

Case Number

5896

Application

Transcripts

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
April 6, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Exxon Company, USA for) CASE
special pool rules, Lea County,) 5896
New Mexico.)

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil Conservation Commission: Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Clarence E. Hinkle, Esq.
HINKLE, COX, EATON, COFFIELD &
HENSLEY
Attorneys at Law
Hinkle Building
Roswell, New Mexico

sid morriah reporting service
General Court Reporting Service
825 Calle Mojia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

I N D E X

	<u>Page</u>
<u>DANIEL DOSS</u>	
Direct Examination by Mr. Hinkle	3
<u>HARLEY REAVIS</u>	
Direct Examination by Mr. Hinkle	14
Cross Examination by Mr. Nutter	23

EXHIBIT INDEX

	<u>Offered</u>	<u>Admitted</u>
Applicant's Exhibit One, Ownership Map	4	13
Applicant's Exhibit Two, Cross Section	5	13
Applicant's Exhibit Three, Map	15	23
Applicant's Exhibit Four, Map	15	23
Applicant's Exhibit Five, Map	16	23
Applicant's Exhibit Six, Reservoir Data Sheet	17	23
Applicant's Exhibit Seven, Production Graph	20	23
Applicant's Exhibit Eight, Pressure Data	20	23
Applicant's Exhibit Nine, Letters	21	23
Applicant's Exhibit Ten, Waivers	22	23

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 MR. NUTTER: We will call Case Number 5896.

2 MS. TESCHENDORF: Case 5896, application of Exxon,
3 USA, for special pool rules, Lea County, New Mexico.

4 MR. HINKLE: Clarence Hinkle, Hinkle, Cox, Eaton,
5 Coffield and Hensley, Roswell, appearing on behalf of Exxon.
6 We have two witnesses and ten exhibits.

7 (THEREUPON, the witnesses were duly sworn.)
8

9 DANIEL DOSS

10 called as a witness, having been first duly sworn, was examined
11 and testified as follows:
12

13 DIRECT EXAMINATION

14 BY MR. HINKLE:

15 Q State your name, your residence and by whom you
16 are employed?

17 A My name is Daniel Doss. I live in Andrews, Texas
18 and I'm employed by Exxon Company, USA.

19 MR. NUTTER: How do you spell your last name, please?

20 A Doss, D-o-s-s.

21 Q (Mr. Hinkle continuing.) What is your position with
22 Exxon?

23 A I am a Production Geologist.

24 Q Have you ever testified before the Commission?

25 A No.

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

sid morrison reporting service
General Court Reporting Service
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
 Phone (505) 982-9212

1 Q State briefly your educational background and
 2 experience as a geologist?

3 A I have a Master of Science degree in geology. I
 4 graduated from Northeast Louisiana University in 1976 and I
 5 have been employed with Exxon for ten months.

6 Q Have you made a study of the Wantz-Abo Pool which
 7 is the subject of this hearing?

8 A Yes, I have.

9 MR. HINKLE: Are his qualifications acceptable?

10 MR. NUTTER: Yes, they are.

11 Q (Mr. Hinkle continuing.) Have you prepared or has
 12 there been prepared under your direction certain exhibits for
 13 introduction in this case?

14 A Yes, there have.

15 Q They are the ones that have been marked Exhibits One
 16 and Two?

17 A That is correct.

18 Q Refer to Exhibit One and explain what this is and
 19 what it shows?

20 A Exhibit One is an ownership map of the Wantz-Abo
 21 Pool area. The Wantz-Abo Pool is in general in Township 21
 22 South, Ranges 37 and 38 East, Township 22 South, Ranges 37
 23 and 38 East. To give a relative position, Eunice, the city
 24 of Eunice, New Mexico, is bordered by the dark line. This
 25 ownership map shows all wells completed in all horizons in

sid morrison reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 the area and the Wantz-Abo Pool wells are the uncolored wells.

2 Q You are familiar with the application of Exxon in
3 this case?

4 A Yes, I am.

5 Q What is Exxon seeking to accomplish?

6 A We are asking for special pool rules in Lea County,
7 New Mexico. We are seeking an increase in the gas-oil ratio
8 limit to six thousand cubic feet of gas per barrel of oil for
9 the Wantz-Abo Pool in Lea County.

10 Q Does Exxon have considerable leasehold interest in
11 the Wantz-Abo Pool?

12 A Yes, we do.

13 Q Refer to Exhibit Two and explain what this is and
14 what it shows?

15 A Exhibit Two is a cross section that I have prepared
16 for the Wantz-Abo Pool area.

17 Let me refer to the index map to begin with. The
18 index map has a dashed blue line which indicates the boundary
19 of the Wantz-Abo Pool. Inside of the dashed line of the Wantz-
20 Abo Pool we have the blue coloring which does indicate the Wantz-
21 Abo Pool. Outside of the line we have the brown coloring which
22 indicates the Drinkard Pool.

23 The line of this cross section is indicated by the
24 red, the north-south trending red line here. Also these colors,
25 dashed lines indicating the pool boundaries corresponds with

1 dashed lines and the same colors on the cross section
2 itself.

3 The line of cross section crosses Exxon's lease
4 which is Section 2.

5 Q Does Exxon have all of Section 2?

6 A Yes, we do. The wells for this cross section were
7 selected because they are relatively new wells. None of the
8 wells on the cross section have or were drilled later than
9 1974. That's the oldest wells on the cross section. There-
10 fore, I had new logs in which I could do a pretty fair job of
11 correlating with. That's the reason these particular wells
12 were selected for the cross section.

13 Q What are the zones that are colored yellow on the
14 cross section?

15 A This is a stratigraphic cross section and for two
16 geologic formations, the Drinkard formation which overlies
17 the Abo formation. The yellow coloring on here is indicating
18 porosity stringers. Now, these are not sand lenses. Both
19 of these formations are all dolomite, these are porosity
20 stringers. What these show is the lack of continuity of
21 the porosity stringers through the Wantz-Abo Pool.

22 Now, the Drinkard, let me point out, is shown as
23 separated from the Wantz-Abo Pool here by dark lines. Now,
24 in this cross section, down the center of each of the logs,
25 we have the individual perforations for each of these wells.

1 The dark line or the tape on each one indicates the gross
2 interval perforated in the Abo formation and also in the
3 Drinkard formation.

4 Beneath the logs I have the individual completion
5 data for each of the wells. This data is based on the most
6 recent scout data I could collect for the wells. I know that
7 all of the Exxon wells have all of the up-to-date completion
8 data and to the best of my knowledge all of the other wells have
9 the up-to-date completion data. I worked in connection with
10 our scouting department to get all of the data that I could.

11 Q Does this cross section show that there is no
12 communication in the different stringers in the different
13 wells?

14 A This cross section shows that major porosity zones
15 extend short distances, maybe one location, and wedge out to
16 very little porosity but do not extend any extensive lengths
17 across the pool.

18 Q Now, are any of these wells completed only in the
19 Drinkard?

20 A Now, what we have in the sixth well on the cross
21 section, Marathon Walter Lynch No. 6, this one by the coloring
22 and the dashed line you can see is in the Drinkard Pool. Now,
23 the difference in the Drinkard and the Abo Pools is that
24 within the Wantz-Abo Pool, the Drinkard formation is prorated
25 as a different producing horizon than is the Abo formation,

1 therefore, any wells completed in both horizons in the Wantz-
2 Abo Pool must be dually completed, whereas the Abo and Drinkard
3 formations within the Drinkard Pool are treated as one producing
4 horizon and, therefore, are allowed to commingle.

5 This well I referred to, Marathon Walther Lynch No. 6,
6 is in the Drinkard Pool and as indicated on the cross section
7 is perforated in the Abo formation only and, therefore, is
8 allowed to produce with a six thousand GOR which is the gas-
9 oil ratio limit of the Drinkard Pool.

10 Q What is the gas-oil ratio at the present time for
11 the Wantz-Abo?

12 A The gas-oil ratio for the Abo formation in the
13 Wantz-Abo Pool is two thousand to one.

14 MR. NUTTER: Mr. Doss, just to interrupt you for a
15 minute, you say this Marathon well is in the Drinkard Pool.
16 Now, referring to the little plat that is on your cross section
17 here, the blue area is what the Commission has defined as the
18 Wantz-Abo?

19 A Yes, sir, that is correct.

20 MR. NUTTER: I notice that the Marathon well is
21 outside of the blue area, is the brown the Drinkard Pool?

22 A The brown is the Drinkard Pool.

23 MR. NUTTER: Both to the north and to the west and
24 to the south here?

25 A Yes, sir. Now, I do not have all of the Wantz-Abo

1 Pool area on this, nor all of the Drinkard Pool area, rather
2 just the immediate area that the line of cross section is
3 prepared in.

4 MR. NUTTER: Well, is this No. 15 which would be the
5 furthest to the right, also in the Drinkard Pool then?

6 A. Yes, sir, that is correct, it is in the Drinkard
7 Pool.

8 MR. NUTTER: Okay, so your Drinkard formation in
9 the Wantz-Abo is defined as being the area above the black
10 heavy line that runs across here. The Commission hasn't
11 actually defined what is the Drinkard and what is the Wantz-
12 Abo, have they?

13 A. Well, we have a type log.

14 MR. NUTTER: Has the Commission designated a type log
15 for either the Drinkard or the Wantz-Abo Pool?

16 A. Yes, sir.

17 MR. NUTTER: With a top or a bottom?

18 A. Yes.

19 MR. NUTTER: And so is that what your black line
20 here is based on?

21 A. Yes, sir.

22 MR. NUTTER: And then the well that is in the
23 Drinkard Pool, the Marathon Lynch 6, it's in the Drinkard Pool
24 but actually all of the perforations are in the equivalent
25 of the Wantz-Abo Pool porosity?

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 A. That is correct.

2 MR. NUTTER: Okay, go ahead.

3 A. Now, of course, they can rightfully do this, now,
4 this is not a unique exception. There are numerous other wells
5 in the area. Now, if we can take a look at the last well on
6 the cross section, Marathon Lou Wortham No. 15. Now, this
7 well is completed in the Abo formation and is also completed
8 in the Drinkard formation. Since this well was within one mile
9 of the Wantz-Abo Pool line, they have the option of taking the
10 -- of commingling it or producing these zones separately, so they
11 dualled this well since both of these zones were gas producers.
12 They took the two thousand GOR for the Abo, they took the
13 six thousand GOR for the Drinkard, whereas this same operator
14 in the Walter Lynch No. 6, going back to the other well, the
15 Abo formation produced oil here, therefore, it was to their
16 benefit to produce the Abo oil under the Drinkard proration
17 which would give them a six thousand to one gas-oil ratio.
18 Both of these wells are handled by the same operator.

19 Q. (Mr. Hinkle continuing.) So the Walter Lynch No. 6
20 is being produced on the six thousand to one oil ratio?

21 A. That is correct. It initially came in excess of
22 a six thousand GOR and has been able to produce their oil
23 without being penalized, whereas the well just to the left of
24 that one, Exxon's New Mexico S State No. 31 completed in the
25 Abo is only able to produce with a two thousand to one gas-oil

1 ratio.

2 Q What about the third and fourth wells from the
3 right of this cross section number two?

4 A Now, we speak of Sun Oil Company Walter Lynch No. 2
5 and Sun Oil Company Walter Lynch No. 3?

6 Q That's right.

7 A These wells are within the Wantz-Abo Pool but as you
8 can see on the cross section, Sun Oil's Walter Lynch No. 2
9 is completed in the Abo only but it is prorated as Drinkard,
10 allowing them to produce with a six thousand to one gas-oil
11 ratio.

12 Sun Oil Company's Walter Lynch No. 3, which is also
13 in the Wantz-Abo Pool, is completed in the Abo formation and
14 the Drinkard formation, and prorated under the Drinkard, allowing
15 it to produce with a six thousand to one GOR. Now, I do not
16 know if they had special permission to do this or not, this was
17 something that was incidental and was incurred in the course
18 of the study and was not put on this cross section to bring
19 out this point but, like I say, was incidental in the study.

20 MR. NUTTER: What are you talking about, how come
21 the Walter Lynch No. 2 is being prorated as a Drinkard well?

22 A Yes, sir, it is prorated as a Drinkard well.

23 MR. NUTTER: Well, it's in the Abo Pool, though,
24 according to your map, right?

25 A Yes, sir.

1 MR. NUTTER: And the perforations are in the Abo
2 formation according to your cross section?

3 A. Yes, sir, that is correct.

4 MR. NUTTER: But the Commission is prorating it as a
5 Drinkard well with a six thousand to one ratio?

6 A. That is correct. I do not know if they had special
7 permission to do this or not.

8 MR. NUTTER: This may be just an error in placing
9 the well in the book, I don't know.

10 A. Well, as I stated, in my study I incurred this
11 situation for both of these Sun wells. Both of these wells
12 are prorated as Drinkard wells and are allowed to produce
13 with a six thousand to one gas-oil ratio. Both wells are
14 completed in the Abo.

15 MR. NUTTER: Well, the No. 3 is a dual completion,
16 isn't it?

17 A. It is commingled.

18 MR. NUTTER: Did they have a special commingling
19 hearing on it, do you know?

20 A. I do not know. I was making a continuity cross
21 section, I incurred this while making the cross section, I
22 have not investigated in the area to see if other wells have
23 done this.

24 MR. NUTTER: Have you talked to the Commission's
25 geologist in the Hobbs office about this situation?

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 A. No, I have not.

2 MR. NUTTER: Go ahead, I'm sorry.

3 Q. (Mr. Hinkle continuing.) Do you have any further
4 comments with respect to Exhibit Number Two?

5 A. No, sir, I do not.

6 MR. HINKLE: We have another witness, of course, for
7 the rest of this and we would like to offer Exhibits One and
8 Two.

9 MR. NUTTER: Exhibits One and Two will be admitted
10 into evidence.

11 (THEREUPON, Applicant's Exhibits One and
12 Two were admitted into evidence.)

13 MR. HINKLE: That's all of this witness.

14 MR. NUTTER: Are there any other questions of the
15 witness? He may be excused.

16 (THEREUPON, the witness was excused.)

17 MR. NUTTER: Let's take a little recess before
18 proceeding, let's take a fifteen minute recess.

19 (THEREUPON, the hearing was in recess.)

20

21

22

23 MR. NUTTER: The hearing will come to order.

24 Mr. Hinkle, do you have another witness?

25 MR. HINKLE: Yes, he has already been sworn.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

HARLEY REAVIS

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, your residence and by whom you are
employed?

A My name is Harley Reavis, I'm a Conservation Engineer
for Exxon Company in Midland, Texas.

Q Are you a petroleum engineer?

A Yes, sir, I am.

Q Have you previously testified before the Commission?

A Yes, sir, I have.

Q Are your qualifications as a petroleum engineer a
matter of record with the Commission?

A Yes, they are.

Q Have you prepared or has there been prepared under
your direction certain exhibits for introduction in this case?

A Yes, sir, there have.

Q And they are the ones that have been marked Three
through Ten?

A Yes, sir.

Q Refer to Exhibit Three and explain what this is and
what it shows?

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 A. Exhibit Three is a map showing the locations of
2 the Wantz-Abo wells as triangles on this map. The small
3 circles are the wells that are Drinkard wells and then this
4 map also shows the boundary as shown by the New Mexico Nomen-
5 clature, for the Wantz-Abo as a heavy dashed line and the light
6 dashed line is the boundary of the Drinkard Pool.

7 These wells were picked off the January-April 1977
8 allowable schedules and located by that means from this owner-
9 ship map that has already been submitted as Exhibit One.

10 The Wantz-Abo wells are limited to a two thousand
11 gas-oil ratio limit while the Drinkard wells have one special
12 field rule which says they are allowed a six thousand gas-oil
13 ratio.

14 Q. Now, refer to Exhibit Four and explain what this
15 shows?

16 A. Exhibit Four is a map showing the wells again just
17 for the Wantz-Abo Pool. There are circles colored red which
18 show all of the wells with a gas-oil ratio of over two
19 thousand cubic feet per barrel.

20 The wells with the heavy blue line around the outside
21 of the red, shows the wells that have over six thousand gas-
22 oil ratio.

23 The small circles are wells that have less than a
24 two thousand ratio.

25 You will note that the Wantz-Abo wells -- and

sid morrison reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 incidentally this is the well as listed on the January-April
2 1977 allowable schedule and is from the well test that was on
3 that allowable schedule. About sixty-six percent, based on
4 those tests of the wells, have gas-oil ratios over two thousand.
5 Now, you will note that there are normal ratio wells adjacent
6 to high gas-oil ratio wells which indicates something similar
7 to the Exhibit Number Two which was a cross section, that some
8 wells don't behave like the next door neighbor. Also most
9 of the high-ratio wells are up through the center of the field.

10 Q Do you have any further comments with respect to
11 that exhibit?

12 A No, sir, I don't.

13 Q Refer to Exhibit Five and explain that?

14 A Exhibit Five is just a backup map to Exhibit Four.
15 This shows the actual oil production beside each well in the
16 Wantz-Abo Pool that was on the January-April 1977 allowable
17 schedule. It also shows the gas-oil ratio based on the test
18 that was on that schedule.

19 Q The January-April?

20 A The January-April 1977 allowable schedule.

21 Q Now, refer to Exhibit Six and explain that?

22 MR. NUTTER: Mr. Reavis, while you are on that
23 exhibit, I notice down here in Section 2 you've got one well
24 identified as a gas well, would that mean that the GOR there is
25 over a hundred thousand?

1 A. Yes, sir, that well is a gas well classified as such.

2 MR. NUTTER: And it is completed in the Abo formation?

3 A. Yes. Now, I would like to say one thing, Mr. Examiner,
4 on Exhibit Number Three we showed additional wells on the
5 Exxon lease. I told you that all of the wells on that exhibit
6 was based on the January-April 1977 allowable schedule. There
7 is an exception on the Exxon lease. There have been some
8 additional wells completed and we did have that information
9 and we put it on there just to show you where the newer comple-
10 tions were on the Wantz-Abo on the Exxon lease.

11 Exhibit Number Six is a reservoir data sheet that
12 shows that this pool was discovered in 1952. It was produced
13 from a depth of seven thousand to eight thousand feet, that
14 there is nearly nineteen thousand acres in the spaced area,
15 assigning forty acres to the sixty-five wells. There is some
16 twenty-six hundred and forty acres assigned to wells. There are
17 eighteen operators in the field. On the December 1976 production
18 numbers that just came out from the Commission, there were
19 sixty-six producing wells. The method of production of those
20 sixty-six wells, there are twenty-one flowing, including one
21 gas well, one gas-lift well, forty-four pumping and twelve are
22 shown as shut in.

23 The producing mechanism we feel is very definitely
24 a dissolved gas drive. The original reservoir pressure
25 was around twenty-two hundred pounds. The current pressure is

1 somewhere in the neighborhood of four hundred pounds. The
2 initial solution gas-oil ratio based on the initial discovery
3 well completion data is some twelve hundred and thirty-four
4 cubic feet per barrel and we estimated from standings calcula-
5 tions that this has a formation volume factor of one point
6 eight eight. The gravity of the fluid is forty-six. We can't
7 determine a gas-oil contact. We find gas in wells, I believe
8 Mr. Doss' exhibit showed the well to the far south was low in
9 the structure yet it was a gas well so we find gas and oil in
10 it mixed in some of these stringers.

11 There is no water-oil contact. The field had
12 produced through 1-1-77 slightly over five million barrels of
13 oil.

14 The current oil pool production for December of
15 1976 was six hundred and seventy-eight barrels of oil or only
16 ten barrels of oil per day per well. Each well averages
17 seventy-four MCF per day and the water production per well is
18 only three barrels per day. The pool gas-oil ratio in December
19 was seventy-two hundred cubic feet per barrel.

20 MR. NUTTER: That's the production ratio?

21 A. That's right. The producing gas-oil ratios, we
22 have taken from the December 1976 production figures that came
23 out and twenty-seven percent or eighteen of the wells have
24 less than two thousand ratio, while seventy-three percent
25 have over two thousand ratio. Thirty-eight percent is between

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 two thousand and sixty and six thousand, thirty-five percent
2 of the wells are over six thousand.

3 Now, the test gas-oil ratio is shown on the allowable
4 schedule for January-April 1977. It shows only sixty-six
5 percent of the wells is high gas-oil ratio. So this is a
6 normal thing, it happens through most fields you test. Some-
7 times they are made to your advantage, you understand, so
8 that some of the wells may have a ratio over two thousand but
9 they are not shown.

10 MR. NUTTER: Do you know, Mr. Reavis, when the last
11 GOR testing season was for the pool?

12 A. No, I don't, Dan, I really don't.

13 MR. NUTTER: It was probably sometime last summer
14 so that this schedule that comes out for January to April
15 may reflect GOR's that were several months old too?

16 A. Yes, sir, that's right.

17 There are a number of top oil allowables in the
18 field. The top allowable, incidentally, for the Wantz-Abo
19 is a hundred and eighty-seven barrels per day and that allows
20 some three hundred and seventy-four cubic feet for gas for
21 a gas well.

22 The December 1976 production data shows no top
23 allowable wells, although the January-April 1977 proration
24 tests show one well, it's an Imperial American well. It has
25 a hundred and eighty-seven barrel top allowable.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 I have listed down here the area gas purchasers.
2 There are four, El Paso Natural Gas Company, Warren Pipeline,
3 Northern Natural and Getty Oil. That used to be Skelly in
4 this particular area but they have recently changed.

5 Q (Mr. Hinkle continuing.) Now refer to Exhibit Seven
6 and explain what that shows?

7 A This is a production graph showing the oil production
8 since 1963. You can see that the production has gone from
9 slightly below four hundred barrels per day in 1965 to a
10 high of slightly over one thousand barrels a day in 1969 and
11 it is something around seven hundred barrels at the present.

12 The upper portion of this graph shows the produced
13 gas-oil ratio for this same period. We have also shown the
14 tested gas-oil ratio which runs lower during the last three
15 or four years there. The test gas-oil ratio is between four
16 and five thousand for the last test period and the gas-oil
17 ratio now is about seven thousand.

18 Q Refer to Exhibit Eight and explain that?

19 A Exhibit Eight is taken from the annual New Mexico
20 reports which shows the pressures that were measured on key
21 wells from 1952 through about 1969 when they ceased running
22 pressures out here. You can see that the initial pressures
23 came in at quite a variance. In the first two years the
24 pressures varied from about sixteen hundred to twenty-seven
25 hundred almost. And some wells declined very rapidly, indicating

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 a completion in a small reservoir. Other wells had a gradual
2 decline, indicating that they were completed in much larger
3 reservoirs and all of the pressures declined from 1952 down to
4 about 1960 or '61. At that time you notice that some of the
5 well pressures went up. We attribute that to workovers where
6 they completed in the newer horizons and also you find a bunch
7 of new wells came in during about 1964 and '65 through about
8 1968, which had pressures much higher than the older wells
9 and some of them declined at a very rapid rate and some have
10 held their pressures much better, indicating various sized
11 reservoirs and also the lenticular nature of the reservoirs,
12 depicted by Exhibit Number Two, the cross section submitted
13 by Mr. Doss.

14 Q Now, refer to Exhibit Nine and explain what this is?

15 A Exhibit Nine, we went to all of the operators, I
16 mean all of the purchasers of gas in this field, Northern
17 Natural, El Paso, Getty and Warren and we have a letter from
18 each of them which is Exhibit Nine, stating that they will be
19 able to take the additional gas that would result from this
20 proposed change in rules.

21 We estimate that the gas production in this pool
22 would increase approximately four million cubic feet per day.
23 The oil production we feel would increase approximately one
24 hundred barrels per day.

25 Q That would bring the production up to approximately

sid morrison reporting service
General Court Reporting Service
 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
 Phone (505) 982-9212

1 eight hundred barrels?

2 A. About eight hundred barrels, yes, sir.

3 Q. Now, did you send copies of the application to all
 4 of the operators in the Wantz-Abo Pool?

5 A. Yes, sir, I did send a copy to each operator in the
 6 pool, the application that went to the OCC requesting this
 7 hearing.

8 Q. Have you had any protests to this application from
 9 any of the operators?

10 A. No, sir, I have not.

11 Q. Have you obtained waivers from some of them?

12 A. Yes, sir, I have obtained waivers from twelve of
 13 the seventeen other operators in the field.

14 Q. And that is Exhibit Ten that shows these waivers?

15 A. Yes, sir.

16 Q. They are all attached together as Exhibit Ten.

17 Now, if this application is approved will it be in
 18 the interest of conservation, prevent waste and protect
 19 correlative rights?

20 A. Yes, sir.

21 MR. HINKLE: I would like to offer Exhibits Three
 22 through ten.

23 MR. NUTTER: Exhibits Three through ten will be
 24 admitted into evidence.

25

1 (THEREUPON, Applicant's Exhibits Three
2 Through Ten were admitted into evidence.)

3 MR. HINKLE: That's all I have of this witness.
4

5 CROSS EXAMINATION

6 BY MR. NUTTER:

7 Q Mr. Reavis, what is the reason that the GOR has
8 climbed up to an average now of seventy-two hundred cubic
9 feet per barrel when the original solution gas-oil ratio as
10 indicated by one of your exhibits is considerably less than
11 that?

12 A That was based on the original well which had a
13 gas-oil ratio of twelve hundred thirty-four cubic feet per
14 barrel. If you look at Exhibit Number Seven, which is the
15 production curve, it shows it to get a produced gas-oil ratio
16 in this field has actually been about five thousand soon after
17 discovery. You see it started off at a fairly low rate and
18 then -- well I don't have the previous production back before
19 1963 but since 1963 to '76 it has run above five thousand
20 cubic feet on an average.

21 I think what has happened here is this thing has
22 several oil and gas stringers in the formation. It also has
23 very small reservoirs when they are oil and they go as a
24 natural depletion type drive, the ratios increase soon after
25 completion so you get a mishmash of a bunch of reservoirs.

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 Q In other words, if you have a bunch of individual
2 stringers and you deplete the oil from these and the gas comes
3 out of solution then you've got essentially a little gas sand
4 open in the wellbore there?

5 A That's right.

6 Q And some of the reservoirs may have sufficient
7 stringers or some of the wells may have sufficient stringers
8 that they haven't dropped the GOR or haven't dropped the
9 pressure to a point where they have a high GOR?

10 A That's right. It varies all through this reservoir.
11 Actually our map shows only the current wells in this reservoir
12 and from what I understand there have been numerous wells
13 that have been plugged and abandoned or some of them are
14 standing, you know, like I say there are twelve standing that
15 have been completed, depleted and have gone, see.

16 Q Well, I notice here, for example, in your Exhibit
17 Number Three, Mr. Reavis, the Commission has extended the
18 Wantz-Abo Pool over here in Township 21 South, 37 East into
19 all of Section 28, a portion of Section 29, all of Section 3
20 and three-fourths of Section 4 in the Township to the south
21 of that but I don't see any Wantz-Abo wells. Were there Abo
22 wells over there that have since been plugged or what?

23 A Whereabouts was that now, over on the west side?

24 Q Over here on the west side.

25 A I understand there were wells over there at one time,

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

sid morrish reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

1 this is the reason that the spacing was over there.

2 Q Now, when you talk about there being nineteen
3 thousand spaced acres this included all of this acreage where
4 there are now wells at the present time?

5 A Yes, sir, that's right.

6 Q And structural position doesn't seem to be a factor
7 in the GOR on a well?

8 A No, sir, because I think if we refer back to the
9 cross section the well of Marathon's on the south end of that
10 cross section, it was a gas well and it was low structure. So
11 your structure has no affect upon where you find it or whether
12 it's up in the upper part or the lower part of the formation.

13 Q The GOR then is a function of the condition of the
14 stringers that are open to the wellbore?

15 A Yes, sir.

16 Q Whether they are high GOR stringers or low GOR
17 stringers.

18 A And we who play this sometimes dodge some of the
19 gas stringers we know about in depleted zones primarily and
20 don't perforate them because, you know, they may be above or
21 below where we have completed.

22 Q Now, how much additional gas do you expect there is
23 going to be produced as a result of a change to six thousand to
24 one?

25 A We expect about four million cubic feet per day of

1 additional production with this change of the rule.

2 Q Now, what would be the oil production?

3 A The oil production, we feel, would increase roughly
4 one hundred barrels per day and that's based on the well test
5 that we have of the other peoples' wells that have been
6 submitted.

7 Q I notice in the letter from El Paso Natural they
8 mentioned the four million cubic feet additional gas but the
9 other pipelines didn't. Did you advise all of the pipelines
10 that you would expect an increase?

11 A Yes, sir, they had information, that was the request.
12 We told them what we thought the field would go up and they
13 looked at -- in fact, I got the last one from Getty Monday,
14 waiver, because they were looking to see what their field,
15 these gas companies, they had about a month to do this and
16 they had to go to the field and see if they had any bottlenecks
17 and to ascertain from their field people if they had any
18 bottlenecks that would physically keep them producing this
19 extra gas from the wells they were connected to and they did
20 that investigation and this is the reason it took them so
21 long to get their letters in.

22 Q But they are satisfied they can take the additional
23 gas?

24 A Yes, sir, each one of them told us that they could.

25 MR. NUTTER: Are there any further questions of

1 Mr. Reavis? He may be excused.

2 (THEREUPON, the witness was excused.)

3 MR. NUTTER: Do you have anything further, Mr. Hinkle?

4 MR. HINKLE: No, that's all.

5 MR. NUTTER: Does anyone have anything they wish to
6 offer in Case Number 5896? We will take the case under
7 advisement.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

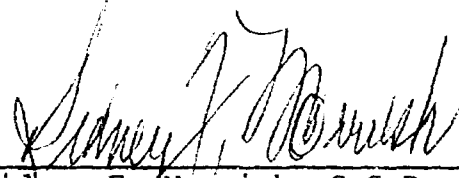
24

25

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

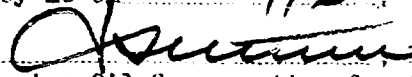
REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

sid morrish reporting service
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

I do hereby certify that the foregoing
a complete record of the proceedings in
the Examiner hearing of Case No. 5896
heard by me on 4/6, 1977.


Examiner
New Mexico Oil Conservation Commission

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 5896
Order No. R-5435

APPLICATION OF EXXON COMPANY, USA,
FOR A SPECIAL GAS-OIL RATIO LIMITATION,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 6, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 24th day of May, 1977, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Exxon Company, USA, seeks, as an exception to Rule 506 of the Commission Rules and Regulations, a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Wantz-Abo Pool, Lea County, New Mexico.

(3) That the reservoir characteristics of the subject pool justify the establishment of a gas-oil limitation of 6,000 cubic feet of gas per barrel of liquid hydrocarbons.

(4) That in order to afford to the owner in the Wantz-Abo Pool the opportunity to economically produce his just and equitable share of the oil and gas in the subject pool and for this purpose to use his just and equitable share of the reservoir energy, a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of liquid hydrocarbons should be established for the pool.

-2-

Case No. 5896
Order No. R-5435

IT IS THEREFORE ORDERED:

(1) That effective June 1, 1977, the limiting gas-oil ratio in the Wantz-Abo Pool, Lea County, New Mexico, shall be 6,000 cubic feet of gas for each barrel of liquid hydrocarbons produced; that, effective June 1, 1977, each proration unit in the Wantz-Abo Pool shall produce only that volume of gas equivalent to 6,000 multiplied by the top unit allowable for the pool.

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



Phil R. Lucero
PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

S E A L

dr/

Warren Petroleum Company
MANUFACTURING DEPARTMENT

April 1, 1977

P. O. Box 1589
Tulsa, Oklahoma 74102

Mr. P. H. Kelly
Exxon Company, U.S.A.
P. O. Box 1600
Midland, TX 79702

Dear Mr. Kelly:

Re: Limiting Gas/Oil Ratio
Wantz (Abo) Field
Lea County, New Mexico

You have advised that Exxon plans to ask the New Mexico Conservation Commission to increase the limiting gas/oil ratio on the Wantz (Abo) Field in Lea County, New Mexico from 2,000 cubic feet per barrel of oil to 6,000 cubic feet per barrel of oil. This is to advise that Warren Petroleum Company, a Division of Gulf Oil Corporation has sufficient capacity in its plant in the area to process any additional gas which may be produced as a result of this increased limiting gas/oil ratio.

Very truly yours,

WARREN PETROLEUM COMPANY

J. H. Kelly
J. H. Kelly

JHK:cw

cc: Mr. H. N. Reavis
Exxon Company, U.S.A.
P. O. Box 1600
Midland, TX 79702



A DIVISION OF GULF OIL CORPORATION

Exhibit 9
Case 5896

#9

El Paso NATURAL GAS
COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-543-2600

March 28, 1977

Exxon Company, U. S. A.
P. O. Box 1600
Midland, Texas 79701

Attention: Mr. L. H. Byrd

Re: Wantz Abo Pool
Lea County, New Mexico

Dear Sir:

Your letter of March 14, 1977, stating that Exxon had requested a hearing to increase the gas-oil ratio limitation from 2,000 to 6,000 cubic feet per barrel of oil for the Wantz Abo Pool in Lea County, New Mexico advised that the gas from this pool is expected to be increased by approximately four million cubic feet a day.

This is to advise you that El Paso Natural Gas Company is ready, willing and able to take any additional gas connected to us that may result from this change in gas-oil ratio limitation.

Should you desire further information or action relative to this matter, please advise.

Very truly yours,

E. R. Manning
E. R. Manning

ERM:eh

P. O. Box 2300
Midland, Texas 79701
Phone (915) 682-7964

March 18, 1977



P. H. Kelly
Division Operations Manager
Exxon Co. U.S.A.
Box 1600
Midland, Texas 79702

Re: NMOCC April 6, 1977, Hearing Concerning
Wantz ABO Pool G.O.R. Increase

Mr. Kelly:

It has been brought to Northern's attention that a special hearing has been called for April 6, 1977, by the NMOCC to address the proposal to increase the GOR in the Wantz ABO Pool from 2000 to 6000 C.F./BBL.

Northern, presently, is taking gas from only one well in this pool and this delivery is on a short term emergency contract. We are in negotiations to secure dedication of reserves in this pool on a long term basis.

Northern can foresee no problems related to the increase of the ratio, and would support such a motion.

Regards,

D. L. Smith
Regional Manager-Permian
Gas Supply Operations Dept.

ADF/rme

GETTY OIL COMPANY

P. O. Box 2194
Pampa, Texas 79065

March 24, 1977

Exxon Corporation
P. O. Box 1600
Midland, TX 79701

Attention Mr. P. H. Kelly
Division Operations Manager

Dear Sir:

Our Mr. Luther Azbill of Eunice, New Mexico, informed me of the tentative hearing set for April 6, 1977, with the New Mexico Cooperation Commission in regards to the gas-oil ratio in the Wantz Abo Pool, Lea County, New Mexico.

This is to inform all interested parties that Getty Oil Company is presently connected to twenty-one (21) leases in this pool with adequate field gathering and plant facilities to process the expected increase in volume with no anticipated waste.

Very truly yours,

D. L. Allen

D. L. Allen
Natural Gas Supervisor

DLA:oo

cc: L. C. Azbill
J. R. McKinley
B. R. Nunn
R. V. Struebing

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we have no objection to Exxon's proposal to increase the gas oil ratio limit from 2,000 to 6,000 cubic feet per barrel.

By  Ben K. Smith

For Imperial-American Resources Fund, Inc.

Date February 2, 1977

Exhibit 10
Case 5896

10

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

George Ornel

For

The Eastland Oil Co.

Date

Jan 27, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we have no objection to Exxon's proposal to increase the gas oil ratio limit from 2,000 to 6,000 cubic feet per barrel.

By

J. J. Threl

For

ATLANTIC RICHFIELD COMPANY

Date

January 28, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

R. D. Sweater

For

Argee Oil Company

Date

1/27/77

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

C. L. Epp

For

Natural Resources Group, Inc.

Date

1-28-77

WAIVER


Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

For

Date

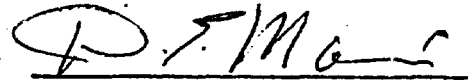

Elliott Oil Co.
Jan 21, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we have no objection to Exxon's proposal to increase the gas oil ratio limit from 2,000 to 6,000 cubic feet per barrel.

By



For

MARATHON OIL COMPANY

Date

January 31, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

Richard L. White

For

GETTY OIL COMPANY

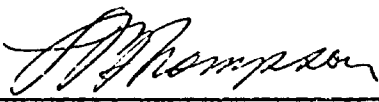
Date

February 2, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we have no objection to Exxon's proposal to increase the gas oil ratio limit from 2,000 to 6,000 cubic feet per barrel.

By 
L. P. Thompson

For CONTINENTAL OIL COMPANY

Date January 31, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we have no objection to Exxon's proposal to increase the gas oil ratio limit from 2,000 to 6,000 cubic feet per barrel.

By

J. D. D. Keys Per.

G. W. Keys

Division Operations Engineer

For

Shell Oil Company

Date February 8, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

Richard S. [Signature]

For

Same -

Date

2/8/77.

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we have no objection to Exxon's proposal to increase the gas oil ratio limit from 2,000 to 6,000 cubic feet per barrel.

By

J. A. Morris

For

MOBIL OIL CORPORATION

Date

2/24/77

Dockets Nos. 12-77 and 14-77 are tentatively set for hearing on April 20 and May 11, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 6, 1977

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

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

CASE 5884: (Continued & Readvertised)

Application of BCO, Inc., for an unorthodox location and downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Greenhorn, Craneros and Dakota production in the wellbore of its Dunn Well No. 1 at an unorthodox Dakota location in Unit M of Section 10, Township 23 North, Range 7 West, Rio Arriba County, New Mexico.

CASE 5894: Application of Consolidated Oil & Gas, Inc., for an unorthodox gas well location, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Jicarilla Well No. 5-34, at a point 790 feet from the South line and 1850 feet from the East line of Section 34, Township 26 North, Range 3 West, Blanco Mesaverde Pool, Rio Arriba County, New Mexico, to be dedicated to the E/2 of said Section 34.

CASE 5895: Application of C & K Petroleum, Inc., for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the S/2 of Section 12, Township 22 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 840 feet from the South line and 1760 feet from the East line of said Section 12. 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 5896: Application of Exxon Company, USA, for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of a special gas-oil ratio limit of 6000 cubic feet of gas per barrel of oil for the Wantz-Abo Pool, Lea County, New Mexico.

CASE 5897: Application of Read & Stevens, Inc., for an unorthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Rose Well No. 2 to be located 1650 feet from the South line and 990 feet from the West line of Section 18, Township 15 South, Range 28 East, Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico.

CASE 5653: (Reopened)

In the matter of Case 5653 being reopened pursuant to the provisions of Order No. R-5191 which order established temporary special pool rules for the Daisey-Wolfcamp Pool, Lea County, New Mexico. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 5898: Application of Chade Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Ballard-Pictured Cliffs and South Lindrith Gallup-Dakota production in the wellbore of its Jicarilla 70 Well No. 3 located in Unit C of Section 33, Township 24 North, Range 4 West, Rio Arriba County, New Mexico. In the alternative, applicant seeks authority to commingle said production at the surface without prior measurement and waiver of the gas-oil ratio test requirement.

CASE 5899: (This case will be continued and will be heard by the Commission at 2 p.m. on April 20, 1977, Oil Conservation Commission Conference Room, State Land Office Building, Santa Fe, New Mexico)

Application of Robert P. Wallach, Ray A. Wallach, and Patricia Louise Wallach House for an exception to Order No. R-3221, Lea County, New Mexico. Applicants, in the above-styled cause, seek, as an exception to the provisions of Commission Order No. R-3221, permission to construct and operate several earthen evaporation pits in the gravel pits in the SW/4 of Section 29, Township 21 South, Range 38 East, Lea County, New Mexico, for the disposal of produced salt water from oil and gas wells in Lea County, New Mexico.

RESERVOIR DATA
WANTZ ABO POOL

BUREAU EXAMINER NUTTER OF THE STATE COMMISSION STATE OF TEXAS CASE NO. 5876
--

Pool Discovery Date:	April, 1952			
Depth Bracket:	7,000 to 8,000 feet			
Number of Spaced Acres:	18720			
Number of Acres Assigned to Wells:	2640			
Number of Operators:	18			
Number of Wells:	66 (12/76)			
Method of Production:	(12/76)			
	<u>Flowing</u>	<u>Gas Lift</u>	<u>Pumping</u>	<u>Shut-In/Or TA</u>
	21 (20 Oil; 1 Gas)	1	44	12
Producing Mechanism:	Dissolved Gas Drive			
Original Reservoir Pressure - Psi (Est.):*	2200			
Current Reservoir Pressure - Psi (Est.):	400			
Initial Solution Gas-Oil Ratio*:	1234			
Initial Formation Volume Factor*:	1.88			
API° Gravity of Reservoir Fluid*:	46.0			
Original Gas-Oil Contact:	Indeterminate			
Original Water-Oil Contact:	None			
Cummulative Oil (Through 1-1-77):	5,277,998 BO			

*From Discovery Well Data (Continental M. E. Wantz #1 - (M)-21-21S-37E)

RESERVOIR DATA
WANTZ ARO POOL

CURRENT POOL PRODUCTION

<u>Pool Total</u>	<u>Per Well</u>
678 BOPD	10 BOPD/Well
4,878 MCFGPD	74 MCFGPD/Well
184 BWPD	3 BWPD/Well

Pool GOR: 7200 Cubic Feet/Barrel

PRODUCED GAS-OIL RATIOS (12/76)

	<u>GOR < 2000</u>	<u>2000 < GOR < 6000</u>	<u>GOR > 6000</u>
Number of Wells	18	25	23
Percent of Total	27%	38%	35%
		73%	

TEST GAS-OIL RATIO (JANUARY - APRIL, 1977 SCHEDULE)

	<u>GOR < 2000</u>	<u>2000 < GOR < 6000</u>	<u>GOR > 6000</u>
Number of Wells	22	26	17
Percent of Total	34%	40%	26%
		66%	

NUMBER OF TOP ALLOWABLE (OIL) WELLS (187 BOPD @ 2000 GOR)

December, 1976 Production Schedule:	0
January - April, 1977 Proration Tests:	1
Area Gas Purchasers:	El Paso Natural Gas Co. Warren Pipeline Co. Northern Natural Gas Co. Getty Oil Co.

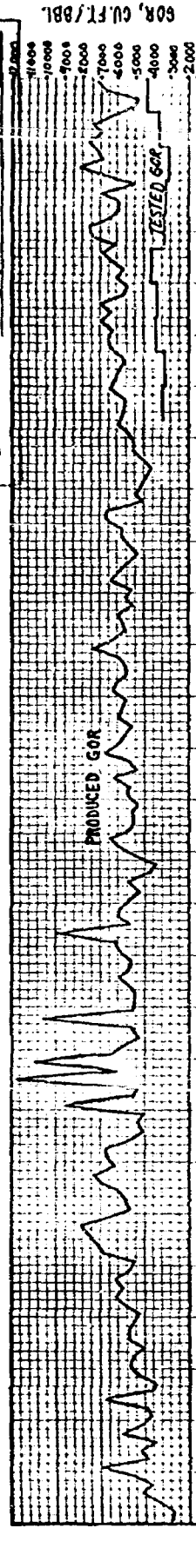
BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

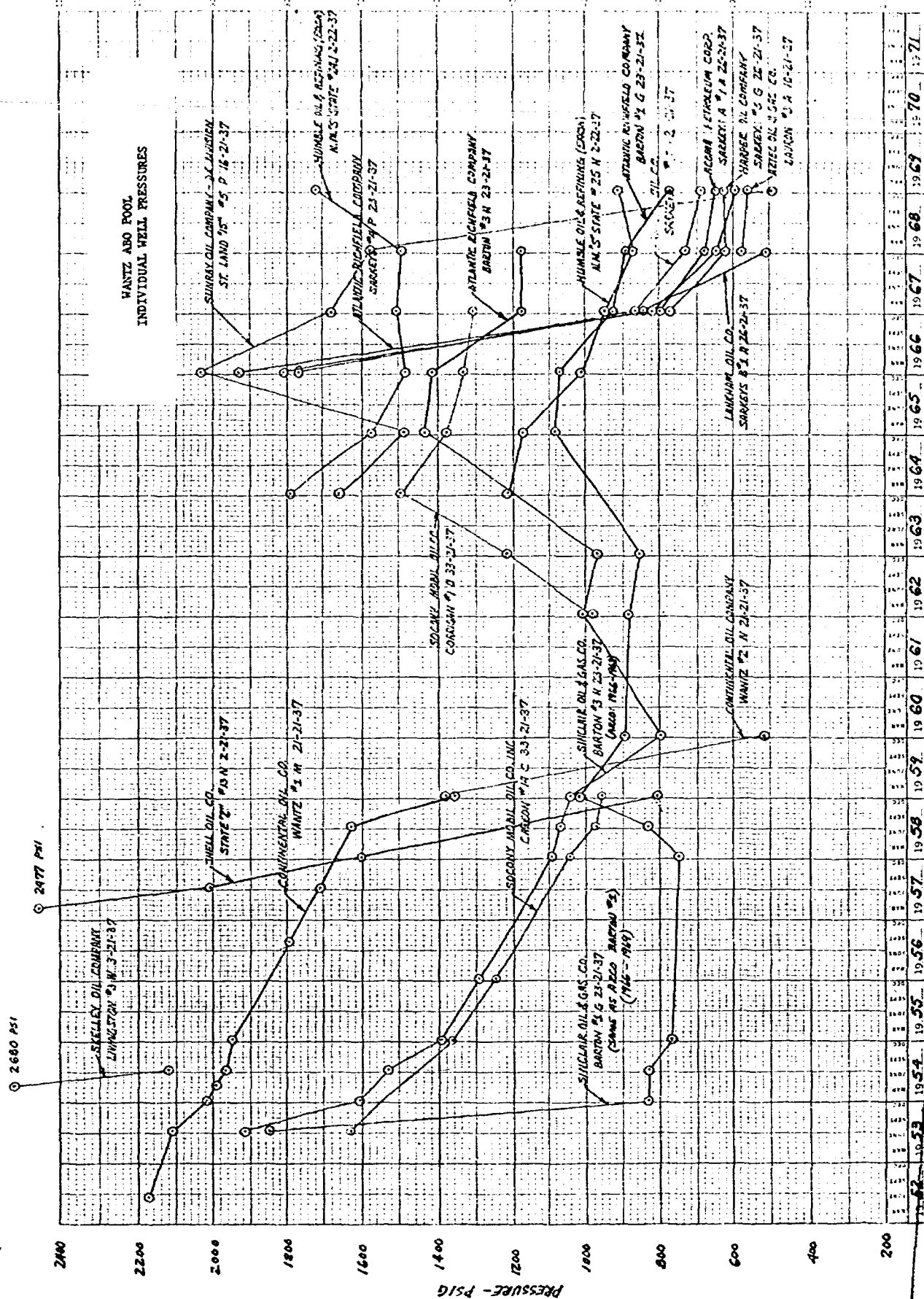
Case No. 7

Case No. 5896

Case No. 5896



FIELD WANTZ A80 LEASE TOTAL POOL WELL ALL



BEFORE EXAMINER NUTTER
OIL COMPANY, N. M. COMMISSION
-GPA- EXHIBIT NO. 8
CALL NO. 5896

El Paso NATURAL GAS
COMPANY

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-543-2600

March 28, 1977

Exxon Company, U. S. A.
P. O. Box 1600
Midland, Texas 79701

Attention: Mr. L. H. Byrd

Re: Wantz Abo Pool
Lea County, New Mexico

Dear Sir:

Your letter of March 14, 1977, stating that Exxon had requested a hearing to increase the gas-oil ratio limitation from 2,000 to 6,000 cubic feet per barrel of oil for the Wantz Abo Pool in Lea County, New Mexico advised that the gas from this pool is expected to be increased by approximately four million cubic feet a day.

This is to advise you that El Paso Natural Gas Company is ready, willing and able to take any additional gas connected to us that may result from this change in gas-oil ratio limitation.

Should you desire further information or action relative to this matter, please advise.

Very truly yours,

E. R. Manning
E. R. Manning

ERM:eh

BEFORE EXAMINER NUTTER
OIL COMMISSION COMMISSION
S/L LAURET NO. 9
CASE NO. 5894

P. O. Box 2300
Midland, Texas 79701
Phone (915) 682-7964

March 18, 1977



P. H. Kelly
Division Operations Manager
Exxon Co. U.S.A.
Box 1600
Midland, Texas 79702

Re: NMOCC April 6, 1977, Hearing Concerning
Wantz ABO Pool G.O.R. Increase

Mr. Kelly:

It has been brought to Northern's attention that a special hearing has been called for April 6, 1977, by the NMOCC to address the proposal to increase the GOR in the Wantz ABO Pool from 2000 to 6000 C.F./BBL.

Northern, presently, is taking gas from only one well in this pool and this delivery is on a short term emergency contract. We are in negotiations to secure dedication of reserves in this pool on a long term basis.

Northern can foresee no problems related to the increase of the ratio, and would support such a motion.

Regards,

A handwritten signature in cursive script that reads 'D. L. Smith'.

D. L. Smith
Regional Manager-Permian
Gas Supply Operations Dept.

ADF/rme

GETTY OIL COMPANY

P. O. Box 2194
Pampa, Texas 79065

March 24, 1977

Exxon Corporation
P. O. Box 1600
Midland, TX 79701

Attention Mr. P. H. Kelly
Division Operations Manager

Dear Sir:

Our Mr. Luther Azbill of Eunice, New Mexico, informed me of the tentative hearing set for April 6, 1977, with the New Mexico Cooperation Commission in regards to the gas-oil ratio in the Wantz Abo Pool, Lea County, New Mexico.

This is to inform all interested parties that Getty Oil Company is presently connected to twenty-one (21) leases in this pool with adequate field gathering and plant facilities to process the expected increase in volume with no anticipated waste.

Very truly yours,

D. L. Allen

D. L. Allen
Natural Gas Supervisor

DLA:oo

cc: L. C. Azbill
J. R. McKinley
B. R. Nunn
R. V. Struebing

Warren Petroleum Company

MANUFACTURING DEPARTMENT

April 1, 1977

P. O. Box 1589
Tulsa, Oklahoma 74102

Mr. P. H. Kelly
Exxon Company, U.S.A.
P. O. Box 1600
Midland, TX 79702

Dear Mr. Kelly:

Re: Limiting Gas/Oil Ratio
Wantz (Abo) Field
Lea County, New Mexico

You have advised that Exxon plans to ask the New Mexico Conservation Commission to increase the limiting gas/oil ratio on the Wantz (Abo) Field in Lea County, New Mexico from 2,000 cubic feet per barrel of oil to 6,000 cubic feet per barrel of oil. This is to advise that Warren Petroleum Company, a Division of Gulf Oil Corporation has sufficient capacity in its plant in the area to process any additional gas which may be produced as a result of this increased limiting gas/oil ratio.

Very truly yours,

WARREN PETROLEUM COMPANY

J. H. Kelly
J. H. Kelly

JHK:cw

cc: Mr. H. N. Reavis
Exxon Company, U.S.A.
P. O. Box 1600
Midland, TX 79702

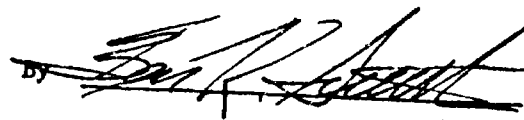


A DIVISION OF GULF OIL CORPORATION

WAIVER

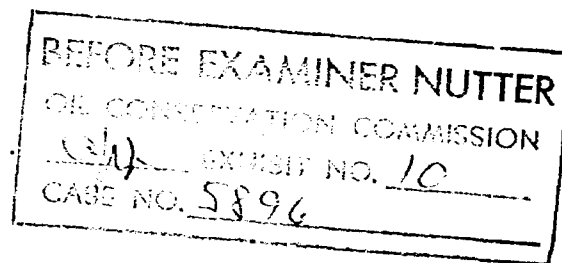
Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By  Ben K. Smith

For Imperial-American Resources Fund, Inc.

Date February 2, 1977



WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

George D. Neal

For

The Eastland Oil Co.

Date

Jan 27, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By J. J. Tulee

For ATLANTIC RICHFIELD COMPANY

Date January 28, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

R. D. Duenther

For

Argee Oil Company

Date

1/27/77

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

C. L. Eapen

For

Natural Resources Group, Inc.

Date

1-28-77

WAIVER

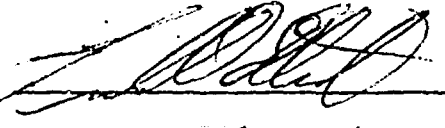
Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

For

Date


Elliott Oil Co.
Jan 21, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we have no objection to Exxon's proposal to increase the gas oil ratio limit from 2,000 to 6,000 cubic feet per barrel.

By

D. J. Mc

For

MARATHON OIL COMPANY

Date

January 31, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

Richard L. White

For

GEMTY OIL COMPANY

Date

February 2, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By



L. P. Thompson

For

CONTINENTAL OIL COMPANY

Date

January 31, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we have no objection to Exxon's proposal to increase the gas oil ratio limit from 2,000 to 6,000 cubic feet per barrel.

By

J. D. D'Agostino Per.
G. W. Keys

For

Division Operations Engineer
Shell Oil Company

Date

February 8, 1977

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

L. Russell S. Wilson

For

Exxon

Date

2/8/77.

WAIVER

Increase of gas oil limit
for Wantz Abo Pool
Lea County, New Mexico

As an operator in the Wantz Abo Pool in Lea County, New Mexico, we
have no objection to Exxon's proposal to increase the gas oil ratio limit
from 2,000 to 6,000 cubic feet per barrel.

By

J. A. Morris

For

MOBIL OIL CORPORATION

Date

2/24/77

Case 5896

EXXON COMPANY, U.S.A.
POST OFFICE BOX 1600 • MIDLAND, TEXAS 79701

PRODUCTION DEPARTMENT
MIDCONTINENT DIVISION
L. H. BYRD
MANAGER

March 4, 1977

*Set for
Hearing*

Wantz Abo Pool
Lea County, New Mexico

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

Attention: Mr. Joe D. Ramey

Dear Sir:

We respectfully request a hearing be scheduled to consider Exxon's application to change the gas-oil ratio limitation from 2,000 to 6,000 cubic feet per barrel for the Wantz Abo Pool in Lea County, New Mexico. Exxon operates eight wells on the New Mexico "S" State lease which includes all of Section 2, T-22-S, R-37-E. All of the other operators in this pool have been notified of our plans to request this increase in gas-oil ratio limitation by previous correspondence and a copy of this letter.

Your consideration in setting this on the docket of the next regular Examiners Hearing will be appreciated.

Yours very truly,


L. H. Byrd

HNR/bes
Attachment

cc: New Mexico OCC at Hobbs, w/attachment
Wantz Abo Operators, w/attachment

A DIVISION OF EXXON CORPORATION

Case 5896

EXXON COMPANY, U.S.A.
POST OFFICE BOX 1600 • MIDLAND, TEXAS 79701

PRODUCTION DEPARTMENT
MIDCONTINENT DIVISION
L. H. BYRD
MANAGER

March 4, 1977

Wantz Abo Pool
Lea County, New Mexico

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

Attention: Mr. Joe D. Ramey

Dear Sir:

We respectfully request a hearing be scheduled to consider Exxon's application to change the gas-oil ratio limitation from 2,000 to 6,000 cubic feet per barrel for the Wantz Abo Pool in Lea County, New Mexico. Exxon operates eight wells on the New Mexico "S" State lease which includes all of Section 2, T-22-S, R-37-E. All of the other operators in this pool have been notified of our plans to request this increase in gas-oil ratio limitation by previous correspondence and a copy of this letter.

Your consideration in setting this on the docket of the next regular Examiners Hearing will be appreciated.

Yours very truly,


L. H. Byrd

HNR/bes
Attachment

cc: New Mexico OCC at Hobbs, w/attachment
Wantz Abo Operators, w/attachment

A DIVISION OF EXXON CORPORATION

Case 5896

EXXON COMPANY, U.S.A.
POST OFFICE BOX 1600 • MIDLAND, TEXAS 79701

PRODUCTION DEPARTMENT
MIDCONTINENT DIVISION
L. H. BYRD
MANAGER

March 4, 1977

Wantz Abo Pool
Lea County, New Mexico

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

Attention: Mr. Joe D. Ramey

Dear Sir:

We respectfully request a hearing be scheduled to consider Exxon's application to change the gas-oil ratio limitation from 2,000 to 6,000 cubic feet per barrel for the Wantz Abo Pool in Lea County, New Mexico. Exxon operates eight wells on the New Mexico "S" State lease which includes all of Section 2, T-22-S, R-37-E. All of the other operators in this pool have been notified of our plans to request this increase in gas-oil ratio limitation by previous correspondence and a copy of this letter.

Your consideration in setting this on the docket of the next regular Examiners Hearing will be appreciated.

Yours very truly,


L. H. Byrd

HNR/bes
Attachment

cc: New Mexico OCC at Hobbs, w/attachment
Wantz Abo Operators, w/attachment

A DIVISION OF EXXON CORPORATION

OPERATORS IN WANTZ ABO FIELD
Lea County, New Mexico

Acoma Oil Corporation
812 Continental Life Building
Fort Worth, Texas 76102

Imperial American Management Co.
1700 Broadway
Denver, Colorado 80802

Arge Oil Company
213 Mid-American Building
Midland, Texas 79701

Leeser, Russell E.
1390 Ridge Road
Littleton, Colorado 80120

Atlantic Richfield
Box 1610
Midland, Texas 79702

Marathon Oil Company
Box 552
Midland, Texas 70702

Cities Service Oil Company
Box 4906
Midland, Texas 79702

Mobil Oil Company
Suite 800, Greenway Plaza E
Houston, Texas 77046

Continental Oil Company
Box 460
Hobbs, New Mexico 88240

Natural Resources Group, Inc.
601 West George, Apt. #103
Midland, Texas 79701

The Eastland Oil Company
704 Western United Life Building
Midland, Texas 70701

Shell Oil Company
Box 1509
Midland, Texas 79702

Elliott Oil Company
Box 1355
Roswell, New Mexico 88201

Summit Energy, Inc.
1925 Mercantile Dallas Building
Dallas, Texas 75201

Getty Oil Company
Box 1231
Midland, Texas 79702

Texas Pacific Oil Co., Inc.
Box 4067
Midland, Texas 79702

Harper Oil Company
904 High Tower Building
Oklahoma City, Oklahoma 73102

OPERATORS IN WANTZ ABO FIELD
Lea County, New Mexico

Acoma Oil Corporation
812 Continental Life Building
Fort Worth, Texas 76102

Imperial American Management Co.
1700 Broadway
Denver, Colorado 80802

Arge Oil Company
213 Mid-American Building
Midland, Texas 79701

Leeser, Russell E.
1390 Ridge Road
Littleton, Colorado 80120

Atlantic Richfield
Box 1610
Midland, Texas 79702

Marathon Oil Company
Box 552
Midland, Texas 70702

Cities Service Oil Company
Box 4906
Midland, Texas 79702

Mobil Oil Company
Suite 800, Greenway Plaza E
Houston, Texas 77046

Continental Oil Company
Box 460
Hobbs, New Mexico 88240

Natural Resources Group, Inc.
601 West George, Apt. #103
Midland, Texas 79701

The Eastland Oil Company
704 Western United Life Building
Midland, Texas 70701

Shell Oil Company
Box 1509
Midland, Texas 79702

Elliott Oil Company
Box 1355
Roswell, New Mexico 88201

Summit Energy, Inc.
1925 Mercantile Dallas Building
Dallas, Texas 75201

Getty Oil Company
Box 1231
Midland, Texas 79702

Texas Pacific Oil Co., Inc.
Box 4067
Midland, Texas 79702

Harper Oil Company
904 High Tower Building
Oklahoma City, Oklahoma 73102

OPERATORS IN WANTZ ABO FIELD
Lea County, New Mexico

Acoma Oil Corporation
812 Continental Life Building
Fort Worth, Texas 76102

Imperial American Management Co.
1700 Broadway
Denver, Colorado 80802

Arge Oil Company
213 Mid-American Building
Midland, Texas 79701

Leeser, Russell E.
1390 Ridge Road
Littleton, Colorado 80120

Atlantic Richfield
Box 1610
Midland, Texas 79702

Marathon Oil Company
Box 552
Midland, Texas 70702

Cities Service Oil Company
Box 4906
Midland, Texas 79702

Mobil Oil Company
Suite 800, Greenway Plaza E
Houston, Texas 77046

Continental Oil Company
Box 460
Hobbs, New Mexico 88240

Natural Resources Group, Inc.
601 West George, Apt. #103
Midland, Texas 79701

The Eastland Oil Company
704 Western United Life Building
Midland, Texas 70701

Shell Oil Company
Box 1509
Midland, Texas 79702

Elliott Oil Company
Box 1355
Roswell, New Mexico 88201

Summit Energy, Inc.
1925 Mercantile Dallas Building
Dallas, Texas 75201

Getty Oil Company
Box 1231
Midland, Texas 79702

Texas Pacific Oil Co., Inc.
Box 4067
Midland, Texas 79702

Harper Oil Company
904 High Tower Building
Oklahoma City, Oklahoma 73102

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 5896
Order No. R-5435

APPLICATION OF **EXXON COMPANY, USA,**
FOR A SPECIAL GAS-OIL RATIO LIMITATION,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 6, 1977, at Santa Fe, New Mexico, before Examiner **Daniel S. Nutter.**

NOW, on this _____ day of **May**, 1977, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, **Exxon Company, USA,** seeks, as an exception to Rule 506 of the Commission Rules and Regulations, a limiting gas-oil ratio of **6,000** cubic feet of gas per barrel of oil in the **Wantz-Abo** Pool, Lea County, New Mexico.

~~(3) That the Eunice-San Andres Pool is a one-well oil pool in the final stage of depletion.~~

(4) That the reservoir characteristics of the subject pool justify the establishment of a gas-oil limitation of **6,000** cubic feet of gas per barrel of liquid hydrocarbons.

(5) That in order to afford to the owner in the **Wantz-Abo** Pool the opportunity to economically produce his just and equitable share of the oil and gas in the subject pool and for this purpose to use his just and equitable share of the reservoir energy, a limiting gas-oil ratio of **6,000** cubic feet of gas per barrel of liquid hydrocarbons should be established for the pool.

IT IS THEREFORE ORDERED:


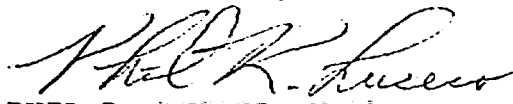
(1) That effective June 1, 1977, the limiting gas-oil ratio in the ~~Wantz-Abo~~ Pool, Lea County, New Mexico, shall be 6,000 cubic feet of gas for each barrel of liquid hydrocarbons produced; that, effective June 1, 1977, each proration unit in the ~~Wantz-Abo~~ Pool shall produce only that volume of gas equivalent to 6,000 multiplied by the top unit allowable for the pool.

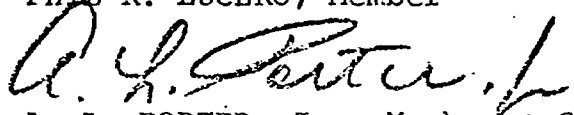
(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

I. R. TRUJILLO, Chairman



PHIL R. LUCERO, Member


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

SEAL

dr/

