

CASE 2740: Application of SOCONY
MOBIL for special pool rules for
the VACUUM-WOLFCAMP POOL.

~~He -
Please give
Captain a
copy of this
order -~~
W. R.

1952/10.

2740

petition, Transcript,

all Exhibits, Etc.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

P. O. BOX 871
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

March 13, 1964

Mr. James Sperling
Modrall, Seymour, Sperling, Roehl
and Harris
Attorneys at Law
Suite 1200 - Simms Building
Albuquerque, New Mexico

Re:

Case No. 2739
2740
2741
Order No. R-2421-A, R-2422-A, &
Applicant: R-2423-A
SOCONY MOBIL OIL COMPANY

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

lr/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Astec OCC

OTHER Mr. Charlie White, Mr. Jason Kellahin, Mr. Carl Jones

Mr. Ron Jacobs.

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 23, 1963

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, as alternate examiner:

CASE 2729: (Continued)

Application of Scanlon-Shepard for a waterflood project, Chaco Wash Oil Pool, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to inject water into the Mesaverde formation through certain wells in Sections 21, 22, 27 and 28, Township 20 North, Range 9 West, McKinley County, New Mexico.

CASE 2731: Application of Texaco, Inc., for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State of New Mexico "O" NCT-1 Well No. 12, located in Unit J of Section 36, Township 17 South, Range 34 East, as a dual completion (tubingless) to produce oil from the Glorieta and Blinberry formations, Lea County, New Mexico.

CASE 2732: Application of Sinclair Oil & Gas Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Mahaffey-Federal (ARC) Well No. 1 located in Unit C of Section 14, Township 20 South, Range 33 East, Lea County, New Mexico, to produce Bone Springs oil and Pennsylvanian gas through parallel strings of tubing.

CASE 2733: Application of Charles B. Read for a non-standard oil proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 48.99-acre non-standard oil proration unit in an undesignated Delaware pool consisting of Lots 4 and 5 of Section 31, Township 26 South, Range 32 East, Lea County, New Mexico.

CASE 2734: Application of Aztec Oil & Gas Company for approval of a unit agreement, Lea and Eddy Counties, New Mexico. Applicant, in the above-styled cause, seeks approval of the Aztec-Robinson Waterflood Unit, comprising approximately 682 acres of State and Federal Lands in the E/2 SE/4 and SW/4 SE/4 of Section 36, Township 16 South, Range 31 East, the SW/4 SE/4 of Section 30, the W/2, W/2 E/2 and SE/4 SE/4 of Section 31, Township 16 South, Range 32 East Lea and Eddy Counties, New Mexico.

CASE 2735: Application of Amerada Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to complete its State BT "G" Well No. 2 located in Unit P, Section 27, Township 12 South, Range 33 East, Hightower Field, Lea County, New Mexico, in such a manner as to dispose of produced salt water into the Pennsylvanian formation.

- CASE 2736: Application of Gulf Oil Corporation for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a 120-acre non-standard gas proration unit in the Blinebry Gas Pool, comprising the N/2 SW/4 and SE/4 NW/4 of Section 31, Township 22 South, Range 38 East, Lea County, New Mexico, said unit to be dedicated to the Scarborough Estate Well No. 4 located in Unit F of Section 31.
- CASE 2737: Application of Gulf Oil Corporation for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules for the White City-Pennsylvanian Gas Pool, Eddy County, New Mexico, including provisions for 640-acre spacing therein.
- CASE 2738: Application of BCO, Inc. for a no-flare exception, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the no-flare provisions of Order No. R-2267 for its Campos Well No. 1-10 located in Unit J of Section 10, Township 23 North, Range 7 West, Lybrook-Gallup Pool, Rio Arriba County, New Mexico.
- CASE 2739: Application of Socony Mobil Oil Company, Inc., to create a new pool for Abo production, and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for Abo production in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, and the establishment of temporary special pool rules therefor, including a provision for 80-acre spacing units.
- CASE 2740: Application of Socony Mobil Oil Company, Inc., for temporary special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Vacuum-Wolfcamp Pool in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing units.
- CASE 2741: Application of Socony Mobil Oil Company, Inc., for temporary special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Vacuum-Devonian Pool in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing units.
- CASE 2742: Application of Pan American Petroleum Corporation for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Fowler-Blinebry Oil Pool, Lea County, New Mexico, including a provision for 80-acre proration units.
- CASE 2743: Application of Pan American Petroleum Corporation for the creation of a Tubb Gas Pool, for approval of a non-standard gas unit, and for special temporary pool rules. Applicant, in the above-styled cause, seeks the creation of a new Tubb gas pool, and the establishment of temporary special pool rules therefor, Lea County, New Mexico, including a provision for 320-acre spacing units. Applicant further seeks establishment of a non-standard unit in said pool, comprising the NE/4, E/2 NW/4, and the N/2 SE/4 of Section 22, Township 24 South, Range 37 East.

CASE 2744: Application of Pan American Petroleum Corporation for special pool rules and approval of a non-standard gas unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of temporary special pool rules for the Fowler-Paddock Gas Pool, Lea County, New Mexico, including a provision for 320-acre spacing units. Applicant further seeks establishment of a non-standard unit in said pool, comprising the NE/4, E/2 NW/4, and the N/2 SE/4 of Section 22, Township 24 South, Range 37 East.

Case. 2740.

Heard 1-23-63

Rec. 1-30-63.

1. Grant 80 ac. Temporary spacing.
for Vacuum Wolfcamp - Oil pool. as
recommended for case. 2739.

Thos A. D. F.

Circle 2001 to inclusion.

175 - 24 E.

Sec. 26 - S 1/4

1

LAW OFFICES OF
MODRALL, SEYMOUR, SPERLING, ROEHL & HARRIS

J. R. MODRALL
AUGUSTUS T. SEYMOUR
JAMES E. SPERLING
JOSEPH E. ROEHL
GEORGE T. HARRIS
DANIEL A. SISK

LELAND S. SEDBERRY
ALLEN C. DEWEY
FRANK H. ALLEN
JAMES A. BORLAND
JAMES P. SAUNDERS

SIMMS BUILDING
P. O. BOX 466
ALBUQUERQUE, NEW MEXICO
TELEPHONE CHAPEL 3-4511

JOHN F. SIMMS (1655-1054)

December 26, 1962

Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Re: Application of Socony-Mobil Oil
Company, Inc. for adoption of
temporary special pool rules
within undesignated pools,
Lea County, New Mexico

Gentlemen:

Enclosed is the original and two copies of Socony-Mobil Oil Company's application as set forth above. Would you please advise us of the case number assigned this application and the earliest hearing date we can expect.

Thank you very much.

Very truly yours,

MODRALL SEYMOUR SPERLING ROEHL & HARRIS

BY James E. Sperling
JAMES E. SPERLING

ch
encls

DOCKET MAILED

Write Mr. Sterling and advise that
this application would be set for Jan. 23rd for hearing
Date 1-11-63
OK

EXHIBIT NO. RESERVOIR DATA SHEET
VACUUM HOLECAMP OIL POOL
LEA COUNTY, NEW MEXICO

Average Porosity, Per Cent	5.5 (Core Analysis)
Average Permeability, Md.	3.2 (Core Analysis)
Permeability Range, Md.	0.1 to 13 (Core Analysis)
Connate Water Saturation, Per Cent	25 (Estimated)
Average Net Pay, Feet	28
Oil Gravity, °API	40.5
Solution GOR, Cubic Feet per Barrel	1050 (Estimated)
Saturation Pressure, PSI	2700 (Estimated)
Formation Volume Factor, STB/Res. B	1.52 (Estimated)
Initial Reservoir Pressure, PSI	3846
Reservoir Temperature, °F	130
Productivity Index (One Well)	0.342
Cumulative Oil Production, Bbls. 1-1-64	245,430
Current Oil Production, Bbls. 12-63	53,413
Number of Completion, 2-1-64	18
Well Density, Acres per Well	80
Developed Area, Acres	1440
Producing Mechanism	Solution Gas

WELL NO. _____ DATA SHEET
VACUUM NORTH ALCO
DEA COUNTY, NE

Average Porosity, Per Cent	5.8	(Core Analysis)
Average Permeability, Md.	8.3	(Core Analysis)
Permeability Range, Md.	0.1-104.0	(Core Analysis)
Connate Water Saturation, Per Cent	35	(Estimated)
Average Net Pay, Feet	30	
Oil Gravity, °API	39.2	
Solution GOR, Cubic Feet per Barrel	700	(Estimated)
Saturation Pressure, PSI	2100	(Estimated)
Formation Volume Factor, MB/Res. B	1.33	(Estimated)
Initial Reservoir Pressure, PSI	3382	
Reservoir Temperature, °F	140	
Productivity Index (One Well)	0.479	
Cumulative Oil Production, Bbls, 1-1-64	145,155	
Current Oil Production, Bbls, 12-63	26,344	
Number of Completions, 2-1-64	11	
Well Density, Acres per Well	80	
Developed Area, Acres	880	
Producing Mechanism		Solution Gas

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EXHIBIT NO. 1 RESERVOIR DATA SHEET
VACANT LAND OIL FIELD
LEA COUNTY, NEW MEXICO

Average Porosity, Per Cent	3	(Log and Core Analysis)
Average Permeability, Md.	10	{Core Analysis}
Permeability Range, Md.	0.1 to 26.0	{Core Analysis}
Connate Water Saturation, Per Cent	25	(Estimated)
Average Gross Pay Above Water, Feet	55	
Oil Gravity, °API	50	
Solution GOR, Cubic Feet per Barrel	1975	{Estimated}
Saturation Pressure, PSI	3000	{Estimated}
Formation Volume Factor, STB/Res. B	2.3	{Estimated}
Initial Reservoir Pressure, PSI	4821	
Reservoir Temperature, °F	144	
Productivity Index (Two Wells)	0.587	
Cumulative Oil Production, Bbls. 1-1-64	152,448	
Current Oil Production, Bbls. 12-63	19,011	
Cumulative Water Production, Bbls. 1-1-64	51,507	
Current Water Production, Bbls. 12-63	11,724	
Number of Completions, 2-1-64	4	
Well Density, Acres per Well	80	
Developed Area, Acres	320	
Producing Mechanism		Water Drive

8

DOCKET NO. 6-64

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 19, 1964

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 2991: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Dwight L. Smith and all other interested parties to appear and show cause why the Walker Well No. 1, located 2290 feet from the South line and 500 feet from the East line of Section 21, Township 15 South, Range 11 East, Otero County, New Mexico, should not be plugged in accordance with a Commission-approved plugging program.
- CASE 2992: Application of Consolidated Oil & Gas, Inc., for an unorthodox location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the unorthodox location of their Hoyt Well No. 3-5, located 1850 feet from the North line and 110 feet from the West line of Section 5, Township 26 North, Range 4 West, Blanco Mesa Verde Pool, Rio Arriba County, New Mexico.
- CASE 2993: Application of Sinclair Oil & Gas Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Southwest Jal Unit Area comprising 6401 acres, more or less, of State, Federal and fee lands in Townships 25 and 26 South, Range 36 East, Lea County, New Mexico.
- CASE 2994: Application of Skelly Oil Company for a pressure maintenance project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in the Gallup formation underlying its Navajo "P" and "M" leases in Sections 25, 26, 33, 34, 35, and 36, Township 32 North, Range 17 West, Many Rocks-Gallup Oil Pool, San Juan County, New Mexico. Initial injection will be through applicant's Navajo "P" Well No. 6 located in Unit P of said Section 35. Applicant further seeks the promulgation of special rules governing the operation of said project.
- CASE 2995: Application of Deane H. Stoltz for two non-standard oil proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of two 80-acre non-standard oil proration units in the North Bagley-Upper Pennsylvanian Pool, Lea County, New Mexico, the first to comprise the SE¹/₄ NE¹/₄ and NE¹/₄ SE¹/₄ of Section 22, Township 11 South, Range 33 East, to be dedicated to a well completed in the SE¹/₄ NE¹/₄ of Section 22; the second to comprise the SW¹/₄ NE¹/₄ and the NW¹/₄ SE¹/₄ of

CASE 2995: said Section 22 to be dedicated to a well to be re-entered
(Cont.) in the SW/4 NE/4 of said Section 22.

CASE 2984: (Continued from the February 5th Examiner Hearing)

Application of The Pure Oil Company and Continental Carbon Company to utilize natural gas in a carbon black plant, Lea County, New Mexico. Applicants, in the above-styled cause, seek authority to utilize approximately 7 million cubic feet of Morrow gas per day in the Continental Carbon Company carbon black plant near Eunice, New Mexico, said gas to be produced from The Pure Oil Company Wilson Deep Unit Well No. 1, located in the SE/4 NW/4 of Section 13, Township 21 South, Range 34 East, Lea County, New Mexico.

CASE 2996: Application of Nearburg & Ingram for the creation of a new gas pool and for special temporary pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for San Andres production in Sections 10, 11, 12, 13, 14 and 15, Township 8 South, Range 37 East, Roosevelt County, New Mexico, and for the establishment of temporary rules therefor, including provisions for 320 acre spacing.

CASE 2739: (Reopened)

In the matter of Case No. 2739 being reopened pursuant to the provisions of Order No. R-2421, which order established temporary 80-acre proration units for the North Vacuum-Abo Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

CASE 2740: (Reopened)

In the matter of Case No. 2740 being reopened pursuant to the provisions of Order No. R-2422, which order established temporary 80-acre proration units for the Vacuum-Wolfcamp Oil Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

CASE 2741: (Reopened)

In the matter of Case No. 2741 being reopened pursuant to the provisions of Order No. R-2423, which order established temporary 80-acre proration units for the Vacuum-Devonian Oil Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

CASE 2742: (Reopened)

In the matter of Case No. 2742 being reopened pursuant to the provisions of Order No. R-2424, which order established temporary 80-acre oil proration units for the Fowler-Blinebry Oil Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre proration units.

CASE 2743: (Reopened)

In the matter of Case No. 2743 being reopened pursuant to the provisions of Order No. R-2425, which order established temporary 320-acre spacing units for the Fowler-Tubb Gas Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre spacing units.

CASE 2744: (Reopened)

In the matter of Case No. 2744 being reopened pursuant to the provisions of Order No. R-2426, which order established temporary 320-acre spacing units for the Fowler-Paddock Gas Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 160-acre spacing units.

CASE 2997: Application of Socony Mobil Oil Company, Inc., for the abolishment of an existing pool and the creation of two new oil pools, and for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for lower Pennsylvanian production in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, and for the establishment of temporary rules therefor, including provisions for 80-acre units and for the establishment of a gas-oil ratio limitation of 6000 cubic feet of gas per barrel of oil produced. Said pool would be created by the abolishment of the Vacuum-Pennsylvanian Pool in Township 17 South, Range 34 East, and the subsequent creation of the Vacuum Upper Pennsylvanian and Vacuum Lower Pennsylvanian Pools.

CASE 2998: Application of Tenneco Oil Company for a gas well-water injection well, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its Central Totah Unit Well No. 24 located in Unit O of Section 11, Township 28 North, Range 13 West, San Juan County, New Mexico, to produce gas from the Basin-Dakota Gas Pool through 1 1/2 inch tubing and to inject water into the Gallup formation, Totah-Gallup Oil Pool, through 2 1/16 inch tubing with separation of the zones by a packer set at 5766 feet.

CASE 2999: Application of Phillips Petroleum Company for two non-standard oil proration units, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of an 80-acre non-standard oil proration unit for each of two pools, the Vacuum Wolfcamp Pool and the North Vacuum Abo Pool, said units to comprise the NW/4 SW/4 and the SW/4 NW/4 of Section 31, Township 17 South, Range 35 East, Lea County, New Mexico, to be dedicated to applicant's Santa Fe Well No. 87, located 2310 feet from the South line and 660 feet from the West line of said Section 31.

CASE 3000: Application of Franklin, Aston & Fair Inc. for the creation of a San Andres Gas Pool and for special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new San Andres Gas Pool comprising all or portions of Sections 22, 23, 25, 26, 27 and 28, Township 7 South, Range 35 East, and the establishment of special pool rules, including 320 acre spacing and fixed well locations, Roosevelt County, New Mexico.

CASE 2979: (Continued from February 5, 1964, Examiner Hearing)

Application of Pan American Petroleum Corporation for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation through its U.S.A. Malco Refineries 'G' Well No. 13, located 2302 feet from the South line and 1650 feet from the West line of Section 10, Township 18 South, Range 27 East, Empire Abo Pool, Eddy County, New Mexico.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER

P. O. BOX 871
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

February 14, 1963

Mr. James Sperling
Modrall, Seymour, Sperling, Roehl,
and Harris
Attorneys at Law
Post Office Box 466
Albuquerque, New Mexico

Re:

2739
2740
Case No. 3741
Order No. R-2421, R-2422 and R-2423
Applicant:
Socony Mobil Oil Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, JR.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Astec OCC

OTHER Mr. Booker Kelly

Mr. Vic Lyon

DOCKET FILED

Date 5-10-64

A

PROCESS THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 2740
Order No. R-2422
NOMENCLATURE

APPLICATION OF SOCONY MOBIL OIL
COMPANY, INC., TO CREATE A NEW
POOL FOR WOLF CAMP PRODUCTION AND
FOR SPECIAL POOL RULES, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 23, 1963, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

Now, on this 13th day of February, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, Socony Mobil Oil Company, Inc., seeks the creation of a new pool for Wolfcamp production and the promulgation of temporary special rules and regulations governing said pool, including a provision for 80-acre spacing units.

(3) That a new oil pool for Wolfcamp production should be created and designated the Vacuum-Wolfcamp Oil Pool. This pool was discovered by the Socony Mobil State Bridges Well No. 95, located in Unit P of Section 26, Township 17 South, Range 34 East, NMEP, Lea County, New Mexico. The top of the perforations in the Wolfcamp Formation is at 9518 feet.

(4) That temporary special rules and regulations establishing 80-acre spacing should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells and in order to allow the

-2-

CASE No. 2740
Order No. R-2422

operators in the subject pool to gather information concerning the reservoir characteristics of the pool.

(5) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(6) That the temporary special rules and regulations should be established for a one-year period and that during this one-year period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

(7) That this case should be reopened at an examiner hearing in February, 1964, at which time the operators in the subject pool should appear and show cause why the Vacuum-Wolfcamp Oil Pool should not be developed on 40-acre proration units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production is hereby created and designated the Vacuum-Wolfcamp Oil Pool, consisting of the following-described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NEPM
Section 26: SE/4

(2) That special rules and regulations for the Vacuum-Wolfcamp Oil Pool are hereby promulgated as follows, effective March 1, 1963.

SPECIAL RULES AND REGULATIONS
FOR THE
VACUUM-WOLFCAMP OIL POOL

RULE 1. Each well completed or recompleted in the Vacuum-Wolfcamp Oil Pool or in the Wolfcamp formation within one mile of the Vacuum-Wolfcamp Oil Pool, and not nearer to or within the limits of another designated Wolfcamp pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Vacuum-Wolfcamp Oil Pool shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

File
Doc. No. 2760
Order No. 1-2422

RULE 3. The Secretary-Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. The first well drilled on every standard or non-standard unit in the Vacuum-Wolfcamp Oil Pool shall be located within 200 feet of the center of either the NW/4 or the SE/4 of a governmental quarter section.

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) in the Vacuum-Wolfcamp Oil Pool shall be assigned an 80-acre proportional factor of 4.77 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable in the Vacuum-Wolfcamp Oil Pool as the acreage in such non-standard unit bears to 80 acres.

IT IS FURTHER ORDERED:

(1) That any well presently drilling to or completed in the Wolfcamp Formation within the Vacuum-Wolfcamp Oil Pool or within one mile of the Vacuum-Wolfcamp Oil Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. The operator shall notify the Hobbs District Office in writing of the name and location of the well on or before March 1, 1963.

-4-

CASE No. 2740
Order No. R-2422

(2) That any operator desiring to dedicate 80 acres to a well presently drilling or completed in the Vacuum-Wolfcamp Oil Pool shall file a new Form C-128 with the Commission on or before March 1, 1963.

(3) That this case shall be reopened at an examiner hearing in February, 1964, at which time the operators in the subject pool may appear and show cause why the Vacuum-Wolfcamp Oil Pool should not be developed on 40-acre proration units.

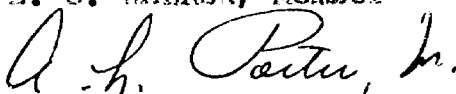
(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

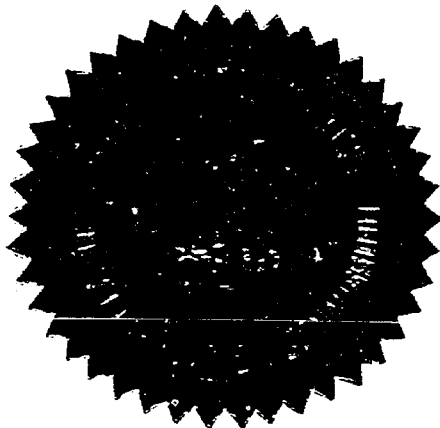
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JACK M. CAMPBELL, Chairman


E. S. WALKER, Member


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



est/

Case 2740

Heard 2-19-64

Rec. 2-26-64

1. Grant ~~Sony~~ Mobil a permanent.
80 Ac order for R-2422 vacuum
the wolfcamp. Oil Pool.

Thurs 11/12/64

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. 2740
Order No. R-2422-A

APPLICATION OF SOCONY MOBIL OIL
COMPANY, INC., TO CREATE A NEW
POOL FOR WOLF CAMP PRODUCTION AND
FOR SPECIAL POOL RULES, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
February 19, 1964, at Santa Fe, New Mexico, before Examiner
Elvis A. Utz.

NOW, on this 13th day of March, 1964, 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 by Order No. R-2422 dated February 13, 1963,
temporary Special Rules and Regulations were promulgated for the
Vacuum-Wolfcamp Oil Pool.

(3) That pursuant to the provisions of Order No. R-2422,
this case was reopened to allow the operators in the subject pool
to appear and show cause why the Vacuum-Wolfcamp Oil Pool should
not be developed on 40-acre proration units.

(4) That the evidence establishes that one well in the
Vacuum-Wolfcamp Oil Pool can efficiently and economically drain
and develop 80 acres.

(5) That to prevent the economic loss caused by the drill-
ing of unnecessary wells, to avoid the augmentation of risk
arising from the drilling of an excessive number of wells, to
prevent reduced recovery which might result from the drilling of

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CASE No. 2740
Order No. R-2422-A

too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-2422 should be continued in full force and effect until further order of the Commission.

(6) That the Special Rules and Regulations promulgated by Order No. R-2422 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil in the pool.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Vacuum-Wolfcamp Oil Pool promulgated by Order No. R-2422 are hereby continued in full force and effect until further order of the Commission.

(2) 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



Jack M. Campbell
JACK M. CAMPBELL, Chairman

H. S. Walker
H. S. WALKER, Member

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

csr/

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BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 23, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Socony Mobil Oil Company, Inc., to create a new pool for Abo production and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for Abo production in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, and the establishment of temporary special pool rules therefor, including a provision for 80-acre spacing units.

Case 2739

Application of Socony Mobil Oil Company, Inc., for temporary special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks establishment of temporary special pool rules for the Vacuum-Wolfcamp Pool in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing units.

Case 2740

Application of Socony Mobil Oil Company, Inc., for temporary special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks establishment of temporary special pool rules for the Vacuum-Devonian Pool in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing units.

Case 2741

(Consolidated)

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: This hearing will come to order. Case 2739.

MR. SPERLING: Jim Sperling, appearing for the applicant. I would like to ask that for the purpose of testimony and evidence to be presented that the three cases, 2739, 2740 and 2741 be consolidated. They, of course, involve the same area but different pools vertically.

MR. UTZ: Cases 2739, 2740 and 2741 will be consolidated for the purpose of the testimony, but separate orders will be written on each case.

MR. SPERLING: We have one witness.

MR. UTZ: Do we have any other appearances?

(Witness sworn.)

J O S E P H C. G O R D O N,

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. SPERLING:

Q State your full name, your place of residence, your employer and your capacity.

A Joseph C. Gordon, Jr., Socony Mobil Oil Company, at Hobbs, New Mexico, Senior Production Engineer.

Q You have testified before the Commission on previous occasions, have you not?

A Yes, sir.



Q Your qualifications are a matter of record?

A Right.

(Whereupon, Applicant's Exhibits 1
in Cases 2739, 2740 & 2741 were marked
for identification.)

Q I would like, first, Mr. Gordon, to have you identify
what you have denominated as Exhibit Number 1 in each of the three
cases that have been assigned docket numbers following the filing
of the application of Socony Mobil.

A The first one, Exhibit 1, Case Number 2739, is a map of
the portion of the Vacuum area showing the wells which have been
completed in and are now drilling which may be expected to drill
through the Abo formation. Similarly, the Exhibit in Case 2740
shows the wells completed in or the wells drilling, which may be
expected to penetrate the Wolfcamp formation; and the Exhibit in
Case 2741 shows the wells which will be completed in, or are
drilling to the Devonian formation.

The yellow areas on all three exhibits are the lease holdings
of Socony Mobil Oil Company.

MR. UTZ: Just a moment. I either got one number wrong
or -- Exhibit Number 1 with the purple coloring on the wells, is
that 2740?

A Yes, sir, that is the Wolfcamp.

MR. UTZ: And the green is 2741?

A Yes, sir, that is the Devonian.

MR. UTZ: You may proceed.

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Q (By Mr. Sperling) The area is designated, that is, the Township, Range, and, of course, the section where those locations are, are on the exhibits, are they not?

A Yes, sir.

Q Previously your company had been granted authority to multiple complete the wells in this area; is that not correct?

A Yes, sir. We have received permission for the multiple completion of our well, the State Bridges 95, located in the southeast quarter of Section 26, 17, 34, for multiple completion in the Abo, Wolfcamp, Pennsylvanian and Devonian formations. That well was the initial discovery in these formations. At the present time this well is being completed in the Abo, Wolfcamp and Devonian formations. Because of mechanical difficulties we have been unable to obtain the packer-leakage test, and we have been repairing the well in order to obtain a final completion. As a result of the repairs necessary we have been unable to secure any production from the well or any bottom hole pressures, or any test of any extensive nature, beyond the initial potential.

Q Do I understand that the well that you have been referring to, the State Bridges Number 95, is the only well that is in any stage of completion at the present time, in any of those three pools?

A Yes, sir. The other wells shown here are all drilling and none of them have set casing yet, or started their completion work.

Q Would you explain to the Examiner what conditions prevail in this area with respect to these three undesignated pools which has prompted your company to make an application for the spacing and the pool rules that you will propose?

A At the present time, there is a lack of development, and in order to bring about an orderly plan for the development we would like to propose rules of a temporary nature so that the area can be developed economically without drilling unnecessary extra wells, and we, therefore, will be proposing that we have a temporary 80-acre spacing for all three zones, with a one-year period here to allow for development, and then the submission to the Commission of the proper information to confirm, or possibly change our mind in regard to the 80-acre spacing.

Q What is the estimated cost of these wells? I assume you have costs relative to the wildcat wells, but what do you anticipate for the completion costs, drilling and completion costs concerned on these, do you know?

A Our wildcat well, the State Bridges 95, cost a total of \$641,000.00. I would estimate that a completed triple completion could be made to these three formations for approximately \$400,000.00. At the present time we are not concerned in this instance with, or solely concerned with the economics. We are more concerned about the drilling of unnecessary wells which might be done if we went ahead on a 40-acre pattern and on a later date found out that we could have produced the field more economically with an

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Figure 1. Schematic representation of the experimental design. The subjects were divided into two groups: the control group and the experimental group. The control group was divided into two subgroups: the control group and the experimental group. The experimental group was divided into two subgroups: the control group and the experimental group. The control group was divided into two subgroups: the control group and the experimental group. The experimental group was divided into two subgroups: the control group and the experimental group.

the role responsible that you were responsible for.

A To have furnished a small book containing a summary of proposed temporary rules for the Commission's Summary of Proposed Temporary Rules for the Commission's Examiners Hearing), and in all these cases, it is to be noted that we have proposed that the Commission adopt temporary measures for spacing for one year with the temporary RO and will be made appropriate to the depth. Two, a proposed RO and will be made on a northwest-southeast diagonal with the RO and will be made the north or south, or east or west halves of the opposite side. Three, that the walls should be treated along the center of the governmental quarter section. Four, that the necessary to these rules will be accepted by the Commission before the date fixed by the Commission. Five, that the Commission specifically, or in other words, that the Commission previously proposed.

2. What are the properties of the two types of compounds?

ables are concerned?

A We would propose that during this one-year period that the wells drilled on the 80-acre drilling units be assigned temporary 80-acre unit allowables appropriate to their depth, using the factors assigned for 80-acre drilling units in the present Commission rules. This would result, in the case of the Abo formation, which is in the 9,000 foot depth bracket, of an allowable of 4.77. The Wolfcamp formation, which is also in the 9,000 foot bracket would receive a 7.75 allowable factor.

Q What do you propose to do testwise in order to collect information which would be helpful to the Commission and to your company in determining efficient drainage in this area?

A If the temporary 80-acre rules are granted, I believe that Mobil would be glad to take the lead in forming an informal field committee of the operators to gather the required data in regard to bottom hole pressure, gas-oil ratio, interference tests, fluid sampling and flow testing, in order to substantiate or deny the existence of 80-acre capability for a producing well. I believe that this operators' committee would be very easily handled as it has been in many other fields in similar cases.

Q Mr. Gordon, referring to Exhibit No. 1 in Case 2739 which shows the Abo location or completion, calling your attention to the lower right-hand corner of the exhibit there is a line there which is designated present limit of Vacuum Abo Reef Pool?

A No, sir. As shown here in the lower right-hand corner

this Vacuum Abo Reef Pool is the present Vacuum Abo Pool. This is the Vacuum Abo Reef which runs through the general area and is a definite structural feature. The present Vacuum-Abo Pool produces entirely from the reefing structure and is separate from our other Abo structures as shown here.

In conversation with the Hobbs Commission Office and with an informal geological committee, we have been led to believe that the Commission itself will probably be retitling the present Vacuum-Abo Pool in a nomenclature case to be the Vacuum-Abo Reef Pool, and designate the Abo production which we have found in our State Bridges 95 to become the new Vacuum-Abo Pool. The Vacuum-Abo as found in our State Bridges 95 is Abo; the producing is Abo. In fact, it is not a reef-type structure and has no relation whatsoever to the reef and the occurrence of oil is not reef. We believe there is adequate testimony that could be presented at some other time to substantiate the difference between the Abo Reef and the Abo production found north of the reef.

Q The reason for my question was that conceivably development in the Abo could extend within one mile of the present limits of the Vacuum-Abo Pool, and that was the reason I was inquiring as to whether or not there is any relationship between the Abo Production as found in your Bridges 95 Well, and that of the older field lying to the southeast.

A Yes, sir. Well, I believe here, from examination of the logs and such, we could always maintain a separation or definition



between the reef production and this other production which is not reefing, and that there is a physical separation in this case between the reef and this other production.

MR. UTZ: Is this physical separation, you mean, by permeability pinchout or by depth?

A Permeability pinchout would be the barrier between; I believe, also, there is some separation in depth.

Q (By Mr. Sperling) Do you have anything further to add at this time, Mr. Gordon?

A No, sir.

MR. SPERLING: I think that is all the Direct at this time, Mr. Examiner.

CROSS EXAMINATION

BY MR. UTZ:

Q You are recommending here, as I understand, a rigid pattern insofar as the location of the well in the quarter-quarter section?

A Yes, sir.

Q And also as to the location within that quarter section?

A Yes, sir.

Q Is the, so far as you know, is the Ohio McCallister Number 5 the only non-standard location that is now drilling?

A Yes, sir, it is the only one. I beg your pardon. It is not non-standard with respect to the location in the quarter section. The Shell well shown in Section 31 of 17, 35 is also non-



standard since it is in the northeast quarter. The State Bridges 95 is non-standard in respect to the fact that it is 200 feet from the center of the quarter-quarter section; and the Texaco Well State 0-11 in Section 36 of 17, 34 is 200 feet west of the center of the quarter-quarter section. For various reasons these wells were drilled at their designated location and we propose that they be accepted as is.

Q Mr. Gordon, do you have any core data or reservoir information of any nature from your 95 well which show what the reservoir characteristics are in these three pools?

A I believe we have no core data. The only information that we can furnish here, and I do not have it with me, would be calculations from log data.

Q You have no idea what the permeabilities and porosities would be --

A No, sir.

Q --of these zones. Do you have any pressure information?

A Drill stem tests is all we have here, sir, and I would be a little bit reluctant to furnish them because in the very near future we will be getting information, the most accurate information we can get.

MR. SPERLING: I might point out that some of the information what you are inquiring about was, if I recall correctly, was preserved in connection with the testimony in the multiple completion here on the State 95.

A Yes, sir.

Q (By Mr. Utz) Those were estimated, were they not?

A I believe that is all we can furnish at the present time are calculations from the log data.

MR. UTZ: Are there any other questions of the witness?

MR. DURRETT: Yes, sir, I have a question or two.

BY MR. DURRETT:

Q Mr. Gordon, this information we are talking about now that you might be able to furnish in the future, that would be what, test results on the State Bridges 95 Well?

A Well, in regard to the gathering of data during the next year period, is that what you have reference to?

Q Well, that is mainly what I was talking about, only I thought -- one thing I want to get clear is how soon would it be before you would have information concerning reservoir characteristics?

A We would have to start the gathering of it with a committee to act as a gathering point. This hasn't been done yet. I believe we would probably follow a program of gathering of initial bottom hole pressure, initial GOR, further testing for GOR and further testing for bottom hole pressure and the conducting of bottom hole pressure buildup tests to determine reservoir permeability; the possible conducting of interference tests between wells to demonstrate interference or lack of interference; the use of bottom hole pressure history during this first year period to demonstrate

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the decline in new wells to show that the entire field was a common reservoir. We are speaking here in regard to one reservoir, but I believe our remarks could be applied equally to all three reservoirs.

Q The main point I was making was, actually, as things stand right at this time, we don't really have any way of knowing whether or not one well will or will not drain 80 acres?

A Yes, sir. That is correct. That is why at this time we want to start an 80-acre development program, which can be supplemented and filled out to a 40-acre program if it is needed. At the present time, under present statewide rules a field can be developed on a 40-acre program. We can never undrill it, for an 80-acre program which might prove to be desirable. At the present time, with our present information we can't say that at the end of the year we will come back and request an 80-acre program. It may be we may come back and request for all three zones that 40-acre rules be adopted. I believe that would be one extreme. The other extreme would be possibly that we would ask for 80 acres to be continued on a permanent basis, but the granting of temporary rules here would permit the field to be developed at the most economical cost possible without the expenditure of any unnecessary money.

MR. DURRETT: That is all I have.

BY MR. KELLY:

Q I just want to get a couple of questions for fill-in for

when I wasn't here. I am sure you covered it. Are you asking for 80-acre temporary spacing for one year?

A Yes.

Q And are you asking that the Commission grant well locations in either the northwest quarter or the southwest quarter of a quarter section?

A Yes.

MR. KELLY: That is all I have. I just wanted to make sure that their information was the same as the prior information I had. I would like to read a statement at the close of the case.

MR. UTZ: Do you have anymore questions?

MR. SPERLING: Just one more.

REDIRECT EXAMINATION

BY MR. SPERLING:

Q It appears that there are a number of wells drilling at the present time, which it would seem would furnish a basis for considerable information. What state drilling are these wells?

A I believe we should refer here to the Vacuum-Abo map in Case Number 2739, since it shows the maximum number number of wells. Starting from the top in Section 26 of 17, 34, our State Bridges 98 located in the northwest quarter, at the present time, I believe, is approximately at 4,000 feet in drilling ahead. Our State Bridges 96 in the northeast quarter of Section 26, is approximately at 8,000 feet and drilling a head. Our 95 is under-going repairs. The Ohio Number 5 State McCallister in Section 25

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is drilling below the Wolfcamp, I believe. The Texaco 0-11 in Section 36 is drilling below the Wolfcamp and the Shell Well Number 5 Atate A, I believe in Section 31 of 17, 35 is somewhere between the Abo and Wolfcamp, I believe, I am not exactly informed as to where it is.

Q Have you spoken to the other operators in the area with a view toward exchanging of information and support of 40's or 80's?

A No, sir. We have not contacted the operators with a view for making up a committee of any sort.

Q But it is your intention to do so?

Q Yes, sir. If the temporary 80's are granted we most certainly would take the lead in this.

MR. SPERLING: I think that is all I have.

RE CROSS EXAMINATION

BY MR. DURRETT:

Q Mr. Gordon, would you know, or do you have with you some of the expected completion dates on any of these wells that are drilling a head now?

A No, sir. I don't believe so. That could be furnished to you by letter.

Q Would you do that? I would appreciate it if you would.

A That is right.

Q Could you give us some idea, oh, say within a month or two when you think they would be completed, would you do that?

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A I would have to go back to the record.

Q But you would give us a letter on that?

A Yes, sir, we will.

MR. DURRETT: Fine, thank you, I appreciate that.

MR. UTZ: Do you happen to know what the foot location of the Shell Number 5 is? It looks like it may be a 330.

A No, sir, I don't have any idea. It is plotted from data. I would hesitate to measure it here and scale it.

MR. UTZ: Are there any other questions of Mr. Gordon?
The witness may be excused.

(Witness excused.)

MR. UTZ: Are there any statements in the case?

MR. KELLY: I have a statement on behalf of Texaco. Texaco is currently drilling their ONCT Number 11 Well and they plan possible completion in all three of these zones. Texaco also owns a considerable amount of acreage in the immediate area and therefore it can be seen that Texaco is vitally interested in the adoption of special rules for these new pools. Texaco has, and always will urge the Commission to adopt the widest feasible spacing program. It is never too late to infill drill in order to prevent waste. On the other hand, however, if a reservoir is developed on a close spacing pattern when a wider pattern would have efficiently drained the pool, it is too late to cover the unnecessary drilling of the unnecessary wells; and Texaco believes that this excess amount could be used by the industry for the



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exploration and development of other oil and gas reservoirs in the State which would result in economic benefit to both the oil industry and gas industry of the State of New Mexico. Because of this, Texaco respectfully requests that the Oil Conservation Commission approve the application.

MR. UTZ: Are there other statements?

MR. DURRETT: Yes, sir. I have some communications I would like to read. The Commission has received a telegram, a quite lengthy telegram, from Marathon Oil Company and I will read this telegram in its entirety. "Reference Examiner's Hearings in Cases Numbers 2739, 2740 and 2741, Marathon urges that in the three referenced cases, Socony Mobil Oil Applicant, will propose that the Commission adopt temporary field rules in the Abo Pool, Case Number 2739; in the Wolfcamp Pool, Case 2740; and in the Vacuum-Devonian Pool, Case Number 2741, all in Section 26, Township 17 South, Range 34 East, Lea County, New Mexico; and that the rules in each case provide for 80-acre proration units and 80-acre well spacing with relocation in the northwest quarter and the southeast quarter of any quarter section. Marathon is presently drilling a well at a location 560 feet from the west line and 660 feet from the south line of Section 25, Township 17 South, Range 34 East, which is projected to a depth sufficient to encounter the pools mentioned in the application in the three referenced cases. This well will not conform to the spacing and well location provision of the requested rules. Marathon recommends in each of these three



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cases that the Commission adopt temporary special rules providing for 80-acre spacing and 80-acre proration units composed of two contiguous quarter quarter sections in any governmental quarter section, providing the rules provide for an exception without reduction of allowable to any existing well location, or any well heretofore completed or presently drilling, which may hereafter be completed in any or all of the pools mentioned in the three cases; and that the rules further provide for granting of future exceptions to such spacing and well location rules, if such further exception is necessary to protect the correlative rights of any party." Signed, I. K. Burrell, Division Manager of Marathon Oil Company.

The Commission has also received a telegram from Phillips Petroleum Company, and it reads as follows:

"Reference hearing January 23, 1963, Cases 2739 and 2740 application of Socony Mobil Oil Company for 80-acre spacing for Abo and Wolfcamp production, Section 26, Township 17 South, Range 34 East, Lea County, New Mexico. We concur in spacing and rules to be proposed by the applicant; also, we concur in rules to be proposed by them in Case 2741 for Vacuum-Devonian Pool. However, we urge consideration be given to exceptions of 160-acre spacing." Signed, Phillips Petroleum, Mr. Griffin, Manager of Production Division.

MR. UTZ: Are there any other statements?

MR. LYON: V. T. Lyon with the Continental Oil Company.

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Continental does not, at the present time, have any wells drilling in this area. We do have acreage in the immediate area and we should like to go on record as favoring temporary 80-acre spacing in this pool in order to avoid the drilling of wells which we may learn at a later date are unnecessary. We would like to concur with the application in these cases.

MR. UTZ: Are there any other statements? Mr. Gordon, do you know whether or not this well drilling in the southwest of the southwest of Section 25 is being drilled by Marathon rather than Ohio?

MR. GORDON: Yes, that is a case of a name change which has not caught up with our map makers.

MR. UTZ: If there are no further statements, the case will be taken under advisement.

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STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, BILL LANGFORD, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

Bill Langford
Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2238, heard by me on Jan 23, 1963.

John A. Velt, Examiner
New Mexico Oil Conservation Commission



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 19, 1964

EXAMINER HEARING

IN THE MATTER OF:

Case No. 2739 being reopened pursuant to
the provisions of Order No. R-2421, Lea
County, New Mexico; and
Case No. 2740 being reopened pursuant to the
provisions of Order No. R-2422, Lea County,
New Mexico; and
Case No. 2741 being reopened pursuant to
the provisions of Order No. R-2423, Lea
County, New Mexico.

Case No. 2739,
2740 and 2741

BEFORE: ELVIS A. UTZ, EXAMINER

TRANSCRIPT OF HEARING

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 19, 1964

EXAMINER HEARING

IN THE MATTER OF:

Case No. 2739 being reopened pursuant
to the provisions of Order No. R-2421,
Lea County, New Mexico; and
Case No. 2740 being reopened pursuant
to the provisions of Order No. R-2422,
Lea County, New Mexico; and
Case No. 2741 being reopened pursuant
to the provisions of Order No. R-2423,
Lea County, New Mexico.

CASE NO. 2739, 2740
and 2741

BEFORE: ELVIS A. UTZ: EXAMINER

TRANSCRIPT OF HEARING

MR. UTZ: Case 2739.

MR. DURRETT: In the matter of Case No. 2739 being
reopened pursuant to the provisions of Order No. R-2421, which
order established temporary 80-acre proration units for the North
Vacuum-Abo Pool, Lea County, New Mexico.

MR. WHITE: If the Examiner please, Charles White of
Gilbert, White and Gilbert, Santa Fe, appearing on behalf of the
Texaco, Inc., and we have one witness.



In order to expedite matters, if the Examiner please, we would like to consolidate Cases 2739, 40 and 41 for the purpose of this hearing.

MR. UTZ: You will have the same witness in all cases?

MR. WHITE: Yes, sir.

MR. UTZ: Well, you will put the cases on somewhat in order of number?

MR. WHITE: That's correct.

MR. UTZ: So that the testimony on each pool will be somewhat segregated in the record.

MR. WHITE: Yes, sir.

MR. UTZ: For the purposes of hearing the Cases 2739, 40 and 41 will be consolidated and separate orders will be written on each case.

MR. JACOBS: Appearing for Skelly Oil Company is Ronald Jacobs, in Case 2740.

MR. UTZ: Are there other appearances?

MR. KELLAHIN: Jason Kellahin of Kellahin & Fox, Santa Fe, appearing on behalf of Amerada Petroleum Corporation in all three of the cases.

MR. SPERLING: Jim Sperling of Modrall, Seymour, Sperling, Roehl and Harris, Albuquerque, appearing on behalf of Socony Mobil Oil Company in the three cases.

MR. KELLAHIN: If the Examiner please, I would like to also enter an appearance and associated with me is Mr. Carl Jones



of the Texas Bar, in Cases 2739 and 2740, Phillips Petroleum Company.

MR. UTZ: This was in Cases 2739 and 40?

MR. KELLAHIN: Yes, sir.

MR. UTZ: Are there other appearances? All these appearances are opposing the application, I take it.

(Witness sworn)

MR. WHITE: If the Examiner please, we have arranged our testimony not as to refer to one exhibit such as the structure map of the Abo, then the next one would be the Wolfcamp, and the next one would be of the Devonian. Now, we don't have these exhibits set out for testimony for just one case and then the other case, as you had just mentioned.

MR. UTZ: You don't segregate the formations too much then?

MR. WHITE: No, sir. but I think the testimony will be orderly and be applicable to all the cases.

MR. UTZ: Well, you go ahead with it the way you prepared it, and we will try to dissect it.

CARL L. WHIGHAM, JR.,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WHITE:



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Q Mr. Whigham, would you state your full name for the record, please?

A My name is Carl L. Whigham, Jr.

Q For whom are you employed and in what capacity?

A Employed by Texaco, Inc., for the Midland Division, as Division Exploration Engineer.

Q Would you briefly give your educational and professional background?

A I graduated from Texas A & M College in 1949 with a BS degree in Petroleum Engineering, and at that time I went to work for Texaco, Inc., and for the past 15 years, I have been employed by Texaco or their foreign subsidiary in various petroleum engineering assignments in drilling and production operations.

Q Are you familiar with Cases 2939, 40 and 41, and the orders issued upon the hearings?

A Yes, sir, I am.

Q Is Texaco one of the producing operators in the area?

A Yes, sir, they are the principal producing operator in the area.

Q Have you conducted various studies of these three reservoirs?

A Studies have been conducted on these three reservoirs under my supervision.

Q Would you refer to Exhibit One, and explain that, please?

A Yes, sir, Exhibit Number One is a lease ownership map of



the area in question showing the various operators in this Vacuum area. It also shows the completion intervals of all 18 wells that have been drilled in the area, and it shows the sold line extending from the northern limits of the field to the southern limits of the field, which represents a line and that a cross section has been prepared and will be presented in a later exhibit. It may be noted that Texaco, Inc. operates eight of these wells, Socony Mobil Oil Company has drilled and completed and operate three of the wells, and Continental Oil and Marathon Oil Company each have drilled and completed two wells in the reservoir and Tidewater Oil Company, Phillips Petroleum Company and Shell Oil Company have each drilled and completed one well in these reservoirs.

The reservoir in which each well has been completed is designated by the color code. The green color denotes the four Devonian producing wells, the purple color denotes the 18 Wolfcamp producers, and the red color denotes the 11 Abo producers.

Q And I notice this exhibit is dated February 12, 1964. Have there been any recent development in this pool?

A Very little. Current development is limited at the present time to Phillips Petroleum Company Well Number 87 in Section 31.

Q That is not in the plat, is it?

A Yss, sir, it is.

Q Beg your pardon.

A This well has been completed in the Wolfcamp reservoir.



and operations are currently under way to complete the Abo.

Also in Section 35, Phillips Petroleum Company has spudded a well in the Southeast Quarter of the Southeast Quarter, and it is our understanding that they plan to drill the well to the Pennsylvanian formation and they anticipate completion in the Wolfcamp and Glorieta reservoirs.

MR. UTZ: Which section is that?

A That was Section 35.

Q (By Mr. White) Now, will you refer to Exhibit Two and explain that, please?

A Exhibit Number Two is the cross section which was mentioned, and this exhibit was prepared primarily to indicate the relative depth of the three reservoirs in question and also to show their continuity across the reservoir. The uppermost reservoir is noted to be the Abo, and a relative point designated as the base of the Abo and the top of the Wolfcamp was agreed upon by the major operators in the field, and the Conservation Commission at a meeting held January 9, 1963 in the Hobbs office of the Oil Conservation Commission. The second reservoir is the Wolfcamp reservoir and the main pay is indicated on this cross section to be continuous across the field. The lowermost reservoir is the Devonian and the solid line across this cross section indicates the top of the Devonian reservoir. Also shown on this reservoir is an oil-water contact. The purpose of presenting the oil-water contact, at a Sub-C depth of 2,020 feet, is to substantiate the



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producing mechanism. This drive is a bottom water drive, whereas, the upper two reservoirs produce under a solution gas drive mechanism.

Q Now, will you now explain Exhibit Three?

A Exhibit Number Three is a structural contour map of the Abo reservoir, the correlative point being the base of the Abo and the top of the Wolfcamp, was determined from each individual well log and these points were plotted on this map and contoured at a contour interval of 50 feet. It can be noted that the geological structure is an elongated anticline trending north and south. Again, the Abo producing wells are designated by the red color, and it may be noticed that 11 wells have been completed in the Abo. There are seven other wells in the field that actually penetrated the Abo, but were not completed in this reservoir.

Q Will you now explain Exhibit Four, please?

A Exhibit Number Four is a similar structure contour map, drawn on the top of the Wolfcamp main pay zone. Each log was analyzed and the correlative point was picked and contoured on an interval of 50 feet. It is significant that all 18 wells drilled in this area have been completed in the Wolfcamp reservoir.

Q Now, will you similarly explain Exhibit Five?

A Exhibit Number Five is a similar structural contour map contoured on the top of the Devonian reservoir. These points were obtained from well logs on all wells that have penetrated the Devonian top. Four of these wells have actually been completed as



Devonian producers. Nine other wells in the area penetrated the Devonian, but were not completed in this reservoir. The five remaining wells did not penetrate the top of the Devonian.

Q Will you identify and collectively explain Exhibits Six, Seven and Eight, your reservoir data?

A As set out in the original hearing, approximately one year ago, all of the operators in this area have pooled their information, and this information has been averaged out and consolidated into these three exhibits, which show the reservoir data for each of the three oil pools in question. It is significant that each reservoir exhibits a permeability sufficient to support drainage in excess of 80 acres.

The Vacuum North Abo Oil Pool has an average permeability of 8.3 millidarcies. The permeability range, however, goes up to 104 millidarcies.

The Vacuum-Wolfcamp Oil Pool exhibits an average permeability of 3.2 millidarcies with a range in permeability up to 13 millidarcies.

And the Vacuum-Devonian Oil Pool shows an average permeability of 10 millidarcies, and the permeability range goes up to 26 millidarcies.

It is felt that these permeability values are significant in supporting our request, and it might also be noted at this time that the Vacuum North Abo Oil Pool is designated as a solution gas drive reservoir, and the producing mechanism for the Vacuum



Wolfcamp is solution gas drive reservoir, and the producing mechanism for the Vacuum-Devonian is a bottom water drive.

Q These exhibits present the most recent and all available data; is that correct?

A Yes, sir, it represents all data presently available.

Q Have you obtained any bottom hole pressure data?

A Yes, sir, we have obtained all the bottom pressure data that is currently available from all operators in the area.

MR. UTZ: Mr. White, in view of the hour, and I suspicion you are getting in the crux of this testimony, I wonder if this wouldn't be a goodtime to adjourn for lunch.

MR. WHITE: Perhaps it would.

(Noon Recess)

MR. UTZ: The hearing will come to order. We will continue with Cases 2739, 40 and 41. I believe you were on Exhibit Number Nine, were you not.

MR. WHITE: Yes, sir.

Q (By Mr. White) Mr. Whigham, will you explain Exhibit Nine and Ten?

A Yes, sir. Exhibits Numbers Nine and Ten present the bottom hole pressure data for the Vacuum North Abo Pool. Exhibit Number Nine presents this data in a tabular form for reference purposes, and these same values are plotted graphically in Exhibit Number Ten. It may be noted in Exhibit Number Ten that two sets of points have been plotted. To explain this, it should be noted



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that one well, Marathon's McAllister Number Five, does not conform to a standard ordinary 80 pattern, even though 80 acres is available to be dedicated to this well. This well is spaced between three other wells, which are on a standard 80 acre pattern. So, this situation results, in four wells being spaced somewhat closer together than an 80 acre pattern. These four wells are represented by the pressure points, enclosed by a triangle. It may be noted that the minimum distance between these wells is 1220 feet. It can also be noted that the initial bottom hole pressure of each well is somewhat lower than the well previously drilled. In other words, this decrease in reservoir pressure denotes communication between these two wells. Therefore, on a basis of 1220 feet, minimum, between these wells, a drainage area can be calculated and this calculation results in a drainage area of 170 acres. The second curve plotted on Exhibit Number Ten are all the other wells, those that are spaced on standard 80 acre tracts. And again, it can be seen that each well exhibited an initial bottom hole pressure somewhat below that of the well previously drilled. These bottom hole pressure values are plotted against accumulative oil production from the Vacuum North Abc Oil Pool.

Q Now, reference is made to Exhibit Nine. I notice in your reservoir pressure information, your Well Number One is 3342, and on your well Number Five, you have 3242. How do you account for that decrease?



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If you were referring to the pressure numbers, my tabulation shows that pressure Number One in the Mobil State Well was 3,942 PSI as compared to pressure Number Five in the Texaco State)-11 of 3,982. Now these are the two values you were referring to. I believe for all practical purposes these pressures can be considered identical. The original reservoir pressure here was determined to be 3,982 PSI. That is the highest bomb pressure recorded in this field. Some of these other pressures- - As a matter of fact, there is only one other pressure which is a drillstem test pressure, the remaining nine pressures are bomb pressures.

Now, would you similarly explain Exhibits 11 and 12?

Exhibits 11 and 12 are similar to the two just presented. Exhibit Number 11 is a tabulation of all the bottom pressure data that has been accumulated and made available from the Valence-Wolfcamp Oil Pool, and this pressure data is plotted graphically on Exhibit Number 12. Again, we have the two curves, one of them representing those wells that show communication at a minimum distance of 1,220 feet, representing a drainage area of at least 107 acres. The uppermost curve represents the pressure trend in those wells which are spaced a minimum of 1,375 feet, representing a drainage area of 173 acres. Again, it may be noted that each pressure recorded is somewhat below the pressure recorded in a previously drilled well. Some exception exists, but there are actually only three, and it is considered that the curve is plotted through the



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average point. Point Number Five is a very poor well and was not adequately stimulated for percent of communication with other zones, and Well Number Seven exhibits a lower than average pressure for the same reason, but both of these curves do indicate communication between adjacent wells indicating a drainage area in excess of 80 acres.

MR. UTZ: These numbers on these charts here, is that a pressure number or well number?

A Those are pressure numbers.

MR. UTZ: I see. That accounts for my not being able to find the wells then.

A Yes, sir.

C (By Mr. White) Now, will you similarly explain Exhibits 13 and 14?

A Exhibits 13 and 14 represent the bottom hole pressure data available from the wells that were drilled to and completed in the Vacuum Devonian Oil Pool. Exhibit Number 13 is a tabular representation and the values that appear in this table have been plotted on Exhibit Number 14. As stated previously, it has been determined that the Devonian is a water drive reservoir, and the pressure performance curve depicted by Exhibit Number 14 bears out this conclusion. It can be seen that the pressure has not declined as compared to accumulative oil production. It can also be seen that the aquifer pressure is essentially the same at bottom hole pressure as measured in the oil portion of the reservoir.



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The pressure in the well was approximately 2,100 PSI since original completion.

Now, will you refer to Exhibit 17, your monthly production information for your Devonian well, and what you think is significant there?

Exhibit 17 was prepared to substantiate previous statements that this is a water drive reservoir. Both oil and water production are tabulated monthly throughout 1963. It can be noted that water production has been significant and is still showing a slight increase, bearing out the contention that the Devonian is a water drive reservoir.

What conclusions do you draw from these exhibits and from the studies that you have made?

The exhibits then far show that any well in any one of these three reservoirs will effectively and efficiently drain more than 30 acres.

Now, will you refer to your Exhibit 18, your economic analysis?

Exhibit Number 18 is an economic analysis showing the cost to drill and complete three different types of wells in these three reservoirs. It shows the net loss that would be incurred if these wells were drilled and completed and produced at 40 acre spacing, and it also shows the net profit that would result if these wells were drilled and completed at 20 acre spacing. The 20 acre spacing would be the best of the three.



reservoirs. Also, the Permian and Devonian, and the average net cost of those wells is \$231,000.00. The reserves available from this well, based upon 40 acre proportion units, would show a net loss for this operation of \$13,500.00. On the other hand, if this well were drilled and completed and produced on 80 acre spacing, a net profit of \$316,000.00 would be realized.

With regard to the dual completion example, that is shown in Exhibit Number 16, it was assumed that a well would be completed in the Wolfcamp and the Devonian oil reservoirs. These two were chosen because they were thought to be in the most optimistic situation. They would result in the most profit of any two of the three reservoirs in question. This subject well is estimated to cost \$235,000.00. Based upon a 40 acre proportion unit, a net loss would incur of \$8,000.00. Whereas, if this well were operated on 80 acre proportion unit, a profit of \$274,000.00 would be realized.

The third column shows the single completion, and for the same reason, the Wolfcamp reservoir was chosen because this would result in the most profitable of any single completion in these three reservoirs. The estimated cost for this well would be \$120,000.00, and the net loss if operated on 40 acre units would be \$6,500.00. Whereas, if this well were drilled and operated on 80 acre proportion unit, a net profit would be realized of \$190,000.00.

All of these wells are based upon a drilling cost of forty-five cents per barrel. Approximate cost of 100 barrels.

a net interest of 0.44% and a net value of \$2.46 per barrel, including the gas, resulting in a net value of \$2.42 per barrel.

Then, this exhibit shows that some of the reservoirs can be developed with a 40 acre production unit economically.

A That's correct.

Q Does that conclude your testimony?

A Yes, sir.

Q Were these exhibits prepared by you or under your direction?

A Yes, sir. They were prepared under my direction.

MR. WHITE: We offer Exhibits One through 16 at this time. That concludes our direct.

MR. UTZ: Exhibits One through 16 will be entered into the record in this case. Are there questions of the witness?

CROSS EXAMINATION

BY MR. UTZ:

Q To be sure I understand this graph here, take a closer look at the Abo section, those producers that are plotted with the triangles as symbols are different from the ones with circles as symbols, in that those wells have a different radius of drainage?

A Yes, sir. That's correct. Those points represented by the triangles are the proximate points for four wells that are spaced a minimum distance of 1200 feet from each other. We can refer to any one of the wells as I will point out those four wells.



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Q Well, let's go back to the 80 acre spacing since we are talking about
10 your exhibit number three. That would be pressures one, three,
six and eight, would it be?

A One, three, six and eight, that's correct. Pressure
Point Number One is in the 100 acre spacing. Point Number Two. Directly
east of that well is the 80 acre spacing. Point Number Three. Pressure Point
Number Three. Pressure Point Number Four is the 80 acre spacing
well to the east. Point Number Five. Point Number Six. Pressure Point
Number Eight is the 80 acre spacing. Point Number Six. There
are the four wells in the 80 acre spacing. They are actually spaced
closer than would be normal. Under the 80 acre spacing.

Q In other words, these four wells are clustered there
on actually a spacing of less than 80 acres have caused a low
pressure area in that particular part of the field?

A That appears to be a conclusion that could be drawn from
this data.

Q Whereas, the other wells that are actually spaced more
nearly in the 80 acre spacing, pressures are still a little higher?

A Yes, sir, they are a bit higher.

Q What would that indicate to you, does that indicate to
you well interference?

A To me that would indicate that there is interference
between all wells, but the interference would naturally be some-
what greater for those wells spaced in 40 acres, however, it
shows that wells spaced on 80 acre spacing do have interference and



exhibit subsequent to the trial.

Q In your opinion, would, or would it be even possible then that to draw down the pressure would be the equivalent of a more even basis and that everybody would be in a better opportunity to receive their oil in place?

A I don't know that I could make that statement, Mr. Meier.

Q Well, wouldn't you have to agree that the oil is going to travel toward this cluster of four wells here? I am not trying to prove or disprove your case. I just see something here that is quite interesting and I would like to have an opinion on it.

A Yes, sir. Each of these wells would have the same allowable. The withdrawals, I believe, would be approximately the same for all wells. Therefore, I don't know that there would be any greater migration toward this area than any other area in the field.

Q But, the pressures are lower in this area, are they not?

A They are at the present time. I do believe that might account for that fact is that perhaps area was developed before the wells remaining. This particular area is where the initial development took place.

Q You feel some of that pressure might be due to this area having been developed first?

A Yes, sir. I definitely do. These pressure points are actually plotted against cumulative oil production, and it does show that the lower oil that has been produced, the lower the



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pressure exhibited.

Q Well, the pressure on the Number 17 well is taken after having produced water by the same as the Number Seven well, still the pressures are considerably different, about 300 pounds difference after the same amount of production. Is that about right, comparing pressures that are taken with pressure Number Six on your Exhibit Number Four?

A Yes, sir. Number Six is located in the State of New Mexico, and it is somewhat higher than the pressures recorded in Direction's No. 11. I don't know that fundamentally the reason for that is that Well Number 17 is quite distinctly located from the area of original development. It is located several locations southward from the vicinity of the initial development. I believe that for that reason a higher pressure could be expected.

Q Because it is declining a little more soon?

A No, sir, because it would be more apt to be encountering a pressure more nearly the virgin reservoir pressure.

Q You didn't actually run any interference tests in connection with this study, is that right?

A No, sir.

Q Now, wouldn't you say that some of the water in these wells are not being produced at the same rate as the wells; in other words, the water in the wells is not being produced at the same rate as the wells in the field?

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A Yes, sir.

Q Now, didn't calculate it?

A Yes, sir. I calculated from the well data from a circle with a radius equal to the average distance to wells.

Q But, you didn't use pressure drop to calculate the radius of drainage in other words?

A No, sir. The extent of drainage wasn't determined specifically.

Q Then, the pressure drop that you show here in all cases, well, in the Abo and the Wolfcamp, yes. In your opinion, due to production from the reservoir and the time at which the wells were completed?

A Yes, sir. That's correct.

Q In the Devonian reservoir, when you didn't have any pressure drop, naturally, if this is a water drive reservoir, you wouldn't have any, what is your basis for saying that this will drain in excess of 30 percent?

A I would refer, along with Exhibit 14 to Exhibit Number Eight, which shows the reservoir characteristics for the Devonian Oil Pool.

Q I can't find any Exhibit Number 14.

A Actually, the only thing I want to call attention to was the permeability in the Devonian reservoir. The permeability averages ten millidarcies with a range of one tenth up to 100 millidarcies, and it could be any combination from this permeability



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late and the fact that the reservoir is water drive, that the conditions exist that would permit a drainage area of at least 20 acres.

Q You would indicate a better sweep efficiency with water drive than you would with the gas drive?

A Yes, sir, that's correct.

MR. UHL: Are there other questions of the witness?

MR. HENRIKSEN: Are you suggesting for the rule for the three pools on an 80 acre basis be made permanent?

A Yes, sir.

MR. UHL: Are there other questions? The witness may be excused. Do you have other witnesses?

MR. WHITE: That concludes our testimony.

MR. UHL: Are there statements to be made in this case?

MR. JACOBS: Mr. Examiner, Donald Jacobs for Skelly Oil Company. Skelly Oil Company is not an operator in any of these three pools, however, we do have acreage in Section 31 or 17 South, 35 East, and as an interested party in the pool, which is probably productive, we concur in the recommendations of Texas.

MR. HENRIKSEN: If the Examiner please, Phillips Petroleum Company and Amerada Petroleum Corporation are operators in one or more of the three pools involved here. We feel that the testimony that has been presented to the court shows that as to each of the three pools there are questions pending and affecting

before the court, and accordingly we ask that the court be allowed to



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that the present 30-acre spacing is not less than 30 acres and probably is slightly more than 30 acres. As to the Devonian formation, which is being drilled, while we have no pressure and no data on the 30-acre spacing and the nature of the Devonian reservoir with a 30-acre spacing, certainly indicates that it will be at least 30 acres. The economics clearly show that it is not profitable to drill any of these three reservoirs on 30-acre spacing and in many instances, it would not be done. One well will be drilled and economically drain a unit of not less than 30 acres, as shown by the testimony. That is the test provided in our statute on fixing a protection unit. The spacing of the 30-acre spacing for these three pools will prevent waste and will prevent the drilling of unnecessary wells, and as a result will essentially prevent the greater ultimate recovery of oil from these three reservoirs. We join with Texaco in advocating the 30-acre spacing rules be made permanent.

MR. SPENCER: Sir, speaking for Mobil Oil Company.

Mobil urges the Commission to adopt the protective existing rules on a permanent basis, feeling that the testimony which has been presented certainly supports the view that there has been waste. We urge the Commission to consider the law, the factors which have been established here as controlling the development of this reservoir.

MR. MEIER: Now, I have other things to say. I am sure to you there in these three reservoirs, which, I think, if you



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will have to be in the record.

MR. WILKINS: I would like to have them incorporated in the record.

MR. WILKINS: I would like to have them incorporated.

MR. WILKINS: I would like to be satisfactory, Mr. Wilkins, if the Examiner took administrative notice of all the statements in the file.

MR. WILKINS: That would be satisfactory.

MR. WILKINS: If that is satisfactory with Counsel, the Examiner will take note of all the statements and other statements.

MR. WILKINS: Fine.

MR. WILKINS: To be made in a report or vice versa.

MR. WILKINS: I didn't require that. He will still compromise.

MR. WILKINS: Which shows would be true or false. The case will be taken under advisement.

* * * *



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STATE OF NEW MEXICO {

COUNTY OF BERNALILLO {

I, ROY D. WILKINS, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill, and ability.

WITNESS my hand and seal of Office, this 3rd day of March, 1964.

[Signature]
NOTARY PUBLIC

My Commission Expires.

September 6, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2739-40-41 heard by me on *Feb. 18*, 1964.

[Signature] Examiner
New Mexico Oil Conservation Commission



DRAFT

JMD/esr

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. 2740

Order No. R-2422-A

APPLICATION OF SOCONY MOBIL OIL
COMPANY, INC., TO CREATE A NEW
POOL FOR WOLFCAMP PRODUCTION AND
FOR SPECIAL POOL RULES, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
February 19 1964, at Santa Fe, New Mexico, before Examiner Elvis A. Utz
~~Examiner duly appointed by the Oil Conservation Commission of New~~
~~Mexico, hereinafter referred to as the "Commission," in accordance~~
~~with Rule 1214 of the Commission Rules and Regulations.~~

NOW, on this March day of February, 1964, the Commission,
a quorum being present, having considered the ~~application and~~ testimony,
the record, ~~evidence and~~ 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 by Order No. R-2422 dated February 13, 1963,
temporary Special Rules and Regulations were promulgated for the
Vacuum-Wolfcamp Oil Pool.

(3) That pursuant to the provisions of Order No. R-2422,
this case was reopened to allow the operators in the subject pool
to appear and show cause why the Vacuum-Wolfcamp Oil Pool should
not be developed on 40 -acre proration units.

(4) That the evidence establishes that one well in the
Vacuum-Wolfcamp Oil Pool can efficiently and economically drain
and develop 80 acres.

(5) That to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Order No. R-2422 should be continued in full force and effect until further order of the Commission.

(6) That the Special Rules and Regulations promulgated by Order No. R-2422 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil in the pool.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the Vacuum-Wolfcamp Oil Pool promulgated by Order No. R-2422 are hereby continued in full force and effect until further order of the Commission.

(2) 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.

DRAFT

JMD/esr
February 5, 1963

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. 2740

Order No. R-2422

AM
APPLICATION OF SOCONY MOBIL OIL
COMPANY, INC., TO CREATE A NEW
POOL FOR WOLFCAMP PRODUCTION AND
FOR SPECIAL RULES, LEA COUNTY,
NEW MEXICO. *pool*

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on January 23, 1963, at Santa Fe, New Mexico, before Elvis A. Utz Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this day of February, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, Socony Mobil Oil Company, Inc., seeks the creation of a new pool for Wolfcamp production and the promulgation of temporary special rules and regulations governing said pool, *including a provision* ~~to provide~~ for 80-acre spacing units.

(3) That a new oil pool for Wolfcamp production should be created and designated the Vacuum-Wolfcamp Oil Pool. This pool was discovered by the Socony Mobil State Bridges Well No. 95, located in Unit P of Section 26, Township 17 South, Range 34 East, *New Mexico.* NMPM, Lea County, / The top of the perforations in the Wolfcamp formation is *at* ~~at~~ 9518 feet.

(4) That temporary special rules and regulations establishing 80-acre spacing should be promulgated for the subject pool in order to prevent the possibility of economic loss *resulting* ~~being caused~~

from ~~by~~ the drilling of unnecessary wells and in order to allow the operators in the subject pool to gather information concerning the ~~area that can be efficiently and economically drained by one well.~~ *reservoir characterizing the pool.*

(5) That the temporary special rules and regulations should provide for ~~fixed~~ *limited* well locations in order to assure orderly development of the pool and protect correlative rights.

(6) That ~~the~~ *the* temporary special rules and regulations ~~for the Vacuum-Wolfcamp Oil Pool~~ should be established for a one-year period and that during this one-year period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

(7) That this case should be reopened at an examiner hearing in February, 1964, at which time the operators in the subject pool should appear and show cause why the Vacuum-Wolfcamp Oil Pool should not be developed on 40-acre proration units.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as an oil pool for Wolfcamp production is hereby created and designated the Vacuum-Wolfcamp Oil Pool, consisting of the following-described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM
Section 26: SE/4

(2) That special rules and regulations for the Vacuum-Wolfcamp Oil Pool are hereby promulgated as follows, effective March 1, 1963.

SPECIAL RULES AND REGULATIONS
FOR THE
VACUUM-WOLFCAMP OIL POOL

RULE 1. Each well completed or recompleted in the Vacuum-Wolfcamp Oil Pool or in the Wolfcamp formation within one mile of the Vacuum-Wolfcamp Oil Pool, and not nearer to or within the limits of another designated Wolfcamp pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well completed or recompleted in the Vacuum-Wolfcamp Oil Pool shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided, however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. ~~For good cause shown,~~ The Secretary-Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a single quarter-quarter section or lot. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the ~~application has been received by the Secretary-Director.~~ *has received the application.*

RULE 4. ~~Each well drilled in the Vacuum-Wolfcamp Oil Pool~~ *The first well drilled on every standard or non-standard unit*
~~shall be located in the NW/4 or the SE/4 of a governmental quarter~~ *with 200 feet of the center of either*
~~section, and not closer than 200 feet to a governmental quarter-~~
~~quarter section line.~~

RULE 5. The Secretary-Director may grant an exception to the requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may

approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (79 through 81 acres) in the Vacuum-Wolfcamp Oil Pool shall be assigned an 80-acre proportional factor of 4.77 for allowable purposes, and in the event there is more than one well on an 80-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable in the Vacuum-Wolfcamp Oil Pool as the acreage in such non-standard unit bears to 80 acres.

It is further ordered:

(1) (2) ^{that} Any well presently drilling to or completed in the Wolfcamp formation within the Vacuum-Wolfcamp Oil Pool or within one mile of the Vacuum-Wolfcamp Oil Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4.

(3) (4) That this case shall be reopened at an examiner hearing in February, 1964 at which time the operators in the subject pool may appear and show cause why the Vacuum-Wolfcamp Oil Pool should not be developed on 40-acre proration units.

(2) (5) That any operator desiring to dedicate 80 acres to a well presently drilling or completed in the Vacuum-Wolfcamp Oil Pool shall file a new Form C-128 with the Commission on or before March 1, 1963.

(4) (6) 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.

Presented to the operator of any such well in writing by the Hobbs District Office in writing of the name and location of the well on or before March 1, 1963.

Name
Address
Remarks:

Ph.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

T R State
or County

Name
Address
Remarks:

Ph.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

T R State
or County