

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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Oil Conservation Division

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

APPLICATION OF ENERQUEST RESOURCES, )  
LLC, FOR APPROVAL OF A WATERFLOOD )  
PROJECT AND QUALIFICATION OF THE )  
PROJECT AREA FOR THE RECOVERED OIL )  
TAX RATE PURSUANT TO THE ENHANCED )  
OIL RECOVERY ACT, LEA COUNTY, NEW MEXICO )

CASE NOS. 13,041

APPLICATION OF ENERQUEST RESOURCES, LLC, )  
FOR STATUTORY UNITIZATION, LEA COUNTY, )  
NEW MEXICO )

and 13,042

(Consolidated)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, JR., Hearing Examiner

March 27th, 2003

Santa Fe, New Mexico

These matters came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, JR., Hearing Examiner, on Thursday, March 27th, 2003, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

\* \* \*

## I N D E X

March 27th, 2003  
 Examiner Hearing  
 CASE NOS. 13,041 and 13,042 (Consolidated)

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\* \* \*

## A P P E A R A N C E S

## FOR THE DIVISION:

DAVID K. BROOKS, JR.  
Attorney at Law  
Energy, Minerals and Natural Resources Department  
Assistant General Counsel  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

## FOR THE APPLICANT:

HOLLAND & HART, L.L.P., and CAMPBELL & CARR  
110 N. Guadalupe, Suite 1  
P.O. Box 2208  
Santa Fe, New Mexico 87504-2208  
By: WILLIAM F. CARR

FOR LOWE PARTNERS, LP, and  
ROCKET OIL AND GAS COMPANY, LP:

JAMES G. BRUCE  
Attorney at Law  
P.O. Box 1056  
Santa Fe, New Mexico 87504

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2 1:05 p.m.:

3           EXAMINER JONES: Okay, let's go back on the  
4 record and call Cases 13,041 and Cases 13,042, Application  
5 of EnerQuest Resources, LLC, for approval of a waterflood  
6 project and qualification of the project area for the  
7 recovered oil tax rate pursuant to the Enhanced Oil  
8 Recovery Act, Lea County, New Mexico,  
9           and Application of EnerQuest Resources, LLC, for  
10 statutory unitization, Lea County, New Mexico.

11           Call for appearances.

12           MR. CARR: May it please the Examiner, my name is  
13 William F. Carr with the Santa Fe office of Holland and  
14 Hart, L.L.P. We represent EnerQuest Resources, LLC, in  
15 each of these cases, and I have two witnesses.

16           I would request that they be consolidated for the  
17 purpose of hearing.

18           EXAMINER JONES: Okay, other appearances?

19           MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe.  
20 I'm appearing today on behalf of Lowe Partners, LP, and  
21 also on behalf of Rocket Oil and Gas Company, LP. I have  
22 one witness.

23           EXAMINER JONES: Any other appearances?

24           Okay, for the record we have a letter from a  
25 Joyce Sullivan. We need to at least make her letter part

1 of the record here. She's representing some royalty  
2 interest owners.

3 And also we have a letter on behalf of the Key  
4 family group, from Thomas Kellahin, Kellahin and Kellahin,  
5 made entry of appearance for the purpose of preserving the  
6 family's right to a *de novo* hearing. But they will not be  
7 present today, and they will not call witnesses.

8 Will the witnesses please stand to be sworn?

9 (Thereupon, the witnesses were sworn.)

10 M. CRAIG CLARK,

11 the witness herein, after having been first duly sworn upon  
12 his oath, was examined and testified as follows:

13 DIRECT EXAMINATION

14 BY MR. CARR:

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

16 A. Craig Clark.

17 Q. Mr. Clark, by whom are you employed?

18 A. I'm an independent landman.

19 Q. And where do you reside?

20 A. Midland, Texas.

21 Q. What is your relationship with EnerQuest  
22 Resources, LLC?

23 A. I'm hired to do their land work.

24 Q. And are you working as a consultant on this  
25 particular project?

1 A. I am.

2 Q. Have you previously testified before the New  
3 Mexico Oil Conservation Division?

4 A. Yes, I have.

5 Q. At the time of that testimony, were your  
6 credentials as an expert in petroleum land matters accepted  
7 and made a matter of record?

8 A. Yes, they were.

9 Q. Are you familiar with the Applications filed in  
10 each of these consolidated cases?

11 A. Yes.

12 Q. Are you familiar with the status of the lands  
13 involved in the proposed East Hobbs-San Andres Unit area?

14 A. Yes.

15 Q. Are you familiar with the efforts made to put  
16 this unit together over the last several years?

17 A. Yes, I am.

18 MR. CARR: Are the witness's qualifications  
19 acceptable?

20 MR. BRUCE: I have no objection.

21 EXAMINER JONES: His qualifications are accepted.

22 Q. (By Mr. Carr) Mr. Clark, could you briefly state  
23 what EnerQuest seeks with these Applications?

24 A. In Case 13,042 we're interested in the statutory  
25 unitization of our proposed East Hobbs-San Andres Unit.

1 It's a 920-acre unit with state and fee lands.

2 Q. And in Case 13,041 what are we seeking?

3 A. Approval of a waterflood project in the East  
4 Hobbs-San Andres Unit and qualification of the unit for the  
5 recovered oil tax rate pursuant to the New Mexico Enhanced  
6 Oil Recovery Act.

7 Q. Could you review for the Examiner EnerQuest's  
8 efforts to unitize and implement a waterflood in the  
9 proposed unit area?

10 A. In the fall of 2000 EnerQuest prepared a  
11 waterflood feasibility study. We did evaluations of that  
12 in early 2002. Due to the advanced state of depletion of  
13 it, we decided to proceed with this unit in the waterflood  
14 project. And January of a year ago we sent unit  
15 agreements, unit operating agreements, to all the working  
16 interest owners.

17 That was followed up with -- We filed  
18 Applications in February, 2002, and at that time we had  
19 opposition from two main groups in the working interest  
20 owners, the Key family and Lynx Operating Company.

21 February through April of 2002, we exchanged data  
22 with these groups, met with their experts to refuse -- to  
23 review the unit and the waterflood unit.

24 We continued our hearing several times, and on  
25 May 16th of 2002 we had a hearing to -- well, actually at

1 that time it was arguments on if we'd given enough notice  
2 for the working interest owners to have time to evaluate  
3 the proceeding.

4 June, 2002, our Application was dismissed and we  
5 were told to go back and have some working interest owners'  
6 meetings.

7 We then, in June -- We had three working interest  
8 owners' meetings, seven technical committee meetings, and  
9 that brought us up through December of 2002, at which time  
10 we came out with the technical committee's -- their  
11 recommendations. We worked with the other working interest  
12 owners and came up with this new plan at that time, and  
13 since that point we've re-filed our Application again.

14 Q. Have you resolved the issues with the Lynx and  
15 Key family group?

16 A. We have.

17 Q. You have some members of the Key family that did  
18 not settle with EnerQuest; is that correct?

19 A. They have -- You know, we had offered to purchase  
20 their interest. They chose -- They said they were going to  
21 sell that at an auction, and that's the last we've heard  
22 from it. But the other member of the Key family group, we  
23 have received ratifications from them for their interest.

24 Q. And you have acquired Lynx's interest?

25 A. And we bought out the interest of Lynx.

1 Q. Let's go to what has been marked for  
2 identification as EnerQuest Exhibit Number 1, and I'd ask  
3 you to identify this and review it for the Examiner.

4 A. This is a map of the area of where our proposed  
5 East Hobbs-San Andres Unit is. It's a 920-acre unit,  
6 covers four sections. It's outlined in green on the  
7 exhibit.

8 To the west we've outlined the North Hobbs and  
9 South Hobbs Units that are also San Andres units that have  
10 been in place, that OXY operates for...

11 Q. Are those waterflood projects?

12 A. Those are.

13 Q. And could you identify for the Examiners where  
14 the New Mexico-Texas state line is located?

15 A. If you notice on the exhibit, right to the east  
16 of where our proposed unit, there's a kind of a bold line  
17 running north and south, and that is the state line. We're  
18 about a quarter of a mile from the state line.

19 Q. Let's go to what's been marked as Exhibit Number  
20 2. Would you identify and review that, please?

21 A. Exhibit Number 2 is the exhibit that we've  
22 included in the unit and unit operating agreements that has  
23 each tract in the proposed unit, the status, the operator,  
24 the well names, and also all the existing wells that are  
25 out there. And then in the southeast corner of it, the

1 tract with the hachmarks is a state tract.

2 Q. And it is in that tract that the Lowe Partners  
3 have their interest; is that correct?

4 A. That's correct.

5 Q. Do you know which tract Rocket has an interest  
6 in?

7 A. Rocket is in Tract 11 on the far west side. It's  
8 the Rocket-Cain lease.

9 Q. Other than the tract that's shaded or  
10 crosshatched, the state tract, the rest of the unit is fee  
11 land; is that right?

12 A. That's correct.

13 Q. Do you know what percentage interest the Lowe  
14 Partners own in the unit area?

15 A. They own a 4.25-percent override in the Lowe  
16 State lease.

17 Q. And will a subsequent witness review the status  
18 of that tract as it relates to that interest and his  
19 participation in the unit?

20 A. Yes, they will.

21 Q. Do you know what interest Rocket owns?

22 A. They have a 10-plus-percent royalty in Tract  
23 Number 11, Rocket-Cain.

24 Q. And again, that will be something that can be  
25 reviewed by another witness?

1 A. Right.

2 Q. Let's go to Exhibit 3. Would you identify that?

3 A. It's the proposed unit agreement for the East  
4 Hobbs Unit. This is a standard form with the State Land  
5 Office.

6 Q. And this identifies the character of the lands?

7 A. That's correct.

8 Q. Provides for waterflooding in the unit area?

9 A. Yes.

10 Q. Does this agreement also set out the  
11 participation for the tract of each of the parties?

12 A. It does.

13 Q. Does it provide for the filing of periodic plans  
14 of development as unit operations go forward?

15 A. Yes.

16 Q. And what is Exhibit Number 4?

17 A. Exhibit Number 4 is the unit operating agreement.

18 Q. Generally what does this cover?

19 A. This covers operations between the working  
20 interest owners for conducting -- how we develop that.

21 Q. Standard provisions?

22 A. That's correct.

23 Q. Does it contain the normal accounting procedures  
24 and basically define the rights between the parties?

25 A. Yes, it does.

1 Q. The State is not a party to this --

2 A. That's correct.

3 Q. -- operating agreement, is it?

4 Have you reviewed the Application for this unit  
5 waterflood with the State Land Office?

6 A. I have.

7 Q. And what response have you received at this time?

8 A. We met with them yesterday, went over and at that  
9 time they indicated that they would process it through  
10 their department up there, but -- and send us an approval  
11 letter or preapproval letter after that.

12 Q. Did you review the participation formula?

13 A. We did.

14 Q. And the location of their tract in the unit area?

15 A. Yes.

16 Q. And did they express any problem or concern with  
17 it at this time?

18 A. No, they didn't.

19 MR. CARR: Mr. Examiner, there is no Exhibit 5 in  
20 the exhibit packet. That was to be a letter from the State  
21 Land Office, and with your permission, as soon as that is  
22 received we will submit a copy to the Division and to Mr.  
23 Bruce.

24 EXAMINER JONES: Okay.

25 Q. (By Mr. Carr) Mr. Clark, let's go to what's been

1 marked as EnerQuest Exhibit 6. Would you identify that?

2 A. Exhibit 6 is Exhibit "B" of the unit agreement  
3 and the unit operating agreement. It lists the interest of  
4 the royalty owners, the working interest owners and the  
5 overriding owners on a tract basis.

6 Q. So we have all interest owners and all tracts  
7 identified in this exhibit?

8 A. That's correct.

9 Q. Does this show the unit participation for these  
10 individuals, or just their individual tract?

11 A. Just their individual tract.

12 Q. What percent of the working interest is at this  
13 time voluntarily committed to this unit?

14 A. We have 88 percent.

15 Q. And at this time what percent of the royalty  
16 interest is presently committed?

17 A. Sixty-seven and a half percent.

18 Q. And that does not include the State of New Mexico  
19 at this time, does it?

20 A. That's correct.

21 Q. Can you just summarize generally your efforts to  
22 obtain the voluntary approval of the working interest and  
23 royalty interest owners in the unit area?

24 A. Well, we have -- you know, we've had all the  
25 meetings with the working interest owners. And as far as

1 the royalty owners, we again sent out the unit agreement a  
2 couple months ago and have -- along with the ratifications,  
3 and that's all -- we haven't had any personal follow-up  
4 contact on people that have not returned the ratification  
5 at this point.

6 Q. If the Oil Conservation Division approves the  
7 unit agreement and authorizes statutory unitization, do you  
8 anticipate any problem obtaining the necessary 75-percent  
9 ratification to put this unit into effect?

10 A. No, I do not. When we had this unit last year we  
11 never could break the 50-percent barrier, and that was  
12 following up on phone calls and everything. And we already  
13 have 67 1/2 percent within the last month or so, so getting  
14 the additional information I think will not be a problem.

15 Q. Are Exhibits 7 and 8 notice affidavits confirming  
16 that notice of this hearing on each of the Applications has  
17 been provided in accordance with the Rules and Regulations  
18 of the Oil Conservation Division?

19 A. Yes, they are.

20 Q. As the statutory unitization Application, has  
21 notice been provided to all interest owners in the unit  
22 area, including the Commissioner of Public Lands?

23 A. It has.

24 Q. And as to the waterflood, has notice been  
25 provided to the surface owner of the tract on which each of

1 the subject injection wells are located?

2 A. It has.

3 Q. Have we also notified all leasehold operators  
4 within one-half mile of each injection well?

5 A. Yes, we have.

6 Q. Will EnerQuest call a witness to review the  
7 geological and engineering portions of this case?

8 A. They will.

9 Q. Were Exhibits 1 through 8 either prepared by you  
10 or compiled under your direction?

11 A. They were.

12 MR. CARR: At this time, Mr. Examiner, we would  
13 move the admission into evidence of EnerQuest Exhibits 1  
14 through 8.

15 MR. BRUCE: No objection.

16 EXAMINER JONES: Exhibits 1 through 8 are  
17 admitted into evidence.

18 MR. CARR: And that concludes my direct  
19 examination of this witness.

20 EXAMINER JONES: Mr. Carr.

21 CROSS-EXAMINATION

22 BY MR. BRUCE:

23 Q. Mr. Clark, you stated that in early 2002 an  
24 Application was filed here with the Division for statutory  
25 unitization, and I believe you stated that the unit

1 agreement wa sent to the working interest owners. Was it  
2 sent to the royalty owners at that time?

3 A. It was sent to the royalty owners about a month  
4 later. It was initially the working interest owners, to  
5 get them so that they would do it, and then -- That was in  
6 January, and in February we mailed it to the royalty  
7 owners.

8 Q. Is -- and I just want to clarify. Is the unit  
9 area that was proposed about a year ago the same as the  
10 unit area that you're seeking approval for today?

11 A. Yes.

12 Q. Okay. Now I'm looking at your Exhibit 3, which  
13 is the unit agreement, Mr. Clark, and then Exhibit 6, which  
14 is a portion of the unit agreement. You mentioned that  
15 certain interests were acquired from Lynx Operating  
16 Company. Were they acquired from anyone else?

17 A. Well, when we say Lynx Operating Company, Lynx is  
18 the operator.

19 Q. They weren't a working interest owner?

20 A. Pardon?

21 Q. Lynx itself was not a working interest owner?

22 A. It was not a working interest owner. It was  
23 owned by Vincero Oil and Gas and Dreka, Inc.

24 Q. Okay, and you acquired those two -- or EnerQuest  
25 acquired those two interests?

1 A. That's correct.

2 Q. In which tracts?

3 A. The Laney Reese, which is Tracts 7 and 8.

4 Q. Seven and 8. It's the same quarter-quarter  
5 section, but there's different ownership as to certain  
6 leases, so there's --

7 A. The Laney Reese, the Tract Number 7, is producing  
8 out of the upper P1 zone, and the Laney Reese Number 2 and  
9 3 are producing out of the lower, the P2 through P4 zones.

10 Q. Okay. Did Enerquest acquire any interest from  
11 the Key family?

12 A. No, we did not.

13 Q. Okay, and what tract are they in, or tracts?

14 A. The Key family is in Tracts 5 and 6, the Laney  
15 and the Laney A.

16 Q. Okay. Mr. Clark, I'm handing you what's been  
17 marked Lowe Exhibit 5, and you might not have -- what I've  
18 copied there -- and if you don't -- if you can't identify  
19 it, fine. But what I'm informing you of is that this is a  
20 portion of the unit agreement that was filed with -- that  
21 was proposed last year.

22 A. Okay.

23 Q. Do you recognize that?

24 A. Yes, I do.

25 Q. Okay. And it's dated the 1st day of January,

1 2002.

2 On page 6 of the exhibit there's the tract  
3 participation section of the unit agreement. The tract  
4 participation factors have been changed since last year,  
5 have they not?

6 A. Yes, they have.

7 Q. Okay. And Mr. Williamson can discuss the tract  
8 participation further?

9 A. Yes.

10 Q. And also the last page of it, Exhibit "C", the  
11 tract participation numbers have also changed quite a bit  
12 since last year, haven't they?

13 A. The tract participation factor, that last column?

14 Q. Yes, the Exhibit "C".

15 A. Yes, it has.

16 Q. Okay. So if you look at Exhibit "C", the last  
17 page of your Exhibit 3, and compare it to Exhibit "C" of  
18 Lowe Exhibit 5, that would show the changes in tract  
19 participation between last year and this year; would that  
20 be correct?

21 A. That's correct, that's right.

22 Q. Okay. They're the same tracts involved, but  
23 there's a different tract participation formula?

24 A. That's right.

25 MR. BRUCE: Okay. That's all I have of Mr.

1 Clark, Mr. Jones.

2 EXAMINATION

3 BY EXAMINER JONES:

4 Q. Okay. Mr. Clark, can you explain again the Lynx  
5 -- They were not a working interest owner?

6 A. Well, when we say the Lynx group, Lynx was the  
7 operator for Vincero Oil and Gas -- The record title was  
8 held by Vincero Oil and Gas on the majority of it.

9 Q. I'm sorry, what's the name of it?

10 A. Vincero, V-i-n-c-e-r-o. And they also had  
11 another group, Dreka, D-r-e-k-a, Inc.

12 Q. But they were the operator for them?

13 A. They were operating -- They operated under the  
14 name of Lynx, but the title was held in Vincero and Dreka's  
15 name.

16 Q. So EnerQuest bought the working interest from  
17 Vincero and Dreka?

18 A. We bought working interest, and they had some  
19 royalty and overrides that we purchased all that, or from  
20 their partners too. The royalties were owned by  
21 individuals.

22 Q. Okay, and this Laney and Laney A, the Tract 5 and  
23 6 --

24 A. Uh-huh.

25 Q. The Key family group, that has changed some too

1 since last year?

2 A. We've had -- Part of the Key family has agreed to  
3 the new formulas, and they've ratified the unit.

4 The other ones have not really done -- I mean,  
5 they've indicated that they're going to be selling their  
6 interests. You know, they filed a notice just to protect  
7 themselves. They haven't ratified the agreement, but  
8 they're not particularly opposing us. I mean, I know that  
9 they've filed an appearance for this hearing, but they're  
10 not actively opposing us at this point.

11 Q. Okay. The other appearance we had in the case  
12 was a royalty -- I want to say a royalty interest owner.

13 A. Uh-huh.

14 Q. Are you familiar with their --

15 A. Yes.

16 Q. -- position?

17 A. Yes.

18 Q. Can you go over that a little bit?

19 A. Well, you know, they were against it last year  
20 too, and they never did ratify it at that point. And they  
21 had a larger tract factor at that time. They're in the  
22 Samuel Cain, it's Tract Number 12.

23 Q. That's Tract Number 12.

24 A. Right. And I think in the letter, at least the  
25 copy of the letter that I received, they had enclosed a

1 copy of the letter they wrote in the case last year. And  
2 at that point they were arguing about what usable wellbores  
3 were.

4 And then we had -- You know, I received that  
5 letter yesterday right before I left, and that's the only  
6 thing I've heard from them, it's just -- and I received  
7 that copy yesterday.

8 EXAMINER JONES: Okay, I guess we're going to  
9 talk later about use of the wellbores and the way you  
10 derive the participation parameters; is that correct?

11 MR. CARR: What we're going to do is explain the  
12 new participation factor. We're not going to go back into  
13 the old one. The old one drew a lot of objection. We were  
14 told to go to the working interest owners. We have done  
15 that, and we have a new participation formula based on what  
16 they have approved.

17 EXAMINER JONES: Okay, and that participation  
18 formula would be for the secondary recovery, or would it be  
19 for the primary recovery, or...

20 MR. CARR: Mr. Jones, we're statutorily  
21 unitizing. You may use that statute only for secondary  
22 recovery or...

23 Q. (By Examiner Jones) Okay, and the Samuel Cain  
24 tract, that Tract 12, the wells that -- it mentions  
25 something about some of the wells being shut in at an

1 earlier -- and maybe the wells were still producing at the  
2 time. Is that -- Were the wells beyond the economic limit  
3 when they were shut in?

4 A. I don't know on the -- I mean, I can't answer  
5 that.

6 Q. Okay, that was Tract 12. That would be -- it  
7 looks like on your map here -- now, this map -- Let's see,  
8 this is Exhibit Number 2, okay? And you said everything  
9 was up to date on the map. And I was going to ask you, is  
10 the well status up to date also on that map?

11 A. As far as additional wells being plugged out?

12 Q. Yes. In other words, like -- for instance, Tract  
13 12, it has wells Number 5 and 6 showing -- looks like  
14 producing oil wells. Are they still --

15 A. Oh, yes, the Samuel Cain is still producing. I  
16 know that they -- I think their lawyer said that, you know,  
17 we had intentionally cut that production, and we haven't,  
18 you know, shut down any leases out there. We're producing  
19 all the leases at this time.

20 Q. Okay, because EnerQuest is the operator of that  
21 tract anyway, so...

22 A. Well, yeah, except for the Texland we operate  
23 every tract out there now.

24 EXAMINER JONES: Let's see here. Mr. Brooks?

25 MR. BROOKS: No questions.

1 EXAMINER JONES: Okay, thanks a lot.

2 THE WITNESS: Thank you.

3 MR. CARR: Mr. Jones, can I just follow up on one  
4 thing?

5 EXAMINER JONES: Sure.

6 REDIRECT EXAMINATION

7 BY MR. CARR:

8 Q. I want to be sure the record is clear on this  
9 point, Mr. Clark. Has EnerQuest shut in any well or  
10 restricted production in any way on any lease to affect the  
11 ultimate share of those owners would have in the unit if  
12 approved?

13 A. No.

14 MR. CARR: That's all.

15 With your permission, at this time I'd call Roy  
16 Williams.

17 ROY WILLIAMSON,

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

20 DIRECT EXAMINATION

21 BY MR. CARR:

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

23 A. My name is Roy Williamson.

24 Q. Mr. Williamson, where do you reside?

25 A. I live in Midland, Texas.

1 Q. By whom are you employed?

2 A. Williamson Petroleum Consultants.

3 Q. And what is your relationship with EnerQuest  
4 Resources, LLC?

5 A. I am a consultant to them.

6 Q. And you've been working on this project and  
7 advising them on this project; is that correct?

8 A. That is correct.

9 Q. Have you previously testified before the New  
10 Mexico Oil Conservation Division?

11 A. Yes, I have.

12 Q. And at the time of that testimony were your  
13 credentials as an expert in petroleum engineering accepted  
14 and made a matter of record?

15 A. Yes, they were.

16 Q. Are you familiar with the Applications filed in  
17 these consolidated cases?

18 A. Yes.

19 Q. Have you made a technical study of the area  
20 involved in the proposed East Hobbs-San Andres Unit area in  
21 the East Hobbs-San Andres Pool?

22 A. Yes.

23 Q. Are you prepared to share the results of your  
24 work with the Examiners?

25 A. Yes, I am.

1 MR. CARR: Are Mr. Williamson's qualifications  
2 acceptable?

3 MR. BRUCE: I have no objection.

4 EXAMINER JONES: His qualifications are accepted.

5 Q. (By Mr. Carr) Mr. Williamson, you're going to be  
6 testifying about four general things, the geology, the  
7 engineering, the waterflood project and then the EOR  
8 credit; is that correct?

9 A. That is correct.

10 Q. And have you prepared exhibits for presentation  
11 on each of those parts of your testimony?

12 A. Yes, I have.

13 Q. Let's go to the geology, and I would ask you to  
14 first identify the formations that are to be unitized in  
15 the proposed East Hobbs-San Andres Unit area.

16 A. The formation to be unitized is the San Andres  
17 formation. There are various zones that have been  
18 identified just for correlation purposes, but basically it  
19 is the San Andres formation.

20 Q. Let's go to Exhibit Number 9. Would you identify  
21 that, please?

22 A. There are no numbers on these, but I guess  
23 they're in order.

24 Q. Exhibit Number 9 is the type log.

25 A. Okay, Exhibit 9 is a type log. It is from the

1 Carrie O. Davis Number 5 well, and it's located 1310 from  
2 the south and 330 from the west, Section 29, Township 18  
3 South, 39 East.

4 Q. Is this the type log that's used to identify the  
5 unitized interval in the unit agreement?

6 A. That is correct.

7 Q. And what is the interval that is going to be  
8 unitized?

9 A. The unitized interval is going to be from 50 feet  
10 above the top of the San Andres to 50 feet below the know  
11 productive interval, which is a subsea of around minus  
12 1020.

13 Q. And you talked about certain intervals that are  
14 defined within the San Andres in this area for the purposes  
15 of correlation. What are those?

16 A. From the top of the San Andres we have the P1,  
17 the P2, the P2B, the P3, the P4 and the P5.

18 Q. And what intervals are going to be the principal  
19 intervals for the purpose of implementing a waterflood  
20 project?

21 A. It will be the P2 through the P4 zones.

22 Q. As we move through this, you'll be reviewing the  
23 development of the reservoir, but initially can you tell  
24 the Examiner whether or not the portion of the reservoir  
25 which is covered by this unitization Application has at

1 this time reasonably been defined by development?

2 A. Yes, it has.

3 Q. Let's go to what has been marked as EnerQuest  
4 Exhibit Number 10. I'd ask you to first identify that.  
5 That is the structure map. Is that marked on your set, Mr.  
6 Williamson?

7 A. Right, I see it now.

8 Q. All right. And would you first identify this and  
9 then explain what it shows?

10 A. This is a structure map that is based on the top  
11 of the San Andres P2 zone, and it shows the structure of  
12 this formation as it lies within the unit area. You can  
13 see on the map there are various subsea numbers there that  
14 relate to what the actual subsea top of that P2B zone is in  
15 each well.

16 Q. And the P2 is the top interval that's going to be  
17 subject to active waterflooding?

18 A. That is correct.

19 Q. And by looking at this, you have shown the unit  
20 boundaries and how they relate to the San Andres structure  
21 that is the subject of this Application?

22 A. That is correct. If you look at this exhibit  
23 you'll see that the proposed unitized area basically covers  
24 the structure that is identified as the P2 structure in the  
25 San Andres.

1 Q. Let's go to what has been marked as Exhibit  
2 Number 11. Would you identify and review that?

3 A. Okay, Exhibit Number 11 is a net pay isopach from  
4 the top of the P2B to the bottom of the productive interval  
5 in the San Andres. And as you can see, there are some  
6 numbers that are on that map, and those are the thickness  
7 numbers that were used to create this map.

8 It generally looks like the structure map, it's  
9 obviously the thickest in the middle and it feathers out  
10 toward the edge of the unit. But again, you can see that  
11 the net pay isopach conforms very well with the proposed  
12 unit outline.

13 Q. In your opinion, will all tracts that are  
14 included within the unit contribute to the waterflood  
15 effort?

16 A. Yes.

17 Q. And based on this map alone, is it fair to say  
18 that the contribution of the tracts may vary substantially  
19 but they all do contribute at some level?

20 A. That is correct.

21 Q. Let's go to Exhibit Number 12. Would you  
22 identify that, please?

23 A. Okay, Exhibit 12 is a structural cross-section  
24 that's denoted by the letter C-C'. And if you look in the  
25 lower middle center of this cross-section you'll see the

1 unit outline, and this trace of this structural cross-  
2 section is shown by the black line and shows the wells that  
3 are included in this cross-section.

4 The cross-section itself shows the correlation  
5 between the various zones within the San Andres, and they  
6 are connected by a solid line from well to well.

7 At the bottom of the log section that you see  
8 there, there is a history or initial history of these  
9 wells, where they were perforated, what their initial  
10 potential in production was.

11 And if you look at the very bottom, there is a  
12 production curve for each of these wells that shows the  
13 production that is occurring from these wells at this time.

14 Q. Now, what does this tell you generally about the  
15 San Andres formation in the unit area?

16 A. Well, it tells us that we do have a continuity of  
17 zone, which is what you're going to need to create a  
18 waterflood. You want to put water in the ground and push  
19 oil to a well. We see that correlation that exists across  
20 this area and again shows that the proposed project that  
21 we'll be talking about in a moment should be successful.

22 Q. So it is your opinion that the proposal is a  
23 feasible way to enhance recovery from the area?

24 A. Yes, it is.

25 Q. Now, on the cross-section we have included all

1 wells, have we not, that actually penetrate the P2 through  
2 the P4 sections in the unit area?

3 A. That is correct. The other wells that are in the  
4 unit area, that are producing, are producing from the  
5 uppermost zone or the P1 zone.

6 A. If we look at this cross-section and go to the  
7 well on the extreme right, that is the well -- that's the  
8 Lowe State Number 1 on the tract in which the Lowe Partners  
9 own an interest; is that correct?

10 A. Right, it's the far well on this cross-section,  
11 yes.

12 Q. And that is the only well on the cross-section  
13 shown on this particular lease?

14 A. That's correct.

15 Q. Okay. Can you review just briefly the intervals  
16 from which that well has produced?

17 A. Okay, this well, if you look at the bottom of the  
18 log it was produced open-hole from 4424 to 4470, which is  
19 basically the P1 zone. It IP'd for 212 barrels of oil and  
20 96 barrels of water. That was back in 1953. The  
21 cumulative production is 271,000 barrels of oil plus 1744  
22 MMCF.

23 It was deepened to 4673, which is actually a  
24 little below what the section is that's shown on the cross-  
25 section, and that was done in 1997. And the open-hole

1 potential was a trace of oil, 370 barrels of water, and 27  
2 MCF per day.

3           There was a polymer squeeze tried in 1997 to try  
4 to alter the water production, but it was unsuccessful.

5           Q.   Mr. Williamson, in this well, since it was  
6 drilled in 1953, the only oil produced from the zone that's  
7 subject to the waterflood is indicated as the trace that  
8 was encountered following the deepening of the well in  
9 1997; is that right?

10          A.   That is correct.

11          Q.   The remainder of the production has come from the  
12 P1 interval?

13          A.   That is correct.

14          Q.   Do you have any idea what the producing rate of  
15 that well is today?

16          A.   I looked at the rate, I think it's making around  
17 a barrel a day, something like that.

18          Q.   And do you have any idea what the lease operating  
19 costs are at this time?

20          A.   I would imagine the lease operating costs are in  
21 excess of \$1500 to \$2000 a month.

22          Q.   Is that all related to the water removal?

23          A.   Yes.

24          Q.   Now, there is one other well on the state lease,  
25 on the Lowe State lease, the Well Number 2. That's not

1 shown on this cross-section, is it?

2 A. No, it isn't.

3 Q. And why is it not indicated or shown here?

4 A. Because it has not penetrated any zone below the  
5 P1 zone. It is currently producing from the P1 zone.

6 Q. When you compare the location of the Number 2  
7 well, the well that's only in the P1, to the Lowe -- the  
8 other well on that spacing unit, is the Number 2 well  
9 structurally higher or lower?

10 A. It's structurally lower.

11 Q. And what would that tell you about the potential  
12 for recompleting or deepening that well?

13 A. It would be minimal.

14 Q. Do you have an opinion as to whether or not the  
15 Lowe State lease will make any significant contribution to  
16 the waterflood project?

17 A. Under its current state -- and I'm not sure we  
18 made it clear -- the Lowe State Number 1, which is on the  
19 cross-section, is actually plugged. And the one barrel a  
20 day that we're talking about is coming from the Lowe State  
21 Number 2 in the P1 zone.

22 So the contemplated flood is the P2 through P4.  
23 Since one well is plugged and the other well has not  
24 penetrated the P2-4, I can see where it would be very  
25 remarkable if any benefit would occur from the waterflood.

1 Q. At the current time the interest owners in that  
2 tract are sharing in the one barrel a day that's being  
3 produced from the well?

4 A. That's correct.

5 Q. How close to its economic limit is the remaining  
6 producing well on that tract?

7 A. I would say it's very close. I haven't really  
8 tried to make an economic study, knowing what the actual  
9 operating costs are, but I would say that that well's  
10 probably got only a few hundred dollars of value left at  
11 this point in time.

12 Q. That's total?

13 A. Total.

14 Q. Can the portion of the pool which is included in  
15 the proposed unit area be efficiently and effectively  
16 operated under the proposed unit plan?

17 A. Yes, it can.

18 Q. Do you believe that the boundaries of the unit as  
19 proposed reasonably conform to the portion of this  
20 reservoir which will contribute reserves to the waterflood  
21 project?

22 A. Yes, I do.

23 Q. All right, let's go to the engineering portion of  
24 the case. Are you familiar with the New Mexico Statutory  
25 Unitization Act?

1           A.    Yes.

2           Q.    Let's go first to what has been marked EnerQuest  
3 Exhibit 13, and I'd ask you to review the information on  
4 that exhibit with the Examiner.

5           A.    Okay. Exhibit 13 is an outline of what the  
6 proposed ultimate pattern will be when this project is in  
7 its completed form.

8                    If you'll notice in the lower left-hand corner,  
9 there is a legend that shows the status and what will  
10 happen to various wells. The key thing is that the orange  
11 wells are going to be drilled as injection wells, and they  
12 are going to be spaced so as to properly sweep the  
13 reservoir toward the producing wells.

14                   Now, I can go through each and every well,  
15 whether it's a re-entry or whether it's a new drill or  
16 whatnot. But I think it's fairly clear this is what the  
17 pattern will look like upon completion of the project.

18           A.    This is the final full-scale waterflood pattern;  
19 is that right?

20           A.    That's right, once all the work is done this is  
21 what it should look like.

22           Q.    And as we'll go into later, what we're seeking  
23 here today is approval of the unit and approval for the  
24 first four injection wells in the unit area; is that right?

25           A.    That is correct.

1 Q. And then subsequent injection wells would require  
2 follow-up C-108 applications to the Oil Conservation  
3 Division?

4 A. Right, as the work is accomplished those requests  
5 will have to be made.

6 Q. Let's go to what has been marked for  
7 identification -- I hope yours is marked on the back, it's  
8 Exhibit 14, comparative production schedule, a two-page  
9 exhibit.

10 A. Yes.

11 Q. Could you identify and review that for the  
12 Examiner?

13 A. Okay, these are production and cash-flow  
14 projections. And if you look in the upper left-hand  
15 legend, your top page will say "East Hobbs Primary  
16 (Summary)". What this is is a projection of the production  
17 and the income that would occur from the production as it  
18 exists today if we did not put in a waterflood.

19 If you go page 2, again it's the upper left-hand  
20 corner, it says "East Hobbs Unit Waterflood - Proposed  
21 Case". This is what the proposed production and cash-flow  
22 projection will look like after the project is put in.

23 Q. Now, with this exhibit you haven't factored in  
24 any economic benefit that might come from qualification for  
25 the Enhanced Oil Recovery Act incentive tax rate; is that

1 correct?

2 A. That is correct, it is not in here.

3 Q. If we look at the first page, can you estimate  
4 what the remaining primary recovery would be and show us  
5 where on this exhibit that number can be found?

6 A. Okay, I'll just run through the columns. The  
7 left column is, of course, the date, well count.

8 Gross production, under the oil column, at the  
9 bottom you see a grand total of 921,551 barrels of oil.  
10 And then under gas you've got 1,199,635 MCF. That is the  
11 gross production that's projected from extrapolation of the  
12 existing production to an economic limit with no additional  
13 waterflood help.

14 And then it's netted to the interest. We use an  
15 average price. Actually, the oil price is a flat price of  
16 \$25 less a differential, which results in an oil price of  
17 \$23.16 per barrel.

18 Gas has a starting price of \$4 per MMBTU. Minus  
19 that differential gives us a net price of \$3.64 per MCF.  
20 And those prices were held constant throughout the life of  
21 the project.

22 Following down at the bottom we have operating  
23 expenses, we have taxes, operating income, resulting in the  
24 far right-hand corner, we have a cash flow discounted at 10  
25 percent.

1 Q. And what is that cash flow?

2 A. The cash flow, PW10, is \$7,072,958.

3 Q. And that's what the interest owners in this area  
4 receive if nothing is done and we just deplete the wells in  
5 the area to their economic limit?

6 A. That is correct.

7 Q. All right, let's go to the next page.

8 A. Okay, the next page, the column identification is  
9 the same, but you'll note that the gross production is now  
10 9,681,006 barrels. That's up from 921,000, so that's  
11 almost a tenfold increase.

12 The gas is 3,020,220 MCF.

13 And you go through the net production, the same  
14 prices.

15 Operating expenses are higher because you're  
16 going to have more wells and you're going to have a longer  
17 life.

18 Again through the columns, taxes, operating  
19 income, over to the lower right-hand column, a cash flow  
20 projection discounted at 10 percent, and that number  
21 amounts to \$80,634,688.

22 Q. So you have more than a tenfold increase in terms  
23 of the actual benefit from the waterflood?

24 A. That is correct. But I will point out, the  
25 waterflood case includes the primary case. So that is a

1 summary of both of those projections.

2 Q. But again, it's still right at tenfold?

3 A. Right at tenfold, yes.

4 Q. In preparation for this hearing, have you looked  
5 at the Lowe State lease on a stand-alone basis?

6 A. Yes, I have.

7 Q. And have you been able to estimate the additional  
8 recovery that will come to that particular lease if it's  
9 included in the waterflood project?

10 A. Yes, I have.

11 Q. And what did your work show?

12 A. It showed that with this participation formula  
13 and this performance, that the Lowe State lease will  
14 receive approximately \$14,000 of income from the unit  
15 operation.

16 Q. And how does that compare to what it would  
17 receive if it were just left to the remaining primary that  
18 can be recovered from that tract?

19 A. Well, I think that a remaining primary would  
20 probably be \$200 or \$300 at best.

21 Q. And how-many-fold increase does the Lowe lease  
22 experience by being included in the unit area and  
23 waterflood project?

24 A. Something in excess of 40 to 1.

25 Q. So the unit as a whole has a 10-to-1 increase?

1 A. Correct.

2 Q. That tract would receive a 40-to-1 increase?

3 A. That is correct.

4 Q. In your opinion, is that a fair, reasonable and  
5 equitable way to treat the Lowe property?

6 A. Well, it certainly is. And also, they do not  
7 have to bear any of the cost, whereas the unit operators,  
8 working interest owners, are going to have to pay,  
9 obviously, the working interest costs, whereas the Lowe  
10 State and override has no cost-bearing interest.

11 Q. Let's go to what has been marked as Exhibit 15.  
12 Would you identify that, please? And again, it's marked on  
13 the back.

14 A. Okay, Exhibit 15 is a production and cash flow  
15 projection that is the difference between the two  
16 projections we've just been talking about. In other words,  
17 we have had before a remaining primary, then we had a  
18 primary plus secondary. So if you subtract those two, you  
19 come up with this exhibit which shows how much additional  
20 oil and value are attributed to the incremental oil and gas  
21 production that will be occurring from this unit.

22 And that number on the gross production, the oil  
23 number is about 8.8 million barrels of additional oil, and  
24 under the PW10 cash flow that number is about \$73.6 million  
25 present worth, PW10, that is a benefit of the waterflood

1 project.

2 Q. Is the unitized management, operation and  
3 development of the unit area, in your opinion, necessary to  
4 substantially increase the ultimate recovery of oil from  
5 this area?

6 A. Absolutely.

7 Q. In your opinion, would the additional costs of  
8 conducting these unitized operations exceed the estimated  
9 value of the additional recovered oil?

10 A. Ask that again, to be sure I --

11 Q. Would the additional --

12 A. -- understand it.

13 Q. -- costs exceed the value of the --

14 A. No --

15 Q. -- oil --

16 A. -- it will not.

17 Q. Let's go to Exhibit 16. Would you identify that,  
18 please?

19 A. Okay, Exhibit 16 is a production curve. And in  
20 the left margin you have daily rates, the bottom margin is  
21 time, and the water production is denoted by the blue line,  
22 gas production by the red line, and oil by the green line.

23 So you can see if you follow the rather smooth  
24 line that goes from the existing production, you see that  
25 it goes for a period of time flat, and then it begins to

1 decline, and that is the projection that was used to  
2 determine the cash flow for the as-is or primary case.

3 Now, if you look on there, also there's a black  
4 line with some little x's in it, and that shows the  
5 proposed time at which injection into this proposed  
6 waterflood project would begin. And again, look on the red  
7 line. You can see the gas increases. The green line, the  
8 green increases. And that increase is a representation of  
9 the response that will be expected from the water  
10 injection. And that projection is what was used to make  
11 the waterflood plus primary cash flow and production  
12 projection.

13 And then the increment in between there is what  
14 Exhibit 15 showed. Exhibit 15 shows that incremental  
15 between the remaining primary and the expected response  
16 from the waterflood.

17 Q. Let's go to Exhibit 17. Would you identify and  
18 review that?

19 A. Okay, Exhibit 17 is -- the first part of it is a  
20 replication of Exhibit 16. But what it does, it extends  
21 the life -- or it shows the extension of the life out to  
22 the economic limit. And if you'll notice, right now we're  
23 sitting here in 2003, and under the waterflood operations  
24 the economic limit will not be achieved until 2038. So  
25 we've got some 35 additional production years that are

1 added as a function, a direct function, of this waterflood  
2 project.

3 Q. What is the basis for participation set forth in  
4 the unit agreement?

5 A. The participation is based on a 97-1/2-percent  
6 current rate for the period 12-1-01 to 11-1-02, I think.  
7 Let me check.

8 Q. 11-30.

9 A. 11-30. And plus 2 1/2 percent based on acreage  
10 contributed to the unit.

11 Q. In your opinion, does this formula allocate  
12 production to the separately owned tracts in the proposed  
13 unit on a fair, reasonable and equitable basis?

14 A. Yes, it does.

15 Q. In your opinion, will unitization and adoption of  
16 the proposed unitized method of operation benefit the  
17 working interest owners and the royalty interest owners in  
18 the area affected by the Application?

19 A. Very definitely.

20 Q. Does EnerQuest seek authority in this case to  
21 commit additional wells to injection at orthodox and  
22 unorthodox locations, pursuant to the administrative  
23 procedures authorized by the 700 series of the Rules of the  
24 Oil Conservation Division?

25 A. That is correct.

1 Q. Does EnerQuest further request that the order  
2 that results from this hearing contain a nonconsent penalty  
3 to be charged against any interest owner not voluntarily  
4 committed to the unit and therefore carried by the  
5 committed interest owners?

6 A. That is correct.

7 Q. And what penalty do you recommend?

8 A. Two hundred percent.

9 Q. And what is the basis for that?

10 A. Well, the interest owner that's paying the money  
11 and taking the risk should have some advantage over the  
12 person who does not choose to take that risk at the  
13 beginning, and in my opinion a 200-percent penalty is a  
14 fair way to allocate that risk.

15 Q. Mr. Williamson, let's now go to the waterflood  
16 Application. Would you refer to what has been marked for  
17 identification as EnerQuest Exhibit 18?

18 A. Okay, Exhibit 18 is the Form C-108, which is  
19 Application for Authorization to Inject.

20 Q. Does form contain all information required by  
21 Form C-108?

22 A. Yes, it does.

23 Q. And it identifies the wells for which EnerQuest  
24 is seeking injection authority?

25 A. That is correct.

1 Q. And we're only seeking authority for four wells  
2 at this time?

3 A. At this time, correct.

4 Q. Is this the expansion of an existing project?

5 A. No.

6 Q. Could you refer to page 6 of Exhibit 18?

7 Identify that and review it for the Examiner.

8 A. Okay, Exhibit 6 shows the area of review around  
9 each of the injection wells that is required by the statute  
10 to identify the wells that are within that particular area,  
11 and it's a circle with a one-half-mile radius around each  
12 well.

13 Q. Does this map also show all wells within two  
14 miles?

15 A. Yes.

16 Q. And the data that is required by this form is set  
17 forth on a subsequent table; is that correct?

18 A. That is correct.

19 Q. Could you just briefly identify what is marked  
20 page 7 of Exhibit 18?

21 A. Page 7 is an exhibit that shows the various  
22 leases. It shows the operator of those leases and has the  
23 tract numbers that are spelled out on that map.

24 Q. When we look at Exhibit 18, does it contain all  
25 information required by the Division for a full Form C-108

1 for each well in any area of review which penetrates the  
2 injection interval?

3 A. That is correct.

4 Q. And where is that information set out? Where is  
5 that table?

6 A. It's on page 8, which is immediately following,  
7 and it's entitled "Tabulation of Data on Wells in the  
8 Review Area - Application for Authorization to Inject".

9 Q. And this describes the type of the well?

10 A. Correct.

11 Q. It contains information on the date they were  
12 drilled and the construction?

13 A. Correct.

14 Q. And it shows the record of completion and all  
15 other information?

16 A. Casing setting, et cetera, yes.

17 Q. Are there plugged and abandoned wells within any  
18 of these areas of review?

19 A. Yes.

20 Q. And does this exhibit contain schematic drawings  
21 on all plugged and abandoned wells in the area of review?

22 A. Yes, it does.

23 Q. And where are those found in Exhibit 18?

24 A. Those are pages 9 through 18.

25 Q. Actually included in the exhibit are plugging

1 information on certain wells which don't even penetrate the  
2 injection interval, but all wells have been included; is  
3 that correct?

4 A. That is correct, the wells that are not into the  
5 P2-P4 zone that will be part of the project are actually  
6 included in here as though they were, but they're not.

7 Q. In your opinion, are all plugged and abandoned  
8 wells plugged so as to prevent migration of injection  
9 fluids from the injection interval?

10 A. Yes.

11 Q. What are the injection volumes that EnerQuest is  
12 proposing?

13 A. The proposal is an average daily rate of 500  
14 barrels of water per well per day, with a maximum daily  
15 rate of 700 barrels of water per day per well.

16 Q. And this information is set forth on page 19 of  
17 this exhibit?

18 A. I believe that is correct. Yes, it is.

19 Q. And what is the source of the injection water?

20 A. The injection water will be produced water from  
21 the San Andres formation within the East Hobbs-San Andres  
22 Unit.

23 Q. Does EnerQuest propose to use any fresh water as  
24 makeup water?

25 A. No.

1 Q. Does Exhibit 18 contain produced water samples  
2 that show the constituent elements in the injection fluid?

3 A. Yes, it does.

4 Q. And are those on pages 21 and 22?

5 A. Twenty-one and 22, yes.

6 Q. Will this be an open or closed system?

7 A. It will be a closed system.

8 Q. And what injection pressure is EnerQuest seeking?

9 A. The average injection pressure is probably going  
10 to be around 600 p.s.i.g.

11 Q. And the maximum pressure?

12 A. The maximum will be 890 p.s.i.g.

13 Q. Will these injection pressures be below .2 pound  
14 per foot of depth to the top of the injection interval?

15 A. Yes, they will.

16 Q. If EnerQuest should need to increase these  
17 pressures, would they first obtain approval to do so by  
18 having the Division witness step-rate tests run on the well  
19 to confirm that the pressures can be increased without  
20 harming the formation?

21 A. That is correct, they will be done.

22 Q. Have you reviewed the data available on wells  
23 within the area of review for this waterflood project and  
24 satisfied yourself that no remedial work is required on any  
25 of these wells to enable EnerQuest and others to safely

1 operate this project?

2 A. Yes, I have.

3 Q. What is the current status of the wells EnerQuest  
4 is proposing to utilize for injection?

5 A. Exhibit 18, pages 3 and 4, I have injection well  
6 data for each proposed well. These locations are not  
7 exact, they may be moved a few feet. There's an injection  
8 well data sheet. And the proposed stimulation is a small  
9 acid job in the San Andres, 3000 gallons of 15-percent HCl  
10 acid, mainly for cleanup.

11 Q. And each of these wells will be newly drilled  
12 wells for the purpose of injection; is that right?

13 A. That is correct.

14 Q. How will EnerQuest monitor these wells to assure  
15 the integrity of the wellbore?

16 A. Well, two ways. The annular space will be filled  
17 with an inert fluid, which will prevent any contamination  
18 or any deterioration of the pipe. Pressure gauges will be  
19 monitored at the surface, as required by the Federal  
20 Underground Injection Control Program.

21 Q. In your opinion, will the proposed injection pose  
22 a threat to any underground source of drinking water?

23 A. No.

24 Q. Are there freshwater zones in the area?

25 A. Yes, the Ogallala, according to the State

1 Engineer.

2 Q. And according to the State Engineer's records, at  
3 what depth do we find the Ogallala?

4 A. The producing intervals are from 50 to 200 feet,  
5 and 200 feet being the lower limit.

6 Q. Are there any other freshwater sources overlying  
7 the oil-producing intervals?

8 A. No, there are not.

9 Q. Are there freshwater wells within a mile of any  
10 proposed injection well?

11 A. Correct, there are, according to the records,  
12 about 50 permitted wells in the area of review. I was not  
13 able to determine how many of those actually are producing,  
14 but there are a lot of them in there.

15 Q. But the State Engineer has indicated that there  
16 are that many that they have permitted; is that right?

17 A. Correct.

18 Q. And those wells are listed in the C-108?

19 A. Yes.

20 Q. Is that on page 23?

21 A. Page 23, yes, sir.

22 Q. Does this exhibit also contain a water analysis  
23 from a freshwater well in the area?

24 A. Yes, it does.

25 Q. And where is that located?

1           A.    That's on page 24.

2           Q.    Mr. Williamson, have you examined the available  
3 geologic and engineering data on this reservoir, and as a  
4 result of that examination have you found any evidence of  
5 open faults or other hydrologic connections between an  
6 injection interval and any underground source of drinking  
7 water?

8           A.    I have examined the available data, and I have  
9 not found any evidence of any open faults or hydrologic  
10 connection.

11          Q.    Let's go now to the portion of the case related  
12 to qualifying this project for the Enhanced Oil Recovery  
13 Act incentive tax rate.  Would you identify what has been  
14 marked as EnerQuest Exhibit 19?

15          A.    Exhibit 19 is entitled "Application of EnerQuest  
16 Resources, LLC for Enhanced Oil Recovery Project  
17 Qualification for the Recovered Oil Tax Rate for the East  
18 Hobbs (San Andres) Unit, Lea County, New Mexico".

19          Q.    Have you reviewed the Application?

20          A.    Yes, I have.

21          Q.    In your opinion, does it contain all information  
22 required by Division Rules?

23          A.    Yes, I think the Application is complete.

24          Q.    What are the estimated additional capital costs  
25 to be incurred in this waterflood project?

1           A.    In excess of \$7 million, approximately \$7.1  
2 million.

3           Q.    And what will be the total project cost over the  
4 life of the project?

5           A.    Approximately \$17.9 million.

6           Q.    How much additional production does EnerQuest  
7 expect to obtain from this project?

8           A.    Approximately 8.8 million stock tank barrels of  
9 oil and about 1.8 BCF of gas.

10          Q.    And what is the total value of this additional  
11 production?

12          A.    This additional production, as we've discussed  
13 earlier, it is about \$73.5 million.

14          Q.    And what do you base that on?

15          A.    PV10.  It's based on the cash flow projections  
16 that were prepared, the incremental between the as-is  
17 primary and the performance with the proposed waterflood.

18          Q.    And those were shown on Exhibit 15?

19          A.    Correct.

20          Q.    Does Exhibit 19 set out the production history  
21 and production forecast for oil, gas and water from the  
22 project area?

23          A.    That is correct.

24          Q.    And these are the same projections that were  
25 previously presented as part of your engineering testimony?

1 A. Correct.

2 Q. In your opinion, will approval of these  
3 consolidated Applications for statutory unitization and the  
4 implementation of the proposed waterflood project be in the  
5 best interests of conservation, the prevention of waste and  
6 the protection of correlative rights?

7 A. Yes.

8 Q. Were EnerQuest Exhibits 9 through 19 either  
9 prepared by you, or have you reviewed them and can you  
10 testify to their accuracy?

11 A. That is correct.

12 MR. CARR: At this time, Mr. Examiner, we would  
13 move the admission into evidence of EnerQuest Exhibits 9  
14 through 19.

15 MR. BRUCE: I have no objection.

16 EXAMINER JONES: Exhibits 9 through 19 will be  
17 admitted into evidence.

18 MR. CARR: That concludes my direct examination  
19 of Mr. Williamson.

20 EXAMINER JONES: Thank you, Mr. Carr.

21 Mr. Bruce?

22 CROSS-EXAMINATION

23 BY MR. BRUCE:

24 Q. Mr. Williamson, looking at your Exhibit 10 --

25 A. Okay.

1 Q. -- which I believe you said is structure on top  
2 of the P2 zone?

3 A. Correct.

4 Q. Does the structure on the top of the P1 zone look  
5 substantially different than this map?

6 A. I have not mapped it. I would presume that it  
7 does not look greatly different.

8 Q. When the unit was originally proposed about a  
9 year ago, wasn't the unit outline based upon the P1 zone?

10 A. I did not work on this at that time. I don't  
11 know.

12 Q. In looking at your cross-section, Mr. Williamson,  
13 as far as porosity goes, the P1 zone has the best porosity  
14 in the San Andres, does it not?

15 A. That's correct.

16 Q. And is there production from the P5 zone in any  
17 of these wells?

18 A. Not that I know of. Some of these -- you can see  
19 on the cross-section a line, a green line, that says  
20 estimated limit, lower limit of production, and I don't  
21 believe -- I know there's not any production from the P5  
22 zone.

23 Q. What line are you looking at? You said -- is it  
24 the -- Oh, I see, the green one.

25 A. Yeah.

1 Q. Okay, I didn't see that.

2 A. That's the subsea of a minus ten- -- about 1020.

3 Q. Is that a wet zone?

4 A. Below that, yes.

5 Q. Then why were -- Apparently a number of these  
6 wells were completed or drilled down to the P5 zone?

7 A. I would presume that they were done in an attempt  
8 to determine that the P5 zone could produce.

9 Q. Is that where the bulk of the water production is  
10 coming from, or is it coming from the P2 through P4?

11 A. I don't think any of the water is coming from the  
12 P5. The P2 through P4, you can look at the various IP  
13 zones, and there have been water production from those  
14 zones. But the P5 could be productive as water, but I  
15 don't have any tests on those.

16 Q. Do you know if the -- In all of these wells, is  
17 the P5 contributing to any water production in these wells?

18 A. I don't know.

19 Q. Can the P5 be isolated from the P2 through P4?

20 A. If necessary, I believe it could.

21 Q. It hasn't been done in any of these wells to  
22 date?

23 A. Let's see. I believe in the Cain Number 5, which  
24 is the third well from the left, that zone was tested and  
25 there were several cast-iron bridge plugs set. The last

1 one was at 4583, which would of course isolate everything  
2 below that bridge plug.

3 Q. On some of these others it doesn't look like the  
4 well, the Rocket-Cain Number 1 on the left side, the far  
5 left side of the cross-section, there is not a bridge plug  
6 there?

7 A. At this time there does not appear to be, no.

8 Q. And the same would apply to wells on the right  
9 side, the Carrie O. Davis Number 5, Number 2 and Number 1?

10 A. I believe that's correct.

11 Q. Do you have a map, or is it depicted on any of  
12 these exhibits where the -- Let's take a step back. Have  
13 all of these tracts produced from the P1 zone? All of the  
14 proposed unit tracts?

15 A. Yes. I believe that's -- Well, let me think, let  
16 me think. I know the wells that are not on this cross-  
17 section are currently producing from the P1. Let me see if  
18 these all -- It appears that the Cain Number 6 was never  
19 perforated in the P1 zone.

20 Q. Okay, but -- I'm not asking specific wells, but  
21 has each tract within the unit produced from the P1 zone?

22 A. Yes.

23 Q. How many tracts within the unit area are now  
24 producing from the P2 through P4 zones?

25 A. I've got to count the tracts. The wells that

1 produce -- or that are open in, I should say, in the P2-P4  
2 zone are identified on this cross-section. So we just need  
3 to impose --

4 Q. Okay.

5 A. -- this cross-section structure on the tract map,  
6 and you can see where they are.

7 Q. Okay. So on your Exhibit 12, those contain the  
8 only wells that are producing from the P2 through P4 zones?

9 A. Well, some of them -- yeah, they're open in the  
10 P2-to-P4 zone, yes.

11 Q. Okay. So Tract 3 is not producing -- I'm  
12 comparing your Exhibit 2 with your Exhibit 12. Tract 3 --  
13 Excuse me, Tracts 2, 3 and 4 and 9 are not producing or not  
14 open in the P2-through-P4 zones?

15 A. You're looking at what exhibit?

16 Q. Excuse me, Mr. Williamson, Exhibit 2, which -- It  
17 wasn't your exhibit, I believe it was Mr. Clark's. It's  
18 just the unit map.

19 A. Okay, I don't have that one.

20 Q. So anyway, comparing your cross-section with  
21 Exhibit 2, then, Tracts 2, 3 and 4 and 9 are not producing  
22 from or open in the P2-through-P4 zones?

23 A. Well, let me plot these on here before I answer  
24 that.

25 Okay, ask the question again, please.

1 Q. Okay, comparing your Exhibit 12 with Mr. Clark's  
2 Exhibit 2, it appears that unit Tracts 2, 3, 4 and 9 have  
3 no wells open in the P2-through-P4 zones?

4 A. That is correct.

5 Q. And as to Tract 11, the only well that you have  
6 on your cross-section is plugged and abandoned, so that  
7 tract is not producing from the P2-through-P4 zones?

8 A. Not at this time, no.

9 Q. And the Lowe State tract, Tract Number 10, that  
10 well is plugged and abandoned, so that tract is not  
11 producing from the P2-through-P4 zones?

12 A. That is correct.

13 Q. Okay. So basically you have -- And then on Tract  
14 12, can you tell me if those two wells, the Number 5 and 6  
15 wells, are they actually producing from the P2-through-P4  
16 zones, or re they simply open, or was the well simply  
17 drilled to a depth sufficient to test those zones?

18 A. If you'll look on the cross-section, in the  
19 right-hand column of the cross-section at the top it says  
20 perfs --

21 Q. Okay.

22 A. -- and those perfs should be identical --

23 Q. Okay.

24 A. -- to what is in the box at the bottom --

25 Q. Okay.

1           A.    -- so you can see.  There's either an open hole  
2 designation or a perf designation, depending on which is  
3 the case.

4           Q.    Okay.  And so the Samuel Cain Number 5, that one  
5 is perforated in the P1 zone also, is it not?

6           A.    Correct.

7           Q.    So basically you've got -- from Tract 12 moving  
8 eastward over to Tract 1, you have P2-through-P4  
9 production.  Can you tell me what percentage of P2-through-  
10 P4 production is coming from the Laney Reese and the Laney  
11 Tracts, the 160 acres in the center of the unit?

12          A.    I can get a copy of the well participation.  They  
13 give you the period of production from 12-1-01 to 11-30-02.

14          Q.    Okay.

15          A.    I don't have that with me.

16                    Okay, ask your question again, please.

17          Q.    Okay, based on your exhibits, there's production  
18 from the P2-through-P4 zones from Tracts 1, 5, 6, 7, 8 and  
19 12.  Can you tell me -- and I don't know how that data is  
20 organized, but what is the P2-through-P4 production for  
21 that time period you discussed from Tracts 5 and 6, the  
22 Laney and Laney A?

23          A.    Okay, 5, for that time period, which is 12-01 to  
24 11-31-02, is 18.625005 percent.

25          Q.    Okay.

- 1           A.    And the Laney A, which is Tract 6 --
- 2           Q.    Uh-huh.
- 3           A.    -- is 20.338534 percent.
- 4           Q.    Okay.  What about Tracts 7 and 8?
- 5           A.    7 is 1.832257 percent.
- 6           Q.    And Tract 8, please?
- 7           A.    Tract 8 is 37.817175 percent.
- 8           Q.    Okay.  And then the balance would come from those
- 9 other two tracts?
- 10          A.    Correct
- 11          Q.    Okay.
- 12          A.    Well, there's actually production during this
- 13 period from Tract 2 and 3 and 9, 10, 11 and 12.
- 14          Q.    Isn't that P1 production?
- 15          A.    It's all production from the well.
- 16          Q.    But your cross-section contains all the wells
- 17 that are producing from -- or open in the P2-through-P4
- 18 zone?
- 19          A.    That's correct.
- 20          Q.    Okay.  Now, you said the produced water -- you're
- 21 just going to use San Andres produced water for the
- 22 waterflood?
- 23          A.    Correct.
- 24          Q.    Just the water that's currently being produced,
- 25 or will there be makeup water?

1           A.    There will be no makeup water.  At least that's  
2 the current plan.

3           Q.    Okay.  In looking at your -- It's Exhibit 13, Mr.  
4 Williamson.  I just want to make sure I've got some numbers  
5 right here.

6           A.    13, okay?

7           Q.    Eventually, there are planned to be 19 injection  
8 wells; is that correct?

9           A.    I believe that's right, if I haven't counted  
10 wrong.

11          Q.    Okay, what is the time frame for fully  
12 implementing the waterflood project?  And by that I mean,  
13 having all of the injection wells in place and injecting?

14          A.    Well, that will, of course, depend on the rate  
15 that the money is spent, but I would say that the entire  
16 project could be -- should be implemented within a couple  
17 years, perhaps quicker.  It depends on how actively the  
18 interest owners want to press development.

19          Q.    I know they're not numbered on here, but I take  
20 it from your C-108 that the initial four injection wells  
21 are the four orange dots in the southeast quarter of  
22 Section 30?

23          A.    Southeast -- They're the ones that are around the  
24 Laney A, the 3A well there.

25          Q.    Okay.  Will the P1 zone be flooded?

1 A. No.

2 Q. Now engineers, when they look at these projects,  
3 usually have some type of recovery factor, secondary to  
4 primary. What type of ratio are you using?

5 A. Roughly a 5-to-1 secondary over primary.

6 Q. On one of Mr. Clark's maps there was the -- I  
7 believe the North Hobbs and the South Hobbs-San Andres  
8 units. What's the recovery factor in those?

9 A. I have not calculated the recovery factor because  
10 I don't know what the oil in place is.

11 Q. Or excuse me, I didn't mean recovery factor. But  
12 what ratio of secondary-to-primary are they recovering in  
13 those units?

14 A. I don't know. I have a production curve on those  
15 two units, but I have not identified that ratio.

16 Q. Have you calculated the estimated primary  
17 recovery from the P2-through-P4 zones?

18 A. No, I have not separated the P2-P4 production  
19 from what is currently being produced from the P1.

20 Q. Isn't the vast bulk of production coming from the  
21 P1 zones, has come historically?

22 A. It has come. I would not expect it to be today.  
23 That zone has an edge water drive, and I would think that  
24 it's largely depleted from recoverable oil.

25 Q. Is your ratio of secondary recovery to primary

1 based upon the oil that's been produced from the P1 as well  
2 as the P2-through-P4 zones?

3 A. No, it's been on a study of the P2-P4 by itself.

4 Q. How much oil has been produced from the P2-  
5 through-P4 to date?

6 A. I don't have that calculation.

7 Q. How much remaining primary is there in the P2-  
8 through-P4 zones?

9 A. I have not made that calculation.

10 Q. Then how can you derive these figures on Exhibit  
11 14 where you're showing on page 2, I presume, over in the  
12 left-hand column, you're claiming that you'll ultimately  
13 recover 9.7 million barrels, as opposed to 900,000 barrels  
14 remaining primary on page 1?

15 A. Well, it was based on a waterflood prediction  
16 model in the P2-through-P4.

17 Q. On page 1 -- I presume this is the remaining  
18 primary, 921,000?

19 A. Correct, that's the projection of the existing  
20 wells.

21 Q. Does that include P1 production?

22 A. If there's any P1 there, yes, it does.

23 Q. You said you're using a 5-to-1 ratio. Isn't this  
24 more like a 10-to-1 ratio?

25 A. What are you looking at, the --

1 Q. Oh, Exhibit 14.

2 A. Well, the second part of Exhibit 14 includes  
3 primary also.

4 Q. Okay.

5 A. It's just a projection of what's out there today.

6 Q. Just one final question, Mr. Williamson. Mr.  
7 Carr asked you a question about the penalty to be assessed  
8 against nonconsenting interest owners, and you stated 200  
9 percent. Is that in the unit operating agreement anywhere?

10 A. I haven't read the unit operating agreement. I  
11 don't know.

12 MR. BRUCE: Okay, thank you.

13 EXAMINATION

14 BY EXAMINER JONES:

15 Q. Mr. Williamson, how did you process these logs?  
16 Did you do all the processing on these logs? I mean, this  
17 one well was drilled in the 1950s, and you've got a -- it  
18 looks like a processed pump volume water and oil and water  
19 saturation and lateral logs. I guess some of the wells are  
20 newer than that, aren't they?

21 A. Right, this was based -- this log analysis was  
22 really based on a very detailed central geophysical study.  
23 I've got the book here. It's about that thick.

24 Q. So it was some kind of a --

25 A. Davies, and so he analyzed all of the rock types

1 and everything and put it on these logs.

2 Q. Okay, so you didn't -- EnerQuest didn't go out  
3 and run any kind of cased hole water saturation logs like  
4 -- I suppose the PT to try to figure out what the water  
5 saturation is right now out there?

6 A. No, this was based on the petrophysical study.

7 Q. Okay. And your P1 zone, can we talk a little  
8 more about that? Because I notice that the -- in some of  
9 the wells the water saturation doesn't look too bad, and  
10 some of them it does, but your gamma rays are really clean  
11 in that zone, so it's probably got really good  
12 permeability.

13 A. Right, it is good, and I guess what I'm saying  
14 is, with the edge water drive, that I think that zone has  
15 essentially been flooded and no additional recovery could  
16 be obtained by injecting into it.

17 Q. I can understand you not wanting to waste water  
18 or cycle water through. Which edge is the water coming  
19 from? What direction was it --

20 A. Well, we've got -- I think we're -- If you look  
21 at the structure map you can see where we're going downdip  
22 in all directions. So I would presume that that water is  
23 coming from below from all directions. I have not tried to  
24 identify, you know, a specific direction. But looking at  
25 the production on the wells on each end, it's pretty

1 obvious it's coming fairly uniformly.

2 Q. Okay. Is that higher-permeability, higher-  
3 primary-recovery-zone also present in the east -- the north  
4 and south Hobbs units?

5 A. They're comparable zones, I have not tried to  
6 identify whether the porosity is, you know, identical to  
7 this or not. But the general formations are the same.

8 Q. And so your primary recovery percentage is -- was  
9 it somewhere between 10 and 20 percent?

10 A. Oh, it's somewhere around 5 percent.

11 Q. Five percent?

12 A. Right, very low gas saturation. That's why this  
13 waterflood will be successful, because the primary recovery  
14 has been so low in the P2-P4.

15 Q. Okay.

16 A. Not in the P1. If it was all like the P1, it  
17 would be a home run.

18 Q. Okay, the recovery at the end of secondary  
19 operations, what percentage is that expected to be or  
20 original oil in place?

21 A. Roughly a little bit -- with total -- The total  
22 secondary recovery is roughly 19 percent additional  
23 recovery of the oil in place.

24 Q. So we've got 5-percent primary, and you say the  
25 total secondary is 19?

1 A. Yes.

2 Q. That's the total of secondary plus primary?

3 A. Primary plus secondary is about 23 percent.

4 Q. Okay.

5 A. The two together.

6 Q. Okay. This production plot, you said, was  
7 generated from a simulation; is that right?

8 A. Yes.

9 Q. And in fact, is that just a -- one pattern like  
10 on a 40-acre --

11 A. It was a 40-acre pattern, it was a Craig, Giffin  
12 and Morse waterflood prediction model, and it was done on a  
13 40-acre pattern with average properties and expanded over  
14 the area.

15 Q. Okay, so you first had to come up with these  
16 average properties based on the petrophysics of all of the  
17 leases going into this?

18 A. Correct.

19 Q. And then plug it into the model?

20 A. Yeah, this is an average -- These are average  
21 values that were determined by the petrophysical study.

22 Q. Okay. And that would be for the -- Did the model  
23 also predict the remaining primary? In other words -- Are  
24 those primary lines on the plots, or are they from the  
25 model or are they from --

1           A.    Yeah, they're from the model for -- a 40-acre  
2 pattern, for instance, the primary EUR was 139,000 barrels  
3 and the secondary was 578. So it did predict both of  
4 those.

5           Q.    Okay. So you really don't have a plot like this  
6 for every tract going into the proposed unit?

7           A.    Well, we have a -- on this cross-section we have  
8 a production plot at the bottom for these wells. And the  
9 other wells, that could be generated. I just have not done  
10 that.

11          Q.    Okay, let's see. And there are going to be new  
12 injection wells, at least the first four of them?

13          A.    Yes.

14          Q.    Will -- all injection wells --

15          A.    If you refer back to Exhibit 13, you can see that  
16 the majority of them are going to be new drills. That red  
17 well up in the northwest quarter is going to be a  
18 conversion from a saltwater disposal to injection well.  
19 And then kind of in the middle on the left, that Cain 6,  
20 the pink circle is going to be converted from a producer to  
21 an injector.

22          Q.    Are those open-hole producers, that last one you  
23 mentioned?

24          A.    Let's see. No, sir, the Cain 6 is perforated,  
25 it's not open hole.

1 Q. Okay. On page 8 of Exhibit 18, it's just your  
2 tabulation of the wells in the area of review. You've got  
3 cement volumes on those. You don't have calculated cement  
4 tops for those, do you?

5 A. Sorry, say again, please?

6 Q. I was just asking if you had calculated cement  
7 tops on all the wells in the area of review. I notice you  
8 do have the sacks of cement that were --

9 A. Oh, no, I have not made that calculation. That  
10 would, you know, be easy to do.

11 Q. Now, are -- any of these wells have DV tools, to  
12 your knowledge? They're all one-stage?

13 A. As far as I know, they're all one-stage.

14 Q. Okay. And from last year's participation  
15 parameters to this year's participation parameters you say  
16 you've gotten a lot more -- I guess EnerQuest is saying  
17 they have a lot more people that have joined up as far as  
18 the working interest owners.

19 You have over 75 percent now, and you're  
20 anticipating that you're going to get hopefully 75 percent  
21 of the mineral interest owners?

22 A. That's what I understand, yes.

23 Q. Yeah, that's a question for the previous witness.  
24 But there's some big changes in some of these tracts in the  
25 participation parameters.

1 I guess I want to go back to, for example, Tract  
2 12 from -- Last year it was 9.2, and this year it's two  
3 points. So just give me a rough reason why they changed  
4 around so much. You must have changed things to get better  
5 agreement among all of the tract owners.

6 A. Well, obviously the previous factor had a lot  
7 more parts to it. It was based upon four different  
8 parameters, and there was a not agreement enough to get  
9 everyone to agree to it. So the committee has been working  
10 hard for the last six or eight months to rework this to  
11 where everyone is agreeable.

12 And I think that's one reason to show that this  
13 formula that we currently have is fair and equitable,  
14 because there are a large number of -- percentage of  
15 people, have accepted it. And it's just looking at the  
16 fact that we're going to only flood one zone, the P2 to the  
17 P4, so a lot of the cumulative production or production  
18 that occurred in the past has no relationship to what's  
19 going to occur in the future.

20 Q. Well, your -- The North and South Hobbs Units  
21 have CO<sub>2</sub> and gas cycling going on, and those are going to  
22 be tertiary recovery, which is above and beyond secondary  
23 recovery, which your P1 zone -- you say that was naturally  
24 waterflooded.

25 When you eventually go to tertiary recovery out

1 here, which I assume you will do, that P1 zone will  
2 contribute, won't it?

3 A. It could. I have made no study, I don't know  
4 that there are any plans for that to occur. So I don't  
5 know.

6 Q. And where is the new participation parameters in  
7 our exhibits? Where is it calculated, I mean?

8 A. Well, let's see. I don't think I have a copy of  
9 the new -- Yeah, I do, somewhere here. You mean the  
10 formula or the tract?

11 Q. The formula.

12 A. The formula, which -- It's 2 1/2 percent acres  
13 and 97 1/2 percent production for the period December 1 of  
14 '01 through 11-31 of '02, a 12-month period.

15 Q. Okay, that's 99 1/2 percent. So you've got  
16 another half a percent, based on something else?

17 MR. BROOKS: I think he said 97 1/2 percent.

18 THE WITNESS: Well, 2 1/2 and 97 1/2.

19 Q. (By Examiner Jones) Okay.

20 A. Sorry.

21 Q. So there's no arguing about the acres, and --  
22 just that production for that period. It's a much-  
23 simplified formula, I take it?

24 A. Yes.

25 EXAMINER JONES: Mr. Brooks?

## EXAMINATION

1  
2 BY MR. BROOKS:

3 Q. Would you characterize the primary -- the  
4 reservoir, primary -- that is within the vertical and  
5 horizontal limits of this unit -- from the point of view of  
6 primary production, would you characterize it as being in  
7 an advanced state of depletion?

8 A. Yes.

9 Q. Okay. Do you believe that this is the  
10 appropriate time to implement a secondary recovery  
11 operation by waterflood in this unit?

12 A. Yes, I do.

13 Q. And do you believe that for any reason that would  
14 be -- undertaking a waterflood project in this unit at this  
15 time would be either technically or economically premature?

16 A. I do not believe that will be the case.

17 MR. BROOKS: Thank you, that's all my questions.

18 EXAMINER JONES: Mr. Bruce?

## EXAMINATION

19  
20 BY MR. BRUCE:

21 Q. Just one question. One of Mr. Brooks' questions  
22 raised something, Mr. Williamson. Isn't the Laney Reese  
23 Tracts 7 and 8 combined producing at or near the top  
24 allowable?

25 A. Right, but I was referring to the project as a

1 whole.

2 Q. Yeah, I understand, but isn't that tract  
3 producing at or near top allowable?

4 A. Which tract again, sorry?

5 Q. The Laney Reese tract, the northeast quarter of  
6 the southeast quarter of Section 30?

7 A. That would be 7 and 8?

8 Q. Yes, sir. Are you aware that the allowable in  
9 this pool is 160 barrels of oil a day?

10 A. Yes. I have not actually plotted a production  
11 curve for that segment, so I couldn't support that. I've  
12 got the production for the 2 and the 3 well, but I don't  
13 have it for the 1 well.

14 MR. BRUCE: Okay, thank you.

15 EXAMINER JONES: Mr. Carr?

16 MR. CARR: Nothing further.

17 EXAMINER JONES: Okay, thank you very much, Mr.  
18 Williamson.

19 MR. CARR: May it please the Examiner, that  
20 concludes our direct presentation in this matter.

21 EXAMINER JONES: Okay, Mr. Bruce?

22 MR. BRUCE: I have one witness, Mr. Examiner.

23 RICHARD A. GILL,

24 the witness herein, after having been first duly sworn upon  
25 his oath, was examined and testified as follows:

## DIRECT EXAMINATION

1  
2 BY MR. BRUCE:

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

4 A. My name is Richard Gill.

5 Q. Where do you reside?

6 A. Midland, Texas.

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

8 A. I work for -- actually employed at Maralo, LLC,  
9 which is the operating arm for Lowe Partners, LP. I'm the  
10 division engineer.

11 Q. Lowe Partners and Maralo are related entities?

12 A. Yes, they are.

13 Q. Have you previously testified before the  
14 Division?

15 A. Yes, I have.

16 Q. And were your credentials as an expert petroleum  
17 engineer accepted as a matter of record?

18 A. Yes, they were.

19 Q. Does your area of responsibility at Maralo  
20 encompass this portion of New Mexico?

21 A. Yes, it does.

22 Q. And are you familiar with the engineering matters  
23 related to this Application?

24 A. Yes, I am.

25 MR. BRUCE: Mr. Examiner, I'd tender Mr. Gill as

1 an expert petroleum engineer.

2 EXAMINER JONES: Mr. Carr?

3 MR. CARR: No objection.

4 EXAMINER JONES: Mr. Gill -- Can you spell your  
5 last name?

6 THE WITNESS: G-i-l-l.

7 EXAMINER JONES: Mr. Gill is so qualified.

8 Q. (By Mr. Bruce) Now, Mr. Gill, before we begin,  
9 in the abstract Lowe Partners does not object to  
10 unitization; is that correct?

11 A. Absolutely not.

12 Q. What's your point in being here today?

13 A. I feel that their participation factor is  
14 inequitable.

15 Q. Could you identify your Exhibit 1 and discuss its  
16 contents for the Examiner and what your proposal is for  
17 tract participation?

18 A. Okay. Exhibit 1 is what I would propose as the  
19 tract participation for this unit. It outlines the tracts  
20 with their subsequent participations. My proposal would be  
21 to do a two-phase system. I'm certainly aware of their --  
22 the problems they have and that there's some newer wells in  
23 this field that are producing high rates, and obviously the  
24 working interest owners and royalty owners in those wells  
25 want their primary production, so I can appreciate that.

1 My concern is past that, in the secondary  
2 production, all the royalty owners outside of those tracts  
3 are not being treated fairly.

4 So I would propose a two-phase participation  
5 factor, where we use their equation through Phase I until  
6 the estimated primary recovery is recovered. I was using a  
7 number of primary recovery of 6.7. It looks like Mr.  
8 Williamson's numbers are different now. I was using some  
9 numbers that they had presented last year.

10 Q. Okay, so you didn't alter any of their numbers --

11 A. No.

12 Q. -- for ultimate primary, et cetera --

13 A. No.

14 Q. -- you used their numbers?

15 A. I used their numbers, I didn't even try to  
16 evaluate -- you know, do decline-curve analysis or  
17 anything. I accepted their numbers as valid numbers.

18 Then beyond that, at the point that they reach  
19 the estimated primary recovery, I would suggest that the  
20 participation formula go to a 97-1/2-percent ultimate  
21 recovery, plus 2-1/2-percent acreage.

22 Q. So your Phase I participation formula is exactly  
23 the same as what's in their unit agreement?

24 A. That's correct.

25 Q. And your Phase II would then take into account

1 estimated ultimate recovery?

2 A. That's correct.

3 Q. In using those numbers, then -- and you have set  
4 forth for each tract what those tract participation factors  
5 would be?

6 A. That's right.

7 Q. Okay. Do you believe that this allocates the  
8 produced hydrocarbons on a fair and equitable basis?

9 A. I believe it does.

10 Q. More so than the single-phase participation  
11 formula proposed by EnerQuest?

12 A. Yes.

13 Q. Have you seen a unit agreement before that simply  
14 used the last 12 months' production essentially --

15 A. No --

16 Q. -- for the primary --

17 A. -- not as a primary factor, no.

18 Q. What is Exhibit 2, Mr. Gill?

19 A. Exhibit 2 is a letter of basically support to our  
20 position from Small GeoServices. Jamie Small is a mineral  
21 owner in several of the tracts in the unit.

22 Q. And --

23 A. When we get to Exhibit 4, it's a letter I sent to  
24 EnerQuest. But anyway, I contacted several of the royalty  
25 owners, mineral owners in the tract that the Lowe Partners

1 are involved in and discussed the issue with them.

2 I got this letter from Mr. Small before I left.  
3 I was expecting one from Marshall R. Young, I did not  
4 receive it in time, so I do not have that.

5 Q. And have you also discussed this matter with  
6 Rocket Oil and Gas Company?

7 A. Yes, I have, they contacted me.

8 Q. And do they support your proposal?

9 A. Yes, they do.

10 Q. What is Exhibit 3, Mr. Gill?

11 A. Exhibit 3 is just some cumulatives.

12 Unfortunately, I didn't have time to do much of a study on  
13 this field; I'd only been made aware of the hearing a  
14 couple weeks ago. But I did just do some looking, and it  
15 appears that most of these wells in this unit were drilled  
16 1954 or prior. There's been about eight wells or so  
17 drilled after that, from about 1997 forward.

18 The ones drilled 1997 forward were all  
19 essentially P2-to-P4 producers. Everything prior to that  
20 was a P1 producer. So I subtotaled the cum production for  
21 the P1 and the P2, and based on that it looks like the cum  
22 production from this unit, or this proposed unit, about 90  
23 percent of it came from the P1 and 10 percent from the P2  
24 through P4.

25 Q. Although there is some remaining primary left in

1 the P2 through P4, from the data you've seen?

2 A. Yes, there is, and a minimal amount from the P1.

3 Q. Okay. But there's not -- Those early wells that  
4 you said primarily from the P1 zone produced about 5 1/2  
5 million barrels?

6 A. That's right.

7 Q. There's not 5 1/2 million barrels left in the P2  
8 through P4 --

9 A. Oh, no.

10 Q. -- from the data you've seen, is there?

11 A. Oh, no. Well, according to Mr. Williamson's  
12 numbers, that's not there.

13 Q. About how much ultimate or remaining primary?

14 A. Well, he gave it 921,000 barrels. That includes  
15 whatever's remaining with the P1, which is probably not too  
16 significant. I think previously -- what they presented  
17 last year, that number was something less. That was about  
18 700,000, I think, last time.

19 Q. Okay, and you're not quibbling with the numbers,  
20 it's just that --

21 A. That's right.

22 Q. -- the remaining primary in the P2 through P4  
23 does not compare with the P1 --

24 A. That's correct.

25 Q. -- production?

1           A.    That's correct.

2           Q.    And you have in front of you -- They do use P1  
3 production in their economics and other projections, do  
4 they not?

5           A.    It certainly shows up in their historic gross  
6 numbers and their cumulative numbers, yes.

7           Q.    And in your opinion, should all production from  
8 wells in the proposed unit area be used in allocating  
9 production from the secondary project?

10          A.    It's all in the unitized interval, so I would say  
11 yes.

12          Q.    Okay.  What is Exhibit 4, Mr. Gill?

13          A.    Exhibit 4 is a letter I sent to EnerQuest with  
14 copies to the other mineral or override owners in Tract --  
15 10, I guess it is, the one we're in, the Lowe State --  
16 after I received their letter asking to ratify the  
17 agreement, basically telling them my problems I had with  
18 their letter and that we would not ratify that agreement.

19          Q.    Okay.  Did you receive a response to that?

20          A.    Not directly.  I did talk to their engineer a  
21 couple times subsequent to that, but I initiated those  
22 calls.

23          Q.    One final question.  You were here during Mr.  
24 Williamson's testimony, were you not?

25          A.    Yes.

1 Q. And you heard him say he's using a -- what, about  
2 a 5-to-1 ratio, secondary to primary?

3 A. Right.

4 Q. In your opinion, is that high, low, average?

5 A. Well, start off based on my calculations, based  
6 on Exhibit 2, this unit has made 406,000 barrels. I think  
7 that's through November. Yeah, through last November.

8 And saying it's going to make another 921,000,  
9 based on his numbers, gives it an ultimate primary, less a  
10 little P1, of about 1.3 million barrels. And based on his  
11 estimated waterflood recovery, secondary recovery, 9.6, it  
12 comes to more about a 7-to-1, secondary-to-primary, and in  
13 my experience that seems awful high.

14 Q. Are they generally more like 1 or -- 1-to-1 or  
15 1-1/2-to-1?

16 A. I was assuming 1-to-1, but I guess you could  
17 stretch it to 2 or something like that.

18 Q. Okay. Were Exhibits 1 through 4 prepared by you  
19 or under your supervision?

20 A. Yes.

21 Q. And in your opinion, is the approval of the  
22 participation formula in your Exhibit 1 in the interests of  
23 conservation and the prevention of waste?

24 A. I think so.

25 MR. BRUCE: Mr. Examiner, I'd move the admission

1 of Lowe Partners Exhibits 1 through 4.

2 EXAMINER JONES: Mr. Carr?

3 MR. CARR: No objection.

4 EXAMINER JONES: Lowe Partners Exhibits 1 through  
5 4 are admitted to evidence.

6 Mr. Carr?

7 CROSS-EXAMINATION

8 BY MR. CARR:

9 Q. Mr. Gill, if I understand your testimony,  
10 appearing here today you're not opposing the unitization  
11 that's proposed?

12 A. That's correct.

13 Q. You're not opposing implementation of a  
14 waterflood project?

15 A. No, I'm not.

16 Q. And you don't quarrel with the waterflood  
17 proposal?

18 A. No, I don't.

19 Q. Your problem is with the allocation formula in  
20 the unit agreement --

21 A. That's correct.

22 Q. -- is that fair?

23 A. That's correct.

24 Q. You understand that the allocation formula in  
25 this agreement is the result of -- over years' negotiation

1 between certain interest owners in the unit area?

2 A. I understand that.

3 Q. And you understand that if it is changed as you  
4 propose, there's a very good chance the unit would not be  
5 ratified?

6 A. I understand that risk, yes.

7 Q. Now, the reason, if I'm -- and correct me if I'm  
8 wrong. Aren't you asking the Division to adopt an  
9 alternative participation formula to protect the  
10 correlative rights of the Lowe Partners and other royalty  
11 interest owners in the unit area?

12 A. That's correct.

13 Q. Now, do you understand how correlative rights is  
14 defined?

15 A. Correlative rights --

16 Q. -- is defined as the opportunity to produce your  
17 fair share of the recoverable reserves under your tract.

18 A. Okay.

19 Q. Now, if we look at, first, the Maralo tract, is  
20 it your opinion that under that tract, 8.07 percent of the  
21 remaining recoverable reserves are found there?

22 A. Yes.

23 Q. You believe that that edge tract has 8 percent of  
24 the total unit recoverable waterflood reserves?

25 A. That tract to date has produced over 9 percent of

1 the recovery to date, so yes, I believe --

2 Q. Now, I'm looking at -- point forward.

3 A. Yeah.

4 Q. All right. Now, let's take a look at that tract.

5 A. Okay.

6 Q. At the present time there are two wells on that  
7 tract; is that correct?

8 A. That's correct.

9 Q. You're not suggesting that there should be credit  
10 for usable wellbores in the formula?

11 A. No, I'm not.

12 Q. There's actually a wellbore in every 40-acre  
13 tract, virtually, in the unit area.

14 Which well is producing?

15 A. I believe it's the Number 2.

16 Q. And at what rate is the Number 2 well producing?

17 A. I'm not sure. If you said a barrel a day, I  
18 won't quarrel with that.

19 Q. Does that sound appropriate to you?

20 A. Yeah.

21 Q. And that well -- And is that the only well  
22 producing at this time on that tract?

23 A. As far as I know.

24 Q. Have you studied the logs and the data on the  
25 reservoir under that tract?

1 A. No, I have not.

2 Q. Are you prepared to make any recommendations as  
3 to whether or not Maralo or Lowe Partners think it would be  
4 appropriate to deepen the well to attempt to complete that  
5 in the P2-to-P4 interval?

6 A. No, I'm not.

7 Q. So we're looking at a tract that has a barrel a  
8 day?

9 A. Yes.

10 Q. The tract is clearly at its economic limit?

11 A. Yes.

12 Q. If we look at the production history from the  
13 tract, would you agree with me that the bulk of the  
14 production, virtually, almost all of the production is out  
15 of the P1 zone?

16 A. Yes.

17 Q. When we look at the formula that you're proposing  
18 and we look at the Phase I participation formula, that is  
19 the formula that is being recommended as a one-phase  
20 formula for the life of the unit; do you understand that?

21 A. Yes.

22 Q. You understand that in looking at this formula,  
23 the last 12 months' production number that is being used  
24 would include P1 as well as P2-through-P4 --

25 A. Yes.

1 Q. -- production?

2 A. Yes.

3 Q. If you go to the participation formula that  
4 you're recommending, you go to change that 97.5-percent  
5 estimate to ultimate recovery?

6 A. Yes.

7 Q. That would include all past production and all  
8 future production from the P1 as well as the P2?

9 A. Yes.

10 Q. Now, if you -- How much has been produced from  
11 this lease out of the P1 interval? Do you know today?

12 A. I think it's about 530,000 barrels.

13 Q. And then what is left?

14 A. Probably nothing.

15 Q. So you have 535,000 barrels that have been  
16 produced, and the royalty owners have been paid for that?

17 A. Yes.

18 Q. And there's nothing left to be produced out of  
19 that zone?

20 A. Not primary.

21 Q. And then we go into the secondary phase.

22 A. Yes.

23 Q. And you understand that in the secondary phase  
24 we're going to be waterflooding the P2 through the P4?

25 A. The P1 is unitized.

1 Q. But I asked you what -- Do you know interval is  
2 going to be the --

3 A. I know, that's --

4 Q. -- source for the water?

5 A. -- what I've been told in this hearing.

6 Q. And as such, do you think that by rolling in and  
7 inflating the 97.5 percent with the past primary, in fact,  
8 is fair, reasonable and equitable to all interest owners in  
9 the unit?

10 A. Yes.

11 Q. Now, when we're looking at correlative rights,  
12 we're trying to allocate production so that everyone gets  
13 the recoverable reserves under their tract?

14 A. Right.

15 Q. Let's take a look at what was marked as EnerQuest  
16 Exhibit Number 11. Do you have that?

17 A. Yes, I do.

18 Q. That's the isopach map?

19 A. Yes.

20 Q. When we look at the isopach map, would you agree  
21 with me that the thicker portions of the reservoir should  
22 contain more recoverable reserves than the thinner portions  
23 of that reservoir? Would you agree with that?

24 A. Generally, without looking at the logs and  
25 porosity issues, yeah.

1 Q. Okay. Well, let's take a look at the Laney Reese  
2 lease, which is in the center of this area --

3 A. Okay.

4 Q. -- of the isopach. Would you agree with me that  
5 acre for acre you ought to have more recoverable reserves  
6 under that thicker section of the reservoir than you would  
7 under the --

8 A. Yes.

9 Q. -- Lowe tract?

10 A. Yes.

11 Q. And if we take a look at your proposed formula in  
12 Phase II and we look at the Laney Reese lease, under the  
13 Phase I factor it has a participation factor of 36.9  
14 percent. Do you see that?

15 A. Yes.

16 Q. And then when we go into the second phase and it  
17 drops down to 5.6 percent --

18 A. Yes.

19 Q. -- and that's what you think it should receive  
20 under Phase II?

21 A. Yes.

22 Q. And you think that's fair, reasonable and  
23 equitable?

24 A. Absolutely.

25 Q. If we compare that to your tract, Tract 10 --

1 A. Uh-huh.

2 Q. -- under Phase I you get .4 of a percent --

3 A. Right.

4 Q. -- and then under Phase II that goes up to 8.07  
5 percent?

6 A. That's correct.

7 Q. So in Phase II you believe the edge tract, the  
8 Lowe State lease, should in fact be given 3 percent --  
9 2-plus percent more than the tracts in the center of the  
10 unit? Is that what you're showing here?

11 A. There's different acreage that's involved.

12 Q. Well, but I mean the participation formulas, are  
13 you saying that that's a fair, reasonable and equitable  
14 allocation of the reserves between the heart of the unit  
15 and your edge tract with a well on just one barrel a day?

16 A. Yes, yes, I believe so.

17 Q. Okay. The same would apply to the Laney A lease,  
18 you drop from 19 to 3.7 percent when you go to phase 2;  
19 isn't that right?

20 A. That's right.

21 Q. And again, that means that that lease in the  
22 center of the unit would, in fact, be receiving about, oh,  
23 5 percent less than what you think would be appropriately a  
24 tract participation factor for your acreage?

25 A. That's correct.

1 Q. And that lease actually contains a third more  
2 acreage; isn't that fair to say?

3 A. Okay.

4 Q. So basically, if we look at what you're doing,  
5 you're trying to alter the participation formula so, in  
6 fact, what we do is, we throw in the past primary back to  
7 1953?

8 A. That's right.

9 Q. And do you believe that is a fair way to reflect  
10 what is the recoverable reserves under these tracts today,  
11 looking forward?

12 A. Yes, I believe primary is a good example of what  
13 the secondary recovery is going to be.

14 Q. You look at the wells on this tract, and do you  
15 think there is any substantial waterflood potential on the  
16 Tract 10, your lease?

17 A. In the unitized interval, yes.

18 Q. And you think that, in fact, you're entitled to 8  
19 percent of the total waterflood project because of that in  
20 Phase II?

21 A. I think we're entitled to 8 percent of the  
22 secondary oil, yes.

23 Q. Yes have a 4.25-percent overriding royalty  
24 interest in this tract; is that correct?

25 A. That's correct.

1 Q. And that is a tract that produces one barrel a  
2 day --

3 A. Uh-huh.

4 Q. And if you look at this tract, can you tell me,  
5 based on any current oil price, how close to its economic  
6 is this tract?

7 A. I assume it's below its economic limit.

8 Q. And if it is below its economic limit, isn't it  
9 subject to just cancellation or termination by the State of  
10 New Mexico?

11 A. Yes.

12 Q. And if that happens, would you have anything?

13 A. No.

14 Q. And without unitization, do you know of any way  
15 to save that lease?

16 A. No.

17 Q. Mr. Williamson estimated that you would have an  
18 ultimate share from this property, converted to your 4.25-  
19 percent royalty interest, of approximately \$14,000. Did  
20 you hear him -- or maybe it was \$12,000.

21 A. Yeah, something like that.

22 Q. Have you estimated what that would be? Does that  
23 seem like an accurate number under the proposed  
24 participation formula?

25 A. Yeah, I think so.

1 Q. And would you agree that without unitization and  
2 implementation of waterflood efforts you'd probably have a  
3 several-hundred-dollar interest remaining in that property?

4 A. Yes.

5 Q. That's about a 30- or 40-fold increase in your  
6 share?

7 A. Yes.

8 Q. And you still think that's unreasonable?

9 A. Yes.

10 Q. As a royalty interest owner, you're not in a  
11 position where you bear any of the risk of the project or  
12 any of the cost of the project either, are you?

13 A. No.

14 Q. And what you have been doing is contacting other  
15 royalty owners the last few days, trying to get them to  
16 also write the Division and complain about what is the  
17 negotiated participation formula in this tract; is that  
18 right?

19 A. Not exactly. I contacted them with my concerns,  
20 I didn't ask them to do anything.

21 Q. You wrote a number of -- several other interest  
22 owners --

23 A. Yes, I sent them a copy of my letter, yes.

24 Q. And -- I'm looking for a copy of your letter  
25 here, Mr. Gill. You copied that letter to Marshall R.

1 Young Oil Company, did you not?

2 A. Yes, I did.

3 Q. Did they advise you that they've already ratified  
4 this unit agreement?

5 A. I did not talk to them.

6 MR. CARR: That's all I have, thank you.

7 MR. BRUCE: I have one follow-up question.

8 REDIRECT EXAMINATION

9 BY MR. BRUCE:

10 Q. Mr. Gill, although the Tract 10 will get  
11 something under this proposed unitization, it will be  
12 basically zero to Lowe Partners over the next 10 years  
13 anyway, will it not, under their proposal? A few dollars?

14 A. Yeah, a few dollars.

15 Q. Not what you think is adequate?

16 A. Under my participation factor, I think that -- I  
17 ran some rough numbers. It would be worth more like  
18 \$500,000, instead of \$12,000.

19 MR. BRUCE: Thank you, that's all I have.

20 EXAMINATION

21 BY EXAMINER JONES:

22 Q. Mr. Gill, I was going to ask you about this  
23 ultimate recovery, whether it included both primary and  
24 secondary, but you are including primary and secondary in  
25 that?

1 A. In which one?

2 Q. In this Phase II, your ultimate recovery?

3 A. No, that is -- the 6.7 million barrels is  
4 primary. That's primary today --

5 Q. Okay.

6 A. -- plus what they a year ago had estimated  
7 remaining primary was going to be. I used the numbers that  
8 they presented in the hearing a year ago to come up with  
9 that.

10 Q. Okay, under -- It says "Phase I Participation  
11 formula" and it says "Phase II Participation formula" --

12 A. Yes.

13 Q. -- right below that it says 97.5 percent  
14 estimated ultimate recovery. That is secondary and primary  
15 together?

16 A. Yes, that is.

17 Q. Okay, you didn't look at this --

18 A. Wait a minute. No, no, that's primary.

19 Q. That's just primary?

20 A. That's just primary.

21 Q. You're an engineer. Can you talk about this edge  
22 water drive out here and how it's affected the lease that  
23 you --

24 A. I haven't done any in-depth study. Like I say,  
25 I've only had a couple weeks to look at it. But I'm not

1 aware that there was an edge water drive in this thing.  
2 I'm not -- I don't know every San Andres unit out here, but  
3 I didn't know San Andres had an edge water drive in them.  
4 So I went by the assumption this one did not.

5 And I have seen some comments from some other  
6 parties that were involved with this that claimed it was  
7 depletion drive, the P1.

8 Q. So when you came up with this participation  
9 formula, you were not assuming -- you didn't assume that  
10 the P1 was more recovery in that zone than the other zones?

11 A. Oh, I assumed it had more recovery, but I assumed  
12 it was because -- as you can see from the log, it's a lot  
13 better interval. You know, with the main interval through  
14 the life of this field. You know, the system they have --  
15 the participation factor they have set up is basically the  
16 newest wells win. Any well drilled prior to 1997 is going  
17 to lose out in the participation factor.

18 Q. What about the net-pay consideration out here?  
19 Is that --

20 A. They didn't address that, so I felt no need to  
21 address it either. Again, at least in the P1 it's quite  
22 a -- certainly depleted reservoir. So I assumed that  
23 primary recovery would tell you your reservoir parameters,  
24 which was the best reservoir and which wasn't.

25 Q. So under the current formula that they're

1 proposing now they didn't address it, but last year did  
2 they address it?

3 A. No, I don't believe so. If I remember right, no,  
4 they had acreage, usable wellbores, last twelve months'  
5 production and estimated ultimate recovery, were the  
6 factors they used.

7 Q. In your opinion -- You say, though, that you  
8 haven't studied this and you're not real familiar with San  
9 Andres reservoirs?

10 A. No, I'm not going to say I'm not familiar with  
11 all of them. I'm familiar with San Andres in the west  
12 Texas/New Mexico, yes --

13 Q. Do you --

14 A. -- but I can't say -- I don't know. There may be  
15 an example there is edge water drive, but I'm not aware of  
16 one.

17 Q. What about future CO<sub>2</sub> recovery from the entire  
18 unitized interval?

19 A. I think that's a very valid assumption. I think  
20 it probably should be done, based on what's going on in the  
21 analog units.

22 EXAMINER JONES: Mr. Brooks?

23 EXAMINATION

24 BY MR. BROOKS:

25 Q. I'm sure you covered this, but I kind of missed

1 it somehow. What is your -- what is this -- your tract  
2 allocation of the secondary production? What formula is  
3 that based on?

4 A. On the Phase II?

5 Q. Yeah.

6 A. It's 97.5 percent of the estimated primary  
7 recovery -- I guess I said ultimate; it should be primary  
8 -- plus 2 1/2 percent of the acreage.

9 Q. Well, estimated primary recovery?

10 A. Right.

11 Q. Not estimated --

12 A. Right, it should be primary.

13 Q. -- secondary recovery?

14 A. That's right.

15 Q. And how did you determine the estimated primary  
16 recovery to allocate?

17 A. I used the numbers that EnerQuest presented to  
18 the Commission last year.

19 Q. Okay, for the allocation among the tracts?

20 A. For the estimated production.

21 Q. For the total production --

22 A. Right, per tract.

23 Q. Now, how did you -- Oh, per tract?

24 A. Yeah, they had it per tract.

25 MR. BROOKS: Okay, thank you. Nothing further.

## FURTHER EXAMINATION

1  
2 BY EXAMINER JONES:

3 Q. One more question, Mr. Gill.

4 A. Okay.

5 Q. In your engineering estimate, is it better to  
6 start a secondary recovery flood earlier in the life of a  
7 reservoir or later in the life of a reservoir?

8 A. In my opinion it's probably better to do it  
9 earlier, but it hardly ever gets done.

10 Q. As a royalty interest owner, if you have that --  
11 You said in your opinion it's better to have it earlier.  
12 And EnerQuest has been operating the wells; is that right?

13 A. Yes.

14 Q. So in your opinion they should have started this  
15 a long time ago?

16 A. I guess they've been trying for a year or so, so  
17 I guess they've been trying.

18 Q. And a majority of the wells --

19 A. And they weren't operators originally. I don't  
20 remember who was, but they were not operators originally.

21 Q. Okay. The majority of the wells were drilled --  
22 it looks like --

23 A. 1953 to 1954 time frame.

24 Q. And other operators that put in waterfloods in  
25 the Lawson field and the Vacuum field and the Hobbs field

1 and this one --

2 A. In the 1960s, yes.

3 Q. -- until now we're so far below the bubble point  
4 that we're going to have some lost recovery and a lot of  
5 swept gas initially?

6 A. Yes.

7 Q. So in the interest of expediting this and getting  
8 this going, you still do not agree with their participation  
9 formula? You'd still rather have more negotiation?

10 A. Yes.

11 EXAMINER JONES: Okay, Mr. Carr?

12 RE-CROSS-EXAMINATION

13 BY MR. CARR:

14 Q. Mr. Gill, you understand that EnerQuest first  
15 acquired interests in this area in 1996 --

16 A. Okay.

17 Q. -- do you not?

18 A. No, I didn't know that.

19 Q. Do you know that they've been continuing to  
20 acquire interest from 1996 through 2002?

21 A. I've been aware of that, yes.

22 MR. CARR: That's all.

23 EXAMINER JONES: Mr. Bruce?

24 MR. BRUCE: I have nothing further, Mr. Examiner.

25 EXAMINER JONES: Thanks a lot, Mr. Gill.

1 MR. CARR: Statement, brief?

2 MR. BRUCE: I just have a short closing  
3 statement.

4 EXAMINER JONES: Okay, go ahead.

5 MR. BRUCE: Mr. Examiner, under the Statutory  
6 Unitization Act you're supposed to make a determination  
7 whether the participation formula in the unit agreement  
8 allocates the produced and saved hydrocarbons to the tracts  
9 in the unit area on a fair, reasonable and equitable basis.  
10 We don't believe that EnerQuest's participation formula  
11 does so. I would note that they use P1 production when  
12 it's convenient and ignore it when it's convenient. We  
13 believe that Mr. Gill is right that the primary production  
14 is a good indicator of what secondary will be.

15 If you look at the map and their past and present  
16 unit agreements, I think you see why they are proposing  
17 what they are proposing. If you look at their unit  
18 agreement from a year ago, they allocated Tracts 5 through  
19 8, they combined 47 percent, approximately, of unit  
20 production.

21 Now, under their Exhibit 3, they allocate those  
22 same tracts 77 percent of unit production. The reason is  
23 that they've acquired additional working interests in  
24 Tracts 7 through 8, and they've apparently either purchased  
25 interests or have changed the unit formula to obtain

1 royalty interest ratification in Tracts 5 and 6. We don't  
2 think that's the proper reason.

3 If you'll look at those same exhibits, Exhibit C  
4 to the unit agreement, you see that Lowe Partners tract  
5 went down from almost 5.9 percent, down to .3 percent in  
6 participation. That's why they're here today. They're  
7 entitled to protect their rights.

8 We think you should look at this and adopt Lowe  
9 Partners' participation formula. Thank you.

10 EXAMINER JONES: Mr. Carr?

11 MR. CARR: Mr. Examiner, I agree with Mr. Bruce  
12 that your job here today is to determine as to the two  
13 participation formulas if, in fact, they're fair,  
14 reasonable and equitable.

15 We were here a year ago with an alternative  
16 formula; we were sent back to work with the other interest  
17 owners in the unit.

18 And what we have before you here today is a  
19 formula that has been developed, admittedly, very late in  
20 the life of the field, but it is a formula which we believe  
21 a very vast majority of all interest owners will ratify and  
22 will support.

23 We have been in the are since 1996, and for six  
24 years we've been trying to put together a unit in this  
25 particular area. And we've been continuing to do just what

1 Mr. Bruce said. We've acquired interest, we've negotiated  
2 and we've been working on this for a very extended period  
3 of time. And what we have presented to you today is a  
4 result of that effort.

5 We're getting to a point where leases are on the  
6 brink of expiration, and if we can't get this going soon  
7 the question has really become whether or not this will  
8 ever be put together at all.

9 There are two standards that apply and that have  
10 to govern your actions. And one is, does your approval  
11 protect the correlative rights of the interest owner in the  
12 pool? And is whatever formula you accept fair, reasonable  
13 and equitable?

14 While the Lowe Partners want to stand back and  
15 cast stones at us, I would suggest to you that before you  
16 depart from the formula that we are proposing, you must  
17 truly study theirs and then based on the standards which  
18 govern your actions, determine if it, in fact, is fair,  
19 reasonable and equitable, or more so than what is being  
20 proposed. And I think when you do, you'll find it's  
21 absolutely an impossible thing for you to -- conclusion for  
22 you reach.

23 And the reason it isn't fair and reasonable and  
24 equitable is because, if you adopt this formula you'll be  
25 taking an action which flies in the face of correlative

1 rights as it's defined in the Oil and Gas Act.

2 Correlative rights are defined as the opportunity  
3 to produce your fair share of the reserves, recoverable  
4 reserves, under your tract. Correlative rights is the only  
5 thing you wake up in a new world in, every day. It's an  
6 opportunity, and it's what's under your tract today and how  
7 do you get that?

8 Take a look at their formula, take a look at the  
9 Laney A lease, compare it to theirs, look at the isopach  
10 map. They, under their Phase II participation formula,  
11 give the 120 acres in the Laney A lease 3.7 percent of  
12 participation from the unit, while they go down to their  
13 80-acre edge tract, only two-thirds the size, and they come  
14 in and give that 8.7 percent.

15 How do they get there? Well, they go back and  
16 they want to inflate the Phase II figure by crediting over  
17 50 years of P1 production, production out of the zone, that  
18 isn't even the primary subject of the waterflood effort.  
19 If you compare their Exhibit 1 and our Exhibit 11, you  
20 cannot reach the conclusion that what they're proposing is  
21 anything more than an attempt to inflate their lease at the  
22 expense of everyone else.

23 And it's being driven by a royalty interest  
24 owner, someone who has no responsibility in terms of the  
25 cost or responsibility for developing the project and

1 making it go.

2 But they object. They have a new proposal. They  
3 have a new proposal that benefits an edge tract, which we  
4 submit to you flies in the face of the correlative rights  
5 of the interest owners, which simply is nothing more than  
6 an attempt to get them, really, something for nothing.  
7 They have a very marginal waterflood potential under their  
8 acreage, and that they believe in Phase II they should get  
9 8 percent of the waterflood reserves.

10 We come forward with you with what we believe is  
11 a unit proposal that, if you approve it, will be ratified,  
12 that it will result in 8.8 million barrels of additional  
13 recovery, that it will be good for every single interest  
14 owner in the unit, working interest and royalty interest,  
15 including Rocket, including the Lowe Partners and anyone  
16 else they can go stir up.

17 But the truth of the matter is, if you don't go  
18 with this, we might as well forget this project. They can  
19 get nothing, and we'll ride out the remaining primary as  
20 shown in our Exhibit 14.

21 We think the only thing you can do if you're to  
22 meet your statutory challenge, protect correlative rights  
23 and approve a fair, reasonable and equitable formula, is to  
24 approve the EnerQuest proposal set before you here today.

25 EXAMINER JONES: Mr. Bruce?

1 MR. BRUCE: Under Carr's rules of order, I can't  
2 respond --

3 MR. CARR: That is correct.

4 MR. BRUCE: -- but I'll use that against him in  
5 the next hearing.

6 EXAMINER JONES: With that, we'll take Case  
7 13,041 and Cases 13,042 under advisement.

8 (Thereupon, these proceedings were concluded at  
9 3:35 p.m.)

10 \* \* \*

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I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. \_\_\_\_\_,  
heard by me on \_\_\_\_\_ 19\_\_\_\_.

16

\_\_\_\_\_, Examiner  
Oil Conservation Division

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## 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 April 6th, 2003.



STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 16th, 2006