

CASE 6648: MORRIS R. ANTWEIL FOR POOL
CREATION AND SPECIAL POOL RULES, LEA
COUNTY, NEW MEXICO

CONTINUE

TO

OCTOBER 29

CASE NUMBER

6648

Application

Transcripts.

Small Exhibits

ETC.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6648
Order No. R-6124-A

IN THE MATTER OF CASE 6648 BEING
REOPENED PURSUANT TO THE PROVISIONS
OF ORDER NO. R-6124 WHICH ORDER
PROMULGATED TEMPORARY SPECIAL RULES
AND REGULATIONS FOR THE NORTH CAPROCK-
MISSISSIPPIAN POOL IN LEA COUNTY, NEW
MEXICO, INCLUDING A PROVISION FOR
160-ACRE SPACING AND A 4000 TO ONE
GAS-OIL RATIO LIMITATION.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 29, 1980, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 6th day of November, 1980, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That by Order No. R-6124, dated September 24, 1979, temporary special rules and regulations were promulgated for the North Caprock-Mississippian Pool, Lea County, New Mexico, establishing temporary 160-acre spacing units and proration units, and a limiting gas-oil ratio of 4000 to one.

(3) That pursuant to the provisions of Order No. R-6124, this case was reopened to allow the operators in the subject pool to appear and show cause why the North Caprock-Mississippian Pool should not be developed on 40-acre spacing units and a limiting gas-oil ratio of 2000 to one.

-2-

Case No. 6648

Order No. R-6124-A

(4) That the evidence indicates that one well in the North Caprock-Mississippian Pool can efficiently and economically drain and develop 160 acres.

(5) That the Special Rules and Regulations promulgated by Order No. R-6124 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil and gas in the pool.

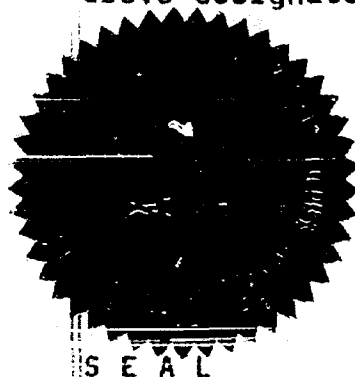
(6) That the Special Rules and Regulations for the North Caprock-Mississippian Pool, as promulgated by Order No. R-6124, should be continued in full force and effect until further order of the Division.

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the North Caprock-Mississippian Pool, promulgated by Order No. R-6124, shall remain in full force and effect until further order of the Division.

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

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



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

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STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
29 October 1980

EXAMINER HEARING

IN THE MATTER OF:

Case 6648 being reopened pursuant
to the provisions of Order No.
R-6124.

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) CASE
) 6648
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BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For Morris R. Antweil:

William F. Carr, Esq.
CAMPBELL & BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

I N D E X

ROBERT M. WILLIAMS

Direct Examination by Mr. Carr 3

Cross Examination by Mr. Nutter 9

E X H I B I T S

Applicant Exhibit One, Map 4

Applicant Exhibit Two, C-105 5

Applicant Exhibit Three, C-105 5

Applicant Exhibit Four, Tabulation 5

Applicant Exhibit Five, Data 6

Applicant Exhibit Six, Data 6

Applicant Exhibit Seven, Cross Section 7

Applicant Exhibit Eight, Cross Section 7

Applicant Exhibit Nine, AFE 8

MR. NUTTER: We'll call Case Number
6648.

MR. PEARCE: In the matter of Case 6648
being reopened pursuant to the provisions of Order R-6124.

MR. CARR: May it please the Examiner,
I am William F. Carr, Campbell and Black, P. A., Santa Fe,
appearing on behalf of the Applicant.

I have one witness to be sworn.

(Witness sworn.)

ROBERT M. WILLIAMS

being called as a witness and having been duly sworn upon his
oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q. Would you state your name and place of
residence?

A. My name is Robert M. Williams. I reside
in Hobbs, New Mexico. Employed by Morris R. Antweil, the
applicant.

Q. Have you previously testified before
this Commission?

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A. Yes, I have.

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Q Are you familiar with the subject matter of the case and the subject area?

5

6

A. Yes, I am.

7

8

MR. CARR: Mr. Nutter, are the witness' qualifications acceptable?

9

10

MR. NUTTER: They are.

11

12

Q Mr. Williams, will you please refer to what has been marked Antweil Exhibit Number One and explain to Mr. Nutter what this is and what it shows?

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A. Exhibit Number One is a land map covering the vicinity of the North Caprock Mississippian Oil Pool. The two producing wells that have been completed in the field are marked in green and the spacing and proration unit, the 160-acre spacing and proration unit for each of those wells is indicated by the red outline.

25

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28

The dry Mississippian test in the vicinity of the pool are indicated in blue, and the acreage, the lease acreage operated by Antweil in the area has been colored yellow.

MR. NUTTER: What are the other three green circles, Mr. Williams?

A. I just have two green circles and the rest are blue.

MR. NUTTER: I have five circles, five green ones and three blue ones.

A. You got the -- you got the wrong map.

MR. NUTTER: Okay.

A. The girl got carried away. The well in the --

MR. NUTTER: Okay, now all of a sudden these other three are -- the green ones are blue now. Okay,

A. Okay, just two wells within the red spacing proration units are -- should be green, and are the completions. The other wells in the vicinity tested the Mississippian dry.

MR. NUTTER: Okay.

Q. Would you please refer to Exhibit Number Two and review this for Mr. Nutter?

A. Exhibit Number Two is simply the C-105 form for the No. 1 Landlady Well, the first completion in the field.

Q. Now refer to Exhibit Number Three.

A. Exhibit Number Three is the C-105 form for the No. 1 Lucky Larry Well, the second and only other well in the reservoir.

Q. Will you now refer to Exhibit Number Four and review this?

1
2 A. Exhibit Number Four tabulates the oil
3 and gas production data from the No. 1 Landlady Well, which
4 has been on production approximately one year. The No. 1
5 Lucky Larry Well has not been put on production as yet.
6

7 Q. Will you now refer to Exhibit Number
8 Five?

9 A. Exhibit Number Five is bottom hole pres-
10 sure data which we have obtained from the two wells in the
11 reservoir.
12

13 It might be significant to note that
14 the No. 1 Lucky Larry Well in May of 1980 on drill stem test
15 encountered a reservoir pressure of 3934 which would indicate
16 some possible depletion from the original reservoir pressure
17 of approximately 4098.

18 Q. All right, Mr. Williams, will you now
19 refer to Exhibit Number Six and review this for Mr. Nutter?

20 A. Exhibit Number Six, I've tried to set
21 out the pertinent reservoir data which was obtained from the
22 two wells in the reservoir.
23

24 The producing characteristics, I think
25 you can see, seem to be similar. A reservoir fluid sample, it
26 was testified in the initial hearing, a reservoir fluid sample
27 taken in the No. 1 Landlady Well, indicates the reservoir
28 fluid to be present in two phases at the reservoir conditions,

1
2 reservoir pressure and temperature.

3 Q All right, I would direct your attention
4 to Antweil Exhibit Number Seven and ask you to review this.

5 A Exhibit Number Seven is an east/west
6 correlation section to try to depict the -- the condition of
7 the reservoir pay development. The location of the wells on
8 the cross section is shown by the inset.

9 Your attention would be directed to the
10 No. 1 Landlady Well, the second well from the right. It
11 shows the sand development in the Chester formation; Chester
12 formation is normally lime, as it was in the Murphy well to
13 the west, and the Morris Antweil No. 1 Buddy Well to the
14 east.

15 The sand development in the Chester is
16 apparently some sort of an anomaly, a channel condition that
17 sand was deposited in this normally lime interval.

18 Q Will you now refer to Antweil Exhibit
19 Number Eight and review this for the Examiner?

20 A Exhibit Number Eight is a north/south
21 correlation section. It shows the two producing wells in the
22 reservoir, the No. 1 Landlady on the right; the No. 1 Lucky
23 Larry, both of which encountered excellent sand development
24 in this Chester interval and the well that was drilled in 1952
25 on to the north, the Texaco No. 1 State "BC", which when we
26
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1
2 constructed this cross section we hoped was sand in this in-
3 terval. We have since re-entered that well and find that in
4 fact this interval is lime and is tight and nonproductive,
5 and we plugged the well at 1:30 this morning.
6

7 Q Will you now refer to Antweil Exhibit
8 Nine and identify this?

9 A Exhibit Number Nine is a copy of the
10 AFE cost estimate that we prepared on our No. 1 Lucky Larry
11 Well submitted to give the Commission some figures on the
12 relative costs of these wells in this reservoir.

13 Q Now, Mr. Williams, Antweil is requesting
14 that permanent rules be established for this pool.

15 A Yes. We have secured temporary rules
16 approximately a year ago for this reservoir with 160-acre
17 spacing provision and with a 4000-to-1 limiting gas/oil ratio.
18 We have tried to submit with these exhibits all the information
19 which we have secured about the reservoir, and would request
20 at this time that the temporary rules that were adopted for
21 this reservoir be made permanent at this time.
22

23 Q In your opinion will granting this
24 application be in the best interests of conservation, pre-
25 vention of waste, and the protection of correlative rights?
26

27 A Yes, it would.

28 MR. CARR: At this time --

1
2 Q Were Exhibits One through Nine prepared
3 by you or under your direction and supervision?

4 A Yes, they were.

5 MR. CARR: At this time, Mr. Nutter,
6 we would offer into evidence Antweil Exhibits One through
7 Nine.
8

9 MR. NUTTER: Exhibits One through Nine
10 will be admitted in evidence.

11 MR. CARR: I have nothing further on
12 direct.
13

14 CROSS EXAMINATION

15 BY MR. NUTTER:

16 Q Mr. Williams, you haven't given anything
17 on the necessity for the 4000-to-1 GOR limits being continued.
18 What about your GOR production here?
19

20 A The Exhibit Number Six shows the poten-
21 tial of our two wells in the reservoir. The Landlady Well
22 shows initial gas/oil ratio of approximately 5000-to-1 and
23 the Lucky Larry well, approximately 9000-to-1 on initial
24 completion.
25

26 The production history of the Landlady
27 Well, Exhibit Four, would indicate that the cumulative gas/oil
28 ratio of the No. 1 Landlady Well has been approximately 11,000-

1
2 to-1 over this first year.

3 The ratio, or the simultaneous existence
4 of two phases in the reservoir results in wells with higher
5 ratios, and we have requested the 4000 GOR to permit economic
6 production of these wells of this type.
7

8 Q It would appear from the Exhibit Number
9 One and also from the cross section, Exhibit Number Seven,
10 that you've probably got that little sand accumulation in the
11 Chester, which is a very narrow north/south trending condition
12 that is probably not going to be productive in very many more
13 wells in the area.

14 A That's correct, sir. That's the way
15 we see it at this time. We -- we do anticipate drilling
16 another well most probably in the northeast quarter of Section
17 5, to further try to develop this reservoir.
18

19 Q Now where was the well that you said
20 was being P&A'd now?

21 A The well in Section 33 was recently re-
22 entered, and from the old electric log we anticipated that
23 this Chester interval could be sand. It was not.
24

25 Q That's the one in the southwest south-
26 west of 33 on Exhibit Number One, shows a blue circle?

27 A That's right.

28 Q Now, if you go into the northeast quarter

1
2 of Section 1, would you re-enter this well that's there now,
3 or would you drill another well?

4 A. No, that's a shallow well and we -- we
5 would anticipate that a well would have to be drilled from
6 the surface.
7

8 Q. I see. I see.

9 MR. NUTTER: Are there any further ques-
10 tions of Mr. Williams? He may be excused.

11 Do you have anything further, Mr. Carr.

12 MR. CARR: Nothing further, Mr. Nutter.

13 MR. NUTTER: Does anyone have anything
14 they wish to offer in Case Number 6648?
15

16 We'll take the case under advisement.

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18 (Hearing concluded.)
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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6648, heard by me on 10/29 1980.

[Signature], Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
29 October 1980

EXAMINER HEARING

IN THE MATTER OF:

CAsE 6648 being reopened pursuant
to the provisions of Order No.
R-6124.

CASE
6648

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

W. Perry Pearce, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For Morris R. Antweil:

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CAMPBELL & BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

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I N D E X

ROBERT M. WILLIAMS

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E X H I B I T S

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Applicant Exhibit Eight, Cross Section	7
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2 MR. NUTTER: We'll call Case Number
3 6648.

4 MR. PEARCE: In the matter of Case 6648
5 being reopened pursuant to the provisions of Order R-6124.
6

7 MR. CARR: May it please the Examiner,
8 I am William F. Carr, Campbell and Black, P. A., Santa Fe,
9 appearing on behalf of the Applicant.

10 I have one witness to be sworn.

11
12 (Witness sworn.)
13

14 ROBERT M. WILLIAMS
15 being called as a witness and having been duly sworn upon his
16 oath, testified as follows, to-wit:
17

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19 DIRECT EXAMINATION

20 BY MR. CARR:

21 Q Would you state your name and place of
22 residence?

23 A My name is Robert M. Williams. I reside
24 in Hobbs, New Mexico. Employed by Morris R. Antweil, the
25 applicant.
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27 Q Have you previously testified before
28 this Commission?

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A. Yes, I have.

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Q Are you familiar with the subject matter of the case and the subject area?

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A. Yes, I am.

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MR. NUTTER: They are.

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23 Larry, both of which encountered excellent sand development
24 in this Chester interval and the well that was drilled in 1952
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4 fact this interval is lime and is tight and nonproductive,
5 and we plugged the well at 1:30 this morning.
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10 AFE cost estimate that we prepared on our No. 1 Lucky Larry
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15 that permanent rules be established for this pool.

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17 approximately a year ago for this reservoir with 160-acre
18 spacing provision and with a 4000-to-1 limiting gas/oil ratio.
19 We have tried to submit with these exhibits all the information
20 which we have secured about the reservoir, and would request
21 at this time that the temporary rules that were adopted for
22 this reservoir be made permanent at this time.
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24 Q In your opinion will granting this
25 application be in the best interests of conservation, pre-
26 vention of waste, and the protection of correlative rights?

27 A Yes, it would.

28 MR. CARR: At this time --

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2 Q Were Exhibits One through Nine prepared
3 by you or under your direction and supervision?

4 A Yes, they were.

5 MR. CARR: At this time, Mr. Nutter,
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7 Nine.
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9 MR. NUTTER: Exhibits One through Nine
10 will be admitted in evidence.

11 MR. CARR: I have nothing further on
12 direct.
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14 CROSS EXAMINATION

15 BY MR. NUTTER:

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17 on the necessity for the 4000-to-1 GOR limits being continued.
18 What about your GOR production here?
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21 tial of our two wells in the reservoir. The Landlady Well
22 shows initial gas/oil ratio of approximately 5000-to-1 and
23 the Lucky Larry well, approximately 9000-to-1 on initial
24 completion.
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27 Well, Exhibit Four, would indicate that the cumulative gas/oil
28 ratio of the No. 1 Landlady Well has been approximately 11,000-

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4 of two phases in the reservoir results in wells with higher
5 ratios, and we have requested the 4000 GOR to permit economic
6 production of these wells of this type.
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8 Q It would appear from the Exhibit Number
9 One and also from the cross section, Exhibit Number Seven,
10 that you've probably got that little sand accumulation in the
11 Chester, which is a very narrow north/south trending condition
12 that is probably not going to be productive in very many more
13 wells in the area.

14 A That's correct, sir. That's the way
15 we see it at this time. We -- we do anticipate drilling
16 another well most probably in the northeast quarter of Section
17 5, to further try to develop this reservoir.
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19 Q Now where was the well that you said
20 was being P&A'd now?

21 A The well in Section 33 was recently re-
22 entered, and from the old electric log we anticipated that
23 this Chester interval could be sand. It was not.
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25 Q That's the one in the southwest south-
26 west of 33 on Exhibit Number One, shows a blue circle?

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2 of Section 1, would you re-enter this well that's there now,
3 or would you drill another well?

4 A. No, that's a shallow well and we -- we
5 would anticipate that a well would have to be drilled from
6 the surface.
7

8 Q I see. I see.

9 MR. NUTTER: Are there any further ques-
10 tions of Mr. Williams? He may be excused.

11 Do you have anything further, Mr. Carr.

12 MR. CARR: Nothing further, Mr. Nutter.

13 MR. NUTTER: Does anyone have anything
14 they wish to offer in Case Number 6648?
15

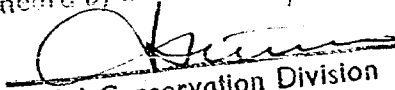
16 We'll take the case under advisement.

17
18 (Hearing concluded.)
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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that
the foregoing Transcript of Hearing before the Oil Conserva-
tion Division was reported by me; that the said transcript
is a full, true, and correct record of the hearing, prepared
by me to the best of my ability.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 6648,
heard by me on 10/29 1980.
 Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6648
Order No. R-6124

APPLICATION OF MORRIS R. ANTWEIL FOR
POOL CREATION AND SPECIAL POOL RULES,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on September 5, 1979, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 24th day of September, 1979, the Division Director, 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 Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Morris R. Antweil, seeks the creation of a new Mississippian oil pool for its Landlady Well No. 1 located in Unit B of Section 8, Township 12 South, Range 32 East, and special rules therefor, including 160-acre oil well spacing and a 4,000 to 1 gas-oil ratio.

(3) That prior to the date of this hearing, the Division had on its own motion created the North Caprock-Mississippian Pool as a result of the completion of said Landlady Well No. 1.

(4) That the application for pool creation should be dismissed.

(5) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect

-2-

Case No. 6648
Order No. R-6124

correlative rights, temporary special rules and regulations providing for 160-acre spacing units should be promulgated for the North Caprock-Mississippian Pool as previously defined and described.

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

(7) That the temporary special rules and regulations should provide for a gas-oil ratio limitation of 4000 cubic feet of gas per barrel of oil produced.

(8) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(9) That the applicant should provide the supervisor of the Division's district office at Hobbs with available production, testing, or offset well data within six months following the date of this order sufficient to show that the 4000 to 1 gas-oil ratio limitation is or is not resulting in efficient production from the reservoir.

(10) That unless called earlier upon the motion of the Division, this case should be reopened at an examiner hearing in October, 1980, at which time the operators in the subject pool should be prepared to appear and show cause why the North Caprock-Mississippian Pool should not be developed on 40-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That temporary Special Rules and Regulations for the North Caprock-Mississippian Pool, Lea County, New Mexico, as previously defined and described, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
NORTH CAPROCK-MISSISSIPPIAN POOL

RULE 1. Each well completed or recompleted in the North Caprock-Mississippian Pool or in the Mississippian formation within one mile thereof, and not nearer to or within the limits of another designated Mississippian oil pool, shall be spaced,

-3-

Case No. 6648
Order No. R-6124

drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 160 acres, more or less, consisting of a governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Division Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.

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

RULE 6. Top unit allowable for a standard proration unit (158 through 162 acres) shall be based on a depth bracket allowable of 650 barrels per day, and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 160 acres.

-4-

Case No. 6648
Order No. R-6124

RULE 7. The gas-oil ratio limitation for wells in the North Caprock-Mississippian Pool shall be 4000 cubic feet of gas per barrel of oil.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the North Caprock-Mississippian Pool or in the Mississippian formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the Hobbs District Office of the Division in writing of the name and location of the well on or before December 1, 1979.

(2) That, pursuant to Paragraph A. of Section 70-2-18, NMSA 1978, contained in Chapter 271, Laws of 1969, existing wells in the North Caprock-Mississippian Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating 160 acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the North Caprock-Mississippian Pool or in the Mississippian formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

(3) That within six months after the date of this order the applicant shall provide the supervisor of the Division's district office at Hobbs with available production, testing, or offset well data sufficient to show that the 4000 to 1 gas-oil ratio limitation is or is not resulting in efficient production from the reservoir.

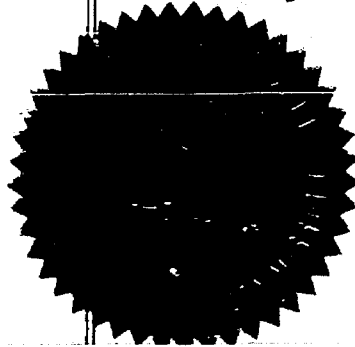
(4) That unless called earlier upon the motion of the Division, this case shall be reopened at an examiner hearing in October, 1980, at which time the operators in the subject pool should be prepared to appear and show cause why the North Caprock-Mississippian Pool should not be developed on 40-acre spacing units.

-5-

Case No. 6648
Order No. R-6124

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

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

S E A L

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
1 October 1980

EXAMINER HEARING

IN THE MATTER OF:

In the matter of Case 6648 being re-
opened pursuant to the provisions of
Order No. R-6124.

CASE
6648

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 MR. NUTTER: We'll call next Case Number
2 6648.

3 MR. PADILLA: In the matter of Case 6648
4 being reopened pursuant to the provisions of Order No. R-6124,
5 which order promulgated temporary special pool rules and reg-
6 ulations for the North Caprock-Mississippian Pool in Lea
7 County, New Mexico, including a provision for 160-acre spacing
8 and a 4000-to-1 gas/oil ratio limitation.

9 MR. NUTTER: At request of applicant Case
10 Number 6648 will be continued to the Examiner Hearing scheduled
11 to be held at this same place at 9:00 o'clock a. m. October
12 29th, 1980.

13
14 (Hearing concluded.)
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SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6648 heard by me on 10/11 1980.

[Signature], Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
1 October 1980

EXAMINER HEARING

IN THE MATTER OF:

In the matter of Case 6648 being re-
opened pursuant to the provisions of
Order No. R-6124.

CASE
6648

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant:

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

1 MR. NUTTER: I'll call next Case Number
2 6648.

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5 which order promulgated temporary special pool rules and reg-
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7 County, New Mexico, including a provision for 160-acre spacing
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14 (Hearing concluded.)
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SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409


C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phon.: (505) 455-7409

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of case No. 4648
heard by me on 10/1 1980.

 Examiner
Oil Conservation Division

CASE 7074: Application of Enserch Exploration, Inc. for pool creation, an unorthodox gas well location, and non-standard proration unit, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Fusselman gas pool for its J. G. O'Brien Well No. 2 located at an unorthodox location 660 feet from the South and West lines of Section 30, Township 7 South, Range 29 East, to be dedicated to a 308.96-acre non-standard unit comprising the W/2 of said Section 30.

CASE 6822: (Continued from October 1, 1980, Examiner Hearing)

In the matter of Case 6822 being reopened pursuant to the provisions of Order No. R-6293 which order created the West Double X-Wolfcamp Gas Pool as a retrograde gas condensate pool and set special production limitations therein. Operator(s) may appear and present evidence to establish the true nature of the reservoir and proper rates of withdrawal therefrom.

CASE 6648: (Continued from October 1, 1980, Examiner Hearing)

In the matter of Case 6648 being reopened pursuant to the provisions of Order No. R-6124 which order promulgated temporary special rules and regulations for the North Caprock-Mississippian Pool in Lea County, New Mexico, including a provision for 160-acre spacing and a 4000 to one gas-oil ratio limitation. Operators in said pool may appear and show cause why the pool should not be developed on 40-acre spacing with a 2000 to one GOR.

CASE 7045: (Continued from October 15, 1980, Examiner Hearing)

Application of Texas Oil & Gas Corp. for downhole commingling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Atoka and Upper Morrow production in the wellbore of its Superior Federal Com. Well No. 1 located in Unit G of Section 8, Township 20 South, Range 29 East.

CASE 7024: (Continued from October 15, 1980, Examiner Hearing)

Application of Southland Royalty Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying the E/2 of Section 35, Township 18 South, Range 29 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7038: (Continued from October 15, 1980, Examiner Hearing)

Application of Natura Energy Corporation for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the NE/4 NE/4 of Section 6, Township 19 South, Range 39 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

Docket No. 35-80

DOCKET: COMMISSION HEARING - FRIDAY - OCTOBER 31, 1980

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 7075: Application of Benson-Montin-Greer Drilling Corporation for the amendment of pool rules, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of the Special Rules and Regulations for the West Puerto Chiquito-Mancos Oil Pool as promulgated by Order No. R-2565-B and amended by Order No. R-6469, to require that the locations of wells in said pool be at least 1650 feet from the outer boundary of the spacing and proration unit, and that the drilling of wells be controlled so as to allow no more than a 330-foot horizontal deviation from the surface location. Further, that the location of wells on certain specified non-standard proration units approved by Order No. R-6469 should be no closer than 660 feet to the outer boundary of the non-standard unit nor closer than 330 feet to a quarter section line or 10 feet to a quarter-quarter section line. Said specified non-standard units are the two 640-acre units in Township 24 North, Range 1 West; the two 480-acre units in Township 24 North, Range 1 East; the four 640-acre units in Township 26 North, Range 1 West; the 640-acre unit in Township 26 North, Range 1 East; and the two 640-acre units, the three 600-acre units, and the 400-acre unit, all in Township 27 North, Range 1 West. Applicant further seeks an administrative procedure whereby unorthodox locations could be approved upon receipt of written waivers from all offsetting operators being "crowded" by the unorthodox location.

CASE 6618: (Reopened and Readvertised)

In the matter of Case 6618 being reopened pursuant to the provisions of Order No. R-6103 which order created the Travis-Yates Gas Pool in Eddy County, New Mexico, with temporary special rules and regulations including a provision for 80-acre spacing units. Operators in said pool may appear and show cause why the pool should not be developed on 160-acre spacing units.

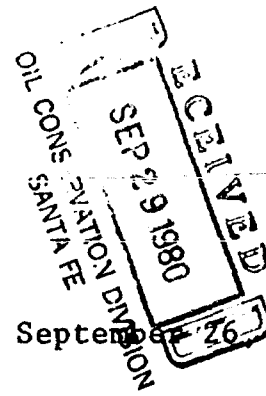
CASE 6648: (Reopened and Readvertised)

In the matter of Case 6648 being reopened pursuant to the provisions of Order No. R-6124 which order promulgated temporary special rules and regulations for the North Caprock-Mississippian Pool in Lea County, New Mexico, including a provision for 160-acre spacing and a 4000 to one gas-oil ratio limitation. Operators in said pool may appear and show cause why the pool should not be developed on 40-acre spacing with a 2000 to one GOR.

CAMPBELL AND BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR



POST OFFICE BOX 2208

JEFFERSON PLACE

SANTA FE, NEW MEXICO 87501

TELEPHONE (505) 953-4421

Mr. Joe D. Ramey
Director
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Oil Conservation Division Case 6648
(Reopened and Readvertised): In the Matter
of Case 6648 being Reopened Pursuant to the
Provisions of Order No. R-6124, Which Order
Promulgated Temporary Special Rules and
Regulations for the North Caprock-Mississippian
Pool in Lea County, New Mexico

Dear Mr. Ramey:

Morris R. Antweil, applicant in the original case 6648,
requests that the above-referenced case be continued to
the examiner hearing scheduled to be held on October 29,
1980.

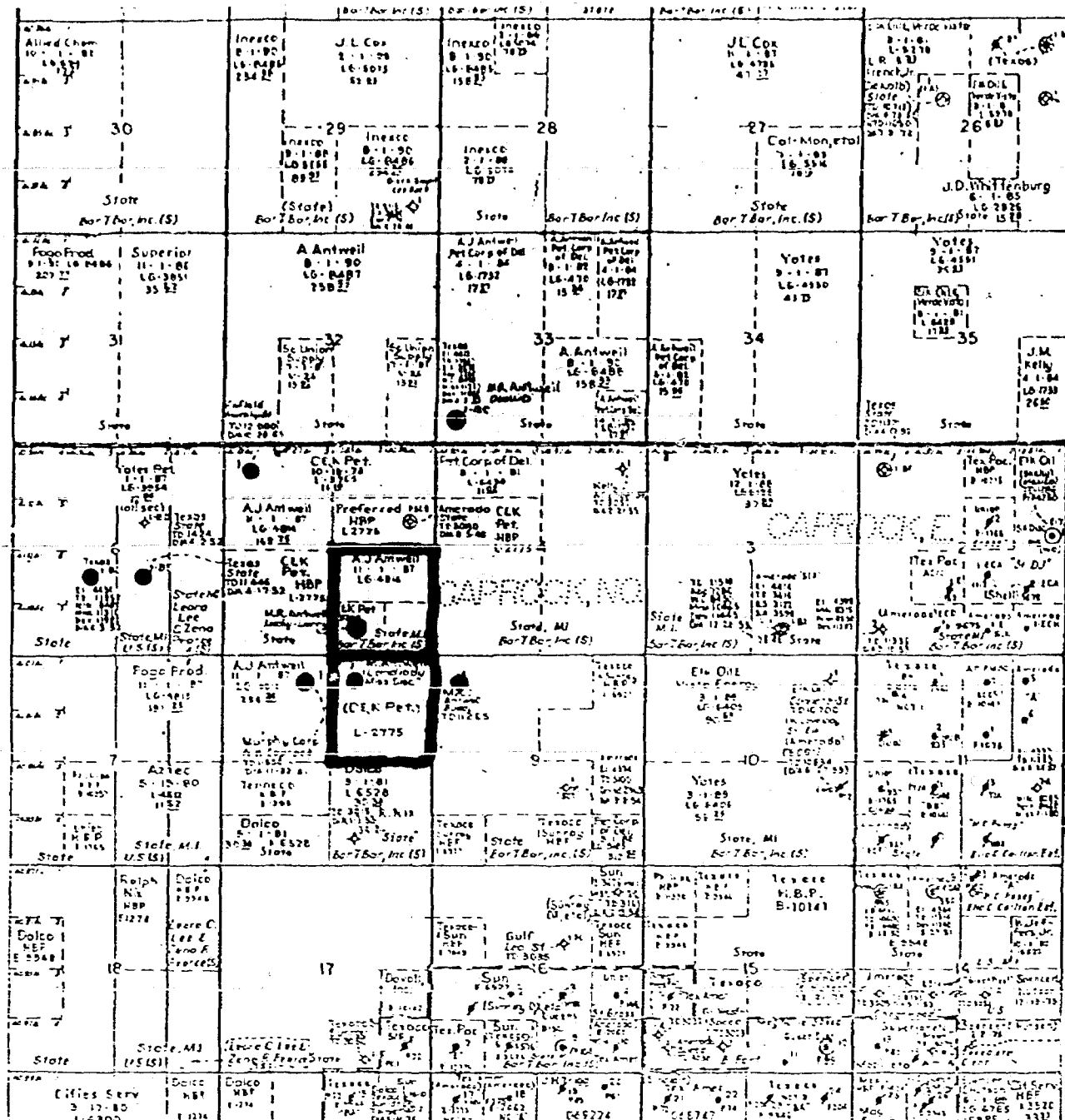
Your attention to this request is appreciated.

Very truly yours,

William F. Carr

WFC:lr

cc: Mr. R. M. Williams

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LEGEND

- Mississippi Oil Completion
- Adjacent Mississippi Dry Holes
- Proposed Spacing & Proration Unit
- Lease Acreage Controlled by Antweil

MORRIS R. ANTWEIL
Hobbs, New Mexico

North Caprock Area

Case No. 6648
Exhibit 1

Lea County, New Mexico

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION

Antweil EXHIBIT NO. 1

CASE NO. 6648

SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

5a. Indicate Type of Lease
State ☒ Fee ☐

5. State Oil & Gas Lease No.
1-2775

1a. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐
b. TYPE OF COMPLETION
NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESV. ☐ OTHER ☐

7. Unit Agreement Name

8. Farm or Lease Name
Landlady

2. Name of Operator
Morris R. Antreil

9. Well No.
1

3. Address of Operator
Box 2010, Hobbs, New Mexico 88240

10. Field and Pool, or Wildcat
Wildcat

4. Location of Well

UNIT LETTER **B** LOCATED **660** FEET FROM THE **North** LINE AND **1990** FEET FROM

THE **East** LINE OF SEC. **8** TWP. **12-S** RGE. **32-E** NMPM

12. County
Lea

15. Date Spudded **13 Aug 78** 16. Date T.D. Reached **22 Sept. 78** 17. Date Compl. (Ready to Prod.) **8 Feb 79** 18. Elevations (DF, RKB, RT, GR, etc.) **4403' GR** 19. Elev. Casinghead **4403'**

20. Total Depth **11,307'** 21. Plug Back T.D. **11,279'** 22. If Multiple Compl., How Many **None** 23. Intervals Drilled By Rotary Tools **0-11,307'** Cable Tools **None**

24. Producing Interval(s), of this completion - Top, Bottom, Name
11,120' - 11,171' (Mississippian) 25. Was Directional Survey Made **No.**

26. Type Electric and Other Logs Run
Comp. Neutron/Density-Gamma Ray, DLL & Micro-SFL 27. Was Well Cored **No.**

28. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	61#	350'	17-1/2"	375 sy. - Circ.	None
8-5/8"	24# & 32#	3700'	12" & 11"	1400 sy. - Circ.	None
5-1/2"	17# & 20#	11,307'	7-7/8"	550 sy. - 9400' TC	None

29. LINER RECORD				30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SIZE	DEPTH SET	PACKER SET
None				2-3/8"	11,073'	11,078'

31. Perforation Record (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
Interval		DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
11,120'-123', 11,130'-134', 11,140'-142'			None
11,154'-158', 11,167'-171' (22 holes)			

33. PRODUCTION							
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)	
19 Oct. 1978		Flow				Shut-in.	
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
30 Nov. 1978	24	7/64"		66.93	309	---	4622
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	
1130	Pkr.		66.93	309	---	41.5°	

34. Disposition of Gas (Sold, used for fuel, vented, etc.)
Vented Test Witnessed By
Tefteller, Inc.

35. List of Attachments
DST Summary, Deviation Record, Flow Test, Fluid Analysis, Logs.

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.
SIGNED *R. M. Williams* TITLE **Agent** DATE **13 Feb., 1979**

Exhibit 2

FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

State	<input checked="" type="checkbox"/>	Fee	
-------	-------------------------------------	-----	--

5. State Oil & Gas Lease No.
L-3766

10. TYPE OF WELL

b. TYPE OF COMPLETION
 OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐
 NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☐

7. Unit Agreement Name

8. Farm or Lease Name
Lucky Larry

2. Name of Operator
MORRIS R. ANTWEIL

9. Well No.
1

3. Address of Operator
Box 2010, Hobbs, New Mexico 88240

10. Field and Pool, or Wildcat No. Caprock-Miss.

4. Location of Well

UNIT LETTER 0 LOCATED 660 FEET FROM THE South LINE AND 1980 FEET FROM East LINE OF SEC. 5 TWP. 12-S RGE. 32-E

12. County
Lea

15. Date Spudded 16 Nov. 1979 16. Date T.D. Reached 14 May 1980 17. Date Compl. (Ready to Prod.) 23 July 1980 18. Elevations (DF, RKB, RT, GR, etc.) 4404' GR 19. Elev. Casinghead 4404'

20. Total Depth 11,290' 21. Plug Back T.D. 11,225' 22. If Multiple Compl., How Many 23. Intervals Drilled By Rotary Tools 168'-11290' Cable Tools 0-168'

24. Producing Interval(s), of this completion - Top, Bottom, Name

11,112-1/2' - 11,190-1/2' (Chester)

25. Was Directional Survey Made
No.

26. Type Electric and Other Logs Run

Comp. Neutron - Density/Gamma Ray, Dual LL, Micro MSFL

27. Was Well Cored
No.

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	48#	366'	17-1/2"	375 sx. - Circ.	None
8-5/8"	24 & 32#	3700'	12-1/4"	1600 sx. - Circ.	None
5-1/2"	17#	11290'	7-7/8"	1050 sx. - Top 8410'	None

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
None				

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8"	11,030'	11,030'

31. Perforation Record (Interval, size and number)

11,112 1/2', 11,118', 11,129', 11,134', 11,137', 11,139 1/2', 11,145', 11,149 1/2', 11,155', 11,156 1/2', 11,162', 11,164', 11,168', 11,173', 11,176 1/2', 11,178', 11,182', 11,186', 11,188', & 11,190 1/2'

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

33. (20 holes)

PRODUCTION

Date First Production <u>14 June 1980</u>		Production Method (Flowing, gas lift, pumping - Size and type pump) <u>Flow</u>				Well Status (Prod. or Shut-in) <u>Shut - In.</u>	
Date of Test <u>25 June 1980</u>	Hours Tested <u>24</u>	Choke Size <u>18/64"</u>	Prod'n. For Test Period <u> </u>	Oil - Bbl. <u>120</u>	Gas - MCF <u>1100</u>	Water - Bbl. <u>---</u>	Gas-Oil Ratio <u>9166</u>
Flow Tubing Press. <u>1050 psi</u>	Casing Pressure <u>pkp</u>	Calculated 24-Hour Rate <u> </u>	Oil - Bbl. <u>120</u>	Gas - MCF <u>1100</u>	Water - Bbl. <u>---</u>	Oil Gravity - API (Corr.) <u> </u>	

34. Disposition of Gas (Sold, used for fuel, vented, etc.)

Vented

Test Witnessed By

Jim Reynolds

35. List of Attachments

Logs, DST Summary, Deviation Record

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED RMA Williams TITLE Agent

DATE 29 July 1980

EXHIBIT 3

PRODUCTION DATA
NO. 1 LANDLADY
NORTH CAPROCK - MISSISSIPPIAN

Month	Oil bbls.	Gas MCF
October 1979	364	1074
November	1796	11024
December	1670	8539
January 1980	1052	8507
February	1481	13013
March	368	7597
April	1380	13986
May	1403	14422
June	884	13882
July	908	14336
August	920	19399
September	1047	23514
	<hr/> 13273	<hr/> 149293

Exhibit 4

BEFORE EXAMINER NUTTER	
OIL CONSERVATION DIVISION	
<i>Antwail</i>	EXHIBIT NO. <u>4</u>
CASE NO. <u>6648</u>	

NORTH CAPROCK - MISSISSIPPIAN

BHP DATA

NO. 1 LANDLADY

Sep 78 - DST	SI - 5 hrs	4058 psi
Oct 78 - Completion	SI - 64 hrs	4098 psi
Jan 80	SI - 112 hrs	3440 psi
Mar 80	SI - 234 hrs	3316 psi

NO. 1 LUCKY LARRY

May 80 - DST	SI - 8 hrs	3934 psi
Jun 80 - Completion	SI - 168 hrs	3908 psi

Exhibit 5

BEFORE EXAMINER NUTTER	
OIL CONSERVATION DIVISION	
<i>Antwail</i>	EXHIBIT NO. <u>5</u>
CASE NO. <u>6648</u>	

NORTH CAPROCK - MISSISSIPPIAN
RESERVOIR DATA

	<u>Landlady</u>	<u>Lucky Larry</u>
Sand:		
Thickness	53'	54'
Porosity	10%	10%
Water Saturation	31%	28%
BHP	4098 psi	3934 psi
Potential	67 BO & 309 MCF	120 BO & 1100 MCF
Oil Gravity	48.0° API	51.7° API
Gas Gravity	0.717	0.676

Reservoir fluid sample taken from the No. 1 Landlady indicated that the reservoir fluids were in a two-phase condition at reservoir pressure of 4171 psi.

Exhibit 6

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION

Antwail EXHIBIT NO. 6

CASE NO. 6648

AFE COST ESTIMATE

NO. 1 LUCKY LARRY

SEC. 5-T12S-R32E

ITEM	Tangible	Intangible	Total
<u>COST TO DRILL 11,500-FOOT TEST</u>			
Road, Location & Damages	\$	\$ 15,000	\$ 15,000
Footage Drilling - 11,500 @ \$22.50/ft		258,750	258,750
Day Work Operations - 4 days @ \$4650/day		18,600	18,600
Mud & Water		50,000	50,000
Surface Casing - 350' 13-3/8" @ \$18.75/ft	6,600		6,600
Cement & Service - 13-3/8" casing - 375 sx		3,900	3,900
Intermediate Casing - 3700' 8-5/8" @ \$10.20/ft	37,750		37,750
Cement & Service - 8-5/8" Casing - 1600 sx		15,600	15,600
Drill Stem Test Service - 2 DST's		2,000	2,000
Logging Service		26,400	26,400
Rental Tools & Equipment		5,000	5,000
Wellhead & Connections	3,000		3,000
Supervision & Expenses		3,000	3,000
Transportation & Misc. Labor		5,000	5,000
Contingencies		44,400	44,400
 COST TO CASING POINT	 \$ 47,350	 \$457,650	 \$505,000
<u>COMPLETION COST</u>			
Production Casing - 11,500' 5-1/2" @ \$7.50/ft	86,250		86,250
Cement & Service - 5-1/2" casing - 550 sx		9,100	9,100
Day Work - 1 day @ \$4650/day		4,650	4,650
Well Service Unit		9,000	9,000
Perforating Service		5,000	5,000
Tubing - 11,200' 2-3/8" @ \$3.75/ft	42,000		42,000
Rental Tools & Equipment		5,000	5,000
Acid Treatment		8,000	8,000
Wellhead & Connections	8,000		8,000
Separator - Heater Unit	20,000		20,000
Supervision & Expenses		3,000	3,000
Transportation & Misc. Labor		5,000	5,000
Contingencies		20,000	20,000
 COMPLETION COST	 \$156,250	 \$ 68,750	 \$225,000
 TOTAL AFE COST	 \$203,600	 \$526,400	 \$730,000

APPROVAL: _____

by _____

date _____

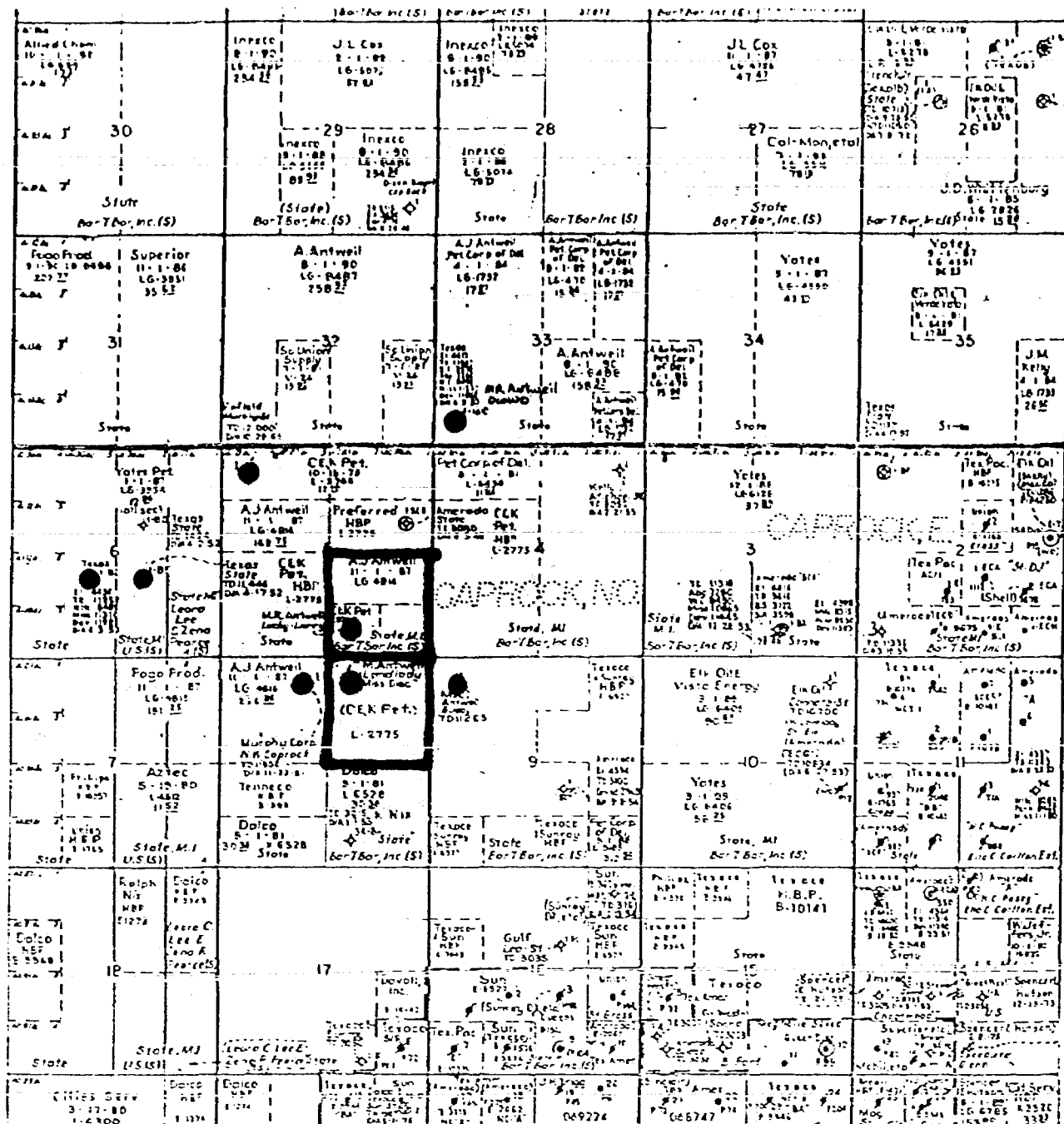
RECEIVED OIL CONSERVATION DIVISION <i>Antweil</i> EXHIBIT NO. <u>9</u> CASE NO. <u>6648</u>
--

 RMW
 17 January 1980

Exhibit 9

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11
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LEGEND

- Mississippian Oil Completion
- Adjacent Mississippian Dry Holes
- ▣ Proposed Spacing & Proration Unit
- ▣ Lease Acreage Controlled by Antweil

MORRIS R. ANTWEIL
Hobbs, New Mexico

North Caprock Area

Case No. 6648
Exhibit 1

Lea County, New Mexico

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION

Antweil EXHIBIT NO. 1
CASE NO. 6648

SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION WELL COMPLETION OR RECOMPLETION REPORT AND LOG

50. Indicate Type of Lease	
State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>

5. State Oil & Gas Lease No.
L-2775

10. TYPE OF WELL	
OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER <input type="checkbox"/>	
b. TYPE OF COMPLETION	
NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>	

7. Unit Agreement Name

8. Farm or Lease Name
Landlady

9. Well No.
1

2. Name of Operator	
Morris R. Antvick	
3. Address of Operator	
Box 2010, Hobbs, New Mexico 88240	
4. Location of Well	

10. Field and Pool, or Wildcat
Wildcat

UNIT LETTER <u>B</u> LOCATED <u>660</u> FEET FROM THE <u>North</u> LINE AND <u>1980</u> FEET FROM	
THE <u>East</u> LINE OF SEC. <u>8</u> TWP. <u>12-S</u> RGE. <u>32-E</u> NMPM	

12. County
Lea

15. Date Spudded
13 Aug 78

16. Date T.D. Reached
22 Sept. 78

17. Date Compl. (Ready to Prod.)
8 Feb 79

18. Elevations (DF, R&L, RT, GR, etc.)
4403' GR

19. Elev. Casinghead
4403'

20. Total Depth
11,307'

21. Plug Back T.D.
11,279'

22. If Multiple Compl., How Many

23. Intervals Drilled By Rotary Tools
0-11,307'

Cable Tools
None

24. Producing Interval(s), of this completion - Top, Bottom, Name	
11,120' - 11,171' (Mississippian)	

25. Was Directional Survey Made
No.

26. Type Electric and Other Logs Run	
Comp. Neutron/Density-Gamma Ray, DLL & Micro-SFL	

27. Was Well Cored
No.

28. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	61#	350'	17-1/2"	375 sx. - Circ.	None
8-5/8"	24# & 32#	3700'	12" & 11"	1400 sx. - Circ.	None
5-1/2"	17# & 20#	11,307'	7-7/8"	550 sx. - 3400' TC	None

29. LINER RECORD				
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
None				

30. TUBING RECORD		
SIZE	DEPTH SET	PACKER SET
2-3/8"	11,078'	11,078'

31. Perforation Record (Interval, size and number)	
11,120'-123', 11,130'-134', 11,140'-142'	
11,154'-158', 11,167'-171' (22 holes)	

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	None

33. PRODUCTION		
Date First Production		
19 Oct. 1978		
Production Method (Flowing gas lift, pumping - Size and type pump)		
Flow		
Well Status (Prod. or Shut-in)		
Shut-in.		

Date of Test
30 Nov. 1978
Hours Tested
24
Choke Size
7/64"
Prod'n. For Test Period
66.93
Oil - Bbl.
66.93
Gas - MCF
309
Water - Bbl.

Gas - Oil Ratio
4622
Flow Tubing Press.
1130
Casing Pressure
Pkr.
Calculated 24-Hour Rate
66.93
Oil - Bbl.
66.93
Gas - MCF
309
Water - Bbl.

Oil Gravity - API (Conn)
41.5°

34. Disposition of Gas (Sold, used for fuel, vented, etc.)	
Vented	
Test Witnessed By	
Tefteller, Inc.	

35. List of Attachments	
DST Summary, Deviation Record, Flow Test, Fluid Analysis, Logs.	

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED
<i>R M Willson</i>
TITLE
Agent
DATE
13 Feb., 1979

Exhibit 2

FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

State <input checked="" type="checkbox"/>	Fee <input type="checkbox"/>
---	------------------------------

10. TYPE OF WELL		7. Unit Agreement Name	
a. TYPE OF COMPLETION OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER <input type="checkbox"/> b. TYPE OF COMPLETION NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>		8. Form or Lease Name	
2. Name of Operator		9. Well No.	
MORRIS R. ANTWEIL		1	
3. Address of Operator		10. Field and Pool, or Wildcat	
Box 2010, Hobbs, New Mexico 88240		No. Caprock-Miss.	
4. Location of Well		12. County	
UNIT LETTER <u>O</u> LOCATED <u>660</u> FEET FROM THE <u>South</u> LINE AND <u>1980</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>5</u> TWP. <u>12-S</u> RGE. <u>32-E</u>		<u>Lea</u>	
15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)
16 Nov. 1979	14 May 1980	23 July 1980	4404' GR
19. Elev. Casinghead	20. Total Depth		
4404'	11,290'		
21. Plug Back T.D.		22. If Multiple Compl., How Many	23. Intervals Drilled By
11,225'			Rotary Tools: 168'-11290'
24. Producing Interval(s), of this completion - Top, Bottom, Name			25. Was Directional Survey Made
11,112-1/2' - 11,190-1/2' (Chester)			No.
26. Type Electric and Other Logs Run			27. Was Well Cored
Comp. Neutron - Density/Gamma Ray, Dual LL, Micro MSFL			No.
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE
13-3/8"	48#	366'	17-1/2"
8-5/8"	24 & 32#	3700'	12-1/4"
5-1/2"	17#	11290'	7-7/8"
CEMENTING RECORD		AMOUNT PULLED	
375 sx. - Circ.		None	
1600 sx. - Circ.		None	
1050 sx. - Top 8410'		None	
29. LINER RECORD		30. TUBING RECORD	
SIZE	TOP	BOTTOM	SACKS CEMENT
None			
SIZE	DEPTH SET	PACKER SET	
2-3/8"	11,030'	11,030'	
31. Perforation Record (Interval, size and number)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
11,112 1/2', 11,118', 11,129', 11,134', 11,137', 11,139 1/2', 11,145', 11,149 1/2', 11,155', 11,156 1/2', 11,162', 11,164', 11,168', 11,173', 11,176 1/2', 11,178', 11,182', 11,186', 11,188', & 11,190 1/2'		DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED	
XX (20 holes) PRODUCTION Date First Production: 14 June 1980 Production Method (Flowing, gas lift, pumping - Size and type pump): Flow Well Status (Prod. or Shut-in): Shut - In.			
Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period
25 June 1980	24	18/64"	
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.
1050 psi	pkc		120
			Gas - MCF
			1100
			Water - Bbl.

			Gas - Oil Ratio
			9166
34. Disposition of Gas (Sold, used for fuel, vented, etc.)			Test Witnessed By
Vented			Jim Reynolds
35. List of Attachments			
Logs, DST Summary, Deviation Record			
36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.			
SIGNED <u>Rm Williams</u>		TITLE <u>Agent</u>	DATE <u>29 July 1980</u>

Ex 4.6.7 3

PRODUCTION DATA
NO. 1 LANDLADY
NORTH CAPROCK - MISSISSIPPIAN

Month	Oil bbls.	Gas MCF
October 1979	364	1074
November	1796	11024
December	1670	8539
January 1980	1052	8507
February	1481	13013
March	368	7597
April	1380	13986
May	1403	14422
June	884	13882
July	908	14336
August	920	19399
September	1047	23514
	<hr/> 13273	<hr/> 149293

*Cum prod ratio
about 11000 to 1*

Exhibit 4

BEFORE EXAMINER NUTTER	
OIL CONSERVATION DIVISION	
<i>Antwail</i>	EXHIBIT NO. <u>4</u>
CASE NO. <u>6648</u>	

NORTH CAPROCK - MISSISSIPPIAN

BHP DATA

NO. 1 LANDLADY

Sep 78 - DST	SI - 5 hrs	4058 psi
Oct 78 - Completion	SI - 64 hrs	4098 psi
Jan 80	SI - 112 hrs	3440 psi
Mar 80	SI - 234 hrs	3316 psi

NO. 1 LUCKY LARRY

May 80 - DST	SI - 8 hrs	3934 psi
Jun 80 - Completion	SI - 168 hrs	3908 psi

Exhibit 5

BEFORE EXAMINER NUTTER	
OIL CONSERVATION DIVISION	
As to: 1	EXHIBIT NO. <u>5</u>
CASE NO.	<u>6648</u>

NORTH CAPROCK - MISSISSIPPIAN
RESERVOIR DATA

	<u>Landlady</u>	<u>Lucky Larry</u>
Sand:		
Thickness	53'	54'
Porosity	10%	10%
Water Saturation	31%	28%
BHP	4098 psi	3934 psi
Potential	67 BO & 309 MCF <i>GOR about 5000</i>	120 BO & 1100 MCF <i>GOR about 9000</i>
Oil Gravity	48.0° API	51.7° API
Gas Gravity	0.717	0.676

Reservoir fluid sample taken from the No. 1 Landlady indicated that the reservoir fluids were in a two-phase condition at reservoir pressure of 4171 psi.

Exhibit 6

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
<i>Antwe. 1</i> EXHIBIT NO. <u>6</u>
CASE NO. <u>6648</u>

AFE COST ESTIMATE

NO. 1 LUCKY LARRY

SEC. 5-T12S-R32E

ITEM	Tangible	Intangible	Total
<u>COST TO DRILL 11,500-FOOT TEST</u>			
Road, Location & Damages	\$	\$ 15,000	\$ 15,000
Footage Drilling - 11,500 @ \$22.50/ft		258,750	258,750
Day Work Operations - 4 days @ \$4650/day		18,600	18,600
Mud & Water		50,000	50,000
Surface Casing - 350' 13-3/8" @ \$18.75/ft	6,600		6,600
Cement & Service - 13-3/8" casing - 375 sx		3,900	3,900
Intermediate Casing - 3700' 8-5/8" @ \$10.20/ft	37,750		37,750
Cement & Service - 8-5/8" Casing - 1600 sx		15,600	15,600
Drill Stem Test Service - 2 DST's		2,000	2,000
Logging Service		26,400	26,400
Rental Tools & Equipment		5,000	5,000
Wellhead & Connections	3,000		3,000
Supervision & Expenses		3,000	3,000
Transportation & Misc. Labor		5,000	5,000
Contingencies		44,400	44,400
 COST TO CASING POINT	 \$ 47,350	 \$457,650	 \$505,000
<u>COMPLETION COST</u>			
Production Casing - 11,500' 5-1/2" @ \$7.50/ft	86,250		86,250
Cement & Service - 5-1/2" casing - 550 sx		9,100	9,100
Day Work - 1 day @ \$4650/day		4,650	4,650
Well Service Unit		9,000	9,000
Perforating Service		5,000	5,000
Tubing - 11,200' 2-3/8" @ \$3.75/ft	42,000		42,000
Rental Tools & Equipment		5,000	5,000
Acid Treatment		8,000	8,000
Wellhead & Connections	8,000		8,000
Separator & Heater Unit	20,000		20,000
Supervision & Expenses		3,000	3,000
Transportation & Misc. Labor		5,000	5,000
Contingencies		20,000	20,000
 COMPLETION COST	 \$156,250	 \$ 68,750	 \$225,000
 TOTAL AFE COST	 \$203,600	 \$526,400	 \$730,000

APPROVAL: _____

by _____

date _____

APPROVED BY: R. J. HARTER OIL CONSERVATION DIVISION <i>Antwell</i> EXHIBIT NO. <u>9</u> CASE NO. <u>6648</u>

 RMW
 17 January 1980

Exhibit 9



BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

September 25, 1979

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. William F. Carr
Campbell and Black
Attorneys at Law
Post Office Box 2208
Santa Fe, New Mexico

Re: CASE NO. 6648
ORDER NO. R-6124

Applicant:

Morris R. Antweil.

Dear Sir:

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

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD	x
Artesia OCD	x
Aztec OCD	

Other

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico
5 September 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Morris R. Antweil for) CASE
pool creation and special pool rules,) 6648
Lea County, New Mexico.)

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant: William F. Carr, Esq.
CAMPBELL AND BLACK P. A.
Jefferson Place
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (605) 471-2482
Santa Fe, New Mexico 87501

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I N D E X

R. M. WILLIAMS

Direct Examination by Mr. Carr	3
Cross Examination by Mr. Stamets	9

E X H I B I T S

Applicant Exhibit One, Map	4
Applicant Exhibit Two, Cross Section	5
Applicant Exhibit Three, Summation	8

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3050 Plaza Blanca (508) 471-2462
Santa Fe, New Mexico 87501

1 MR. STAMETS: We'll call next Case Number
2 6648.

3 MR. PADILLA: Application of Morris R.
4 Antweil for pool creation and special pool rules, Lea County,
5 New Mexico.

6 MR. CARR: May it please the Examiner, I
7 am William F. Carr, Campbell and Black, P. A., Santa Fe,
8 appearing on behalf of the applicant, and I have one witness
9 who needs to be sworn.

10
11 (Witness sworn.)

12
13 R. M. WILLIAMS
14 being called as a witness and having been duly sworn upon
15 his oath, testified as follows, to-wit:

16
17 DIRECT EXAMINATION

18 BY MR. CARR:

19 Q Will you state your full name and place
20 of residence?

21 A R. M. Williams, Hobbs, New Mexico.

22 Q Mr. Williams, by whom are you employed and
23 in what capacity?

24 A Employed by Morris R. Antweil in the capa-
25 city of an engineer.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (606) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 A. Have you previously testified before this
2 Commission and had your credentials accepted and made a
3 matter of record?

4 A. Yes.

5 Q Are you familiar with the application in
6 this case?

7 A. Yes, I am.

8 MR. CARR: Are the witness' qualifications
9 acceptable?

10 MR. STAMETS: They are.

11 Q (Mr. Carr continuing.) Mr. Williams, can
12 you briefly summarize what Morris R. Antweil is seeking with
13 this application?

14 A. Yes. In the North Caprock Mississippian
15 Pool we are requesting establishment of 160-acre spacing
16 and proration units, the dedication of the northeast quarter
17 of Section 8 of Township 12 South, Range 32 East, to the
18 No. 1 Landlady Well, and the establishment of a gas-oil
19 ratio of 4000-to-1.

20 Q Will you please refer to what has been
21 marked for identification as Applicant's Exhibit Number One
22 and explain this to the Examiner?

23 A. Yes. Exhibit One is a map of the area
24 surrounding the North Caprock Mississippian Pool. Designated
25 there with the red dot, the Mississippian completion, the

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (606) 471-2462
Santa Fe, New Mexico 87501

1 Antweil No. 1 Landlady, in the northeast quarter of Section
2 8. The location of adjacent dry holes which have penetrated
3 this interval, the proposed spacing and proration unit to
4 be dedicated to the No. 1 Landlady Well, and the map then
5 also shows the location of other producing wells in the
6 vicinity of the North Caprock Mississippian Pool.

7 You'll notice to the south and slightly
8 east of the Landlady Well is a portion of the Caprock Queen
9 Field, the Northeast Caprock Queen Unit in particular. This
10 production is shallow production from the Queen formation.

11 To the east of the Landlady Well is the
12 East Caprock Field. This is Devonian production with, I
13 think, two Wolfcamp producers in that area. And to the
14 north and east is the Moore Field, which is also Devonian
15 production.

16 There is no Mississippian production in
17 the immediate vicinity. The closest Mississippian production
18 that I'm aware of is 10 to 12 miles to the west; produces
19 from the Mississippian section at a stratigraphic interval
20 much deeper in the Mississippian section than our completion,
21 which is at the very top of the Mississippian section.

22 Q Will you refer to what has been marked
23 for identification as Exhibit Number Two and explain this
24 to the Examiner?

25 A Exhibit Number Two is the correlation

1 section. I've stuck one here on the board so we can look at
2 it.

3 The section runs from an infill well in
4 the northwest corner of Section 5 down to an old Murphy
5 Corporation well that was drilled in '61 as a Devonian test
6 and plugged.

7 Our Landlady Well in Section 8, which is
8 the Mississippian completion, and a dry hole that we drilled
9 in Section 9, the No. 1 Buddy Well, located in Section 9.

10 What we tried to depict on the correlation
11 section is a correlation of the top of the Morrow Clastics
12 with the shale immediately above and the beginning of the
13 sand deposition in the Morrow, the uppermost member of the
14 Morrow Clastics.

15 The wells all exhibited a relatively
16 normal Morrow section. In the correlation of the top of
17 the Chester formation, the Chester normally throughout this
18 area is a lime formation. It -- a lime was encountered in
19 the infill well, in the Murphy Well, and in our No. 1 Buddy
20 Well. The Chester was a normal lime and a lime nonproductive.

21 The Chester encountered in our No. 1 Land-
22 lady Well was a sand formation and with good porosity and
23 permeability and is where we made our completion of that
24 well. You can see the lithology and the productivity changes
25 abruptly, goes to the east and the west in the vicinity of

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3018 Plaza Blanca (596) 471-2452
Santa Fe, New Mexico 87501

1 this well. There's been nothing drilled to the north to
2 date. We are proposing to drill a well to the north in the
3 near future to test this interval at that location, also,
4 but I think this gives you a good representation of what
5 we know of the Mississippian-Chester oil production and
6 reservoir characteristics at this point.

7 It is an anomalous sand deposition in the
8 Chester and not the normal lime that is encountered.

9 And I think that covers the -- this cross
10 section.

11 Our purpose in requesting the 160-acre
12 proration units, because of the depth, 11,100 feet, of the
13 pay formation and to provide for an orderly and economic
14 development should this sand deposition be found to extend
15 to the north and south. We would propose that we establish
16 the 160-acre spacing to -- at this time for an orderly
17 development until such time as some production information
18 can be obtained and the drainage and recovery figures be
19 better evaluated.

20 The well has not been put on production.
21 We lack a gas connection. We're currently in the process
22 of obtaining right-of-way to lay a line some 3-1/2 miles
23 to the south and east to connect to an existing El Paso
24 line at that point, but we will have to lay the line our-
25 selves.

1 Q Will you now refer to what has been marked
2 for identification as Exhibit Number Three and explain this
3 to the Examiner?

4 A Exhibit Number Three is a summation of
5 the reservoir data that we've obtained from the North Cap-
6 rock Mississippian pay in the No. 1 Landlady. We observed
7 53 feet of sand thickness with an average porosity of 10 per-
8 cent and an average water saturation of 31 percent.

9 The bottom hole pressure was measured at
10 4171 psi. The well potentialized for 67 barrels of oil per
11 day plus 309 Mcf of gas; on an extended test in preparation
12 of collecting a bottom hole fluid sample, the average pro-
13 ducing gas-oil ratio was measured at 4543 cubic feet per
14 barrel. The oil gravity was 41.5 degrees API; gas gravity,
15 .717, and analysis of the reservoir fluid sample would indi-
16 cate that the reservoir fluid existed in two phases at the
17 reservoir pressures and temperatures.

18 Consultation with the Oil Conservation
19 Division personnel on the reservoir conditions encountered
20 and the production observed, the application was made to --
21 for completion of the well as an oil well from the Chester
22 member of the Mississippian.

23 Q Mr. Williams, in your opinion will granting
24 the application be in the interest of conservation, the pre-
25 vention of waste, and the protection of correlative rights?

SALLY WALTON BOYD
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1 A Yes, it is, and one point that I failed
2 to make there, we are requesting the 4000 limiting gas-oil
3 ratio in this case, which is still somewhat less than the
4 average producing ratio observed, but this is a high ratio
5 production, apparently, and request that relaxation of the
6 normal gas-oil ratio limits.

7 Q And this is essentially because of the
8 high ratio you've encountered when you tested the well?

9 A That's correct.

10 Q Were Exhibits One through Three prepared
11 under your direction and supervision?

12 A Yes, they were.

13 MR. CARR: At this time, Mr. Examiner,
14 we would offer into evidence applicant's Exhibits One through
15 Three.

16 MR. STAMETS: These exhibits will be ad-
17 mitted.

18 MR. CARR: I have nothing further on
19 direct.

20
21 CROSS EXAMINATION

22 BY MR. STAMETS:

23 Q As to the necessity for 4000-to-1 gas-oil
24 ratio, as near as I can tell, the normal allowable for this
25 well on 160 acres at 11,000 plus feet, would be 650 barrels

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1 a day, and a casinghead gas allowable of 1,300,000 cubic
2 feet of gas per day.

3 If the -- well, your gas production would
4 not be restricted with 309 Mcf per day production and your
5 67 barrels of oil per day allowable would certainly not be
6 affected by a gas-oil ratio of 4500. As near as I can see
7 here, your allowable would still be up 300 barrels a day,
8 some such thing as that.

9 And I just wonder at the necessity for
10 establishing anything above 2000-to-1 at this stage in the
11 life of the reservoir.

12 A Yes, that -- the test information there
13 that was filed on our potential -- our completion report was
14 taken during a testing procedure where we were attempting
15 to stabilize the well production for a sample, and that was
16 produced with a flowing tubing pressure of some 1145 pounds
17 per square inch flowing tubing pressure. So with a low
18 pressure gas connection, which we are seeking and laying the
19 line to obtain, the well will have considerable more capa-
20 bility with the reduced flowing tubing pressure.

21 And we, in our testing procedure there,
22 we tested actually as high a rate as 1145 Mcf per day with
23 a 538 pound flowing tubing pressure.

24 Q How much oil production at that pressure?

25 A That -- that particular test was run as

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1 a 4-point test when we thought it might be a gas completion,
2 and I don't have the oil on there directly. That was the --
3 that had a gas/liquid hydrocarbon ratio of 2.59 Mcf per
4 barrel, so we could determine it from that.

5 Q Just roughly 300 barrels a day.

6 A Correct. Well, we visualized it, depending
7 on how the well producing characteristics performed once it
8 was put on production, that the 2000 could be a problem,
9 since it was obviously a very high ratio oil completion, that
10 we would be here in hearing anyway, ask for the 4000 limit.

11 Q What's the nature of the oil? Is it a --
12 obviously it's a high gravity oil, but is it clear, straw-
13 colored liquid or is it a crude type of --

14 A No, it looks like crude. A sample of it
15 looks like normal crude. We measured, what, 41 -- 41 degree
16 gravity, and it does not appear to be a condensate material
17 to the naked eye.

18 Q Do you feel like this well is located on
19 the high side of the reservoir or are we possibly looking
20 at a gas cap?

21 A We don't have anything really to -- to con-
22 tour for structure because the sand interval we've only found
23 present in one well.

24 Q How soon do you propose to drill this next
25 well?

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1 A. We are looking at meeting a November ex-
2 piration date and making preparations to -- the next case
3 will deal directly with that proposed well and making pre-
4 parations to get our approvals and get a rig to get started
5 probably in October.

6 Q. Your November has to be a completion date
7 or a --

8 A. No, no, spud date. Actually, I think it's
9 November 18th.

10 Q. And then you'd have a completion by, what,
11 sometime in December?

12 A. Those wells take about forty days to drill
13 to total depth.

14 Q. At that time would you be willing to take
15 your production test data and completion data on any subse-
16 quent well to our district office and demonstrate to the
17 satisfaction of the District Supervisor that this 4000 gas/
18 oil ratio can be utilized in this pool without causing waste?

19 A. Once we have some production data from
20 this well and any subsequent well, we would be glad to do
21 that.

22 Q. Okay. And I believe, Mr. Carr, that this
23 was advertised as a pool creation but --

24 MR. CARR: The pool was previously created
25 and we're just now asking that special pool rules be estab-

1 lished for the pool.

2 Q Okay, very good.

3 MR. STAMETS: Any other questions of the
4 witness? He may be excused.

5 Anything further in this case?

6 The case will be taken under advisement.

7

8 (Hearing concluded.)

9

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SALLY WALTON BOYD
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REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a court reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, from my notes taken at the time of the hearing.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3026 Plaza Blanca (695) 471-2462
Santa Fe, New Mexico 87501

Sally W. Boyd C.S.R.
Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 6648
heard by me on 9-5 1979.
Richard L. Smith, Examiner
Oil Conservation Division

STATE OF NEW MEXICO
 ENERGY AND MINERALS DEPARTMENT
 Oil Conservation Division
 State Land Office Building
 Santa Fe, New Mexico
 5 September 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Morris R. Antweil for) CASE
 pool creation and special pool rules,) 6648
 Lea County, New Mexico.)

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
 Division:

Ernest L. Padilla, Esq.
 Legal Counsel for the Division
 State Land Office Bldg.
 Santa Fe, New Mexico 87503

For the Applicant:

William F. Carr, Esq.
 CAMPBELL AND BLACK P. A.
 Jefferson Place
 Santa Fe, New Mexico 87501

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I N D E X

R. M. WILLIAMS

Direct Examination by Mr. Carr 3

Cross Examination by Mr. Stamets 9

E X H I B I T S

Applicant Exhibit One, Map 4

Applicant Exhibit Two, Cross Section 5

Applicant Exhibit Three, Summation 8

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1 MR. STAMETS: We'll call next Case Number
2 6648.

3 MR. PADILLA: Application of Morris R.
4 Antweil for pool creation and special pool rules, Lea County,
5 New Mexico.

6 MR. CARR: May it please the Examiner, I
7 am William F. Carr, Campbell and Black, P. A., Santa Fe,
8 appearing on behalf of the applicant, and I have one witness
9 who needs to be sworn.

10
11 (Witness sworn.)

12
13 R. M. WILLIAMS
14 being called as a witness and having been duly sworn upon
15 his oath, testified as follows, to-wit:

16
17 DIRECT EXAMINATION

18 BY MR. CARR:

19 Q Will you state your full name and place
20 of residence?

21 A R. M. Williams, Hobbs, New Mexico.

22 Q Mr. Williams, by whom are you employed and
23 in what capacity?

24 A Employed by Morris R. Antweil in the capa-
25 city of an engineer.

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Santa Fe, New Mexico 87501

1 A Have you previously testified before this
2 Commission and had your credentials accepted and made a
3 matter of record?

4 A Yes.

5 Q Are you familiar with the application in
6 this case?

7 A Yes, I am.

8 MR. CARR: Are the witness' qualifications
9 acceptable?

10 MR. STAMETS: They are.

11 Q (Mr. Carr continuing.) Mr. Williams, can
12 you briefly summarize what Morris R. Antweil is seeking with
13 this application?

14 A Yes. In the North Caprock Mississippian
15 Pool we are requesting establishment of 160-acre spacing
16 and proration units, the dedication of the northeast quarter
17 of Section 8 of Township 12 South, Range 32 East, to the
18 No. 1 Landlady Well, and the establishment of a gas-oil
19 ratio of 4000-to-1.

20 Q Will you please refer to what has been
21 marked for identification as Applicant's Exhibit Number One
22 and explain this to the Examiner?

23 A Yes. Exhibit One is a map of the area
24 surrounding the North Caprock Mississippian Pool. Designated
25 there with the red dot, the Mississippian completion, the

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1 Antweil No. 1 Landlady, in the northeast quarter of Section
2 8. The location of adjacent dry holes which have penetrated
3 this interval, the proposed spacing and proration unit to
4 be dedicated to the No. 1 Landlady Well, and the map then
5 also shows the location of other producing wells in the
6 vicinity of the North Caprock Mississippian Pool.

7 You'll notice to the south and slightly
8 east of the Landlady Well is a portion of the Caprock Queen
9 Field, the Northeast Caprock Queen Unit in particular. This
10 production is shallow production from the Queen formation.

11 To the east of the Landlady Well is the
12 East Caprock Field. This is Devonian production with, I
13 think, two Wolfcamp producers in that area. And to the
14 north and east is the Moore Field, which is also Devonian
15 production.

16 There is no Mississippian production in
17 the immediate vicinity. The closest Mississippian production
18 that I'm aware of is 10 to 12 miles to the west; produces
19 from the Mississippian section at a stratigraphic interval
20 much deeper in the Mississippian section than our completion,
21 which is at the very top of the Mississippian section.

22 Q Will you refer to what has been marked
23 for identification as Exhibit Number Two and explain this
24 to the Examiner?

25 A Exhibit Number Two is the correlation

1 section. I've stuck one here on the board so we can look at
2 it.

3 The section runs from an infill well in
4 the northwest corner of Section 5 down to an old Murphy
5 Corporation well that was drilled in '61 as a Devonian test
6 and plugged.

7 Our Landlady Well in Section 8, which is
8 the Mississippian completion, and a dry hole that we drilled
9 in Section 9, the No. 1 Buddy Well, located in Section 9.

10 What we tried to depict on the correlation
11 section is a correlation of the top of the Morrow Clastics
12 with the shale immediately above and the beginning of the
13 sand deposition in the Morrow, the uppermost member of the
14 Morrow Clastics.

15 The wells all exhibited a relatively
16 normal Morrow section. In the correlation of the top of
17 the Chester formation, the Chester normally throughout this
18 area is a lime formation. It -- a lime was encountered in
19 the infill well, in the Murphy Well, and in our No. 1 Buddy
20 Well. The Chester was a normal lime and a lime nonproductive.

21 The Chester encountered in our No. 1 Land-
22 lady Well was a sand formation and with good porosity and
23 permeability and is where we made our completion of that
24 well. You can see the lithology and the productivity changes
25 abruptly, goes to the east and the west in the vicinity of

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Santa Fe, New Mexico 87501

1 this well. There's been nothing drilled to the north to
2 date. We are proposing to drill a well to the north in the
3 near future to test this interval at that location, also,
4 but I think this gives you a good representation of what
5 we know of the Mississippian-Chester oil production and
6 reservoir characteristics at this point.

7 It is an anomalous sand deposition in the
8 Chester and not the normal lime that is encountered.

9 And I think that covers the -- this cross
10 section.

11 Our purpose in requesting the 160-acre
12 proration units, because of the depth, 11,100 feet, of the
13 pay formation and to provide for an orderly and economic
14 development should this sand deposition be found to extend
15 to the north and south. We would propose that we establish
16 the 160-acre spacing to -- at this time for an orderly
17 development until such time as some production information
18 can be obtained and the drainage and recovery figures be
19 better evaluated.

20 The well has not been put on production.
21 We lack a gas connection. We're currently in the process
22 of obtaining right-of-way to lay a line some 3-1/2 miles
23 to the south and east to connect to an existing El Paso
24 line at that point, but we will have to lay the line our-
25 selves.

1 Q Will you now refer to what has been marked
2 for identification as Exhibit Number Three and explain this
3 to the Examiner?

4 A Exhibit Number Three is a summation of
5 the reservoir data that we've obtained from the North Cap-
6 rock Mississippian pay in the No. 1 Landlady. We observed
7 53 feet of sand thickness with an average porosity of 10 per-
8 cent and an average water saturation of 31 percent.

9 The bottom hole pressure was measured at
10 4171 psi. The well potentialed for 67 barrels of oil per
11 day plus 309 Mcf of gas; on an extended test in preparation
12 of collecting a bottom hole fluid sample, the average pro-
13 ducing gas-oil ratio was measured at 4543 cubic feet per
14 barrel. The oil gravity was 41.5 degrees API; gas gravity,
15 .717, and analysis of the reservoir fluid sample would indi-
16 cate that the reservoir fluid existed in two phases at the
17 reservoir pressures and temperatures.

18 Consultation with the Oil Conservation
19 Division personnel on the reservoir conditions encountered
20 and the production observed, the application was made to --
21 for completion of the well as an oil well from the Chester
22 member of the Mississippian.

23 Q Mr. Williams, in your opinion will granting
24 the application be in the interest of conservation, the pre-
25 vention of waste, and the protection of correlative rights?

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SALLY WALTON BOYD
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302 Plaza Blanca (606) 471-3463
Santa Fe, New Mexico 87501

1 A Yes, it is, and one point that I failed
2 to make there, we are requesting the 4000 limiting gas-oil
3 ratio in this case, which is still somewhat less than the
4 average producing ratio observed, but this is a high ratio
5 production, apparently, and request that relaxation of the
6 normal gas-oil ratio limits.

7 Q And this is essentially because of the
8 high ratio you've encountered when you tested the well?

9 A That's correct.

10 Q Were Exhibits One through Three prepared
11 under your direction and supervision?

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14 we would offer into evidence applicant's Exhibits One through
15 Three.

16 MR. STAMETS: These exhibits will be ad-
17 mitted.

18 MR. CARR: I have nothing further on
19 direct.

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21

CROSS EXAMINATION

22

BY MR. STAMETS:

23

24

25

Q As to the necessity for 4000-to-1 gas-oil
ratio, as near as I can tell, the normal allowable for this
well on 160 acres at 11,000 plus feet, would be 650 barrels

SALLY WALTON ELOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 411-2462
Santa Fe, New Mexico 87501

1 a day, and a casinghead gas allowable of 1,300,000 cubic
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3 If the -- well, your gas production would
4 not be restricted with 309 Mcf per day production and your
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19 line to obtain, the well will have considerable more capa-
20 bility with the reduced flowing tubing pressure.

21 And we, in our testing procedure there,
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23 a 538 pound flowing tubing pressure.

24 Q How much oil production at that pressure?

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1 a 4-point test when we thought it might be a gas completion,
2 and I don't have the oil on there directly. That was the --
3 that had a gas/liquid hydrocarbon ratio of 2.59 Mcf per
4 barrel, so we could determine it from that.

5 Q Just roughly 300 barrels a day.

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7 on how the well producing characteristics performed once it
8 was put on production, that the 2000 could be a problem,
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17 to the naked eye.

18 Q Do you feel like this well is located on
19 the high side of the reservoir or are we possibly looking
20 at a gas cap?

21 A We don't have anything really to -- to con-
22 tour for structure because the sand interval we've only found
23 present in one well.

24 Q How soon do you propose to drill this next
25 well?

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1 A We are looking at meeting a November ex-
2 piration date and making preparations to -- the next case
3 will deal directly with that proposed well and making pre-
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5 probably in October.

6 Q Your November has to be a completion date
7 or a --

8 A No, no, spud date. Actually, I think it's
9 November 18th.

10 Q And then you'd have a completion by, what,
11 sometime in December?

12 A Those wells take about forty days to drill
13 to total depth.

14 Q At that time would you be willing to take
15 your production test data and completion data on any subse-
16 quent well to our district office and demonstrate to the
17 satisfaction of the District Supervisor that this 4000 gas/
18 oil ratio can be utilized in this pool without causing waste?

19 A Once we have some production data from
20 this well and any subsequent well, we would be glad to do
21 that.

22 Q Okay. And I believe, Mr. Carr, that this
23 was advertised as a pool creation but --

24 MR. CARR: The pool was previously created
25 and we're just now asking that special pool rules be estab-

1 lished for the pool.

2 Q Okay, very good.

3 MR. STAMETS: Any other questions of the
4 witness? He may be excused.

5 Anything further in this case?

6 The case will be taken under advisement.

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8 (Hearing concluded.)

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SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (008) 471-2482
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a court reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. _____, heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

SALLY WALTON BOYD
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Santa Fe, New Mexico 87501

CASE NO. 6648
MORRIS R. ANTWEIL
APPLICATION FOR SPECIAL
POOL RULES

NORTH CAPROCK-MISSISSIPPIAN
RESERVOIR DATA

Sand: Thickness - 53'
Porosity - 10%
Water Saturation - 31%

BHP 4171 psi

Potential test - (67) BOPD + (309) MCF

Average Producing GOR - (4543) cu. ft./bbl.

Oil Gravity (41.5°) API

Gas Gravity - 0.717

Reservoir fluid sample indicated that fluid was in two
phase condition at reservoir pressure of 4171 psi.

538 # FTP
Total 300
GLR 1145 MCFD
3.59 mcf/b

FTP 1145

43
300
28
20

Need for 4000/1

BEFORE THE	EVER STAMETS
CIL	IN DIVISION
APP	NO. 3
6648	
Submitted by Morris R. Antweil	
Hearing Date	5 Sep 79

Exhibit 3

THE PETROLEUM CORPORATION

OF DELAWARE
3303 Lee Parkway
DALLAS, TEXAS 75219

Larry C. Shannon
Senior Vice President
Operations

August 31, 1979



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

Attention: Mr. Richard L. Stamets

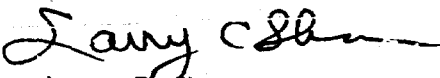
Re: Examiner Hearing September 5, 1979
Cases No. 6648 and No. 6649

Gentlemen:

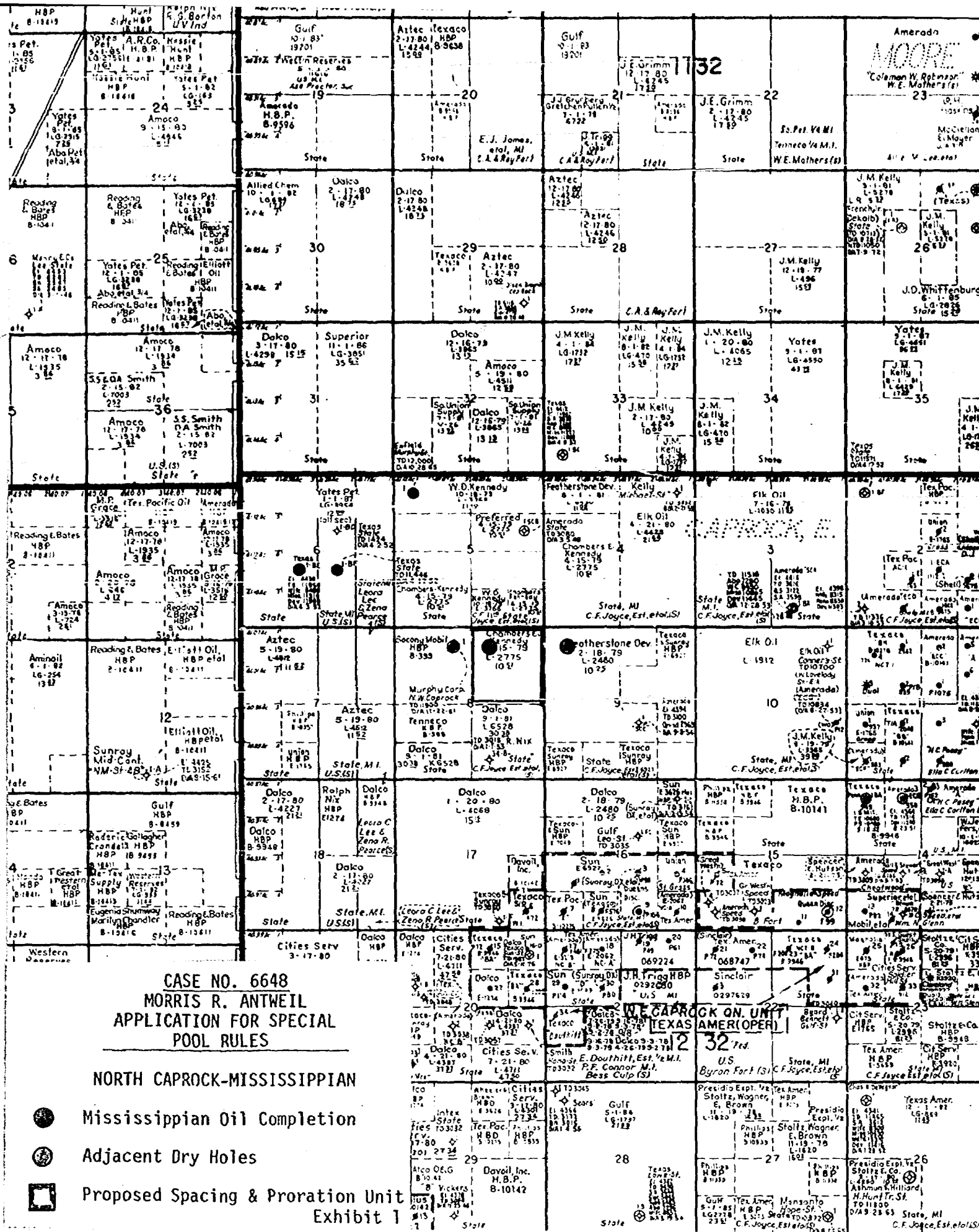
At 9:00 a.m. on Wednesday, September 5, 1979, you will have an Examiner Hearing at the State Land Office in Santa Fe, New Mexico. Of particular interest to The Petroleum Corporation of Delaware are your Cases No. 6648 and No. 6649. Mr. Morris R. Antweil is asking for the creation of special pool rules in Lea County, New Mexico and also for an unorthodox gas well location in this same area.

The Petroleum Corporation of Delaware strongly supports Mr. Antweil in this application.

Very truly yours,


Larry C. Shannon

/ew



CASE NO. 6648
MORRIS R. ANTWEIL
APPLICATION FOR SPECIAL
POOL RULES

NORTH CAPROCK-MISSISSIPPIAN
RESERVOIR DATA

Sand: Thickness - 53'
Porosity - 10%
Water Saturation - 31%

BHP 4171 psi

Potential test - 67 BOPD + 309 MCF

Average Producing GOR - 4543 cu. ft./bbl.

Oil Gravity - 41.5° API

Gas Gravity - 0.717

Reservoir fluid sample indicated that fluid was in two
phase condition at reservoir pressure of 4171 psi.

STATE OF TEXAS
DRILLING DIVISION
App. No. 3
6648
Morris R. Antweil
Hearing Date 5 Sep 79

Exhibit 3

CASE 6645: Application of Depco Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Apache Springs Unit Area, comprising 31,199 acres, more or less, of State, federal, and fee lands in Townships 10, 11, and 12 South, Ranges 30 and 31 East.

CASE 6646: Application of Belco Petroleum Corporation for approval of infill drilling and simultaneous dedication, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well spacing requirements and a finding that the drilling of its James Ranch Unit Well No. 10 to be located in Unit II of Section 1, Township 23 South, Range 30 East, Morrow formation, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6638: (Continued from August 22, 1979, Examiner Hearing)

Application of Ladd Petroleum Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Largo-Gallup and Basin-Dakota production in the wellbore of its Lindrith Well No. 24 located in Unit F of Section 4, Township 26 North, Range 7 West.

CASE 6647: Application of O. H. Berry for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Seven Rivers well to be located 1650 feet from the North line and 330 feet from the East line of Section 15, Township 24 South, Range 36 East, Jalmat Gas Pool, the NE/4 of said Section 15 to be dedicated to the well.

CASE 6648: Application of Morris R. Antweil for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Mississippian oil pool for its Landlady Well No. 1 located in Unit B of Section 8, Township 12 South, Range 32 East, and special rules therefor, including 160-acre oil well spacing and a 4,000 to 1 gas-oil ratio.

CASE 6649: Application of Morris R. Antweil for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a Morrow test well to be located 660 feet from the South line and 1980 feet from the East line of Section 5, Township 12 South, Range 32 East, the E/2 of said Section 5 to be dedicated to the well.

CASE 6650: Application of Doyle Hartman for compulsory pooling, non-standard gas proration unit, and unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalmat Gas Pool underlying the W/2 NE/4 of Section 36, Township 24 South, Range 36 East, to form an 80-acre non-standard gas proration unit to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the North line and 1650 feet from the East line of said Section 36. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of Applicant as operator of the well and a charge for risk involved in drilling said well.

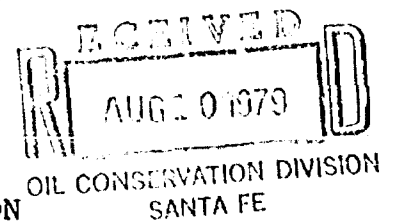
CASE 6651: Application of Alpha Twenty-One Production Company for a non-standard proration unit, unorthodox well location, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well spacing requirements and a finding that the drilling of its El Paso Plant Well No. 1 at an unorthodox location 1650 feet from the South line and 660 feet from the West line of Section 32, Township 23 South, Range 37 East, Jalmat Gas Pool, is necessary to effectively and efficiently drain that portion of the non-standard proration unit, to comprise the N/2 SW/4 of said Section 32, which cannot be so drained by the existing well.

CASE 6652: Application of Shell Oil Company for statutory unitization, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order unitizing, for the purpose of a pressure maintenance project, all mineral interests in the North Hobbs Grayburg-San Andres Unit encompassing 10,650 acres, more or less, underlying all or portions of the following lands in Lea County, New Mexico: Sections 13, 14, 23, 24, 25, 26, and 36, Township 18 South, Range 37 East; Sections 17 thru 21 and 27 thru 34, Township 18 South, Range 38 East.

The unitized interval would be the Grayburg-San Andres Formation between the depths of 3,698 feet and 4,500 feet in Shell's State A Well No. 7, located in Unit II of Section 32, Township 18 South, Range 38 East.

Among the matters to be considered at the hearing will be the necessity of unit operations; the designation of a unit operator; the determination of the horizontal and vertical limits of the unit area; the determination of a fair, reasonable, and equitable allocation of production and costs of production, including capital investment, to each of the various tracts in the unit area; the determination of credits and charges to be made among the various owners in the unit area for their investment in wells and equipment; and such other matters as may be necessary and appropriate for carrying on efficient unit operations, including, but not necessarily limited to, unit voting procedures, selection, removal, or substitution of unit operator, and time of commencement and termination of unit operations. (This case will be continued to September 19, 1979.)

BEFORE THE
OIL CONSERVATION DIVISION



NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF MORRIS R. ANTWEIL FOR POOL
CREATION, SPECIAL POOL RULES AND
DISCOVERY ALLOWABLE, LEA COUNTY,
NEW MEXICO.

CASE 6648

APPLICATION

Comes now Morris R. Antweil, by its undersigned attorneys,
and hereby makes application for an order designating a new pool
as a result of the discovery of hydrocarbons in the Mississippian
Formation in its No. 1 Landlady Well located in Unit B of Section
8, Township 12 South, Range 32 East, Lea County, New Mexico and
for promulgation of special pool rules, including (1) 160-acre
spacing or proration units on a permanent basis or, in the alter-
native, on a temporary basis, (2) the dedication of all of the
northeast quarter of said Section 8 to the No. 1 Landlady Well,
(3) a special gas-oil ratio of 4,000 to 1, and (4) assignment of
a discovery allowable to the No. 1 Landlady Well and in support of
this application would show the Commission:

Why?

1. That applicant has recently completed its No. 1 Landlady
Well in the Mississippian Formation capable of producing oil and
gas in paying quantities located 660 feet from the North line and
1980 feet from the East line of Section 8, Township 12 South,
Range 32 East, Lea County, New Mexico. Said well is producing
through perforations from 11,120 feet to 11,171 feet and was po-
tentialed as capable of producing 66.93 barrels of oil per day and
309 mcf of gas per day with no produced water.

*Called Rice Carr
8/16
Delete discovery
allowable
JH*

marginal

2. Applicant believes that the following described lands are reasonably proven to be productive of oil and gas in paying quantities from the Mississippian Formation and should be included in the original definition of the new pool to be created because of said discovery:

Township 12 South, Range 32 East, N.M.P.M.
Section 8-NE/4

3. In order to prevent economic loss caused by the drilling of unnecessary wells, to avoid augmentation of risk arising from the drilling of an excessive number of wells and to otherwise prevent waste and protect correlative rights, special pool rules and regulations providing for 160-acre spacing units should be promulgated for the new pool.

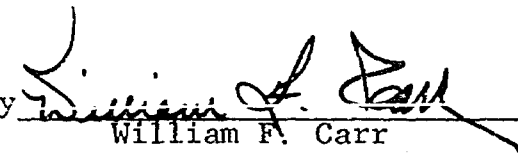
~~4. Application respectfully requests that a discovery allowable be assigned to said No. 1 Landlady Well.~~

5. Applicant requests that a special gas-oil ratio limitation be set of 4,000 cubic feet of gas for each barrel of oil produced pursuant to Rule 506 (d) of the Division's Rules and Regulations.

WHEREFORE, Morris R. Antweil requests that this application be set for hearing before a duly appointed Examiner of the Oil Conservation Division on September 5, 1979, that notice be given as required by law and the rules of the Division, and that the application be approved.

Respectfully Submitted,

CAMPBELL AND BLACK, P.A.
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

By 
William F. Carr

BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION
OF MORRIS R. ANTWEIL FOR POOL
CREATION, SPECIAL POOL RULES AND
DISCOVERY ALLOWABLE, LEA COUNTY,
NEW MEXICO.

CASE 6648

APPLICATION

Comes now Morris R. Antweil, by its undersigned attorneys, and hereby makes application for an order designating a new pool as a result of the discovery of hydrocarbons in the Mississippian Formation in its No. 1 Landlady Well located in Unit B of Section 8, Township 12 South, Range 32 East, Lea County, New Mexico and for promulgation of special pool rules, including (1) 160-acre spacing or proration units on a permanent basis or, in the alternative, on a temporary basis, (2) the dedication of all of the northeast quarter of said Section 8 to the No. 1 Landlady Well, (3) a special gas-oil ratio of 4,000 to 1, and ~~(4) assignment of a discovery allowable to the No. 1 Landlady Well~~ and in support of this application would show the Commission:

1. That applicant has recently completed its No. 1 Landlady Well in the Mississippian Formation capable of producing oil and gas in paying quantities located 660 feet from the North line and 1980 feet from the East line of Section 8, Township 12 South, Range 32 East, Lea County, New Mexico. Said well is producing through perforations from 11,120 feet to 11,171 feet and was potentialized as capable of producing 66.93 barrels of oil per day and 309 mcf of gas per day with no produced water.

2. Applicant believes that the following described lands are reasonably proven to be productive of oil and gas in paying quantities from the Mississippian Formation and should be included in the original definition of the new pool to be created because of said discovery:

Township 12 South, Range 32 East, N.M.P.M.
Section 8-NE/4

3. In order to prevent economic loss caused by the drilling of unnecessary wells, to avoid augmentation of risk arising from the drilling of an excessive number of wells and to otherwise prevent waste and protect correlative rights, special pool rules and regulations providing for 160-acre spacing units should be promulgated for the new pool.

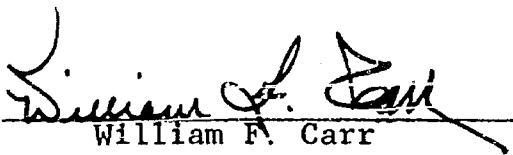
~~4. Application respectfully requests that a discovery allowable be assigned to said No. 1 Landlady Well.~~

5. Applicant requests that a special gas-oil ratio limitation be set of 4,000 cubic feet of gas for each barrel of oil produced pursuant to Rule 506 (d) of the Division's Rules and Regulations.

WHEREFORE, Morris R. Antweil requests that this application be set for hearing before a duly appointed Examiner of the Oil Conservation Division on September 5, 1979, that notice be given as required by law and the rules of the Division, and that the application be approved.

Respectfully Submitted,

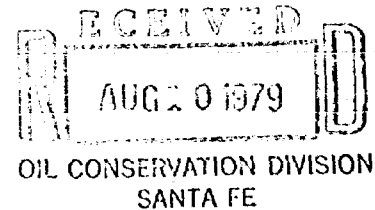
CAMPBELL AND BLACK, P.A.
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

By 
William F. Carr

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS



IN THE MATTER OF THE APPLICATION
OF MORRIS R. ANTWEIL FOR POOL
CREATION, SPECIAL POOL RULES AND
DISCOVERY ALLOWABLE, LEA COUNTY,
NEW MEXICO.

CASE 6648

APPLICATION

Comes now Morris R. Antweil, by its undersigned attorneys, and hereby makes application for an order designating a new pool as a result of the discovery of hydrocarbons in the Mississippian Formation in its No. 1 Landlady Well located in Unit B of Section 8, Township 12 South, Range 32 East, Lea County, New Mexico and for promulgation of special pool rules, including (1) 160-acre spacing or proration units on a permanent basis or, in the alternative, on a temporary basis, (2) the dedication of all of the northeast quarter of said Section 8 to the No. 1 Landlady Well, (3) a special gas-oil ratio of 4,000 to 1, and (4) assignment of a discovery allowable to the No. 1 Landlady Well and in support of this application would show the Commission:

1. That applicant has recently completed its No. 1 Landlady Well in the Mississippian Formation capable of producing oil and gas in paying quantities located 660 feet from the North line and 1980 feet from the East line of Section 8, Township 12 South, Range 32 East, Lea County, New Mexico. Said well is producing through perforations from 11,120 feet to 11,171 feet and was potentialized as capable of producing 66.93 barrels of oil per day and 309 mcf of gas per day with no produced water.

2. Applicant believes that the following described lands are reasonably proven to be productive of oil and gas in paying quantities from the Mississippian Formation and should be included in the original definition of the new pool to be created because of said discovery:

Township 12 South, Range 32 East, N.M.P.M.
Section 8-NE/4

3. In order to prevent economic loss caused by the drilling of unnecessary wells, to avoid augmentation of risk arising from the drilling of an excessive number of wells and to otherwise prevent waste and protect correlative rights, special pool rules and regulations providing for 160-acre spacing units should be promulgated for the new pool.

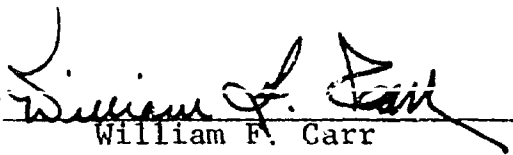
4. Application respectfully requests that a discovery allowable be assigned to said No. 1 Landlady Well.

5. Applicant requests that a special gas-oil ratio limitation be set of 4,000 cubic feet of gas for each barrel of oil produced pursuant to Rule 506 (d) of the Division's Rules and Regulations.

WHEREFORE, Morris R. Antweil requests that this application be set for hearing before a duly appointed Examiner of the Oil Conservation Division on September 5, 1979, that notice be given as required by law and the rules of the Division, and that the application be approved.

Respectfully Submitted,

CAMPBELL AND BLACK, P.A.
Attorneys for Applicant
Post Office Box 2208
Santa Fe, New Mexico 87501

By 
William F. Carr

CAMPBELL AND BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
PAUL R. CALDWELL

POST OFFICE BOX 2088

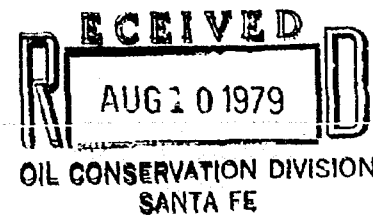
JEFFERSON PLACE

SANTA FE, NEW MEXICO 87501

TELEPHONE (505) 986-4421

August 9, 1979

Mr. Joe D. Ramey
Division Director
Oil Conservation Division
New Mexico Department of
Energy and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

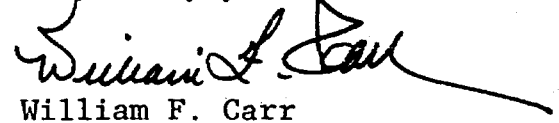


Dear Mr. Ramey:

Enclosed herewith, in triplicate, is the Application of Morris R. Antweil for Pool Creation and Special Pool Rules, Lea County, New Mexico. Also enclosed is an Application for an unorthodox gas well location in Lea County, New Mexico.

Morris R. Antweil requests that these cases be set for the examiner's hearing to be held on September 5, 1979.

Very truly yours,


William F. Carr

WFC:tn

Enclosures

cc: Mr. R. M. Williams
c/o Morris R. Antweil
P. O. Box 2010
Hobbs, New Mexico 88240

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. ~~6648~~ 6648 6124
Order No. ~~R-8700~~ R-6700

Application of Morris R. Antweil for pool creation and special pool rules, Lea County, New Mexico,

~~INC., FOR POOL CREATION AND SPECIAL
POOL RULES, ROOSEVELT COUNTY, NEW
MEXICO.~~

JAR
JSU
ORDER OF THE DIVISION

9/10
8-21
BY THE DIVISION:

This cause came on for hearing at 9 a.m. on ~~July 6, 1978~~,
at Santa Fe, New Mexico, before Examiner ~~Daniel S. Nutter~~.

Sept, 1979 *RLS*
NOW, on this ~~10th~~ day of ~~July~~, ~~1978~~, the Division
Director, 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 Division has jurisdiction of this cause and the
subject matter thereof.

Morris R. Antweil.
(2) That the applicant, ~~Enserch Exploration, Inc., is the~~
~~Applicant, in the above-styled cause,~~ seeks the creation of a new Mississippian oil pool for its
Landlady Well No. 1 located in Unit B of Section 8, Township 12 South, Range 32 East, and special
rules therefor, including 160-acre oil well spacing and a 4,000 to 1 gas-oil ratio.

(3) That prior to the date of this hearing, the Division
had on its own motion created the North Caprock -
Mississippian Pool as a result of the
completion of said Landlady Well No. 1.

(4) That the application for pool creation
should be dismissed.

risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 160-acre spacing units should be promulgated for the North Caprock-Mississippian Pool as previously defined and described.

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

(7) That the temporary special rules and regulations should provide for a gas oil ratio limitation of 4000 cubic feet of gas per barrel of oil produced.

(8) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(9) That the applicant should provide the supervisor of the Division's District office at Hobbs with available production, testing, or offset well data within six months following the date of this order sufficient to show that the 4000 to 1 gas oil ratio limitation is ~~result~~^{or} is not resulting in efficient production from the reservoir.

unless called earlier
upon the motion of
the Division,

(10) That this case should be reopened at an examiner hearing in October, 1980 at which time the operators in the subject pool should be prepared to appear and show cause why the North Caprock-Mississippian Pool should not be developed on 40-acre spacing units.

(1) (2) That temporary Special Rules and Regulations for the North Caprock - Mississippian Pool, Lea County, New Mexico, are hereby promulgated as follows:

as previously defined and described.

SPECIAL RULES AND REGULATIONS
FOR THE
North Caprock - Mississippian POOL

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

RULE 2. Each well shall be located on a standard unit containing 160 acres, more or less, consisting of one of a governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. The Division Director may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit comprising a governmental quarter-quarter section or lot, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Director has received the application.

OK →

RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.

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

has been entered within 20 days after the Director has received the application.

RULE 6. Top unit allowable for a standard proration unit (58² through 162 acres) shall be based on a depth bracket allowable of 650 barrels per day, and in the event there is more than one well on an 160-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 160 acres.

Rule (7) The gas-oil ratio limitation for wells in the North Caprock-Mississippian shall be 4000 cubic feet of gas per barrel of oil.

See under

160 NMSA 19-1, contained in Chapter 271, Laws of 1969, existing wells in the North Caprock-Mississippian Pool shall have dedicated thereto 160 acres in accordance with the foregoing pool rules; or, pursuant to Paragraph C. of said Section 90-2-18, existing wells may have non-standard spacing or proration units established by the Division and dedicated thereto.

Failure to file new Forms C-102 with the Division dedicating acres to a well or to obtain a non-standard unit approved by the Division within 60 days from the date of this order shall subject the well to cancellation of allowable. Until said Form C-102 has been filed or until a non-standard unit has been approved, and subject to said 60-day limitation, each well presently drilling to or completed in the North Caprock-Mississippian Pool or in the Mississippian formation within one mile thereof shall receive no more than one-half of a standard allowable for the pool.

within 30 months after the date of this order
(3) That the applicant shall provide the supervisor of the Division's District office at Hobbs with available production, testing, or offset well data within 30 months after the date of this order sufficient to show that the 4000 to 1 gas oil ratio limitation is ~~not~~ or is not resulting in efficient production from the reservoir.

unless called earlier upon the motion of the Division,

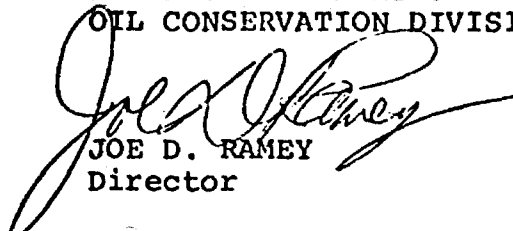
(4) That this case shall be reopened at an examiner hearing in October, 1980, at which time the operators in the subject pool should be prepared to appear and show cause why the North Caprock-Mississippian Pool should not be developed on 40-acre spacing units.

-5-
Case No. 6270
Order No. R-5771

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

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


JOE D. RAMEY
Director

S E A L

fd/

ROUGH

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

JNR

CASE NO. 6648

Order No. R-6124-A

IN THE MATTER OF CASE 6648 BEING REOPENED PURSUANT
TO THE PROVISIONS OF ORDER NO. R-6124 WHICH ORDER
PROMULGATED TEMPORARY SPECIAL RULES AND REGULATIONS
FOR THE NORTH CAPROCK-MISSISSIPPIAN POOL IN LEA
COUNTY, NEW MEXICO, INCLUDING A PROVISION FOR
160-ACRE SPACING AND A 4000 TO ONE GAS-OIL RATIO
LIMITATION.

ORDER OF THE DIVISION

JSN

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on October 29
19 80, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this _____ day of October, 19 80, the
Division Director, 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 Division has jurisdiction of this cause and the
subject matter thereof.

(2) That by Order No. R-6124, dated September 24, 1979,
temporary special rules and regulations were promulgated for the
North Caprock-Mississippian Pool, Lea County, New Mexico, establishing
temporary 160-acre spacing units and proration units, and a limiting
gas-oil ratio of 4000 to one.

(3) That pursuant to the provisions of Order No. R-6124, this
case was reopened to allow the operators in the subject pool to
appear and show cause why the North Caprock-Mississippian Pool should
not be developed on 40-acre spacing units and a limiting gas-oil ratio
of 2000 to one.

Case No. _____
Order No. _____

(4) That the evidence ^{indicates} ~~establishes~~ that one well in the North Caprock-Mississippian _____ Pool can efficiently and economically drain and develop 160 acres.

(5) That the Special Rules and Regulations promulgated by Order R-6124 have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil and gas in the pool.

(6) That ~~this case should be reopened at an examiner hearing in _____, 19____, at which time the operators in the subject pool should appear and show cause why the North Caprock-Mississippian _____ Pool should not be developed on less than _____ acre proration units with a limiting oil gas ratio of _____ to _____~~ ^{the Special Rules and Regulations for} *as promulgated by Order No. R-6124* ~~continued in full force and effect until further order of the Division~~

IT IS THEREFORE ORDERED:

(1) That the Special Rules and Regulations governing the North Caprock-Mississippian _____ Pool, promulgated by Order No. R-6124, shall remain in full force and effect ~~for an additional period of one year.~~ *until further order of the Division*

~~(2) That this case shall be reopened at an examiner hearing in _____, 19____, at which time the operators in the subject pool shall appear and show cause why the _____ Pool should not be developed on less than _____ acre proration units with a limiting oil gas ratio of _____ to _____~~

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

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