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Page 1

NEW MEXICO OIL CONSERVATION DIVISION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date NOVEMBER 16, 1998 Time 9:00 A.M.

NAME	REPRESENTING	LOCATION
Mike Brown	Manzano Oil	Roswell
Donnie Brown	"	"
William F. [unclear]	Temple, [unclear], [unclear] + [unclear]	Santa Fe

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:)

CASE NO. 12,003

APPLICATION OF MANZANO OIL CORPORATION)
FOR SPECIAL POOL RULES, LEA COUNTY,)
NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

RECEIVED

August 6th, 1998

SEP 11 1998

Santa Fe, New Mexico

Oil Conservation Division

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, August 6, 1998, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

I N D E X

August 6th, 1998
Examiner Hearing
CASE NO. 12,003

	PAGE
EXHIBITS	3
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>DONNIE E. BROWN</u> (Engineer)	
Direct Examination by Mr. Carr	4
Examination by Examiner Stogner	14
REPORTER'S CERTIFICATE	20

* * *

E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	6	14
Exhibit 2	8	14
Exhibit 3	9	14
Exhibit 4	10	14
Exhibit 5	10	14
Exhibit 6	11	14
Exhibit 7	11	14

* * *

A P P E A R A N C E S

FOR THE DIVISION:

RAND L. CARROLL
 Attorney at Law
 Legal Counsel to the Division
 2040 South Pacheco
 Santa Fe, New Mexico 87505

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE and SHERIDAN, P.A.
 Suite 1 - 110 N. Guadalupe
 P.O. Box 2208
 Santa Fe, New Mexico 87504-2208
 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at

2 8:30 a.m.:

3 EXAMINER STOGNER: Call Case Number 12,003.

4 MR. CARROLL: Application of Manzano Oil
5 Corporation for special pool rules, Lea County, New Mexico.

6 EXAMINER STOGNER: Call for appearances.

7 MR. CARR: May it please the Examiner, my name is
8 William F. Carr with the Santa Fe law firm Campbell, Carr,
9 Berge and Sheridan. We represent Manzano Oil Corporation
10 in this matter, and I have one witness.

11 EXAMINER STOGNER: Any other appearances?

12 Will the witness please stand to be sworn at this
13 time?

14 (Thereupon, the witness was sworn.)

15 EXAMINER STOGNER: Mr. Carr?

16 DONNIE E. BROWN,

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. CARR:

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

22 A. My name is Donnie Brown.

23 Q. And Mr. Brown, where do you reside?

24 A. Roswell, New Mexico.

25 Q. By whom are you employed?

1 A. Manzano Oil Corporation.

2 Q. And what is your current position with Manzano?

3 A. Petroleum engineer.

4 Q. Have you previously testified before the Oil
5 Conservation Division?

6 A. Yes, I have.

7 Q. And at the time of that testimony, were your
8 credentials as a petroleum engineer accepted and made a
9 matter of record?

10 A. Yes, they were.

11 Q. Are you familiar with the Application of Manzano
12 Oil Corporation in this case?

13 A. Yes.

14 Q. Are you familiar with the development of the Bone
15 Spring formation in the Featherstone-Bone Spring Pool and
16 in the surrounding area?

17 A. Yes, I am.

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

20 EXAMINER STOGNER: They are.

21 Q. (By Mr. Carr) Mr. Brown, would you briefly
22 summarize for Mr. Stogner what it is that Manzano seeks
23 with this Application?

24 A. We are requesting special pool rules and
25 regulations for the Featherstone-Bone Springs Pool, which

1 provides for 80-acre spacing and special well-location
2 requirements.

3 Q. Let's go to what has been marked for
4 identification as Manzano Exhibit Number 1. Would you
5 identify that and review it for the Examiner, please?

6 A. Yes, it's a land map of the surrounding area of
7 the -- and the location of our Manzano Appleseed Federal
8 Number 1, which has recently been completed in a Bone
9 Springs carbonate pay. It has been placed in the
10 Featherstone-Bone Springs Pool, which there are two
11 previous wells.

12 One -- The Bone Springs Pool consists of the
13 northeast quarter of Section 21, in which is located the
14 Mobil Featherstone Federal Number 1. And it also -- the
15 pool consists of the north half of Section 22, which was
16 the Watkins "A" Number 1, drilled by Mobil, placed in that
17 well.

18 Both have been plugged and abandoned at this
19 time, so basically the Manzano Appleseed is the only
20 producing well in the pool.

21 Q. There's also indicated on this exhibit the Best
22 Number 2 Well in Section 23. That was a Bone Spring well?

23 A. That's a Bone Spring well. It was placed in what
24 was called the Featherstone-Bone Springs East Pool.

25 Q. Is it also now plugged and abandoned?

1 A. Yes, it made 13,000 barrels of oil and has
2 recently been plugged and abandoned.

3 Q. And the Appleseed Federal Number 1, because it's
4 within a mile of the Featherstone-Bone Spring Pool, has
5 been designated -- indicated to be placed in the
6 undesignated Featherstone-Bone Spring Pool; is that right?

7 A. That's correct.

8 Q. And it's the only well that is producing from the
9 Bone Spring in the area?

10 A. That's right.

11 Q. When was the Featherstone-Bone Spring Pool
12 created?

13 A. It was created on August 1st, 1982, by Order
14 Number R-7030, and expanded by Order Number R-9646, April
15 1, 1992.

16 Q. And it was a result of the Mobil Featherstone
17 well drilled in Section 21; is that right?

18 A. That's right, it was created as a result of the
19 Mobil Featherstone well in Section 21, which produced 3000
20 barrels and is now plugged and abandoned.

21 Q. And what rules govern the development of the Bone
22 Spring formation in this area?

23 A. Forty-acre spacing, a daily allowable of 320
24 barrels of oil per day, 2000 GOR restriction, and the well
25 is not allowable-restricted.

1 Q. The well is actually at a standard location;
2 isn't that correct?

3 A. That's correct.

4 Q. And the rules that are being sought by Manzano
5 would honor that location and request that wells be within
6 330 feet of the outer boundary of the tract; is that right?

7 A. That's correct.

8 Q. Let's go to what has been marked as Manzano
9 Exhibit Number 2. Would you identify and review that for
10 Mr. Stogner?

11 A. Yes, Exhibit Number 2 is the Manzano Appleseed
12 Federal Number 1. It was a re-entry. It was originally
13 drilled as the Jake Hamon Northeast Lynch Unit Number 1.
14 They completed it in the Morrow.

15 We re-entered it and recompleted it in the
16 Morrow. The Morrow watered out, and we come up in May,
17 recompleted in a Bone Springs carbonate.

18 The top of the perforations is at 10,450. We
19 have approximately 22 feet of net pay with a porosity of
20 eight percent and water saturation of 35 percent.

21 Q. Could you just briefly explain why it is that
22 Manzano Oil Corporation is seeking this increase in well
23 spacing for the pool?

24 A. We're asking for an increase in spacing to
25 prevent excessive drilling and to prevent waste.

1 Q. In fact, you will present evidence that will show
2 wells in the reservoir should be spaced on a larger spacing
3 pattern than statewide 40 acres; is that right?

4 A. That's correct.

5 Q. There is limited data on the Bone Springs in this
6 area. Is there an analogy pool that you're going to be
7 testifying about?

8 A. Yes, there's the Scharb field, which is seven
9 miles due north of the Appleseed Federal Number 1, which
10 the pays correlate. And I'll show you a cross-section
11 showing their correlation. I'm going to draw an analogy to
12 this field and show that they are producing from the same
13 correlative zone and the same production characteristics.

14 Q. And this well is seven miles away or better, but
15 it is the closest well that is producing from this?

16 A. It's the closest well producing from this pay,
17 yes.

18 Q. Let's go to what has been marked Manzano Exhibit
19 Number 3. Would you just identify what that is?

20 A. This is the Scharb field that I was referring to.
21 It's a field seven miles north, the closest production to
22 our correlative zone. It basically has produced over 13
23 million barrels from 44 wells.

24 And I'm going to draw an analogy to this field,
25 to our well.

1 Q. Let's move to Exhibit 4, the cross-section.

2 Would you review that for Mr. Stogner?

3 A. Exhibit 4 is a cross-section of the Bone Springs
4 carbonate that the Manzano Appleseed is producing from.
5 The zone is correlative to the Scharb field and their
6 Scharb pay interval, and the offset closest well that's in
7 the Featherstone-Bone Spring Pool is the Featherstone
8 Federal Number 1. It correlates to the zone that is not
9 productive, the zone that they produced to 3000 barrels of
10 oil before plugging it, with some 400 foot above the Scharb
11 pay interval.

12 Q. And those perforations in that Featherstone
13 Federal Number 1 are indicated with the box in the center
14 of the log?

15 A. It's indicated with the red marks, is where
16 they're perforated.

17 Q. What is Exhibit Number 5?

18 A. As I said, the Scharb field has 44 wells that
19 produces from this Bone Springs carbonate. I just picked a
20 well at random. I didn't look at all 44 wells, I just
21 picked a well at random -- happened to be in Section 7,
22 Unit C, of 19 South, 35 East -- and plotted the production
23 history of that well from initial production until the
24 latest production of 1998 and applied a least squares
25 decline to it to see what was the best fit. It turned out

1 to be an exponential decline of 12.26 percent over the life
2 history of this particular well in the Scharb field, which
3 I believe to be probably typical of most of the wells in
4 the Scharb field pay.

5 Q. All right, then we go to Exhibit Number 6, your
6 curve on the Appleseed Federal Com Number 1.

7 A. This is the production, time-rate production, of
8 the Appleseed Number 1. It was recompleted in the Bone
9 Springs carbonate in May of 1998. We've had three months
10 of production. It's cumulated 4500 barrels of oil.

11 I applied the same decline, the 12.26-percent
12 decline, as I had established from the Scharb reservoir,
13 and that decline indicated that our remaining reserves was
14 119,000 barrels of oil. We've produced 4.5 thousand, and
15 ultimate recovery is expected to be 123,500 barrels.

16 Q. Let's go now to Exhibit Number 7, your drainage
17 area comparison, and I'd ask you to review that.

18 A. This is basically the data of the Appleseed
19 Federal Number 1. It was completed in the Bone Springs
20 carbonate from 10,448 to -466, currently producing 50
21 barrels of oil per day and 11 barrels of saltwater per day.
22 It has 33-degree gravity, bottomhole pressure of 4600,
23 bottomhole temperature of 155, a GOR of 700, formation
24 volume factor of 1.35 based on the correlation of those
25 parameters.

1 We have a net pay of 22 feet, porosity of eight
2 percent, water saturation of 35, and it's a solution gas
3 drive, very similar to the Scharb field.

4 Based on 40 -- Using those parameters and based
5 on 40 acres of drainage, we have original oil in place of
6 261,700.

7 If you accept the decline-curve recovery primary
8 of 123,000, you would expect from 40 acres of primary
9 recovery from solution gas drive 47 percent, which is
10 unreasonably high for a solution gas drive in a carbonate
11 field.

12 If you apply an 80-acre drainage, you have an
13 original oil in place of 523,000 barrels. Using that same
14 primary recovery of 123,000 from our decline curves, the
15 primary recovery would be 23 percent, which is more in line
16 with a solution gas drive in a carbonate reservoir.

17 The Bone Springs -- Scharb Bone Springs field,
18 which I'm drawing this analogy to, is on 80-acre spacing.
19 They've recovered 13.7 million barrels from 44 wells.
20 That's an average recovery of 311,000 barrels per well.
21 Their average gross pay is 50 feet.

22 When you reduce that recovery from 50 feet to our
23 22 feet, you'd expect a typical primary recovery from
24 solution gas drive of 137,000, which is in the ballpark of
25 the 123,000 from the 12.2-percent decline on the Appleseed

1 Federal Number 1.

2 Q. Mr. Brown, will approval of 80-acre spacing for
3 the Featherstone-Bone Spring Pool result in an efficient
4 well development pattern for the pool?

5 A. Yes, it will.

6 Q. And what conclusions can you reach from your
7 study of this area?

8 A. We believe that this well can drain in excess of
9 40 acres, and from our decline curve and based on the
10 closest producing field we believe 80-acre spacing is more
11 appropriate.

12 Q. What additional development plans does Manzano
13 have for this area?

14 A. We intend to verify this decline curve with
15 watching this production for a year or more, or at least
16 till it's verified, and then we hopefully have plans to
17 drill additional wells.

18 Q. In your opinion, will approval of this
19 Application be in the best interests of conservation, the
20 prevention of waste, and the protection of correlative
21 rights?

22 A. Yes, it will.

23 Q. Were Exhibits 1 through 7 prepared by you?

24 A. Yes.

25 MR. CARR: May it please the Examiner, at this

1 time we'd move the admission of Manzano Exhibits 1 through
2 7.

3 EXAMINER STOGNER: Exhibits 1 through 7 will be
4 admitted into evidence.

5 MR. CARR: And that concludes my direct of Mr.
6 Brown.

7 EXAMINATION

8 BY EXAMINER STOGNER:

9 Q. Mr. Brown, Exhibit Number 1, if you'll refer to
10 first, okay, the location of the Appleseed Federal Number 1
11 is -- what? In Section 17?

12 A. That's correct, it's in the southeast of the
13 northeast of Section 17.

14 Q. Okay. Now, if this Application is approved and
15 80-acre spacing is authorized, what would be the proration
16 unit for this well?

17 A. Standup 80.

18 Q. Standup 80.

19 A. Yeah.

20 Q. Okay. Within the northeast quarter, that would
21 take in the northeast quarter and the southeast quarter of
22 the northeast quarter, right?

23 A. That's correct.

24 Q. Okay. What kind of a lease is this well
25 presently on?

1 A. What kind of a lease?

2 Q. Yes, sir. Federal, state, fee?

3 A. It's federal, it's all federal.

4 Q. It's federal.

5 A. Uh-huh.

6 Q. Okay. Now, what's the size of that federal
7 lease?

8 A. I really don't know.

9 Q. Okay, can you tell by looking at the map?

10 A. I believe we have a lease covering that whole
11 section, but I'm not sure of that.

12 Q. Well, okay, because I -- Looking at the northeast
13 quarter, northeast quarter, that appears to be a state
14 lease.

15 A. Yes, according to here it is. I didn't look at
16 the leases. I don't know what the leases are.

17 Q. So you don't know what the lease expiration date
18 for that 40-acre lease tract --

19 A. No, I don't.

20 Q. Would the BLM authorize such a communitization
21 agreement whenever they can't form an 80-acre proration
22 unit utilizing all of one state -- one federal acreage?

23 A. I assume they would, yes.

24 Q. Have you talked to them?

25 A. No.

1 Q. Okay, it looks like there's another well back to
2 the west of there. At least it looks like it may be
3 obscured whenever the name stencil was put on there. Is
4 that a wellbore?

5 A. What section is that?

6 Q. It's in Section 17, about a quarter of a mile due
7 west of your Appleseed Federal Number 1. It looks like it
8 may be obscured on this map.

9 A. Is it due south of the --

10 Q. Oh, it looks like to me -- There appears to be
11 some sort of a well site, just a quarter of a mile due
12 west.

13 A. Hm. I don't see it.

14 MR. CARROLL: In the southwest of the northeast
15 of 17?

16 Q. (By Examiner Stogner) Well, do you know if
17 there's a wellbore in Section --

18 A. There --

19 Q. Let me restate my question. Do you know how many
20 wellbores there are in Section 17?

21 A. The only wellbore that I'm aware of is that
22 little well due south of Section 17. It was a shallow
23 Seven Rivers well.

24 Q. Okay.

25 A. And we've converted that to a saltwater disposal.

1 But I know of no other well in that section.

2 Q. What formation is the water being disposed into?

3 A. Seven Rivers.

4 Q. Seven Rivers, okay.

5 Let's see, now, the pool in which we're talking
6 about is in Sections 21 and 22. What was the history on
7 those two wellbores?

8 A. The Featherstone well was a -- I believe it was
9 drilled to the Morrow, and they recompleted in the Bone
10 Springs, in a different zone, as I showed you, on the
11 cross-sections on 300, 400 feet above the Scharb pay. It
12 produced 3000 barrels of oil, and they plugged and
13 abandoned it.

14 The Mitchell Watkins Number 1A in Section 22, it
15 was drilled as a Morrow. It was dry. They came up and
16 recompleted in a Bone Springs carbonate. It tested one
17 barrel of oil per day and 70 barrels of water, and they
18 never put it on production, so it never produced. And it's
19 been P-and-A'd.

20 Q. Do you know what the extent of that Scharb-Bone
21 Springs Pool over there in -- what is it? -- 19 South, 35
22 East, is?

23 A. The areal extent of the Scharb field?

24 Q. Yes, sir.

25 A. I think it includes in Sections 5, 6, 7 and 8, as

1 outlined in Exhibit 3. It's been expanded since this map
2 here. There's 44 wells in here, and it may have expanded
3 down to -- in Section 17 and 18.

4 Q. And that pool, is this spaced on 80 acres?

5 A. It's spaced on 80 acres, yes, sir.

6 Q. Do you have a reference of the pool?

7 MR. CARR: I can copy that and provide that.

8 Q. (By Examiner Stogner) Do you know when the Bone
9 Springs production first started in that Scharb Pool?

10 A. I think it was in the late Fifties.

11 Q. Is that pool still actually being developed on 80
12 acres, or have they done infill drilling where it's
13 developed on 40?

14 A. I can't answer that. As far as I know, it's on
15 80, but I haven't really seen a current map on that.

16 Q. I agree with you, it's spaced on 80, and that was
17 spacing, and I'm going to refer to Order Number R-2589, in
18 Case 2911, which was authorized on October 30th, 1963.

19 But I was asking, do you know if there's been any
20 infill drilling whereby there might be two wells on each --

21 A. Two wells, I don't know that.

22 Q. Okay. Now, in between the Scharb Pool and your
23 Appleseed Federal Number 1, is there any Bone Springs
24 production within that seven-mile area?

25 A. No, there's not.

1 Q. Has there been any dryhole attempts that you know
2 of?

3 A. I'm sure there's wells between there. Whether
4 they drill for Morrow and try to complete in the Bone
5 Springs, I didn't investigate every well in that seven-mile
6 area.

7 Q. In Section 17, what is Manzano's acreage
8 holdings? Do you know?

9 A. It looks like we own everything but maybe the
10 south half of the south half and the west half of the
11 northwest, so we probably own -- well, everything with the
12 exception of that.

13 EXAMINER STOGNER: Are there any other questions
14 of this witness?

15 MR. CARR: No further questions.

16 EXAMINER STOGNER: You may be excused.

17 Anything else further, Mr. Carr?

18 MR. CARR: That concludes our presentation in
19 this case.

20 EXAMINER STOGNER: If there's nothing further,
21 then this matter will be taken under advisement.

22 (Thereupon, these proceedings were concluded at
23 8:55 a.m.)

24 I do hereby certify that the foregoing is
25 a true and correct record of the proceedings in
the case of the hearing of Case No. 12003,
heard by me on 6 August 1998.

[Signature], Examiner
Oil Conservation Division

STEVEN T. BRENNER, CCR
(505) 989-9317

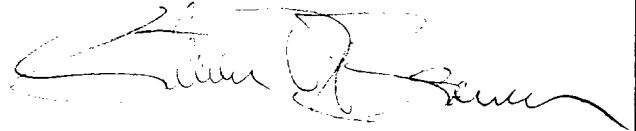
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
 COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL August 26th, 1998.



STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 1998