The dates would be July 1st, 1968 and July 1st, 1969.

Q In other words, the initiation of the second stage would be on or about July 1, 1968 and the initiation of the third stage would be on or about July 1, 1969?

A That's right. That is assuming initiation of this first stage by July 1 of 1967.

Q Has this subject Langlie-Mattix Penrose Sand

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Waterflood Unit previously been authorized by this Commission?

A Yes, it has. The unit agreement was approved by Order Number R-2671 -- 2617, excuse me.

Q And the waterflood aspect?

A It was approved under Order Number 2633.

MR. GUINAN: If I may go off the record here for a minute.

(Whereupon, an off the record discussion was held.)

(Whereupon, Applicant's Exhibits A through F were marked for identification.)

Q (By Mr. Guinan) I would like to refer your attention to what has been marked as Exhibit A for identification purposes and ask you to just briefly identify that for the record, please.

A Exhibit A is a County map of Lea County, New Mexico, showing that portion of the Langlie-Mattix field in which the Langlie-Mattix Penrose Sand Unit is located.

Q Was this exhibit prepared under your direction?

A Yes, sir, it was.

Q Would you briefly discuss it, please?

A The yellow outlined, the area outlined in yellow is the Langlie-Mattix Penrose Sand Unit area. The injection wells shown in black are the existing injection wells and the injection wells in red will be the wells converted or drilled

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for injection purposes in the first stage.

Q Now, the yellow outline delineates the limits of your unit, is that correct?

A That's right.

Q And these proposed red injection wells outside that unit, would you briefly explain those?

A Those wells will be converted to injection as part of a co-operative line agreement between Skelly Oil Company, operator of the Penrose A and B Units to the south of the Langlie-Mattix Unit and those -- that's right, that is all of the red ones. The other Humble to the west of the unit has their well on injection.

Q And these two will be co-operative line agreement injection wells?

A That is right.

Q I would like to turn your attention, if I might, to the application, Paragraph Number 3, and ask you whether or not these are the wells which are proposed in the first stage to be converted to injection wells?

A Yes, they are. They will all be conversions except 24-4, which will be a new well drilled at an unorthodox location.

Q Now, Well Number 24-4, that is the one appearing approximately seven lines down in the tabulation, is that



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correct?

A That is correct.

Q Then all will be converted from producing wells to injection wells except 24-4, which will be necessary to drill--

A That's right.

Q -- as an injection well?

A That is correct.

Q I would like to refer you to Exhibit B, attached to the application, and ask you to identify that, if you will.

A This Exhibit B is a Commission C-116 gas-oil ratio test report.

Q Was this filled out or prepared under your direction?

A Yes, it was.

Q Would you briefly discuss it, please?

A Exhibit B presents all wells outside of the presently developed waterflood area that have responded to water injection. This was presented to obtain administrative approval to convert eight of the sixteen wells presented in this application.

Q Then if we would go back to the before mentioned paragraph 3, to the delineation of these wells to be converted, there are eight which qualify under this Commission's Rule 701 to be administratively approved as injection wells by reason of response experienced around, directly offsetting or

diagonally offsetting wells?

A That is correct.

Q Would you tell me, please, what is the approximate depth below the surface of this Penrose Sand common source of supply?

A Approximately 3550 feet from the surface.

Q Directing your attention to that marked Exhibit C, attached to the application, would you briefly identify that for the record, please?

A This is a schematic diagram of a typical well that will be converted to water injection.

Q Was this exhibit prepared under your direction?

A Yes, it was.

Q Would you discuss it, please?

A In this exhibit, we have shown a typical well to be converted to injection, showing the casing seat, the estimated top of the cement and the approximate packer seat which will be set in the lower portion of the casing and we have also shown a gamma ray neutron caliper log on this schematic to reflect the formation encountered in the well.

Q And that has, by that log, delineated the Penrose Sand down to a depth of, well, there is a shell break at approximately 3530 or thereabouts, is that correct?

A The entire, or the Penrose Sand section in this

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particular well, I don't have the exact measurements there, but it goes from 35, approximately 30 to "TD", that is approximately 110 feet gross interval.

Q Then you intend to set a packer and tubing within the casing and inject through tubing, is that correct?

A That is correct.

Q Then you will not be injecting down through the annulus between the casing and tubing?

A We will not. The tubing will be cement lined and set on a packer.

Q Directing your attention, if I might, to an exhibit, that designated as Exhibit D, attached to this application, would you identify that, please?

A Exhibit D is a summary of the well completion history of the wells to be converted to injection in stage one.

Q These are presently producing wells?

A These are presently producing wells.

Q Was this prepared under your direction?

A Yes, it was.

Q Would you just very briefly, I think it is almost self-explanatory, but would you just very briefly discuss it?

A In column one we have given the tract number and the well number. Column two, the date of initial completion. The next column consists of three columns, which gives a surface

dearnley-meier

casing depth and cementing history. The next three columns give the same history for the long string. The next column gives the estimated top of the cement, and the last column, the total depth of the well.

Q If I may, I would like to refer you to that marked Exhibit E -- let me go off the record, if I might.

(Whereupon, an off the record discussion was held.)

MR. GUINAN: Back on the record.

Q (By Mr. Guinan) I would like to direct your attention to that marked as Exhibit E for identification purposes, and ask you to identify that, please.

A These are Commission's Forms C-101 and C-102 in which we have filed application to drill Well Number 24-4 at an unorthodox location.

Q Were these two forms, constituting Exhibit E, prepared under your direction?

A Yes, they were.

Q Why do you ask this Commission to permit you to drill an injection well at an unorthodox location?

A In the original development of the field, the producing wells were not drilled on the standard 40-acre location and as a result, to properly sweep the reservoir, the most logical place would be to locate the injection well an equal distance from all producing wells offsetting it, and this

location happened to fall in the center of the southeast quarter of Section 28, Township 22 South, Range 37 East as indicated on Exhibit E.

Q In your opinion, state whether or not the permitting of this well at an unorthodox location will give you a more efficient sweep and thereby prevent waste?

A Yes, it will.

Q Tell me what medium you will use for injection purposes?

A We plan to use nonpotable water to be purchased from Skelly from their Jal water system.

Q How is that spelled?

A J-a-l.

Q And what are the projected, estimated injection rates per well per day, how many barrels of water?

A Approximately 500 barrels per day.

Q And what is your projected maximum well head pressure?

A Approximately 2,000 pounds, 2,000 P.S.I.

Q Have you received response anywhere within this unit from *Hoodlett* ~~shutting~~ the water?

A Yes, we have.

Q If you would please, for the purpose of the record, would you delineate those wells for which you seek administrative approval to convert to injection wells because

of substantial response felt on offsetting wells.

A These wells are reflected in Exhibit F -- we haven't covered Exhibit F.

Q Well, I could direct you to Paragraph Number 4 of the application.

A Okay. The wells that we are requesting administrative approval to convert to injection, or drill as water injection wells, are Number 13C5, 13C7, 18-2, 19-4, 22-1, 24-4, which is the well to be drilled, 33-1 and 35-3.

Q I would like to direct your attention to that marked Exhibit F for identification purposes, that attached to the application, and ask you to identify that, please.

A Exhibit F is a detailed map of the Langlie-Mattix Penrose Sand Unit.

Q Was this prepared under your direction?

A Yes, it was.

Q Would you explain it?

A In this Exhibit F, we present the three stages of waterflood development that we propose. The wells that are indicated in orange will be, will compose the first stage and will consist of a total of sixteen wells.

The stage indicated in blue, which will be initiated on or about July 1st, '68, will consist of twelve injection wells. The third stage which will be initiated on or about

July 1st, 1969, will consist of nine injection wells.

Q And that is shown in red?

A In red.

Q And the second stage in blue and the first in orange as you stated, I believe?

A Yes. And we have indicated the present injection wells in black.

Q As to your proposed future stages two and three, by what means do you plan to bring about water injection wells, by conversion of producing wells or by drilling or how?

A In stages two and three, we will convert present producing wells to injection except in the case of two wells which will be drilled.

Q If this unit is permitted to be expanded and to complete development, what number of injection wells as you now see it, will be necessary?

A At the present time, we have ten active injection wells and we propose to convert 37 additional wells or drill or convert 37 additional wells so we will have a total of 47 injection wells in the unit area when, at complete development.

Q What is the estimated life of this unit under secondary recovery?

A Approximately ten years.

Q You have before mentioned your directly offsetting

waterflood operators, both Humble Oil Refining and Skelly Oil Company. State whether or not they support or oppose you in this application.

A They have indicated support of this application, Skelly by letter and Humble by wire. I think the Commission has copy of the Skelly letter.

MR. HATCH: A letter from Skelly, yes.

Q (By Mr. Guinan) In your opinion, would the granting of this application promote conservation of oil and gas, protect correlative rights and prevent waste?

A Yes, I do.

MR. GUINAN: If there is no objection, I would like to move that Exhibits A through F be received in evidence and made a part of this record.

MR. UTZ: Without objection, Exhibits A through F will be entered into the record of this case.

MR. GUINAN: That's all I have.

#### CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Stumhoffer, am I clear in what you are asking for here? You are asking for an expansion of seven wells, I believe it was, wasn't it?

A No, sir. Eight.

Q Eight?



A Yes, sir.

Q Eight more injection wells?

A By administrative approval, is this what you are talking about?

Q Yes. I want to know whether you want us to approve eight injection wells now as a result of this Hearing or by administrative approval.

A I think this, in the way the Hearing Notice was published, I think there is some confusion in my mind, also. We had intended, there will be a total of sixteen wells that we seek approval for at this time.

Q Yes.

A Eight administratively and eight by Hearing. These sixteen wells consist of our proposed first stage of development.

Q You now have ten wells in this project as it is now?

A That's right.

Q Ten injection wells?

A Yes, sir.

Q You want to expand it by July of '67 by sixteen wells?

A Yes, I do.

Q Sixteen wells.

A Now, the eight wells to the west and south which are, I will give you the numbers of those wells, they are Langlic-

dearnley-meier

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Mattix Penrose Sand Unit Wells Numbers 9-1, --

Q Just a minute. Do you have them listed somewhere?

A Yes, I do. The fourth paragraph.

MR. GUINAN: Paragraph 4 of the application, second series of well numbers.

MR. UTZ: Let's see, you have got listed how many wells under three here?

MR. GUINAN: We have sixteen.

THE WITNESS: Sixteen.

MR. GUINAN: And we seek eight by administrative approval and eight by reason of this Hearing.

MR. UTZ: Why eight by administrative approval?

MR. GUINAN: Because of Rule 701, Subparagraph E.

MR. UTZ: The response?

MR. GUINAN: Yes, sir.

THE WITNESS: Yes. I believe Exhibit B.

MR. UTZ: I guess we could do that. We could do it just as well as a result of this Hearing.

MR. GUINAN: Yes, it wouldn't make any difference.

THE WITNESS: That would be fine.

MR. HATCH: Our ad here is for eight additional injection wells, you see, and an administrative procedure requires an application to the Commission, doesn't it, and wait notification to the offsets, a fifteen-day waiting period,

doesn't it, on Rule 701?

THE WITNESS: Yes, all of the offsets were sent notices of this Hearing.

MR. HATCH: Well, they were sent notices of the Hearing.

THE WITNESS: Yes.

MR. HATCH: But were they sent notices of your application for these particular wells for administrative approval?

MR. GUINAN: This application incorporates all of the wells and they were mailed, there is a certificate of mailing on this application. They were mailed to offsetters, but in this application we ask for both, for both in this first stage, either sixteen by this Hearing or eight by this Hearing with an additional eight administratively.

MR. UTZ: But you sent a copy of this application to all of your offsets of the additional eight wells?

THE WITNESS: Yes.

MR. UTZ: When did you do this?

MR. GUINAN: The certificate was mailed out May 3. It was mailed out at the time the application was mailed to the Commission and that was the complete application along with all the exhibits.

THE WITNESS: I think where the confusion is, we

incorporated all of these sixteen wells into one application and requested that eight be approved administratively.

MR. UTZ: I think that is probably it, all right.

THE WITNESS: And the other eight by Hearing.

MR. UTZ: If you would have asked for administrative approval for eight wells and asked for Hearing for another eight we would probably set it up, wouldn't we, for the eight wells? Does this constitute notice of the offsets?

MR. HATCH: I think we could probably say that this was notice as far as administratively on these eight. I would like to reserve judgment on that, though, for a period.

MR. UTZ: They would have to have some proof of response, though, wouldn't they?

THE WITNESS: We have got it in Exhibit D -- Exhibit B, rather. That is Form C116.

MR. GUINAN: Yes, this Form C116 is what is called for to be sent to the Commission on the response for administrative approval. It was incorporated in this application which was sent to the other parties.

MR. UTZ: Well, I assume that would do it. Now, the next step is to figure out which of these you want by administrative approval and which you want by the Hearing.

MR. GUINAN: All right. That is set out in Paragraph 4 of the application. They separate the sixteen into two

dearnley-meier

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groups of eight.

MR. UTZ: All right. Now, this would constitute your sixteen wells for your first stage.

MR. GUINAN: Yes, sir.

MR. UTZ: Now, how about your second and third stage?

MR. GUINAN: The second stage, we propose to initiate on or about July 1, 1968 and the wells that that would encompass in the area are shown on Exhibit F, differentiated by color, the three stages.

MR. UTZ: But you don't know which wells those are at the present time?

THE WITNESS: We have proposed these wells, these wells that are indicated on Exhibit F will be the wells we plan at the present time to utilize as injection wells. We did not present this, the exact wells, in the application because of certain areas that we will probably have some changes in and all we are asking in this application is that the Commission consider approval of the staging of this development and seeking, where we will seek administrative approval as to the exact wells at the time of the stage.

MR. UTZ: Off the record.

(Whereupon, an off the record discussion was held.)

MR. UTZ: Back on the record.

MR. GUINAN: May I ask him just one question?

MR. UTZ: Yes.

REDIRECT EXAMINATION

BY MR. GUINAN:

Q As to your proposed expansion into stages two and three as shown on Exhibit F, do you seek administrative approval as to the conversion of wells, to injection wells and the continued operation of this unit to completion?

A Yes, we do.

MR. GUINAN: That's all I have.

RECROSS EXAMINATION

BY MR. UTZ:

Q Now, is this whole area unitized?

A Yes, it is.

Q I didn't realize that this cross-hatched outline here is the unit area.

A Yes, it is. The unit was approved by Order Number 2617, the date of the Hearing was December the, during December of 1963. I don't remember just the exact date.

MR. GUINAN: December 4, I believe.

MR. UTZ: Are there any other questions of the witness? He may be excused.

(Witness excused.)

MR. UTZ: Statements in this case?

MR. HATCH: I have a letter from Skelly Oil Company

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dated May the 10th, 1967, addressed to the Oil Commission.

"On May the 24th, 1967, the Oil Conservation Commission will hear the application of Anadarko Production Company for authority to expand and complete the waterflood development of the Langlie-Mattix Penrose Sand Unit located in Township 22 South, Range 37 East, Lea County, New Mexico. This is to advise that Skelly Oil Company not only as an interested party in the unit but also an interested operator of the offset acreage, supports the application of Anadarko and urges the Commission to grant the relief requested." Signed George Seelinger.

MR. UTZ: Any other statements? Exhibits A through F will be accepted into the record of this case.

MR. GUINAN: This is a copy of a wire from Humble, the other offsetter.

MR. UTZ: The case will be taken under advisement and the Hearing is adjourned.

(Whereupon, the Hearing was concluded.)

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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PAGE 21

STATE OF NEW MEXICO )  
COUNTY OF BERNALILLO ) ss

I, JERRY POTTS, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached transcript of hearing was reported by me in stenotype and that the same was reduced to typewritten transcript under my personal supervision and contains a true and correct record of said proceedings, to the best of my knowledge, skill and ability.

*Jerry Potts*  
NOTARY PUBLIC

My Commission Expires:

July 10, 1970

I do hereby certify that the foregoing is  
a true and correct copy of the proceedings as  
the same were reported by me on July 10, 1970.  
Notary Public  
*Jerry Potts*  
For the State of New Mexico



*Tefax*

# WESTERN UNION

*Tefax*

541P CDT MAY 16 67 NS0226  
NS-HEATET PD REDLAND TEX 16 550P CDT  
ANNEXED PRODUCTION CO

ATTN C W STUBBINS BOX 9517 FTU  
YOUR PLANS FOR EXPANSION OF THE LANGLEY MADDOX PEMROSE  
SAND UNIT WATER FLOOD AS OUTLINED IN YOUR MAY 3, 1967 APPLICATION  
TO THE NEW MEXICO OIL CONSERVATION COMMISSION ARE APPROVED  
SUBJECT TO FINAL REVIEW IN CONNECTION WITH APPROVAL OF FUTURE  
AFE AND YOU ARE AUTHORIZED TO SO INDICATE AT THE FORTHCOMING  
HEARING BEFORE THE NMCC  
J H SHEPHERD HUBBLE OIL

351

3 1967 AFE NMCC(40).

00-0045

67 MAY 4 PM 3 50

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION )  
OF ANADARKO PRODUCTION COMPANY )  
FOR AUTHORITY TO EXPAND AND )  
COMPLETE WATERFLOOD DEVELOPMENT )  
OF THE LANGLEIE-MATTIX PENROSE )  
SAND UNIT, LOCATED IN TOWNSHIP 22 )  
SOUTH, RANGE 37 EAST, N.M.P.M., )  
LEA COUNTY, NEW MEXICO )

CASE NO. 3591

A P P L I C A T I O N

COMES NOW the Applicant and alleges that:

1. It is the Operator of the Langlie-Mattix Penrose Sand Unit located within Township 22 South, Range 37 East, N.M.P.M., Lea County, New Mexico, and as such Operator makes this application for authority to expand and complete development of waterflood operations within said Unit.

2. It seeks approval to complete waterflood development in said Unit in three stages, the first stage to be accomplished upon this Commission entering an order approving this application, the second and third stages to be accomplished at 12-month intervals on or about July 1, 1968 and July 1, 1969 respectively.

3. Wells to be converted to and drilled and completed as water injection wells in the Penrose Sand common source of supply in said Langlie-Mattix Penrose Sand Unit in Township 22 South, Range 37 East, N.M.P.M., Lea County, New Mexico in said first stage are as follows:

<u>Well Number</u>	<u>Location</u>	<u>Section</u>	<u>Unit Letter Designation</u>
9-1	SE SE	20	P
13C-5	SE NW	27	F
13C-7	NW NE	27	B
18-2	NW SW	26	L
19-4	SE NE	27	H
22-1	NW SW	27	L
<del>24-4</del>	NW SE	28	J
28-1	SE SW	28	N
28-4	NW SW	28	L
29-2	SE NE	29	H
31-1	SE NE	32	H
32-2	NW NW	33	D
33-1	SE NW	33	F
35-3	NW NE	33	B
38-1	NW NW	28	D
39-1	SE SE	29	P

*all in same location*

With the exception of Well No. 24-4, it is proposed that all of the above listed wells will be converted from producing wells to water injection wells in said Penrose Sand at an approximate depth of 3,550 feet below surface. It is proposed that Well No. 24-4 be permitted to be drilled and completed as a water injection well in said Penrose Sand at an unorthodox location 1,330 feet from the east line and 1,330 feet from the south line (Unit J) of the above described Section 28. The water to be injected into the Penrose Sand is non-potable received from Skelly Oil Company's Jal Water System to be injected at the approximate rate of 500 barrels per well per day.

4. It is requested that of the above listed wells, Well Nos. 13C-5, 13C-7, 18-2, 19-4, 22-1, 24-4, 33-1 and 35-3 be granted administrative approval for conversion to water injection wells pursuant to this Commission's Rule 701-E-5, because the direct or diagonally offsetting wells have experienced response to water injection. It is proposed that Well Nos. 9-1, 28-1, 28-4, 29-2, 31-1, 32-2, 38-1 and 39-1 be permitted to be converted to water injection wells to meet obligations to Humble Oil & Refining Company and Skelly Oil Company, the operators of adjoining waterflood units.

5. The proposed plan of development of the balance of said Langlie-Mattix Penrose Sand Unit in two stages (the second on or about July 1, 1968 and the third on or about July 1, 1969), is outlined on Exhibit "F" attached hereto and made a part hereof, and it is requested that this procedure be approved as to staging and that wells to be utilized for water injection purposes be administratively approved as each stage is developed.

6. This Commission, by its Order No. R-2617 originally authorized the creation of the Langlie-Mattix Penrose Sand Unit as a waterflood project, and the expansion and completion of waterflood development within said Unit is necessary to allow Applicant to prevent waste and promote the conservation of oil and gas.

7. Attached hereto and made a part hereof are the following Exhibits:

- (a) Exhibit "A", a plat showing the location of the proposed first stage injection wells and all other wells within a two-mile radius.
- (b) Exhibit "B", this Commission's Form C-116 (Gas-Oil Ratio Tests) executed by Applicant.
- (c) Exhibit "C", a diagrammatic sketch showing casing and tubing data for the proposed injection wells.
- (d) Exhibit "D", Casing and Cementing Record of wells to be converted to injection.
- (f) Exhibit "F", a map of the Unit Area showing injection wells in each proposed stage of development.

WHEREFORE, Applicant prays:

- 1. That this matter be set down for hearing before the Examiner;

2. That notice thereof be given as required by law;

3. That upon such hearing, this Commission enter an order authorizing the expansion and completion of said Langlie-Mattix Penrose Sand Unit and permit the requisite conversion of wells to injection wells and the drilling of the aforesaid well as a water injection well, and the injection of water into said Unit as herein set out.

ANADARKO PRODUCTION COMPANY

By

T. J. Guinan  
T. J. Guinan, Attorney

P. O. Box 9317

Fort Worth, Texas 76107

CERTIFICATE OF MAILING

STATE OF TEXAS       )  
                              ) SS  
COUNTY OF TARRANT )

T. J. Guinan, being first duly sworn, on oath deposes and states:

That he is attorney for Applicant herein and that, according to his best information and belief, the parties of interest and the addresses of such parties are as follows:

The State of New Mexico  
State Engineer Office  
State Capitol  
Santa Fe, New Mexico 87501

Skelly Oil Company  
P. O. Box 1650  
Tulsa, Oklahoma 73101

Humble Oil and Refining Company Box 3128  
Box 1600  
Midland, Texas 79701

Mobil Oil Company  
Houston, Texas 77001

That on May 3, 1967, a true and complete copy of the foregoing application, together with all exhibits, was mailed to such persons or firms at the addresses shown above, with postage thereon fully paid.

T. J. Guinan  
T. J. Guinan

Subscribed and sworn to before me this 3rd day of May, 1967.

Virginia L. King  
Notary Public

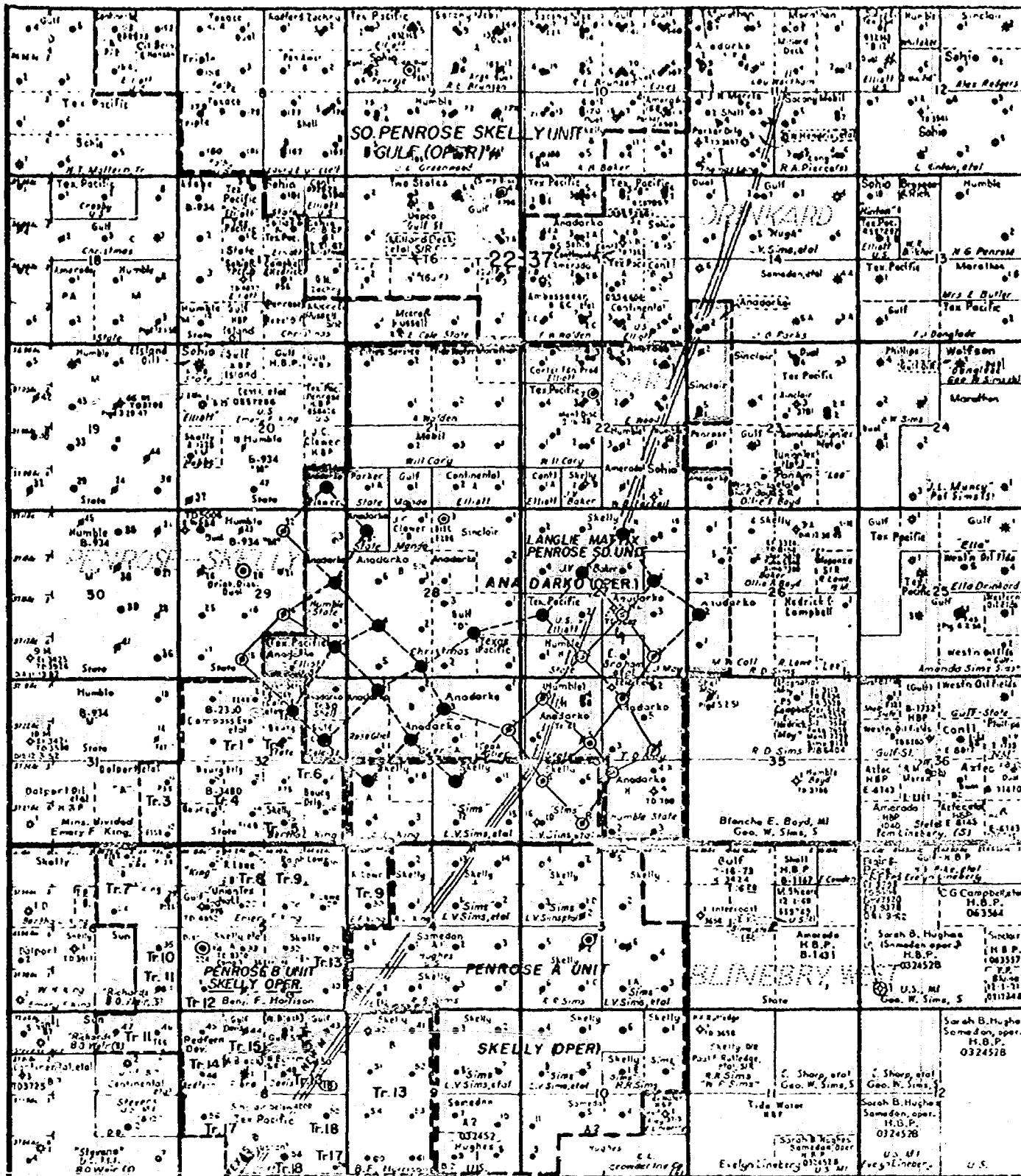
My Commission Expires:

6-1-67

R 37 E

T  
22  
S

T  
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# EXHIBIT "A"

PROPOSED EXPANSION

Langlie-Mattix Penrose Sand Unit

Lea County, New Mexico

Showing

Unit and Surrounding Area

- Present Injection Wells
- Stage I - Injection Wells 7-1-67

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
EXHIBIT NO. A  
CASE NO. 3541

**NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS**

C-116  
Revised 1-1-65

Operator <b>Anadarko Production Company</b>		Pool <b>Langlie-Mattix</b>				County <b>Lea</b>										
Address <b>P. O. Box 9317, Fort Worth, Texas 76107</b>						TYPE OF TEST - (X)		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>				
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL.
		U	S	T	R							WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.	
<b>Langlie-Mattix Penrose Sand Unit</b>																
Tract 13E	6	G	27	22S	37E	2-26-65	P	-	-	3	24	0	36.7	2.57	4.3	1670
Tract 13E	6	G	27	22S	37E	6-27-67	P	-	-	3	24	0	36.9	8.51	TSTM	
Tract 18	1	M	26	22S	37E	2-8-62	P	-	-	4	24	0	37.4	3.4	7.1	2090
Tract 18	1	M	26	22S	37E	2-4-67	P	-	-	11	24	0	38.1	10.74	TSTM	
Tract 21	1	M	27	22S	37E	1-13-65	P	-	-	5	24	1.2	38.5	4.87	5.4	1100
Tract 21	1	M	27	22S	37E	3-21-67	P	-	-	5		6.0	38.7	35.41	TSTM	
Tract 23	1	P	28	22S	37E	3-4-65	P	-	-	4	24	0	38.1	2.57	12.8	5000
Tract 23	1	P	28	22S	37E	2-24-67	P	-	-	4	24	0	38.8	7.05	TSTM	
Tract 22	2	K	27	22S	37E	1-15-66	P	-	-	1	24	0	37.1	1.64	TSTM	-
Tract 22	2	K	27	22S	37E	3-1-67	P	-	-	0	24	0	37.4	5.21	TSTM	
Tract 34	1	G	33	22S	37E	2-2-65	P	-	-	1	24	0	36.7	.44	4.2	8650
Tract 34	1	G	33	22S	37E	7-15-66	P	-	-	1	24	0	36.7	1.75	TSTM	
Tract 35	1	B	33	22S	37E	1-6-65	P	-	-	2	24	0	36.4	1.78	TSTM	-
Tract 35	1	B	33	22S	37E	3-24-67	P	-	-	2	24	55.0	36.5	37.14	TSTM	

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

**EXHIBIT "B"**

**Langlie-Mattix Penrose Sand Unit**

**Lea County, New Mexico**

**Production History Wells Responding to Water Injection**

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

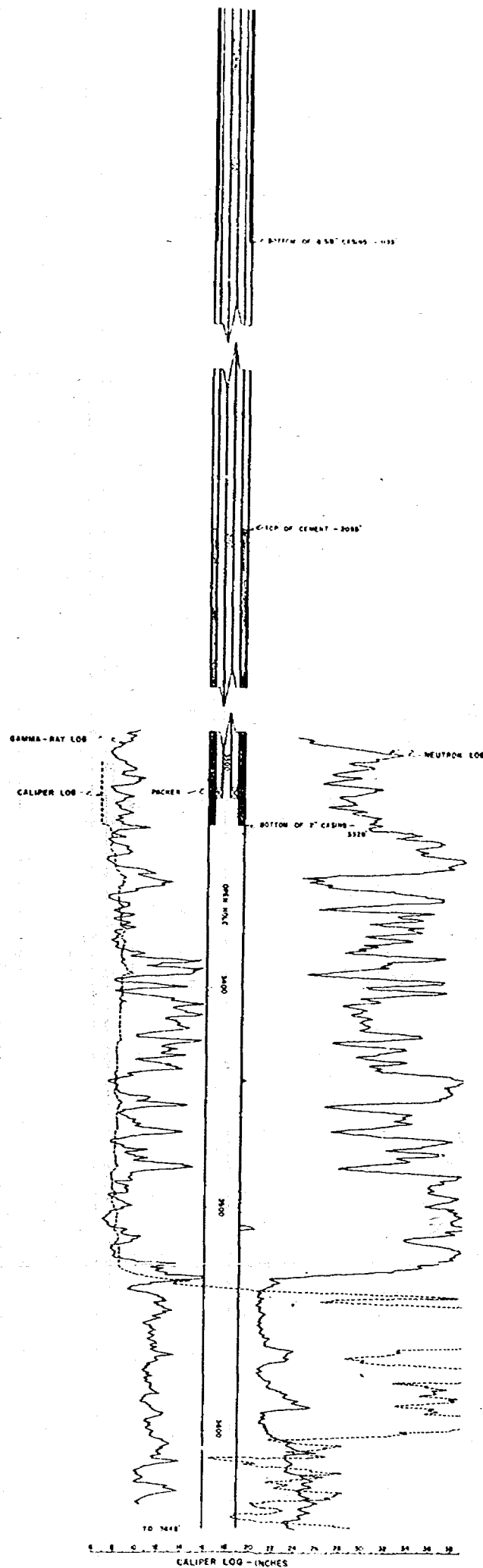
**C. W. Stunhoffer**

*C. W. Stunhoffer*  
(Signature)

**Superintendent Secondary Recovery**  
(Title)

**May 3, 1967**  
(Date)

(Date)



BEFORE EXAMINER UTZ  
 OIL CONSERVATION COMMISSION  
 EXHIBIT NO. 3591  
 CASE NO. 3591

ANADARKO  
 PRODUCTION COMPANY  
 EXHIBIT "C"  
 TYPICAL  
 OPEN HOLE COMPLETION  
 WATER INJECTION WELL  
 LANGLEY MATTIX PENROSE SAND UNIT  
 LEA COUNTY, NEW MEXICO

ANADARKO PRODUCTION COMPANY  
 LANGLEY-MATTIX PENROSE SAND UNIT  
 LEA COUNTY, NEW MEXICO  
 CASING AND CEMENTING RECORD  
 OF WELLS TO BE CONVERTED TO INJECTION

TRACT NO. & WELL NO.	DATE OF COMPLETION	SURFACE CASING			LONG STRING CASING			TOP OF CEMENT	TOTAL DEPTH
		SIZE	DEPTH	SX. CMT.	SIZE	DEPTH	SX. CMT.		
9-1	12-13-59	8 5/8"	315	Circ.	5 1/2	3715	200 sx.	2150	3746
13C-5	8-31-37	9 5/8	1123	250	7	3399	200	2070	3620
13C-7	3-29-39	16	114	65	7	3433	200	2005	3655
18-2	5-27-39	8 5/8	1135	100	7	3349	175	2095	3646
19-4	10-5-38	10	95	75	7	3360	150	2050	3635
		8 5/8	1140	150					
22-1	10-12-37	8 5/8	1167	500	7	3378	150	2080	3665
28-1	5-23-39	15 1/2	135	100	7	3412	150	2105	3690
28-4	11-23-39	15 1/2	114	100	7	3419	150	2095	3618
29-2	7-27-40	16	119	100	7	3424	150	2150	3682
31-1	11-25-56	9 5/8	251	200	6	3400	350	2025	3700
32-2	7-12-41	15	121	125	7	3402	150	2005	3681
33-1	2-12-39	15 1/2	132	100	7	3395	150	2085	3691
35-3	5-25-40	15 1/2	128	50	7	3395	200	2015	3680
38-1	7-25-57	8 5/8	1160	600	4 1/2	3725	300	2075	3725
39-1	8-30-40	10 3/4	292	125	7	3412	550	1090	3616

EXHIBIT "D"

BEFORE EXAMINER UTZ  
 OIL CONSERVATION COMMISSION  
 EXHIBIT NO. 2  
 CASE NO. 357



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U.S.G.S.	
LAND OFFICE	
OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form OC-101  
Revised 12-65

1A. Indicate type of Lease  
STATE ☐ FCC ☒

1B. State Oil & Gas Lease No.

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUS BACK

1a. Type of work		Langlie-Mattix Penrose Sand Unit	
b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUS BACK <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Injection <input checked="" type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		3. Name of Lease Name Tract 24	
2. Name of Operator Anadarko Production Company		9. Well No. 4	
3. Address of Operator P.O. Box 9317 Fort Worth, Texas 76107		10. Field and Pool, or Wildcat Langlie-Mattix	
4. Location of Well UNIT LETTER J LOCATED 1330 FEET FROM THE E LINE AND 1330 FEET FROM THE S LINE OF SEC. 23 TWP. 22S RGE. 37E S4PM		12. County Lea	
11. Proposed Depth 3700		19A. Formation Penrose Sand	
20. Rotary or C.T. Rotary		21. Elevations (Show whether DT, RT, etc.) 3346.40 GL	
21A. Kind & Status Plus. Blanket Bond on File		21B. Drilling Contractor Bids being taken	
22. Approx. Date Work will start upon approval by OCC			

## PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
9 7/8"	7 5/8"	36#	325	250	Circ.
6 3/4"	4 1/2"	9.5	3700	250	2,000

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
Langlie-Mattix EXHIBIT NO. E  
CASE NO. 35 91

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUS 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 C.W. Stumhoffer Title Superintendent Secondary Rec. Div. Date May 3, 1967  
(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

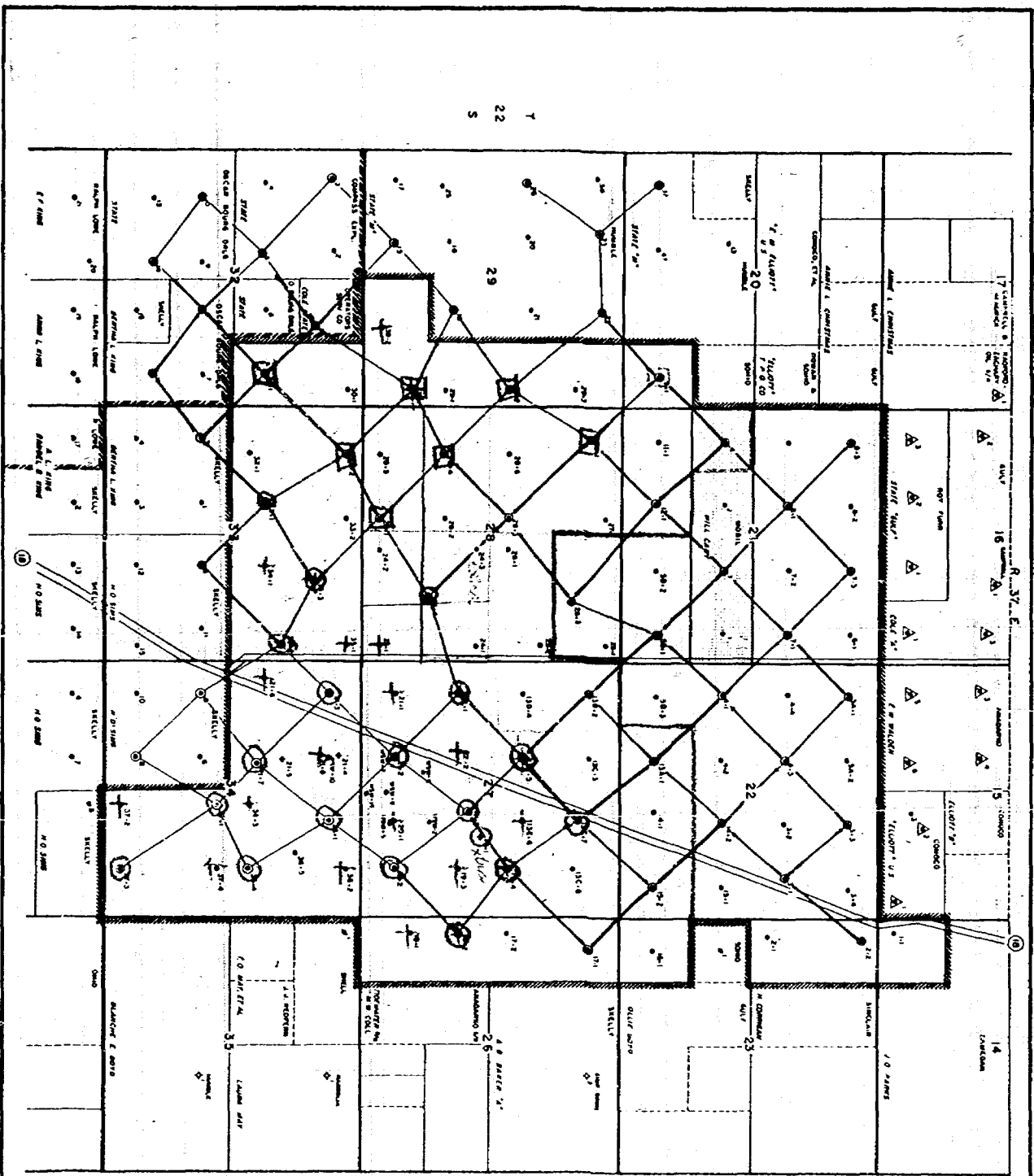
EXHIBIT "E"  
Proposed Expansion  
LANGLIE-MATTIX PENROSE SAND UNIT  
Lea County, New Mexico  
Application to drill injection well at unorthodox location

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-101  
Supersedes O-128  
Effective 10-1-65

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

ANADARKO PRODUCTION CO.			TR. No. 24 LANGLIE-MATTIX PERMOSE SAND UNIT		Block No. 4
Tract Letter <b>J</b>	Section <b>28</b>	Township <b>22 SOUTH</b>	Range <b>37 EAST</b>	County <b>LEA</b>	
Actual Footage Location of Well:					
1330 feet from the <b>SOUTH</b> line and		1330 feet from the <b>EAST</b> line			
Ground Level Elev. <b>3346.40</b>	Producing Formation <b>QUEEN</b>	Test <b>LANGLIE-MATTIX</b>	Estimated Acres per Acre <b>Unorthodox</b>		
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.</p> <p>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).</p> <p>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?</p> <p><input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No   If answer is "yes," type of consolidation <u>Unitization</u></p> <p>If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.</p>					
				<p align="center"><b>CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p>	
				<p>Name <u>C.W. Stumhoffer</u> <b>C.W. Stumhoffer</b></p>	
				<p>Position <b>Superintendent Sec. Rec. Div.</b></p>	
				<p>Company <b>Anadarko Production Company</b></p>	
				<p>Date <b>May 3, 1967</b></p>	
				<p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p>	
				<p align="center"><b>MAY 3, 1967</b></p>	
				<p>Date Surveyed _____</p>	
<p>Registered Professional Engineer and/or Land Surveyor</p> <p align="right"><u>John W. Whit</u> 676</p>					



BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
App. EXHIBIT NO. F  
CASE NO. 3591

- LEGEND
- 1. PROPOSED EXPANSION
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  - 100. PROPOSED EXPANSION

ANADARKO  
PRODUCTION COMPANY  
LANGLEY MATIX PENROSE  
SAND UNIT  
LEA COUNTY, NEW MEXICO  
FLOOD NO. 36

EXHIBIT F  
PROPOSED EXPANSION  
Langley-Matrix Penrose Sand Unit  
LEA COUNTY, NEW MEXICO  
Showing  
Proposed Complete Waterflood Development