

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO

23 July 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of BTA Oil Producers for CASE
salt water disposal, Lea County, New 8942
Mexico.

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:

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For BTA:

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I N D E X

JOE D. RAMEY

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E X H I B I T S

BTA Exhibit One, C-108 4

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MR. STOGNER: Call next Case
Number 8912. I'm sorry, 8942.

MR. TAYLOR: Application of BTA
Oil Producers for salt water disposal, Lea County, New Mex-
ico.

MR. CARR: May it please the
Examiner, my name is William F. Carr with the law firm Camp-
bell & Black, P. A., of Santa Fe.

We represent BTA Oil Producers
and have one witness.

MR. STOGNER: Are there any
other appearances?

Will the witness please stand
and be sworn at this time?

(Witness sworn.)

JOE D. RAMEY,
being called as a witness and being duly sworn upon his
oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. CARR:

Q Will you state your full name and place

1 of residence?

2 A Joe D. Ramey, Hobbs, New Mexico.

3 Q Mr. Ramey, by whom are you employed and
4 in what capacity?

5 A I'm a consultant retained by BTA.

6 Q Have you previously testified before this
7 Division and had your credentials accepted and made a matter
8 of record?

9 A Yes, I have.

10 Q At that time were you qualified as a pet-
11 roleum engineer?

12 A Yes.

13 Q Are you familiar with the application
14 filed in this case on behalf of BTA?

15 A Yes, I am.

16 Q Are you familiar with the subject well?

17 A Yes, I am.

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

20 MR. STOGNER: They are.

21 Q Mr. Ramey, would you briefly state what
22 BTA is seeking with this application?

23 A BTA requests approval to convert the --
24 what they are now calling their Buckeye 8601 JV-P Well No.
25 1-SWD, formerly the Calatex Exploration New Mexico State

1 Well No. 1 into a San Andres salt water disposal well.

2 Q Mr. Ramey, would you refer to what has
3 been marked as Exhibit Number One and identify the first
4 page of the exhibit for Mr. Stogner?

5 A The first page is Division Form C-108.

6 Q And this was filed with the Oil Conserva-
7 tion Division on what day?

8 A On June the 4th, 1986.

9 Q What is the present status of this well?

10 A The subject well is plugged and abandoned
11 and it will be re-entered and plugs drilled out and converted
12 to a disposal well. The well is -- has casing intact with
13 cement circulated on both strings.

14 Q Would you refer to what has been -- or
15 page five of Exhibit Number One, identify this and review it
16 for the examiner?

17 A Page five is a plat of the area and the
18 well in question is the well in Section 29 in Unit E, which
19 is -- has a large circle around it. On the plat are the
20 half mile area of review circle and the 2-mile circle.

21 There are two red -- red dots in there
22 which are water wells.

23 Q Does this plat show the leasehold owner
24 in the area?

25 A Yes, it does.

1 Q And does it show all wells within two
2 miles of the disposal well?

3 A Yes, it does.

4 Q Would you now go to page ten of Exhibit
5 Number One and identify this, please?

6 A Page ten is the data sheet which is show-
7 ing -- showing the construction of the wells within the half
8 mile circle, or the area of review.

9 Q Does table contain all the information
10 for each of the wells within the area of review that's re-
11 quired by Oil Conservation Division rules?

12 A Either that or some of the -- some of the
13 information that wasn't included that should have been on
14 this sheet is included on the individual schematic diagrams.

15 Q Would you go to what has been marked --
16 or page thirteen through eighteen of this exhibit and iden-
17 tify those, please?

18 A Exhibit -- these are schematic diagrams
19 of the -- of the wells within the area of review. They're
20 all, all plugged and abandoned except the well in Unit D,
21 which is the BTA 8601 JV-P No. 1, which is a recently drilled
22 test to the Bone Spring. It was dry in the Bone Spring and
23 perforated in the San Andres and made a small San Andres
24 well. I think it potentialized for 17 barrels of oil and --

25 Q Does Exhibit Number One contain a sche-

1 matic of that?

2 A Yes, it does.

3 Q And on what page is that schematic found?

4 A That's on page 12.

5 Q So 12 is a schematic drawing of the one
6 producing well within the area of review?

7 A Yes, it is.

8 Q And pages 13 through 18 are schematic
9 drawings showing the plugging detail on all the plugged and
10 abandoned wells in that area.

11 A That is correct.

12 Q Would you refer to what is marked as page
13 11 in Exhibit Number One and identify that, please?

14 A Page 11 is the schematic of the well to
15 be converted to a disposal well, or it shows how the well
16 will be equipped after it is converted to a disposal well.

17 Q Will disposal be through lined tubing?

18 A Yes, it will be through fiberglass, 2-
19 3/8ths fiberglass tubing with a Baker Locset packer set at
20 approximately 5000 feet.

21 Injection will be through perforations
22 5082 to 5120 and there will some -- some type of noncorro-
23 sive fluid put in the annulus between the tubing and the
24 packer and there will be a pressure gauge installed at the
25 surface.

1 Q The well will be equipped so that it can
2 be tested as required by the Federal Underground Injection
3 Control Program.

4 A Yes, it will.

5 Q Now into what formation is it that BTA
6 proposes to dispose?

7 A Into the San Andres formation.

8 Q And within the area of review there is
9 one BTA well and from what formation is that producing?

10 A That is producing from the San Andres.

11 Q In your opinion is there any potential
12 problem posed by disposal in the same interval from which
13 this well is producing?

14 A No. We're essentially half a mile away,
15 fairly close to a half a mile away from this well. The well
16 was potentialized for 17 barrels just a few weeks ago and it
17 has fallen off to 9 barrels already and I don't think it --
18 the life of the well is not going to be long and I think the
19 well will be -- will be plugged and abandoned before any --
20 any injection water could possibly interfere with the
21 production of the San Andres oil.

22 Q What is the source of the water that BTA
23 proposes to inject in this well?

24 A It will be Abo and San Andres, so long as
25 the San Andres well produces.

1 Q Is this BTA produced water?

2 A At the present BTA has about 150 barrels
3 of water in the area that will be disposed of initially. We
4 are -- we are requesting a maximum of 1000 barrels a day and
5 hope to entice some of the offset operators in the area to
6 use the well, to run lines over to the well.

7 Q So it would also be used as a commercial
8 disposal well.

9 A Yes, that is correct.

10 Q What is BTA currently doing with the
11 water that will be disposed in this well?

12 A It is being trucked to a disposal site.

13 Q Will the system be opened or closed?

14 A It will be a closed system.

15 Q Do you propose to dispose by gravity or
16 under pressure?

17 A I think initially it will go -- be a
18 gravity system; however, when, if and when we reach 1000
19 barrels I think some -- some pressure will be necessary, and
20 so as a result we are requesting a maximum pressure of 1016
21 psi, which is the .2 of a pound times the depth to the top
22 of the perforations.

23 Q Mr. Ramey, would you now refer to pages
24 21 through 23 of Exhibit One and identify those for Mr.
25 Stogner?

1 A Exhibit Twenty-one is an analysis of the
2 Abo water that was recovered on a drill stem test on one of
3 BTA's wells.

4 Exhibit Twenty-two is also Abo from
5 another BTA well and Exhibit Twenty-three is an analysis of
6 the San Andres water.

7 Q Mr. Ramey, if BTA is authorized to
8 dispose of water as you are requesting here today, do you
9 anticipate any compatibility problems?

10 A No, I don't. We will -- we will take
11 compatibility tests if the Division deems it necessary;
12 however, I would like to point out that several miles to the
13 west Rice Engineering has been operating a disposal well for
14 a good number of years and they've been disposing of San An-
15 dres and Abo water in that well, and have shown no compat-
16 ibility problems, so in the interest of saving money we'd
17 like to not have to run a compatibility test, but if the ex-
18 aminer deems it necessary, we'll certainly do that.

19 Q Are there fresh water zones in the area?

20 A Yes. The fresh water in the area is from
21 the Ogallala formation. The depth to the bottom of the
22 Ogallala is about 250 feet.

23 Q Would you refer to pages 19 and 20 of
24 Exhibit One and identify those, please?

25 A Pages 19 -- or page 19 is an analysis

1 from the Giles Lea water well in Unit letter E of Section 29
2 and it shows -- shows excellent water.

3 And then page 20 is from the Knowlin-
4 Brunson (sic) irrigation well in Unit D of Section 20 and it
5 also shows a typical Ogallala water.

6 Q These two water wells from which you have
7 samples are the two that are indicated in red on the plat,
8 is that correct?

9 A Yes, that is correct.

10 Q Are the wells in the area cased and
11 cemented in a fashion so as to protect the fresh Ogallala
12 water in the area?

13 A Yes. They -- they are cased and cemented
14 and adequately plugged to insure that the water will stay in
15 the San Andres.

16 Q Is a log of the proposed disposal well on
17 file with the Oil Conservation Division?

18 A Yes, it is. It has previously been filed
19 in the Hobbs Office.

20 Q Has notice of this application been given
21 to the offsetting property owners and the surface owner as
22 required by OCD rules?

23 A Yes, it has, to all -- all leasehold in-
24 terests within a half a mile and I think to the New Mexico
25 State Land Office.

1 Q Now, are pages 6 and 7 of Exhibit Number
2 One a list of those interest owners who have received
3 notice?

4 A Yes. Exhibit 6 was the original notifi-
5 cation that was sent out and when I reviewed the application
6 that BTA had sent in, why, I found that they had left Chav-
7 eroo Operating Company off and so Exhibit 7 does include
8 Chaveroo.

9 Q And the following page?

10 A Is a receipt for where they notified
11 Chaveroo.

12 Q Mr. Ramey, have you examined the avail-
13 able geologic and engineering data on this area?

14 A Yes, I have.

15 Q As a result of this review have you dis-
16 covered any evidence of open faults or other hydrologic con-
17 nections between the disposal zone and any underground
18 source of drinking water?

19 A I have not found any -- any communication
20 between the injection zone and any drinking water.

21 Q In your opinion will granting this appli-
22 cation be in the best interest of conservation, the preven-
23 tion of waste, and the protection of correlative rights?

24 A Yes, it will.

25 Q Have you reviewed Exhibit Number One and

1 can you testify from your own knowledge as to its accuracy?

2 A Yes, I have. I have reviewed everything
3 and I have made -- made certain additions, particularly on
4 the schematics of the plugged wells.

5 Q And in your opinion is it accurate at
6 this time?

7 A Yes, it is.

8 MR. CARR: At this time, Mr.
9 Stogner, we would offer into evidence BTA Exhibit Number
10 One.

11 MR. STOGNER: BTA Exhibit Num-
12 ber One will be admitted into evidence.

13 MR. CARR: I have nothing fur-
14 ther of Mr. Ramey on direct.

15

16 CROSS EXAMINATION

17 BY MR. STOGNER:

18 Q Mr. Ramey, referring to page five, the
19 two red dots which you say are water wells, are they wind-
20 mills or pumps?

21 A One is an irrigation well. I'm not -- I
22 think the Giles Lea well is a windmill, as I understand, and
23 the other one is an irrigation well and has -- does not have
24 a windmill. It's a -- submersible pump of some kind.

25 Q Thank you, sir.

1 A It's a submersible pump of some kind.

2 I think Mr. Brunson has a pecan orchard
3 out in that area.

4 Q Thank you. Mr. Ramey, you notified that
5 fiberglass tubing was going to be set, 2-3/8ths OD --

6 A Yes. Yes.

7 Q -- fiberglass tubing. What is the com-
8 parable collapsible strength of that type of tubing at that
9 depth, at 5000 feet if there's fluid behind the -- between
10 the annulus of the casing and the tubing? Will it suffice
11 to hold up to that?

12 A Yes, it will. I questioned BTA people
13 about that and they assured me that they could load the hole
14 and, you know, have the tubing empty and it would -- it
15 would not collapse.

16 Q Do you know what the internal diameter,
17 the ID of this tubing is, by chance?

18 A No. I think it's comparable to steel
19 tubing. I think that's the -- that's the inside diameter is
20 2-3/8ths.

21 Q On page nine you show 2-3/8ths OD, is the
22 reason I asked.

23 A Does it say OD?

24 Q Yes.

25 A Well, then I do not know. Well, I think

1 it's comparable to 2-3/8ths steel tubing. I think the wall
2 thickness is essentially the same.

3 Q For the record could you give me some-
4 thing to verify that?

5 A Yes, I will.

6 Q Let's refer to page 16 and 17. 16 is the
7 Joseph O'Neal, Jr., State K Well No. 1 in Unit N -- M -- is
8 that M or N?

9 A N.

10 Q N as in never. There's a cementing plug
11 from 5000 to 4911 feet and another one between 6700 feet and
12 6611, so there was an open interval between 6611 and 5000
13 which covers this Abo zone.

14 What is the Abo, thickness of the Abo in
15 this area?

16 A Are you -- are you talking about San An-
17 dres or are you talking about the interval between --

18 Q I'm sorry, the San Andres, yes, sir.

19 A It's about 1700 feet. That is a plug --
20 the plug at 5000 is at the top of the San Andres and the
21 plug at 6700 is the -- is the base of the San Andres.

22 Q So this should be adequate to contain any
23 fluids that are within that interval?

24 A Yes, sir. It should contain the fluids
25 within the San Andres formation.

1 Q The same question is on page number 17.

2 A Yes, sir. The plug at 4969 is the -- is
3 near the top of the San Andres and the one at 65-something
4 is the base of the San Andres.

5 Q Let's go to page 18 and that's the Lone
6 Star Production Company Gulf State Well No. 1.

7 A That well is -- I should have pulled that
8 exhibit. That well is not within the area of review. It
9 figures to be some 2700 feet from the disposal well and
10 therefore should not have been listed. I crossed out that
11 information on the data sheet but I forgot to pull the --
12 pull the exhibit.

13 Q Presently, once again, how many wells
14 will be disposing into this particular well of BTA's?

15 A BTA has three Abo producing wells and at
16 present the one San Andres well. They're making right now
17 about 150 barrels of water a day. That water will be dis-
18 posed of initially.

19 There are some other wells in the Abo in
20 the area that are making water which is being trucked to a
21 disposal site and hopefully we can pick up that and dispose
22 of it for the other operators in the area.

23 Q These three Abo wells and this one San
24 Andres well, are they on the same lease?

25 A I don't think so. BTA has -- I know they

1 have one well in Section 21 and another one in Section 36,
2 and I don't know where the other one is. It's not -- not on
3 my plat, so there's --

4 Q So this is not --

5 A There's also a BTA lease in Section 30.

6 Q So this is not disposal of lease produc-
7 tion.

8 A No, not -- not entirely.

9 Q But at the same time it's not a commer-
10 cial well.

11 A That's -- it will be; hopefully it will
12 be. Hopefully we can involve other operators.

13 Q And once it becomes a state commercial
14 disposal well a business lease will need to be acquired from
15 the state.

16 A Yes, I think they'll have to get a busi-
17 ness lease to take care of their other leases in the area.
18 I think only on this lease which BTA has which is the north
19 half of 29, I think the only water they can inject without
20 getting a business lease would be from the San Andres well
21 which is on the lease. Before they can inject the Abo water
22 from offsetting leases, they'll have to get a business lease
23 and I have so advised them of this.

24 Q Okay, thank you.

25 MR. STOGNER: I have no further

1 questions of Mr. Ramey.

2 Are there any other questions
3 of this witness?

4 MR. CARR: No further ques-
5 tions.

6 MR. STOGNER: If not, he may be
7 excused.

8 Is there anything further in
9 Case Number 8942?

10 We will leave the record open
11 until such time as the tubing information is available.

12
13 (Hearing concluded.)
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C E R T I F I C A T E

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

Sally W. Boyd CSR

I do hereby certify that the foregoing is
a complete and correct transcript of the proceedings in
the Examination of Case No. 8942
heard by me on 23 July 1986.

Michael J. Boyce, Examiner
Oil Conservation Division