

STATE OF NEW MEXICO
 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
 OIL CONSERVATION DIVISION

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

CASE NO. 12,367

APPLICATION OF SANTA FE SNYDER)
 CORPORATION FOR POOL CREATION, SPECIAL)
 POOL RULES AND AN UNORTHODOX OIL WELL)
 LOCATION, EDDY COUNTY, NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

May 4th, 2000

Santa Fe, New Mexico

00 MAY 23 AM 5:16

OIL CONSERVATION DIV

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, May 4th, 2000, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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May 4th, 2000
 Examiner Hearing
 CASE NO. 12,367

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* * *

A P P E A R A N C E S

FOR THE DIVISION:

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FOR HAROLD J. GRANDI, ELIZABETH ANN GRANDI REVOCABLE TRUST,
ENEA MAURICE GRANDI, JR., IRIS JEANNE GRANDI, CHARLOTTE
LOUISE BINGHAM, RAYMOND HENRY GRANDI and NORMA JEANNE
KELLY:

MILLER, STRATVERT and TORGERSON, P.A.
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Suite 300
Santa Fe, New Mexico 87501
By: J. SCOTT HALL

* * *

1 WHEREUPON, the following proceedings were had at
2 8:30 a.m.:

3 EXAMINER CATANACH: At this time I'll call Case
4 12,367, the Application of Santa Fe Snyder Corporation for
5 pool creation, special pool rules and an unorthodox oil
6 well location, Eddy County, New Mexico.

7 Call for appearances in this case.

8 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,
9 representing the Applicant. I have three witnesses to be
10 sworn.

11 EXAMINER CATANACH: Are there any additional
12 appearances?

13 (Thereupon, the witnesses were sworn.)

14 MEG MUHLINGHAUSE,
15 the witness herein, after having been first duly sworn upon
16 her oath, was examined and testified as follows:

17 DIRECT EXAMINATION

18 BY MR. BRUCE:

19 Q. Would you please state your name for the record?

20 A. Meg Muhlinghouse.

21 Q. Where do you reside?

22 A. Midland, Texas.

23 Q. Who do you work for and in what capacity?

24 A. Santa Fe Snyder as a senior landman.

25 Q. Have you previously testified before the

1 Division?

2 A. Yes.

3 Q. And were your credentials as an expert accepted
4 as a matter of record?

5 A. Yes.

6 Q. And are you familiar with the land matters
7 involved in this Application?

8 A. Yes.

9 MR. BRUCE: Mr. Examiner, I tender Ms.
10 Muhlinghouse as an expert petroleum landman.

11 EXAMINER CATANACH: She is so qualified.

12 Q. (By Mr. Bruce) What does Santa Fe seek in this
13 case?

14 A. Santa Fe seeks the creation of a new pool for
15 Wolfcamp oil production, designated the North Cass-Wolfcamp
16 Pool. We also request 160-acre spacing and for the pool
17 rules to become effective on February 1st, 2000.

18 Q. What is Exhibit 1?

19 A. Exhibit 1 is a land plat of the area outlining
20 the northwest quarter of Section 27, Township 22 South,
21 Range 27 East, which would be the original boundaries of
22 the pool.

23 Q. Which well is involved?

24 A. The Weems Well Number 1, which is located 990
25 feet from the north line and 1330 feet from the west line

1 of the section. The well was originally drilled as a
2 Morrow well in 1984, and the north half of the section was
3 dedicated to the well. The unorthodox location was
4 approved by Administrative Order NSL-1798.

5 In February of this year, the well was
6 recompleted as a Wolfcamp oil well.

7 Q. Is the recompletion date the reason for the
8 retroactive pool rules request?

9 A. Yes, this way all interest owners in the
10 northwest quarter will share in production from the date of
11 recompletion.

12 Q. Do you also request unorthodox location approval
13 for the well in the Wolfcamp formation?

14 A. Yes.

15 Q. What is the basis for the pool-rules request?

16 A. Our engineer will testify that the well can drain
17 more than 40 acres. In addition, mineral ownership in this
18 section is extremely complicated, and we believe that an
19 increase in spacing is the only fair way to treat all
20 interest owners, considering the unorthodox location of the
21 well.

22 Q. Let's go into that a little bit more. Could you
23 identify -- examine -- Well first, we're asking for a new
24 pool. Are there other Wolfcamp pools in this area?

25 A. Yes, but they're all gas pools, and we were told

1 by the District Office that the recompletion would be
2 designated as an oil well.

3 Q. Okay. Then let's get into the mineral ownership
4 in this area. Could you identify Exhibit 2 for the
5 Examiner?

6 A. Exhibit 2 is a plat of the north half of Section
7 27, showing the different tracts in this section. The
8 Weems Number 1 well is marked in the northeast quarter of
9 the northwest quarter. There are differences in royalty
10 and overriding royalty ownership in each quarter-quarter
11 section in the northwest quarter, and as you can see, the
12 leasehold ownership does not correspond with the quarter-
13 quarter section lines.

14 Q. Were all interest owners, royalty, overriding
15 royalty and working interest owners in the northwest
16 quarter, notified of this hearing?

17 A. Yes.

18 Q. And were offset Wolfcamp operators within a mile
19 also notified?

20 A. Yes, and submitted as Exhibit 3 is an affidavit
21 of notice with copies, with copies of notice letters and
22 certified return receipts attached.

23 Q. Has Santa Fe been contacted by any interest
24 owners regarding this application?

25 A. I was contacted by John Williams, a royalty owner

1 in the far west side of the northwest quarter of the
2 northwest quarter. He indicated that he wanted his land
3 included in the proration unit for the well. The Grandis,
4 I believe, are also here, and they'll state their position.

5 Q. Were Exhibits 1 through 3 prepared by you or
6 under your direction or compiled from company business
7 records?

8 A. Yes.

9 Q. And in your opinion, is the granting of this
10 Application in the interests of conservation and the
11 prevention of waste?

12 A. Yes.

13 Q. Mr. Examiner, I'd move the admission of Santa
14 Fe's exhibits 1 through 3.

15 EXAMINER CATANACH: Exhibits 1 through 3 will be
16 admitted as evidence.

17 Mr. Hall, are you entering an appearance in this
18 case?

19 MR. HALL: Yes, Mr Catanach, I'm appearing on
20 behalf of Harold J. Grandi, Elizabeth Ann Grandi Revocable
21 Trust, Enea Maurice Grandi, Jr., Iris Jeanne Grandi,
22 Charlotte Louise Bingham, Raymond Henry Grandi and Norma
23 Jeanne Kelly.

24 EXAMINER CATANACH: Okay. Do you have any
25 questions of this witness, Mr. Hall?

1 MR. HALL: No.

2 EXAMINATION

3 BY EXAMINER CATANACH:

4 Q. Ms. Muhlinghouse, the land plat you submitted,
5 Exhibit Number 2, that is supposed to represent the north
6 half of this section?

7 A. Yes, sir.

8 Q. And so your proposed proration unit is the
9 northwest quarter --

10 A. Yes.

11 Q. So that little area outlined in green, which you
12 show as -- I'm not sure if it's tract 1 or tract 2, you've
13 got both numbers on that -- that would be included in that
14 proration unit?

15 A. This portion of the green?

16 Q. Yes, ma'am.

17 A. Right.

18 Q. And what is the ownership of that tract? Is that
19 shown?

20 A. It is this that's listed here. This is all one
21 lease.

22 Q. Okay. So you notified all of the interest owners
23 in the northwest quarter?

24 A. Yes.

25 Q. And all operators of Wolfcamp wells within a

1 mile?

2 A. Yes.

3 Q. Do you know what other Wolfcamp pools are in this
4 area?

5 A. I believe there is the south -- I have those in
6 some other notes. I know that --

7 MR. BRUCE: Mr. Examiner, one of them is the Cass
8 Draw-Wolfcamp Gas Pool, and the other one is the -- Is it
9 the East Carlsbad-Wolfcamp?

10 THE WITNESS: Yes, that's it, that's it.

11 MR. BRUCE: The Cass Draw-Wolfcamp is immediately
12 to the south, and the East Carlsbad-Wolfcamp is to the west
13 of this well.

14 THE WITNESS: And they're both gas pools.

15 Q. (By Examiner Catanach) Gas pools. And you've
16 got an oil completion?

17 A. Yes, it qualifies as an oil well.

18 Q. And the reason you want this retroactive to
19 February is so all the interest owners can share in
20 production from this well?

21 A. From the beginning of the recompletion, yes.

22 Q. And it started producing in February?

23 A. Yes.

24 Q. So you've got all voluntary consent to your
25 proration unit from all the interest owners?

1 A. I have not had objections. I've had people say
2 that they wanted their acreage included. Most people I
3 have not heard from. Mr. Williams I did hear from, and he
4 said he wanted his acreage included. Mr. Williams is the
5 acreage over in brown; it's a real small little piece over
6 in the far west side of the northwest quarter of the
7 northwest quarter.

8 Basically just due to the location of the well,
9 we felt like it would be fairer to all the royalty owners
10 to include all people in the northwest quarter.

11 When that well was originally drilled, there is
12 some power lines in a ditch in the northeast quarter of the
13 northwest quarter, going in a north-south direction --
14 actually in a north-south direction through the whole east
15 half of the northwest quarter.

16 Q. But you intend to consolidate all that interest
17 in that northwest quarter before you --

18 A. Yes.

19 Q. -- or before you actually -- Well, you are
20 producing, okay.

21 You don't know if this well has been put in any
22 Wolfcamp pool by the Division yet, do you?

23 A. I believe they put it in an oil pool, an
24 undesignated Wolfcamp oil pool until --

25 Q. So they haven't created anything?

1 A. No.

2 Q. Okay.

3 A. Not to my knowledge.

4 EXAMINER CATANACH: Okay. I have nothing further
5 of this witness.

6 MR. HALL: May I ask a couple of questions?

7 EXAMINER CATANACH: Sure.

8 EXAMINATION

9 BY MR. HALL:

10 Q. Let me ask you, is there any reason why the well
11 can't be produced on the 80 acres rather than the 160?

12 A. No, our desire was just to be fair to the royalty
13 owners, due to the location of the well.

14 Q. And you understand by having a 160-acre proration
15 unit for the well, the Grandi interests are reduced by
16 half?

17 A. Yes, sir, I do.

18 Q. And that would not be fair to their interest
19 then; would you agree?

20 A. If you were the Grandis, I would agree. If you
21 were the people to the south who have not objected, you
22 know, you might have a different viewpoint on that.

23 Q. Do you know what the depth bracket allowable is
24 for an 80-acre well?

25 A. 145?

1 MR. BRUCE: 345.

2 THE WITNESS: 345.

3 Q. (By Mr. Hall) And your estimates on Exhibit 8
4 for 400 barrel per day production is purely an estimate at
5 this point, correct?

6 MR. BRUCE: That's the engineer's exhibit. She
7 hasn't testified as to that, so I'd prefer to have the
8 engineer address that question.

9 MR. HALL: Okay, I'll wait till the engineer
10 testifies.

11 EXAMINER CATANACH: Okay. Anything further?

12 MR. HALL: No.

13 EXAMINER CATANACH: The witness may be excused.

14 MICHAEL D. HAYES,
15 the witness herein, after having been first duly sworn upon
16 his oath, was examined and testified as follows:

17 DIRECT EXAMINATION

18 BY MR. BRUCE:

19 Q. Would you state your name and city of residence
20 for the record?

21 A. Michael D. Hayes, and I live in Midland, Texas.

22 Q. Who do you work for?

23 A. Santa Fe Snyder Corporation.

24 Q. What's your job with Santa Fe?

25 A. I'm a geologist.

1 Q. Have you previously testified before the Division
2 as a geologist?

3 A. Yes, I have.

4 Q. And were your credentials as an expert accepted
5 as a matter of record?

6 A. Yes, they were.

7 Q. And are you familiar with the geology involved in
8 this Application?

9 A. Yes, I am.

10 MR. BRUCE: Mr. Examiner, I tender Mr. Hayes as
11 an expert petroleum geologist.

12 EXAMINER CATANACH: He is so qualified.

13 Q. (By Mr. Bruce) Mr. Hayes, would you refer to
14 your Exhibit 4, identify it for the Examiner, and discuss
15 the productive intervals in this well?

16 A. Yes. Exhibit 4 is a four-well stratigraphic
17 cross-section. It goes through four wells. It refers also
18 to Exhibit 5. You can see where the wells are. The well
19 in question is the SFER Weems Number 1, the third one from
20 the left.

21 I've tried to show a couple of things here. One
22 is that I've showed the upper Wolfcamp, what I'm calling
23 the upper Wolfcamp pay, which is the pay zone within the
24 Weems, and it shows the mapping horizon I used to develop
25 the map that's going to be Exhibit Number 5. It shows the

1 base of the upper Wolfcamp pay, which is the datum on this
2 cross-section. It's also the mapping -- or the structural
3 horizon I use for the structure map. The map shows zones,
4 various zones that have been completed in the information.

5 The key point on the Weems Number 1 is that when
6 I refer back to the map I've colored in a little bit where
7 I think we have a gross pay interval and a net pay
8 interval. The gross is in blue, colored blue, and it's
9 essentially less than 30 API. Then I have a four-percent
10 porosity cutoff, which I believe is pay. And you can see
11 the perforations on there.

12 Just as a matter of reference, the Lovelace
13 Number 1, which is the farthest one to the west, it
14 shows -- It's the well down to the south. It's in that
15 South Cass gas field, and you can see that it's actually
16 what I would refer to as a lower Wolfcamp pay. It's a
17 different horizon out there, from what I notice is the only
18 well that -- the Weems is the only one that produces out of
19 this horizon in the direct area.

20 I'd like to now refer to Exhibit 5.

21 Q. Go ahead with your next exhibit, Mr. Hayes.

22 A. Exhibit Number 5 is a combination map. It shows
23 several things, and I'll just kind of run through it to
24 kind of orient people.

25 The numbers in black, the negative subsea

1 numbers, are the structural numbers for that base of the
2 upper Wolfcamp pay from a structure map. You can see in
3 the Weems it's subsea 6070.

4 I also have on there an isopach, information,
5 which shows in green, the numbers are the gross carbonate
6 interval.

7 And then the one to the right is the net
8 carbonate interval or what you'd consider the pay within
9 the wells. You can see in the Weems well there's
10 approximately 50 feet of gross interval and about 25 feet
11 of net interval.

12 Around the wells I have the cumulative production
13 to date. In the case of the well there, you can see it
14 made about 600 million cubic feet of gas in the Morrow.
15 The Atoka has made about 4 million cubic feet, and then you
16 can see that the Strawn zone, which is in the well, was
17 highly productive and made about 6.5 BCF of gas and about
18 96,000 barrels of liquids.

19 The yellow information is Santa Fe's acreage
20 position in there.

21 And if you refer to the information around the
22 wells, you can see that the thickness around the zones
23 varies highly. This is just the upper Wolfcamp pay that
24 I'm showing here for the map, and it varies from basically
25 no pay -- you can see zeroes in several places -- to 25 in

1 the Weems, is about as much as we have in the pay interval
2 in the area.

3 Q. Mr. Hayes, since you have the production data on
4 here, could you just give a brief history of the Weems Well
5 Number 1 and how it was completed and in what sequence?

6 A. As I recall -- My engineer may be able to help me
7 out on this later, but as I recall, they originally went to
8 the Strawn zone because of its highly productive interval.
9 After that was depleted they came back to the Morrow, went
10 down to the Morrow and then completed the Atoka before they
11 came up to the Wolfcamp interval in February of this year.

12 Q. And the Atoka was not very productive?

13 A. No, the Strawn was the very excellent zone there.

14 Q. Were Exhibits 4 and 5 prepared by you or under
15 your direction?

16 A. Yes, they were.

17 Q. And in your opinion, is the granting of Santa
18 Fe's Application in the interest of conservation and the
19 prevention of waste?

20 A. Yes.

21 MR. BRUCE: Mr. Examiner, I move the admission of
22 Santa Fe's Exhibits 4 and 5.

23 EXAMINER CATANACH: Exhibits 4 and 5 will be
24 admitted as evidence.

25 MR. HALL: No questions.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Hayes, do you see any evidence of geologic separation between this proposed pool and any of the other Wolfcamp pools in the area?

A. Well, first off, it appears that all the other pools are in different stratigraphic horizons. They're not even with -- oh, I don't know, 500 feet stratigraphically. You can see an example on the Lovelace. It's really -- Perforations are down almost at 10,000 feet there, at the bottom of the -- what I'd refer to as the lower Wolfcamp out here.

And from an engineering standpoint -- We'll get into the discussion of what we think the drainage area is, but it appears that we've got an estimate of what we think it's actually draining, based on that.

From the observation of the logs in the area, it also appears that these zones are not very well connected.

Q. So what you're saying, all of the offset wells that are producing from the Wolfcamp are producing from the lower interval, lower Wolfcamp?

A. Or different horizons than the one that I'm referring to here, yes, from my understanding of the local area, yes.

Q. And you've found no wells that are producing from

1 the same interval you're producing from?

2 A. Not that I'm aware of.

3 Q. These figures that you show for the offset wells
4 for the net and gross sands, that is in that interval?

5 A. Yes, it's just in the upper Wolfcamp interval,
6 that's correct.

7 Q. But to your knowledge, none of these wells have
8 been completed in that interval?

9 A. That's my understanding. It seems that the lower
10 Wolfcamp is the main pay. None of the zones are all that
11 good, frankly.

12 Q. But it appears from all of those wells, all the
13 offset wells, your one may have found the thickest portion
14 of that reservoir there?

15 A. Uh-huh. And unlike some of the other wells, it
16 appears to be an oilier zone, for whatever reason.

17 Q. What is the closest Wolfcamp production to your
18 well?

19 A. It would be that well directly to the south, the
20 Lovelace Number 1, where you can see a perforated interval
21 down there at about 9900 feet.

22 Q. Is that in Section 27?

23 A. Yeah, that's the southwest quarter of 27, yes.

24 Q. That would be in the Cass Draw?

25 A. That's right, the South Cass, I think. That's a

1 gas pool, as I understand.

2 Q. Okay.

3 A. Understandably so.

4 Q. Is the Neely Number 1 producing?

5 A. Let's see. I'm going to take a look at that one
6 right now. Yeah, it looks from the perforations at about
7 10,500. I'm not familiar exactly where that's coming from,
8 to be honest with you. It's below what I'd call the
9 Wolfcamp interval. I think basically the bottom of the
10 cross-section is essentially what I'm calling the base of
11 the Wolfcamp, at about 10,000 feet. In fact, on there,
12 I've got it identified as Strawn perms at 10,000, 10,500.

13 Q. And the Henry well looks like it's not producing
14 from the Wolfcamp either?

15 A. That's correct.

16 EXAMINER CATANACH: Okay, I have nothing further
17 of this witness. He may be excused.

18 BRADLEY C. CROSS,
19 the witness herein, after having been first duly sworn upon
20 his oath, was examined and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. BRUCE:

23 Q. Would you please state your name and city of
24 residence?

25 A. Bradley C. Cross, Midland, Texas.

1 Q. Who do you work for and in what capacity?

2 A. The Santa Fe Snyder Corporation. I'm a senior
3 reservoir engineer.

4 Q. Have you previously testified before the
5 Division?

6 A. No, I have not.

7 Q. Would you summarize your educational and
8 employment background for the Examiner, please?

9 A. I have a bachelor's degree in mechanical
10 engineering from the University of Washington, I have a
11 master's of business administration from California State
12 University, I've worked for Atlantic Richfield Corporation
13 for eight years and Santa Fe Snyder Corporation for one and
14 a half years.

15 Q. Does your area of responsibility include
16 southeast New Mexico?

17 A. Yes, it does.

18 Q. And are you familiar with engineering matters
19 related to this Application?

20 A. Yes, I am.

21 MR. BRUCE: Mr. Examiner, I'd tender Mr. Cross as
22 an expert reservoir engineer.

23 EXAMINER CATANACH: He is so qualified.

24 Q. (By Mr. Bruce) Mr. Cross, could you identify
25 Exhibit 6 and discuss production from the Weems Well Number

1 1?

2 A. Exhibit 6 contains daily production data from the
3 Weems Number 1 well since we recompleted it. The initial
4 production is actually erroneously recorded on February 9th
5 and 10th. That's cumulative production for several days
6 while the well was being recompleted. But subsequent to
7 that, February 11th forward reflects accurate daily
8 production from the well.

9 The well initially produced approximately 350
10 barrels of oil per day and about 400 MCF of gas. It's
11 declined rapidly.

12 Page 1 summarizes total production for the month
13 of February, 7647 barrels of oil, 8.7 million cubic feet of
14 gas.

15 The third page has the monthly total for the
16 following month, March, of 5082 barrels of oil and 6.6
17 million cubic feet.

18 And the fourth page has April's production of 3.2
19 million cubic feet of gas and 2142 barrels of oil.

20 Q. Would you move on to your Exhibit 7 and describe
21 how you calculated a drainage area for this well?

22 A. Okay. The early time pressure and rate data of
23 the well were recorded, bottomhole pressures calculated,
24 and the decline in bottomhole pressure versus cumulative
25 volume production from the well were used to calculate the

1 size of the -- or the total pore volume of the reservoir
2 that this well was producing from.

3 The second page shows a plot. This is a pseudo-
4 steady-state analysis of the decline in pressure, and the
5 slope of the line through those points will give us an
6 accurate estimate of what the reservoir pore volume is. In
7 this case, in the upper left corner, it's indicated as V_p .

8 Based on the average porosity through that
9 interval, taken from the log, we can estimate the bulk
10 volume, which is listed as V . It also will give us an
11 estimate of oil in place based on porosity and water
12 saturation.

13 The third page shows how the drainage area was
14 calculated. I assumed a lenticular reservoir centered on
15 the well. The reservoir bulk volume, as taken from the
16 pseudo-steady-state analysis, based on that bulk volume and
17 this geometry, I get a drainage radius of 1277 feet, which
18 calculates to 117.7 acres drainage area.

19 Q. So it's draining more than 80 at this point, less
20 than 160 acres?

21 A. Yes, it is.

22 Q. Could you move on to your final exhibit, Number
23 8, and discuss what this shows for the Examiner?

24 A. Number 8 is a summary of results -- well,
25 actually assumptions that were made and subsequent results

1 from an economic analysis of our drilling a second well
2 into this pool.

3 Line 1 lists our estimated drill, complete and
4 equip costs for a well approximately 9200 feet deep, at
5 \$765,000 gross. Estimated initial production that was used
6 for the analysis was 400 barrels of oil per day and 400 MCF
7 per day. That number was taken as an approximation of what
8 the Weems Number 1 did upon recompletion. That is a high
9 number for the Cass Draw and East Carlsbad fields, that
10 initial production is high.

11 Estimated ultimate recovery of 39,000 barrels of
12 oil and 117 million cubic feet was assumed, which is
13 approximately what the estimated EUR of the Weems Number 1
14 well is.

15 And for the economics I assumed a 100-percent
16 working interest, 80-percent net revenue interest, which is
17 approximately the interest of the Weems Number 1. And that
18 economic analysis generated a negative rate of return.

19 Q. So if you had to drill a second well in this
20 reservoir you could not justify it economically to
21 management?

22 A. It could not be justified economically.

23 Q. As I said, drainage is somewhat less than 160
24 acres. Why is 160-acre spacing requested in this pool?

25 A. Well, due to the unorthodox location of the well,

1 near the center of the quarter section, it's likely that
2 this well will drain from all quarter-quarter sections in
3 the northwest quarter of Section 27. Also, it would be
4 uneconomic to drill a second well in the northwest quarter
5 of Section 27. And therefore, in order to assure that all
6 interest owners share in production, we request the 160-
7 acre spacing.

8 Q. Were Exhibits 6 through 8 prepared by you or
9 under your direction?

10 A. Yes, they were.

11 Q. And in your opinion, is the granting of Santa
12 Fe's Application in the interests of conservation and the
13 prevention of waste?

14 A. Yes, it is.

15 MR. BRUCE: Mr. Examiner, I move the admission of
16 Exhibits 6 through 8.

17 EXAMINER CATANACH: Exhibits 6 through 8 will be
18 admitted as evidence.

19 Mr. Hall, do you have any questions?

20 MR. HALL: Yes.

21 EXAMINATION

22 BY MR. HALL:

23 Q. Mr. Cross, is your daily oil production rate now
24 in the neighborhood of 70, 75 barrels? Is that --

25 A. Daily production currently is approximately 50

1 barrels of oil and about 80 MCF per day.

2 Q. And you'll agree with me, that's well below the
3 depth bracket allowable for even a 40-acre oil well at that
4 depth?

5 A. At this point, it is.

6 Q. There's no expectation that that production rate
7 will improve?

8 A. No, there is not.

9 Q. Is there any reason, other than the economics
10 you've cited, that the well cannot be produced on 80 acres?

11 A. The reason that we're submitting for 160 acres is
12 that we feel, based on engineering and geologic review of
13 the well, that a significant portion of the oil that the
14 well is producing is coming from the south half of the
15 quarter section, and therefore the 160 would be more
16 applicable.

17 Q. Do you know of any reason why the well can't be
18 produced on temporary 80-acre spacing rules until some
19 additional data is derived from production or the economics
20 change that will justify 160-acre spacing later?

21 A. No, I do not.

22 MR. HALL: Nothing further.

23 EXAMINATION

24 BY EXAMINER CATANACH:

25 Q. Mr. Cross, do you agree with your geologist's

1 interpretation on the reservoir configuration of that
2 Wolfcamp reservoir?

3 A. Yes, I do.

4 Q. And it shows basically that that reservoir --
5 Well, at least the 10-foot contour line encompasses a
6 substantial portion of the northwest quarter?

7 A. Yes, it does.

8 Q. Do you believe that that well is draining that
9 area, at least to the 10-foot contour line?

10 A. My analysis didn't attempt to determine what the
11 configuration of the reservoir was, but it would be
12 consistent, the volume and the drainage area that I have
13 calculated, would be consistent with Mr. Hayes' geologic
14 map.

15 Q. So if you assume radial drainage, you still -- a
16 substantial portion of that drainage area would encompass
17 the south half of the northwest quarter; is that correct?

18 A. Yes, it would.

19 Q. Have you estimated how long the producing life of
20 this well is going to be?

21 A. I have not. I would venture to guess that it
22 will be on the order of an additional six months.

23 Q. This well has already produced nearly 15,000
24 barrels of oil; is that correct?

25 A. Yes, it has. Cumulative production is 14,872

1 barrels of oil, as of the last day of April.

2 Q. So all you've got is an additional maybe 25,000
3 barrels to recover?

4 A. That's correct.

5 Q. Are there any additional Wolfcamp zones that are
6 potentially productive in this well?

7 A. In this well there are no additional Wolfcamp
8 zones. This zone is at the top of the Wolfcamp, and it's
9 the only one there.

10 EXAMINER CATANACH: I believe that's all I have.

11 Do you have any other questions?

12 MR. BRUCE: Nothing further, Mr. Examiner.

13 MR. HALL: (Shakes head)

14 EXAMINER CATANACH: Okay, there being nothing
15 further in this case, Case 12,367 will be taken under
16 advisement.

17 (Thereupon, these proceedings were concluded at
18 9:05 a.m.).

19 * * *

20
21 I do hereby certify that the foregoing is
22 a complete record of the proceedings
23 the Examiner hearing of Case 12,367
24 heard by me on May 1, 1967.
25 David R. Catanach -00
Off Conservation Division

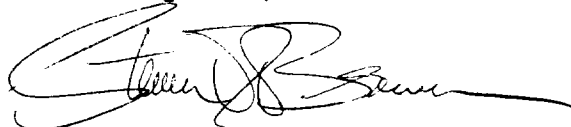
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL May 9th, 2000.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002