

CASE 5116: Application of MOBIL
FOR A PRESSURE MAINTENANCE
PROJECT, LEA COUNTY, N. MEX.

CASE No.

5/16

Application,

Transcripts,

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
CONFERENCE ROOM, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

Wednesday, November 28, 1973

IN THE MATTER OF:

Application of Mobil Oil
Corporation for a pressure
maintenance project, Lea
County, New Mexico.

Case No. 5116

BEFORE: Richard L. Stamets,
Examiner

TRANSCRIPT OF HEARING

1 MR. STAMETS: Case 5116.

2 MR. CARR: Case 5116: Application of Mobil Oil
3 Corporation for a pressure maintenance project, Lea
4 County, New Mexico.

5 MR. SPERLING: J. E. Sperling, of Modrall, Sperling,
6 Roehl, Harris and Sisk, Albuquerque, appearing on behalf
7 of the applicant. We have one witness to be sworn.

8 MR. STAMETS: Are there any other appearances in
9 this case?

10 (No response)

11 MR. STAMETS: You may proceed, Mr. Sperling.

12 * * * *

13 JOHN SEEREY,
14 was called as a witness, and after being duly sworn according
15 to law, testified as follows:

16 DIRECT EXAMINATION

17 BY MR. SPERLING:

18 Q Would you please state your name, your employer, and
19 the position in which you are employed?

20 A John Seerey, associate engineer with Mobil Oil Corporation,
21 Midland, Texas.

22 Q Have you on any previous occasion testified before the
23 Commission as an expert witness and had your
24 qualifications made a matter of record?

25 A Yes, I have.

1 MR. SPERLING: Are the witness's qualifications
2 acceptable, Mr. Examiner?

3 MR. STAMETS: They are.

4 Q (By Mr. Sperling) Would you state the purpose of the
5 application filed by Mobil in this case?

6 A Mobil Corporation requests authority to institute a
7 pressure maintenance project by the injection of water
8 and/or gas into the Middle Pennsylvanian formation of
9 its Bridges State Well No. 147 located in Unit F of
10 Section 13, Township 17 South, Range 34 East, Vacuum-
11 Middle Pennsylvanian Pool, Lea County, New Mexico.

12 Q Would you, by referring to Exhibit Number One, define
13 the location of the Bridges State lease and the pool in
14 which it is located?

15 A Exhibit One is a plat showing a segment of the Vacuum-
16 Middle pool. This plat shows all the wells and leases
17 within a two-mile radius of the proposed project. Each
18 well is identified as to producing horizon by color code.

19 The proposed pressure maintenance project area is
20 shown outlined in green on Exhibit One. The proposed
21 project area consists of the west half of Section 13,
22 Township 17 South, Range 34 East, Lea County, New Mexico,
23 containing approximately 320 acres.

24 Q And that project area is roughly in the center of the
25 exhibit, is that correct?

1 A Yes, it is.

2 Q Is Mobil requesting anything other than approval of the
3 project area as a pressure maintenance project by its
4 application?

5 A Mobil is requesting that administrative procedure be
6 established whereby the project area may be expanded at
7 a future date, and whereby additional injection and
8 producing wells in the project area may be approved
9 without the necessity of notice and hearing.

10 Q Is it part of Mobil's request by this application that a
11 special allowable be established for the project?

12 A No, no special allowable. No special pool rules exist
13 for the Vacuum-Middle Pennsylvanian Pool. Therefore the
14 non-marginal wells in this pool are now assigned a top
15 unit allowable of 320 barrels of oil per day for 40-acre
16 spacing in accordance with the depth bracket allowable
17 of 10,000 to 10,199 feet. No special allowable is
18 requested by Mobil in this application.

19 Q Mr. Seerey, would you give us a brief history of the
20 pool, and explain some of the more prominent characteristics
21 of it?

22 A The five-well Vacuum-Middle Pennsylvanian Pool is located
23 near the town of Buckeye, New Mexico, approximately
24 twenty-five miles northwest of Hobbs in Lea County. The
25 first well completed in the Vacuum-Middle Pennsylvanian

1 Pool was the Mobil Bridges State Well No. 121. It was
2 completed with a flowing potential of 468 barrels of oil
3 per day in August of 1967.

4 The Vacuum-Middle Pennsylvanian Reservoir is produced
5 by solution gas drive. There is no evidence of water
6 encroachment. The effective pay thickness is estimated
7 at sixteen feet with an average porosity of eight percent.
8 The permeability is low, probably in the range of one
9 to three millidarcies.

10 The original oil in place is estimated to be 2.7 mm
11 barrels.

12 Q Would you please refer to what has been marked as Exhibit
13 Two, and explain the purpose of that exhibit and what
14 it portrays?

15 A Exhibit Two is an isopack map of the Vacuum-Middle
16 Pennsylvanian Pool. It is based on the porosity logs
17 of the wells drilled through the Middle Pennsylvanian.
18 The net feet of pay used to prepare the map is shown by
19 the wells outlined in black, and the pay figures themselves
20 are in red underneath the designated well. For instance,
21 in Unit D of Section 13, we have Well No. 165, and below
22 it we have the figure 17, representing the effective
23 feet of net pay, and it is underlined in red.

24 The logs of these wells that contain these figures
25 were used in preparing this isopack map.

1 The proposed project area is shown shaded in green,
2 and, as we have stated before, it contains 320 acres all
3 above the zero isopack line. The project area includes
4 two producing Middle Pennsylvanian wells. Those are
5 Wells 165 and 147.

6 Well No. 121 and Well No. 120 are in the lower part
7 of the proposed project area.

8 Q It appears from the exhibit, Mr. Seerey, that there are
9 only five wells comprising the Middle Pennsylvanian Pool
10 in this area, is that correct?

11 A Yes, it is.

12 Q It also appears from the exhibit that of the five wells,
13 two of them are now classified as temporarily abandoned,
14 is that correct?

15 A That's correct.

16 Q And that is one within the project area and one immediately
17 to the east outside the project area?

18 A That's correct.

19 Q Now, would you refer to the proposed plan of Mobil for
20 this pressure maintenance project?

21 A The Bridges State Well No. 147 in Unit F of Section 13,
22 Township 17 South, Range 34 East is the proposed injection
23 well. Water or water and gas will be used, and will be
24 provided by the North Vacuum-Abo unit injection system
25 on some mutually agreeable basis.

1 Exhibit Three is a plat of the existing North Abo
2 injection unit injecting system. It shows that the
3 existing system can provide injection fluids for the
4 project without any serious difficulty. The maximum
5 injection rate and pressure for this Middle Pennsylvanian
6 Reservoir is expected to be 500 barrels of water per day
7 at 4,000 PSI, or 3,000 MCF of gas per day at 6,000 pounds.

8 The gas mentioned here would be inner gas intended
9 to be injected into the North Vacuum-Abo formation. It's
10 flue gas.

11 Q As I understand your testimony, you propose to use the
12 existing Abo pressure maintenance or secondary recovery
13 project in order to accommodate what is proposed for the
14 Middle Pennsylvanian pressure maintenance project?

15 A Yes. The North Vacuum-Abo unit water supply is obtained
16 from sands under permit issued by the State Engineer
17 authorizing usage of 1200 acre feet per year, or 25,500
18 barrels of water per day.

19 Exhibit Four is an analysis of the Abo water that
20 we intend to inject. The oxygen will be removed from
21 the water by a scavenger tower. Produced water resulting
22 from this project will be re-injected into the existing
23 Vacuum-San Andres waterflood in the same area.

24 The gas will consist of eighty-nine percent nitrogen
25 and eleven percent CO₂.

1 Q Will you refer to Exhibit Number Five, and tell us what
2 that is?

3 A Exhibit Five is a diagramatic well bore sketch of the
4 proposed Abo-Middle Pennsylvanian injection well, the
5 Bridges State Well No. 147. The existing casing is
6 indicated along with the total depth and the plug-back
7 depth. This sketch shows the location of the proposed
8 packers necessary to separate the Abo and Middle
9 Pennsylvanian formation in the well bore. Those packers
10 will be set within fifty feet of the top and bottom
11 perforations.

12 The proposed injection tubing is shown, and special
13 nine percent chrome one percent molybdenum corrosive-resistant
14 tubing will be used in the lower string between the two
15 Abo packers. The annulus will be filled with treated
16 fresh water, and a pressure release valve and gauge will
17 be installed on the casing at the surface.

18 MR. STAMETS: Let me ask at this point about this
19 pressure release valve. What kind of pressures are you
20 talking about?

21 THE WITNESS: It is my understanding that it will
22 be set-- It will be on the annulus-- I will have to check
23 on that, Mr. Examiner. I presume it will be set below
24 the capability of the surface casing, but I don't know
25 what it would bleed back into.

1 MR. STAMETS: You will furnish us with that
2 information after the hearing?

3 THE WITNESS: Yes.

4 Q (By Mr. Sperling) Had you completed your explanation of
5 Exhibit Five, the well bore sketch?

6 A I believe so, with the exception of the unanswered question.

7 Q Would you identify what has been marked as Exhibit Number
8 Six, please?

9 A Exhibit Six is a log of the proposed injection well, the
10 Bridges State Well No. 147. The Middle Pennsylvanian
11 pay is found at 10,439 feet, or 6400 feet sub-C. The
12 top of the pay formation is marked in red as well as the
13 proposed perforations in the Middle Pennsylvanian P.

14 Q Now, have you prepared an exhibit, Mr. Seerey, which
15 indicates the production history of the project area and
16 the Vacuum Middle Pennsylvanian Pool?

17 A Yes. The accumulative oil and gas production from the
18 Vacuum-Middle Pennsylvanian Pool in the project area as
19 of September 1st, 1973 was 209,000 barrels of oil and
20 352,300 MCF of gas. The current oil production rate is
21 96 barrels of oil per day with a gas-oil ratio of 1741
22 cubic feet per day. Water production is less than one
23 percent of the total produced fluids.

24 Exhibit Number Seven is a tabular production history
25 of the Vacuum-Middle Pennsylvanian wells in the project

1 area.

2 Exhibit Number Eight is a graphic description of
3 the same production history.

4 Exhibit Number Nine is a summary of the well tests
5 and accumulative production for the wells in the project
6 area.

7 Q What is the total estimated primary recovery and fluid
8 injection recovery for the project area?

9 A The total estimated primary and fluid is 410,000 barrels
10 of oil, assuming that the present wells in the project
11 area would produce approximately 275,000 barrels or ten
12 percent of the oil in place. This indicates that the
13 proposed pressure maintenance project should increase the
14 ultimate recovery by 135,000 barrels of oil.

15 Q Now, for the record, Mr. Seerey, would you please summarize
16 what Mobil is seeking by this application?

17 A Mobil Oil Corporation respectfully requests authorization
18 to inject water or water and gas into the Vacuum-Middle
19 Pennsylvanian formation through the Bridges State Well
20 No. 147 as a pressure maintenance project. Said project
21 is to consist of the west half of Section 13, Township
22 17 South, Range 34 East, Lea County, New Mexico.

23 Secondly, Mobil further requests an administrative
24 procedure whereby the project area may be expanded and
25 additional injection and producing wells may be approved

1 at later dates without hearings.

2 Q I believe the application was filed requesting the
3 establishment of administrative procedure under which the
4 project area could be expanded and additional injection
5 or production wells drilled or converted at both orthodox
6 and unorthodox locations. Do I understand from your
7 testimony just now given that to the extent that the
8 original application included a request for the
9 establishment of producing or injection wells at orthodox
10 or unorthodox locations, that the application is hereby
11 amended?

12 A Yes. I believe we would wish to amend the application to
13 delete the wording "orthodox or unorthodox locations",
14 and just proceed on the basis of additional injection or
15 producing wells.

16 Q I understand that presently the Middle-Vacuum Pennsylvanian
17 Pool is not subject to special rules, and is under
18 state-wide rules on the 40-acre basis?

19 A That's correct.

20 Q And that is satisfactory as far as Mobil is concerned
21 for the expansion of the project area?

22 A We believe it is.

23 Q In your opinion, Mr. Seerey, will the granting of this
24 application as amended result in the prevention of
25 waste and be in the best interest of conservation and

1 at the same time protect the correlative rights of all
2 having interests in the pool?

3 A I believe that the approval of the proposed pressure
4 maintenance project would be in the interest of
5 conservation and should result in greater ultimate recovery,
6 thereby preventing waste. I do not believe that the
7 correlative rights of others will be violated in any manner
8 by the approval of this request.

9 MR. SPERLING: At this time, Mr. Examiner, we would
10 offer Exhibits One through Nine.

11 MR. STAMETS: Without objection, Applicant's Exhibits
12 One through Nine will be admitted into evidence.

13 (Whereupon Applicant's Exhibits One through Nine
14 were admitted in evidence.)

15 * * * *

16 CROSS EXAMINATION

17 BY MR. STAMETS:

18 Q At the present time, Mobil is the only producer in the
19 field, is that correct?

20 A That's correct, sir.

21 Q Do you know what the situation is with the Texaco well
22 in the southeast quarter of Section 13?

23 A I checked with the District Office, and it is my
24 understanding that a cast iron bridge plug has been set
25 above the Middle Pennsylvanian with approximately twenty

1 feet of cement on the top of the cast iron plug.

2 Q I note from your production history, Exhibits Seven and
3 Eight, that there was a long decline in production, about
4 three years, and then the oil production has gone back up.
5 What is the situation there?

6 A The change in trend is the changing from a decline to an
7 increase in September of 1970. I believe it was at the
8 time of the drilling of the wells, and I believe that
9 indicates the wells beginning to produce.

10 Q Will the gauge you propose to install and the pressure
11 release job serve as a leak detection device on the well?

12 A Yes, sir.

13 Q And you do have field personnel who will be inspecting
14 this well on a regular basis?

15 A Yes.

16 Q Will you have a procedure which will allow the reporting
17 of any leak in this well or any of the offset producing
18 wells to the supervisor of the Hobbs District Office?

19 A Yes, we will.

20 Q The proposed injection well, the Bridges State Well No.
21 147, is it currently approved as a multiple completion?

22 A It is presently approved as a multiple completion in the
23 Abo and Middle Pennsylvanian.

24 Q So the only change here is it would now be an injection
25 well instead of producing from the Middle Pennsylvanian?

1 A That's correct, sir.

2 MR. STAMETS: Are there any other questions of the
3 witness?

4 (No response)

5 MR. STAMETS: He may be excused.

6 (Witness excused.)

7 MR. STAMETS: Is there anything further in this case?

8 MR. SPERLING: I have nothing further.

9 MR. STAMETS: Case 5116 will be taken under
10 advisement.

11 * * * *

12 C E R T I F I C A T E

13 I, RICHARD E. McCORMICK, Certified Shorthand
14 Reporter, in and for the County of Bernalillo, State of New
15 Mexico, do hereby certify that the foregoing and attached
16 Transcript of Hearing before the New Mexico Oil Conservation
17 Commission was reported by me; and that the same is a true
18 and correct record of the said proceedings to the best of
19 my knowledge, skill and ability.

20
21 *Richard E. McCormick*
22 CERTIFIED SHORTHAND REPORTER
23
24
25

7 Nov 28 5116 73
Richard E. McCormick

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OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

December 6, 1973

L. R. TRUJILLO
CHAIRMAN
LAND COMMISSIONER
ALEX J. ARMUJO
MEMBER
STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

Mr. James E. Sperling
Modrall, Sperling, Roehl, Harris
and Sisk
Attorneys at Law
Post Office Box 2168
Public Service Building
Albuquerque, New Mexico 87103

Re: CASE NO. 5116
ORDER NO. R-4688
Applicant:
Mobil Oil Corporation

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.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC X
Artesia OCC
Aztec OCC

Other State Engineer Office

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. 5116
Order No. R-4688

APPLICATION OF MOBIL OIL CORPORATION
FOR A PRESSURE MAINTENANCE PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 28, 1973, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 6th day of December, 1973, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Mobil Oil Corporation, seeks authority to institute a pressure maintenance project by the injection of water and/or gas into its Bridges State Well No. 147 located in Unit F of Section 13, Township 17 South, Range 34 East, NMPM, Vacuum-Middle Pennsylvanian Pool, Lea County, New Mexico.

(3) That the proposed pressure maintenance project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(4) That the operator should take all steps necessary to ensure that the injected water and/or gas enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(5) That administrative procedures should be established whereby additional injection wells in the project area may be approved without notice and hearing and whereby the project area may be expanded without notice and hearing.

(6) That said Bridges State Well No. 147 is currently an oil-oil dual completion and the proposed mechanics of recompleting said well as a dual injection and producing well in the Vacuum-Middle Pennsylvanian Pool and the South Vacuum-Middle Pool, respectively, are proper and in accordance with good conservation practices.

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CASE NO. 5116

Order No. R-4688

(7) That the subject application should be approved, the W/2 of said Section 13 be designated the project area, and the project be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Mobil Oil Corporation, is hereby authorized to institute a pressure maintenance project by the injection of water and/or gas into the Middle Pennsylvanian formation in its Bridges State Well No. 147, located in Unit F of Section 13, Township 17 South, Range 34 East, Vacuum-Middle Pennsylvanian Pool, Lea County, New Mexico.

(2) That injection into said well shall be through 2 3/8-inch tubing, set in a packer which shall be located at approximately 10,390 feet; that the casing-tubing annulus shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device and a pressure relief valve.

(3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the casing, tubing, or packer in said injection well, the leakage of gas, water or oil from around any producing well, or the leakage of gas, water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(4) That the W/2 of said Section 13 is hereby established as the project area and designated the Mobil Vacuum-Middle Pennsylvanian Pressure Maintenance Project which shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(5) The Secretary-Director of the Commission is hereby authorized to approve additional injection wells within the boundaries of the project area as may be necessary to complete an efficient injection pattern. To obtain such approval, the project operator shall file proper application with the Commission, which application shall include the following:

(a) A plat showing the location of proposed injection well, all wells within the project area, and offset operators, locating wells which offset the project area.

(b) A schematic drawing of the proposed well which fully describes the casing, tubing, perforated interval, and depth.

(c) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

The Secretary-Director may approve the proposed injection well if, within 20 days after submission of application, no objection

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CASE NO. 5116
Order No. R-4688

to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received from all offset operators.

(6) That expansion of the project area may be approved by the Secretary-Director of the Commission administratively when good cause is shown therefor.

(7) Each month the project operator shall submit to the Commission a Pressure Maintenance Project Operator's Report on a form prescribed by the Commission.

(8) 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 hereinafore designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

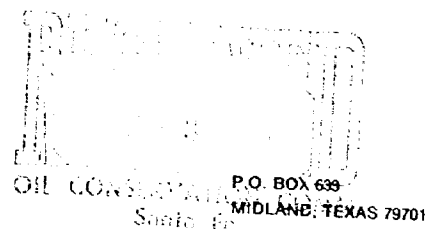
I. R. TRUJILLO, Chairman

ALEX J. ARMIJO, Member

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

SEAL

Mobil Oil Corporation



November 29, 1973

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

Attn: Mr. Richard L. Stamets, Examiner

CASE 5116, NOVEMBER 28, 1973 HEARING
MOBIL OIL CORPORATION'S APPLICATION
FOR A PRESSURE MAINTENANCE PROJECT,
BRIDGES STATE LEASE,
VACUUM MIDDLE PENN POOL,
LEA COUNTY, NEW MEXICO

Gentlemen:

In response to the question asked by you, as examiner, at the November 28, 1973 hearing of the subject project we respectfully submit the following information.

As shown on the attached revised diagrammatic well bore sketch of the proposed injection well, the annulus will be protected by a 2" Kinzbach spring loaded pressure relief valve, pre-set at the factory to relieve at 1500 p.s.i.g.

As the fluid in the annulus to be relieved will be either treated fresh water or inert gas, the relief valve will be vented to the atmosphere. Since this is a very active lease, Mobil's operating personnel will be in the vicinity during all normal working hours and venting would be readily detected.

If there are any further questions regarding this application, please call.

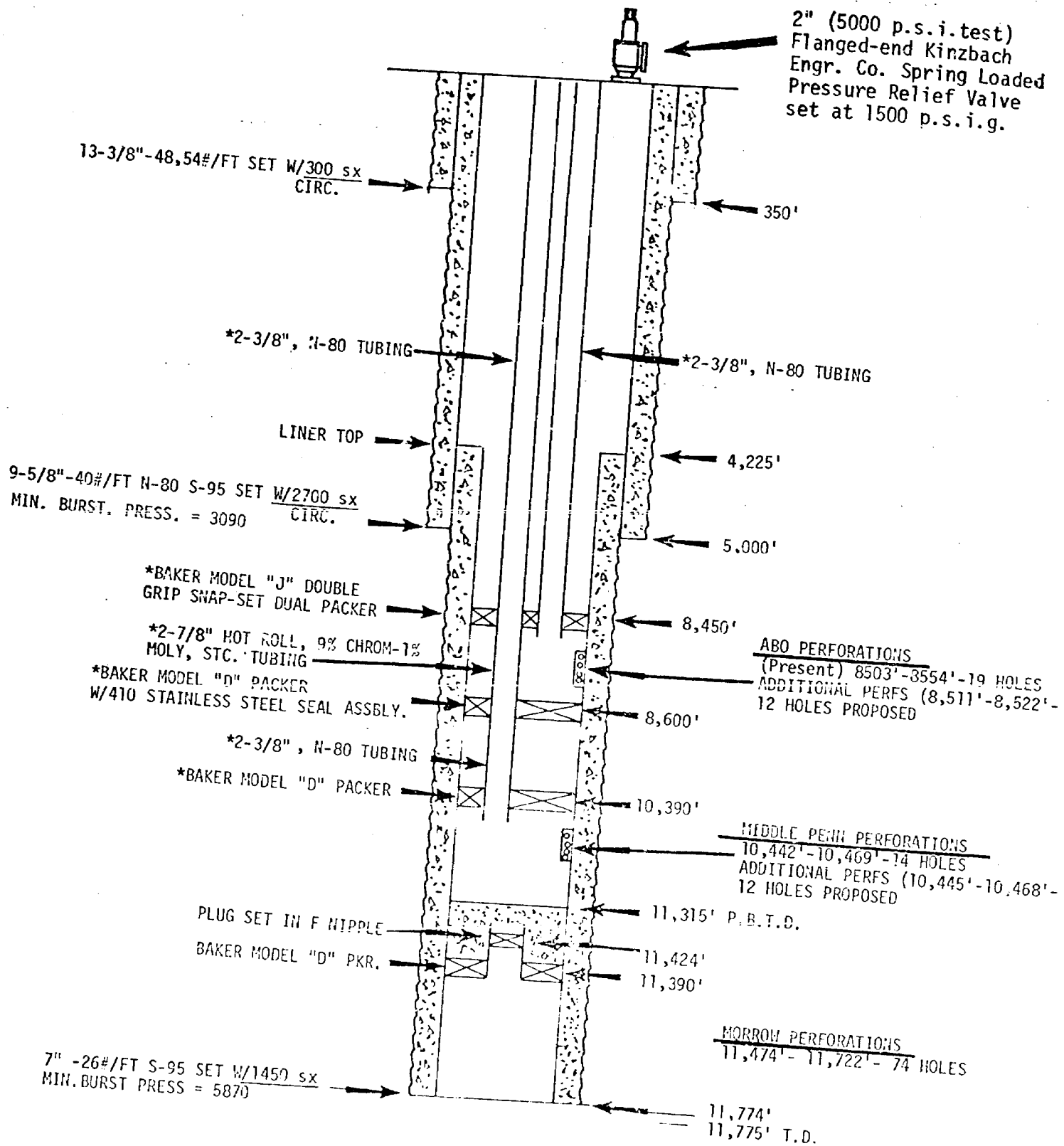
Yours very truly,

A handwritten signature in dark ink, appearing to read "L. A. Davis".

L. A. Davis
Area Operations Engineer

JHSeerey/cs
Attachment
cc: James E. Sperling

PROPOSED
DIAGRAMMATIC WELL SKETCH
NORTH VACUUM ABO UNIT WELL NO. 147
NORTH VACUUM (ABO) (M. PENN) POOL
LEA COUNTY, NEW MEXICO



* PROPOSED NEW EQUIPMENT AND INSTALLATION.

Docket No. 34-73

DOCKET: COMMISSION HEARING - TUESDAY - NOVEMBER 27, 1973

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

CASE 5063: (De Novo)

Application of Shell Oil Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox location for its Sanger Well No. 6Y to be located 1220 feet from the North line and 180 feet from the West line of Section 27, Township 18 South, Range 38 East, Hobbs Pool, Lea County, New Mexico.

Upon application of Samedan Oil Corporation, this case will be heard De Novo pursuant to the provisions of Rule 1220.

Docket No. 36-73

DOCKET: EXAMINER HEARING - TUESDAY - DECEMBER 11, 1973

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for January, 1974, from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico;
- (2) Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for January, 1974.

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 28, 1973

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

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

- CASE 5115: Application of Mobil Oil Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Corral Draw Unit Area comprising 19,199 acres, more or less, of Federal and State lands in Townships 25 and 26 South, Range 29 East, Eddy County, New Mexico.
- CASE 5116: Application of Mobil Oil Corporation for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project by the injection of water and/or gas into the Middle Pennsylvanian formation of its Bridges State Well No. 147 located in Unit F of Section 13, Township 17 South, Range 34 East, Vacuum-Middle Pennsylvanian Pool, Lea County, New Mexico, the W/2 of said Section 13 to be the initial project area. Applicant further seeks the promulgation of rules for said project including a provision for administrative approval for expansion thereof.
- CASE 5117: Application of Roger C. Hanks for creation of a new pool and special rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the North Dagger Draw-Cisco Canyon Oil Pool in Sections 24, 25, and 36, Township 19 South, Range 24 East, Sections 18, 19, 30 and 31, Township 19 South, Range 25 East, and Section 1, Township 20 South, Range 24 East, Eddy County, New Mexico, and the promulgation of special pool rules therefor, including a provision for 320-acre spacing and proration units and specified well locations.
- CASE 5118: Application of Shell Oil Company for an extension of Order No. R-4289, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the indefinite extension of Order No. R-4289, which order as extended authorized temporary downhole commingling of the Morrow Pennsylvanian and Devonian production in the wellbore in its Antelope Ridge Well No. 2 located in Unit B of Section 4, Township 24 South, Range 34 East, Antelope Ridge Field, Lea County, New Mexico.
- CASE 5119: Application of Getty Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Stock Unit Area comprising 5,760 acres, more or less, of State lands in Township 21 South, Range 33 East, Lea County, New Mexico.
- CASE 5120: Application of Lone Star Producing Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water by

(Case 5120 continued from Page 1)

injection into the San Andres formation through the annulus between 5 1/2-inch and 8 5/8-inch casing strings of its New Mexico State 80 Well No. 1 located in Unit B of Section 33, Township 14 South, Range 34 East, Tres Papalotes-Pennsylvanian Pool, Lea County, New Mexico, and to produce oil from said pool through 2 3/8-inch tubing installed within the 5 1/2-inch casing.

CASE 5121: Application of Texaco Inc. for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SE/4 of Section 25, Township 20 South, Range 32 East, South Salt Lake-Morrow Gas Pool, Lea County, New Mexico, to be dedicated to its Audie Richards Well No. 1 located in Unit F of said Section 25.

CASE 5122: Application of Sun Oil Company for the creation of a new oil pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Wolfcamp production for its Shern Federal Well No. 1 located in Unit M of Section 15, Township 19 South, Range 32 East, Lusk Field, Lea County, New Mexico, and the promulgation of special pool rules therefor including a provision for 160-acre spacing and proration units and a special limiting gas-oil ratio of 4000 to 1.

CASE 5123: Application of Consolidated Oil & Gas Inc. for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle gas production from the Flora Vista-Gallup Gas Pool and the Basin Dakota-Gas Pool in the wellbore of its Clayton Well No. 1-2 located in Unit N of Section 2, Township 30 North, Range 12 West, San Juan County, New Mexico.

CASE 5124: Application of Belco Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the S/2 of Section 30, Township 20 South, Range 33 East, South Salt Lake-Morrow Gas Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and 1300 feet from the East line of said Section 30. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5126: Application of Atlantic Richfield Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Avalon Deep Unit Area comprising 10, 117 acres, more or less, of fee, Federal, and State lands in Township 21 South, Ranges 26 and 27 East, Eddy County, New Mexico.

CASE 5127: Application of Skelly Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Salt Lake South Unit Area comprising 7080.12 acres, more or less, of State and Federal lands in Township 21 South, Range 32 East, Lea County, New Mexico.

CASE 5125: Northwestern nomenclature case calling for the creation and extension of certain pools in McKinley, San Juan, Rio Arriba and Sandoval Counties, New Mexico:

(a) Create a new pool in McKinley County, New Mexico, classified as an oil pool for Mesaverde production and designated as the Blackeye-Mesaverde Oil Pool. The discovery well is the K & W Oil Co. #55-Y Jaco located in Unit D of Section 32, Township 20 North, Range 9 West, NMPM. Said pool would comprise:

TOWNSHIP 20 NORTH, RANGE 9 WEST, NMPM

Section 29: W/2 SW/4

Section 30: SE/4 NE/4 and NE/4 SE/4

Section 32: NW/4 NW/4

(b) Create a new pool in McKinley County, New Mexico, classified as an oil pool for Dakota production and designated as the Blackeye-Dakota Oil Pool. The discovery well is the Colorado Plateau Geological Services, Inc. #1 Blackeye located in Unit M of Section 29, Township 20 North, Range 9 West, NMPM. Said pool would comprise:

TOWNSHIP 20 NORTH, RANGE 9 WEST, NMPM

Section 29: SW/4 SW/4

(c) Create a new pool in McKinley County, New Mexico, classified as a gas pool for Dakota A production and designated as the Lone Pine-Dakota A Pool. The discovery well is the Tenneco Oil Co. #2 SFPRR located in Unit L of Section 13, Township 17 North, Range 9 West, NMPM. Said pool would comprise:

TOWNSHIP 17 NORTH, RANGE 9 WEST, NMPM

Section 13: SW/4

Section 23: NE/4

Section 24: NW/4

(d) Create a new pool in San Juan County, New Mexico, classified as a gas pool for Fruitland production and designated as the Mt. Nebo-Fruitland Pool. The discovery well is the Amoco Production Co. #1 Keys Gas Com E located in Unit D of Section 27, Township 32 North, Range 10 west, NMPM. Said pool would comprise:

TOWNSHIP 32 NORTH, RANGE 10 WEST, NMPM

Section 27: NW/4

Section 28: NE/4

(e) Extend the Angels Peak-Gallup Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 9 WEST, NMPM

Section 6: N/2
Section 7: SW/4
Section 8: All
Section 9: W/2
Section 18: W/2 & SE/4
Section 23: W/2

TOWNSHIP 26 NORTH, RANGE 10 WEST, NMPM

Section 3: SW/4 & S/2 SE/4
Section 11: S/2
Section 12: All
Section 13: N/2

(f) Extend the Aztec-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 8 WEST, NMPM

Section 18: W/2

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM

Section 18: S/2
Section 20: SW/4

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM

Section 12: SW/4

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM

Section 18: SE/4
Section 21: SW/4
Section 28: SE/4
Section 31: E/2
Section 32: SW/4

TOWNSHIP 31 NORTH, RANGE 12 WEST, NMPM

Section 2: N/2
Section 3: NE/4

(g) Extend the Ballard-Pictured Cliffs Pool in Rio Arriba, Sandoval and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 22 NORTH, RANGE 2 WEST, NMPM

Section 6: N/2 & SE/4
Section 7: NE/4
Section 8: W/2

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM

Section 15: S/2
Section 16: S/2
Section 21: All
Section 22: All
Section 23: All
Section 26: N/2
Section 27: N/2 & SE/4
Section 28: NE/4

TOWNSHIP 23 NORTH, RANGE 4 WEST, NMPM

Section 24: NE/4

TOWNSHIP 23 NORTH, RANGE 5 WEST, NMPM

Section 14: NW/4

TOWNSHIP 24 NORTH, RANGE 6 WEST, NMPM

Section 17: SW/4
Section 20: N/2

(h) Extend the Blanco-Mesaverde Pool in Rio Arriba and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM

Section 8: E/2
Section 9: All
Section 10: W/2
Section 14: N/2

TOWNSHIP 27 NORTH, RANGE 9 WEST, NMPM

Section 9: SE/4
Section 34: S/2

TOWNSHIP 28 NORTH, RANGE 9 WEST, NMPM

Section 7: All (Partial)
Section 18: All
Section 19: All
Section 31: W/2

TOWNSHIP 28 NORTH, RANGE 10 WEST, NMPM

Section 13: E/2

(i) Extend the Blanco-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 29 NORTH, RANGE 7 WEST, NMPM

Section 30: SW/4
Section 31: W/2

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM

Section 5: SE/4	Section 25: W/2 & SE/4
Section 8: S/2	Section 26: E/2
Section 14: N/2	Section 33: W/2
Section 15: S/2	Section 34: NE/4
Section 16: S/2	Section 35: N/2
Section 17: S/2 & NE/4	Section 36: N/2
Section 23: SE/4	

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM

Section 6: S/2
Section 7: All
Section 18: NE/4

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM

Section 14: NE/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM

Section 2: All	Section 14: NE/4
Section 5: SE/4	Section 15: SW/4
Section 6: NE/4	Section 16: N/2 & SE/4
Section 9: NE/4	Section 22: SE/4
Section 10: N/2	Section 23: S/2
Section 11: All	Section 24: SW/4
Section 12: SW/4	Section 25: All
Section 13: All	Section 26: NE/4

TOWNSHIP 31 NORTH, RANGE 9 WEST, NMPM

Section 31: S/2

TOWNSHIP 31 NORTH, RANGE 10 WEST, NMPM

Section 18: SW/4	Section 32: E/2
Section 29: SE/4	Section 35: S/2
Section 31: S/2	Section 36: S/2

TOWNSHIP 31 NORTH, RANGE 11 WEST, NMPM

Section 3: All	Section 12: All
Section 4: All	Section 13: E/2
Section 5: N/2 & SE/4	Section 14: N/2
Section 8: SW/4	Section 17: N/2
Section 9: N/2	Section 23: W/2
Section 10: N/2	Section 25: SW/4
Section 11: All	

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM

Section 21: E/2	Section 32: All
Section 22: SW/4	Section 33: All
Section 27: All	Section 34: All
Section 28: All	Section 35: S/2
Section 29: N/2 & SE/4	

(j) Extend the South Blanco-Pictured Cliffs Pool in Rio Arriba, Sandoval and San Juan Counties, New Mexico, to include therein:

TOWNSHIP 23 NORTH, RANGE 1 WEST, NMPM
Section 8: SE/4

TOWNSHIP 25 NORTH, RANGE 6 WEST, NMPM
Section 9: E/2 Section 16: NE/4

TOWNSHIP 27 NORTH, RANGE 6 WEST, NMPM
Section 17: NE/4

TOWNSHIP 28 NORTH, RANGE 6 WEST, NMPM
Section 26: SW/4 Section 35: W/2
Section 27: E/2 Section 36: NW/4

TOWNSHIP 28 NORTH, RANGE 7 WEST, NMPM
Section 16: E/2

TOWNSHIP 28 NORTH, RANGE 8 WEST, NMPM
Section 8: All (Partial) Section 18: E/2
Section 9: All (Partial) Section 19: NE/4
Section 14: W/2 & SE/4 Section 20: NW/4
Section 15: N/2 Section 23: NE/4
Section 16: NE/4 Section 24: W/2 & SE/4
Section 17: All Section 25: N/2

(k) Extend the Choza Mesa-Pictured Cliffs Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 4 WEST, NMPM
Section 23: W/2

(l) Extend the Flora Vista-Fruitland Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 30 NORTH, RANGE 12 WEST, NMPM
Section 1: SW/4
Section 2: S/2
Section 3: SE/4

(m) Extend the South Gallegos-Fruitland Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
Section 1: SW/4

(n) Extend the Gonzales-Mesaverde Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 4: SW/4 Section 9: NW/4
Section 5: SE/4

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM

Section 29: SW/4 Section 32: W/2

Section 31: S/2

(o) Extend the Hospah-Dakota Oil Pool in McKinley County, New Mexico, to include therein:

TOWNSHIP 17 NORTH, RANGE 8 WEST, NMPM

Section 5: SW/4 SW/4 Section 7: N/2 NE/4

Section 6: SE/4 SE/4

(p) Extend the Kutz-Fruitland Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 11 WEST, NMPM

Section 13: W/2

(q) Extend the Largo-Chacra Pool in Rio Arriba & San Juan Counties, New Mexico, to include therein:

TOWNSHIP 27 NORTH, RANGE 8 WEST, NMPM

Section 10: NE/4 Section 16: S/2

Section 11: All Section 17: SE/4

Section 13: W/2 & SE/4 Section 23: N/2

Section 14: All Section 25: W/2

Section 15: S/2 Section 26: E/2

(r) Extend the South Lindrith-Gallup Dakota Oil Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 4 WEST, NMPM

Section 21: SE/4 Section 28: N/2 & SW/4

(s) Extend the Lone Pine-Dakota D Oil Pool in McKinley County, New Mexico, to include therein:

TOWNSHIP 17 NORTH, RANGE 8 WEST, NMPM

Section 7: S/2 NE/4 Section 8: W/2 NW/4

(t) Extend the North Los Pinos-Fruitland Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 32 NORTH, RANGE 3 WEST, NMPM

Section 13: SE/4

(u) Extend the Otero-Chacra Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM

Section 2: SW/4 Section 12: W/2

Section 3: SE/4 Section 14: NW/4

Section 10: SE/4 Section 15: NE/4

Section 11: S/2 & NE/4

EXAMINER HEARING - WEDNESDAY - NOVEMBER 28, 1973

Docket No. 35-73
-9-

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM
Section 31: W/2 Section 32: SW/4

TOWNSHIP 26 NORTH, RANGE 6 WEST, NMPM
Section 21: SW/4 Section 33: E/2
Section 26: NW/4 & SE/4 Section 34: All
Section 27: All Section 36: S/2

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM
Section 11: N/2

(v) Extend the Pinon-Fruitland Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 1 WEST, NMPM
Section 8: All (Partial)
Section 9: All (Partial)

(w) Extend the Tapacito-Pictured Cliffs Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 3 WEST, NMPM
Section 21: NE/4

TOWNSHIP 27 NORTH, RANGE 5 WEST, NMPM
Section 6: SE/4 Section 27: N/2
Section 15: SE/4

(x) Extend the Tocito Dome-Pennsylvanian D Oil Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 18 WEST, NMPM
Section 26: NW/4 Section 27: NE/4

(y) Extend the Ute Dome-Dakota Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 31 NORTH, RANGE 14 WEST, NMPM
Section 10: All Section 11: All

TOWNSHIP 32 NORTH, RANGE 14 WEST, NMPM
Section 25: E/2

(z) Extend the Ute Dome-Paradox Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 31 NORTH, RANGE 14 WEST, NMPM
Section 10: All

TOWNSHIP 32 NORTH, RANGE 14 WEST, NMPM
Section 25: All

Martin Water Laboratories

P. O. Box 1459 Phone 941-3234
MONAHAN, TEXAS 79756

RESULT OF WATER ANALYSES

406 W. ILLINOIS Phone 453-4521
MIDLAND, TEXAS 79701

TO: Mr. I. S. Reavis LABORATORY NO. 469224
P. O. Box 633, Midland, Texas SAMPLE RECEIVED 4-24-69
RESULTS REPORTED 5-14-69

COMPANY Mobil Oil Corporation LEASE Bridges State Vacuum
FIELD OR POOL Vacuum
SECTION BLOCK SURVEY COUNTY Lea STATE New Mexico

SOURCE OF SAMPLE AND DATE TAKEN:

- NO. 1 Supply water - taken from water supply well @ plant (make-up for produced water) 4-29
NO. 2 Supply water - taken from WSW #100 & 101 @ common header @ plant. 4-29-69
NO. 3
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0002	1.0003		
pH When Sampled	7.3	6.7		
pH When Received	7.6	7.1		
Bicarbonate as HCO ₃	200	171		
Supersaturation as CaCO ₃	0	--		
Undersat. as CaCO ₃	-	29		
Total Hardness as CaCO ₃	198	191		
Calcium as Ca	91	60		
Magnesium as Mg	11	10		
Sodium and/or Potassium	26	26		
Sulfate as SO ₄	26	20		
Chloride as Cl	42	42		
Iron as Fe	0.0	0.0		
Barium as Ba	0	0		
Turbidity, Electric	1.9	1.3		
Color as Pt	4	6		
Total Solids, Calculated	366	339		
Temperature °F.	65	65		
Carbon Dioxide, Calculated	15	55		
Dissolved Oxygen, Aerator	2.5	0.0		
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohm/cm at 60° F.	17,24	19,81		
Suspended Oil				
Filtrable Solids as mg/l	0.20	0.13		
Volume Filtered, ml	3,000	4,000		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

ANALYST'S SIGNATURE _____
DATE _____
LABORATORY _____
BY _____
DATE _____

PROPOSED
DIAGRAMMATIC WELL SKETCH
NORTH VACUUM ABO UNIT WELL NO. 147
NORTH VACUUM (ABO) (M. PENN) POOL
LEA COUNTY, NEW MEXICO

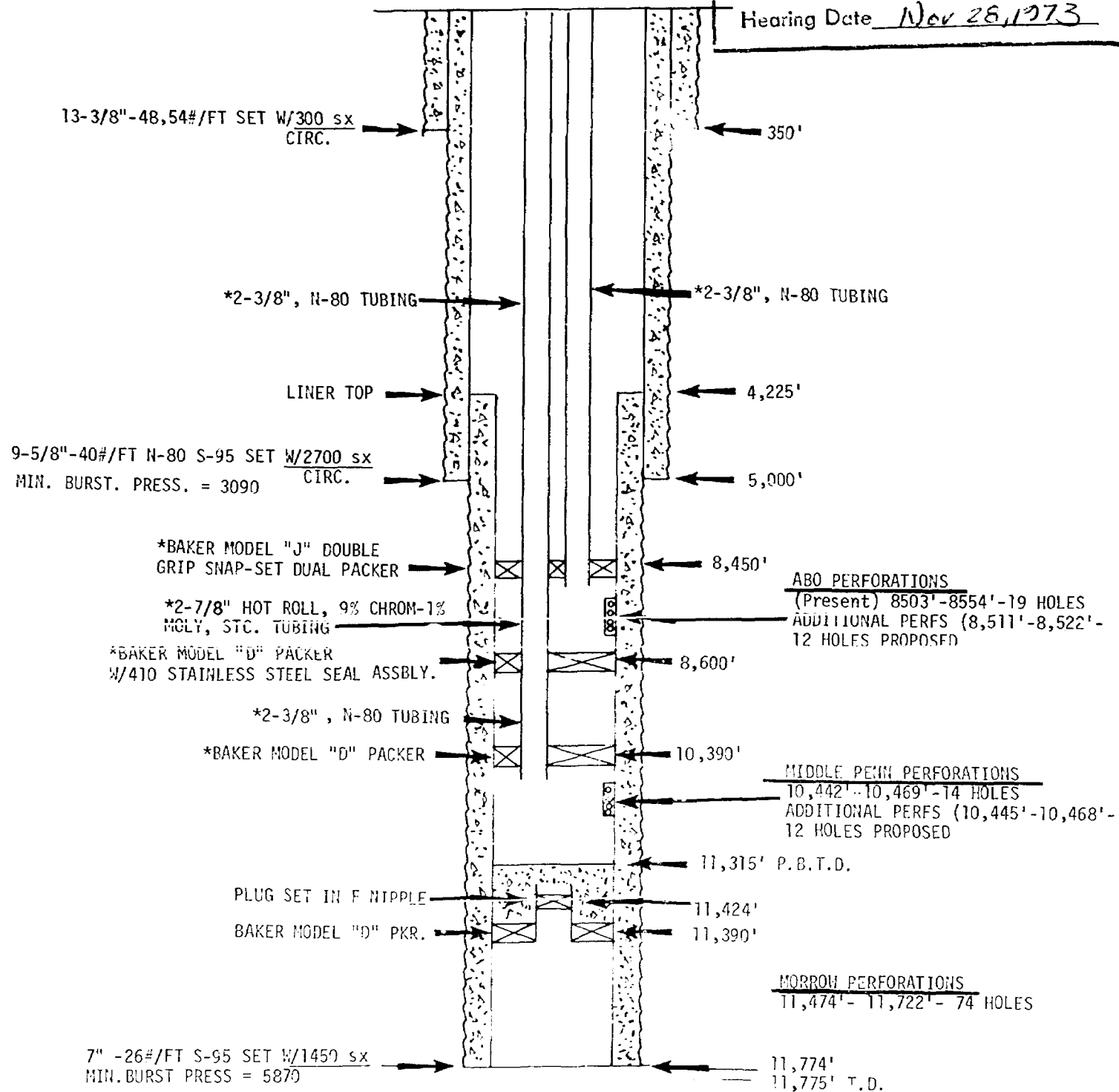
BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION

EXHIBIT NO. 5

CASE NO. 5116

Submitted By Mobil

Hearing Date Nov 28, 1973



* PROPOSED NEW EQUIPMENT AND INSTALLATION.

BEFORE EXAMINER STAMETS
OIL CONVEYANCE COMMISSION

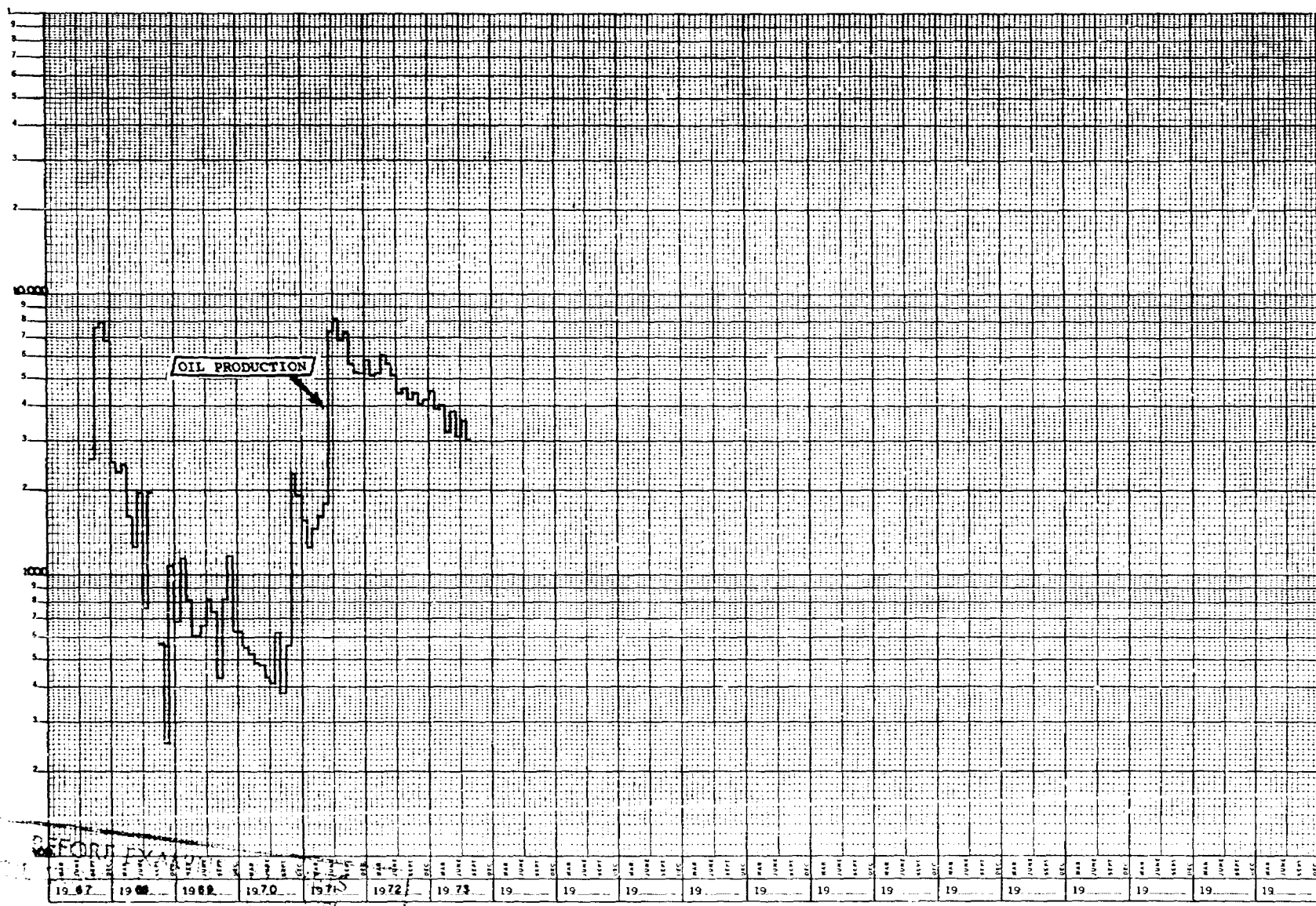
PRODUCTION HISTORY OF PROJECT AREA
VACUUM MIDDLE PENN POOL
C. 116
Submitted, 8/16/71 LEA COUNTY, NEW MEXICO
Hearing Date, Nov 26, 1971

Year	Monthly Production		Cumulative Production	
	Oil, Bbls.	Gas, MCF	Oil, Bbls.	Gas, MCF
1967				
Sept.	2,560	3,852	2,560	3,852
Oct.	7,649	4,940	10,209	8,792
Nov.	7,883	6,775	18,092	15,567
Dec.	6,743	5,324	24,835	20,891
1968				
Jan.	2,491	4,247	27,326	25,138
Feb.	2,346	3,259	29,672	28,387
Mar.	2,470	5,381	32,142	33,778
April	1,621	7,239	33,763	41,017
May	1,252	9,214	35,015	50,231
June	1,983	7,176	36,998	57,407
July	770	2,609	37,768	60,016
Aug.	1,957	4,287	39,725	64,303
Sept.	8,070	3,553	47,795	67,856
Oct.	577	3,142	48,372	70,998
Nov.	252	379	48,624	71,377
Dec.	1,093	1,679	49,717	73,056
1969				
Jan.	681	1,919	50,398	74,975
Feb.	1,157	1,513	51,555	76,488
Mar.	810	1,234	52,365	77,722
April	605	1,582	52,970	79,304
May	609	1,792	53,579	81,096
June	667	1,609	54,246	82,705
July	817	1,186	55,063	83,891
Aug.	734	1,234	55,797	85,125
Sept.	438	1,047	56,235	86,172
Oct.	837	882	57,072	87,054
Nov.	1,159	809	58,231	87,863
Dec.	631	833	58,862	88,696
1970				
Jan.	644	580	59,506	89,276
Feb.	550	526	60,056	89,802
Mar.	534	411	60,590	90,213
April	486	508	61,076	90,721
May	478	580	61,554	91,301
June	424	508	61,978	91,809
July	414	492	62,392	92,301
Aug.	623	473	63,015	92,774
Sept.	373	538	63,388	93,312
Oct.	559	313	63,947	93,625
Nov.	2,303	373	66,250	93,998
Dec.	1,911	376	68,161	94,374
1971				
Jan.	1,563	3,523	69,724	93,625
Feb.	1,258	2,980	70,982	93,998
Mar.	1,445	3,665	72,427	94,374
April	1,621	6,475	74,048	97,897
May	1,793	7,015	75,841	100,877
June	7,315	6,591	83,156	104,542
July	8,181	20,091	91,337	111,017
Aug.	6,753	15,490	98,090	118,032
Sept.	7,315	19,252	105,405	124,623
Oct.	5,604	8,017	111,009	144,714
Nov.	5,231	7,619	116,240	160,204
Dec.	5,241	5,466	121,481	179,456

PRODUCTION HISTORY OF PROJECT AREA
VACUUM MIDDLE PENN POOL
VACUUM MIDDLE PENN FIELD
LEA COUNTY, NEW MEXICO

Year	Monthly Production		Cumulative Production	
	Oil, Bbls.	Gas, MCF	Oil, Bbls.	Gas, MCF
1972				
Jan.	5,787	8,245	127,268	187,473
Feb.	5,085	9,014	132,353	195,092
Mar.	5,131	8,012	137,484	225,829
April	6,028	10,439	143,512	236,268
May	5,688	11,210	149,200	247,478
June	5,151	10,572	154,351	258,050
July	4,456	9,815	158,807	267,865
Aug.	4,534	9,120	163,341	276,985
Sept.	4,232	8,377	167,573	285,362
Oct.	4,437	7,201	172,010	292,563
Nov.	4,068	5,820	176,078	298,383
Dec.	4,160	7,151	180,238	305,534
1973				
Jan.	4,415	6,867	184,653	312,401
Feb.	3,891	3,152	188,544	315,553
Mar.	3,904	6,431	192,448	321,984
April	3,234	6,038	195,682	328,022
May	3,740	7,131	199,422	335,153
June	3,071	5,450	202,493	340,603
July	3,519	6,497	206,012	347,100
Aug.	2,986	5,200	208,998	352,300
Sept.				
Oct.				
Nov.				
Dec.				

BOPM



TIME-YEARS

Mobil Oil Corporation

Midland Producing Area
Midland, Texas

PRODUCTION HISTORY
OF PROJECT AREA
VACUUM MIDDLE PENN
LEA COUNTY, NEW MEXICO

Scale

Date 4/24/73
Drawn JVN
Checked JVN
Approved
Revised

REPORT EVALUATION
1967 1968 1969 1970 1971 1972 1973
1967 1968 1969 1970 1971 1972 1973
1967 1968 1969 1970 1971 1972 1973
1967 1968 1969 1970 1971 1972 1973

INDIVIDUAL WELL PRODUCTION HISTORY OF
VACUUM MIDDLE PENN POOL PROJECT AREA
VACUUM MIDDLE PENN FIELD
LEA COUNTY, NEW MEXICO

<u>OPERATOR - WELL</u>	<u>TEST BPD OIL/WATER</u>	<u>DATE</u>	<u>CUM. PRODUCTION 9-1-73 OIL, BBLs.</u>	<u>GAS, MCF</u>
Mobil				
Bridges St. Well #121 T.A.			79,233	137,195
#147	19/1	8-22-73	31,043	68,810
#165	82/1	8-21-73	<u>98,723</u>	<u>146,295</u>
		Total	208,999	352,300

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 9
CASE NO. 5116
SIGNATURE Mobil
Hearing Date Nov 28, 1973

JHSeerey/cs
11-5-73

J. R. MODRALL
JAMES E. SPERLING
JOSEPH E. ROEHL
GEORGE T. HARRIS, JR.
DANIEL A. SISK
LELAND B. SEDBERRY, JR.
ALLEN C. DEWEY, JR.
FRANK H. ALLEN, JR.
JAMES P. SAUNDERS, JR.
JAMES A. PARKER
JOHN R. COONEY
KENNETH L. HARRIGAN
PETER J. ADAMO
DALE W. EK

DENNIS J. FALK
ARTHUR D. MELENDEZ
BRUCE D. BLACK
CHARLES J. NOYA

LAW OFFICES OF
MODRALL, SPERLING, ROEHL, HARRIS & SISK
PUBLIC SERVICE BUILDING
P. O. BOX 2168
ALBUQUERQUE, NEW MEXICO 87103

JOHN F. SIMMS (1885-1954)
AUGUSTUS T. SEYMOUR
(1907-1965)

TELEPHONE 243-4311
AREA CODE 505

November 12, 1973

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

Re: Mobil Oil Corporation's Application for
Approval for the Establishment of a
Pressure Maintenance Project on the
Bridges-State Lease, Vacuum Middle Penn
Pool, Lea County, New Mexico

Dear Mr. Porter:

Enclosed herewith, please find original and two copies
of Mobil Oil Corporation's application for hearing con-
cerning the above-captioned matter.

It would be appreciated if this matter can be scheduled
for hearing before an Examiner at the hearing to be held
on November 28, 1973.

Very truly yours,

James E. Sperling

/jv

Enclosures

cc: Mr. L. A. Davis, w/encl.(w/o exhibits)
Mobil Oil Corporation

DOCKET MAILED

Date 11-16-73

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF MOBIL OIL CORPORATION FOR
APPROVAL FOR THE ESTABLISHMENT
OF A PRESSURE MAINTENANCE PROJECT
ON APPLICANT'S BRIDGES-STATE
LEASE, VACUUM MIDDLE PENN POOL,
LEA COUNTY, NEW MEXICO, THE
PROJECT AREA TO CONSIST OF THE
W/2 OF SECTION 13, TOWNSHIP
17 SOUTH, RANGE 34 EAST, N.M.P.M.

Case No. 5-116

A P P L I C A T I O N

1. Applicant, Mobil Oil Corporation, requests the entry of an order authorizing applicant to institute a pressure maintenance project on a portion of the Bridges State Lease consisting of the W/2 of Section 13, Township 17 South, Range 34 East, N.M.P.M., Lea County, New Mexico.

2. Applicant proposes to inject fluids into the Vacuum Middle Penn Pool with the injection well to be designated as Bridges State Well No. 147, located in Unit F, of Section 13, Township 17 South, Range 34 East, N.M.P.M. It is proposed that water and/or gas will be injected into said well which is proposed as a dual Abo Middle Penn injection well using injection material provided by the North Vacuum Abo Unit injection system. The maximum injection rate and pressure for the Middle Penn Pressure Maintenance Project is expected to be 500 barrels per day at 4,000 p.s.i. for water injection or 300 mcf at 6,000 p.s.i. for inert gas injection.

3. Attached hereto as Exhibit 1 is a plat of the project area and showing wells completed in the Middle Penn Pool. Also attached as Exhibit 2 is a plat showing existing North Vacuum Abo field injection lines, as well as the designation of the proposed injection well utilizing the existing system.

4. Mobil further requests that administrative procedure be established whereby the project area may be expanded and additional injection and producing wells at either orthodox or unorthodox locations may be approved by the Commission upon proper showing without the necessity of further hearings.

5. There are no special pool rules applicable to the Middle Penn Pool and no special allowable beyond the existing statewide 40-acre allowable with Depth Bracket factor is requested.

6. That the granting of this application will result in greater ultimate recovery of oil thereby preventing waste and in the best interests of conservation and correlative rights will not be adversely affected.

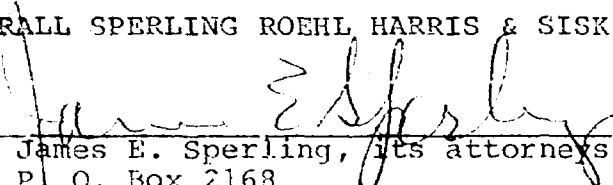
WHEREFORE, Applicant requests that the Commission issue its order approving and authorizing Applicant to proceed as requested.

Respectfully submitted,

MOBIL OIL CORPORATION

By: MODRALL SPERLING ROEHL HARRIS & SISK

By:


James E. Sperling, its attorneys
P. O. Box 2168
Albuquerque, New Mexico 87103

DRAFT

dr/

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. 5116

Order No. R- 7688

APPLICATION OF MOBIL OIL CORPORATION
FOR A PRESSURE MAINTENANCE PROJECT,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 28, 1973,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this day of December, 1973, the Commission,
a quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) That the applicant, Mobil Oil Corporation, seeks
authority to institute a pressure maintenance project by the
injection of water and/or ~~inert~~ gas into its Bridges State Well
No. 147 located in Unit F of Section 13, Township 17 South,
Range 34 East, NMPM, Vacuum-Middle Pennsylvanian Pool, Lea County,
New Mexico.

(3) That the proposed pressure maintenance project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(4) That the operator should take all steps necessary to ensure that the injected water ^{and/or gas} enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(5) That administrative procedures should be established whereby additional injection wells in the project area may be approved without notice and hearing and whereby the project area may be expanded without notice and hearing.

(6) That said Bridges State Well No. 147 is currently an oil-oil dual completion and the proposed mechanics of ^{recompleting} said well as a dual injection and producing well in the Vacuum-Middle Pennsylvanian Pool and the North Vacuum-Abo Pool, respectively, are proper and in accordance with good conservation practices.

(7) That the subject application should be approved, the W/2 of said Section 13 be designated the project area, and the project be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Mobil Oil Corporation, is hereby authorized to institute a pressure maintenance project by the injection of water and/or ~~water~~ gas into the Middle Pennsylvanian formation in its Bridges State Well No. 147, located in Unit F of Section 13, Township 17 South, Range 34 East, Vacuum-Middle Pennsylvanian Pool, Lea County, New Mexico.

(2) That injection into said well shall be through 2 3/8-inch tubing, set in a packer which shall be located at approximately 10,390 feet; that the casing-tubing annulus ~~of each injection well~~ shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device and a pressure relief valve.

(3) That the operator shall immediately notify the supervisor of the Commission's Hobbs district office of the failure of the ^(casing) tubing, or packer in said injection well, the leakage of ^{gas,} water or oil from around any producing well, or the leakage of ^{gas,} water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(4) That the W/2 of said Section 13 is hereby established as the project area ^{and} designated the Mobil Vacuum-Middle Pennsylvanian Pressure Maintenance Project which shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(5) The Secretary-Director of the Commission is hereby authorized to approve additional injection wells within the boundaries of the project area as may be necessary to complete an efficient injection pattern. To obtain such approval, the project operator shall file proper application with the Commission, which application shall include the following:

(a) A plat showing the location of proposed ^{injection} well, all wells within the project area, and offset operators, locating wells which offset the project area.

(b) A schematic drawing of the proposed well which fully describes the casing, tubing, perforated interval, and depth.

(c) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

The Secretary-Director may approve the proposed ^{injection} well if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant

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Case No. 5116

Order No. R-

immediate approval, provided waivers of objection are received from all offset operators.

(6) That expansion of the project area may be approved by the Secretary-Director of the Commission administratively when good cause is shown therefor.

(7) Each month the project operator shall submit to the Commission a Pressure Maintenance Project Operator's Report on a form prescribed by the Commission.

(8) 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.

Nov. 28 hrs.

Mobil Oil Corporation

Institute a pres maint^{middle}
proj in ~~the~~ vacuum ^{middle} Penn
Pool Bridges State Lease
Lee County

Proj Area W/2 Sec 13 T175-R34E

Inj water and/or gas into
Middle Pennsylvanian Pool
Bridges St. No 147 located

Unit F of said Sec 13

rules for proj incl expansion of
proj area by adm approval
add well to inj & prod by
adm. approval.

John Seery - Mobil