

CHSE No. 4834

Application,

Transcripts,

Small Ekhibts

îî

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION STATE LAND OFFICE SANTA FE, NEW MEXICO Wednesday, September 27, 1972 at 1:30 P. M.

EXAMINER HEARING

IN THE MATTER OF:

Application of Read & Stevens, Inc. for an unorthodox location, Lea County, New Mexico.

Docket No. 21-72 Case No. 4834

BEFORE: ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

3

5

б

7

8

9

10

11

12

13

14

15

16

17

19

20

21

22

23

24

25

200 SIMMS BLDG.-P.O. BOX 1002-PHONE 248-4601-ALBUQUERRQUE, NEW MEXICO \$7108 1210 First national bank bldg. Maxt-Albuquerque, new mexico 87108

PROCEEDINGS

MR. UTZ: Hearing will come to order, please. We will call Case 4834.

MR. HATCH: Case 4834, Application of Read & Stevens, Incorporated for an unorthodox location, Lea County, New Mexico.

MR. KELLAHIN: I am Tom Kellahin of Kellahin and Fox appearing for the applicant Read & Stevens, Incorporated and I have one witness to be sworn.

MR. UTZ: Other appearances? There are none and you may proceed.

(Whereupon, Mr. William J. LeMay was called to the stand and sworn.)

MR. WILLIAM J. LeMAY

having been first duly sworn according to law, upon his oath, testified as follows:

DIRECT EXAMINATION

18 BY MR. TOM KELLAHIN:

- Q Will you please state your name and occupation?
- A William J. LeMay, consulting geologist in Santa Fe, New Mexico.
- Q What is your involvement with Read & Stevens, Mr. LeMay?
- A I have been asked by Read & Stevens to make a study of the King Field and South King Field area for the purpose of drilling a 12,500 foot Devonian test.

17

18

19

20

<u>^1</u>

22

23

24

25

		a gammicgion at	าส
Q	Have you	previously testified before the Commission ar	
	had your	qualifications as a geologist accepted and ma	ade
	a matter	of record?	

Yes. Α

2

5

6

7

Q

Α

MR. KELLAHIN: Mr. Examiner, are the witness's qualifications acceptable?

MR. EXAMINER: Yes, sir, they are.

- (By Mr. Kellahin) Mr. LeMay, will you please indicate what exhibits you have with regard to your research and in support of this application?
 - Yes. I have three exhibits. Two of the exhibits are structure maps. The third exhibit is a cross-section. Starting with Exhibit Number 1, it shows the King Field which produces from the Devonian basically in the East Half of Section 35, Township 13 South, Range 37 East. In this regard this structure map is drawn on the top of the Abo Green Shale and you can see the structural anomaly in the East Half of the East Half of Section 2, 14 South, 37 East. This also shows the acreage owned by Read & Stevens which is the Southeast 160 acres in Section 2. It shows the one producing well in the South King Field which is located in Unit A of Section 2 and it shows our proposed location which is 1200 feet from the south line and six sixty feet from the east line. I might point out the only unorthodox nature of the location is of course

9 10 11 12 209 SIMMS BLDG. * P.O. BOX 1092 * PHONE 243-6691 * ALBUQUERQUE, NEW MEXICO 87108 1210 FIRST NATIONAL BANK BLDG. KAST * ALBUQUERQUE. NEW MEXICO 87108 13 14 15

16

17

18

19

20

21

22

23

24

25

2

3

5

6

7

8

A

The six sixty is legal in the north-south direction. and it is crowding acreage owned by Read & Stevens.

- Directing your attention to Exhibit 2 please identify it Q and explain what information it contains.
 - Well, what is shown to be a very simple structure with possibly another structure in Exhibit 1 when you get down to the Devonian level it is a very complex series of Horst block and graven carved by a predominance of defaulting in the King Field area. Actually when I got into the study of the field, there were some anomalous cumulative production data based on a very simple interpretation like most geologists which just the subsurface control would draw. Most interpretations show it is just a simple anticline there, however the well in Unit A of Section 2 being one of the lowest wells in the field, the second lowest well in the field is the second best well. It has a cumulative production of over 850,000 barrels of oil so this combined with some early bottom-hole pressure declines in what normally is a water drive reservoir led me to the conclusion that this field is a series of faults and the faults not only trap separate accumulations within the field but also can act as barriers and channelways for solutions to carry minerals in solution and deposit them in the porosity system of the Devonian. This was the interpretation I came to when analyzing the Pub. Co.

dearnley, meier & mc cormick 📧

6

7

8

10

11

12

14

15

16

17

18

19

20

21

22

23

24

25

SULDG. P. D. BOX 1092 PROME 249-6491-640-6ALBUDUERSOUR. NEW MEXICO 67109

Unit P of Section 2. This well has had numerous cores and drill stem tests throughout the Devonian and the porosity is very tight as will be shown on the crosssection, maximum four per cent porosity and very low permeability. However it did recover oil and did produce 965 barrels of oil before being abandoned. The well was drilled by Pub. Co., plugged and subsequently entered by C. W. Trainer, completed and produced 965 barrels of oil and permanently abandoned. From this interpretation we thought it wise to work some seismic records that were available in the area to try and find out where faults were. The high seismic point is shown on this map and it is colored yellow and it is a circle with an X on it. lies directly east, approximately 300 feet from our proposed location. Because of the treacherous nature of the Devonian in this area we felt any location would be risky in trying to drill out this anomaly, but certainly to reduce the risk we felt it advantageous to drill as close as possible to high shock point as well as get far enough away from the Pub. Co. well so that we wouldn't be influenced by a fault which probably is in the vicinity of that well causing the tight Devonian section that the Pub. Co. well encountered.

Number 1, South Exploration Company State located in

Going to Exhibit Number 3 this is the cross-section

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

from the Pub. Co. well that was re-entered by Trainer through the proposed location to that one producing well in Unit A of Section 2, the Texas Pacific Coal and Oil Number 1 State S. As you will notice the numerous cores and drill stem tests and completion information on the Pub. Co. well shown on the left, I didn't list all the drill stem tests and all the cores. However, I can read them into the record if you fell it advisable. The drill stem tests and cores do show some porosities but very poor permeability. This is confirmed by the drill stem tests and completion attempts. You will notice the porosity curve on the right of that log is very low for a normally porous Devonian reservoir. This can be shown over here to the right in the Texas Pacific well, the excellent porosity encountered in it. That well was originally completed open hole and subsequently that part of the Devonian which had pipe through it was perforated to get all the oil out that could be gotten out and then the well I just understand recently, is going to be plugged but it was an excellent well. Hopefully the proposed location will be far enough from the faulting which influenced the Pub. Co. well to encounter porous Devonian section and also at our high shaft point structurally will be okay in that regard. I do anticipate this to be a separate feature and basically a wildcat even though it is within a mile of

dearnley, meier & mc cormick

6

7

8

10

11

12

13

14

17

18

19

20

21

22

23

24

25

SIMMS BEDGG P.O. BOX 1092 PPHONE 243-66919 ALBOQUERQUE, NEW MEX.CO 87:03

production from the King Field and could be considered part of the King Field it was productive but the King, as I have shown, is a series of separate fields basically. Can the acreage dedicated to this well be drained Q efficiently. I think it will be definitely. The Devonian is a water drive reservoir even though occasionally it is tight. The wells water out and the highest structural location on a particular pimple, we will say, or a small hickey or a small high, if you can get the top of the high you will get the oil in it with a water drive reservoir. In your opinion will approval of this application prevent waste and not impair the correlative rights of others? Yes, it will. Were Exhibits 1 through 3 prepared by you?

Yes, they were.

of Applicant's Exhibit 1 through 3.

MR. KELLAHIN: Mr. Examiner, we move the introduction

MR. EXAMINER: Without objection Exhibits 1 through 3 will be entered into the record of this case.

3 4 A 5 6 7 8 9 10 Q 11 12 SIMMS BLDG. F P.O. BOX 1092 FPHONE 243-65916 ALBUJUERQUE, NEW MEXICO 87108 1216 FIRST NATIONAL BANK BLDG. EAST ALBUQUERQUE, NEW MEXICO 87108 13 14 15 16 17 18 19 20 21 22

	mron
CROSS	EXAMINATION

2

Mr. LeMay, does Exhibit 2 show all the wells in the King BY MR. UTZ: Q

Yes, it does. You can see there is quite a few dry holes around there trying to find that anomaly that has been present in the south end of the King Field. I count six dry holes trying to pinpoint that anomaly which is undoubtedly small.

What kind of producers are the other wells? They are all plugged out now with the exception of the A

Best well which would be in Unit A of Section 35. well made about a million barrels of oil and is still producing. As I mentioned, I think the well Unit A of Section 2 is the second-best well as far as cumulative

production goes and I just recently saw in the Commission

file there is an application to plug and abandon that

MR. EXAMINER: Any other questions of the witness? well now. You may be excused. Statements in the case?

Case will be taken under advisement.

23

24

25

		2	WITNESS	PAGE
		3	MR. WILLIAM J. LEMAY	
		4	Direct Examination by Mr. Tom Kellahin	3
		5	Cross Examination by Mr. Utz	9
<u></u>		6		
nic K		7		
		8	<u>E X H I B I T S</u>	
3		9	•	PAGE
dearnley, maier & mc cormick		10	Exhibit Number 1 - Structure map showing King Field	8
χ, m		11	Exhibit Number 2 -	8
rne	108	12	Structure map	o .
dea	*AFBUQUERROUR, YRW MRXICO 87108 Budurrour, Yrw Mrxico 87108	13	Exhibit Number 3 - Cross-section	8
	EX ME	14		
	Z } ¥ Z Z	15		
	2	16		
	**************************************	17		
	2:13-0691	18		
	TO 0.2	19		
	1092 + F	20		
	0. BOX	21		
	0.00. F A T I	22		
	SIMMS BLOG. * P.O. BOX 1092 * PHONE 2:13- 1210 FIRST NATIONAL BANK BLOG. KAST	23	3	
	209 SIM	24	4	
-		2	5	

<u>I</u>NDEX

209 SIMMS BLDG. P.O. BOX 1092 - PMONE 245-6691 - ALBUQUERQUE. NEW MEXICO 87108 1216 FIRST NATIONAL BANK BLDG. EAST-ALBUQUERQUE, NEW MEXICO 87108

STATE OF NEW MEXICO ss. COUNTY OF BERNALILLO

I, MARCIA J. HUGHES, Court Reporter, do hereby certify that the above and foregoing pages are a true and correct transcript of the proceedings had before the New Mexico Oil Conservation Commission on Wednesday, September 27, 1972.

p min Jughes

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. 4834 Order No. R-4414

APPLICATION OF READ & STEVENS, INC. FOR AN UNORTHODOX LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 27, 1972, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 10th day of October, 1972, 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, Read & Stevens, Inc., seek an exception to Rule 104 of the Commission Rules and Regulations for approval of an oil well location 1200 feet from the South line and 660 feet from the East line of Section 2, Township 14 South, Range 37 East, NMPM, to test the Devonian formation adjacent to the King-Devonian Oil Pool, Lea County, New Mexico.
- (3) That the SE/4 SE/4 of said Section 2 is to be dedicated to the well.
 - (4) That the subject area appears to be extremely faulted.
- (5) That a well drilled at the proposed location may encounter hydrocarbons trapped by faults that would not be encountered by a well drilled at a standard location.
- (6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

-2-CASE NO. 4834 Order No. R-4414

IT IS THEREFORE ORDERED:

- (1) That an unorthodox oil well location for the Devonian formation is hereby approved for a well to be located 1200 feet from the South line and 660 feet from the East line of said Section 2, Township 14 South, Range 37 East, NMPM, adjacent to the King-Devonian Oil Pool, Lea County, New Mexico, as an exception to Rule 104 of the Commission Rules and Regulations.
- (2) That the SE/4 SE/4 of said Section 2 shall be dedicated to the above-described well.
- (3) 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.

SEAL

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

BRUGE KING, Chairman

ALEX J. ARMIJO, Member

Est / Length

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

Case 4834
Neard 9-27-72
Rec. 9-28-72
Stant Read Stevens therequested
N51 in the King Devonions Pool
for a well to bo drilled 1200/3 +
1660/E of sec. 2-145-37 E.
This is reasonable due to the
extremally faulted condition
in the fool

Docket No. 21-72

Examiner Hearing - Wednesday - September 27, 1972

(Case 4833 continued from page 1)

to 1200 feet from the East line of said Section 28, adjacent to the Springs-Upper Pennsylvanian Gas Pool.

Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4834:

Application of Read & Stevens, Inc. for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a Devonian test well at an unorthodox location 1200 feet from the South line and 660 feet from the East line of Section 2, Township 14 South, Range 37 East, Lea County, New Mexico, adjacent to the King-Devonian Pool.

CASE 4835:

Application of Texas Oil & Gas Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Pennsylvanian formation underlying the S/2 of Section 13, Township 22 South, Range 26 East, South Carlsbad Field area, Eddy County, New Mexico, to be dedicated to a well to be drilled 1980 feet from the South and East lines of said Section 13. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the cotablishment of charges for supervision of said well.

CASE 4836: Application of Michael P. Grace II and Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad Field area, Eddy County, New Mexico, to be dedicated to a well to be drilled at an orthodox location for said unit. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision for said well.

CASE 4819:

(Continued from the September 13, 1972, Examiner Hearing) Application of D. L. Hannifin for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral inverests in and under the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, to be dedicated to a well to be drilled 1980 feet from the South and East lines of said Section 24. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 27, 1972

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 4829: Application of Coastal States Gas Producing Company for a special depth bracket allowable, Lea and Roosevelt Counties, New Mexico.

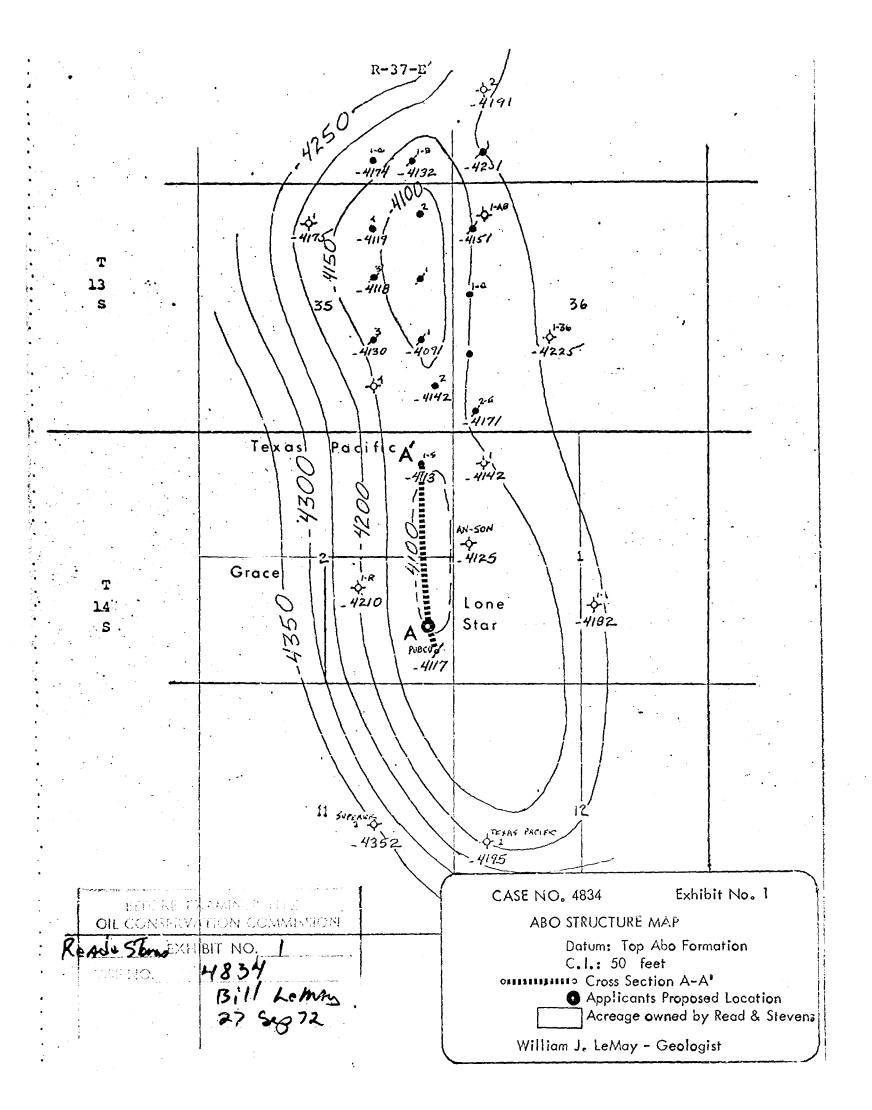
 Applicant, in the above-styled cause, seeks the establishment of a special depth bracket allowable greater than the present allowable for the Vada-Pennsylvanian Pool, Lea and Roosevelt Counties, New Mexico.
- CASE 4830: Application of Mobil Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Vacuum-Abo Unit Area comprising 5,680 acres, more or less, of Federal, State, and Fee lands in Township 17 South, Ranges 34 and 35 East, Lea County, New Mexico.
- CASE 4831: 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 in its North Vacuum-Abo Unit Area by the injection of fluid into the North Vacuum-Abo Pool through 34 wells located in Township 17 South, Ranges 34 and 35 East, Lea County, New Mexico.

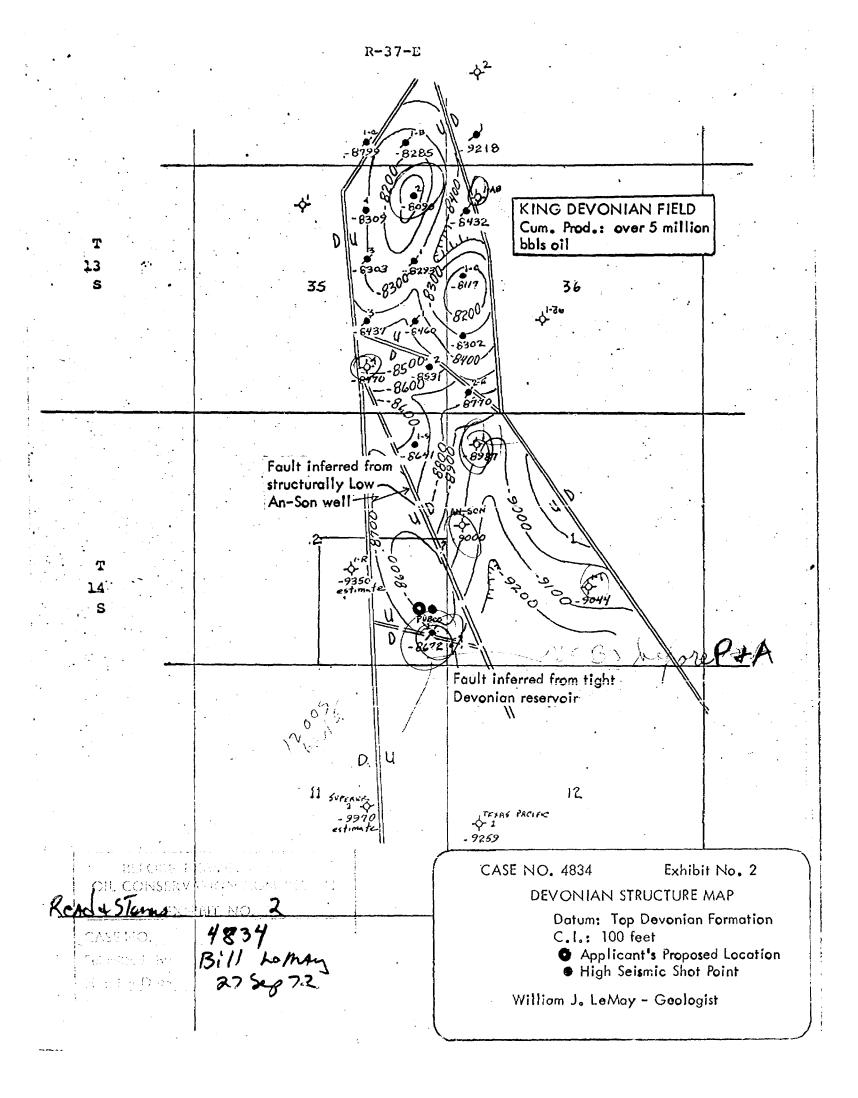
Applicant further seeks a procedure whereby additional producing and injection wells may be approved without notice and hearing.

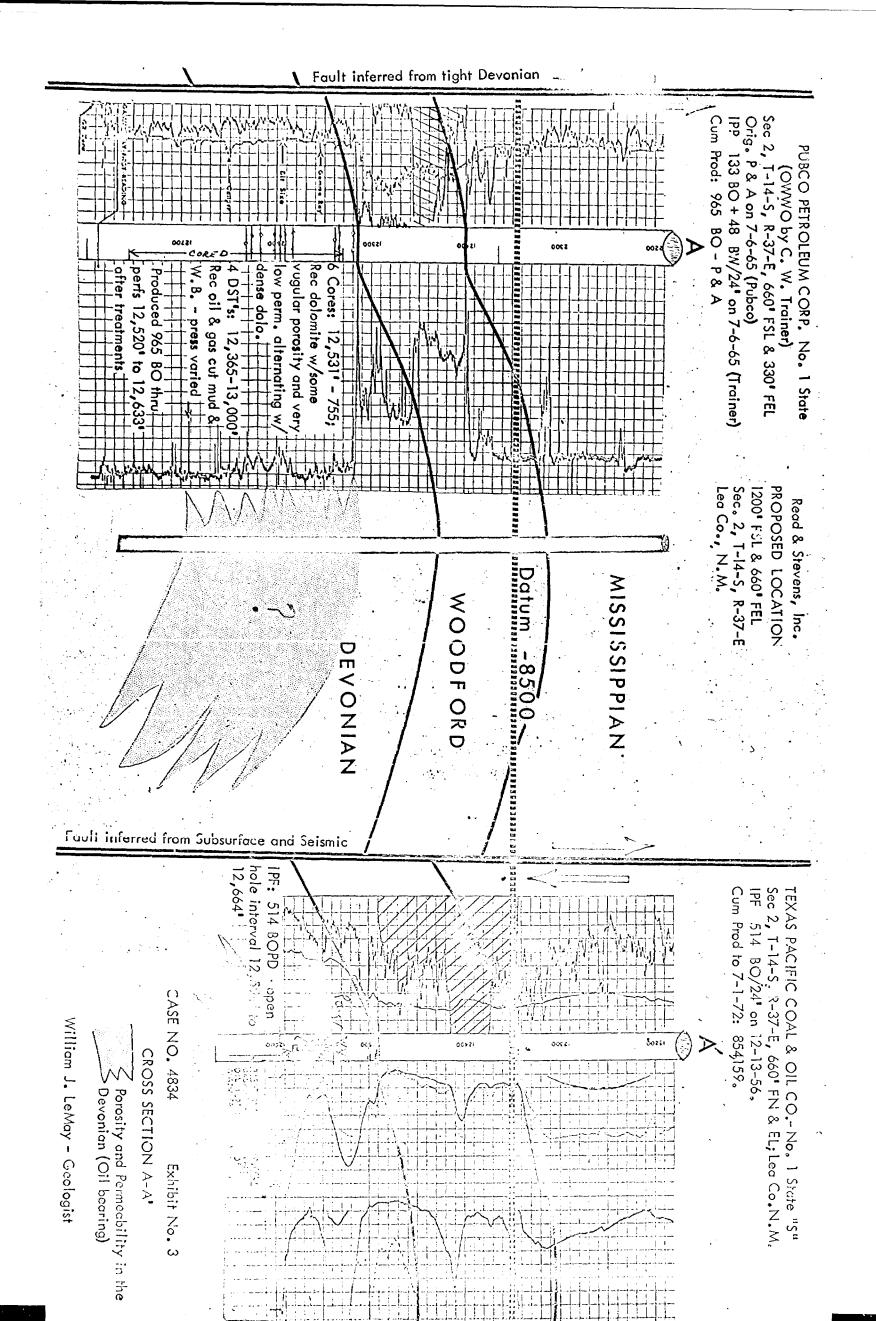
CASE 4832: Application of Pennzoil Company for pool reclassification, special pool rules, and a non-standard proration unit, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the reclassification of the Northwest Todd-San Andres Gas Pool to an associated pool for the production of gas and oil and the promulgation of special rules therefor including provisions for the classification of oil and gas wells, oil and gas spacing, and a gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil.

Applicant further seeks approval of an 80-acre non-standard oil proration unit in the subject pool comprising the NW/4 SW/4 and the SW/4 NW/4 of Section 8, Township 7 South, Range 35 East to be dedicated to its Superior State "Com" Well No. 1 located in Unit L of said Section 8.

CASE 4833: Application of Tesoro Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 of Section 28, Township 20 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and from 1160







BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF READ & STEVENS, INC. FOR AN UNORTHODOX LOCATION, LEA COUNTY, NEW MEXICO

Case 4834

APPLICATION

Comes now READ & STEVENS, INC., and applies to the Oil Conservation Commission of New Mexico for authority to drill a Devonian test well at an unorthodox location, 1200 feet from the South line and 660 feet from the East line of Section 2, Township 14 South, Range 37 East, N.M.P.M., Lea County, New Mexico, and in support thereof would show the Commission:

- 1. Applicant is the owner of the working interest in the underlying SE/4 of Section 2, Township 14 South, Range 37 East, N.M.P.M., Lea County, New Mexico.
- 2. Applicant proposes to drill a Devonian test well to a depth of 12,500 feet within one mile of the exterior boundary of the King-Devonian Pool at an unorthodox location, 1200 feet from the South line and 660 feet from the East line of Section 2. Township 14 South, Range 37 East, N.M.P.M., Lea County, New Mexico.
- 3. Applicant's requested location is more advantageous for Grilling than the orthodox location because of structural reasons.
- 4. Approval of this application will result in the recovery of oil not otherwise recoverable and will prevent waste and will not impair correlative rights.

Born the man Samuel

WHEREFORE, applicant respectfully requests that this application be set for hearing before the Commission's duly appointed Examiner and that upon hearing, an order be entered authorizing the unorthodox location as described above.

Respectfully submitted,

READ & STEVENS, INC.

KELLAHIN & FOX P. O. Box 1769

Santa Fe, New Mexico 87501

Attorneys for Applicant

GMH/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:

THE PURPOSE OF CONSIDER

CASE NO. 4834

Order No. R- 4414

APPLICATION OF READ & STEVENS, INC. FOR AN UNORTHODOX LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 27, 1972 at Santa Fe, New Mexico, before Examiner Elvis A. Utz

NOW, on this day of , 19 72 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, Read & Stevens, seek an exception to Rule 104 of the Commission Rules and Regulations for approval of an oil well location 1200 feet from the South line and 660 feet from the East line of Section 2, Township 14 South, Range 37 East, NMPM, to test the _________ formation______ adjacent to the King-Devonian Oil Pool, Lea County, New Mexico.

-2-CASE NO. 4834 Order No. R-

(3) That the $3\ell/4 + 5\ell/4$ of said Section 2 is to be dedicated to the well.

That a well drilled at the proposed location should may by locarbons to prod by a secretarily that want with a more porous section of the subject formation than a well drilled at a standard location.

That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the oil in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

- (1) That an unorthodox oil well location for the October: formation is hereby approved for a well to be located 1200 feet from the South line and 660 feet from the East line of said Section 2, Township 14 South, Range 37 East, NMPM, adjacent to the King-Devonian Oil Pool, Lea County, New Mexico, as an exception to Rule 104 of the Commission Rules and Regulations.
- (2) That the <u>SE/4 SE/4</u> of said Section 2 shall be dedicated to the above-described well.
- (3) 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.