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

APPLICATIONN OF BURNETT OIL COMPANY, INC. FOR AREA EXPANSION OF ITS GISSLER B-11 WATERFLOOD PROJECT AND FOR WATERFLOOD EXPANSION OF ITS GRAYBURG JACKSON SAN ANDRES UNIT WATERFLOOD PROJECT, EDDY COUNTY, NEW MEXICO.

CASE NO. 10326

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING
BEFORE: MICHAEL E. STOGNER, Hearing Examiner
June 13, 1991
Santa Fe, New Mexico

This matter came for hearing before the Oil Conservation Division on June 13, 1991, at the Oil Conservation Division Conference Room, State Land office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Linda Bumkens, CCR, Certified Court Reporter No. 3008, for the State of New Mexico.

FOR: OIL CONSERVATION DIVISION (COPY)

BY: LINDA BUMKENS CCR Certified Court Reporter CCR No. 3008

```
1
                             INDEX
 2
 3 Examination by Mr. Carroll
                                              3
 4 Witness: John McPhaul
   By Mr. Stogner
                                             21
 5 By Mr. Stovall
                                             23
 6
   Exhibits 1 through 14
                                             21
 7
 8
                         APPEARANCES
 9
10 FOR BURNETT OIL
   COMPANY:
                          LOSEE, CARSON, HAAS &
11
                          CARROLL, P.A.
                          BY: MR. ERNEST L. CARROLL, ESQ
                           300 American Home Building
12
                          Artesia, New Mexico 88211-0239
13
14 FOR THE DIVISION:
                          ROBERT G. STOVALL, ESQ.
                          General Counsel
                          Oil Conservation Division
15
                           State Land Office Building
                           Santa Fe, New Mexico
16
                                                      87504
17
18
19
20
21
22
23
24
25
```

MR. STOGNER: We'll call the next case number 10326. 2 3 MR. STOVALL: Application of Burnett Oil Company, Inc. for area expansion of its Gissler B-11 5 Waterflood Project and for waterflood expansion of its Grayburg Jackson San Andres Unit Waterflood project, Eddy County, New Mexico. 7 8 MR. CARROLL: Mr. Examiner, my name is Ernest Carroll of the law firm of Losee, Carson, Haas & 10 Carroll, of Artesia, New Mexico, and I'm here on 11 behalf of the applicant, Burnett Oil Company. MR. STOGNER:. Are there any other 12 appearances? Do you have a witness, Mr. Carroll? 13 14 MR. CARROLL: Yes, sir, I have one witness, 15 John McPhaul. MR. STOGNER: Will you please stand and be 16 17 sworn? Are you ready, counselor? MR. CARROLL: Yes. 18 19 EXAMINATION BY MR. CARROLL: 20 21 Q. Would you please state your name and by whom you're employed for the record? My name is John McPhaul, I'm employed by 23 Α. Burnett Oil Co., Inc., Fort Worth, Texas. 24 25 Mr. McPhaul, have you ever testified before ο.

the New Mexico OCD?

2

5

10

- Α. Mr. Carroll, I've attended two hearings in 3 the past, not in the immediate past, but I do not 4 recall if I actually testified.
- All right. Well, therefore, let's go through just a few of your credentials. Would you 7 basically state for the examiner your educational 8 and work experience with respect to the oil 9 industry?
- I've been employed by Burnett Oil Co., Inc. 11 for the last 40 years, 14 of which has been in my 12 present capacity as production superintendent out of 13 our headquarters office in Fort Worth. In that 14 capacity I manage approximately 175 company operated 15 properties in five states including New Mexico, and 16 manage nonoperating working interest in some 400 17 other properties.
- Are you responsible for the drilling, 19 completion and production of matters with respect to 20 the wells that you've just discussed?
- Yes, I have. I have full managerial 21 Α. 22 responsibility for all the drilling, production, and completion acitivities. 23
- 24 With respect to issues that deal with Q. 25| secondary recovery, which is basically what this

application concerns, have you had any engineering
experience and managerial responsibility with
respect to the kinds of issues of wells that were in
secondary recovery?

- A. Yes. All of Burnett's activities in Eddy County, New Mexico, I've been instrumental both in first line supervision, engineering expertise, and now in general managerial responsibilities.
- 9 Q. You do not have a degree in engineering, do 10 you, Mr. McPhaul?
- 11 A. No, I do not.

- Q. But for some almost 40 years you have been providing practical engineering expertise and services for Burnett Oil or affiliates, have you not?
- 16 A. Yes, I have.
- MR. CARROLL: Mr. Examiner, I would tender

 Mr. McPhaul as a practical engineer on behalf of

 Burnett Oil Company.
- MR. STOGNER: Mr. McPhaul is so qualified,
 21 Mr. Carroll.
- Q. (By Mr. Carroll) thank you. Mr. McPhaul,
 you are familiar with the application that has been
 filed by Burnett Oil, are you not?
- 25 A. Yes, I am.

- Q. Just as a matter of housekeeping, it's true, isn't it, that when we were preparing our testimony for this case we'd looked at the advertisement of this case and we noticed that there was a mistake or two involved, was there not?
 - Yes, there was. Α.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

22

0. You want to refer to it?

MR. CARROLL: Mr. Examiner, we just bring these things. We're not sure how it will affect, but we just wanted to bring them to your attention just so that we could have a clean record for this matter.

- Q. (By Mr. Carroll) Mr. McPhaul, would you state the problems that you've discovered night before last when we were looking at this?
- Well the application -- our application to the OCD is concerned only with our expansion of the Gissler B-11 Waterflood Project and is not intended 18 for any cause for the Grayburg Jackson San Andres 20 Unit Waterflood. That's one discrepancy. The other 21 is we seek to expand our Gissler B-11 Project by injection of water into the Gissler A-12 and 13 rather than 14 as the advertisement says. 23

24 MR. CARROLL: So, Mr. Examiner, what we have, 25 we found those two discrepancies; one was the well

number. It should have been 13 rather than 14, and 2 then the other I think is just unnecessary. actually went beyond what this application -- we 4 don't have any intention of getting into the San 5 Andres with the application concerning these two wells. 6

MR. STOVALL: Where is the location of the 13th compared to the 14th, or look at the 9 description of the 14th or what has been identified 10 as the 14th, and tell me which well is described 11 there.

On the advertisement 14-A is located in 13 unit A of the northeast of the northeast of the 14, 14 and it should be 13 Unit B in the northwest of the 15 northeast of 14.

MR. STOVALL: In other words, the injection -well, from the one that's noted actually gets 18 further away from the unit boundary or project 19 boundary then the well that was noted; is that 20 correct?

MR. CARROLL: That would be correct, 21 Mr. Stovall. I think the 14 is to the east of the 13 well, closer to the outside boundaries; is it not,

25 Yes. Α.

24 Mr. McPhaul?

7

8

12

MR. STOVALL: Is the ownership to the south --2 I assume the pink area is the area that we're concerned about; is that right? MR. CARROLL: Yes. MR. STOVALL: It appears to me, looking at

this, that the south half of the northeast is common ownership in both quarter quarter or in that area.

5

8

13

17

24

25

MR. CARROLL: That's correct. There would be no change or cause any problem with respect to 10 notification. It's the same parties involved. 11 really doesn't -- to the best of my investigation, 12 Mr. Stovall, I don't see a real problem. just a technical one that was just a -- probably a 14 typographical error in the notice, and we just did 15 not catch it until we were preparing to come up 16 here.

MR. STOVALL: Well, given the fact that the purpose of notice is to give people knowledge of the 18 19 pendency of the application and the impact on their 20 rights, I believe -- and I'm just looking at -- we 21 haven't gone into this -- it appears that your mailing went to the offset tract as required under the rules; is that correct? 23

MR. CARROLL: That's correct.

MR. STOVALL: The subject wells are located 40

acres apart. The well which should have been identified as the injection well is actually further 2 from any other interest, so there's less impact, and I'm inclined to recommend that the error in the 5 notice does not substantively deprive anybody of 6 notice of the intent of this hearing and the purpose 7 of the hearing with respect to -- at least as far as 8 the identification of the well.

MR. CARROLL: We concur, Mr. Stovall, had that 10 actually been the well, it would not have required us to give notice to any new persons. I mean, we have given notice to the same group of people, so I --

9

11

12

13

14

19

22

25

MR. STOVALL: I would want to check one thing, 15 I'll do that while you continue. It may, in fact, 16 be that publication -- I'll just check publication notices and see whether it was -- although I suspect 18 it's the same as the docket.

MR. CARROLL: That's probably true, and I did 20 not have the -- at hand -- the actual publication 21 notice to compare it.

MR. STOVALL: But even if it's the same as the docket, I don't believe it substantively defective 24 as far in notifying parties who have an interest.

MR. STOGNER: With that in mind, Mr. Carroll,

why don't you continue while we're making that decision.

1

2

3

5

12

19

21

2 3

MR. CARROLL: Thank you, Mr. Stogner.

- (By Mr. Carroll) Basically, Mr. McPhaul, could you just summarize the reason that this application is being made at this time for Mr. Stogner, the examiner, and you might go on to 7 onto deal with a little bit of the history because this particular unit has been extended previously before this application, or this actual waterflood 10 unit; is that not true?
- Yes. 12 and 13 were in the original application that we applied to have administratively approved by the OCD, and they subsequently approved all of the wells on the Gissler B lease as part of the expansion. Mr. Catanach said, "Due to the fact that we're crossing a lease line and that we are 17 adding acreage that wasn't spoken about in the 18 original application, that they should be at a hearing." 20

So in other words, the only thing this hearing is involved with is the two additional wells not within the boundaries of the Gissler B leases.

24 All right. Mr. McPhaul, Exhibit 1 that Q. you've prepared is just the basic land plat showing the unit as it would appear if the commission grants this application; is that correct?

- That's the total area of review. Α. Yes.
- All right. Now, basically, the original 4 and let's -- Mr. Examiner, I apologize for the 5 exhibits being slightly out of order, but if you would turn to Exhibits 12, 13, and 14, this will give you a better idea of what's going on. 8

Burnett Oil has had the Gissler B waterflood for quite some time; is that correct? 10

- 11 Yes. It was approved by the commission in 1974. 12
- All right. And Exhibit 12 depicts the 13 Q. 14 waterflood as it was originally approved in 1974; is that correct? 15
- Α. Yes. 16

25 Exhibit 12 acreage.

2

3

- Are you missing those exhibits? 17 Q.
- Exhibit 12 is -- the waterflood was Yes. 18 Α. originally a land agreement between -- property 20 waterflood agreement -- between Anadarco and what is 21 now Harvard Petroleum, and it consisted -- our part 22 consisted of three injection wells. That was 23 approved in 1974 or '73 as the Gissler B-11 24 Waterflood Project and that so delineated in

0. Then later -- earlier in 1991, this year, 2 you made an administrative application to expand 3 that waterflood; did you not? Yes, and that was -- now that's covered --Α. 5 that acreage is covered by Exhibit 13, and that was 6 administratively approved, I believe, earlier this 7 year or late in 1990. And we have listed the seven wells that 8 ο. 9 were allowed to be added to that in our application; 10 did we not? Α. Yes. 11 MR. STOGNER: I'm sorry. Do you have the 12 13 order number that approved both of the original 14 expansions? 15 MR. CARROLL: The original order was approved 16 pursuant to order F4676 back in 1974. 17 MR. STOGNER: Here, at the division in the "F" 18 order? MR. CARROLL: Yes, sir. That's what --19 20 MR. STOGNER: There's no such animal. 21 me write that down and I'll do some more digging. 22 What was that again? MR. CARROLL: F4676. 23

MR. STOGNER: I'm not talking about order

25 R4676 application of Andy Burnett doing business as

```
Renfo Oil Company Waterflood Project State number
 2 5102 order number R4676.
 3
          MR. CARROLL: Okay. I may have a typo in my
  notes here.
          MR. STOGNER: You mentioned 1974. I show it
  approved the 20th of November, 1973; is this the
 7
  right one?
 8
          MR. MCPHAUL: Yes.
9
         MR. STOGNER: Okay. How about the
10 administrative expansion?
          MR. CARROLL: That was approved in 1991, and
11
  do you have that order number?
12
13
          MR. STOGNER: Here it is.
          MR. CARROLL: This is administrative order
14
15 number WFX 604.
16
          MR. STOGNER: All right. You may continue.
17
            (By Mr. Carroll) Exhibit 14 that you have
       0.
18 prepared would then show the expansion that is
19 requested pursuant to this application, and that
20 expansion area would be colored in pink; is that
21 true, Mr. McPhaul?
22
       Α.
            Yes.
                  That's the 200 acres that we're here
23 today for, and that includes the two proposed
24 injection wells, 13 and 12.
25
       Q. All right.
```

- And I believe it's delineated in pink. Α.
- I'll ask you to turn now to your Exhibit 0. number 2. Exhibit number 2 is the required certificate of mailing and compliance with rule 1207; is that correct?
 - Α. That's correct.
- And the second page of that, or Exhibit A to that Exhibit 2, lists the offset operators; is that correct?
- Yes, sir. 10 Α.
 - Was notice given to all of those offset ο. operators pursuant to the commission rules?
- 13 Α. Yes.

2

3

5

6

7

9

11

14

- And a copy, or an example of the letter Q. going out to those is behind that page, and also the copies of the green cards are also provided which 17 shows the return receipt notice to each one of these 18 individuals; is that correct?
- Yes, sir. 19 Α.
- 20 Now, Mr. McPhaul, let's go to the rest of 21 your exhibits starting with Exhibit number 3. What 22 is Exhibit 3?
- 23 Exhibit 3 is an injection well data sheet 24 as prescribed by the commission with a schematic of 25 the wellbore. It lists total depth proposed, the

perforated interval and the proposed packer setting 2 and tubing type to be used in connection with the 3 injection. It also shows the schematic of the cement -- primary cement job.

- Q. And this is for the Gissler A well number 12; is that correct?
 - Yes. Α.

5

6

7

8

9

11

16

20

- All right. Exhibit 4. What is Exhibit 4?
- Α. Exhibit 4 is the same thing on the other 10 proposed injection well, Gissler A-13.
- All right. Now based on your study of Q. 12 these two wells, is it engineering and practically 13 feasible to convert these two wells to injection 14 wells as you are proposing in this application?
- 15 Α. Yes.
- Well, the commission also requires at the Q. 17 time you make an application to give information 18 with respect to plugged wells that may be in the 19 vicinity; is that correct, Mr. McPhaul?
 - Yes, sir, that's correct.
- Your Exhibits 5 and 6 are exhibits prepared Q. 22 to comply with that requirement; are they not?
- 23 Α. Yes.
- And with respect to plugged wells, are 24 Q. 25 these the only two plugged wells in the area that

would be affected by these two injection wells?

Yes, I believe so. Α.

1

2

3

5

6

7

- And what -- would you describe first of all, what Exhibit 5 is, for what particular well, and any other pertinent information you need to give to the examiner?
- Α. Exhibit 5 is a schematic of a plugged well 8 on Burnett Unit Grayburg Jackson San Andres Unit, 9 and this schematic attempts to delineate the cement 10 placed as per commission approval, and how this well 11 got to be approved as a plugged well.
- All right. And this is well number 32; is 0. 13 that correct?
- That is unit well 32. Yes. 14
- All right. And Exhibit 6 is the same kind 15 16 of information for Unit well 33; is that correct?
- 17 Yes, exactly. Α.
- Mr. McPhaul, in your study of these plugged 18 Q. 19 wells, do you foresee any problems that might be 20 encountered by turning wells 12 and 13 into an 21 injection well?
- 22 Α. No.
- With respect to Exhibit number 7, would you 23 0. 24 please explain what this is and what you're 25 attempting to show to the commission?

I've attempted to to do a cross section in Α. the proposed injection interval in the two proposed injection wells, and compare it to the injection interval in the approved well, which is on the left, 5 Gissler B-23. That's one of the injection wells that 6 was administratively approved by the latest order. 7 Wells 13 and 12 are fairly adjacent or really are adjacent, either direct offsets or diagonal offsets 9 to these approved injection intervals, and I'm just 10 attempting to show it's the same interval. The red -- the black line bordered in red going across the page is the top of the San Andres line which is a marker, and I'm attempting to show the Metex and 14 Premier and proposed injection intervals are in the 15 same horizon.

1

2

3

11

16

18

19l

20

21

22

- Would you also describe your Exhibits 8 through 9 which I think are somewhat similar?
- This is just a general information graff Α. showing the performance of the original Gissler B-11 Waterflood Project from inception through the end of 1990.

What I'm attempting to show here is that 23 the waterflood project was very successful and it is 24 still successful, and in 1984 we drilled additional 25 development wells offsetting the original project.

- What about Exhibit number 9? 0.
- Exhibit 9 is another cross section showing Α. the proposed injection intervals from a west-east line and it includes the Metex and the Premier which 5 are the two members of the Grayburg sands that we 6 are proposing to inject into, and the new wells that we have applied for.
- Now, with respect to this application and **Q** . the notices that you have sent out to the offset 10 operators, you have received two waivers, have you 11 not, signed waivers from two of those operators?
- We've received waivers from Anadarko Yes. Α. 13 Petroleum Corporation and Premiere Production.
- Right. And those waivers form Exhibit 10; 14 0. 15 do they not?
- 16 Α. Yes.

1

2

8

12

17

19

- Now, Mr. McPhaul, this acreage did -- or is 18 federal acreage; is it not?
 - Yes. All the acreage is federal acreage.
- And you have also given notice to the BLM 20 concerning this application and expansion of this waterflood? 22
- 23 Α. Yes. All documentation that was submitted 24 to the OCD was also submitted to the BLM.
 - And you have finally, as of yesterday, we Q.

did receive confirmation that they had no objection 2 to approval of this unit by the OCD, and that is --3 Exhibit 11 is the letter that you've received from the BLM?

> Yes. Α.

5

6

7

15

- Q. All right. Now, Mr. McPhaul, with respect to the issues that the OCD are charged with 8 managing, and that deals with the protection of 9 correlative rights, and the prevention of waste, 10 with respect to this application made by Burnett 11 Oil, first of all with the issue of waste, do you 12 feel that granting this application would be in the 13 interest of preventing waste with respect to this 14 natural resource?
 - Yes, I do. Α.
- Is it your opinion then that by granting Q. 17 the extension of this waterflood unit that, in fact, 18 oil that would not be produced by any other means 19 will be produced?
- 20 Yes. Α.
- With respect to the protection of 21 22 correlative rights, do you feel that the granting of 23 this would in any way harm the correlative rights of any of the offset owners?
- 25 Α. No.

- And, in fact, do you feel that it would 0. enhance the correlative rights of owners within this particular area?
- All of the projects are from inception regularly spaced injection wells, and the two wells that we're applying for today are also regularly spaced injection wells, and the offset operators do stand to benefit from this injection program.
- And I believe it was your earlier testimony that since the latter part of 1973 when this unit was first approved, that it, in fact, has been a very successful unit for your company, and it has continued to be successful down to the present time?
- Yes, definitely. The primary production on the original wells was something like 236,000 16 barrels in 30 years, and cumulative production on the secondary project is well over 800,000 barrels. We have over 340 percent ratio to the primary versus 19 secondary production.
- With respect to Exhibits 1 through 14, were those exhibits either prepared by you or under your 22 supervision and control, and are they true and accurate depictions of the items as you've described 24 them?
 - Absolutely. Α.

1

2

3

5

8

9

10

13

14

15

18

20

21

23

MR. CARROLL: Mr. Examiner, I would move 1 admission of Burnett Exhibits 1 through 14 at this 3 time. MR. STOGNER: Exhibits 1 through 14 at this 5 time will be admitted into evidence. 6 MR. CARROLL: And, Mr. Examiner, I have no 7 further questions of Mr. McPhaul at this time. MR. STOGNER: Okay. I'm still confused, but 8 9 my confusion has shifted elsewhere. The two wells 10 that you're going to inject into, what formation 11 will they be injecting into? It's the Grayburg Jackson field, 12 Α. 13 Mr. Examiner, and the formation locally describes 14 geologically as the Metex and the Premiere. MR. STOGNER: But it takes -- does it take in 15 16 the San Andres formation? No, not at all. Not on these two 17 Α. 18 applied-for wells. 19 MR. STOGNER: Your application wanted to 20 seclude the San Andres formation, but you are not 21 seeking to do that at this time? No, we're not; you're right. The original 22 Α. 23 application mentions the San Andres. 24 MR. STOGNER: Okay. So the expansion of the

25 Jackson\San Andres Unit Waterflood project of these

two wells is non-existent because they will not be injecting into the San Andres formation?

Exactly. Α.

2

3

5

8

9

11

20

MR. STOGNER: Okay. Now I want to ask some more questions about that because as I understand it, is the Grayburg Jackson, San Andres unit area 7 operated by Burnett?

> Α. Yes.

MR. STOGNER: Okay. But it's just limited to 10 the San Andres formation?

Exactly. The horizon is the San Andres only on the original application, the one that we 13 administratively received approval on, the 14 nonunitized area and the Gissler B project includes 15 some Lovington which is the first San Andres member 16 that may be productive, but these with wells, since 17 they are within the boundaries of the San Andres 18 unit, we can't exploit the San Andres production. Ι 19 hope that clarifies.

MR. STOGNER: Essentially we're having --21 yeah, there's a vertical lapse -- or -- you have a 22 horizontal lapse and vertical limit on both these 23 and that's why this reads so confusing, but as far 24 as the 12 and 13, that was a mistake done here and I 25 apologize for that. That makes it a lot more clear.

As far as the pink outline on Exhibit number 1, is 2 that the extent of Burnett Oil Company Gissler lease 3 rather than it be the A, B, C or whatever, or does 4 it include some more acreage?

5

6

14

17

19

23

That's a historical matter since all No. of the nonunitized acreage that originally was the 7 Gissler A, B, or Jackson A, B or Stevens A, B, all of that acreage that was not unitized but given new 9 lease numbers, and once we cross the unit 10 boundaries, we're not drilling as a unit. The unit participants are not concerned with the drilling of Gissler A-12, 13, or 14 or 15, so we're drilling 13 them as lease wells.

We went back to the BLM and they said, 15 "Name them any way you want to," so we used the 16 original lease designation, whether it be an A lease or a B lease, and we did that, and we drilled all --18 everything that went across the San Andres unit boundaries, which is still delineated in Exhibit 1, 20 the checkered half-dark lines, when we went across 21 the boundary, we drilled them as lease wells and not 22 as unit wells.

MR. STOVALL: What you're saying then, if I 24 understand you correctly, is when the unit was 25 formed, the BLM segregated the leases?

Α. Yes.

1

2

4

5

11

12

18

19

23

24

MR. STOVALL: And assigned new lease numbers 3 to the nonunit leases?

> Α. Exactly.

MR. STOVALL: And those are still on a lease 6 basis, so that's the -- I guess you call it 7 horizontal separation of -- this line here, 8 everything outside the dash line got segregated from 9 the original -- same original lease -- inside the 10 dash line?

> Α. Right, that's correct.

MR. STOVALL: Now, when you start -- for 13 example, you're talking about using the 13 as a --14 it will be drilled or operated on a lease waterflood 15 project basis. Even though it's within the physical 16 horizontal boundaries, it's at a given vertical 17 depth than the unit?

> Α. Exactly.

MR. STOVALL: Which federal lease -- did they 20 segregate the lease vertically as well as 21 horizontally at the time they segregated the lease 22 based on the land description; right?

> Yeah, the land description. Α.

MR. STOVALL: So these are on the old lease 25 numbers in the BLM records?

Α. Yes.

1

2

31

5

6

7

8

9

13

24

MR. STOVALL: But they are not unit wells. They're treated on a lease basis for accounting and 4 production purposes?

> Α. Exactly.

MR. STOGNER: Is there any way to map the Gissler B lease?

MR. STOVALL: Is there a Gissler B lease?

Yes. All the Gissler B that was not Α. 10 unitized was given in NM2748, and, yes, in answer to 11 your question, we can map it, but it won't be under 12 the same number.

MR. STOGNER: I'm thinking ahead too. 14 Whenever you want to expand the Grayburg Jackson or 15 injection portion, the way it was done in '73, and 16 the way waterflood is done now is essentially a 17 little bit different. And the way we do it today, 18 we outline what the waterflood unit -- or waterflood 19 project is, and when this one was approved, it 20 didn't have a nice little outline described in the 21 order, so I've also said the Gissler B, and we've 22 expanded to include wells in the Gissler A, so 23 probably it might need to be named just the "Gissler." That way you'd have a bigger area to 25 expand in, and then along comes this Grayburg.

a confusing matter and probably confusing into the future, but few of us know what's going on, I 2 think. 31 MR. STOVALL: Let me go back and see if we -the existing waterflood project area as defined is 6 Exhibit 13; is that correct? 7 Α. Existing as of the last administrative approval is 13. 81 9 MR. STOVALL: And that project area, the area 10 in yellow on Exhibit 13, is identified as the 11 Gissler B Waterflood Project; is that correct? 12 Α. It can be. MR. STOVALL: How do you define it -- identify 13 14 it -- what's your name for it? It's like Mr. Examiner said, it is 15 16 confusing, but it's still the Gissler. I'm 17 comfortable with Gissler B Waterflood Project. 18 not so comfortable to list the newly applied-for 19 acreage under the Gissler B Waterflood Project. 20 mean, if you all are happy with it, I am. 21 MR. STOVALL: Let me ask you this then. 22 Within this area, excluding the new part, just 23 looking at Exhibit 13, how many separate leases, you 24 know, legal description, legal documents issued by

25 the BLM are within that yellow area?

Α. Two.

1

2

3

5

6

7

8

10

11

16

18

19

23

MR. STOVALL: There are two separate NM lease numbers?

Α. Yes. Let me qualify.

MR. STOVALL: I'm talking about the current status now. Don't worry about what the --

The south half of the northwest quarter of Α. The south half of the northwest quarter of 14 9 has an LC number.

MR. STOVALL: Okay.

And the rest of it is NM2748 because the 12 south half of the northwest quarter of 14 is within 13 the geographical boundaries of the San Andres unit, 14 and that's -- we drilled those as lease wells as 15 part of the original Gissler B lease.

MR. STOVALL: That's the former -- that is --17 the LC number lease is the original Gissler lease?

> Α. Yes, Gissler B lease.

MR. STOVALL: And the NM2746 is the severed 20 portion -- the segregated portion of that lease 21 which is outside of the unit boundary as given by 22 the dash line; correct?

Right. Which is not in -- which was not Α. 24 included in the administratively approved section. 25 That part of today's application.

MR. STOVALL: And when you go to the expansion 1 2 area as shown on Exhibit 14 that you're requesting today, the pink -- am I correct in interpreting that 3 part of that brings in additional acreage which is 5 now currently under NM2746? Yes. Α. 6 7 MR. STOVALL: Now, is any part of that pink 8 under the old LC lease as far as the land 9 description area? Is part within the unit 10 boundaries? 11 Α. Yes. MR. STOVALL: The part within the unit 12 13 boundary is under the old LC lease number, so again, 14 there were two separate Federal leases describing 15 the land? 16 Α. Right. 17 MR. STOVALL: Okay. And those two separate 18 federal leases participate in this waterflood 19 project on a lease-tract basis? 20 Α. Yes. 21 MR. STOVALL: So as far as this project is 22 concerned, the San Andres unit is a nonentity. It's 23 an entirely different tract of interest? 24 Α. Yes. 25 MR. STOVALL: It just happens to have a common legal description with some parts of this?

Α. Yes.

2

3

4

11

12

17

18

21

MR. STOVALL: If we call the entire project as described, is what is on Exhibit 14 what you want to 5 have the project -- you've identified that as the 6 Gissler B Waterflood Project. We would do so 7 knowing that it actually includes two separate 8 leases. Gissler is just an arbitrary name you put on it. It's no name the feds give it; right? The 10 feds look at a lease number; right?

> Α. Right.

MR. STOVALL: And so you could have a 13 Gissler B lease and you can have a Gissler B 14 Waterflood Project which includes portions of the Gissler B lease and portions of some other lease, however it's identified? 16

> That's comfortable. Α.

MR. STOVALL: Okay.

19 MR. STOGNER: But how many more expansions can 20 be done?

MR. STOVALL: Well, I think if we did that, then additional expansion could be -- no matter what 23 lease is brought in under additional expansion, if 24 they so desire, it can continue to be known as the Gissler B Waterflood Project, and the legal

mechanism of intergrating leases into that project is a separate matter, whether it be unitized or just simply operated on a cooperative agreement-type basis.

The name "Gissler B Waterflood Project" does not limit the aerial scope of the project necessarily. It's an arbitrary, artificial name used to identify this thing and a boundary can be drawn, a horizontal and vertical boundary can be drawn around the project, around the leases within the project?

Yes. Α.

1

3

5

7

10

11

12

13

14

19

22

25

MR. STOVALL: If you've got -- our concern here is that because it is called the Gissler B Project within what is known as the Gissler B lease, 15 16 but there could be leases by other names in there as 17 well, but there is the potential for confusion that 18 it might be interpreted based on simply on the nomenclature as a single lease waterflood project. 20 Would you have concern about changing the name rather than, say, call it the "Gissler B," to call 21 it that "Gissler Cooperative Waterflood Project" so that it has a distinct name, distinct from any of 24 the leases that are known within it?

I'm with you all on that. In fact, that confusion. was Mr. Catanach's concern that, "How far do you all want to go with this and what are we going to call it?"

3|

5

6

7

11

13

14

15

16

17

18

19

20

21

22

23

24

MR. STOVALL: If it becomes the Gissler Cooperative Waterflood Project, then the fact that it incorporates more than a single lease as a legal instrument with a land description is less of a problem because it's now not identified as a leasehold waterflood. It is identified as a separate and distinct entity, the waterflood project has a separate and distinct entity with a separate name not adapted from the lease name; is that where you want to go, Mr. Examiner?

MR. STOGNER: That's the way I'm visualizing I have not -- in Exhibit number 14, I don't believe really shows the outline of the what we call the Gissler B lease, the Gissler A lease, or the Gissler lease. It probably extends even further.

MR. STOVALL: And I don't think he's testifying -- would it be possible -- would you be able to submit, and would you submit a map which shows the individual leases and identify the name and the State of New Mexico or the BLM number, the 25 horizontal boundaries of those leases, and then

identify the project area as it affects those 2 leases, because I suspect looking at this that there are portions of say NM or whatever the new lease is, 2746; is that right?

> Yes. Α.

5

6

8

9

11

12

16

17

18

19

23

MR. STOVALL: Which are not included in the current project area.

No 2746 40-acre tract, yes. Α.

MR. STOVALL: Okay. Would you submit a map of 10 the project which identifies the entire project area as proposed with this requested expansion which identifies the leases within that project area and then to the extent that any of those leases have 14 additional lands outside the project area that is 15 also identified?

> Α. Sure.

> > MR. STOVALL: Do you follow what I'm asking?

Yes, exactly. Α.

MR. STOVALL: Okay. I think that would be 20 helpful to us then to identify the relationship since it's not a unit, the relationship between 22 leases and projects.

> Α. I agree.

MR. STOGNER: What I'd like to do is lay down 24 25 a horizontal description, "This is the Gissler

1 Cooperative, or Gissler project," to keep you from 2 having to go into hearing anymore. You still 3 regardless have that line that separates the unit, 4 but I think that's easily --

MR. STOVALL: That's a three-dimensional line 6 is what it is, and I think you can leave the San 7 Andres Unit out of it. You can put that line in 8 there just for informational purposes, but indicate 9 that that unit is not participating in the 10 waterflood project because it is different horizons, 11 so just make a notation to that effect. The unit as a legal entity is not included within the waterflood 13 project.

> Α. Yes, sir.

5

14

15

16

17

19

20

21

23

MR. STOVALL: I think that gives -- I say, the focus is this allows you to administratively expand the project in the future without getting into this convoluted hearing situation; correct?

MR. STOGNER: Yeah.

MR. CARROLL: Hopefully.

MR. STOGNER: And now the two wells at hand. We've established none of them are going into the San Andres formation. You showed me a diagram on 24 Exhibit number 5 of a plugged and an abandoned 25 well. Let me locate that on a plat here.

in what section, township and range? That is the number 32?

Okay. Exhibit 5 is unit well 32, which is located in the northwest of the northwest of 13.

MR. STOGNER: Now, you show the top of cement behind the four and a half at 2710; is that correct?

Α. Yes.

2

3

5

6

7

8

10

17

20

21

22

MR. STOGNER: Was that calculated or do you 9 have -- where did that information come from?

That was calculated when -- that's a liner 11 that was installed when we converted this unit well 12 to injection, and that was -- No, sir. That wasn't 13 calculated. That is the top of the liner, I 14 believe. That's the top of the four and a half liner, so we know that is where the top of the 16 cement is.

MR. STOGNER: I show the top of the four and a 18 half at 444 feet -- maybe I'm seeing something wrong -- and then the four and a half goes down to 3513, and then the top of the cement behind the four and a half liner is 2710, and that is calculated?

Α. Oh, wait a minute. Everything I've said is 23 true so far because I was thinking of another well. 24 Okay. All right. No liner, and I misspoke myself. 25| Yes, four and a half is cemented total depth, is run

the total depth, and cemented. We found the top of 2 the cement behind the four and a half with the 3 cement bond log. I'm sorry; wrong well. MR. STOGNER: No problem. And that interval is -- or the top of the same at least it's not right 5 at a hundred feet above either the perforated interval, or proposed perforated intervals in the 12 7 or 13? 8 9 Α. Yes, sir. 10 MR. STOGNER: At 100 foot do you feel that's 11 adequate to protect the injected interval of these 12 two wells? 13 Yes. Α. MR. STOGNER: Okay. Now there's other 14 15 injection wells within a half mile of that section, I mean, of that well number 32; isn't there? 16 17 Α. Did you say --MR. STOGNER: There's probably some other 18 19 wells within a half mile of the number 32 that are 20 injected; is that a true statement? Yes, sir. 21 Α. MR. STOVALL: But they're all injecting into 22 23 the same interval? 24 Yeah, within the unit. Α. 25 MR. STOGNER: When was the well number 32

1 plugged, do you know? 2 In 1980. I'm going to say 1986. I may be 3 a year off. MR. STOVALL: I believe it indicates at the top of exhibit, is that correct, 4-86? 5 6 Α. Yes. 7 MR. STOGNER: And that was done pursuant to division district authorization? 9 A. Yes, sir. 10 MR. STOVALL: And BLM authorization, I assume 11 too; is that correct? 12 BLM had very little input in the plugging Α. 13 of an injection well. They turn it over to the 14 privacy of the OCD even on federal leases. MR. STOGNER: And the number 33 well. 15 16 7-inch casing, at the top of the -- where's the top 17 of the cement behind the 7-inch casing? I see a top 18 of cement at 2429, but I don't know if that reflects 19 what's behind the casing. I don't believe we ever determined where 20 21 the top of the cement was, behind the 7-inch. 22 MR. STOGNER: So to the top of the cement, 23 does that refer to what's inside the 7-inch casing

24 on top of the tubing that was cut?

37 MR. STOGNER: Do you see the top of cement 1 2429? 2 Okay. That's within the 7-inch pipe. 3 MR. STOGNER: Okay. And it is solid cement from there down both 5 in the fissure which is at the tubing sticking up 7 there of the curve on top of it, and outside of the tubing with the exception of the nonpatched area which I have no idea if that's cemented in that 10 interval or not. MR. STOGNER: But it was determined that 11 12 7-inch casing was collapsed at 2600 plus or minus? Α. Yes. 13 MR. STOVALL: Do you reasonably believe that 15 the cement outside that casing extends over the 16 collpased area, comes above the collapsed area? 17 appears that way in your drawing but --Α. Yes, sir. 18 MR. STOVALL: Are you comfortable that it's 19

20 probably -- high probability -- that it's above 21 the -- comes through the collapsed area and above?

> Yes. Α.

22

23

25

MR. STOGNER: Why did it collapse in the first 24 place then?

Old age. It was about 50 years old when we

plugged.

1

2

3

4

5

6

8

13

17

20

22

MR. STOGNER: That was plugged in '86 under OCD authorization?

Α. Yes.

MR. STOGNER: And there were active injection wells within a half mile of that well number 33 at the time, were there, before and after?

Yes. Α.

MR. STOGNER: I have no other questions 10 concerning these two wells at this time. 11 Mr. Stovall has stated, there shouldn't be any need 12 to readvertise.

MR. STOVALL: I will note for the record that 14 I did check the advertisement. In effect the 15 mistake that appears on the docket also appears in 16 the advertisement because as I indicated at the beginning of the hearing, I don't think it's 18 substantively made the notice substantively 19 defective as to who might have an interest.

MR. STOGNER: And since you're offsetting your own unit there, if you would give me the surface map of the plat showing the Gissler B and Gissler A, and 23 lease numbers and everything and perhaps we've got a 24 broad enough application here that we can 25 redesignate this Gissler B-11 Waterflood Project

into something else and tend a little more to keep you from having to go to hearing administratively from here on out.

Also note on there, if you would please, is the Grayburg above that unit area in the San Andres 6 unit area? Are there any waterfloods going on in 7 the Grayburg above that operated by Burnett? Any others besides this one?

> Α. Yes.

4

5

9

14

15

16

17

18

19

20

22

23

24

MR. STOGNER: And which ones are they? That 10 would be Jackson, wasn't it? 11

Yes. We call it the Jackson B-1 Waterflood 12 Α. Project. Well, it's still within its boundaries.

MR. STOGNER: Do you know if Jackson has any of the Gissler wells in it?

No, it does not. It's all Jackson B. Α.

MR. STOGNER: We just want to be concerned about the Gissler?

Right. Α.

MR. STOGNER: Get that to me, if you would, as 21 soon as you could. Other than that is there anything else further in this case?

MR. CARROLL: We have nothing further.

MR. STOGNER: Does anybody else have anything 25 further in case 10326? In that case, this hearing

```
1 will be taken under advisement. Let's take a
 2 20-minute recess and be back here at 1:15.
 3
            (The foregoing case was concluded at the
 4 approximate hour of 12:50 p.m.)
 5
 6
 7
 8
 9
10
11
12
13
                         I do how which is a last the forecasting is
                         a contract of the proces that in
14
                         the Exc. man hearing of Case 40. 1086.
15
                         heard by me on.
                                         Conco, Examiner
16
                           Oil Conservation Division
17
18
19
20
21
22
23
24
25
```

```
41
  STATE OF NEW MEXICO
                          )
                             ss.
                          )
  COUNTY OF BERNALILLO
 2
 3
                      REPORTER'S CERTIFICATE
          BE IT KNOWN that the foregoing transcript of
  the proceedings were taken by me, that I was then
 5
  and there a Certified Shorthand Reporter and Notary
 7 Public in and for the County of Bernalillo, State
  of New Mexico, and by virtue thereof, authorized to
 9 administer an oath; that the witness before
10 testifying was duly sworn to testify to the
11 whole truth and nothing but the truth; that the
  questions propounded by counsel and the answers of
13 the witness thereto were taken down by me, and that
14
  the foregoing pages of typewritten matter contain a
15 true and accurate transcript as requested by counsel
  of the proceedings and testimony had and adduced
  upon the taking of said deposition, all to the best
17
18
  of my skill and ability.
          I FURTHER CERTIFY that I am not related to
19
20 nor employed by any of the parties hereto, and have
21
```

no interest in the outcome hereof.

22 DATED at Bernalillo, New Mexico, this day July 29, 1991. 23

My commission expires April 24, 1994 25

LINDA BUMKENS CCR No. 3008 Notary Public