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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. 10242 and
APPLICATION OF YATES ENERGY) 10243
CORPORATION FOR COMPULSORY)
POOLING, EDDY COUNTY, NEW MEXICO)
)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

February 21, 1991
9:10 a.m.
Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on February 21, 1991, at 9:10 a.m. at Oil Conservation Division Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Paula Wegeforth, Certified Court Reporter No. 264, for the State of New Mexico.

FOR: OIL CONSERVATION DIVISION BY: PAULA WEGEFORTH
Certified Court Reporter
CSR No. 264

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February 21, 1991
Examiner Hearing

CASE NO. 10242 and 10243

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A P P E A R A N C E S

FOR THE DIVISION: ROBERT G. STOVALL, ESQ.
 General Counsel
 Oil Conservation Commission
 State Land Office Building
 310 Old Santa Fe Trail
 Santa Fe, New Mexico 87501

FOR THE APPLICANT: PADILLA & SNYDER
 Attorneys at Law
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 200 West Marcy Street, Suite 216
 Santa Fe, New Mexico 87501

FOR SPIRAL, INC., CAMPBELL & BLACK
HEYCO EMPLOYEES, LT., Attorneys at Law
AND EXPLORERS BY: WILLIAM F. CARR, ESQ.
PETROLEUM: Santa Fe, New Mexico 87501

* * *

1 EXAMINER CATANACH: At this time we will call
2 Case 10242.

3 MR. STOVALL: Application of Yates Energy Corporation
4 for compulsory pooling, Eddy County, New Mexico.

5 EXAMINER CATANACH: Are there appearances?

6 MR. PADILLA: Mr. Examiner, Ernest L. Padilla for the
7 applicant. I have two witnesses, and I would ask that this
8 case be consolidated with 10243.

9 EXAMINER CATANACH: Mr. Carr.

10 MR. CARR: May it please the examiner, my name is
11 William F. Carr with the law firm Campbell & Black, P.A.,
12 of Santa Fe. I would like to enter my appearance in each
13 of these cases for Spiral, Inc., HEYCO Employees, Limited,
14 and Explorers Petroleum. I do not have a witness.

15 MR. PADILLA: I have two witnesses to be sworn,
16 Mr. Examiner.

17 EXAMINER CATANACH: Let's call Case 10243.

18 MR. STOVALL: Application of Yates Energy Corporation
19 for compulsory pooling, Eddy County, New Mexico.

20 EXAMINER CATANACH: Will the two witnesses please
21 stand and be sworn?

22 (Whereupon the witnesses were duly sworn.)

23 MR. PADILLA: Mr. Examiner, I'll call Sharon Hamilton,
24 please.

25 * * * * *

1 SHARON R. HAMILTON,
2 the Witness herein, having been first duly sworn, was
3 examined and testified as follows:

4 DIRECT EXAMINATION

5 BY MR. PADILLA:

6 Q. Ms. Hamilton, please for the record state your
7 name.

8 A. My name is Sharon R. Hamilton.

9 Q. You work for Yates Energy Corporation?

10 A. Yes, sir.

11 Q. And you've testified before the Oil Conservation
12 Division as petroleum landman before?

13 A. Yes, sir.

14 Q. Have you prepared certain exhibits for
15 introduction or had them compiled under your supervision?

16 A. Yes, sir, I have.

17 Q. And you're familiar with the acreage under
18 consideration for compulsory pooling in both of the cases?

19 A. Yes, sir.

20 MR. PADILLA: Mr. Examiner, we tender Ms. Hamilton as
21 a petroleum landman.

22 EXAMINER CATANACH: She is so qualified.

23 Q. Ms. Hamilton, please tell us briefly what
24 cases -- these two cases are about.

25 A. We're requesting compulsory pooling for two

1 40-acre tracts located in Eddy County, New Mexico, Township
2 18 south, Range 31 east, in Section 1.

3 Q. Let's let me have you refer to what we have
4 marked as Exhibit No. 1 and have you identify that for the
5 examiner, please.

6 A. Exhibit No. 1 is a land plat showing the
7 township and range -- 18 south, 31 east -- in Eddy County.
8 The two locations that we're seeking compulsory poolings
9 for are indicated in yellow with the well locations
10 indicated in red.

11 Q. Ms. Hamilton, what efforts generally have you
12 made to voluntarily join all of the working-interest
13 parties who have an oil and gas ownership in these two
14 40-acre tracts?

15 A. We submitted AFEs for their examination, and the
16 parties indicated they had no interest to participate. We
17 are continuing to have a voluntary agreement for a
18 farm-out, but to date have not been able to enter into a
19 formal agreement.

20 Q. Is it your testimony that no one is generally
21 interested in drilling and participating in drilling of
22 these two wells?

23 A. Yes, sir, that's our understanding.

24 Q. And to what formation does the Yates Energy
25 Corporation plan to drill these wells?

1 A. We have proposed total depth of 5600 feet to
2 test the Grayburg Delaware formation.

3 Q. And has Yates Energy Corporation been involved
4 in drilling this type of well in the immediate area?

5 A. Yes, sir, we have.

6 Q. Let's move on to what we have marked
7 Exhibit No. 2 and have you identify that for the examiner,
8 please.

9 A. Exhibit No. 2 is the ownership summary for the
10 two 40-acre tracts. It further goes to state the parties
11 that we're requesting compulsory pooling on.

12 Q. What parties specifically are you attempting to
13 force pool as shown on that exhibit?

14 A. Spiral, Inc., Explorers Petroleum Corporation,
15 HEYCO Employees, Limited, and Chevron U.S.A, Inc.

16 Q. What efforts have you made to join the
17 participation of these entities to drill into two wells?

18 A. We submitted eight of these operating AFEs for
19 the parties to review. Spiral, Explorers and HEYCO
20 Employees indicated that due to geologic reasons they were
21 not interested in drilling the wells, requested farm-out
22 terms, and we have submitted the terms to them for review.

23 The Chevron ownership indicated no interest in
24 drilling, and they are formulating a farm-out proposal for
25 us.

1 Q. Let's turn now to what we have marked as
2 Exhibits 3-A and 3-B and have you identify those for the
3 examiner, please.

4 A. 3-A is a summary of the telephone and letter of
5 contact that we had with the owners involved, and 3-B are
6 copies of all the correspondence.

7 Q. When did you first propose the wells to the
8 various entities that you're attempting to force pool?

9 A. On January 11th, 1991.

10 Q. It's your testimony that there has been no
11 positive response as far as participation is concerned?

12 A. No, sir, there has not.

13 Q. What was the latest conversation or
14 communication that you had with any of the parties
15 involved?

16 A. The latest that I've had was with Harvey -- the
17 HEYCO Employees, Limited Spiral, Inc., and Explorers
18 Petroleum. We had submitted a farm-out proposal to them on
19 the 7th, and on the 12th they indicated that they tabled
20 the request, and we're simply in a limbo matter with them.

21 Q. Do you expect ultimately to get a farm-out from
22 this entity?

23 A. We're continuing to try to negotiate with them.

24 Q. How about with Chevron, the latest conversation?

25 A. The last time I talked to them they were

1 formulating a farm-out proposal for several locations we
2 have in this area that are pending, and I have just been
3 waiting to receive their paperwork.

4 Q. Ms. Hamilton, do you feel that you've made every
5 reasonable effort to obtain the voluntary joinder for the
6 drilling of these two wells?

7 A. Yes, sir, I do.

8 Q. Let's go on to Exhibit No. 4 and have you
9 identify that, please.

10 A. Exhibit No. 4 are the copies of the AFEs for the
11 drilling of the two proposed locations. They are identical
12 to each other with the exception of the name and the well
13 location.

14 Q. You're referring to Exhibits No. 4 and 5?

15 A. Yes, sir.

16 Q. And are these AFEs the same type of AFEs that
17 you have used to drill similar wells in the area?

18 A. Yes, sir. They have simply been modified to the
19 appropriate depth.

20 Q. And in your opinion, they are reasonable as far
21 as the bottom line figures as shown on those AFEs?

22 A. Yes, sir. We've had no contact concerning the
23 cost.

24 Q. When you say "no contact," that means no
25 objection?

1 A. Yes, sir. Uh-huh.

2 Q. Let's go on to what we have marked as
3 Exhibit No. 6 and identify that for the examiner, please.

4 A. Exhibit No. 6 is a copy of the rate schedule
5 that's published by Ernst & Young, indicating that for the
6 depth of the well that we are going to be drilling we are
7 requesting a \$4,000 overhead rate for drilling and a \$350
8 rate for producing rate.

9 Q. And that's what you're requesting from the
10 division to be included in a form of order; is that
11 correct?

12 A. Yes, that's what we are requesting.

13 Q. Ms. Hamilton, in the event the Oil Conservation
14 Division approves this application, does Yates Energy
15 Corporation wish to be named the operator of the wells?

16 A. Yes, sir, we do.

17 Q. Ms. Hamilton, do you have anything further as
18 far as your testimony is concerned?

19 A. No, sir.

20 MR. PADILLA: Mr. Examiner, we ask the introduction of
21 Exhibits 1 through 6, and I would add that Exhibits 7 and
22 8, which are marked, are my affidavit of compliance with
23 the notice requirements as well as the copies of the return
24 receipt requested that we received in our office after
25 having sent the application to the various interest owners

1 that are being force pooled today.

2 We will pass the witness at this time.

3 EXAMINER CATANACH: Exhibit Nos. 1 through 8 will be
4 admitted as evidence.

5 (Whereupon Applicant's Exhibits Nos. 1 through 8 were
6 admitted into evidence.)

7 EXAMINATION

8 BY EXAMINER CATANACH:

9 Q. Ms. Hamilton, when were these wells first
10 proposed to the other working interest owners?

11 A. January the 11th.

12 Q. Have any of the nonconsenting working interest
13 owners expressed any -- an opinion to you as to whether or
14 not they had enough time to evaluate the prospect before
15 you filed for force pooling?

16 A. No, sir. The only response that we had was from
17 the Spiral, Explorers and HEYCO Employees group, and they
18 simply indicated that based on their geologic evaluation
19 that they did not meet the economic criteria for drilling.
20 But they didn't indicate that there was any kind of a time
21 problem in their evaluation.

22 Q. Do you feel that two weeks is enough time to
23 evaluate a drilling prospect, Ms. Hamilton?

24 A. Well, we -- this is an area that we have been
25 conducting continuous drilling operations in, and the

1 parties involved are well aware of the area, as we've
2 drilled two other wells in this vicinity. And it's an
3 issue that we've been discussing for some time with them
4 for development purposes.

5 MR. STOVALL: If I may, Mr. Examiner, let me ask a
6 follow-up question.

7 EXAMINATION

8 BY MR. STOVALL:

9 Q. This is not the first time you've force pooled
10 these parties, is that correct, in the last year, say?

11 A. Yes, sir. We force pooled them in several
12 different locations in the same vicinity.

13 Q. Now, you say they are locations in the same
14 vicinity, so --

15 A. Yes, sir.

16 Q. You're talking about the same pool, the same
17 formation, the same township? What do you mean by
18 "vicinity"?

19 A. We have wells that have been drilled to two
20 different formation depths in Section 1 and in Section 12
21 that the parties were force pooled in the wells that were
22 drilled, and then we have two other pending locations that
23 we are preparing to drill that the parties were also force
24 pooled in.

25 Q. And the wells have been drilled. Have you got

1 evaluations of the quality of those wells yet?

2 A. Yes, sir. I believe we have done some studies
3 that our next witness will be able to testify to.

4 Q. Do you know whether they -- are the HEYCO
5 folks -- I guess Spiral and Explorers are all associated
6 with HEYCO, are they not?

7 A. Yes, they are.

8 Q. Are they all aware of the results or the
9 information so far?

10 A. Yes, sir. They participated in one other well
11 that's a direct offset to this one, the Thornbush Federal
12 No. 1, that is in the southeast quarter of the southwest
13 quarter. They all participated in the drilling of that
14 well that was drilled to a Bone Spring test and
15 subsequently completed as the St. Andrews well.

16 We were up here quite a few times on that one.

17 Q. I think we had more than one case dealing that
18 with that well, did we not?

19 A. Yes, sir, we did.

20 Q. I knew that name rang a bell.

21 MR. STOVALL: I have no further questions of
22 Ms. Hamilton.

23 EXAMINER CATANACH: I don't, either. The witness may
24 be excused.

25 MR. PADILLA: Mr. Examiner, we'll call Bill Baker at

1 this time, our geologic witness.

2 BILL BAKER,
3 the Witness herein, having been first duly sworn, was
4 examined and testified as follows:

5 DIRECT EXAMINATION

6 BY MR. PADILLA:

7 Q. Mr. Baker, for the record, please state your
8 name.

9 A. Bill Baker.

10 Q. You've testified before the division before and
11 had your credentials accepted as a petroleum geologist; is
12 that correct?

13 A. Yes, sir, I have.

14 Q. And you work for Yates Energy Corporation as a
15 petroleum geologist?

16 A. Yes, sir, I do.

17 Q. Did you prepare certain exhibits for
18 introduction at this hearing today which indicate that you
19 have made a study of the area?

20 A. Yes, sir. I prepared three exhibits.

21 Q. And of the geologic prospect?

22 A. Yes, sir, I have.

23 MR. PADILLA: Mr. Examiner, we tender Mr. Baker as a
24 petroleum geologist.

25 EXAMINER CATANACH: He is so qualified.

1 Q. (By Mr. Padilla) Mr. Baker, please discuss with
2 us the general geography -- or general geology that you --
3 your prospects hope to encounter?

4 A. This particular prospect for the Cocklebur Fed
5 and the Thornbush Fed No. 3 is a prospect in which we are
6 attempting to encounter porosity within a San Andres
7 dolomite carbonate formation. We will be penetrating
8 through the San Andres Grayburg formations, Queen
9 formations and down into the Delaware formations which have
10 Delaware sands in there with our additional potential
11 objectives in the area.

12 This particular prospect is situated on the
13 Pecos Slope Abo Shelf right out in front of the Pecos
14 Slope -- Abo. As I have testified in several cases before,
15 this is at a position where the San Andres dolomite
16 carbonate is interfingering with Delaware sand packages and
17 forming stratigraphic traps, which are extremely risky
18 traps.

19 Exhibit No. 1 is a structure map on the top of
20 the San Andres formation.

21 MR. STOVALL: Let me stop you there. You said
22 Exhibit 1?

23 THE WITNESS: Oh, excuse me. I'm sorry.
24 Exhibit No. 9.

25 MR. STOVALL: Okay.

1 THE WITNESS: Excuse me, sir. I'm used to it being
2 Exhibit 1.

3 Exhibit No. 9 is a structure map on the top of
4 the San Andres formation. This particular map here shows
5 the relationships of the two proposed locations to the
6 other penetrations or other well bores that have penetrated
7 the San Andres formation in the area, and it will also show
8 cross section A-A', which will be Exhibit No. 11, which
9 I'll get to in just a little bit.

10 This particular map shows that from a structural
11 standpoint the Cocklebur Fed No. 1, which is located in the
12 southwest to the southeast, will be structurally probably
13 20 feet high to the Thornbush Federal No. 1, which I will
14 show on the isopach, which is Exhibit No. 10. And then the
15 Thornbush Federal No. 3 is located at a structural position
16 approximately 50 feet high to the Thornbush Federal No. 1.

17 Q. Mr. Baker, what other wells shown on this
18 Exhibit No. 9 has Yates Energy Corporation drilled?

19 A. Yates Energy in this particular area has drilled
20 the Thornbush Federal No. 1, which is located in the
21 southeast of the southwest of Section 1 and its subsequent
22 offset, which is called the Prickly Pear Federal No. 1,
23 which is located in northeast quarter of the northwest of
24 Section 12.

25 This particular well was penetrated through the

1 San Andres formation, was subsequently dry in the
2 San Andres formation and was completed as the Queen
3 producer.

4 Q. How about the Prickly Pear No. 1? Where did
5 you --

6 A. That was the Prickly Pear No. 1.

7 Q. That was the --

8 A. Yes, sir. Thornbush Federal No. 1 was a Bone
9 Springs test. It was the first well that Yates Energy
10 drilled in this area. It was drilled in May of 1990. We
11 subsequently tested several Bone Spring formations that
12 proved noncommercial and subsequently made a well in the
13 San Andres formation for initial potential of 125 barrels
14 of oil per day.

15 Q. And what type of production do you have from
16 that well today?

17 A. The well has produced approximately 9000 barrels
18 of oil. It is currently producing at a stabilized rate of
19 about 21 barrels of oil per day and three barrels of water.
20 As recently as this last Monday we performed an acid-frac
21 stimulation on the zone and are currently flowing back frac
22 fluids at this time, hoping to increase the production back
23 up to 75, 80 barrels of oil a day.

24 Q. Are you ready to go on to Exhibit No. 10?

25 A. Yes, sir.

1 Q. Let's identify that for the record.

2 A. Exhibit No. 10 is an isopach map of the
3 San Andres dolomite based on the porosity of greater than
4 12 percent dolomite. My study of this particular area has
5 indicated that for this particular formation to be
6 commercially productive you need to have at least 12
7 percent important porosity. Anything less than 12 percent
8 porosity will generate no economic commercial hydrocarbons
9 and very seldom even shows.

10 This particular isopach indicates that these
11 little porosity bands appear to be oriented in an east-west
12 orientation. The well control in here also indicates that
13 they are extremely narrow. They are very thin little
14 bands. They go from zero to 150 feet of porosity in less
15 than a quarter of a mile, and then as the well control
16 indicates, they can go back to zero on the north side in a
17 relatively short period of time again.

18 Q. So this is sort of a hit-or-miss proposition as
19 far as hitting these pods, as you've shown on this exhibit?

20 A. Yes, sir. From a geological standpoint, they
21 are a relatively risky stratigraphic trap, but when you do
22 encounter them, they do appear to be relatively prolific.

23 Q. How about the one that is shown on the -- why
24 don't you discuss for the examiner both of the -- the one
25 in the north and the one in the south?

1 A. These are similar -- what appear to be similar
2 pods in the San Andres dolomite. The one located to the
3 north up in -- which would be Section 36, the township
4 directly above us, these were some of the original wells
5 drilled in the area back in 1950 by Hudson. There are two
6 wells in what appear to be 35 and 36 that did produce from
7 this particular San Andres formation. They only went down
8 into the top of the San Andres formation, which is why I
9 have plus 70 and plus 35. That did not cut the entire
10 formation.

11 But, as you can see, there were two procedures
12 in this little thin band, and they are flanked north and
13 south by two wells that had zero porosity.

14 The one to the south is another dolomitic
15 porosity pod that also, here again, shows how you can go
16 from two feet of porosity to a maximum of 270 feet of
17 porosity and then up to one foot of porosity and all less
18 than nearly three-quarters of a mile -- really,
19 approximately half a mile. Once again, it shows the
20 orientation of these little pods to be oriented in an
21 east-west orientation and are relatively thin little bands.

22 Q. What does this exhibit show in terms of risk for
23 both of your proposed locations?

24 A. Well, this particular exhibit -- of course, I
25 based it on the existing well control and what I have

1 seen -- what appears to be the orientation of these pods.
2 It indicates that the Cocklebur Fed No. 1 should encounter
3 approximately 150 feet of porosity. We're hoping that this
4 particular well will be very similar to our Thornbush
5 Federal No. 1.

6 But if you use the existing well control in the
7 area, it also indicates that the Thornbush Federal No. 3
8 will be moving to the north in an up-dipped direction which
9 should be thinning in the porosity pods. This particular
10 isopach indicates that we should have approximately 20 feet
11 of porosity, which at this particular time we think should
12 be enough to make a commercial producer.

13 Q. Let's go on to your last exhibit, Mr. Baker, and
14 tell the examiner what that is.

15 A. Exhibit No. 11 is a structural cross section
16 through two of Yates Energy's wells that we have drilled
17 through this particular formation, and it shows the two
18 proposed locations. This is cross section A-A'. Moving
19 left to right, you will see that on the far left-hand side
20 is the Yates Energy Prickly Pear Federal
21 No. 1. This was the offset to the Yates Energy Thornbush
22 Federal No. 1, which was the discovery well for this
23 particular San Andres porosity zone.

24 I have indicated the top of the San Andres by
25 the little rabbit-ear effect that I colored in orange right

1 here. This is what my structure map is based upon. At a
2 depth of 4600 to 4800 feet you see the San Andres interval,
3 but you also can tell by the neutron density log that there
4 is no porosity greater than ten percent. And what I've
5 elected to do is, I have colored everything greater than 12
6 percent in the purple. I have indicated that as the San
7 Andres porosity zone there.

8 As I mentioned earlier, this particular well was
9 dry in the San Andres, and we have subsequently completed
10 it in the Queen for 11 barrels of oil per day. This well
11 was only 700 feet to the south of the Thornbush Federal
12 No. 1.

13 As you move to your right, you see the Thornbush
14 Federal No. 1. As I mentioned earlier, this was a Bone
15 Springs test. We tested several Bone Spring zones that
16 were noncommercial. We subsequently recompleted at a depth
17 of 4637 at the very top of the San Andres porosity level
18 for an IPP of 126 -- or 125 barrels of oil per day and 16
19 barrels of water.

20 As I mentioned, the wells made about 9000
21 barrels of oil, and it stabilized at about 21 barrels of
22 oil per day and three barrels of water. We just recently
23 did an acid-frac on this in an attempt to get this
24 production up to 75 to 80 barrels of oil per day.

25 I've chosen to move this on to the right,

1 extrapolating this porosity zone out to where I believe the
2 Cocklebur Federal No. 1 should encounter about 150 feet of
3 porosity. This is based entirely on existing well controls
4 back to the west, and all I'm doing is continuing a trend.

5 As you move on from the Cocklebur Federal
6 No. 3 -- or Fed No. 1, you will move to the Thornbush
7 Federal No. 3. Here I have indicated that we are moving in
8 an up-dipped structural position, and I indicated that I
9 believe it's going to start to pinch out, and we expect to
10 encounter about 20 feet of porosity here.

11 Q. Mr. Baker, do you have anything further
12 concerning this exhibit?

13 A. No, sir, I do not.

14 Q. Anything further concerning your testimony here
15 today?

16 A. No, sir.

17 Q. Other than a recommendation -- or I should ask,
18 what is your recommendation to the division as to the risk
19 factor penalty in an order of the division?

20 A. The maximum, sir.

21 Q. For both wells?

22 A. Yes, sir.

23 MR. PADILLA: Mr. Examiner, we offer Exhibits 9, 10
24 and 11, and we pass the witness at this time.

25 EXAMINER CATANACH: Exhibits 9, 10 and 11 will be

1 admitted as evidence.

2 (Whereupon Applicant's Exhibits 9 through 11 were
3 admitted into evidence.)

4 EXAMINATION

5 BY EXAMINER CATANACH:

6 Q. Mr. Baker, it appears from your exhibit that the
7 Cocklebur has a much greater chance of encountering
8 commercial production. Is that your assessment?

9 A. Based on the existing information, we're
10 certainly hoping, yes, sir. It appears from the
11 information that we're -- that would be the best of the two
12 locations on the existing information, yes.

13 Q. Do you think the 200 percent risk penalty is
14 justified in both cases, though?

15 A. Yes, sir. I believe that due to the fact of
16 what we encountered in the Prickly Pear Federal No. 1 and
17 the risky nature of this particular carbonate formations
18 that every one of these essentially is a wildcat. You can
19 be -- like I said, in the Prickly Pear Fed, you can be 700
20 away from 150 feet of porosity and end up with zero.

21 I have got a theory in which I believe these
22 things are moving in an east-west orientation, but it does
23 not deny the risk of the formation. It's still extremely
24 risky carbonate formations here.

25 Q. Was the Thornbush No. 1 -- did that turn out to

1 be a commercial well?

2 A. Well, we gave estimated ultimate recovery on the
3 well originally of 45,000. 45,000 barrels will generate,
4 oh, using \$20 oil, about \$900,000. This will barely be a
5 one -- one-and-a-half-to-one return on investment for the
6 Thornbush Federal No. 1 because that was a Bone Springs
7 test.

8 For the cost of a San Andres completion, that
9 would be about a two-and-a-half-to-one return on
10 investment, which at this particular time we still consider
11 an economic venture. A lot of companies use a three-to-one
12 criteria, and therefore it would not be economic to them.

13 Q. Now, you're just taking these wells down no
14 deeper than the base of the Delaware; is that correct?

15 A. Yes, sir. At this particular time, we do not
16 see the Bone Springs at these two locations as an economic
17 target, so therefore we proposed them strictly as
18 St. Andrews-Delaware test.

19 Q. Now, as I understand it, the San Andres in this
20 area interfingers with the Delaware?

21 A. Yes, sir. What you're seeing at this particular
22 thing is you've got -- you're on the very front edge of the
23 Pecos Slope Abo Shelf and you've actually got a carbonate
24 formations and some sand formations interfingering with
25 each other.

1 If you'll look at the Thornbush Federal No. 1,
2 you can see actually where some of the Delaware sands are
3 interfingering. I haven't marked them on these particular
4 logs, but you've got carbonate faces interfingering with
5 the sandstone faces here, too.

6 And this is -- my reasonable studies indicate
7 this happens all up and down the Pecos Slope Abo Shelf.

8 EXAMINER CATANACH: I have no further questions. The
9 witness may be excused.

10 MR. PADILLA: We have got nothing further,
11 Mr. Examiner.

12 EXAMINER CATANACH: These being nothing further, 10242
13 and 10243 will be taken under advisement, and let's take a
14 ten-minute break.

15
16 (The foregoing hearing was concluded at the
17 approximate hour of 9:40 a.m.)

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

REPORTER'S CERTIFICATE

I, PAULA WEGEFORTH, a Certified Court Reporter and Notary Public, DO HEREBY CERTIFY that I stenographically reported these proceedings before the Oil Conservation Division; and that the foregoing is a true, complete and accurate transcript of the proceedings of said hearing as appears from my stenographic notes so taken and transcribed under my personal supervision.

I FURTHER CERTIFY that I am not related to nor employed by any of the parties hereto, and have no interest in the outcome hereof.

DATED at Santa Fe, New Mexico, this 20th day of March, 1991.

Paula Wegeforth
PAULA WEGEFORTH
Certified Court Reporter
CSR No. 264, Notary Public

My Commission Expires:
September 27, 1993

I do hereby certify that the foregoing is a complete record of the proceedings of the Examiner hearing of Case No. 10242, 10243 heard by me on February 21 1991.

David R. Catamb, Examiner
Oil Conservation Division