

1 STATE OF NEW MEXICO  
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
3 OIL CONSERVATION DIVISION  
4  
5

6 EXAMINER HEARING  
7

8 IN THE MATTER OF:  
9

10 Application of Nearburg Producing  
11 Company for salt water disposal, Case 10034  
12 Eddy County, New Mexico  
13  
14  
15

16 TRANSCRIPT OF PROCEEDINGS  
17

18 BEFORE: MICHAEL E. STOGNER, EXAMINER  
19  
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21 STATE LAND OFFICE BUILDING

22 SANTA FE, NEW MEXICO

23 August 8, 1990  
24

25 **ORIGINAL**

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A P P E A R A N C E S

FOR THE DIVISION:

ROBERT G. STOVALL  
Attorney at Law  
Legal Counsel to the Division  
State Land Office Building  
Santa Fe, New Mexico 87501

FOR THE APPLICANT:

WILLIAM F. CARR  
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## I N D E X

1		
2		Page Number
3	Appearances	2
4	1. MARK NEARBURG	
5	Examination by Mr. Carr	5
6	Examination by The Hearing Examiner	9
7	2. JERRY ELGER	
8	Examination by Mr. Carr	9
9	3. TIM McDONALD	
10	Examination by Mr. Carr	12
11	Examination by The Hearing Examiner	16
12		
13	Certificate of Reporter	19
14		
15		
16		

## E X H I B I T S

18	Exhibit No. 1	6
19	Exhibit No. 2	8
20	Exhibit No. 3	10
21	Exhibit No. 4	10
22	Exhibit No. 5	13
23		
24		
25		

1 P R O C E E D I N G S

2 HEARING EXAMINER: Call next case, No. 10034.

3 MR. STOVALL: Application of Nearburg Producing  
4 Company for salt water disposal, Eddy County, New Mexico.

5 MR. CARR: May it please the Examiner, my name is  
6 William F. Carr with the law firm of Campbell & Black, P.A. of  
7 Santa Fe. We represent Nearburg Producing Company and I have  
8 three witnesses.

9 HEARING EXAMINER: How many of the witnesses has  
10 been previously sworn?

11 MR. CARR: Two of them.

12 MR. STOVALL: At least one needs to be sworn.

13 MR. CARR: We have one witness who needs to be  
14 sworn.

15 HEARING EXAMINER: Will that one witness please  
16 stand to be sworn at this time.

17 (Witness sworn)

18 HEARING EXAMINER: Let the record show that Mr. -- I  
19 believe Mr. Nearburg and Elger --

20 MR. CARR: Yes, sir.

21 HEARING EXAMINER: -- have been previously sworn.  
22 Those are your other two witnesses, Mr. Carr?

23 MR. CARR: Yes, sir.

24 HEARING EXAMINER: Thank you, Mr. Carr.

25 MR. CARR: Also request that the record reflect that

1 Mr. Nearburg has been previously qualified as a landman and  
2 Mr. Elger as a geologist.

3 HEARING EXAMINER: The record will so show.

4 MARK NEARBURG,  
5 the witness herein, having been previously sworn upon his oath,  
6 was examined and testified as follows:

7 EXAMINATION

8 BY MR. CARR:

9 Q. Mr. Nearburg, are you familiar with the application  
10 filed in this case on behalf of Nearburg Producing Company?

11 A. Yes, I am.

12 Q. And are you familiar with the proposed salt water  
13 disposal well?

14 A. Yes.

15 Q. Would you briefly state or review for Mr. Stogner  
16 what Nearburg seeks with this application.

17 A. Nearburg seeks to -- authority to re-enter and  
18 deepen the Mark Production Company Holston Com Well No. 1 which  
19 was plugged and abandoned in July, 1974, for the purpose of  
20 disposing produced salt water. Sell said wellbore located 660  
21 feet from the north line and 1,980 feet from the east line,  
22 which is Unit B of Section 4, Township 20 South, Range 25 East,  
23 Eddy County, New Mexico

24 Q. And you are proposing to dispose of water into the  
25 Devonian formation?

1           A.     Yes.

2           Q.     What is the current status of the well?

3           A.     Plugged and abandoned.

4           Q.     Could you refer to what has been marked for  
5     identification as Nearburg Exhibit No. 1, identify this and  
6     review it for the Examiner.

7           A.     This is a form C-108 prepared for the Commission  
8     which has been provided to the Commission prior to the hearing.

9           Q.     Let's go to page four in that exhibit, which is a  
10    plat.

11          A.     Okay.

12          Q.     I'd ask you to review the information on this page  
13    for Mr. Stogner.

14          A.     This plat shows the subject well with the blue dot.  
15    The half mile area of review surrounding it and the two mile  
16    area of review. Shown in the two orange triangles to the  
17    southwest of our proposed well are two currently existing  
18    Devonian salt water disposal wells, and to the northeast of our  
19    well is a plugged and abandoned well that was drilled to the  
20    Devonian which gives us Devonian subsurface control, but which  
21    was never productive in the Devonian.

22          Q.     Mr. Nearburg, are the wells shown on this exhibit  
23    highlighted the only wells that have penetrated the Devonian  
24    within the one-mile radius of the subject well?

25          A.     Yes.

1 Q. Are there any fresh water wells within this one-mile  
2 area?

3 A. No, there are not.

4 Q. Are there any plugged and abandoned wells that  
5 penetrate the Devonian within the one-mile radius of the  
6 proposed disposal well?

7 A. Within the area of review, no, there are not.

8 Q. And this map indicates the leasehold ownership in  
9 the area?

10 A. Yes.

11 Q. Who is the owner of the surface of the tract on  
12 which the disposal well is located?

13 A. Courtney and Pauline Holston.

14 Q. Could you advise the Examiner as to the source of  
15 the water that you are proposing to dispose of in the subject  
16 well.

17 A. Yes. We are proposing to dispose of produced Cisco  
18 Canyon formation water from the Dagger Draw field.

19 Q. What is currently being done with this water?

20 A. This is a -- we are currently planning to drill  
21 several wells in the Dagger Draw area. We do not have the  
22 produced water at this time. We wanted to have approval of  
23 this wellbore prior to obtaining the water because of the  
24 volumes.

25 Q. There are two disposal wells indicated south and

1 west of the subject well.

2 A. Yes.

3 Q. Are those also disposing in the Devonian?

4 A. Yes, from the Dagger Draw field.

5 Q. So they are disposing of water from the same source  
6 that you propose to dispose?

7 A. Yes.

8 Q. Do you have a -- can you provide the Examiner with  
9 the order numbers approving each of those disposal wells?

10 A. Case No. 4550, Order R-4158 concerns the well in  
11 Section 5, 20 South 25 East. Case No. 5708, Order R-5250  
12 concerns the well in Section 9, Township 20 South, Range 25  
13 East.

14 Q. Could you identify what has been marked as Nearburg  
15 Exhibit 2.

16 A. Exhibit No. 2 are notices given to leasehold or  
17 operating rights owners within the area of review for this  
18 well.

19 Q. And has the surface owner also been notified of this  
20 application and today's hearing?

21 A. Yes, and an agreement has been signed, written  
22 agreement has been reached with the surface owner concerning  
23 use of this wellbore.

24 Q. Will Nearburg Producing Company call other witnesses  
25 to testify to the geological and engineering aspects of this



1 application?

2 A. Yes.

3 Q. Were Exhibits 1 and 2 either prepared by you or  
4 compiled under your direction and supervision?

5 A. Yes.

6 MR. CARR: At this time, Mr. Stogner, we move the  
7 admission of Nearburg Exhibits 1 and 2.

8 HEARING EXAMINER: Exhibits 1 and 2 will be admitted  
9 into evidence.

10 EXAMINATION

11 BY THE HEARING EXAMINER:

12 Q. The surface is owned by --

13 A. Courtney and Pauline Holston.

14 Q. And they were indeed notified, and like you said you  
15 have already reached an agreement of utilizing this wellbore?

16 A. Yes.

17 HEARING EXAMINER: I have no other questions of  
18 Mr. Nearburg at this time, Mr. Carr.

19 MR. CARR: Mr. Stogner, at this time we call Jerry  
20 Elger.

21 JERRY ELGER,  
22 the witness herein, having been previously sworn upon his oath,  
23 was examined and testified as follows:

24 EXAMINATION

25 BY MR. CARR:

1 Q. Mr. Elger, are you familiar with the application  
2 filed in this case on behalf of Nearburg Producing Company?

3 A. Yes, I am.

4 Q. Are you familiar with the proposed disposal well?

5 A. Yes.

6 Q. Have you made a geological study of this area?

7 A. Yes, I have.

8 Q. Could you refer to what has been marked for  
9 identification as Nearburg Exhibit No. 3, identify this and  
10 review it for the Examiner.

11 A. This is a structure map in the area of the subject  
12 well showing all the Devonian penetrations. It's a structure  
13 map on the base of the Woodford shale top of the Devonian  
14 formation. It shows that basically you have southeast depth at  
15 approximately 100 feet per mile monocline depth uninterrupted  
16 by any faulting or structural developments within the area of  
17 the proposed re-entry.

18 Q. Let's go now to Exhibit No. 4 and I'd ask you to  
19 identify and review that.

20 A. This is a cross-section also of the Devonian. It's  
21 a stratigraphic cross-section hung on the top of the Devonian  
22 Base Woodford shale. Including wells to the west, south, and  
23 east of the proposed re-entry.

24 Q. All right. Now, based on your review of the geology  
25 in this area what general conclusions can you reach about the

1 proposed well as a disposal well?

2 A. That it would be a very good disposal well based on  
3 the porosity development of the surrounding wells in those  
4 three directions, two of which are already currently disposal  
5 wells. We anticipate having the same porosity development at  
6 our proposed re-entry. It would be a good disposal well.

7 Q. From a structural point of view is there any  
8 particular advantage or disadvantage at your location as  
9 compared to the other two offsetting disposal wells?

10 A. No. As Exhibit 3 indicates we should be  
11 structurally high to one of the disposal wells and low to the  
12 other.

13 Q. Were Exhibits 3 and 4 prepared by you?

14 A. They were.

15 MR. CARR: At this time, Mr. Stogner, I would move  
16 the admission of Nearburg Exhibits 3 and 4.

17 HEARING EXAMINER: Exhibits 3 and 4 will be admitted  
18 into evidence at this time.

19 MR. CARR: And that concludes my direct examination  
20 of Mr. Elger.

21 HEARING EXAMINER: Will your next witness be an  
22 engineer?

23 MR. CARR: Yes, sir.

24 HEARING EXAMINER: I have no questions of Mr. Elger  
25 at this time, but I might later.

1           MR. CARR: Okay. Mr. Stogner, at this time we would  
2 call Mr. Tim McDonald.

3                           TIM McDONALD,  
4 the witness herein, having been previosly sworn upon his oath,  
5 was examined and testified as follows:

6                           EXAMINATION

7 BY MR. CARR:

8           Q. Will you state your full name and place of  
9 residence.

10          A. Tim McDonald, Dallas, Texas.

11          Q. Mr. McDonald, by whom are you employed and in what  
12 capacity?

13          A. Nearburg Producing Company as engineering manager.

14          Q. Have you previously testified before the Oil  
15 Conservation Division and had your credentials as an engineer  
16 accepted and made a matter of record?

17          A. Yes, I have.

18          Q. Are you familiar with the application filed in this  
19 case on behalf of Nearburg Producing Company?

20          A. Yes.

21          Q. Are you familiar with the proposed salt water  
22 disposal well?

23          A. Yes.

24               MR. CARR: Are the witness's qualifications  
25 acceptable?

1 HEARING EXAMINER: They are.

2 Q. (BY MR. CARR) Could you refer to what has been  
3 marked for identification as Exhibit No. 5, identify this and  
4 then review the information on this exhibit for the Examiner.

5 A. Exhibit No. 5 is a wellbore diagram showing the  
6 casing that's already in place and the proposed casing and the  
7 cementing program we plan to follow. It shows the  
8 12-and-three-quarter inch surface casing was set at 305 feet  
9 with cement circulated back to the surface,  
10 eight-and-five-eighths intermediate casing was set at 1,250  
11 feet, and also cement was circulated back to the surface. We  
12 propose to run five-and-a-half inch casing set at plus or minus  
13 10,220 feet. We plan to cement the five-and-a-half with three  
14 stages with a formation packer shoe at the bottom and two DV  
15 tools up the hole with the intention of circulating cement to  
16 surface. We then propose to run two-and-seven-eighths tubing  
17 of plastic-coated tubing and fill the tubing casing annulus  
18 with inhibited water. We also show that our proposed injection  
19 will be an open hole injection from a depth of approximately  
20 10,220 feet to 10,500 feet. The C-108 had originally showed a  
21 perforated injection zone, but it also mentioned the  
22 possibility for an open hole completion.

23 Q. Mr. McDonald, has Nearburg Producing Company agree  
24 to pressure test the annular space as required by the Federal  
25 Underground Injection Control Program?

1           A.     Yes, we do.

2           Q.     What is the thickness of the Devonian at this  
3 particular location?

4           A.     Approximately 300 to 500 feet.

5           Q.     What volumes does Nearburg propose to dispose of in  
6 this well?

7           A.     We had planned an average injection volume of about  
8 3,000 barrels a day with a maximum of 10,000.

9           Q.     Will the system be an opened or closed system?

10          A.     Closed.

11          Q.     Will you be injecting under pressure?

12          A.     Yes.

13          Q.     What is the maximum injection pressure you  
14 anticipate needing to use?

15          A.     Around 1,000 pounds.

16          Q.     Would a pressure limitation of two-tenths pound per  
17 foot of depth to the top of the injection interval be  
18 satisfactory for your purposes?

19          A.     Yes, it would.

20          Q.     In fact that would give you additional or excess  
21 pressure authorization?

22          A.     Yes, it would.

23          Q.     What is -- again the source of the water is from the  
24 Cisco Canyon?

25          A.     Right.

1 Q. And do you anticipate any compatibility problems by  
2 disposing of this Cisco Canyon water in the Devonian?

3 A. We do not.

4 Q. And why not?

5 A. Based on the success of the other two disposal wells  
6 in the area.

7 Q. What is the depth of the fresh water zones in this  
8 area?

9 A. They are shallower than 300 feet.

10 Q. And what depth will you be cementing the casing?

11 A. We have a surface casing set in cement at 305 feet,  
12 intermediate casing set in cement at 1,250 feet, and the  
13 five-and-a-half will be at approximately 10,220 feet.

14 Q. Will this cementing program insure that no disposal  
15 water will get away from you and contaminate the fresh water  
16 zones in the area?

17 A. Yes, it should.

18 Q. Are there any water wells within a mile of the  
19 injection land?

20 A. No, there are not.

21 Q. Have you examined the available engineering and  
22 geologic information on this area, and as a result of that  
23 examination have you found any fractures or other hydrologic  
24 connections that would serve as a vehicle for the pollution of  
25 the fresh water underground water in the area?

1           A.     None whatsoever.

2           Q.     In your opinion will granting this application be in  
3     the best interest of conservation, the prevention of waste, and  
4     the protection of correlative rights?

5           A.     Yes.

6           Q.     Was Exhibit No. 5 prepared by you?

7           A.     Yes.

8                   MR. CARR:  At this time, Mr. Stogner, I would move  
9     the admission of Nearburg Exhibit No. 5.

10                   HEARING EXAMINER:  Exhibit No. 5 will be admitted  
11    into evidence.

12                   MR. CARR:  That concludes my direct examination of  
13    Mr. McDonald.

14                                   EXAMINATION

15    BY THE HEARING EXAMINER:

16           Q.     Mr. McDonald, this well was drilled in what, 1974;  
17    is that correct?

18           A.     I believe that's correct.

19           Q.     Now the records you have indicate that the  
20    intermediate and the surface casing were circulated; is that  
21    correct?

22           A.     Yes, sir.

23           Q.     Was there a study made of the water, of the  
24    Devonian, or is there any record of the Devonian water in this  
25    area?



1           A.     No, there isn't. Or none that I am aware of.

2           Q.     Would you be willing to run a compatibility test  
3     once you get down to that depth and take a sample and report  
4     back to us?

5           A.     Yes, we will.

6           Q.     And the compatibility of your proposed Dagger Draw  
7     water?

8           A.     Yes.

9           Q.     Now the Dagger Draw water that is going to be  
10    disposed of in here, is that from Nearburg Producing wells or  
11    other producers?

12          A.     Nearburg Producing wells.

13          Q.     Is there any plans on taking anybody else's water?

14          A.     No.

15          Q.     What kind of water rates does Nearburg have on its  
16    wells in the Dagger Draw at this point?

17          A.     We currently do not have any production. We're  
18    drilling the first well. It's drilling approximately 7,000  
19    feet. We anticipate rates of approximately one to 2,000  
20    barrels per day per well.

21          Q.     How far physically or geographically is the Dagger  
22    Draw producing wells or proposed producing wells from this  
23    area?

24          A.     A maximum of three miles.

25          Q.     Will this water be trucked in or piped over?

1 A. Piped over.

2 Q. It will essentially be a closed system; is that  
3 correct?

4 A. That's correct.

5 HEARING EXAMINER: Are there any other questions of  
6 this witness? If not, he may be excused.

7 Mr. Carr, do you have anything further?

8 MR. CARR: Nothing further on this case,  
9 Mr. Stogner.

10 HEARING EXAMINER: Does anybody else have anything  
11 further on Case No. 10034? This case will be taken under  
12 advisement.

13 \* \* \* \* \*

14  
15  
16 I do hereby certify that the foregoing is  
17 a complete record of the proceedings in  
18 the Examiner hearing of Case No. 10034,  
19 heard by me on 8 August 1990.

20 Michael J. Stogner Examiner  
Oil Conservation Division

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23  
24  
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1 CERTIFICATE OF REPORTER

2

3 STATE OF NEW MEXICO )  
 4 ) ss.  
 5 COUNTY OF SANTA FE )

6

7 I, Diane M. Winter, Certified Shorthand Reporter and  
 8 Notary Public, HEREBY CERTIFY that the foregoing transcript of  
 9 proceedings before the Oil Conservation Division was reported  
 10 by me; that I caused my notes to be transcribed under my  
 11 personal supervision; and that the foregoing is a true and  
 12 accurate record of the proceedings.

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

17 WITNESS MY HAND AND SEAL August 20, 1990.

18

*Diane M. Winter*

19

DIANE M. WINTER  
 CSR No. 414

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My commission expires: December 21, 1993

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