

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

9 November 1988

EXAMINER HEARING

IN THE MATTER OF:

Application of M. Brad Bennett, Inc. CASE
for an unorthodox gas well location, 9519
Lea County, New Mexico.

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: Robert G. Stovall
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For the Applicant: Chad Dickerson
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I N D E X

M. BRAD BENNETT

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1 MR. CATANACH: Call next
2 Case 9519.

3 MR. STOVALL: Application of
4 M. Brad Bennett, Inc., for an unorthodox gas well location,
5 Lea County, New Mexico.

6 MR. CATANACH: Are there ap-
7 pearances in this case?

8 MR. DICKERSON: Mr. Examiner,
9 I'm Chad Dickerson of Artesia, New Mexico, on behalf of the
10 applicant and I have one witness.

11 MR. CATANACH: Any other ap-
12 pearances? Will the witness please stand and be sworn in.

13
14 (Witness sworn.)

15
16 M. BRAD BENNETT,
17 being called as a witness and being duly sworn upon his
18 oath, testified as follows, to-wit:

19
20 DIRECT EXAMINATION

21 BY MR. DICKERSON:

22 Q Mr. Bennett, will you please state your
23 name, your occupation, and where you reside, and in what
24 capacity do you appear at this hearing?

25 A My name is M. Brad Bennett. I reside at

1 4904 Heather in Midland, Texas. I'm employed by M. Brad
2 Bennett, Inc.

3 Q And what is your occupation?

4 A My occupation is petroleum engineer.

5 Q Mr. Bennett, you have not previously
6 testified before this Division as an engineer, have you?

7 A No, I have not.

8 Q Will you review for Mr. Catanach your
9 educational and employment background?

10 A Yes. I graduated from LSU in 1971 with
11 a BS in petroleum engineering; went to work as a petroleum
12 engineer for Cities Service Oil Company in Hobbs, New
13 Mexico; worked there for approximately four years and since
14 have been an independent petroleum engineer since that
15 time.

16 Q And are you familiar with the available
17 geological and engineering data supporting your application
18 for an unorthodox location in Case 9519?

19 A Yes, I am.

20 MR. DICKERSON: Is Mr. Bennett
21 qualified, Mr. Catanach?

22 MR. CATANACH: He is.

23 Q Mr. Bennett, will you summarize the
24 purpose of your application in Case 9519 for us?

25 A In this case we seek approval for an un-

1 orthodox gas well location being 660 from the south line,
2 660 from the east line of Section 6, Township 16, Range 34
3 East, to test primarily the Pennsylvanian formation. The
4 dedicated acreage will be the south 303 acres of said Sec-
5 tion 6.

6 Q That is the south half of the irregular
7 section?

8 A This is a definitely irregular section
9 and it contains quite a bit more than the normal 640, so it
10 is actually the south 303 acres, the entire south 303.

11 Q Okay. Mr. Bennett, identify what we
12 have submitted as Exhibit Number One and review this map
13 for the examiner.

14 A Okay. Exhibit Number One is a land plat
15 showing the proposed location in the southeast quarter of
16 Section 6, being 660 from the south, 660 from the east.

17 The proposed acreage dedicated to this
18 well is outlined in yellow, being the south 303 acres of
19 Section 6.

20 This map also shows in the southeast
21 quarter of Section -- excuse me, the southwest quarter of
22 Section 6, is the State "E" No. 1, which was drilled by
23 Mewbourne Oil Company in 1977. It was completed in the
24 Morrow formation and recompleted in the Atoka in 1978. It
25 has produced to date approximately 500-million cubic feet

1 through October of 1986. It has recently been recompleted
2 as a marginal well in the Wolfcamp formation.

3 Q So that --

4 A Also the land map shows the offset oper-
5 ators and in the northeast quarter of Section 7 is the Mew-
6 bourne State "H" No. 1-Y, which is the only producing well
7 in the area in the Hume Morrow Field.

8 Q Mr. Bennett, directing your attention to
9 the well you referred to in the southeast quarter of Sec-
10 tion 6, so the current status of that well is currently
11 completed in the Wolfcamp formation?

12 A Southwest quarter.

13 Q Southwest quarter, I'm sorry.

14 A Yes, it is.

15 Q And the spacing, that is a Wolfcamp oil
16 well?

17 A That is correct.

18 Q 4-acre spacing?

19 A It would be 160-acre spacing.

20 Q Okay. The -- your well symbol in the
21 southeast quarter of Section 6 is your proposed unorthodox
22 well location?

23 A That is correct.

24 Q Okay. Refer to your map submitted as
25 Exhibit Number Two and review that for us, Mr. Bennett.

1 A Okay. Exhibit Number Two is a structu-
2 ral map based on 50-foot contour intervals with the struc-
3 tural point being the Atoka Channel, top of the Atoka
4 Channel. All wells colored in blue penetrated this struc-
5 tural point and showed a subsea depth in red normally below
6 the well.

7 The cross section line given in blue
8 runs from northeast to south. The map also shows the
9 highest structural point within the south 303 acres of
10 Section 6 to be in our southeast of the southeast of that
11 said dedicated acreage. This location should allow the op-
12 timum recovery of reserves and, actually, the minimum
13 amount of waste. This location also should result in our
14 being approximately 70 to 80 feet high to the State "E" No.
15 1 in the southwest quarter of 6, and approximately 20 feet
16 high to the Mewbourne State "H" No. 1-Y in the northeast
17 quarter of Section 7.

18 Q Is that well, the Mewbourne State 1-Y in
19 the northeast quarter of Section 7, Mr. Bennett, that ap-
20 pears to be an unorthodox location, as well, is it not?

21 A That well is located 660 from the north
22 line and 1040 from the east line.

23 Q And so your proposed unorthodox location
24 is also 660 feet from the south line of Section 6, so you
25 are the same distance from the lease boundary between those

1 two tracts?

2 A That is correct. We worked that out at
3 the request of offset operators.

4 Q Okay, let's talk about the offset oper-
5 ators.

6 Directing your attention again briefly
7 to Exhibit Number One, Mr. Bennett, review for us the off-
8 set interest owners to the south and east of your proposed
9 unorthodox location. Who are those parties?

10 A Okay, the offset owners to the south are
11 Mewbourne Oil Company; to the east are Texaco and also
12 Santa Fe Energy.

13 Q And Moncrief?

14 A And to the southeast is Moncrief and
15 Coastal Oil & Gas.

16 Q Okay, Mr. Bennett, refer to your map
17 that we submitted as Exhibit Number Three and describe the
18 information that you've shown on this instrument for us.

19 A Exhibit Number Three is a map of the
20 Atoka Channel isopach, showing the channel sand running
21 from northeast to southwest. A porosity cutoff of 80 per-
22 cent was used. This map here again shows the optimum loca-
23 tion, being in the extreme southeast quarter of Section 6
24 and we expect to encounter approximately 20 feet of Atoka
25 Channel sand, resulting in reserves of an additional 1.5 to

1 1.8 BCF and 35-to-45,000 barrels of condensate.

2 Q So beginning -- or reviewing this map
3 beginning with your well symbol for your proposed location,
4 as you move that location to the west in a more orthodox
5 location, you would conclude from this map that that would
6 lead you into a thinner sandstone?

7 A It should encounter less sand section.
8 In addition, you will be moving toward the gas/water con-
9 tact.

10 Q Okay, Mr. Bennett, identify our Exhibit
11 Number Four and review this for us.

12 A Exhibit Number Four is a Morrow struc-
13 ture map using 50-foot contours, also. This was included
14 primarily to show that the Morrow structure is close to a
15 mirror image of the Atoka Channel and once again the opti-
16 mum location is the extreme southeast quarter of Section 6.

17 Q Okay, now your Exhibit Number Five is
18 your north-to-south cross section, the trace of which is
19 shown on Exhibits Two and Three. Review the information
20 you've shown on the cross section, please.

21 A If you'll go to Exhibit Number Two
22 you'll see the path that the cross section follows. It
23 goes from northeast to south.

24 It starts with the Santa Fe "NH" Federal
25 No. 1, which is extremely low structurally.

1 It moves up dip to the Great Western
2 Drilling Sombrero No. 1, which is also low structurally.

3 It then takes in the Mewbourne State "E"
4 No. 1 in the southwest quarter of Section 6, which produced
5 from the Atoka Channel approximately 500-million cubic
6 feet.

7 It then goes to the Mewbourne Oil Com-
8 pany State "H" No. 1-Y, which is presently the only pro-
9 ducing well in the field.

10 It then moves to the Samedan Oil State 7
11 No. 1 in the southeast quarter of Section 7, which is right
12 on the gas/water contact (unclear).

13 Q Mr. Bennett, from your review of this
14 information, what conclusions have you drawn insofar as the
15 risk involved in drilling your well at the proposed unor-
16 thodox location as compared to a well in the -- this same
17 spacing unit with your objective at an orthodox, or stand-
18 ard location?

19 A We would expect by moving to the ortho-
20 dox location, by volumetrics, we'd probably lose about
21 300-to-500-million cubic feet, which would most likely make
22 the well uneconomical at today's present economic situa-
23 tion.

24 Q So approval of this unorthodox location
25 will in your opinion lessen the risk involved in drilling a

1 well on this spacing unit?

2 A It should lessen the risk and also maxi-
3 mize the reserve recovery.

4 Q In your opinion is your proposed unor-
5 thodox location the best location for a spacing unit to
6 test this Pennsylvanian formation that you're after in your
7 well?

8 A Yes, by all means.

9 Q Mr. Bennett, identify and briefly tell
10 us what Exhibit Number Six is.

11 A Exhibit Number Six is the affidavit of
12 mailing in the matter of the application for the unorthodox
13 location to all interested parties, being Texaco Producing,
14 Inc.; Santa Fe Energy Company in the southwest quarter of
15 Section 5; also C. B. Moncrief; W. A. Moncrief, Jr.; Mon-
16 crief Oil; and Coastal Oil & Gas Corporation in the north-
17 west quarter of Section 8; and Mewbourne Oil Company in the
18 north half of Section 7; along with receipts for certified
19 mail.

20 Q Identify Exhibit Number Seven and tell
21 us what that packet is.

22 A Exhibit Number Seven is waivers, copies
23 of waivers of objection from Coastal Oil & Gas Corporation;
24 Moncrief Oil; W. A. Moncrief, Jr. and C. B. Moncrief.

25 Q Mr. Bennett, were Exhibits One through

1 Five prepared by you or under your direction and super-
2 vision?

3 A Yes, they were.

4 Q And in your opinion will the granting of
5 this application be in the interest of conservation, the
6 prevention of waste, and the protection of correlative
7 rights?

8 A Yes, it will, and if we are allowed to
9 drill this location, and we are successful, we expect that
10 the reserves, as I stated earlier, should be in the neigh-
11 borhood of 1.5 to 1.8 BCF, along with the 35-to-40,000
12 barrels of condensate, which, in addition to being econo-
13 mical, it should also generate revenue for the State of
14 approximately \$400-to-500,000 in royalty income.

15 Q Do you intend to commence your well
16 prior to the end of the year?

17 A Yes, we desire to do that.

18 MR. DICKERSON: Mr. Catanach,
19 move admission of Exhibits One through Seven and I have no
20 further questions of Mr. Bennett.

21 MR. CATANACH: Exhibits One
22 through Seven will be admitted as evidence.

23

24

25

CROSS EXAMINATION

BY MR. CATANACH:

Q Mr. Bennett, have you heard anything from Mewbourne Oil?

A Yes. I talked to them on Monday and they stated that they had no opposition. We worked this out. The 660 from the south line was worked out because that is equivalent to their 660 from the north line, which is the common boundary line between the leases.

Q I see. When was -- do you know when the Mewbourne well was drilled?

A The Mewbourne well was drilled in 1985.

Q And it's completed in the Atoka?

A Yes. They call it the new Morrow Field on that cross section. I think we've pretty well established it's Atoka reservoir age. Our objective is the same channel which their State "H" No. 1-Y produces in.

Q As I understand it, the well in the southwest quarter of 6 was completed in the Atoka, also, or the Morrow?

A It was originally completed in the Morrow, that's correct, in 1977, and then in 1978 it was re-completed in the Atoka Channel and produced until October of 1986.

1 Q And that was operated by who?

2 A That was operated originally by Mew-
3 bourne Oil Company.

4 Q The south -- the proposed proration unit
5 has been communitized?

6 A Yes. We do own 100 percent of the
7 leasehold, too.

8 Q So is it your opinion that that well
9 that was drilled, that Mewbourne well, did not recover all
10 the reserves on that tract?

11 A No, it did not. It's approximately 50
12 to 70 feet down dip from our proposed location. Volumet-
13 rics estimate approximately 2.4 BCF under the 303 acres.
14 It recovered approximately 500-million cubic feet.

15 Q Is there any production in Section 8
16 from the --

17 A Not out of the Atoka Channel.

18 Q What do your two blue circles represent
19 in that --

20 A They represent Devonian production. Let
21 me back up. The one in the northeast quarter of Section 8
22 represents Devonian production. The one in the southeast
23 was a plugged well. The blue circle designates the -- that
24 it did penetrate the structural pick and was used in the
25 contour and isopach maps.

1 MR. CATANACH: I think that's
2 all the questions we have at this time.

3 The witness may be excused.

4 Is there anything further in
5 this case?

6 MR. DICKERSON: No, sir.

7 MR. CATANACH: If not, it will
8 be taken under advisement.

9

10 (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 that 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 record of the proceedings in
the Examiner hearing of Case No. 9519,
heard by me on November 9, 1988.

David R. Cotton, Examiner
Oil Conservation Division