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

IN THE MATTER OF THE HEARING )  
CALLED BY THE OIL CONSERVATION )  
DIVISION FOR THE PURPOSE OF )  
CONSIDERING: )  
APPLICATION OF SIETE OIL AND GAS )  
CORPORATION )

CASE NO. 10,968

MAY 8 1994

**ORIGINAL**

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

*May 26*  
~~June 16~~, 1994

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on Thursday, May 26, 1994, at Morgan Hall, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

May 26, 1994  
Examiner Hearing  
CASE NO. 10,968

PAGE  
3

APPEARANCES

APPLICANT'S WITNESSES:

ROBERT S. LEE

Direct Examination by Mr. Padilla	4
Examination by Examiner Catanach	17
Further Examination by Mr. Padilla	23
Further Examination by Examiner Catanach	23

BRUCE USZYNSKI

Direct Examination by Mr. Padilla	25
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REPORTER'S CERTIFICATE 30

\* \* \*

E X H I B I T S

	Identified	Admitted
Exhibit 1	5	28
Exhibit 2	7	17
Exhibit 3	28	28

\* \* \*

A P P E A R A N C E S

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FOR THE DIVISION:  
  
RAND L. CARROLL  
Attorney at Law  
Legal Counsel to the Division  
State Land Office Building  
Santa Fe, New Mexico 87504

FOR THE APPLICANT:  
  
PADILLA LAW FIRM, P.A.  
Attorneys at Law  
By: ERNEST L. PADILLA  
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P.O. Box 2523  
Santa Fe, New Mexico 87504-2523

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2 12:28 p.m.:

3           EXAMINER CATANACH: At this time we'll call Case  
4 10,968, which is the Application of Siete Oil and Gas  
5 Corporation for salt water disposal, Eddy County, New  
6 Mexico.

7           Are there appearances in this case?

8           MR. PADILLA: Mr. Examiner, Ernest L. Padilla,  
9 Padilla Law Firm, Santa Fe, New Mexico for the Applicant.  
10 I have two witnesses.

11           EXAMINER CATANACH: Any additional appearances?

12           There being none, will the witnesses please stand  
13 to be sworn in?

14           (Thereupon, the witnesses were sworn.)

15           MR. PADILLA: We'll call Robert Lee first.

16                         ROBERT S. LEE,

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

19                                 DIRECT EXAMINATION

20 BY MR. PADILLA:

21           Q. Mr. Lee, would you please state your full name  
22 and tell us your connection with the Applicant?

23           A. My name is Robert Steven Lee. I live in Roswell,  
24 New Mexico. I'm the production manager for Siete Oil and  
25 Gas.

1 Q. Mr. Lee, have you previously had your credentials  
2 accepted as a matter of record as a petroleum engineer in  
3 hearings before the Oil Conservation Division?

4 A. Yes, I have.

5 Q. Mr. Lee, are you familiar with the engineering  
6 aspects of the saltwater disposal Application under  
7 consideration here today?

8 A. Yes, I am.

9 MR. PADILLA: Mr. Examiner, we tender Mr. Lee as  
10 a qualified petroleum engineer.

11 EXAMINER CATANACH: Mr. Lee is so qualified.

12 Q. (By Mr. Padilla) Mr. Lee, have you prepared  
13 certain exhibits for introduction here or had them prepared  
14 under your direction and supervision?

15 A. Yes, I have. We prepared the C-108 for the  
16 saltwater disposal well here for the State MA Number 1.

17 Q. Have you -- And is that generally what is marked  
18 as Exhibit Number 1?

19 A. Yes, it is.

20 Q. Let's jump right into that, Mr. Lee, and have you  
21 go through the C-108 initially, briefly, and tell the  
22 Examiner what that contains.

23 A. Okay, the first page is just a C-108 form that  
24 I've signed and dated.

25 Right behind that we have Section III of the C-

1 108. This is the well data section. In this portion I  
2 list the lease name, the State MA Com Well Number 1, where  
3 it's located, the casing program, where the cement tops  
4 are. And as you can see, the first two strings of pipe,  
5 which were set at 422 feet and 2570, they have cement  
6 circulated to surface.

7 I also list on this form the injection tubing  
8 that we will use, state that it's going to be plastic  
9 coated. And the packer that we're going to use, it's going  
10 to be a Lok-Set packer set at about 7200 feet.

11 And then we provide other information about the  
12 well, stating that we're going into the Bone Spring  
13 formation and --

14 Q. Mr. Lee, originally this Application was for  
15 disposal into the Delaware; is that correct?

16 A. That is correct.

17 Q. And you have now changed -- amended the  
18 Application to the Bone Spring?

19 A. Yes, we have.

20 Q. Tell the Examiner a little bit about the problems  
21 you encountered with the initial application to the  
22 Delaware formation.

23 A. Okay. Initially, we had intended to inject into  
24 the Delaware, but the offset leasehold owners, Collins &  
25 Ware and Santa Fe Energy, have a Delaware prospect and they

1 felt that us injecting into the Delaware could be  
2 detrimental to their prospect.

3 Also, we are kind of keying off of the disposal  
4 well about six miles to the south, the Shay Meg saltwater  
5 disposal well. It's a commercial system. Initially they  
6 were injecting into the Delaware.

7 And then in about 1982 they left the Delaware and  
8 went to the Bone Spring because the pressures got real  
9 high, and they've been able to inject into the Bone Spring  
10 since.

11 So that was the two prime reasons for us to amend  
12 our Application and not inject into the Delaware, but  
13 rather go straight to the Bone Spring.

14 Q. Do you have Exhibit Number 2, what we have marked  
15 as Exhibit Number 2, there in front of you?

16 A. Yes, I do.

17 Q. And what is that?

18 A. This is a letter from Curtis Smith, the Santa Fe  
19 Energy landman, to Mr. Gene Shumate, Siete Oil and Gas  
20 President, stating that they have no objection to us  
21 injecting -- or disposing of water into the Bone Spring  
22 formation.

23 Q. Okay. Let's go back to item III where I  
24 interrupted you.

25 A. Uh-huh.

1 Q. You were discussing the other well information --

2 A. Right.

3 Q. -- relating to Section III of this Form C-108.

4 A. Uh-huh.

5 Q. Tell us where the perforations are going to be.

6 A. They're going to be from 7300 feet to 7740.

7 Q. And what are you trying to accomplish with this  
8 disposal well? Why was this necessary?

9 A. Siete is in the process -- We've discovered a  
10 field, the Willow Lake Delaware field, about two miles to  
11 the east of this well. The wells there are currently  
12 making about 200 barrels of water a day, and I'm having to  
13 truck that water at a cost of nearly \$1.30 per barrel.

14 If I could convert this well, I'll be able to  
15 dispose of that water much cheaper and increase the  
16 economics of my field, extend the life of the wells,  
17 economic life of the wells, and recover additional  
18 reserves.

19 Q. Now, you've identified this well as having been a  
20 perforated -- well, I guess that's on page 2 of this  
21 section III.

22 Tell the Examiner where this well is currently --  
23 or the status of this well, I should say.

24 A. Okay. As you can see on page 2, the Morrow was  
25 the initial zone that was completed in the well with

1 perforations from 13,166 to 13,175.

2 The operator, M.W. Petroleum, left the Morrow and  
3 went to the Atoka and perforated a zone at 12,046 to  
4 12,070. And since then they've gone up, and they do have  
5 some perforations in the Bone Spring.

6 Also there you can see the data relating to where  
7 the plugs were set, how much cement was utilized to plug  
8 off these old producing horizons, and like I said, you can  
9 see that they've perforated the Bone Spring. It was  
10 uneconomic, and we're going to add perms to the zone and  
11 disposal water into it.

12 Also, the -- Under Section III of the C-108 we  
13 make a statement here that within the area of this well  
14 there's no upper zones productive of oil or gas, and the  
15 Atoka is the next lowest zone that's productive of oil and  
16 gas, at a depth of about 12,000 feet.

17 Q. How about in the Bone Spring?

18 A. There is some Bone Spring production in the area,  
19 over a mile away from this well, but the Bone Spring  
20 completion here was uneconomic.

21 Q. Okay. Would you go on now to the schematics and  
22 explain to the Examiner what those schematics show?

23 A. Yeah. The first schematic is a wellbore diagram  
24 showing the well as it currently stands, showing where the  
25 casing is set, cement tops, perforations where the plugs

1 are.

2 The second schematic is a proposed schematic of  
3 what the well is going to look like once we get it under  
4 injection, showing where our packer will be set, showing  
5 where the perforations will be. And all the plug data  
6 remains the same.

7 Then --

8 Q. What's next?

9 A. Next we have a land map of the area with the well  
10 darkened in, there in Section III. It has two circles  
11 drawn around it. The smaller circle is the half-mile  
12 radius circle which we utilize to determine the area of  
13 review for the well.

14 Then we look at the wells within the area of  
15 review and put together the construction data for them,  
16 which is also shown here in our C-108 a little bit later.

17 The larger circle is a two-mile radius. It was  
18 put on there merely to show that we have included all the  
19 leases within two miles around the proposed injection well,  
20 as required by the C-108.

21 Q. How many wells of concern are shown on this map,  
22 in other words, in the half-mile circle?

23 A. There's only one well.

24 Q. Where is that located?

25 A. One location to the east in Section 2.

1 Q. Okay. And then the following page, is that to  
2 identify or give the information concerning that well?

3 A. That's correct.

4 Q. Tell the Examiner what that well looks like.

5 A. This is the data required on Section VI of the  
6 C-108 showing that the -- showing the wells within the area  
7 of review.

8 In this case there's only one. It's the Salt  
9 Draw Number 2.

10 It's an active gas producer, it's producing out  
11 of the Atoka, operated by Hallwood. We show where the  
12 location is, spud date, completion date, depth, completion  
13 interval.

14 And then below that part we have the casing  
15 program with the cementing data for the well.

16 Q. In terms of migration from your disposal zone  
17 into that well of any fluids that you were injecting, what  
18 is the possibility of that occurring?

19 A. It would be virtually impossible. The zone that  
20 we're going to be injecting into is -- you know, has casing  
21 across it and cement across the zone, so there will be no  
22 injected fluids from my well entering this wellbore or  
23 affecting it.

24 Q. Okay. Let's go to Section VII of the C-108,  
25 which is on the next page. Would you brief that

1 information for the Examiner?

2 A. Uh-huh. Section VII is the injection data for  
3 this well, stating here that I propose an average injection  
4 rate of 700 barrels of water per day, with a maximum rate  
5 of 1000 barrels of water a day. This is based upon the  
6 anticipated development of our Willow Lake Delaware field.

7 I state that the injection station will be a  
8 closed system, the gathering and processing of the  
9 injection water will be closed.

10 The injection pressure, I anticipate an injection  
11 pressure of 700 pounds. That's based upon the Shay Meg  
12 disposal well about six miles to the south. The maximum  
13 injection pressure that we're asking for is 1400 p.s.i.,  
14 and that abides by the .2-p.s.i.-per-foot maximum injection  
15 pressure imposed by the OCD.

16 I state here that the proposed injection fluid is  
17 produced Delaware water from our Willow Lake field two  
18 miles to the east.

19 And I also ask, or also state, that at a later  
20 date if we discover we have substantial excess capacity for  
21 the well, we would want to convert this into a commercial  
22 disposal system.

23 Our first priority, though, is to handle our  
24 produced water from our field, but at a later date we may  
25 want to take some other people's water and charge them for

1 that. And I would ask at this time that we could do that  
2 administratively in the future, if we get to that point.

3 Also --

4 Q. In other words, you want an order to state that  
5 should you intend to -- or formulate plans to convert it to  
6 a commercial system then --

7 A. That's correct.

8 Q. -- you would do that administratively, without  
9 having to come back for a hearing?

10 A. That's correct.

11 Q. Okay.

12 A. Also, in Section 4 here, I state that there's a  
13 compatibility analysis for the Bone Spring, the Delaware  
14 waters, attached.

15 Q. Would you go through that analysis, please?

16 A. Okay. About for pages back, we have a form which  
17 was filled out by Martin Water Labs and a letter from  
18 Martin Water Labs on an analysis that we had done on some  
19 Delaware and Bone Spring water for our Parkway flood.

20 And I'm utilizing the Parkway water data because  
21 on our C-108 says that, you know, the injection water -- I  
22 need a chemical analysis that may be measured or inferred  
23 from existing studies, and so we included the study that we  
24 did for the Parkway.

25 I did that because we couldn't get any water

1 samples out of the State MA well. The well has been shut  
2 in, there's no pumping unit or tubing in the well, and I  
3 was not able to get a water sample.

4 But we feel that based upon the Delaware oil  
5 production that we see here in our Willow Lake field, that  
6 it's very similar in composition to what we have at the  
7 Parkway field, and we feel that the water analysis is a  
8 valid water analysis, or showing that there's no scaling  
9 problems.

10 Also, I'd point out that the Shay Meg well to the  
11 south, also injecting into the Bone Spring, has not  
12 exhibited any scaling problems or injection problems also.

13 Q. Okay, let's go on -- Let's skip through Section  
14 VIII on the geologic description and go on now to Section  
15 IX.

16 A. Okay, this is a statement on completion of the  
17 well, just stating here that we're going to perforate,  
18 acidize and fracture the intended zone of injection. It's  
19 going to be about a 50,000-gallon frac job and utilize  
20 about 100,000 pounds of sand.

21 Item X states that the well logs for the wells to  
22 be converted have been previously submitted to the OCD.

23 Item XI is -- pertains to freshwater wells in the  
24 area.

25 We went to the State Engineer's Office there in

1 Roswell and discovered that there were three freshwater  
2 wells of record within 2 1/2 miles of our proposed disposal  
3 well, and here we list where they're located and a chemical  
4 analysis of each well, showing the chlorides in each well  
5 and the date of the test.

6 Q. Generally, what kind of water is found in those  
7 wells?

8 A. It's fresh water.

9 Q. Is it very good water?

10 A. Yes, it is.

11 Q. What's the possibility of migration of injected  
12 fluids into this freshwater aquifer?

13 A. It would be virtually impossible because of the  
14 casing program and the cementing program that we've  
15 attached here in this well.

16 The freshwater zones are protected by two strings  
17 of casing here and they have cement across it, so I  
18 wouldn't anticipate that there's going to be any migration  
19 up.

20 Q. Okay. Let's go on to Sections XII and XIII.

21 A. Section XII is a statement that I have compiled  
22 and examined all the available engineering and geologic  
23 data and have not found any hydrologic connections between  
24 the proposed injection zone and the drinking water zones.  
25 There does not appear to be any faults in the area that

1 would provide a path for the disposal water to get up into  
2 the freshwater zones.

3 And Section XIII is a copy of all the certified  
4 mail receipts from all the offset operators.

5 Q. And that's at the end of this Exhibit Number 1;  
6 is that right?

7 A. That's correct, it's the last three pages.

8 Q. Now, did you send the amended C-108 to the Bone  
9 Spring to the interest owners affected?

10 A. Yes, we did.

11 Q. Did you also send the initial C-108 to the  
12 Delaware, to the same owners?

13 A. Yes, we did.

14 Q. Did you determine whether or not the ownership  
15 was the same between the Delaware and the Bone Spring?

16 A. Yes, it was.

17 Q. Mr. Examiner, I have nothing further from this  
18 witness, other than to ask him whether in his opinion  
19 approval of this Application would be in the best interests  
20 of conservation of oil and gas.

21 A. Yes, it would.

22 MR. PADILLA: Nothing further, and we tender  
23 Exhibit Number 1, except for the geologic information  
24 contained.

25 EXAMINER CATANACH: Okay, Exhibit Number 1,

1 partially, will be admitted as evidence in this case.

2 EXAMINATION

3 BY EXAMINER CATANACH:

4 Q. Mr. Lee, have you -- I notice you have a waiver  
5 from Santa Fe. The other objecting party was Collins &  
6 Ware?

7 A. Yes, it was.

8 Q. Do you know if they have any problem with a Bone  
9 Spring injection well?

10 A. No, they do not. They were pretty much letting  
11 Santa Fe do the lead on the opposition here, and they're  
12 partners in the offset tract, Santa Fe and Collins & Ware.

13 EXAMINER CATANACH: Okay.

14 MR. PADILLA: Mr. Examiner, we'd also offer  
15 Exhibit 2.

16 EXAMINER CATANACH: Exhibit 2 will be admitted as  
17 evidence.

18 Q. (By Examiner Catanach) Mr. Lee, in Part B of  
19 your -- Part III-B of your Exhibit Number 1 --

20 A. Uh-huh.

21 Q. -- shows that the injection interval will be from  
22 7300 to 7740?

23 A. Yes.

24 Q. And on the next page I show perforations at 7287  
25 to 7306. You've got a 13-foot interval there that is not

1 accounted for.

2 A. Uh-huh. No one at the job -- The Examiner is  
3 very tedious at times. Sometimes we like to throw things  
4 in like this to help break the monotony and let you find a  
5 few things like that.

6 No, the proposed zone that we wanted to hit, as  
7 we'll show on the log, is from 7300. Those are the current  
8 perforations. We're not going to squeeze them or anything.  
9 They will be open.

10 And probably over here on Exhibit B, we should  
11 have put 7287. Those perms above the 7300-foot mark looks  
12 a little rattier, a little tighter, on the gamma-ray log.  
13 And so that's why we did not include that as something that  
14 I would have gone for. But since they're already there,  
15 we'll utilize them.

16 But you're right. B-2 probably should have been  
17 changed to 7287.

18 EXAMINER CATANACH: Mr. Padilla, this case will  
19 be readvertised for -- Is it June 9th?

20 MR. PADILLA: Yes, sir, for an additional two  
21 weeks, because we felt that, when I discussed it with Mr.  
22 Stogner, that since we changed the injection interval, that  
23 we had to almost start all over again.

24 EXAMINER CATANACH: Okay.

25 MR. PADILLA: We wouldn't have given a complete

1 20-day notice at the hearing of this -- at today's hearing.

2 Q. (By Examiner Catanach) Okay. The renotification  
3 to the offset -- or to the -- yeah, to the offset  
4 operators, they do know exactly what perforations you're  
5 going to be injecting into? I mean, it does list the 7287?

6 A. Correct.

7 Q. I guess what I'm concerned about is the  
8 readvertisement for June the 9th. I'd be curious to know  
9 what interval would be listed on that.

10 MR. PADILLA: Mr. Examiner, I submitted a new  
11 notice for the hearing, an amended notice, to all of the  
12 interest owners, which showed the new interval.

13 EXAMINER CATANACH: Okay, but your --

14 MR. PADILLA: And the C-108 was also mailed by  
15 Siete, showing the Bone Spring as being the -- within --  
16 with the new interval.

17 EXAMINER CATANACH: Yeah, what I'm getting at,  
18 though, Mr. Padilla, is on the actual notice for the  
19 hearing, as contained in our docket, which I'm sure some  
20 people rely on for information, would probably list the  
21 7300-foot-to-7740-foot interval. I know it doesn't make --

22 MR. PADILLA: Oh, I see what you're saying. In  
23 other words, it was just repeated the same way as before, I  
24 guess.

25 EXAMINER CATANACH: Yeah. I would be almost

1 inclined to say that we would have to put that interval --  
2 to readvertise again and put that interval, that 7287  
3 interval, in there, instead of the 7300.

4 MR. PADILLA: On May 10th I wrote a letter to Mr.  
5 Stogner saying that, in part, As we discussed this morning,  
6 the Application will have to be readvertised due to the  
7 change of the disposal interval.

8 And so evidently that didn't get in the  
9 advertisement, the new interval with the S- --

10 EXAMINER CATANACH: Yeah, I don't know exactly  
11 what is in the advertisement for the next docket's case. I  
12 don't know what he put in there. I have not seen it.

13 I'll tell you what: I'll check on that, and then  
14 I'll get back to you on what we may need to do with that.

15 MR. PADILLA: We figured we were going to have  
16 the hearing early anyway, so -- and we were going to have  
17 to wait at least two weeks before an order could be issued.

18 EXAMINER CATANACH: Right, that is correct,  
19 you'll have to wait until after June 9th until I can even  
20 issue an order.

21 But if that injection interval is advertised  
22 wrong on the June 9th docket, we may have to run it again,  
23 readvertise it again for two more weeks. See what I'm  
24 saying?

25 I'll check on it, and I'll let you know.

1 Q. (By Examiner Catanach) Mr. Lee, I have a water  
2 analysis that you show to be from Osage Well Number 8 water  
3 supply well.

4 A. Correct.

5 Q. What is the location of that well in relation to  
6 the proposed injection well?

7 A. It's quite a ways off. It's probably 20, 30  
8 miles away.

9 It was the -- Like I said, we -- In the C-108, I  
10 was noticing that it said I could use a study that was  
11 performed on a like horizon or like waters and utilize  
12 those.

13 The -- I had this study in my files, so I elected  
14 to utilize it since I couldn't get any actual Bone Spring  
15 water from the proposed injection well, and also since the  
16 Shay Meg well is also injecting into the Bone Spring  
17 without any apparent ill effects or benefit -- or, you  
18 know, scaling up, anything bad like that happening. I made  
19 the assumption or the inference that the Bone Spring would  
20 be compatible.

21 Q. Do you have an opinion as to whether this Bone  
22 Spring water and the Osage Number 8 is similar in  
23 characteristics to the one you will encounter in the  
24 injection well?

25 A. Across the region of the various waters that I

1 have had the opportunity to look at or examine, the Bone  
2 Spring does seem to be fairly consistent from area to area.

3 Q. Mr. Lee, this Bone Spring water appears to  
4 contain total dissolved solids less than 10,000. It's  
5 against Division Rules to inject into a formation that has  
6 water whose quality is less than 10,000 parts per million.  
7 Would you like to take a shot at that question?

8 Let me ask you this --

9 A. Okay, you -- here's -- I'm in error here, the --  
10 when I grabbed this analysis.

11 The water sample number one, the Osage water  
12 supply well, at the time when we were doing our Parkway  
13 Delaware study, we were trying to find source water for our  
14 waterflood. There was a shallow well at the Osage 8  
15 location, which we had analyzed.

16 Then I mistakenly grabbed this, looked at that  
17 and said, Ha, it's the Osage 8 water, thinking that I had  
18 had a compatibility analysis done on that Bone Spring water  
19 and the Delaware water, but actually it looks like this was  
20 on the shallow water zone at the Parkway.

21 You're correct, this is not the Bone Spring  
22 water. You're right.

23 I will get an analysis and, you know, have that  
24 study done.

25 But still, based on the Shay Meg well to the

1 south, I don't anticipate any problems with injecting into  
2 the Bone Spring as far as compatibility with the water.

3 FURTHER EXAMINATION

4 BY MR. PADILLA:

5 Q. Mr. Lee, if I may ask, on this water analysis,  
6 that Number 1 there that says Raw water taken from Osage  
7 Number 8 water supply well --

8 A. Yes.

9 Q. -- is that what you're talking about?

10 A. Yes, it is. And off to the side I have written  
11 "Bone Spring".

12 But as the astute Examiner has noticed, that is  
13 not the Bone Spring water, and that was an error on my  
14 part. I grabbed that analysis --

15 Q. So you got the wrong analysis here?

16 A. That's correct. That was for a shallow  
17 freshwater zone that we were looking at as a supply well  
18 for the Parkway waterflood, and not Bone Spring water from  
19 the Osage 8.

20 FURTHER EXAMINATION

21 BY EXAMINER CATANACH:

22 Q. Was this the water that was run in the  
23 compatibility study?

24 A. Yes.

25 Here we were comparing mixing the water from that

1 shallow supply well with the Osage 1 Delaware water, and  
2 also some water from a disposal well and an AMAX water  
3 well, and we were looking to see if they were all  
4 compatible for our waterflood.

5 Q. I would guess that you would need to run the  
6 compatibility study again.

7 A. I guess I will.

8 Q. Do you have knowledge that the Bone Spring water  
9 is in fact of lesser quality than this?

10 A. Yes, the Bone Spring water typically should have  
11 140,000 to 160,000 parts per million chlorides, not less  
12 than 1000 as we show here on this one.

13 Q. Okay. Mr. Lee, when this well was drilled or  
14 when it was tested in the Bone Spring, did you recover any  
15 oil?

16 A. Siete did not test it.

17 It was tested by Apache, and they did recover  
18 some oil.

19 They -- The C-115 showed a barrel a day. In a  
20 month of testing they recovered, I think it was 25 or 30  
21 barrels of oil.

22 EXAMINER CATANACH: That's all I have of the  
23 witness.

24 MR. PADILLA: We'll call our next witness at this  
25 time.

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BRUCE USZYNSKI,

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

DIRECT EXAMINATION

BY MR. PADILLA:

Q. For the record, would you please state your name?

A. Bruce John Uszynski.

Q. Mr. Uszynski, would you spell your name for the Examiner?

A. U-s-z-y-n-s-k-i.

Q. I got that the first try.

A. Right.

Q. Mr. Uszynski, have you been qualified as a petroleum geologist before the Oil Conservation Division on prior occasions?

A. Yes, I have.

Q. Have you made a study of the geology in the injection interval in this case?

A. Yes, I have.

Q. Are you prepared to testify concerning the geology?

A. Yes.

MR. PADILLA: We offer Mr. Uszynski as a petroleum geologist, Mr. Examiner.

EXAMINER CATANACH: He is so qualified.

1 Q. (By Mr. Padilla) Mr. Uszynski, let's turn to  
2 that portion of Exhibit Number 1 which identifies and  
3 describes the geology at the injection zone and have you go  
4 through that with the Examiner.

5 A. Okay. Again, the formation name that we're going  
6 to inject in is the Bone Spring. In the back of your  
7 brochure you have a copy of the segment of the porosity log  
8 across the interval that we propose to inject in. The  
9 interval lies between 7285 feet and 7740 feet from the  
10 surface, formation thickness of 455 feet.

11 The formation is primarily fine- to very-fine-  
12 grain sand, liming in part with occasional lime stringers  
13 throughout, bounded above and below by dense limestone.  
14 Porosities range in the zone from 10 to 15 percent.

15 Q. What in your opinion, Mr. Uszynski, is the  
16 ability of this formation to take injected water?

17 A. Typically, porosities in the Bone Spring of 10 to  
18 15 percent are very conducive to conducting fluids, both  
19 producing and for injecting, as indicated by the Shay Meg  
20 well to the south. That's our closest analogy for  
21 injection.

22 Porosities in our well and in the Shay Meg are  
23 very similar, therefore we believe that we should be able  
24 to put away injection water at the 700 pounds we propose to  
25 inject at.

1 Q. Mr. Uszynski, Mr. Lee testified that there were  
2 other producing Bone Spring wells in the area. Did those  
3 wells produce from this same zone?

4 A. No, they do not. There's a thin sand interval  
5 approximately 600 feet above the top of our proposed  
6 injection zone where the wells that do produce in the area  
7 are producing from.

8 Q. And he testified that -- He said the wells were  
9 how far away? Or do you know?

10 A. The nearest well is about a mile and a half away.

11 Q. What in your opinion is -- or would -- In your  
12 opinion, would the injected water have any effect on  
13 production from Bone Spring production one and a half miles  
14 away?

15 A. No, it should not. There's no indication of any  
16 faults or fractures in the area that would conduct the  
17 injected water to those horizons above through the  
18 formations themselves.

19 We have a significantly dense limestone above the  
20 injection zone that should contain the injected water.

21 Q. Is there any type of vertical fracturing that  
22 would conceivably allow water to migrate to the freshwater  
23 zones as you've identified in the geologic description?

24 A. No, the two freshwater zones that we have are 34  
25 feet and 68 feet below the surface. We're significantly

1 deeper than that, and as I previously stated, there's  
2 nothing in my mapping to indicate any sort of fault or  
3 fracture patterns in the area that would allow this water  
4 to be conducted that far to the surface.

5 Q. Are there any freshwater zones below the Rustler  
6 formation in this area?

7 A. We checked with the State Engineer's Office, and  
8 in this area there are none.

9 Q. Mr. Uszynski, would approval of this Application  
10 be in the best interests of conservation of oil and gas?

11 A. Yes, it would.

12 Q. Could you elaborate a little bit on that?

13 A. Currently, the economics of the project are such  
14 that by having to haul the water at a dollar and a quarter  
15 or more a barrel, makes it difficult to accelerate the  
16 drilling program the way we would like to.

17 If we can get approval for this project, we would  
18 be able to dispose of our water at about a quarter a  
19 barrel, and that would allow us to continue our development  
20 program in a prudent, timely manner.

21 MR. PADILLA: Mr. Examiner, I have nothing  
22 further of this witness, and I offer the entirety of  
23 Exhibit 1 at this time.

24 EXAMINER CATANACH: Exhibit 1 will be admitted as  
25 evidence in this case, and I have no questions of the

1 witness.

2 MR. PADILLA: Mr. Examiner, I'd also like to give  
3 you my notices of hearing, both the initial notice and  
4 the --

5 EXAMINER CATANACH: Okay. These are marked as  
6 Exhibit Number 3. We'll enter Exhibit Number 3 as evidence  
7 in this case.

8 MR. PADILLA: I have nothing further, Mr.  
9 Examiner.

10 EXAMINER CATANACH: Okay. With that, and with  
11 the submittal of the additional water analysis  
12 compatibility test, we'll leave the record open for -- at  
13 least until June 9th, for two weeks, until the cases -- in  
14 which -- the cases on the June 9th docket. So we'll leave  
15 the record open till then.

16 Thank you, Mr. Padilla.

17 (Thereupon, these proceedings were concluded at  
18 1:06 p.m.)

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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. 10968  
heard by me on May 26 1992.  
David R. Catanach, Examiner  
Oil Conservation Division



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NEW MEXICO OIL CONSERVATION DIVISION  
STATE LAND OFFICE BUILDING  
STATE OF NEW MEXICO  
CASE NO. 10968

IN THE MATTER OF:

The Application of Siete Oil & Gas  
Corporation for Salt Water Disposal,  
Eddy County, New Mexico.

BEFORE:

JIM MORROW  
Hearing Examiner  
State Land Office Building  
June 9, 1994

REPORTED BY:

19 1994

CARLA DIANE RODRIGUEZ  
Certified Shorthand Reporter  
for the State of New Mexico

ORIGINAL

1 EXAMINER MORROW: We'll go ahead and  
2 get started. Before we call the hearing to  
3 order, I'll go through the docket and advise you  
4 of the cases that have been either continued or  
5 will be dismissed.

6 [And there were proceedings had off the  
7 record.]

8 EXAMINER MORROW: We'll call the  
9 hearing to order and call Case 10968.

10 Are there appearances in that case?

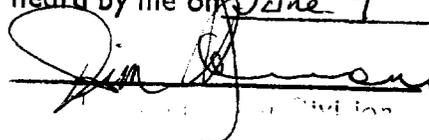
11 It's my understanding that this case  
12 was continued for two weeks to correct an error  
13 in advertising the case, which has been done.  
14 And there was a need for a Bone Spring water  
15 analysis, which I assume the Applicant will  
16 submit.

17 So we'll take Case 10968 under  
18 advisement.

19 (And the proceedings concluded.)  
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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. 10968,  
heard by me on June 9 1994.

 Examiner  
Cumbre Court Reporting



NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date JUNE 9, 1994 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
William A. Dan Dannie Turner	Campbell Dan Eng + Jewell Byram Co.	Santa Fe "
Bill Hawkins	Amoco	Denver
Gene De	Santa Fe Energy	Midland
GARY GREEN	Santa Fe Energy	Midland
Ernest A. Carol	Losee Cannon & Associates	Albany
James Bruce	Hable Law Firm	SF
M. J. Kellohim	Kellohim & Kellohim	Santa Fe
John Long	ARCO	Midland
Richard G. H	Marato, Inc	Midland
Shane Lough	Marato, Inc.	Midland
Dave Stuber	Mewbourne Oil	Midland
Steve Cobb	Mewbourne Oil	Midland
Jerry Elger	Nearburg Prod Co	Midland
Ernest L. Padilla	Padilla Law Firm	SF
David Pearay	Consultant for ARCO	Roswell NM

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOHearing Date JUNE 9, 1994 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
Terry E Darkan	Nearburg Prod Co	Dallas, TX
KEVIN E. O'CONNELL	Hallwood Petroleum	Denver, CO
CHRIS WOODS	Hallwood Petroleum	Denver, CO