

Case Number

6025

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
12 October, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Roger C. Hanks for a
special gas/oil ratio limitation,
Eddy County, New Mexico,

CASE
6025

BEFORE: Richard L. Stamets.

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

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

1 MR. STAMETS: Call next Case 6025.

2 MS. TESCHENDORF: Case 6025. Application of
3 Roger C. Hanks for a special gas/oil ratio limitation, Eddy
4 County, New Mexico.

5 MR. STAMETS: This case was heard on September 14,
6 1977, and was re-advertised for the gas/oil ratio limitation.

7 Any additional testimony at this time?

8 There being none, the case is taken under ad-
9 visement.

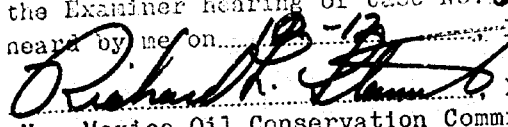
10 (Hearing concluded.)
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

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.

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 6025.
heard by me on 12-13, 1942.
 Examiner
New Mexico Oil Conservation Commission

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

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 14, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Roger C. Hanks for a special gas-oil ratio limitation, Eddy County, New Mexico. CASE 6025

BEFORE: Richard L. Stamets, 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 Hinkle, Esq.
Hinkle, Cox, Eaton, Coffield & Hensley
Attorneys at Law
Hinkle Building
Roswell, New Mexico

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

I N D E X

	<u>Page</u>
1. Appearances	1
2. The Witness, Mr. Ralph H. Viney	
Direct Examination by Mr. Hinkle	5
Cross Examination by Mr. Stamets	11
Redirect Examination by Mr. Hinkle	14
Witness Excused	15
Reporter's Certificate	16

EXHIBIT INDEX

Applicant's Exhibit No. 1, Plat	6
Applicant's Exhibit No. 2, Neutron Porosity Logs	7
Applicant's Exhibit No. 3, Production Statistics	8
Applicant's Exhibit No. 4, Reservoir Pressures	8
Applicant's Exhibit No. 5, Cumulative Production Curve	9
Applicant's Exhibit No. 6, Well Completion Report	9
Applicant's Exhibit No. 7, Production Statistics	9
Applicant's Exhibit No. 8, Reservoir Pressures	9
Applicant's Exhibit No. 9, Cumulative Production Curve	9
Applicant's Exhibit No. 10, Well Completion Report	9
Applicant's Exhibit No. 11, Production Statistics	9
Applicant's Exhibit No. 12, Reservoir Pressures	9
Applicant's Exhibit No. 13, Cumulative Production Curve	9
Applicant's Exhibit No. 14, Well Completion Report	9
Applicants Exhibits Admitted	11

sid morrish reporting service

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

1 MR. STAMETS: Call the next case, Number 6025.

2 MS. TESCHENDORF: Application of Roger C. Hanks
3 for a special gas-oil ratio limitation, Eddy County, New
4 Mexico.

5 MR. STAMETS: Call for appearances in this case?

6 MR. HINKLE: Mr. Examiner, Clarence Hinkle, Hinkle,
7 Cox, Eaton, Coffield & Hensley and our witness, Ralph Viney,
8 is supposed to be here and is coming by private plane and
9 they have evidently had trouble because he hasn't shown up
10 yet. But we would like to pass this case and have it called
11 immediately following the consideration of Case 6031 which I
12 will also be involved in. That will give an opportunity for
13 the witness to get here.

14 MR. STAMETS: Okay. That will be fine. We will just
15 pass over this case for the time being and get back to it.

16 (THEREUPON, the case was held in recess.)
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

1 MR. STAMETS: Mr. Hinkle, do you want to go now?

2 MR. HINKLE: Yes.

3 MR. STAMETS: We will call the next case, Number
4 6025.

5 MS. TESCHENDORF: Case 6025, application of Roger C.
6 Hanks for a special gas-oil ratio limitation, Eddy County,
7 New Mexico.

8 MR. STAMETS: Call for appearances in this case?

9 MR. HINKLE: Clarence Hinkle, Hinkle, Cox, Eaton,
10 Coffield & Hensley, Roswell, appearing on behalf of Roger
11 C. Hanks.

12 Mr. Examiner, this case was advertised for a special
13 gas-oil ratio limitation of four thousand to one. That, now,
14 appears to be an error and it was really intended to be ten
15 thousand to one.

16 What we would like to do is to go ahead and present
17 evidence in support of ten thousand to one gas-oil ratio with
18 the understanding that the case would be readvertised and unless
19 there is objection that the evidence introduced here can
20 be considered in the future case.

21 MR. STAMETS: We can do that, Mr. Hinkle. The only
22 thing that might be somewhat problematical would be the
23 retroactive date of August 22, but we will take that as it
24 comes.

25 MR. HINKLE: We have one witness that we would like

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

1 SWORN.

2 (THEREUPON, the witness was sworn.)

3

4

RALPH H. VINEY

5 was called as a witness by the applicant, and having been
6 first duly sworn, testified upon his oath as follows:

7

8

DIRECT EXAMINATION

9

BY MR. HINKLE:

10

Q State your name and residence?

11

A. My name is Ralph Viney and I live in Midland, Texas.

12

Q And your occupation?

13

A. I am a consulting engineer.

14

Q Have you been employed by Roger C. Hanks in this

15

case?

16

A. Yes, sir.

17

Q Are you familiar with the application of Roger C.

18

Hanks in this case?

19

A. Yes, sir.

20

Q What is he seeking to accomplish?

21

A. He is seeking the amend the Dagger Draw Upper Penn

22

North field rules in order to permit application and production

23

of fluids from wells in the field using gas-lift operations.

24

Q And you heard my statement with respect to amending

25

the original application to ten thousand to one rather than

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 four thousand to one?

2 A. Yes, sir.

3 Q. And your testimony would be in support of the
 4 ten thousand to one rather than four thousand to one?

5 A. Yes, sir, all of the exhibits are prepared that
 6 way, Mr. Hinkle.

7 Q. Have you previously testified before the Commission?

8 A. Yes, sir.

9 Q. And have you been qualified as a Petroleum Engineer?

10 A. Yes, sir.

11 MR. HINKLE: Are his qualifications acceptable?

12 MR. STAMETS: They are.

13 Q. (Mr. Hinkle continuing.) Have you prepared or has
 14 there been prepared under your supervision exhibits for
 15 introduction in this case?

16 A. Yes, sir.

17 MR. HINKLE: Mr. Examiner, we have these exhibits
 18 under one cover and it has been marked Exhibit One but he
 19 will refer to them in consecutive order as Exhibits Number
 20 One and Two and so forth inasmuch as they have been marked
 21 in here that way.

22 Q. (Mr. Hinkle continuing.) Refer to Exhibit One
 23 and explain what this is and what it shows and then go through
 24 the different parts in consecutive order?

25 A. Yes, sir. The Exhibit One in this case presents the

1 history of the wells that are now in violation as to the
2 cumulative gas over-production in this particular field.

3 The problems that Mr. Hanks encountered while
4 attempting to produce wells in this field with hydraulic
5 lift equipment were caused by both the sever corrosive
6 condition of the hydrogen sulfide waters and hydrogen sulfide
7 gases.

8 The gas in this particular field runs approximately
9 from three to four percent by volume on mole percent H₂S.
10 The Cisco Canyon series of the Pennsylvanian, I think, the
11 Commission is well aware of its performance both from
12 Bagley and from Mr. Hanks, the production of this particular
13 field, in that it either was pulled too green as one of our
14 geologists has pointed out in that the segregation may not have
15 been accomplished in this reservoir in that the fluids are
16 produced as a mixture of oil, water, and gas or with both
17 free gas flowing.

18 In this particular exhibit we have included the
19 production performance of the wells in question, the analysis
20 of the performance of those wells incorporating all of the
21 pressure and gas-oil ratio measurements and have included
22 cross sections to show the problems that were encountered
23 with these particular wells.

24 The cross sections as shown on our Exhibit Two to
25 Exhibit One shows the structural relationship, Exhibit Two,

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

1 and the No. 6 well to the right side of the page is the
2 lowest well structurally and it is also the best well of
3 the three being discussed.

4 The well on the left side of the page is structurally
5 high and from performance indications it is very tight and
6 its ratios are indicative of this formation characteristic.

7 Using the data available which is very complete
8 in view of the time production of these wells the No. 5 well
9 is structurally high and could have a gas-oil ratio within
10 the near future in excess of one hundred thousand to one.

11 The two lower wells, namely the Barbara Federal No.
12 1 and the No. 6, should encounter producing ratios during the
13 life of their production of in excess of five thousand to
14 one.

15 Now, I think these facts will be shown as we
16 just briefly describe the Exhibit Number One.

17 Exhibit Three to this exhibit is a tabular presentation
18 of the production performance on a monthly basis and shows
19 the oil, water, total fluid, total gas volumes produced by
20 the well and the amount of gas used by the lift and the
21 net formation gas produced.

22 From there on we can calculate the gas-oil ratios
23 and the gas-fluid ratio. This is shown on this exhibit.

24 Exhibit Four is an engineering application of this
25 data and the projections that were made beyond July 1, 1977.

1 Exhibit Five is the performance curves to be
2 expected from this well with future production under gas
3 lift operations.

4 Now, at this point we would like to inject for
5 the applicant that the hydraulic equipment that was used
6 initially proved to be very costly both from the standpoint
7 of initial capital outlay and from operating it, the
8 maintenance and the corrosive problems, prevented him from
9 continuously producing these wells and as the wells shut
10 down it took considerable time, then, to return the fluid
11 volumes to commercial oil cuts.

12 In Exhibit Five, which is specifically the Barbara
13 Federal No. 1, we would project that the probable operating
14 ratio of this well in the future could approach sixty-two
15 hundred cubic feet per barrel.

16 Exhibit Six of this presentation is a copy of the
17 well completion report and is included for reference purposes
18 only.

19 Now, the remaining exhibits are identical to the
20 previous ones discussed and cover the additional wells
21 involved in this presentation.

22 The format is identical and under Exhibit Nine
23 and gas-oil ratio in the Barbara Federal well are now in
24 excess of forty-nine thousand to one and will go probably in
25 excess of one hundred and fifteen to one hundred and twenty

sid morrish reporting service

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

1 thousand.

2 This well is located structurally high as pointed
3 out in the cross section. The formation characteristics
4 of both porosity and permeability are probably lower.
5 We did not run relative permeability calculations but it
6 would appear from the performance curve that the relative
7 permeability of gas to the reservoir fluids, oil and
8 water, are strictly in favor of the gas.

9 Exhibit Thirteen, which again, is the graphical
10 presentation of the future production indicates that the gas-
11 oil ratio of this well should exceed five thousand to one.

12 In view of the support data used in making these
13 calculations it is our opinion that from a purely practical
14 attitude the applicant requests a pool gas-oil ratio
15 limitation of ten thousand to one cubic feet per barrel to
16 be established and revisions and that all gas produced be
17 placed to legal use.

18 Q In your opinion will approval of this application
19 be in the interest conservation and the prevention of waste
20 and protect correlative rights?

21 A Yes, sir, for this reason, Mr. Hinkle, that for
22 example if production is not permitted under some form of
23 amended ratios the No. 6 will leave some eighty thousand
24 barrels of oil in the ground plus some two or three hundred
25 thousand available MCF's of gas.

1 MR. HINKLE: We would like to offer Exhibit
2 Number One into evidence.

3 MR. STAMETS: Exhibit One will be admitted.

4 MR. HINKLE: Do you have anything further?

5 THE WITNESS: No, sir.

6 MR. HINKLE: That's all we have.

7

8 CROSS EXAMINATION

9 BY MR. STAMETS:

10 Q Mr. Viney, I know we have quite a bit of evidence on
11 the record concerning this pool. I would just like to run
12 through a few questions of a general nature.

13 Are there other wells in this pool? Are the three
14 wells you see here the total number?

15 A No, sir, there are other wells in the pool.

16 Q Are they operated by Mr. Hanks?

17 A Yes, sir.

18 Q Are they, in your opinion, going to be similar to
19 the wells that we see here?

20 A They are showing tendencies of going this way, yes,
21 sir.

22 Q So, this you represent as being a typical well in
23 the pool?

24 A Yes, sir, now each well will behave individually
25 depending on its structural and formation characteristics

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

1 but, in general, all of the wells will follow this pattern.

2 Q The reservoir production mechanism, is it gas
 3 expansion or is it just simply a depletion of total reservoir
 4 fluid?

5 A Well, we feel that it is possibly a combination
 6 with solution gas being the primary drive mechanism and
 7 possibly some water expansion.

8 However, the pressure relationships with respect
 9 to total fluids withdrawn appear to indicate more solution
 10 tendencies.

11 Q Now, you indicated that reservoir fluids, oil, gas,
 12 would be less in the reservoir if some lower limit were
 13 adopted, say, a limit of two or three thousand to one?

14 A Yes, sir.

15 Q Why is that?

16 A Well, bascially, the mechanism of lifting fluids
 17 with a gas-lift operation, Mr. Stamets, is such that most of
 18 the wells are now at, presently or currently, the establish gas-
 19 oil ratio limit. Any reduction of gas volumes to lift fluids
 20 would place us in a position that the density of the column
 21 in the gas lift would be such that we could not lift the
 22 fluids from the bottom.

23 Q Is all of the gas being utilized in gas lift?

24 A Yes, sir, except for fuel usage -- but other than
 25 that.

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

1 Q Is any of it being sold at the present time?

2 A Yes, sir. It is being sold and Mr. Hanks has
 3 indicated that he intends to install treaters to scrub
 4 this gas and remove the H₂S content.

5 Q If I understood the answer to the previous question
 6 correctly, the gas-oil limitation ratio would simply reduce
 7 the total amount of available gas to utilize as gas and
 8 that gas would not give you enough to pump the reservoir
 9 fluid, is that right?

10 A Say that again, please?

11 Q I was getting back to the question of why you would
 12 leave oil and gas in the ground in this pool if you had a
 13 GOR limitation.

14 Would that simply be because your total production
 15 of gas would be so low as to preclude its use for gas lift?

16 A This is one reason but the basic problem, Mr.
 17 Stamets, is the fact that we need the volumes to bring the
 18 fluid and reduce the well-bore pressure, the pressure around
 19 the well bore area, to bring fluids into this well.

20 We also need this drop in pressure with the increase
 21 of gas volumes to continue to bring the fluid in and have
 22 the volumes available to lift the fluid as they come into
 23 the well bore.

24 Q Then, the only efficient method of producing this
 25 particular reservoir is by high volumes?

1 A. Yes, sir, at this point. Now, we would say that
2 the only efficient method so far that we have found is to
3 use gas lift, hydraulic or mechanical equipment, and that
4 has suffered severe corrosive -- application that it is
5 not practical to use or commercially feasible.

6 MR. STAMETS: Any other questions of the witness?

7 MR. HINKLE: I would like to ask the witness one more
8 question.

9
10 REDIRECT EXAMINATION

11 BY MR. HINKLE:

12 Q. The application provides or requests that the
13 approval be retroactive to August 22d, 1977, what is the
14 reason for asking for that date?

15 A. The only request was to have a point where we
16 would not incur additional sufficient or over-production,
17 really, Mr. Hinkle. This is the only reason.

18 Q. And you would still like to retain that date, if
19 possible?

20 A. If possible we would, yes, sir.

21 MR. STAMETS: I would point out that the Commission
22 does issue proration schedules three times a year and the
23 break-over point is between August and September for the
24 second and third schedule and it does cause some internal
25 problems when you start going back from one proration period

1 into the next.

2 All of those factors will be taken into consideration,

3 I am certain, when the order is issued.

4 MR. HINKLE: That's all I have.

5 MR. STAMETS: Is there anything further -- any other

6 questions -- the witness may be excused.

7 Anything further in this case? We will take the

8 case under advisement.

9 (THEREUPON, the witness was excused.)

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

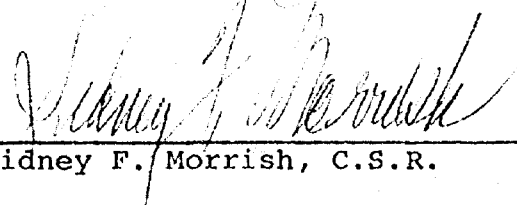
25

sid morrish reporting service

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

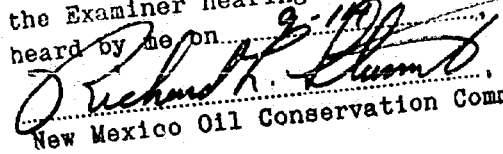
REPORTER'S CERTIFICATE

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 is
a complete record of the proceedings in
the Examiner hearing of Case No. 6025
heard by me on 9-19-77, 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. 6025
Order No. R-5565

APPLICATION OF ROGER C. HANKS FOR
A SPECIAL GAS-OIL RATIO LIMITATION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 14 and October 12, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 1st day of November, 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, Roger C. Hanks, seeks, as an exception to Rule 506 of the Commission Rules and Regulations, a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of oil in the North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New Mexico.

(3) That the reservoir characteristics of the subject pool justify the establishment of a gas-oil limitation of 10,000 cubic feet of gas per barrel of liquid hydrocarbons.

(4) That in order to afford to the owners in the North Dagger Draw-Upper Pennsylvanian Pool the opportunity to economically produce their just and equitable share of the oil and gas in the subject pool and for this purpose to use their just and equitable share of the reservoir energy, a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of liquid hydrocarbons should be established for the pool.

-2-

Case No. 6025
Order No. R-5565

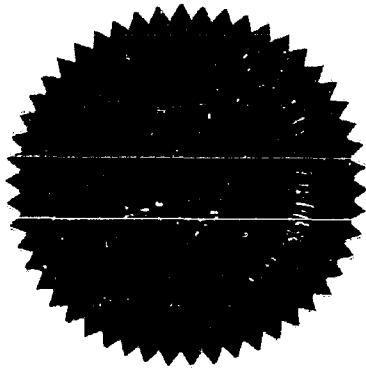
IT IS THEREFORE ORDERED:

(1) That effective September 1, 1977, the limiting gas-oil ratio in the North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New Mexico, shall be 10,000 cubic feet of gas for each barrel of liquid hydrocarbons produced; that, effective September 1, 1977, each proration unit in the North Dagger Draw-Upper Pennsylvanian Pool shall produce only that volume of gas equivalent to 10,000 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, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

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

S E A L

jr/

Dockets Nos. 30-77 and 31-77 are tentatively set for hearing on September 28 and October 12, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 14, 1977

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

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

- ALLOWABLE: (1) Consideration of the allowable production of gas for October, 1977, from fifteen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.
- (2) Consideration of the allowable production of gas for October, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6016: (Continued from August 31, 1977 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Land Oil Company, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Garner Well No. 1 located in Unit D of Section 23, Township 14 South, Range 25 East, Chaves County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5981: (Continued from July 6, 1977 Examiner Hearing)

Application of W. A. Monerief, Jr., for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of an oil pool for Upper-Pennsylvanian production for his State Well No. 1 located in Unit E of Section 26, Township 16 South, Range 33 East, Lea County, New Mexico, and the promulgation of special rules therefor, including a provision for 80-acre spacing.

CASE 5983: (Continued from July 20, 1977 Examiner Hearing)

Application of Yates Petroleum Corporation for the amendment of Order No. R-5445, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5445 to provide for a 200 percent risk factor for drilling the unit well rather than 20 percent. Said order pooled the N/2 of Section 19, Township 20 South, Range 25 East, Eddy County, New Mexico.

CASE 6024: Application of Read & Stevens, Inc., for two unorthodox gas well locations, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its R & J Federal Well No. 1 located in the center of Unit A of Section 20, Township 12 South, Range 31 East, and its Jackson Well No. 1, located in the center of Unit I of Section 25, Township 12 South, Range 30 East, Southeast Chaves-Queen Gas Area, Chaves County, New Mexico, the E/2 of said Section 20 and the S/2 of said Section 25, respectively, to be dedicated to the wells.

CASE 6025: Application of Roger C. Hanks for a special gas-oil ratio limitation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a special gas-oil ratio limitation of 4000 cubic feet of gas per barrel of oil for the North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New Mexico, retroactive to August 22, 1977.

CASE 6026: Application of William G. Rabe and Alice P. Rabe for a non-standard gas proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 of Section 25, Township 27 North, Range 8 West, Blanco-Mesaverde Pool, San Juan County, New Mexico.

CASE 6027: Application of Great Lakes Chemical Corporation for a non-standard gas proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SE/4 of Section 25, Township 27 North, Range 8 West, Blanco-Mesaverde Pool, San Juan County, New Mexico.

CASE 6028: Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Luzon Unit Area comprising 5117 acres, more or less, of Federal and fee lands in Township 24 South, Ranges 35 and 36 East, Lea County, New Mexico.

CASE 6029: Application of Phillips Petroleum Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Drinkard, East Brunson-McKee, and East Brunson-Ellenburger production in the wellbore of its Sims Well No. 6 located in Unit M of Section 24, Township 22 South, Range 37 East, Lea County, New Mexico.

CASE 6030: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SE/4 SE/4 of Section 4, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, to be dedicated to its re-entered Smith Well No. 1 located in Unit P of said Section 4, or in the alternative, to a well to be drilled at a standard location thereon. Also to be considered will be the cost of re-entering and recompleting or of drilling and completing the unit 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 recompleting or drilling said well.

CASE 6032: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SW/4 SW/4 of Section 21, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, to be dedicated to its re-entered Lanehart Well No. 1-Y located in Unit M of said Section 21, or, in the alternative, to a well to be drilled at a standard location thereon. Also to be considered will be the cost of re-entering and recompleting or of drilling and completing the unit 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 recompleting or drilling said well.

CASE 6031: Application of Rex Alcorn for compulsory pooling and an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 SW/4 of Section 35, Township 16 South, Range 37 East, West Knowles-Drinkard Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the South line and 1980 feet from the West line of said Section 35. 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 6033: Application of Basin Fuels, Inc., for salt water disposal, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Mesaverde formation through the perforated interval from 1948 feet to 2755 feet in its Slick Well No. 1 located in Unit O of Section 7, Township 20 North, Range 5 West, Franciscan Lake-Mesaverde Pool, McKinley County, New Mexico.

CASE 6034: Application of Flag-Redfern Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation through the perforated interval from 4941 feet to 5022 feet in its Bilbrey "51" Well No. 1 located in Unit A of Section 23, Township 9 South, Range 37 East, Sawyer-San Andres Pool, Lea County, New Mexico.

CASE 6035: Application of Southern Union Supply Co., 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 N/2 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, 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. 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 6017: (Continued from August 31, 1977 Examiner Hearing)

Application of E. L. Latham, Jr. and Roy G. Barton, Jr., for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, 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. 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 6036: Application of E. L. Latham, Jr., and Roy G. Barton, Jr., for compulsory pooling of a standard or a non-standard oil proration unit and an unorthodox location, or in the alternative, 40-acre spacing, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests in the Flying M-San Andres Pool underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location for said pool within 200 feet of the center of the NE/4 NE/4 of said Section 30, or an order pooling only the NE/4 NE/4 of Section 30 to form a non-standard 40-acre unit to be dedicated to the aforesaid well. In the alternative, applicants seek the amendment of the Flying M-San Andres Pool Rules to provide for 40-acre spacing, and seek an order pooling the aforesaid NE/4 NE/4 of Section 30 as a standard unit for said pool 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 the proposed 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 applicants as operator of the well and a charge for risk involved in drilling said well.

CASE 6037: In the matter of the hearing called by the Oil Conservation Commission upon its own motion for the creation and extension of certain pools in Lea, Eddy, and Chaves Counties, New Mexico.

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Delaware production and designated as the Combs-Delaware Gas Pool. The discovery well is the Penroc Oil Corporation Combs Federal Well No. 1 located in Unit P of Section 15, Township 20 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 15: SE/4

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the East Lake-Morrow Gas Pool. The discovery well is the Coquina Oil Corporation Gulf Federal Well No. 1 located in Unit A of Section 5, Township 19 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 27 EAST, NMPM
Section 5: N/2

(c) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Cisco production and designated as the Hume-Cisco Pool. The discovery well is Vaquero Independent Producers, Inc. Jackrabbit Draw Com Well No. 1 located in Unit L of Section 15, Township 16 South, Range 33 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM
Section 15: SW/4

(d) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the West Malaga-Morrow Gas Pool. The discovery well is the HNG Oil Company Ogden 8 Com Well No. 1 located in Unit H of Section 8, Township 24 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 28 EAST, NMPM
Section 8: E/2

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Millman-Atoka Gas Pool. The discovery well is the Depeco, Inc. DHY State B Well No. 1 located in Unit L of Section 11, Township 19 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM
Section 11: W/2

(f) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Abo production and designated as the Pearsall-Abo Pool. The discovery well is the Harvey E. Yates Company, Inc. South Maljamar Deep Well No. 1 located in Unit O of Section 30, Township 17 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM
Section 30: SE/4

(g) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Bone Springs production and designated as the Penlon-Bone Springs Pool. The discovery well is the Penroc Oil Corporation Allied B Well No. 1 located in Unit K of Section 27, Township 20 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 27: SW/4

(h) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Delaware production and designated as the Penlon-Delaware Gas Pool. The discovery well is the Penroc Oil Corporation Allied Com Well No. 2 located in Unit B of Section 27, Township 20 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 27: NE/4

(i) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Rock Lake-Morrow Gas Pool. The discovery well is the Union Oil Company of California Northern Natural State Well No. 1 located in Unit O of Section 28, Township 22 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 35 EAST, NMPM
Section 28: S/2

(j) EXTEND the Avalon-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 22: S/2
Section 27: All
Section 34: N/2

(k) EXTEND the North Burton-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM
Section 32: SW/4

(l) EXTEND the Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 24: All
Section 25: E/2
Section 36: All

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM
Section 16: All
Section 18: All
Section 19: All
Section 20: S/2
Section 21: All
Section 29: All
Section 30: All
Section 31: All
Section 32: All
Section 33: W/2

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM
Section 4: Lots 3, 4, 5, 6, 11, 12, 13, & 14
Section 5: All
Section 8: S/2
Section 17: All
Section 20: All
Section 29: W/2
Section 30: All
Section 31: N/2
Section 32: W/2

(m) EXTEND the East Carlsbad-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM
Section 35: S/2

(n) EXTEND the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 26 EAST, NMPM
Section 13: N/2

(o) EXTEND the Cato-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 30 EAST, NMPM
Section 1: NE/4

TOWNSHIP 9 SOUTH, RANGE 30 EAST, NMPM
Section 8: NE/4

(p) EXTEND the Flying "M"-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM
Section 19: SE/4

(q) EXTEND the Indian Draw-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM
Section 7: SE/4 and N/2 SW/4
Section 18: W/2 SW/4

(r) EXTEND the South Leonard-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 37 EAST, NMPM
Section 11: SW/4

(s) EXTEND the East Lusk-Bone Springs Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM
Section 16: SE/4

(t) EXTEND the West Tonto-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM
Section 7: S/2 and NE/4

(u) EXTEND the White City-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 26 EAST, NMPM
Section 9: All
Section 19: All

Docket No. 29-77

DOCKET: COMMISSION HEARING - TUESDAY - SEPTEMBER 20, 1977

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

CASE 5961: (REHEARING)

Application of D. L. Hannifin for amendment of Order No. R-4432, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4432 to remove the present operator of the pooled proration unit comprising the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico, and to designate applicant as operator of said unit.

Dockets Nos. 33-77 and 34-77 are tentatively set for hearing on October 26 and November 9, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 12, 1977

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

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

- ALLOWABLE: (1) Consideration of the allowable production of gas for November, 1977, from fifteen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.
- (2) Consideration of the allowable production of gas for November, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6053: (Continued & Readvertised)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Noel Reynolds and all other interested parties to appear and show cause why the Torreon Water Well No. 1, located in Unit J of Section 21, Township 18 North, Range 3 West, Sandoval County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6025: (Continued & Readvertised)

Application of Roger C. Hanks for a special gas-oil ratio limitation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a special gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil for the North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New Mexico, retroactive to August 22, 1977.

CASE 6052: (Continued from September 28, 1977, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Western Energy Corporation and all other interested parties to appear and show cause why the Ute Well No. 2 located in Unit O of Section 23, Township 31 North, Range 16 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6055: (Continued from September 28, 1977, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Han-San, Inc., and all other interested parties to appear and show cause why the Grevey Well No. 4 located in Unit E of Section 26, Township 26 North, Range 1 East, Rio Arriba County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6057: Application of Aminoil USA Inc., for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Willow Lake Well No. 3 to be located 1980 feet from the South line and 1940 feet from the West line of Section 15, Township 24 South, Range 28 East, Willow Lake Field, Eddy County, New Mexico, the S/2 of said Section 15 to be dedicated to the well.

CASE 6058: Application of Atlantic Richfield Company for the amendment of Order No. R-5430, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5430, which order approved an unorthodox Justis-Fusselman location for its Wimberly WN Well No. 11 in Section 24, Township 25 South, Range 37 East, Lea County, New Mexico. Applicant now requests that the unorthodox location for said well be extended to include the Montoya formation.

CASE 6059: Application of Dome Petroleum Corporation for pool creation, an oil discovery allowable, and a special depth bracket allowable, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the creation of the Leggs-Entrada Oil Pool in Section 11, Township 21 North, Range 10 West, San Juan County, New Mexico, the assignment of approximately 27,020 barrels of oil discovery allowable to its Santa Fe-Leggs Well No. 1 located in Unit O of said Section 11, and the establishment of a special depth bracket allowable of 750 barrels of oil per day for said pool.

CASE 6060: Application of J. Cecil Rhodes for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Blinebry formation into the perforated interval from 5252 feet to 5448 feet in his Corrigan Well No. 1 located in Unit M of Section 11, Township 25 South, Range 37 East, Justis-Blinebry Pool, Lea County, New Mexico.

CASE 5981: (Continued from September 14, 1977, Examiner Hearing)

Application of W. A. Moncrief, Jr., for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of an oil pool for Upper-Pennsylvanian production for his State Well No. 1 located in Unit E of Section 26, Township 16 South, Range 33 East, Lea County, New Mexico, and the promulgation of special rules therefor, including a provision for 80-acre spacing.

CASE 6061: Application of Yates Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Stinking Draw Unit Area comprising 2,381 acres, more or less, of Federal and State lands in Township 21 South, Range 22 East, Eddy County, New Mexico.

CASE 5983: (Continued from September 28, 1977, Examiner Hearing)

Application of Yates Petroleum Corporation for the amendment of Order No. R-5445, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5445 to provide for a 200 percent risk factor for drilling the unit well rather than 20 percent. Said order pooled the N/2 of Section 19, Township 20 South, Range 25 East, Eddy County, New Mexico.

CASE 6062: Application of Yates Exploration Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down to and including the San Andres formation underlying the SW/4 NW/4 of Section 27, Township 9 South, Range 28 East, Chaves County, New Mexico, to be dedicated to applicant's Plains Radic Well No. 1 located in the center of said tract. 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 6063: Application of Texas Oil & Gas Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the N/2 of Section 28, Township 19 South, Range 25 East, Eddy County, New Mexico, to be dedicated to applicant's Boyd South Gas Unit Well No. 1 to be located in Unit G of said Section 28. 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 6064: Application of Texas Oil & Gas Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp and Pennsylvanian formations underlying the N/2 of Section 29, Township 19 South, Range 28 East, Eddy County, New Mexico, to be dedicated to applicant's Exxon State Com B Well No. 1 located in Unit G of said Section 29. 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 5757: (Reopened)

In the matter of Case 5757 being reopened pursuant to the provisions of Order No. R-5296 which order established temporary special pool rules for the Maljamar-Pennsylvanian 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 6047: (Continued from September 28, 1977, Examiner Hearing)

Application of Continental Oil Company for capacity allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a capacity allowable for its Pearl "B" Wells Nos. 5 and 6, located in Units M and O, respectively, of Section 25, Township 17 South, Range 32 East, and its Pearl "B" Well No. 7 located in Unit M of Section 30, Township 17 South, Range 33 East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.

CASE 6043: (Continued from September 28, 1977, Examiner Hearing)

Application of V-F Petroleum Inc., for an unorthodox oil well location, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for an unorthodox oil well location 330 feet from the South line and 2310 feet from the East line of Section 29, Township 8 South, Range 38 East, North Sawyer-Devonian Pool, Roosevelt County, New Mexico.

- CASE 6065:** Application of Odessa Natural Corporation for a special well classification, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks the classification of its ARCO-Little Fed. Well No. 1, located in Unit D of Section 32, Township 24 North, Range 3 West, Rio Arriba County, New Mexico, as a gas well rather than an oil well, thereby permitting the continued dedication of the W/2 of said Section 32. Said classification would be in exception to the statewide definition of gas wells, or to the Chacon-Dakota Associated Pool definition of gas wells, whichever is applicable.
- CASE 6066:** Application of Texas Pacific Oil Company, Inc., for an unorthodox gas well location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State "A" A/c-1 Well No. 53 located in the center of Unit E of Section 24, Township 23 South, Range 36 East, Jalbat Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to a previously approved 480-acre multiple well non-standard proration unit comprising the NW/4 and S/2 of said Section 24.
- CASE 6067:** Application of Texas Pacific Oil Co., Inc., for pool contraction and extension, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the Catclaw Draw-Morrow Gas Pool, Eddy County, New Mexico, by the deletion of Section 3, Township 22 South, Range 25 East, therefrom, and the extension of the Revelation-Morrow Gas Pool to include said lands.
- CASE 6068:** In the matter of the hearing called by the Oil Conservation Commission upon its own motion for the creation and extension of certain pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico:

(a) CREATE a new pool in San Juan County, New Mexico, classified as a gas pool for Fruitland production and designated as the Conner-Fruitland Pool. The discovery well is the Odessa Natural Corporation Little Federal Well No. 1 located in Unit K of Section 1, Township 30 North, Range 14 West, NMPM. Said pool would comprise:

TOWNSHIP 30 NORTH, RANGE 14 WEST, NMPM
Section 1: W/2
Section 12: W/2

(b) CREATE a new pool in San Juan County, New Mexico, classified as a gas pool for Pictured Cliffs production and designated as the South Gallegos-Pictured Cliffs Pool. The discovery well is the Jerome P. McHugh Nassau Well No. 5 located in Unit A of Section 36, Township 27 North, Range 12 West, NMPM. Said pool would comprise:

TOWNSHIP 27 NORTH, RANGE 12 WEST, NMPM
Section 36: All

(c) EXTEND the Ojo-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 28 NORTH, RANGE 15 WEST, NMPM
Section 25: S/2 & NW/4
Section 26: All
Section 35: N/2 & SE/4
Section 36: All

and to extend the vertical limits of said pool to include the Fruitland formation and redesignate said pool the Ojo Fruitland-Pictured Cliffs Pool.

(d) EXTEND the WAW-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM
Section 4: NW/4

TOWNSHIP 27 NORTH, RANGE 13 WEST, NMPM
Section 26: SW/4
Section 27: SE/4
Section 29: All
Section 30: E/2
Section 31: All
Section 32: N/2 & SW/4
Section 33: All
Section 34: N/2 & SW/4

and to extend the vertical limits of said pool to include the Fruitland formation and redesignate said pool the WAW Fruitland-Pictured Cliffs Pool.

(e) EXTEND the Ballard-Pictured Cliffs Pool in Rio Arriba and Sandoval Counties, New Mexico, to include therein:

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM
Section 16: NW/4

TOWNSHIP 23 NORTH, RANGE 4 WEST, NMPM
Section 33: NE/4

TOWNSHIP 25 NORTH, RANGE 7 WEST, NMPM
Section 2: SE/4

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

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM
Section 18: All
Section 19: All

TOWNSHIP 25 NORTH, RANGE 4 WEST, NMPM
Section 1: All
Section 2: E/2
Section 10: All
Section 11: All
Section 12: All
Section 13: All
Section 14: All
Section 15: All

TOWNSHIP 26 NORTH, RANGE 4 WEST, NMPM
Section 35: All
Section 36: All

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

TOWNSHIP 29 NORTH, RANGE 8 WEST, NMPM
Section 14: SE/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM
Section 22: NE/4

TOWNSHIP 32 NORTH, RANGE 10 WEST, NMPM
Section 19: S/2

TOWNSHIP 32 NORTH, RANGE 11 WEST, NMPM
Section 22: N/2
Section 24: S/2
Section 25: All
Section 36: N/2

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

TOWNSHIP 24 NORTH, RANGE 5 WEST, NMPM
Section 1: N/2
Section 2: NE/4

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 36: S/2

TOWNSHIP 26 NORTH, RANGE 7 WEST, NMPM
Section 25: SE/4

(i) EXTEND the Chacon-Dakota Pool in Rio Arriba and Sandoval Counties, New Mexico, to include therein:

TOWNSHIP 23 NORTH, RANGE 3 WEST, NMPM
Section 4: SE/4
Section 5: All
Section 8: E/2
Section 9: All
Section 13: W/2
Section 14: All
Section 15: N/2
Section 16: N/2 & SW/4

Section 20: NE/4
Section 21: All
Section 22: S/2 & NW/4
Section 27: E/2
Section 34: NE/4

TOWNSHIP 24 NORTH, RANGE 3 WEST, NMPM
Section 32: W/2

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

TOWNSHIP 28 NORTH, RANGE 3 WEST, NMPM
Section 5: All
Section 6: All

TOWNSHIP 28 NORTH, RANGE 4 WEST, NMPM
Section 22: NE/4
Section 23: E/2
Section 25: W/2
Section 26: N/2
Section 27: NE/4

(k) EXTEND the Dufers Point Gallup-Dakota Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 8 WEST, NMPM
Section 3: SE/4

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

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
Section 1: E/2 & NW/4

TOWNSHIP 27 NORTH, RANGE 12 WEST, NMPM
Section 36: All

(m) EXTEND the West Lindrith Gallup-Dakota Pool in Rio Arriba County, New Mexico, to include therein:

TOWNSHIP 25 NORTH, RANGE 4 WEST, NMPM
Section 29: W/2
Section 31: NE/4
Section 32: NW/4

(n) EXTEND the Media-Gallup Pool in Sandoval County, New Mexico, to include therein:

TOWNSHIP 19 NORTH, RANGE 3 WEST, NMPM
Section 22: SE/4 NE/4 & NE/4 SE/4
Section 23: NW/4 SW/4

(o) EXTEND the Nipp-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM
Section 10: N/2
Section 11: SE/4
Section 14: NE/4

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
Section 7: NW/4
Section 20: SW/4
Section 29: N/2

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM
Section 1: E/2 & NW/4
Section 2: NE/4

TOWNSHIP 27 NORTH, RANGE 13 WEST, NMPM
Section 36: SE/4

(p) EXTEND the Potwin-Pictured Cliffs Pool in San Juan County, New Mexico, to include therein:

TOWNSHIP 24 NORTH, RANGE 8 WEST, NMPM
Section 6: SE/4
Section 7: E/2
Section 8: S/2
Section 9: S/2
Section 16: NW/4

(q) EXTEND the Rusty-Chacra Pool in Sandoval County, New Mexico, to include therein:

TOWNSHIP 22 NORTH, RANGE 7 WEST, NMPM
Section 22: S/2

Docket No. 32-77

DOCKET: COMMISSION HEARING - WEDNESDAY - OCTOBER 19, 1977

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

CASE 5961: (Rehearing)

Application of D. L. Hannifin for amendment of Order No. R-4432, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4432 to remove the present operator of the pooled proration unit comprising the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico, and to designate applicant as operator of said unit.

CLARENCE E. HINKLE
LEWIS C. COX, JR.
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY, JR.

JAMES H. ROZARTH
JAMES H. ISBELL
DOUGLAS L. LUNSFORD
PAUL M. BOHANNON

LAW OFFICES
HINKLE, COX, EATON, COFFIELD & HENSLEY
600 HINKLE BUILDING
POST OFFICE BOX 10
ROSWELL, NEW MEXICO 88201

September 15, 1977

W. E. BONDURANT, JR. (914-1973)
TELEPHONE (505) 622-6510

MR. ISBELL LICENSED
IN TEXAS ONLY

MIDLAND, TEXAS OFFICE
521 MIDLAND TOWER
(915) 383-4601

Oil Conservation Commission
Box 2088
Santa Fe, New Mexico 87501

Attention: Richard L. Stamets

Re: Case No. 6025

Gentlemen:

We represented Roger C. Hanks in connection with the captioned case. Prior to hearing the case it was pointed out that there was an error in filing the application in that it asked for a gas-oil ratio limitation of 4,000 cubic feet of gas per barrel of oil for the North Dagger Draw-Upper Pennsylvanian Pool and this should have been 10,000 to 1. With the understanding that the case would be re-advertised, testimony was taken at the hearing and is to be used at the next setting of the case if there is no objection.

You may consider this as an amendment to the application of Roger C. Hanks for a special gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil instead of 4,000. We would appreciate publication of a new notice so that this matter can be disposed of as early as possible.

Yours sincerely,

HINKLE, COX, EATON, COFFIELD & HENSLEY

Clarence E. Hinkle

Clarence E. Hinkle

CS

CEH:CS

NEW MEXICO OIL CONSERVATION COMMISSION
EXAMINER HEARING
WEDNESDAY, SEPTEMBER 14, 1977

CASE NO. ~~0020~~ 6025

APPLICATION OF ROGER C. HANKS TO INCREASE THE DAGGER DRAW UPPER
PENN NORTH POOL GAS-OIL RATIO LIMITS

The applicant is owner, operator and producer of a number of wells in the captioned pool located in Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico.

Production is from the Cisco-Canyon Series of the Pennsylvanian section, and oil production from the Cisco-Canyon is associated with high volumes of water and gas volumes. The produced gas contains approximately 3.5% by volume of H₂S.

Mr. Hanks attempted to produce the wells in the pool with hydraulic fluid-type pumps. The hydraulic units were unable to continuously move sufficient volumes of fluid to obtain sustained commercial oil production. The volumes of gas, together with the severe hydrogen sulfide content, caused equipment failures in both the down hole and surface equipment. Mr. Hanks installed gas valves in the tubing strings and gas compressors and is producing the wells by gas lift operations. The gas lift operations have increased all fluid production volumes. Production statistics on the Barbara Federal No. 1, No. 5 and No. 6 wells are included. These wells have experienced cumulative gas overproduction in relation to the existing allowable Pool gas-oil ratio unit of 2,000 cubic feet of gas per barrel of produced oil.

The Cisco-Canyon Zone is a porous vugular dolomite in which the porosity is calculated to vary for 5% to 10% of bulk volume. Conditions as observed from electric log surveys suggest some porosities may be as high as 20%. The permeability ranges from less than 1 millidarcy to in excess of 100 millidarcies. Fluid mobility is high and it appears that possibly insufficient geological time has elapsed to permit segregation of the reservoir fluids. Production performance suggests the reservoir fluids being produced contain entrained oil and gas with water, and as reservoir pressure drops the liberation of solution gas may also be entering the well bore in the gas phase.

The reservoir data, including bottom hole pressures, indicates the reservoir is infinite, and performance of wells in the pool demonstrates a solution gas drive mechanism with possible partial water drive caused by expansion. The producing gas-oil ratios, using net formation hydrocarbons produced and to be produced, will

increase. The Barbara Federal No. 1 and the Well No. 6 should experience net gas-oil ratio limits in excess of 5,200 cubic feet per barrel, and the projected values could be 6,500 cubic feet per barrel of oil. The Barbara Federal No. 5 currently has a 49,000 cubic foot per barrel ratio and should continue to increase. The ratio may approach 116,000 cubic feet per barrel. Corrective valve spacing with possible producing interval fluid entry control could alter this condition.

The mechanics of producing the Cisco-Canyon series of the Pennsylvanian are well known to this Commission, and it appears that extensive volumes of water have to be removed from the reservoir to permit commercial flows of oil and gas to enter the well bore.

While pressure interference tests per se have not been conducted in the field wells, the observed reservoir pressures in wells completed in an area of previous development and production are below the original pressures observed in the area.

There still remains doubt as to the existing state of the reservoir mix in the reservoir pore space. If the vugs are completely water bearing, it would be conceivable that extensive volumes of water would be produced prior to observing adequate oil rates. Should the hydrocarbons be present as a mixture of oil and water, production from the reservoir would immediately demonstrate comparatively high oil rates with the large fluid volumes produced. In general, the production performance is more indicative of such a condition. In this event, especially where geological and producing zone interval correlations are possible, the return of the produced water to the formation could possibly enhance hydrocarbon recoveries.

The producing Cisco-Canyon reservoir is complex with respect to recommending techniques to improve ultimate oil and gas recovery, practical operating gas-oil ratio allowable limitations and field production practices.

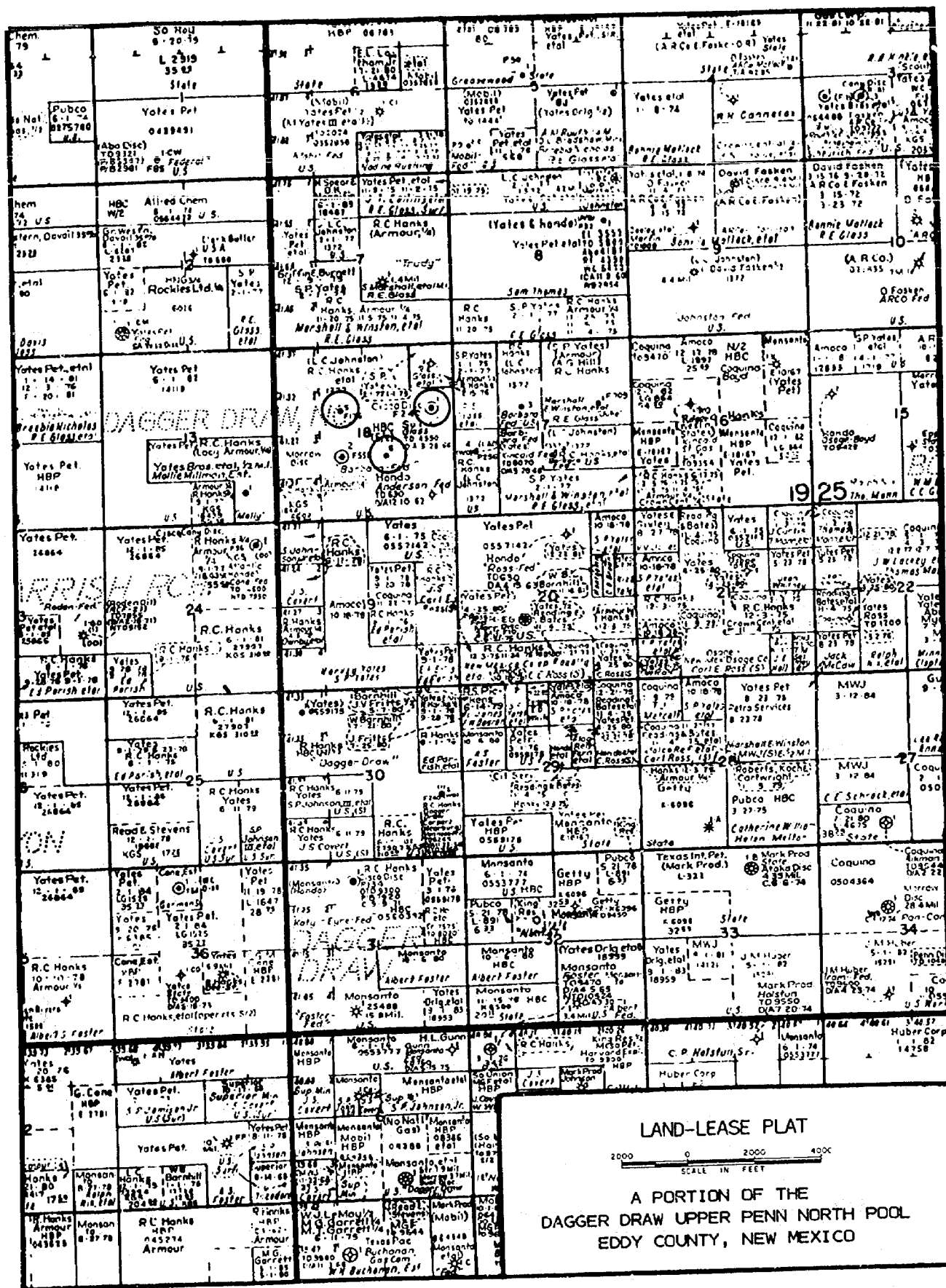
Whether the return of produced fluids would decelerate reservoir pressure decline and enhance oil and gas recoveries is unknown. The injected fluids may channel directly to offsetting wells without significant reservoir pressure decline and/or increase the recoverable hydrocarbons. This will only be known when such an operation is conducted.

In view of data developed on the Barbara Federal Wells No. 1 and 6, the future producing gas-oil ratios could exceed 6,000 cubic feet per barrel, and from a purely practical attitude the applicant respectfully requests a Pool gas-oil ratio limitation of 10,000 cubic feet per barrel be established subject to provisions that all gas produced be placed to legal use.

The following Exhibits are included.

Exhibit No. 1 - Land-Lease plat of a portion of the Dagger Draw Upper Penn North Pool. The wells subject of this hearing are identified.

- Exhibit No. 2 - Barbara Federal Wells No. 1, 5 and 6; Electric log Cross-Section.
- Exhibit No. 3 - Barbara Federal Well No. 1; Production Statistics.
- Exhibit No. 4 - Barbara Federal Well No. 1; Summary of Reservoir Pressure and Production Performance (Historical and Projected).
- Exhibit No. 5 - Barbara Federal Well No. 1; Graphical Presentation of Reservoir Performance.
- Exhibit No. 6 - Barbara Federal Well No. 1; Copy of Well Completion Report.
- Exhibit No. 7 - Barbara Federal Well No. 5; Production Statistics.
- Exhibit No. 8 - Barbara Federal Well No. 5; Summary of Reservoir Pressure and Production Performance (Historical and Projected).
- Exhibit No. 9 - Barbara Federal Well No. 5; Graphical Presentation of Reservoir Performance.
- Exhibit No. 10 - Barbara Federal Well No. 5; Copy of Well Completion Report.
- Exhibit No. 11 - Barbara Federal Well No. 6; Production Statistics.
- Exhibit No. 12 - Barbara Federal Well No. 6; Summary of Reservoir Pressure and Production Performance (Historical and Projected).
- Exhibit No. 13 - Barbara Federal Well No. 6; Graphical Presentation of Reservoir Performance.
- Exhibit No. 14 - Barbara Federal Well No. 6; Copy of Well Completion Report.

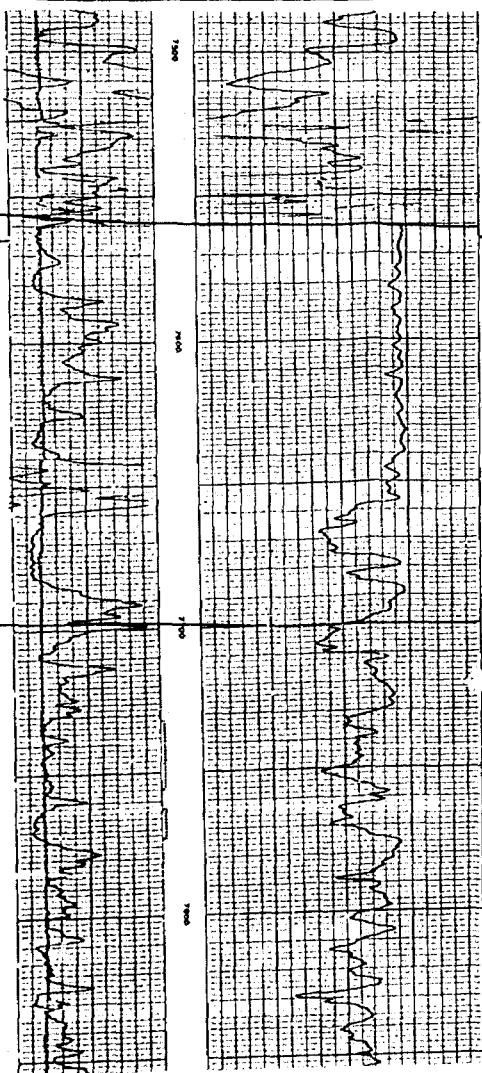


RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

CASE NO. 6025
EXHIBIT 1

GOR could go as
 high as 100,000
 to 1

COMPANY: ROGER C. HARKS WELL: BARBARA FEDERAL #5 FIELD: DAGGER DRAW COUNTY: DEER STATE: NEW MEXICO Location: 1580' FM. & 150' FM. Log: 18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1106-1107-1108-1109-1110-1111-1112-1113-1114-1115-1116-1117-1118-1119-1120-1121-1122-1123-1124-1125-1126-1127-1128-1129-1130-1131-1132-1133-1134-1135-1136-1137-1138-1139-1140-1141-1142-1143-1144-1145-1146-1147-1148-1149-1150-1151-1152-1153-1154-1155-1156-1157-1158-1159-1160-1161-1162-1163-1164-1165-1166-1167-1168-1169-1170-1171-1172-1173-1174-1175-1176-1177-1178-1179-1180-1181-1182-1183-1184-1185-1186-1187-1188-1189-1190-1191-1192-1193-1194-1195-1196-1197-1198-1199-1200-1201-1202-1203-1204-1205-1206-1207-1208-1209-1210-1211-1212-1213-1214-1215-1216-1217-1218-1219-1220-1221-1222-1223-1224-1225-1226-1227-1228-1229-1230-1231-1232-1233-1234-1235-1236-1237-1238-1239-1240-1241-1242-1243-1244-1245-1246-1247-1248-1249-1250-1251-1252-1253-1254-1255-1256-1257-1258-1259-1260-1261-1262-1263-1264-1265-1266-1267-1268-1269-1270-1271-1272-1273-1274-1275-1276-1277-1278-1279-1280-1281-1282-1283-1284-1285-1286-1287-1288-1289-1290-1291-1292-1293-1294-1295-1296-1297-1298-1299-1300-1301-1302-1303-1304-1305-1306-1307-1308-1309-1310-1311-1312-1313-1314-1315-1316-1317-1318-1319-1320-1321-1322-1323-1324-1325-1326-1327-1328-1329-1330-1331-1332-1333-1334-1335-1336-1337-1338-1339-1340-1341-1342-1343-1344-1345-1346-1347-1348-1349-1350-1351-1352-1353-1354-1355-1356-1357-1358-1359-1360-1361-1362-1363-1364-1365-1366-1367-1368-1369-1370-1371-1372-1373-1374-1375-1376-1377-1378-1379-1380-1381-1382-1383-1384-1385-1386-1387-1388-1389-1390-1391-1392-1393-1394-1395-1396-1397-1398-1399-1400-1401-1402-1403-1404-1405-1406-1407-1408-1409-1410-1411-1412-1413-1414-1415-1416-1417-1418-1419-1420-1421-1422-1423-1424-1425-1426-1427-1428-1429-1430-1431-1432-1433-1434-1435-1436-1437-1438-1439-1440-1441-1442-1443-1444-1445-1446-1447-1448-1449-1450-1451-1452-1453-1454-1455-1456-1457-1458-1459-1460-1461-1462-1463-1464-1465-1466-1467-1468-1469-1470-1471-1472-1473-1474-1475-1476-1477-1478-1479-1480-1481-1482-1483-1484-1485-1486-1487-1488-1489-1490-1491-1492-1493-1494-1495-1496-1497-1498-1499-1500-1501-1502-1503-1504-1505-1506-1507-1508-1509-1510-1511-1512-1513-1514-1515-1516-1517-1518-1519-1520-1521-1522-1523-1524-1525-1526-1527-1528-1529-1530-1531-1532-1533-1534-1535-1536-1537-1538-1539-1540-1541-1542-1543-1544-1545-1546-1547-1548-1549-1550-1551-1552-1553-1554-1555-1556-1557-1558-1559-1560-1561-1562-1563-1564-1565-1566-1567-1568-1569-1570-1571-1572-1573-1574-1575-1576-1577-1578-1579-1580-1581-1582-1583-1584-1585-1586-1587-1588-1589-1590-1591-1592-1593-1594-1595-1596-1597-1598-1599-1600-1601-1602-1603-1604-1605-1606-1607-1608-1609-1610-1611-1612-1613-1614-1615-1616-1617-1618-1619-1620-1621-1622-1623-1624-1625-1626-1627-1628-1629-1630-1631-1632-1633-1634-1635-1636-1637-1638-1639-1640-1641-1642-1643-1644-1645-1646-1647-1648-1649-1650-1651-1652-1653-1654-1655-1656-1657-1658-1659-1660-1661-1662-1663-1664-1665-1666-1667-1668-1669-1670-1671-1672-1673-1674-1675-1676-1677-1678-1679-1680-1681-1682-1683-1684-1685-1686-1687-1688-1689-1690-1691-1692-1693-1694-1695-1696-1697-1698-1699-1700-1701-1702-1703-1704-1705-1706-1707-1708-1709-1710-1711-1712-1713-1714-1715-1716-1717-1718-1719-1720-1721-1722-1723-1724-1725-1726-1727-1728-1729-1730-1731-1732-1733-1734-1735-1736-1737-1738-1739-1740-1741-1742-1743-1744-1745-1746-1747-1748-1749-1750-1751-1752-1753-1754-1755-1756-1757-1758-1759-1760-1761-1762-1763-1764-1765-1766-1767-1768-1769-1770-1771-1772-1773-1774-1775-1776-1777-1778-1779-1780-1781-1782-1783-1784-1785-1786-1787-1788-1789-1790-1791-1792-1793-1794-1795-1796-1797-1798-1799-1800-1801-1802-1803-1804-1805-1806-1807-1808-1809-1810-1811-1812-1813-1814-1815-1816-1817-1818-1819-1820-1821-1822-1823-1824-1825-1826-1827-1828-1829-1830-1831-1832-1833-1834-1835-1836-1837-1838-1839-1840-1841-1842-1843-1844-1845-1846-1847-1848-1849-1850-1851-1852-1853-1854-1855-1856-1857-1858-1859-1860-1861-1862-1863-1864-1865-1866-1867-1868-1869-1870-1871-1872-1873-1874-1875-1876-1877-1878-1879-1880-1881-1882-1883-1884-1885-1886-1887-1888-1889-1890-1891-1892-1893-1894-1895-1896-1897-1898-1899-1900-1901-1902-1903-1904-1905-1906-1907-1908-1909-1910-1911-1912-1913-1914-1915-1916-1917-1918-1919-1920-1921-1922-1923-1924-1925-1926-1927-1928-1929-1930-1931-1932-1933-1934-1935-1936-1937-1938-1939-1940-1941-1942-1943-1944-1945-1946-1947-1948-1949-1950-1951-1952-1953-1954-1955-1956-1957-1958-1959-1960-1961-1962-1963-1964-1965-1966-1967-1968-1969-1970-1971-1972-1973-1974-1975-1976-1977-1978-1979-1980-1981-1982-1983-1984-1985-1986-1987-1988-1989-1990-1991-1992-1993-1994-1995-1996-1997-1998-1999-2000-2001-2002-2003-2004-2005-2006-2007-2008-2009-2010-2011-2012-2013-2014-2015-2016-2017-2018-2019-2020-2021-2022-2023-2024-2025-2026-2027-2028-2029-2030-2031-2032-2033-2034-2035-2036-2037-2038-2039-2040-2041-2042-2043-2044-2045-2046-2047-2048-2049-2050-2051-2052-2053-2054-2055-2056-2057-2058-2059-2060-2061-2062-2063-2064-2065-2066-2067-2068-2069-2070-2071-2072-2073-2074-2075-2076-2077-2078-2079-2080-2081-2082-2083-2084-2085-2086-2087-2088-2089-2090-2091-2092-2093-2094-2095-2096-2097-2098-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177-2178-2179-2180-2181-2182-2183-2184-2185-2186-2187-2188-2189-2190-2191-2192-2193-2194-2195-2196-2197-2198-2199-2200-2201-2202-2203-2204-2205-2206-2207-2208-2209-2210-2211-2212-2213-2214-2215-2216-2217-2218-2219-2220-2221-2222-2223-2224-2225-2226-2227-2228-2229-2230-2231-2232-2233-2234-2235-2236-2237-2238-2239-2240-2241-2242-2243-2244-2245-2246-2247-2248-2249-2250-2251-2252-2253-2254-2255-2256-2257-2258-2259-2260-2261-2262-2263-2264-2265-2266-2267-2268-2269-2270-2271-2272-2273-2274-2275-2276-2277-2278-2279-2280-2281-2282-2283-2284-2285-2286-2287-2288-2289-2290-2291-2292-2293-2294-2295-2296-2297-2298-2299-2300-2301-2302-2303-2304-2305-2306-2307-2308-2309-2310-2311-2312-2313-2314-2315-2316-2317-2318-2319-2320-2321-2322-2323-2324-2325-2326-2327-2328-2329-2330-2331-2332-2333-2334-2335-2336-2337-2338-2339-2340-2341-2342-2343-2344-2345-2346-2347-2348-2349-2350-2351-2352-2353-2354-2355-2356-2357-2358-2359-2360-2361-2362-2363-2364-2365-2366-2367-2368-2369-2370-2371-2372-2373-2374-2375-2376-2377-2378-2379-2380-2381-2382-2383-2384-2385-2386-2387-2388-2389-2390-2391-2392-2393-2394-2395-2396-2397-2398-2399-2400-2401-2402-2403-2404-2405-2406-2407-2408-2409-2410-2411-2412-2413-2414-2415-2416-2417-2418-2419-2420-2421-2422-2423-2424-2425-2426-2427-2428-2429-2430-2431-2432-2433-2434-2435-2436-2437-2438-2439-2440-2441-2442-2443-2444-2445-2446-2447-2448-2449-2450-2451-2452-2453-2454-2455-2456-2457-2458-2459-2460-2461-2462-2463-2464-2465-2466-2467-2468-2469-2470-2471-2472-2473-2474-2475-2476-2477-2478-2479-2480-2481-2482-2483-2484-2485-2486-2487-2488-2489-2490-2491-2492-2493-2494-2495-2496-2497-2498-2499-2500-2501-2502-2503-2504-2505-2506-2507-2508-2509-2510-2511-2512-2513-2514-2515-2516-2517-2518-2519-2520-2521-2522-2523-2524-2525-2526-2527-2528-2529-2530-2531-2532-2533-2534-2535-2536-2537-2538-2539-2540-2541-2542-2543-2544-2545-2546-2547-2548-2549-2550-2551-2552-2553-2554-2555-2556-2557-2558-2559-2560-2561-2562-2563-2564-2565-2566-2567-2568-2569-2570-2571-2572-2573-2574-2575-2576-2577-2578-2579-2580-2581-2582-2583-2584-2585-2586-2587-2588-2589-2590-2591-2592-2593-2594-2595-2596-2597-2598-2599-2600-2601-2602-2603-2604-2605-2606-2607-2608-2609-2610-2611-2612-2613-2614-2615-2616-2617-2618-2619-2620-2621-2622-2623-2624-2625-2626-2627-2628-2629-2630-2631-2632-2633-2634-2635-2636-2637-2638-2639-2640-2641-2642-2643-2644-2645-2646-2647	
---	--

[illegible]

- 4200 FEET SUB-SEA LEVEL

CROSS-SECTION KEY

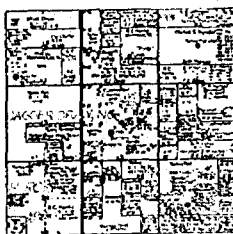


EXHIBIT 3
PRODUCTION STATISTICS
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 1
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

Date	Oil Barrels	Water Barrels	Total Fluid	Total Well Gas Volume MCF	Gas Lift Gas MCF	Net Formation Gas Produced MCF	Net GOR ft ³ /bbl oil	Total Gas Fluid Ratio ft ³ /bbl fluid	Net Gas Fluid Ratio ft ³ /bbl fluid
1971									
October	1,465	39,165	31,630	No Report					
November	437	23,219	23,656						
December	609	16,861	17,470						
1972									
Shut In									
1973									
Shut In									
1974									
January	-	-	-						
February	250	7,480	7,730						
March	-	-	-						
April	-	23,080	23,080						
May	764	36,012	36,776						
June	1,730	56,112	57,842						
July	2,386	55,440	57,826						
August	2,203	62,176	54,379						
September	2,415	47,242	49,657						
October	2,416	59,856	62,272						
November	1,258	28,652	29,910						
December	1,067	22,704	23,771						
1975									
January	1,174	30,960	32,134						
February	2,904	57,792	60,696						
March	3,512	62,726	66,238						
April	4,345	53,980	58,325						
May	2,554	43,344	45,898						
June	2,768	63,648	66,416						
July	3,547	68,194	71,541						
August	2,941	58,080	61,021						
September	3,327	57,356	60,723						
October	1,679	30,401	32,080						
November	2,701	29,934	32,635						
December	3,363	34,636	37,999						
1976									
January	2,072	25,395	27,467	968	-	968	467	35	35
February	1,089	39,424	40,513	1,692	-	1,692	1,553	42	42
March	346	13,329	13,675	1,017	-	1,017	2,939	74	74
April	-	-	-	1,663	-	1,663	-	-	-
May	516	2,400	2,916	209	-	209	405	71	71
June *	525	16,669	17,194	12,467	6,006	6,461	12,306	726	376
July	930	25,228	26,158	15,348	7,856	7,492	8,055	586	286
August	6,120	29,421	35,541	47,885	39,292	8,593	1,404	1,347	241
September	7,486	37,608	44,994	31,771	19,764	12,007	1,603	706	266
October	8,715	35,613	44,228	65,201	53,977	11,284	1,294	1,475	255
November	8,547	30,359	38,906	67,901	52,924	14,977	1,752	2,349	518
December	7,363	29,511	30,879	72,596	58,159	14,437	1,959	1,968	391
1977									
January	7,186	25,713	32,899	64,234	41,952	22,282	3,100	1,952	677
February	7,335	28,348	35,681	62,757	44,311	18,446	2,514	1,759	516
March	10,016	53,579	43,595	96,088	70,618	25,470	2,542	2,204	534
April	8,047	28,365	36,412	85,082	63,509	21,573	2,680	2,336	592
May	7,336	27,215	34,551	86,936	66,671	20,265	2,782	2,516	586
June	7,494	26,402	33,896	80,125	60,758	19,637	2,584	2,363	579

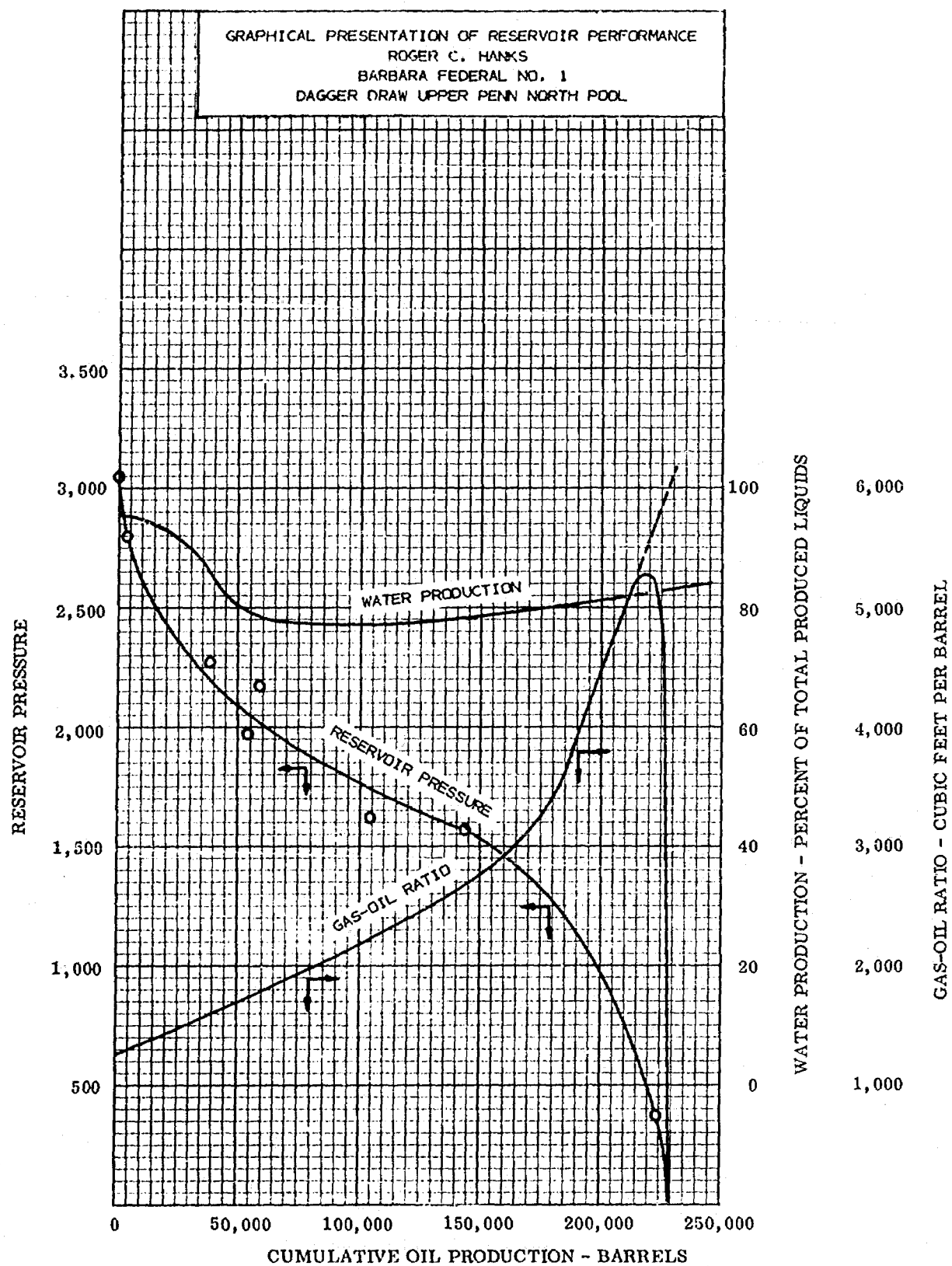
* Start Gas Lift

RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

CASE NO. 6025
EXHIBIT 3

EXHIBIT 4
SUMMARY OF RESERVOIR PRESSURES AND PRODUCTION PERFORMANCE
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 1
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

Date	Reservoir Pressures			Cumulative Production					Average Gas-Oil Ratio
	Actual	Smoothed Data	Pressure	Oil Barrels	Water Barrels	Gas MCF	Gas Barrels	Total Reservoir Voidage Barrels	
12-18-71	3,050	3,050	0	-	-	-	-	-	1.45
7-29-75	2,806	2,806	244	2,511	70,245	3,640	3,075	75,831	1.52
1-23-76	2,285	2,200	765	37,604	839,643	56,630	52,091	929,338	1.61
6-21-76	1,980	2,050	1,000	53,702	1,075,485	82,551	80,604	1,209,791	1.76
1-22-77	2,184	2,000	1,050	55,178	1,147,307	86,711	85,388	1,288,873	2.00
7- 1-77	1,618	1,750	1,300	102,629	1,360,560	179,149	196,314	1,659,503	2.55
8-26-77	-	1,540	1,510	142,857	1,504,467	280,926	343,890	1,991,214	3.20
	1,446	-	-	-	-	-	-	-	
Projection									
1 ₁		930	2,120	200,000	1,750,000	465,230	740,000	2,590,000	5.13
1 ₂		370	2,680	222,000	1,850,000	578,050	1,180,000	3,252,000	



RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

CASE NO. 6025
EXHIBIT 5

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EXHIBIT 10-10 A1B*
(See other in-
structions on
reverse side)

Form G-200-1
Budget Bureau No. 42 B165.6

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <input type="checkbox"/>		5. LEASE DESIGNATION AND AERIAL NO. NM-1372	
1b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DREG-EN <input type="checkbox"/> PLOG BACK <input type="checkbox"/> DIFF. REGR. <input type="checkbox"/> Other <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Roger C. Hanks		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR 2100 Wilco Building, Midland, Texas 79701		8. FARM OR LEASE NAME Barbara-Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1980' FNL & 660' FEL At top prod. interval reported below 7732' At total depth 8240'		9. WELL NO. 1	
14. PERMIT NO.		10. FIELD AND POOL, OR WILDCAT Undesignated	
DATE ISSUED		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA 18-19S-25E	
15. DATE SPUDDED 5-22-71		12. COUNTY OR PARISH Eddy	
16. DATE T.D. REACHED 6-29-71		13. STATE N.M.	
17. DATE COMPL. (Ready to prod.) 8-11-71		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 3553' GR	
19. ELEV. CASINGHEAD		20. TOTAL DEPTH, MD & TVD 8240' 9040'	
21. PLOG BACK T.D., MD & TVD		22. IF MULTIPLE COMPL., HOW MANY? Single	
23. INTERVALS DRILLED BY Sharp		24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 7732-56' 7763-73', Cisco Canyon	
25. WAS DIRECTIONAL SURVEY MADE Yes		26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Induction-Laterolog, Neutron Porosity	
27. WAS WELL CORED Yes		28. CASING RECORD (Report all strings set in well)	
29. LINER RECORD		30. TUBING RECORD	
31. PERFORATION RECORD (Interval, size and number) 7732-56', 7763-73', 4 shots/foot, Wes-Jet Magnum.		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. 7732-73' 1000gal. 15% DS 30 acid	
33. PRODUCTION		34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented	
35. LIST OF ATTACHMENTS Logs, core analysis & DSTs		36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records	
37. SIGNATURE Ralph H. Viney		38. DATE 8-16-71	

*(See Instructions and Spaces for Additional Data on Reverse Side)

RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

CASE NO. 6025
EXHIBIT 6

RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

EXHIBIT 7
PRODUCTION STATISTICS
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 5
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

Date	Oil Barrels	Water Barrels	Total Fluid	Total Well Gas Volume MCF	Gas Lift Gas MCF	Net Formation Gas Produced MCF	Net GOR ft. ³ /bbl oil	Total Gas Fluid Ratio ft. ³ /bbl fluid	Net Gas Fluid Ratio ft. ³ /bbl fluid
1976									
June *	660	4,254	4,914	1,863					
July	53	4,608	4,661	17,019	898	965	1,462	379	196
August	2,067	20,524	22,591	35,651	13,804	3,215	60,660	3,651	689
September	1,195	12,876	14,071	34,365	20,866	14,785	7,152	1,579	654
October	1,433	16,745	18,178	42,424	18,056	16,309	13,647	2,442	
November	1,111	12,340	13,451	36,559	33,790	8,634	6,025	2,334	1,159
December	838	10,356	11,194	42,078	34,462	2,097	1,887	2,718	475
1977									
January	-	-	-	-	38,413	3,665	4,373	3,759	156
February	121	5,186	5,307	-	-	-	-	-	327
March	-	997	997	12,281	-	-	-	-	-
April	595	10,957	11,552	3,210	8,865	3,416	-	-	-
May	452	10,385	10,837	27,614	2,761	449	28,231	2,314	644
June				35,479	7,639	19,921	33,480	3,220	450
					13,094	22,385	49,524	2,520	1,724
								2,066	2,066

* Start Gas Lift

CASE NO. 6025
EXHIBIT 7

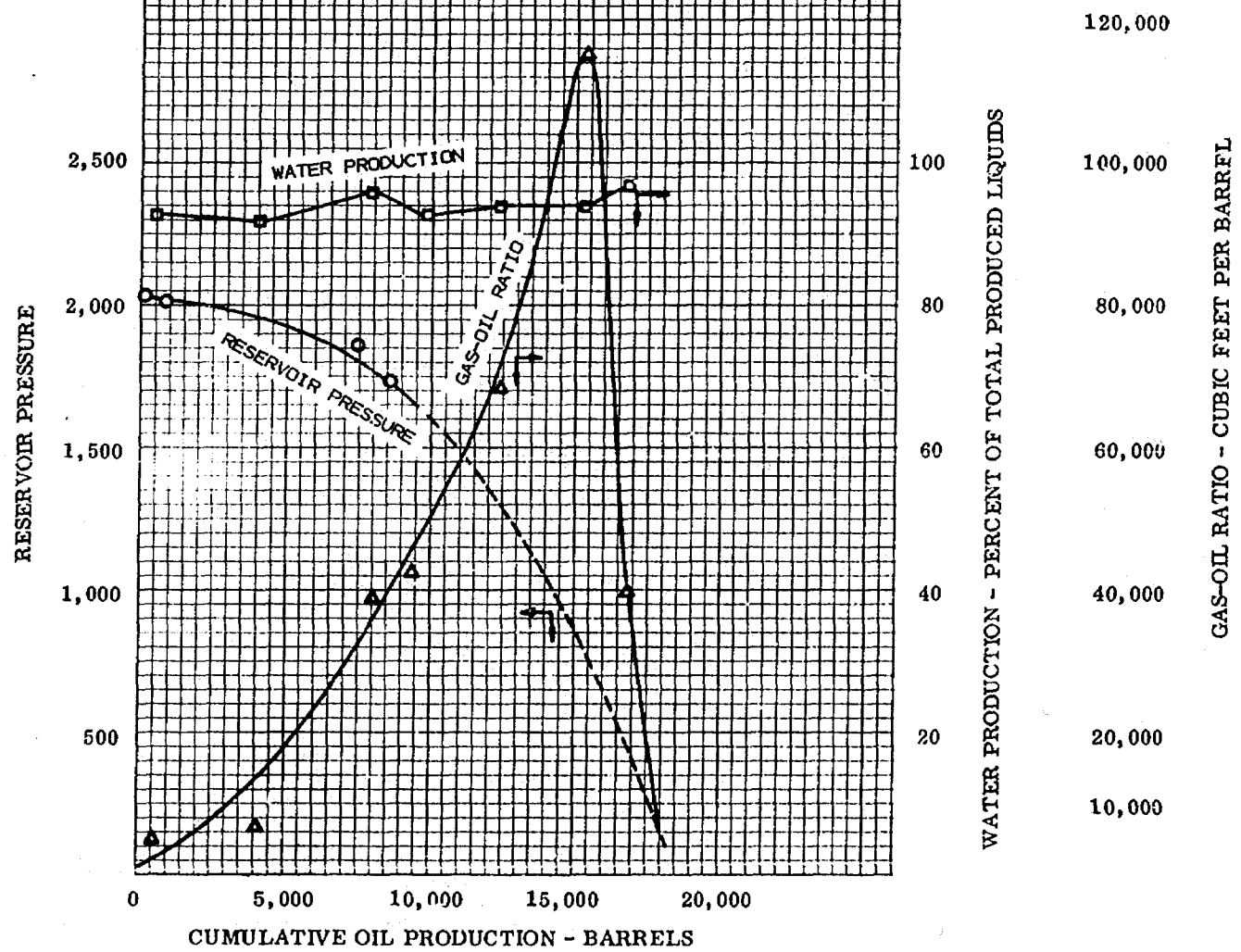
RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

EXHIBIT 8
SUMMARY OF RESERVOIR PRESSURES AND PRODUCTION PERFORMANCE
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 5
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

Date	Reservoir Pressures			Cumulative Production					Average Gas-Oil Ratio Cubic Feet Per Barrel
	Actual	Smoothed Data	Pressure	Oil Barrels	Water Barrels	Gas MCF	Gas Barrels	Total Reservoir Voidage Barrels	
8- 6-76	2,040	2,040	0	0	0	0	0	0	5.86
1-28-77	2,024	2,024	16	713	8,862	4,180	5,852	15,427	5.92
7- 1-77	1,854	1,854	186	7,357	81,703	50,168	59,604	148,664	33.50
	-	1,740	300	8,525	109,228	96,339	115,009	232,752	43.21
<u>Projection</u>									
1 ₁		1,540	500	10,600	136,000	186,000	245,000	391,600	68.60
1 ₂		1,040	1,000	14,000	188,000	419,300	700,000	902,000	115.94
1 ₃		540	1,500	16,500	225,000	622,200	1,400,000	1,641,500	40.00
1 ₄		400	1,640	17,000	240,000	642,200	1,500,000	1,757,000	

CASE NO. 6025
EXHIBIT 8

GRAPHICAL PRESENTATION OF RESERVOIR PERFORMANCE
 ROGER C. HANKS
 BARBARA FEDERAL NO. 5
 DAGGER DRAW UPPER PENN NORTH POOL



RALPH H. VINEY & ASSOCIATES, INC.
 MIDLAND, TEXAS

CASE NO. 6025
 EXHIBIT 9

OPERATOR'S COPY

DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1. NAME OF WELL		2. WELL TYPE OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> HOT <input type="checkbox"/> OTHER <input type="checkbox"/>		3. U.S. GEOLOGICAL SURVEY NO. NM 1372	
4. NAME OF OPERATOR Roger C. Hanks		5. NAME OF FIELD Barbara Federal		6. FIELD NO. 5	
7. LOCATION OF WELL (Report location in accordance with any State or local laws) At surface 1980' FNL & 1980' FWL At top prod. interval reported 1980' 1976 At total depth		8. LOCATION OF WELL (Report location in accordance with any State or local laws) At surface 1980' FNL & 1980' FWL At top prod. interval reported 1980' 1976 At total depth		9. NAME OF FIELD Dagger Draw Field	
10. DATE OF COMPLETION 4-12-76		11. DATE T.D. REACHED 5-25-76		12. DATE OF REPORT 6-9-76	
13. ELEVATIONS (DF, RND, RT, GR, ETC.) 3599.8 GR		14. PERMIT NO.		15. DATE	
16. TOTAL DEPTH, MD & TVD 9183'		17. PLUG, BACK T.D., MD & TVD 7768'		18. IF MULTIPLE COMPL., HOW MANY? --	
19. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) 7691-7768		20. WAS DIRECTIONAL SURVEY MADE Yes		21. WAS WELL CORED No	
22. TYPE OF LOGS RUN SRP, Dual Laterlog		23. CEMENT RECORD (Report all strings set in well)		24. CEMENT RECORD	
25. CEMENT RECORD		26. CEMENT RECORD		27. CEMENT RECORD	
28. CEMENT RECORD		29. CEMENT RECORD		30. CEMENT RECORD	
31. PERFORATION RECORD (Interval, size and number) 7718-28 (21 holes) 7736-68 (65 holes)		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. DEPTH INTERVAL (MD) 7768-7691		33. AMOUNT AND KIND OF MATERIAL USED 2000 gals 15% DS-30	
34. PRODUCTION DATE OF TEST 6-9-76		35. PRODUCTION METHOD (Flooding, gas lift, pumping—size and type of pump) Flow		36. WELL STATUS (Producing or shut-in) Prod.	
37. HOURS TESTED 24		38. CHOSE SIZE 1/2		39. OIL—BBL. 176	
40. GAS—MCF. 270		41. WATER—BBL. 487		42. GAS-OIL RATIO 1.594	
43. CASINO PRESSURE 170#		44. CALCULATED 24-HOUR RATE 0		45. OIL GRAVITY-API (CORR.) 41.7	
46. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold		47. TEST WITNESSED BY Bobby Cone		48. DATE 6-25-76	
49. LIST OF ATTACHMENTS LOGS, DST's		50. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records		51. SIGNED Roger C. Hanks	
52. TITLE Owner-Operator		53. DATE 6-25-76		54. (See instructions and spaces for Additional Data on Reverse Side)	

RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

CASE NO. 6025
EXHIBIT 10

EXHIBIT 11
PRODUCTION STATISTICS
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 6
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

Date	Oil Barrels	Water Barrels	Total Fluid	Total Well Gas Volume MCF	Gas Lift Gas MCF	Net Formation Gas Produced MCF	Net GOR ft ³ /bbl oil	Total Gas Fluid Ratio ft ³ /bbl fluid	Net Gas Fluid Ratio ft ³ /bbl fluid
<u>1976</u>									
July	740	1,182	1,922	1,362	-	1,362	1,840	708	708
August *	13,531	20,907	34,438	36,799	9,802	26,997	1,995	1,068	783
September	10,628	16,402	27,030	34,939	11,555	23,384	2,200	1,292	865
October	10,908	15,801	26,709	46,538	24,866	21,672	1,986	1,742	811
November	7,559	14,538	22,097	36,858	19,488	17,370	2,297	1,668	786
December	7,681	12,959	20,640	46,502	23,807	22,695	2,954	2,253	1,099
<u>1977</u>									
January	8,201	11,848	20,049	52,711	25,710	27,001	3,292	2,629	1,347
February	6,996	13,726	20,722	51,224	27,746	23,478	3,355	2,471	1,133
March	7,043	14,728	21,771	57,751	30,991	26,760	3,799	2,652	1,229
April	6,368	13,733	20,101	56,779	31,749	25,030	3,930	2,854	1,245
May	6,370	13,679	20,049	60,036	33,008	27,028	4,243	2,994	1,348
June	5,729	13,375	19,104	49,392	33,075	16,317	2,848	3,585	854

* Start Gas Lift

CASE NO. 6025
EXHIBIT 11

RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

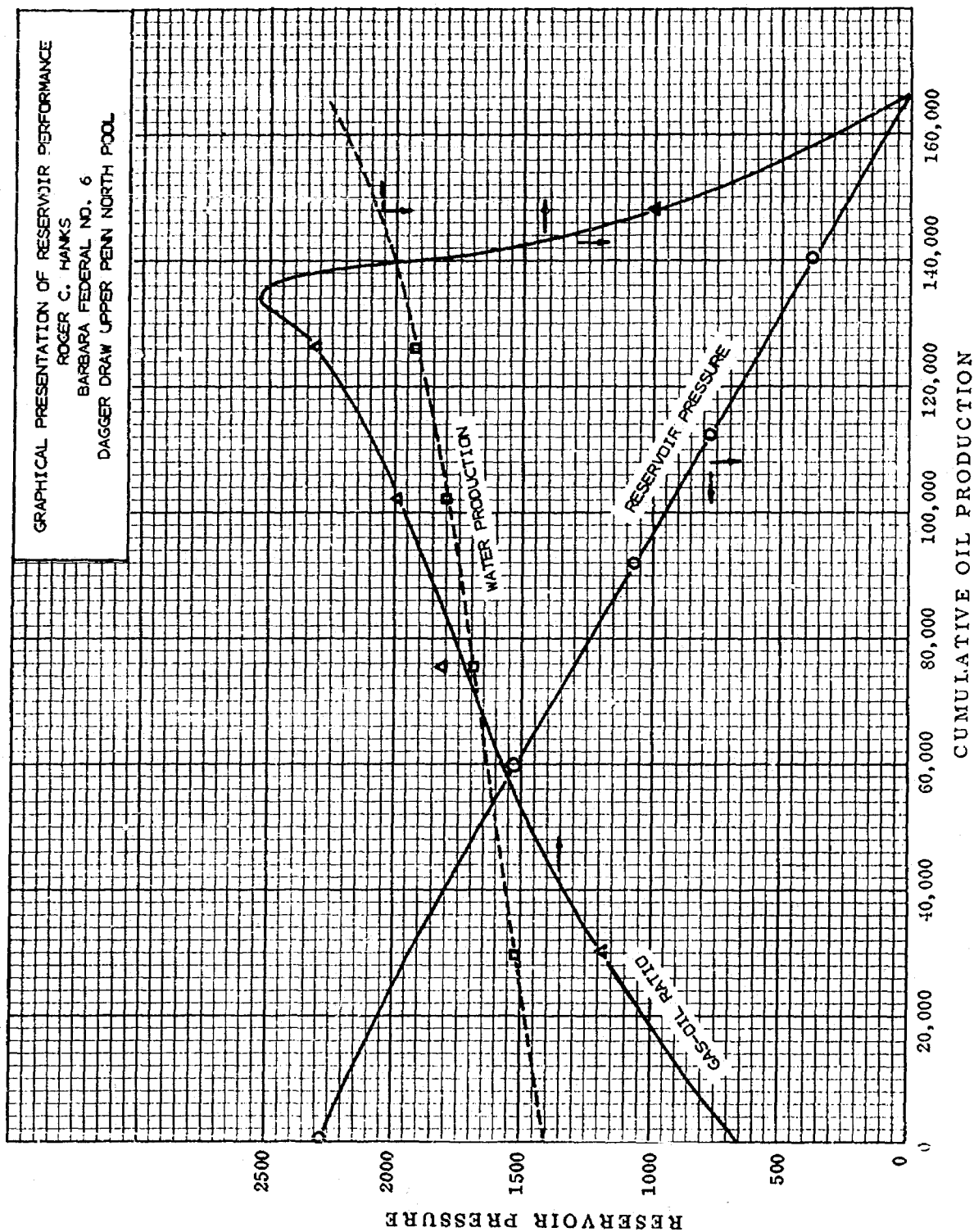
EXHIBIT 12
SUMMARY OF RESERVOIR PRESSURES AND PRODUCTION PERFORMANCE
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 6
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

Date	Reservoir Pressures			Cumulative Production				Average Gas-Oil Ratio Cubic Feet Per Barrel
	Actual	Smoothed Data	Pressure	Oil Barrels	Water Barrels	Gas MCF	Gas Barrels	
7-2-76	2,285	2,285	0	0	0	0	0	2.37
2-1-77	1,526	1,526	759	59,248	93,637	140,481	172,089	3.65
7-1-77	-	1,070	1,215	91,754	162,878	259,094	375,686	3.97
<u>Projections</u>								
L ₁		785	1,500	112,000	215,000	339,454	600,000	4.65
L ₂		385	1,900	140,000	310,000	489,684	1,160,000	
							927,000	
							1,610,000	

CASE NO: 6025
EXHIBIT 12

RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXAS

CASE NO. 6026
EXHIBIT 13



WATER PRODUCTION - PERCENT OF TOTAL PRODUCED LIQUIDS

GAS-OIL RATIO - CUBIC FEET PER BARREL

OPERATOR'S COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other In-
structions on
reverse side)Form 9-338
Budget Bureau No. 12-10-5-65. LEASE DESIGNATION AND AERIAL NO.
NM 1372

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Barbara Federal

9. WELL NO.
6

10. FIELD AND POOL, OR WILDCAT

North Dagger Draw-Upper Pe

11. SEC., T., R., M., OR BLOCK AND SURVEY
OR AREA

18-19S-25E

12. COUNTY OR
PARISH
Eddy13. STATE
New Mexico

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐

2. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. BEARS ☐ OTHER ☐

3. NAME OF OPERATOR

Roger C. Hanks

4. ADDRESS OF OPERATOR

P.O. Box 3148, Midland, Texas 79701

AUG 17 1976

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1980' FSL & 1980' FEL

U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED

6-20-76

16. DATE T.D. REACHED

7-16-76

17. DATE COMPL. (Ready to prod.)

8-4-76

18. ELEVATIONS (OF, RKB, RT, OR, ETC.)*

3592 GR

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

8170

21. PLUG, BACK T.D., MD & TVD

-

22. IF MULTIPLE COMPL.,
HOW MANY*

-

23. INTERVALS
DRILLED BY

-

ROTARY TOOLS

X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

7720' - 7792', Cisco Canyon

25. WAS DIRECTIONAL
SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

DLL & SNP

27. WAS WELL CORED

No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8	54 #	414'	17 1/2	300 sx Class C + 2% CaCl ₂	
8 5/8	26 #	1120'	11	200 sx Thick set + 450 sx Hal-Tite + 150 sx Class C	
5 1/2	20 #	8010'		180 sx Class C	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACER SET (MD)
NONE					2 7/8	7792'	7730'

31. PERFORATION RECORD (Interval, size and number)

7792 - 7800, 7766 - 7782,
7742 - 7754, 7690 - 7720 w/2 shots per ft.

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
7810 - 7730	2000 gals 15% DS-30
7730 - 7660	2000 gals 15% DS-30

33. PRODUCTION

DATE FIRST PRODUCTION 7-29-76 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Gas Lift WELL STATUS (Producing or shut-in) Producing

DATE OF TEST 8-8-76 HOURS TESTED 24 CHOKER SIZE - PROD'N. FOR TEST PERIOD OIL—BBL. 693 GAS—MCF. 750 WATER—BBL. 833 GAS-OIL RATIO 1.082

FLOW. TUBING PRESS. CASING PRESSURE 1050 CALCULATED 24-HOUR RATE OIL—BBL. 693 GAS—MCF. 750 WATER—BBL. 833 OIL GRAVITY-API (CORR.) 41.4

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Gas lift and sales

TEST WITNESSED BY

Bobby Cone

35. LIST OF ATTACHMENTS

Logs Deviation Survey

36. I hereby certify that the foregoing and attached information is complete, and correct as determined from all available records

SIGNED

Roger C. Hanks

Owner-Operator

DATE 8-16-76

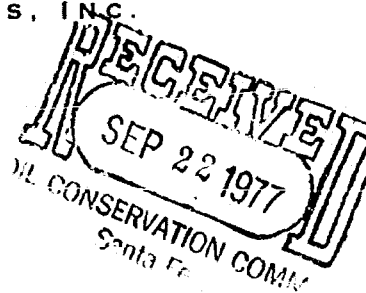
*(See Instructions and Spaces for Additional Data on Reverse Side)

RALPH H. VINEY & ASSOCIATES, INC.
MIDLAND, TEXASCASE NO. 6025
EXHIBIT 14

RALPH H. VINEY & ASSOCIATES, INC.
ENGINEERING CONSULTANTS

511 North Main Place
MIDLAND, TEXAS 79701
Telephone: 915-682-5346

September 20, 1977



Mr. Joe Ramey
Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

*File
Case 6025*

Dear Mr. Ramey:

Case No. 6025
New Mexico Oil Conservation Commission
Examiner Hearing
Roger C. Hanks

Please distribute a copy of the enclosed Errata Notice to each of the examiners on the above described hearing.

Yours truly,

RALPH H. VINEY & ASSOCIATES, INC.

By: Judy Lawson

Ralph H. Viney

RHV/j1

Enclosures

RALPH H. VINEY & ASSOCIATES, INC.
ENGINEERING CONSULTANTS

511 North Main Place
MIDLAND, TEXAS 79701
Telephone: 915-682-5346



September 20, 1977

ERRATA NOTICE

Certain omissions occurred in the original printing of the material prepared for and presented in Case No. 6025.

Please replace existing page numbers in your copy of the prepared material with the enclosed. Our apologies.

RALPH H. VINEY & ASSOCIATES, INC.

EXHIBIT 4
SUMMARY OF RESERVOIR PRESSURES AND PRODUCTION PERFORMANCE
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 1
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

Date	Reservoir Pressures			Cumulative Production					Average Gas-Oil Ratio MCF Per Barrel
	Actual	Smoothed Data	$\Sigma \Delta$ Pressure	Oil Barrels	Water Barrels	Gas MCF	Gas Barrels	Total Reservoir Voidage Barrels	
	3,050	3,050	0	-	-	-	-	-	1.45
12-18-71	2,806	2,806	244	2,511	70,245	3,640	3,075	75,831	1.52
7-29-75	2,285	2,200	765	37,604	839,643	56,630	52,031	929,338	1.61
1-23-76	1,980	2,050	1,000	53,702	1,075,485	82,551	80,604	1,209,791	1.76
6-21-76	2,184	2,000	1,050	56,178	1,147,307	86,711	35,388	1,288,873	2.00
1-22-77	1,618	1,750	1,300	102,629	1,360,560	179,149	196,314	1,659,503	2.55
7- 1-77	-	1,540	1,510	142,857	1,504,467	280,926	343,890	1,991,214	3.20
8-26-77	1,446	-	-	-	-	-	-	-	
<u>Projection</u>									
l_1		930	2,120	200,000	1,750,000	465,230	740,000	2,690,000	5.13
l_2		370	2,680	222,000	1,850,000	578,050	1,180,000	3,252,000	

EXHIBIT 8
SUMMARY OF RESERVOIR PRESSURES AND PRODUCTION PERFORMANCE
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 5
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

Date	Reservoir Pressures			Cumulative Production					Average Gas-Oil Ratio MCF Per Barrel
	Actual	Smoothed Data	$\Sigma \Delta$ Pressure	Oil Barrels	Water Barrels	Gas MCF	Gas Barrels	Total Reservoir Voidage Barrels	
	2,040	2,040	0	0	0	0	0	0	
8- 6-76	2,024	2,024	16	713	8,862	4,180	5,852	15,427	5.86
1-28-77	1,854	1,854	186	7,357	81,703	50,168	59,604	148,664	6.92
7- 1-77	-	1,740	300	8,525	109,228	96,339	115,009	232,762	39.50
									43.21
<u>Projection</u>									
l_1		1,540	500	10,600	136,000	186,000	245,000	391,600	
l_2		1,040	1,000	14,000	188,000	419,300	700,000	902,060	68.60
l_3		540	1,500	16,500	225,000	622,200	1,400,000	1,641,500	115.94
l_4		400	1,640	17,000	240,000	642,200	1,500,000	1,757,000	40.00

EXHIBIT 12
SUMMARY OF RESERVOIR PRESSURES AND PRODUCTION PERFORMANCE
ROGER C. HANKS
BARBARA FEDERAL WELL NO. 6
DAGGER DRAW UPPER PENN NORTH POOL
EDDY COUNTY, NEW MEXICO

<u>Date</u>	<u>Reservoir Pressures</u>			<u>Cumulative Production</u>					<u>Average Gas-Oil Ratio MCF Per Barrel</u>
	<u>Actual</u>	<u>Smoothed Data</u>	<u>$\Sigma \Delta$ Pressure</u>	<u>Oil Barrels</u>	<u>Water Barrels</u>	<u>Gas MCF</u>	<u>Gas Barrels</u>	<u>Total Reservoir Voidage Barrels</u>	
7- 2-76	2,285	2,285	0	0	0	0	0	0	2.37
2- 1-77	1,526	1,526	759	59,248	93,637	140,481	172,089	324,974	3.65
7- 1-77	-	1,070	1,215	91,754	162,878	259,094	375,686	627,318	3.97
<u>Projections</u>									
l_1		785	1,500	112,000	215,000	339,454	600,000	927,000	4.65
l_2		385	1,900	140,000	310,000	469,684	1,160,000	1,610,000	

CLARENCE E. HINKLE
LEWIS C. COX, JR.
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY, JR.

JAMES H. BOZARTH
JAMES H. ISBELL
DOUGLAS L. LUNSFORD
PAUL M. BOHANNON
J. DOUGLAS FOSTER

LAW OFFICES
HINKLE, COX, EATON, COFFIELD & HENSLEY
521 MIDLAND TOWER
MIDLAND, TEXAS 79701

September 1, 1977

SEP - 6 1977
W. E. BONDURANT, JR. (94-1973)
TELEPHONE (915) 683-4890

ONLY MESSRS COFFIELD, MARTIN,
BOZARTH, ISBELL & BOHANNON
LICENSED IN TEXAS

ROSWELL, NEW MEXICO OFFICE
600 HINKLE BUILDING
(505) 622-6510

Mr. Dan Nutter
Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Roger C. Hanks -
North Dagger Draw
Upper Penn Field

Dear Dan:


Per our telephone conversations earlier, I am transmitting herewith copies of an application in connection with the above referenced matter. You will recall that we requested that this be set on the docket for September 14, 1977.

If you find there is any additional information or other items which are needed or which are desirable for the Commission's purposes in this connection, please let me know immediately.

Thank you.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY


Conrad E. Coffield

CEC:rf
Enclosure

xc: Mr. Roger C. Hanks

CLARENCE E. HINKLE
LEWIS C. COX, JR.
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY, JR.

JAMES H. BOZARTH
JAMES H. ISBELL
DOUGLAS L. LUNSFORD
PAUL M. BOHANNON
J. DOUGLAS FOSTER

LAW OFFICES
HINKLE, COX, EATON, COFFIELD & HENSLEY
521 MIDLAND TOWER
MIDLAND, TEXAS 79701

September 1, 1977

SEP - 6 1977
W. E. BONDURANT, JR. (194-1973)
TELEPHONE (915) 683-4691

ONLY MESSRS COFFIELD, MARTIN,
BOZARTH, ISBELL & BOHANNON
LICENSED IN TEXAS

ROSWELL, NEW MEXICO OFFICE
800 HINKLE BUILDING
(505) 622-6510

Mr. Dan Nutter
Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Roger C. Hanks -
North Dagger Draw
Upper Penn Field

Dear Dan:

Per our telephone conversations earlier, I am transmitting herewith copies of an application in connection with the above referenced matter. You will recall that we requested that this be set on the docket for September 14, 1977.

If you find there is any additional information or other items which are needed or which are desirable for the Commission's purposes in this connection, please let me know immediately.

Thank you.

Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY


Conrad E. Coffield

CEC:rf
Enclosure

xc: Mr. Roger C. Hanks

APPLICATION FOR HEARING
BEFORE NEW MEXICO OIL CONSERVATION COMMISSION

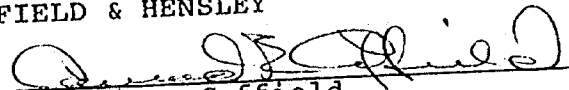
COMES NOW the undersigned as attorney on behalf of Roger C. Hanks and files this written application for hearing to be set on the docket for September 14, 1977. In connection therewith, the undersigned, on behalf of Roger C. Hanks, submits the following data:

1. Name of Applicant: Roger C. Hanks
2. Area Affected by the Order Sought:
North Dagger Draw Upper Penn Field located in Eddy County, New Mexico.
3. General Nature of Order Sought: Applicant seeks an Order to amend the field rules for the North Dagger Draw Upper Penn Field to provide for a 4,000 to 1 gas - oil ratio, with said order to be effective as of and retroactive to August 22, 1977.
4. Other Matters to be Noted in Connection with Order Sought: Roger C. Hanks is Operator of certain wells in said North Dagger Draw Upper Penn Field and matters relative to said field and the gas - oil ratio specified heretofore by the Commission may be found in Case No. 5117, Order 469C.

DATED this 22nd day of August, 1977.

Respectfully submitted,

HINKLE, COX, EATON,
COFFIELD & HENSLEY

By: 
Conrad E. Coffield
Attorneys for Roger C. Hanks

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Case 6025

August 29, 1977

COPY
Ralph H. Viney & Associates, Inc.
511 North Main Place
Midland, Texas 79701

Re: Roger C. Hanks
Barbara Federal Lease
Wells Nos. 1, 5 and 6
North Dagger Draw-Upper
Pennsylvanian Pool

Dear Mr. Viney:

Since the matter regarding cumulative casinghead gas overproduction on the above captioned wells is coming to a hearing, we will remove the shut-in order from these wells until a decision is rendered in the matter.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

RALPH H. VINEY & ASSOCIATES, INC.
ENGINEERING CONSULTANTS

511 North Main Place
MIDLAND, TEXAS 79701
Telephone: 915-682-5346
August 23, 1977

Mr. Joe D. Ramey, Director
Oil Conservation Commission
State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

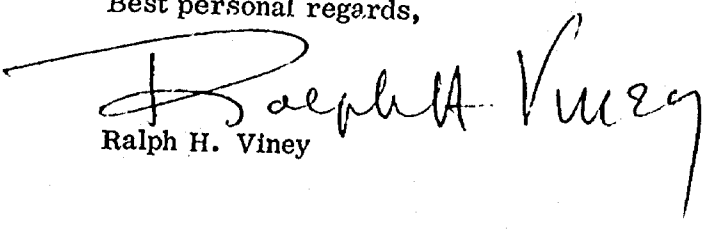
Dear Joe:

Roger C. Hanks
Barbara Federal Lease
Dagger Draw Upper Penn North Pool
Eddy County, New Mexico

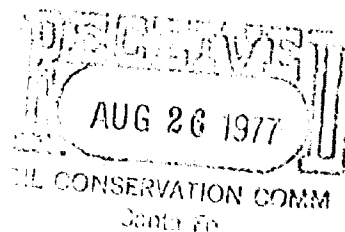
In line with our conversation Monday, August 22, 1977, regarding cumulative casinghead gas overproduction on Wells No. 1, 5 and 6 of the captioned, we are now preparing material for a hearing before your Commission, the purpose of which will be a request to increase the Pool gas-oil ratio limit.

In as much as Mr. Hanks' wells are being gas lifted and produce approximately four volumes of water per each volume of oil recovered, it would be appreciated if the shut-in order could be temporarily removed and an exemption from the gas-oil ratio limit for these wells made until the matter is resolved at hearing. We appreciate your cooperation and look forward to visiting with you in September.

Best personal regards,


Ralph H. Viney

RHV:j



Application of Roger C. Hanks
for a special GOR, Eddy
County, New Mexico.

Applicant, in the above-styled cause, seeks
the establishment of a special gas-oil
ratio limitation of 4000 cubic feet of
gas per barrel of oil for the North
Daguer Draw - Upper Pennsylvanian coal,
Eddy County, New Mexico, retroactive to
August 22, 1977.

Called in by Roger Hanks 8-22-77
written appl to follow

DRAFT -

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 6025

Order No. R- 5565

APPLICATION OF ROGER C. HANKS
FOR A SPECIAL GAS-OIL RATIO LIMITATION,
EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 12,
19 77, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this day of October, 19 77, 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, Roger C. Hanks, seeks, as an exception
to Rule 506 of the Commission Rules and Regulations, a limiting
gas-oil ratio of 10,000 cubic feet of gas per barrel of oil in the
North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New
Mexico.

-2-

Case No. 6025

Order No. R-

(3) That the reservoir characteristics of the subject pool justify the establishment of a gas-oil limitation of 10,000 cubic feet of gas per barrel of liquid hydrocarbons.

(4) That in order to afford to the owner, in the North Dagger Draw-Upper Pennsylvanian Pool the opportunity to economically produce ^{their} ~~his~~ just and equitable share of the oil and gas in the subject pool and for this purpose to use ^{their} ~~his~~ just and equitable share of the reservoir energy, a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of liquid hydrocarbons should be established for the pool.

IT IS THEREFORE ORDERED:

(1) That effective September 1, 1977, the limiting gas-oil ratio in the North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New Mexico, shall be 10,000 cubic feet of gas for each barrel of liquid hydrocarbons produced; that, effective September 1, 1977, each proration unit in the North Dagger Draw-Upper Pennsylvanian Pool shall produce only that volume of gas equivalent to 10,000 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.

