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I N D E X

ROSEMARY AVERY

Direct Examination by Mr. Hall 3

RODNEY THOMPSON

Direct Examination by Mr. Hall 11

Cross Examination by Mr. Stogner 17

E X H I B I T S

Applicant Exhibit One, Plat 4

Applicant Exhibit Two, Unit Agreement 6

Applicant Exhibit Three, Correspondence 7

Applicant Exhibit Four, Correspondence 7

Applicant Exhibit Five, Order #6364 8

Applicant Exhibit Six, Structure Map 13

Applicant Exhibit Seven, Cross Section 14

Applicant Exhibit Eight, Isopach 16

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2 MR. STOGNER: Call next Case Number
3 7807.

4 MR. PEARCE: That case is on the appli-
5 cation of Harvey E. Yates Company for a unit agreement,
6 Chaves County, New Mexico.

7 MR. HALL: Mr. Examiner, my name is
8 Joe Hall, representing Harvey E. Yates Company this morning,
9 and I'll have two witnesses in this case.

10
11 (Witnesses sworn.)

12
13 ROSEMARY AVERY

14 being called as a witness and being duly sworn upon her oath,
15 testified as follows, to-wit:

16
17 DIRECT EXAMINATION

18 BY MR. HALL:

19 Q Would you state your name, please?

20 A Rosemary Avery.

21 Q And for whom do you work, Ms. Avery?

22 A Harvey E. Yates Company in Roswell, New
23 Mexico.

24 Q And what is your position with Harvey E.
25 Yates Company?

1
2 A. I am a senior landman. My title is Project
3 Manager.

4 Q. All right, have you testified before the
5 Division before and have your qualifications as a landman
6 been accepted?

7 A. Yes.

8 MR. HALL: Mr. Examiner, I request that
9 Ms. Avery be recognized as a landman for purposes of testi-
10 fying in the land related matters of this case.

11 MR. STOGNER: She is qualified.

12 Q. Are you familiar with the application in
13 Case 7807?

14 A. Yes, I am.

15 Q. Please state the purpose of that application.

16 A. Applicant requests the Division's approval
17 of the proposed unit agreement for the development and
18 operation of the Buffalo Lake Unit in Chaves County, New
19 Mexico.

20 Q. I have -- or would you please refer to Ap-
21 plicant's Exhibit Number One and identify what it is and
22 explain what it shows to the Examiner.

23 A. Exhibit Number One consists of a land plat
24 covering Section 7, 8, 17, and 18 of Township 15 South,
25 Range 27 East, located in Chaves County, New Mexico.

1
2 Q And what does that four section area repre-
3 sent?

4 A This is the proposed unit area for the Buf-
5 falo Lake Unit, the approval of which is the purpose of Har-
6 vey E. Yates Company's application.

7 Q All right, the Buffalo Lake Unit would in-
8 clude all of Sections 7, 8, 17, and 18, would it not?

9 A That is correct.

10 Q Would you please explain to the Examiner the
11 mineral ownership of the land within the proposed unit
12 boundaries?

13 A There are 2,556.8 acres within the unit
14 boundary. Of that 599.07 acres are Federal. That's 23.43
15 percent.

16 There are 320 State acres, which is 12.52
17 percent.

18 The balance is fee, that's 1,637.73 acres,
19 representing 64.05 percent.

20 Q Okay, would you please indicate the location
21 for the initial test well under the Buffalo Lake Unit, please?

22 A The arrow points to the location, which is
23 660 feet from the north line and 1980 feet from the west
24 line of Section 17.

25 Q Is that a standard location under New Mexico

1
2 Oil Conservation Division --

3 A Yes.

4 Q -- Rule 104?

5 A Yes, sir.

6 Q All right, if you'd please refer now to
7 Applicant's Exhibit Number Two, and identify that for the
8 Examiner.

9 A This is the proposed Buffalo Lake Unit Agree-
10 ment.

11 Q Is that Exhibit Number Two a fairly standard
12 Federal exploratory unit agreement?

13 A Oh, yes, it is.

14 Q Has Exhibit Number Two been submitted to the
15 Minerals Management Service and to the New Mexico Commissioner
16 of Public Lands for their review and approval?

17 A Yes.

18 Q And have all of the changes or modifications
19 requested by the Minerals Management Service and/or the Com-
20 missioner of Public Lands been made?

21 A Yes, they have.

22 Q And as amended, have the Minerals Management
23 Service and the New Mexico Commissioner of Public Lands
24 given preliminary approval of the Exhibit Number Two?

25 A Yes, sir.

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Q As revised?

A Yes, sir.

Q All right, if you'd now refer to Applicant's Exhibits Number Three and Number Four and identify them for the Examiner.

A Exhibit Three-A-C is a letter from the Commissioner of Public Lands, giving preliminary approval. Three-A is a letter dated July the 7th, 1982. That is the letter granting preliminary approval, I'm sorry. Three-B is a letter dated July the 16th, 1982, from Harvey Yates Company advising the Commissioner that the revisions have been made.

There is a letter dated July the 21st asking for one more revision, which has now been made and on July the 23rd that revision was made, that correction.

Q All right. I'd ask you to refer to Applicant's Exhibit Four, which consists of Four-A and Four-B, and explain what those consist of.

A All right. Let's see, Four-A is a letter dated July the 16th, 1982, from Harvey Yates Company to the Minerals Management Service advising them that we have made their requested revisions to the Buffalo Lake Unit Agreement and requested by the Commissioner of Public Lands, and Exhibit Four-B is a letter dated October the 8th, 1982, from the

1
2 Minerals Management Service giving us preliminary approval.

3 Q All right. Has this same unit area, Sections
4 7, 8, 17, and 18, been submitted to the Division on another
5 occasion asking for their approval?

6 A Yes, it has, in Case Number 6905, heard on
7 May the 21st, 1980. This unit was approved in Order Number
8 \$-6364.

9 Q All right, would you please refer to Appli-
10 cant's Exhibit Number Five and identify that?

11 A This is Order Number R-6364 in Case Number
12 6905, and it is an order of the Division granting approval
13 to this unit.

14 Q Would you briefly explain to the Examiner
15 why the unit was not put together as planned in 1980 and
16 why HEYCO has decided to renew its efforts to put together
17 the Buffalo Lake Unit?

18 A There were several other working interest
19 owners in the unit with whom we could never reach a satis-
20 factory agreement, but we have kept trying and have decided
21 to come back and ask for approval now that we have reached
22 agreement with these people.

23 Q All right, if you'd now refer back to Exhi-
24 bit Number Two, the unit operating agreement, in that agree-
25 ment is Harvey E. Yates Company, the applicant, designated

1
2 as the unit operator, and as such, given authority under the
3 terms of the agreement to carry out all operations necessary
4 for the development and operation of the unit area?

5 A. Yes, sir.

6 Q. If you would, please refer to Exhibit B of
7 that unit agreement, which is Exhibit Two in this hearing.
8 What does Exhibit B show?

9 A. This part of the unit agreement, Exhibit B,
10 lists all of the leases and all of the unleased mineral
11 interests under the unit area, and describes the ownership
12 of each lease or of each unleased mineral interest.

13 Q. Has the applicant submitted the unit agree-
14 ment to the various parties owning interest in the unit area
15 for their approval?

16 A. Yes, sir.

17 Q. And what has been the response of these in-
18 terest owners within the proposed unit area to the -- HEYCO's
19 proposed unit?

20 A. We have 2,491.445833 net acres committed to
21 the unit. In other words, 97.443908 percent of the acreage
22 has been committed.

23 Q. Would you please tell the Examiner what
24 response you've received from the interest owners within
25 this committed acreage to the unit agreement?

1
2 A. We have 100 percent approval of the mineral
3 interest owners, including verbal approval from one company
4 who has not actually gotten around to signing it, but we
5 do have a verbal commitment.

6 Q. And who would that be?

7 A. That's Lincoln County Land and Cattle Com-
8 pany.

9 Q. All right. If you'd continue as to the
10 lessees.

11 A. We have 100 percent of the lessees of record
12 who have committed. This includes Gulf Oil Company, who has
13 an 8.027467 unit percent unit interest, and we are still
14 negotiating some slight changes in the operating agreement
15 with them but they are verbally committed, and it's just a
16 question of some changes in the language.

17 And then we have 100 percent of the working
18 interest owners committed.

19 Of the royalty owners we have everyone rati-
20 fied except owners of fifteen net acres and they have not
21 said they won't ratify; they just haven't gotten their rati-
22 fications back.

23 Q. All right, were Exhibits One through Five
24 prepared -- either prepared by you or under your direction
25 and control by employees of Harvey E. Yates Company?

1
2 A. Yes, sir.

3 MR. HALL: Mr. Examiner, I'd move the
4 admission of Applicant's Exhibits One through Five.

5 MR. STOGNER: Exhibits One through Five
6 will be admitted into evidence.

7 MR. HALL: And I have no further ques-
8 tions on direct of this witness.

9 MR. STOGNER: I have no questions of
10 Ms. Avery. She may be excused.

11
12 RODNEY THOMPSON,
13 being called as a witness and being duly sworn upon his oath,
14 testified as follows, to-wit:

15
16 DIRECT EXAMINATION

17 BY MR. HALL:

18 Q Would you state your name and where you live,
19 please, sir?

20 A My name is Rodney Thompson and I live at
21 3713 West Michigan in Midland, Texas.

22 Q And by whom are you employed and in what
23 capacity?

24 A I'm employed by Harvey Yates Company in Ros-
25 well as an exploration geologist.

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Q. Your actual place of work is in Midland, is it not?

A. Yes.

Q. Have you testified before the Division before and have your qualifications as an expert petroleum geologist been accepted?

A. Yes, they have, and yes, I have.

MR. HALL: Mr. Examiner, I'd request that Mr. Thompson be recognized as an expert geologist for the purposes of this case.

MR. STOGNER: He is.

Q. Mr. Thompson, are you familiar with the application in Case 7807?

A. Yes, I am.

Q. And are you familiar with the Buffalo Lake Unit Area in Sections 7, 8, 17, and 18, of Township 15 South, 27 East?

A. Yes, I am.

Q. Are you familiar with the proposed location for the initial test well in the Buffalo Lake Unit?

A. Yes. The proposed location is 660 feet from the north line, 1980 feet from the west line of Section 17.

Q. Okay, referring to Applicant's Exhibit Number One, does the position indicated by the arrow on that

1
2 map correctly depict the proposed location for the initial
3 test well?

4 A. Yes, it does.

5 Q. And what is the proposed objective and depth
6 of that initial test well?

7 A. The major objective in the initial test well
8 will be the Atoka formation, a gas bearing formation in this
9 area, and our total depth will be in the Mississippian-
10 Chester formation at 9,100 feet.

11 Q. If you'd refer now to the exhibit that's
12 been marked as Applicant's Exhibit Number Six and identify
13 and explain that for the Examiner, please.

14 A. Mr. Examiner, Exhibit Number Six is a struc-
15 ture map that is contoured on the top of the Atoka formation.
16 The contour interval is 100 feet and the map shows the --
17 basically, that our dip in this area is to the southeast, and
18 it also shows by the contours that we have a low area that
19 is trending through the proposed unit area, which we feel
20 we will have thicker Atoka -- a thicker Atoka interval de-
21 veloped in this low, which will also result in a larger
22 volume of gas sands present.

23 Q. Excuse me, Mr. Thompson, is the unit --
24 proposed unit area outlined in those hachured marks up in
25 the Sections 7, 8, 17, and 18?

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A. Yes, it is.

Q. Okay, and the proposed well location is indicated by that small circle --

A. That's correct.

Q. -- in Section 17?

A. That is correct.

Q. Please continue.

A. Okay. There is no more I wish to say at this time about this exhibit. I might keep it for reference for the following two exhibits, to -- for correlation purposes.

Q. All right, then if you would please refer to Applicant's Exhibit Number Seven, identify and explain that for the Examiner.

A. Exhibit Number Seven is a stratigraphic cross section that runs from west to east. The section of datum on the cross section is the top of the Atoka formation and what the cross section shows is the analogy to the Buffalo Valley development of the Atoka sands versus the area we're looking at for our proposed location.

The cross section includes the Clements King No. 35 Well that was recently completed in the Atoka formation.

Q. That would be well number one on the cross

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section?

A That is correct, and we feel that between this well and the well in Section 16 of Township 15 South, Range 27 East, which would be the Read No. 1 Harris, are the two wells that set this prospect up.

Q Okay, that would be well number three on this cross section?

A That's correct. What the cross section shows in addition to what I've mentioned is that these Atoka sands are erratic in this area. They rest unconformably on the top of the Mississippian-Chester limes, carbonates, and shales, and in some cases where -- in the higher areas to the northwest, even incise down into the Mississippian-Chester formation, indicating a type of channel deposition that we are proposing to encounter in our proposed location.

 The well -- the Harris State No. 1 shows a thicker Atoka section that we -- we feel will -- is on the edge of a channel-type situation due to the low area. If you could refer back to the structure map, we feel that with this thicker section and the structural position that we have in the area, we feel that our location is the optimum location in the -- in the unit.

Q Would you now refer to, identify, and explain Applicant's Exhibit Number Eight?

1
2 A. Yes, sir, Exhibit Number Eight is an Isopach
3 map that is contoured on the thickness of the Atoka formation
4 in this area, which is shown on the cross section, the top
5 of the Atoka to the top of the Chester horizon would be what
6 this map is contoured on, and what the map shows is a channel-
7 type situation where you have a thickening in the Atoka in
8 the Buffalo Valley Field, the wells showing in the north-
9 east quarter of Township 15 South, Range 27 East. These
10 wells show a similar type analogy to what we're looking for
11 in our proposed unit through the Buffalo Valley Field.

12 And we feel we're going to encounter gas
13 productive sands similar to what is found in that field.

14 Q. Is it your professional opinion that the
15 proposed unit area covers all, or substantially all, of the
16 geological features that you are searching for?

17 A. Yes.

18 Q. Is it your opinion that in the event oil or
19 gas is discovered in paying quantities on lands within the
20 unit area that the unit can be developed more economically
21 and efficiently under the terms of the unit agreement, so
22 that maximum recovery of unitized substances will be ob-
23 tained?

24 A. Yes.

25 Q. Do you feel that the unit agreement will

1
2 permit the producing area to be developed and operated in a
3 manner which will promote conservation and prevent waste,
4 as contemplated by the statutes of the State of New Mexico
5 and the rules and regulations of the Division?

6 A. Yes, I do.

7 Q. Were Exhibits Six through Eight prepared by
8 you or under your direction and control by employees of
9 Harvey E. Yates Company?

10 A. Yes, they were.

11 MR. HALL: Mr. Examiner, I'd move the
12 admission of Applicant's Exhibits Six, Seven, and Eight.

13 MR. STOGNER: Exhibits Six through
14 Eight will be admitted in evidence.

15 MR. HALL: I have no further questions
16 on direct.

17
18 CROSS EXAMINATION

19 BY MR. STOGNER:

20 Q. Mr. Thompson --

21 A. Yes.

22 Q. -- in your Exhibit Number Eight, you show a
23 plugged well in the southwest quarter of the southeast
24 quarter of Section 17. Would you please -- I can't make out
25 what -- the identification on that well.

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A. Oh, I see. That -- that well is a shallow well. Now, I'm --

Q. This also appears in Exhibit Six, also.

A. That is hard to make out on there. I'm sorry, I cannot make out that TD. I believe it's a San Andres test. I would have to look that up to verify it, but I don't believe it will raise any contradiction to our proposed unit, being as that is a shallow test.

Q. That will be satisfactory, then.

MR. STOGNER: I have no further questions of this witness.

Any further questions of Mr. Thompson? If not, you may be excused.

Anything further to come before Case Number 7807?

If not, this case will be taken under advisement.

(Hearing concluded.)

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C E R T I F I C A T E

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

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 7807 heard by me on March 2 1983.

Michael E. Stogner Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

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