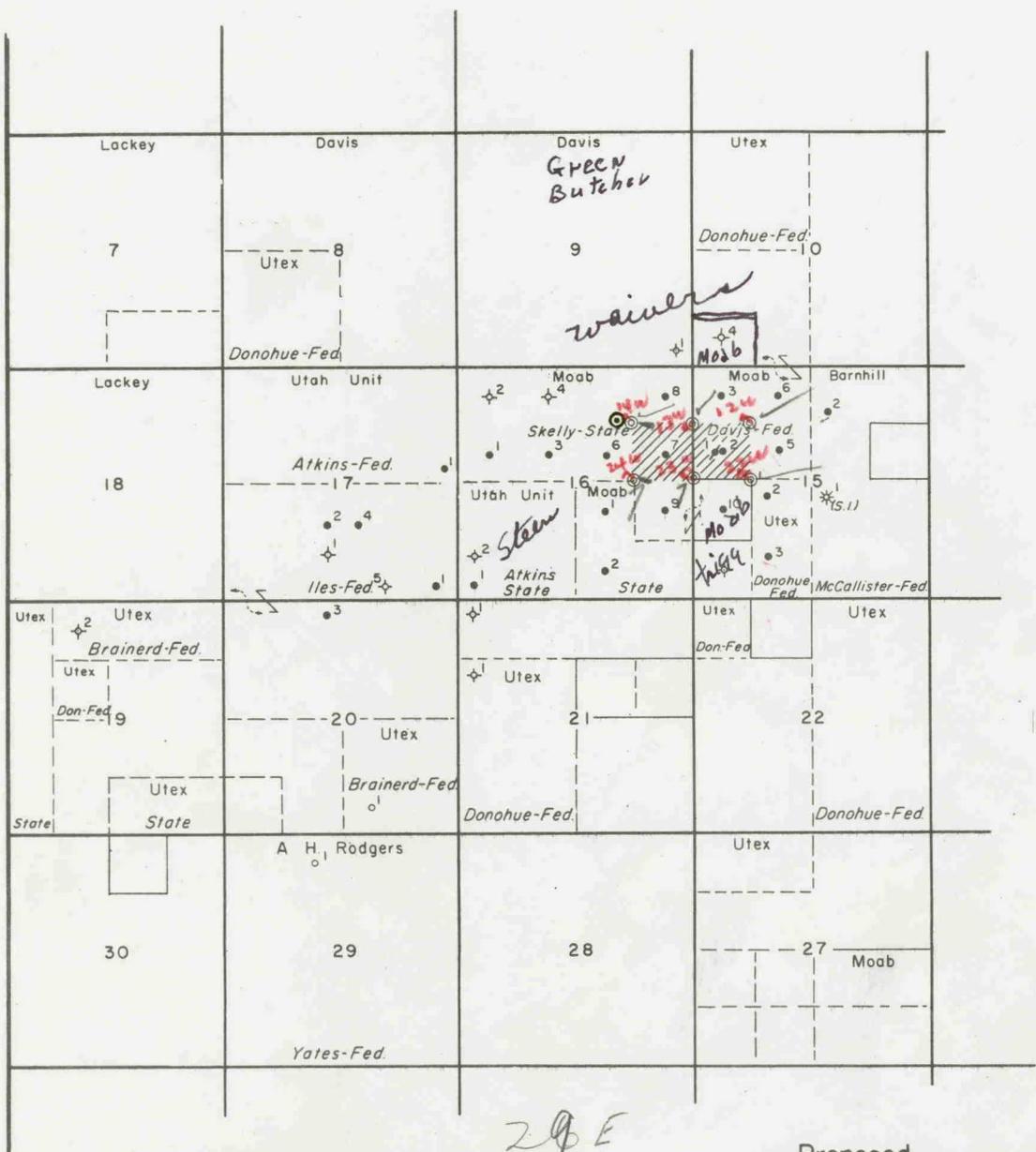


195



HIGH LONESOME POOL  
Eddy County, New Mexico

Proposed  
PILOT FLOOD AREA

- ⊙ Proposed Water Injection Well
- Producing Oil Well
- ⊛ Water Source Well



Fig. 2

NEW MEXICO OIL CONSERVATION COMMISSION

CASE NO. 1223

APPLICATION OF MOAB DRILLING COMPANY

FOR A

PLOT WATER FLOOD PROJECT

IN THE

HIGH LONESOME POOL

EDDY COUNTY, NEW MEXICO

FILE

ROBERT ENGINEERING  
CONSULTANTS  
1001 UNIVERSITY BUILDING  
ALBUQUERQUE, NEW MEXICO

RUSSELL ENGINEERING  
PETROLEUM CONSULTANTS  
CORE ANALYSTS  
101 PETROLEUM BUILDING  
ABILENE, TEXAS

JAMES E. RUSSELL  
~~P. M. BRIDGES~~  
C. B. EDINGTON  
A. L. JENKE  
V. B. OGDEN  
R. G. PRENTICE

March 15, 1957

*900 C/D*

New Mexico Oil Conservation Commission  
Capitol Building  
Santa Fe, New Mexico

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
*Moab* EXHIBIT No. *4*  
CASE *1225*

Gentlemen:

In reference to Case 1225, covering application of Moab Drilling Company for an order authorizing a pilot project in the High Lonesome Pool, Eddy County, New Mexico, and approval for the drilling of several un-orthodox locations for water injection wells, the following data are submitted.

Figure 1 is hereby submitted showing a map of the High Lonesome Pool. This map shows all of the present producing wells in this pool. The hachured area shows that portion of the field in which the proposed pilot water flood project will be located. Also shown on this figure is the location of the water supply well and the proposed injection wells.

The High Lonesome Pool is producing from the Queen Sand at an approximate depth of 1850 feet. None of the injection wells have been drilled as yet; however, a log of one of the pilot project producing wells, the Moab Drilling Company, Davis Federal No. 2 is attached. It is expected that the logs of the injection wells will be similar to this log. It is proposed to set 350 feet of 8 5/8" surface casing and run 4 1/2" - 9.5 pound continuous weld casing for the injection string. Cement will be circulated to the surface on the surface string and into the surface string on the injection string. The casing will be tested in the conventional manner.

A water supply well has been drilled 1700 feet from the east line and 1200 feet from the north line of Section 16, Township 16 South, Range 29 East, as shown on Figure 1. Water was encountered at 310 feet and is estimated to be producing at a rate of about 1500 barrels per day.

*Water supply well  
1700' from east line  
1200' from north line  
shallow strata*

*25' net pay  
for this block  
in case of oil  
in Queen Sand  
in this area.*

## I. Reservoir and Fluid Characteristics.

The proposed pilot water flood project is located in the High Lonesome Pool, Eddy County, New Mexico. To the present time approximately 1,460 acres have been proven by development. The producing formation is the Queen Sand.

Figure 2 is a structure map on top of the Queen Sand. The reservoir is a monoclinial structure. Limits of the Field are defined by lack of porosity development rather than by structure. During the primary production phase, the reservoir has been producing under a dissolved gas drive. The original reservoir pressure is estimated at 690 psi. There is no evidence of a gas cap at the present time.

The proposed pilot water flood area encompasses 80 acres. Average depth to the top of the pay in the pilot flood area will be 1900 feet. Estimated average thickness of the sand in this area is 13.7 feet. From core analysis data the average porosity is estimated to be 11.7 percent and the average horizontal permeability is 23 millidarcys. Connate water saturation is estimated at 28 percent of the pore space. The produced oil is 34° API gravity and has a viscosity of 5.3 centipoises at 100 psi reservoir pressure.

## II. Primary Production History and Present Status.

The first well in this field was completed on December 12, 1939. Figure 3 shows the composite production history of the High Lonesome Pool. Cumulative production as of February 1, 1957 has been 170,860 barrels of oil or 8,136 barrels per well for the 21 producing wells completed as of that date. The Field is in a stage of settled production with average producing rates at the present time at approximately 10 barrels per well per day.

There will be two producing wells in the project area. These wells will be Moab Drilling Company - Skelly State Lease Well No. 7 and Moab Drilling Company - Davis Federal Lease Well No. 2. At the present time these two wells are producing at an average rate of approximately 15

barrels per well per day. Cumulative production from the pilot project area has been approximately 25,000 barrels. The estimated oil saturation in the project area is approximately 66 percent.

There has been no gas repressuring in the High Lonesome Pool.

### III. Injection Data.

The injection water will be secured from a sand at an approximate depth of 300 feet. The water from this sand is brackish and will be handled in a closed system. It is anticipated that the injected water will be filtered and treated with a bactericide and corrosion inhibitor.

The project area will be on a 40 acre five-spot pattern with approximately 1,320 feet between injection wells. It is estimated that the initial injection pressure will be 1,500 psi. At this injection pressure the injection rate will be approximately 150 barrels per well per day. All of the injection wells will be new wells and there will be no new oil wells drilled in the pilot area.

### IV. Results Expected.

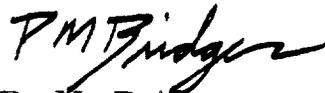
It is anticipated that at abandonment the project area will have produced approximately 300,000 barrels of oil as a direct result of water injection. The original oil in place in the project area is estimated at 1,345,000 barrels.

*Water contains  
200,000  
PPM  
Total  
Solids  
170 PPM*

Attached hereto is other pertinent information regarding the High Lonesome Pool in general and the pilot water flood project area in particular.

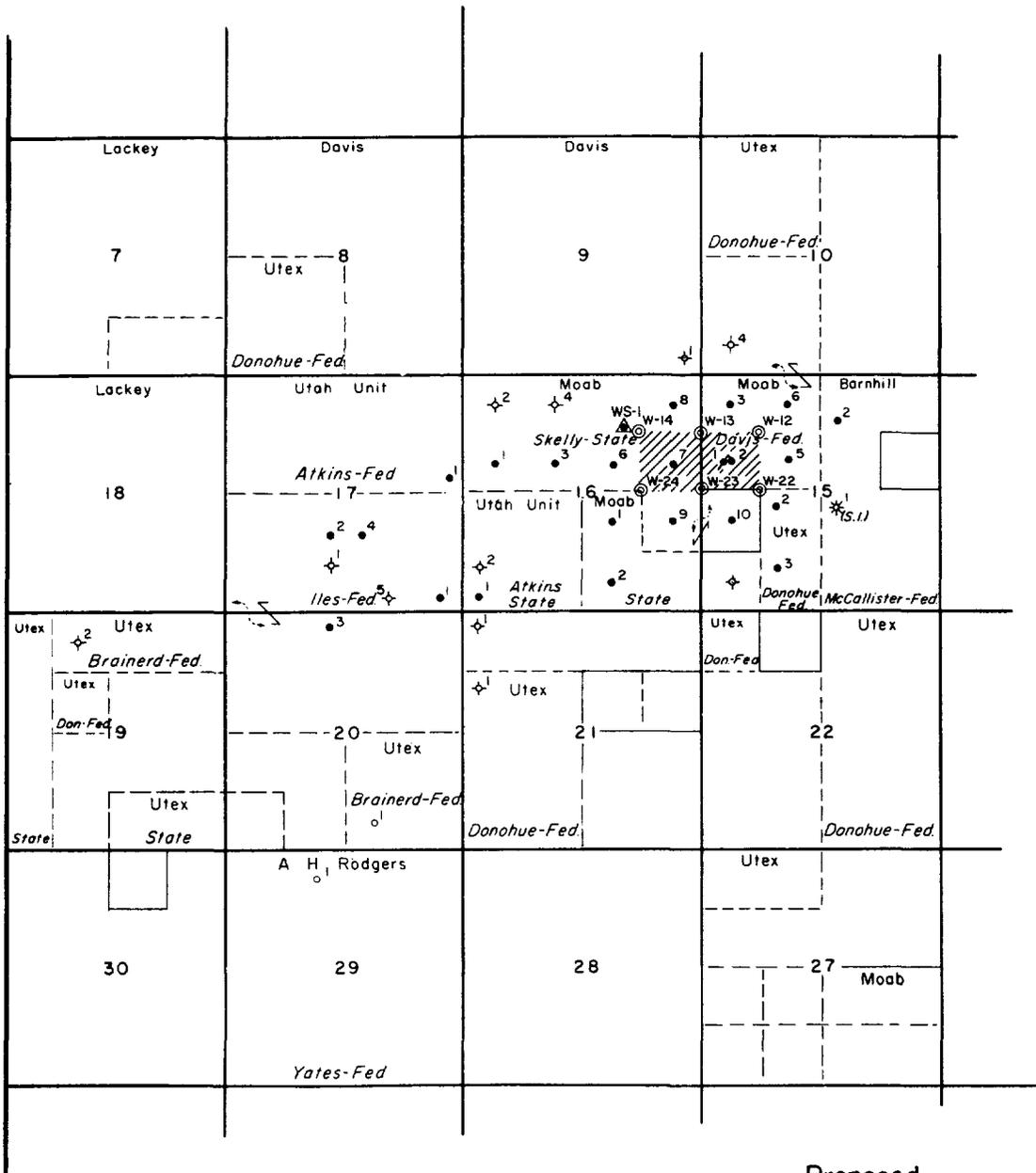
Very truly yours,

RUSSELL ENGINEERING

A handwritten signature in black ink, appearing to read "P. M. Bridges". The signature is written in a cursive, flowing style with a prominent flourish at the end.

P. M. Bridges

PMB:sc



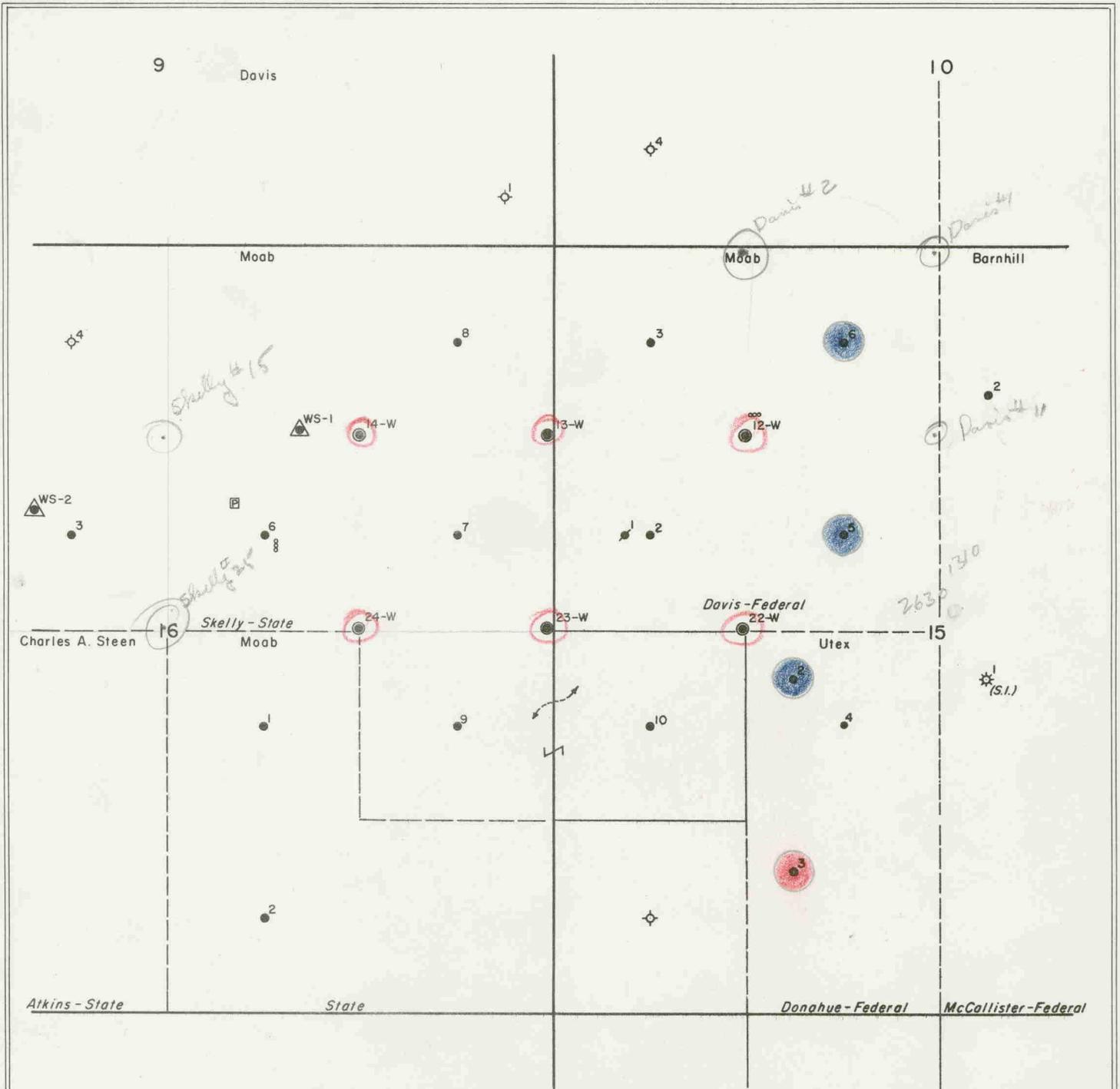
HIGH LONESOME POOL  
Eddy County, New Mexico

Proposed  
PILOT FLOOD AREA

- ⊙ Proposed Water Injection Well
- Producing Oil Well
- ▲ Water Supply Well

Fig. 1

February, 1957

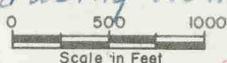


HIGH LONESOME POOL  
Eddy County, New Mexico

- Producing Well Location
- Producing Well
- ⊙ Injection Well Location
- ⊗ Injection Well
- ⊕ Converted Producer to Injection Well
- ☆ Gas Well
- ◇ Dry Hole
- ⊗ Abandoned Producing Well
- ⊙ Abandoned Injection Well
- ☆ Abandoned Gas Well
- ▲ Water Supply Well
- Water Plant
- ∞ Tank Battery

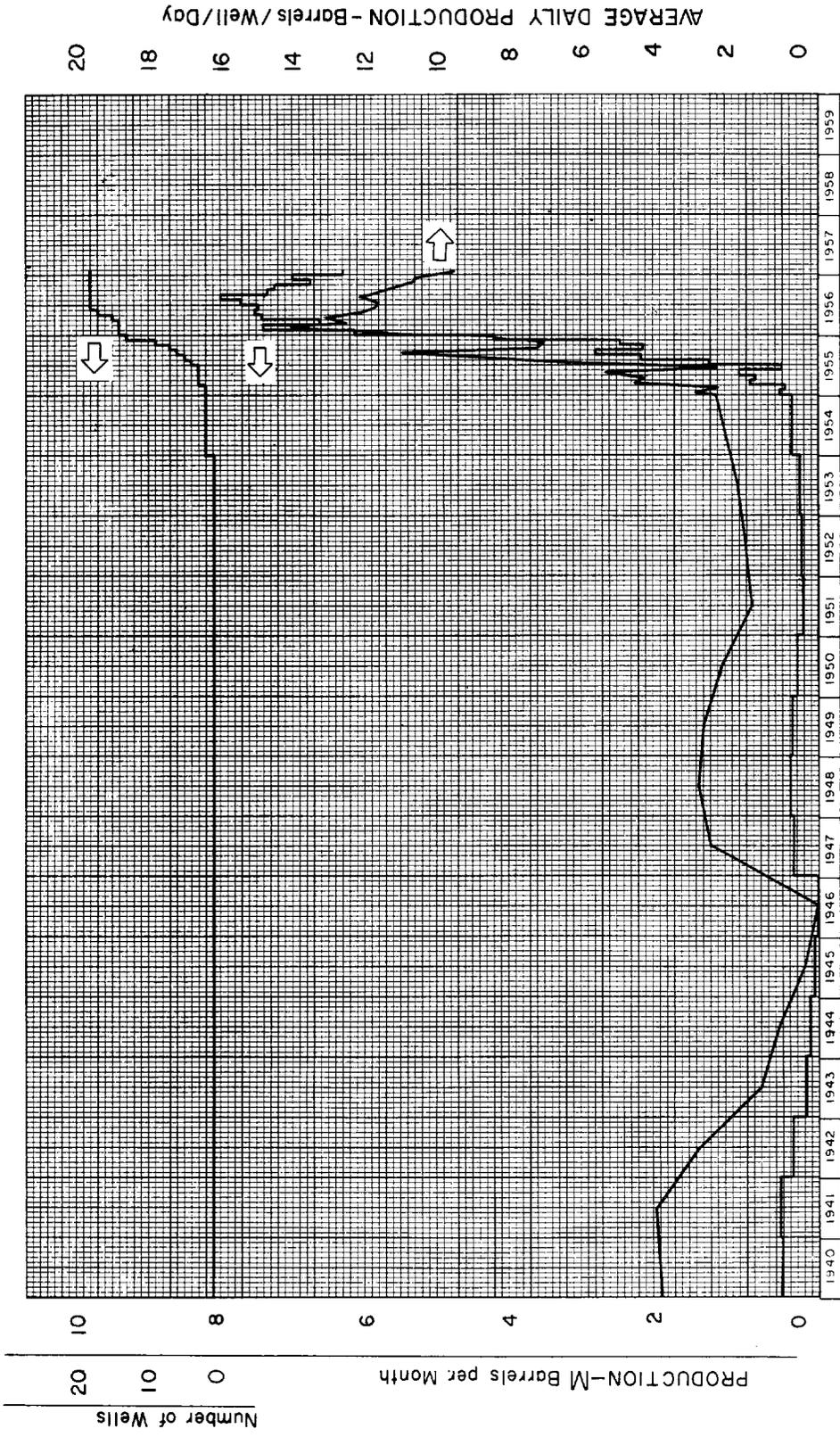
*Producing Well with Increased Production*

*Proposed Injection Well*



BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
Moab EXHIBIT NO. 5  
CASE NO. 1225

FIGURE 1  
Revised 8-5-57



PRODUCTION HISTORY

HIGH LONESOME POOL  
Eddy County, New Mexico

Fig. 3

February, 1957

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Date 10-6-58

CASE NO. 1225

HEARING DATE 10-2-58

My recommendations for an order in the above numbered case(x) are as follows:

1. Grant authority to drill <sup>water</sup> injection well known as Moab - Davis Federal - #11-W 1310/N, 2630/W sec. 15-16S-29E.
2. Need of this well ~~is~~ as back-up well is proven by the increased production of the Moab - Davis Federal #5, SWNW 15-16S-29E.
3. Grant authority to request administrative approval ~~for~~ as needed for the following unorthodox injection well locations:  
Moab - Davis Federal #1-W, 10/N, 2630/W line sec. 15  
#2-W, 10/N, 1810/W " " 15  
" - " " #15-W, 1310/N, 2630/W " " 16  
" - Skelly State #25-W, 2630/N, 2630/W " " 16  
all in T16S-R.29E, N.M.P.M.

  
Staff Member

Oil Conservation Commission 9 a.m. Mabry Hall, State Capitol, Santa Fe

The following cases will be heard before Elvis A. Utz, Examiner:

CASE 1225: Application of Moab Drilling Company for authority to expand its water flood project in the High Lonesome Pool, Eddy County, New Mexico, and for approval of certain unorthodox well locations therein. Applicant, in the above-styled cause, seeks an order authorizing the expansion of its water flood project in the High Lonesome Pool, Eddy County, New Mexico, to include its Davis-Federal Well No. 11-W, a proposed water injection well to be drilled on an unorthodox location 1310 feet from the North line and 2630 feet from the West line of Section 15, Township 16 South, Range 29 East. Applicant further seeks an administrative procedure for the future expansion of said water flood project to include the following proposed water injection wells to be drilled on unorthodox locations:

Davis-Federal No. 1-W; 10 feet from the North line and 2630 feet from the West line of Section 15.

Davis-Federal No. 2-W; 10 feet from the North line and 1310 feet from the West line of Section 15.

Skelly-State No. 15-W; 1310 feet from the North line and 2630 feet from the West line of Section 16.

Skelly-State No. 25-W; 2630 feet from the North line and 2630 feet from the West line of Section 16.

All in Township 16 South, Range 29 East.

CASE 1511: Application of Newmont Oil Corporation for an order authorizing a pilot water flood project. Applicant, in the above-styled cause, seeks an order authorizing it to institute a pilot water flood project in the Loco Hills Pool in Eddy County, New Mexico. Applicant proposes to inject water into the Grayburg formation through one well in Section 1, Township 18 South, Range 29 East, and through five wells in Section 6, Township 18 South, Range 30 East, all in Eddy County, New Mexico.

CASE 1512: Application of Humble Oil & Refining Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Bandana Point Unit Agreement embracing approximately 14,293 acres of Federal, state and fee acreage in Township 22 South, Range 23 East, and Township 23 South, Ranges 23 East and 24 East, all in Eddy County, New Mexico.

CASE 1513: Application of Drilling and Exploration Company, Inc. for an exception to the casing requirements for the potash-oil area in Lea and Eddy Counties, New Mexico. Applicant, in the above-styled cause, seeks an order authorizing an exception to the shallow-zone casing requirements for the potash-oil

CASE 1513 continued

area as set forth in Order No. R-111-A for its Ballard No. 1 Well located 1980 feet from the North and West lines of Section 27, Township 20 South, Range 34 East, Lea County, New Mexico. Applicant proposes to drill with cable tools to an approximate depth of 3,700 feet adjacent to the Lynch Pool. Applicant proposes to use the following casing program in lieu of the program prescribed for cable tool holes by Order R-111-A:

- (1) 13 3/8 inch casing to be cemented at approximately 70 feet.
- (2) 10 3/4 inch casing to be landed at approximately 700 feet.
- (3) 8 5/8 inch casing to be landed at approximately 1250 feet.
- (4) 5 1/2 inch casing to be cemented at the top of the producing formation with 50 sacks cement for testing purposes.
- (5) 10 3/4 inch casing and 8 5/8 inch casing to be pulled.
- (6) In the event commercial production is obtained, 5 1/2 inch casing to be perforated and cement circulated to surface.

CASE 1514: Application of Continental Oil Company for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its Tonto Deep Unit Agreement embracing 2,000 acres, more or less, of Federal and state lands in Township 18 South, Range 34 East, Lea County, New Mexico.

CASE 1515: Application of Continental Oil Company for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 320-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the S/2 Section 22, Township 22 South, Range 36 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Meyer B-22 Well No. 1 located 1650 feet from the South line and 990 feet from the East line of said Section 22.

CASE 1516: Application of El Paso Natural Gas Company for two non-standard gas proration units and for the approval of one unorthodox gas well location. Applicant, in the above-styled cause, seeks an order establishing a 120-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the N/2 SW/4 and the SW/4 SW/4 of Section 4, Township 25 South, Range 37 East, said unit to be dedicated to the applicant's Wells Federal No. 3 Well located 1980 feet from the South and West lines of said Section 4. Applicant further seeks the establishment of a 200-acre non-standard gas proration unit in the Jalmat Gas Pool consisting of the SE/4

CASE 1516 continued

SW/4 of Section 4 and the NW/4 of Section 9, Township 25 South, Range 37 East, Lea County, New Mexico, said unit to be dedicated to the applicant's Wells Federal No. 11 Well located 430 feet from the South line and 2317 feet from the West line of said Section 4. Applicant further seeks approval of the unorthodox gas well location of the said Wells Federal No. 11 Well.

CASE 1517: Application of Amerada Petroleum Corporation for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its State BT "M" Well No. 2, located in the SE/4 NE/4 of Section 33, Township 11 South, Range 33 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the upper Pennsylvanian formation adjacent to the Bagley-Upper Pennsylvanian Gas Pool, and the production of oil from the lower Pennsylvanian formation adjacent to the Bagley-Lower Pennsylvanian Gas Pool through the casing-tubing annulus and the tubing respectively.

CASE 1518: Application of Magnolia Petroleum Company for permission to commingle production from two separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Wantz-Abo (oil) Pool and Terry-Blinebry Oil Pool on its Stephens Estate Lease comprising the SW/4 of Section 24, Township 21 South, Range 37 East, Lea County, New Mexico.

CASE 1519: Application of Sunray Mid-Continent Oil Company and British American Oil Producing Company for an order authorizing a secondary recovery project. Applicants, in the above-styled cause, seek an order authorizing a secondary recovery project in the Bisti-Lower Gallup Oil Pool in San Juan County, New Mexico. Applicants propose to inject liquefied petroleum gas and dry gas into the Gallup formation through the British American Marye Well No. 2 located in the NE/4 NE/4 of Section 12, Township 25 North, Range 13 West, and the Sunray Mid-Continent Federal "C" Well No. 20 located in the SW/4 NW/4 of Section 7, Township 25 North, Range 12 West, all in San Juan County, New Mexico.

CASE 1520: Application of Phillips Petroleum Company for permission to commingle oil produced from two separate pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the oil produced on its Santa Fe Lease from the Yates formation adjacent to the Vacuum Yates Pool with the oil produced from the Vacuum (San Andres) Pool in four separate existing tank batteries located in Sections 26, 27, 28, and 33, Township 17 South, Range 35 East, Lea County, New Mexico.

CASE 1521: Application of Humble Oil and Refining Company for an oil-oil dual completion. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of its New Mexico State "V" Well No. 1, located 660 feet from the South and West lines of Section 10, Township 21 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Blinebry Oil Pool and the Drinkard Pool through parallel strings of  $1\frac{1}{2}$  inch tubing.

*Utex Exploration Company*

PETROLEUM DIVISION  
ROOM 25, BACON BUILDING  
P. O. BOX 628  
ABILENE, TEXAS

CHARLES A. STEEN  
PRESIDENT  
CHIEF GEOLOGIST

T. R. HAVINS, JR.  
MGR. LAND AND PRODUCTION DEPARTMENTS

J. C. ASHBY  
GENERAL MANAGER

BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION <u>MOAB</u> EXHIBIT NO. <u>4-A</u> CASE NO. <u>1225</u>
--

CERTIFIED MAIL

August 29, 1958

Mr. William Barnhill  
Box 848  
Roswell, New Mexico

Dear Mr. Barnhill:

Moab Drilling Company has made application to the New Mexico Oil Conservation Commission for permission to drill No. 11-W Davis-Federal as an injection well in connection with the pilot waterflood operations now being carried on in the High Lonesome Pool in Sections 15 and 16, T16S, R29E, Eddy County, New Mexico.

Our proposed location will be 1310 feet from the North line and 2630 feet from the West line of Section 15. This location will be southwest of the William Barnhill, et al No. 2 McCallister-Federal in the North-west quarter of the Northeast quarter (NW<sup>1</sup> NE<sup>1</sup>) Section 15. This well is being drilled to pick up our No. 5 Davis-Federal, which has responded to the waterflood operation.

I might point out that it is probable that the injection of water in this location will help your No. 2 well.

It is my understanding that a hearing will be held on this matter in the near future.

If you have no objection to our drilling and injecting water into the proposed No. 11-W, would you be so kind as to sign and return four copies of this letter.

Yours very truly,

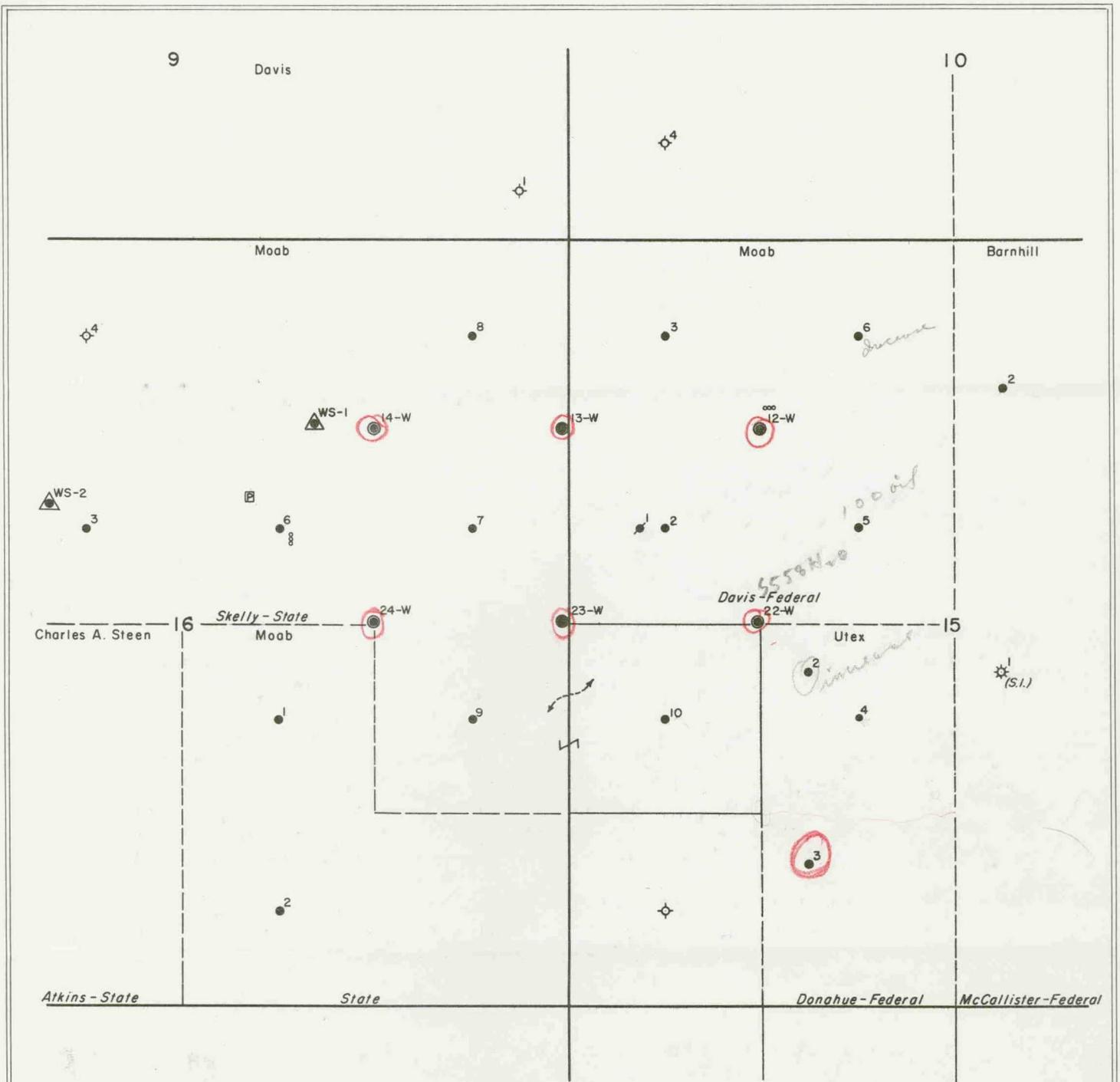
T. R. Havins, Jr., For  
MOAB DRILLING COMPANY

TRH/fh

September 9th, 1958.

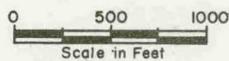
The undersigned waives any objection to the above described plan of action in drilling No. 11-W Davis-Federal at the location described above and the use of this well as a water injection well.

William Barnhill  
William Barnhill



**HIGH LONESOME POOL**  
**Eddy County, New Mexico**

- |  |                            |
|--|----------------------------|
| ○ Producing Well Location              | ⊗ Abandoned Producing Well |
| ● Producing Well                       | ⊙ Abandoned Injection Well |
| ⊙ Injection Well Location              | ⊗ Abandoned Gas Well       |
| ⊙ Injection Well                       | ⚠ Water Supply Well        |
| ⊙ Converted Producer to Injection Well | ⊠ Water Plant              |
| ⊙ Gas Well                             | ∞ Tank Battery             |
| ⊙ Dry Hole                             |                            |



Revised 8-5-57



IN REPLY REFER TO:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

P. O. Box 187  
Artesia, New Mexico

May 12, 1958

Utex Exploration Company  
P. O. Box 528  
Abilene, Texas

Re: Water Flood Project  
High Lonesome Pool

Attention: Mr. T. R. Havins, Jr.

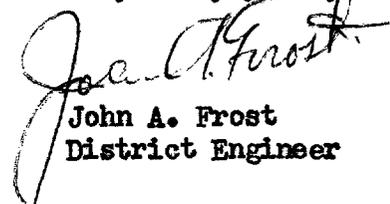
Gentlemen:

This will acknowledge receipt of your letters of April 23, and May 6, 1958, one via our Roswell office and the other to this office, reporting progress on the water flood project in the High Lonesome Pool, Eddy County, New Mexico.

You also advise that your engineers have recommended another injection well in the vicinity of the southeast corner of the northwest quarter of the southwest quarter of section 15, T. 16 S., R. 29 E., N.M.P.M., and that your well No. 3 Donohue, a marginal producer, could be used for an injection well near the above corner.

Your proposal to use well No. 3-Donohue, SE $\frac{1}{4}$ SW $\frac{1}{4}$  of section 15, T. 16 S., R. 29 E., was informally discussed at a conference in Roswell office May 6th. Subsequent to that conference you have furnished us with the production record of well No. 3 Donohue from July 1, 1957, through March 1958. No objection is offered to using said well for a water injection well provided you comply with applicable rules and regulations of the New Mexico Oil Conservation Commission governing water flooding and furnish this office a sundry notice of intention, on form 9-331a, to convert said well No. 3 Donohue to water injection well.

Very truly yours,

  
John A. Frost  
District Engineer

JAF:nm

Copy to: ~~New Mexico~~ Oil Conservation Commission  
323 Garber Building  
Artesia, New Mexico

U. S. Geological Survey  
Box 6721  
Roswell, New Mexico

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Mo AB EXHIBIT NO. 6
CASE NO. 1225

BEFORE EXAMINED BY  
CITIZENSHIP DIVISION  
*Ma AB*  
CASE NO. 12257

April 23, 1958

Mr. John H. Trigg  
P. O. Box 5629  
Roswell, New Mexico

In Re: High Lonesome Pool Waterflood.

Dear Mr. Trigg:

It is our understanding that you are the owner of a forty (40) acre Federal Lease in the SW $\frac{1}{4}$  SW $\frac{1}{4}$  of Section 15, Township 16 South, Range 29 East, Eddy County, New Mexico, which is a south offset to Moab Drilling Company No. 10 Skelly State and a west offset to Utex Exploration Company and Standard Uranium Corporation No. 3 Donohue Federal.

As you probably know we are conducting a Pilot waterflood in the High Lonesome Pool in this area. Enclosed is a plat of the area which shows our producing and injection wells. Our engineers feel that we need another injection well in the vicinity of the southeast corner of the Northwest quarter of the Southwest quarter (SE/Cor NW/4 SW/4) of Section 15. Rather than go to the expense of drilling an injection well we propose to inject water into our No. 3 Donohue Federal which is in that vicinity.

If you have no objection to our injecting water in this well, would you be so kind as to sign three copies of this letter and return them to us?

Yours very truly,

UTEX EXPLORATION COMPANY

*T. R. Havins Jr*  
T. R. Havins, Jr.

TRHJr/fh  
ENC.

*May*  
~~April~~ 21, 1958.

The undersigned waives any objection to the above described plan of action in injecting water into the Utex Exploration Company and Standard Uranium Corp. No. 3 Donohue-Federal well, SE $\frac{1}{4}$  SW $\frac{1}{4}$  Section 15, T-16S, R29E, Eddy County, New Mexico, in connection with waterflooding operations in the High Lonesome Pool.

*John H. Trigg*  
John H. Trigg

*Utex Exploration Company*

PETROLEUM DIVISION  
ROOM 25, BACON BUILDING  
P. O. BOX 628  
ABILENE, TEXAS

T. R. HAVINS, JR.  
MGR. LAND AND PRODUCTION DEPARTMENTS

CHARLES A. STEEN  
PRESIDENT  
CHIEF GEOLOGIST

J. C. ASHBY  
GENERAL MANAGER

AIR MAIL - CERTIFIED

May 22, 1958

Mr. Edward C. Donohue  
Box 1567  
El Paso, Texas

Dear Mr. Donohue:

This letter is to notify you that we have applied to the Oil Conservation Commission of New Mexico for application to convert the Utex Exploration Company No. 3 Donohue-Federal well, located in SE $\frac{1}{4}$  SW $\frac{1}{4}$  Section 15, T16S, R29E, Eddy County, New Mexico, to a water injection well in connection with our pilot waterflood operation.

Please be advised that this application has been set for hearing as Case No. 1225 to be heard at 9:00 a.m. May 28, 1958, in Mabry Hall, State Capitol, Santa Fe, New Mexico, before Examiner Elvis A. Utz.

This letter is written to notify you of this hearing in case you care to make an appearance.

Yours very truly,

UTEX EXPLORATION COMPANY

T. R. Havins, Jr.

TRH/fh

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
<u>None</u> PAGE NO. <u>8</u>
CASE NO. <u>1225</u>

*B. B. Smith, Inc.*  
DRILLING CONTRACTORS  
AND  
OIL OPERATORS  
P. O. BOX 5103  
*Midland, Texas*

MAY 23, 1958

UTEX EXPLORATION COMPANY, INC.  
P. O. BOX 268  
ABILENE, TEXAS

ATTN: MR. T. R. HAVINS, JR.

RE: SE/4, SW/4: SEC. 15  
T-16-SOUTH, RANGE  
29-E: EDDY Co.  
NEW MEXICO

GENTLEMEN:

BY THIS LETTER B. B. SMITH, INC. WAIVES ANY OBJECTION TO YOUR USING YOUR NUMBER #3 DONAHUE FEDERAL WELL, LOCATED ON THE ABOVE CAPTIONED ACREAGE, AS A WATER INJECTION WELL IN YOUR WATER FLOOD PROJECT.

VERY TRULY YOURS,

B. B. SMITH, INC.

*Cameron O'Donnell*  
CAMERON O'DONNELL

CO'D: BJS

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
<i>M. A. P.</i>	EXHIBIT NO. <u>8</u>
CASE NO. <u>1225</u>	

Carl 1225

*Wm hearing*  
10-2-58

*Utex Exploration Company*  
MAIN OFFICE OCC PETROLEUM DIVISION  
ROOM 25, BACON BUILDING  
P. O. BOX 628  
ABILENE, TEXAS

1958 SEP 15 PM 2:34

T. R. HAVINS, JR.  
MGR. LAND AND PRODUCTION DEPARTMENTS

CHARLES A. STEEN  
PRESIDENT  
CHIEF GEOLOGIST

J. C. ASHBY  
GENERAL MANAGER

September 4, 1958

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

In Re: Pilot Waterflood Project,  
High Lonesome Pool,  
Sections 15 & 16, T16S, R29E,  
Eddy County, New Mexico.

Attention: Mr. Daniel S. Nutter:

Gentlemen:

This letter refers to our telephone conversation of recent date, as well as to my letter to the Commission of August 25, 1958, requesting a hearing on our proposed water injection well No. 11-W.

As per your suggestion this letter is being written to amend our request of August 25, to include several other proposed injection wells. All of these are unorthodox locations.

As I mentioned in our telephone conversation, we do not plan to drill all of these locations in the immediate future, but would like to have No. 11-W approved now, and the others set up where we may obtain administrative approval for drilling them as the need arises.

It was my understanding in our telephone conversation that this hearing will probably be set for Tuesday or Wednesday, October 2 or 3, 1958. A hearing at that time will be entirely satisfactory to us.

The locations which we propose to drill as injection wells are as follows:

- No. 11-W Davis-Federal, 1310 feet from the north line and 2630 feet from the west line of Section 15.
- No. 1-W Davis-Federal, 10 feet from the north line and 2630 feet from the west line of Section 15.
- No. 2-W Davis-Federal, 10 feet from the north line and 1310 feet from the west line of Section 15.
- No. 15-W Skelly-State, 1310 feet from the north line and 2630 feet from the west line of Section 16.
- No. 25-W Skelly-State, 2630 feet from the north line and 2630 feet from the west line of Section 16.

*examined*

*Shuman*

*Docket mailed  
7-19-58  
B.P.*

Yours very truly,

*T.R. Havins, Jr.*  
T. R. Havins, Jr., For  
MOAB DRILLING COMPANY

New Mexico Oil Conservation Commission  
September 4, 1958  
Page 2.

CCS: Mr. A. M. Speir  
Mr. Jack Campbell  
U.S.G.S., Artesia, Att: Mr. John A. Frost  
Mr. William Barnhill (Certified)  
Mrs. Blanche McCallister (Certified)

Table 4

PRODUCTION HISTORY MOAB DRILLING CO. SKELLY-STATE LEASE  
(since Start Of Water Injection)

<u>Month</u>	<u>Well No. 6</u>	<u>Well No. 7</u>	<u>Well No. 8</u>	<u>Well No. 9</u>	<u>Well No. 10</u>
1957, May	120	120	121	258	431
June	257	289	79	112	267
July	390	195	65	100	328
August	352	566	179	138	396
September	270	168	102	102	335
October	179	499	72	37	355
November	231	327	198	129	264
December	166	387	185	72	355
1958, January	120	471	156	40	374
February	74	480	74	14	221
March	71	385	175	0	245
April	<u>79</u>	<u>410</u>	<u>275</u>	<u>0</u>	<u>275</u>
	<u>2,309</u>	<u>4,297</u>	<u>1,681</u>	<u>1,002</u>	<u>3,846</u>

Grand Total For 12 Months - 13,135

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
MoAB EXHIBIT NO. 4  
CASE NO. 1225

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Table 3

PRODUCTION HISTORY MOAB DRILLING CO. DAVIS-FEDERAL LEASE  
(Since Start On Water Injection)

<u>Month</u>	<u>Well No. 2</u>	<u>Well No. 3</u>	<u>Well No. 5</u>	<u>Well No. 6</u>
<u>1957</u> , May	621	425	992	351
June	409	409	759	370
July	492	492	1,132	303
August	306	497	537	392
September	82	505	521	337
October	471	471	1,214	301
November	432	345	1,155	375
December	519	287	1,142	402
<u>1958</u> , January	516	393	1,372	393
February	545	293	1,624	341
March	632	394	1,872	406
April	<u>540</u>	<u>300</u>	<u>2,400</u>	<u>434</u>
Total for past 12 Months	<u>5,565</u>	<u>4,811</u>	<u>14,720</u>	<u>4,405</u>

Grand Total for 12 Months - 29,501

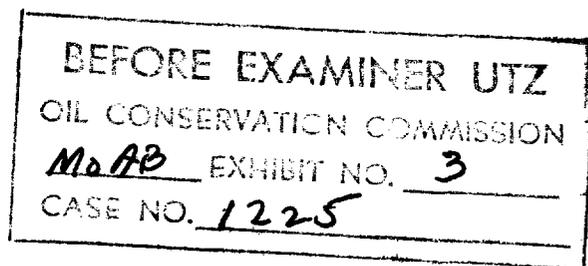


Table 1

	<u>Barrels In April</u>	<u>Cumulative Injection</u>
<u>Davis Federal Lease</u>		
12-W	1,905	23,348
22-W	3,432	33,916
<u>Skelly State Lease</u>		
13-W	1,892	17,018
14-W	1,190	17,496
23-W	1,473	18,351
24-W	<u>1,833</u>	<u>15,557</u>
Total	<u>11,725</u>	<u>125,686</u>

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
Moab EXHIBIT NO. 1  
CASE NO. 1225

Table 2

PRODUCTION HISTORY UTEX DONOHUE-FEDERAL LEASE

<u>Month</u>	<u>Well No. 2</u>	<u>Well No. 3</u>
<u>1956,</u> January	567	
February	1,134	
March	558	
April	783	228
May	485	485
June	579	579
July	680	680
August	480	480
September	512	511
October	524	524
November	366	366
December	297	297
<u>1957,</u> January	163	162
February	428	428
March	282	280
April	201	223
May	234	234
June	244	244
July	420	16
August	378	15
September	478	23
October	811	30
November	1,226	22
December	1,178	87
<u>1958,</u> January	480	0
February	208	0
March	202	0
April	169	
Total	<u>14,067</u>	<u>5,914</u>

BEFORE EXAMINER UTZ  
 OIL CONSERVATION COMMISSION  
 MoAB EXHIBIT NO. 2  
 CASE NO. 1225

TABLE I

WATER INJECTION

	<u>Barrels In August</u>	<u>Cumulative Injection</u>
<u>Davis-Federal Lease</u>		
12-W	2,036	31,043
22-W	2,482	45,354
<u>Skelly-State Lease</u>		
13-W	1,173	22,053
14-W	1,088	21,679
23-W	1,131	22,673
24-W	1,743	20,457
<u>Donohoe-Federal Lease</u>		
3	<u>4,478</u>	<u>15,757</u>
	<u>11,131</u>	<u>179,016</u>

Average injection pressure for August

1028 p.s.i.

BEFORE EXAMINER UTZ  
OIL CONSERVATION COMMISSION  
MoAB EXHIBIT NO. 2-A  
CASE NO. 1225

TABLE II

Production History - Moab Drilling Company Davis-Federal Lease

(Since Start of Water Injection)

		<u>Well No. 2</u>		<u>Well No. 3</u>		<u>Well No. 5</u>		<u>Well No. 6</u>	
		<u>Oil</u>	<u>Water</u>	<u>Oil</u>	<u>Water</u>	<u>Oil</u>	<u>Water</u>	<u>Oil</u>	<u>Water</u>
1957	May	621		425		992		351	
	June	409		409		759		370	
	July	492		492		1132		303	
	August	306	291	497		537	26	392	
	September	82	32	505		521	13	337	
	October	471		471		1214		301	
	November	432		345		1155		375	
	December	519		287		1142		402	
1958	January	516		393		1372		393	
	February	545		293		1624		341	
	March	632		394		1872		406	
	April	540	51	300	26	2400		435	
	May	570		320		2801		474	
	June	507	17	368	18	2774	94	440	
	July	703	7	514		2543	77	343	
	August	917	22	438	5	2662	150	303	
	Totals	<u>8262</u>	<u>420</u>	<u>6451</u>	<u>49</u>	<u>25500</u>	<u>360</u>	<u>5966</u>	<u>-0-</u>

TABLE III

Production History - Moab Drilling Company Skelly-State Lease

(Since Start of Water Injection)

		<u>Well No. 6</u>		<u>Well No. 7</u>		<u>Well No. 8</u>		<u>Well No. 9</u>		<u>Well No. 10</u>	
		<u>Oil</u>	<u>Water</u>	<u>Oil</u>	<u>Water</u>	<u>Oil</u>	<u>Water</u>	<u>Oil</u>	<u>Water</u>	<u>Oil</u>	<u>Water</u>
1957	May	120		120		121		258		431	
	June	257		289		79		112		267	
	July	390		195		65		100		328	
	August	352	5	566		179	5	138		396	
	September	270	Tr	168		102	29	102	97	335	
	October	179		499		72		37		355	
	November	231		327		198		129	192	264	
	December	166		387		185		72	188	355	
1958	January	120		471		156		40	247	374	
	February	74		480		74		14	262	221	
	March	71		385		175			285	245	
	April	79	52	410	108	275	76			275	
	May	81	68	424	82	302	71		840	294	
	June	294	20	418	20	506	32		509	293	
	July	332	3	333	3	363	4	9	186	296	
	August	<u>440</u>	<u>16</u>	<u>344</u>	<u>12</u>	<u>387</u>	<u>4</u>	<u>25</u>	<u>568</u>	<u>265</u>	
	Totals	<u>3456</u>	<u>164</u>	<u>5816</u>	<u>225</u>	<u>3239</u>	<u>221</u>	<u>1036</u>	<u>3374</u>	<u>4994</u>	<u>-0-</u>

TABLE IV

Production History - Meab Drilling Company Meab-State Lease

(Since Start of Water Injection)

		<u>Well No. 1</u>	
		<u>Oil</u>	<u>Water</u>
1957	May	26	
	June	28	
	July	53	
	August	82	
	September	78	
	October	78	
	November	55	
	December	53	
1958	January	62	
	February	64	
	March	29	128
	April	0	287
	May	0	98
	June	42	82
	July	49	51
	August	<u>57</u>	<u>29</u>
	Totals	<u>756</u>	<u>675</u>

TABLE V

Production History - Utex Exploration Company Denchue-Federal Lease

(Since Start of Water Injection)

		<u>Well No. 2</u>	
		<u>Oil</u>	<u>Water</u>
1957	May	234	
	June	244	
	July	420	
	August	378	
	September	478	
	October	811	
	November	1226	
	December	1178	76
1958	January	480	215
	February	208	77
	March	202	170
	April	169	133
	May	158	122
	June	107	132
	July	88	614
	August	<u>10</u>	<u>1510</u>
	Totals	<u>6391</u>	<u>3049</u>