

1 STATE OF NEW MEXICO
2 ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
3 OIL CONSERVATION DIVISION
4 STATE LAND OFFICE BLDG.
5 SANTA FE, NEW MEXICO

6
7 2 December 1987

8 EXAMINER HEARING

9 IN THE MATTER OF:

10 Application of H. L. Brown, Jr., for CASE
11 pool creation, special pool rules, and 9270
12 an unorthodox oil well location,
13 Roosevelt County, New Mexico.

14 BEFORE: Michael E. Stogner, Examiner

15
16 TRANSCRIPT OF HEARING

17
18 A P P E A R A N C E S

19
20 For the Division: Jeff Taylor
21 Attorney at Law
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23 For the Applicant: Ernest L. Padilla
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I N D E X

MIKE FEAGAN

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MR. STOGNER: Call next Case Number 9270.

MR. TAYLOR: The application of H. L. Brown, Jr., for pool creation, special pool rules, and an unorthodox oil well location, Roosevelt County, New Mexico.

MR. STOGNER: Call for appearances.

MR. PADILLA: Mr. Examiner, Ernest L. Padilla, Santa Fe, New Mexico, for H. L. Brown.

I have one witness to be sworn.

MR. STOGNER: Are there any other appearances in this matter?

Will the witness please stand and be sworn?

(Witness sworn.)

MIKE FEAGAN,
being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

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DIRECT EXAMINATION

BY MR. PADILLA:

Q Mr. Feagan, for the record would you please state your name and tell us where you reside?

A My name is Mike Feagan. I reside in Midland, Texas.

Q How do you spell Feagan?

A F-E-A-G-A-N.

Q Mr. Feagan, for whom do you work?

A I work for H. L. Brown, Jr., as a production engineer.

Q What is the purpose of the application today?

A H. L. Brown, Jr., is applying for pool creation and special pool rules with provision for 80-acre spacing for a Siluro-Devonian well.

Q Mr. Feagan, have you previously testified as a production engineer before the Oil Conservation Division?

A Yes.

Q And had your credentials accepted as a matter of record?

A Yes, sir, I have.

Q Are you familiar with the Devonian forma-

1 tion in the area of the application?

2 A Yes, I am.

3 Q Have you made a study and have you
4 compiled the contents of Exhibit Number One, either you
5 personally or under your supervision?

6 A I have.

7 MR. PADILLA: Mr. Examiner, we
8 tender Mr. Feagan as an expert in this case.

9 MR. STOGNER: Mr. Feagan is so
10 qualified.

11 Q Mr. Feagan, would you turn now to what we
12 have marked as Exhibit Number One, which is the black book-
13 let, and have you tell the examiner briefly what is con-
14 tained in that booklet?

15 A Yes. Basically we're showing -- you say
16 on document number one?

17 Q Well, the whole thing, what is it, brief-
18 ly?

19 A We basically put together a few things
20 here that we hope to show that we should be on 80-acre spac-
21 ing for Devonian development.

22 Q And you're also asking for an unorthodox
23 location, is that correct?

24 A That's correct.

25 Q And why are you asking for an unorthodox

1 location?

2 A We originally drilled this well as a
3 Wolfcamp test with -- with possibly completing in the
4 Devonian, not knowing whether it would be an oil or gas
5 well, and our application or drilling permit showed that we
6 were filing for 320 acres and we were -- applied for an un-
7 orthodox location for that Wolfcamp well, which has been ap-
8 proved, and -- or if we were on a 40-acre oil well drilling,
9 we had a legal location, so we need a --

10 Q Would your location be unorthodox as to
11 your proposed rules?

12 A Yes, it would.

13 Q Okay, let's go on now to what you have
14 marked as document number 1 in the booklet and tell the Exa-
15 miner what that is.

16 A That's just showing -- the red arrow on
17 the upper lefthand corner is just showing basically the area
18 that the Federal 27 Com No. 1, the discovery Siluro-Devonian
19 well --

20 Q I notice a black line there. Is that the
21 Texas/New Mexico line?

22 A Yes, it is.

23 Q And it's very close to that line.

24 A That's right.

25 Q Okay. Is that all you have concerning

1 the document number 1?

2 A Yes.

3 Q Okay, let's go to document number two and
4 tell the Examiner what that is.

5 A Document number two outlines the 320-acre
6 prration unit that we've applied for and it's outlined in
7 yellow.

8 Q Okay.

9 A And then the pink outline is the acreage
10 that H. L. Brown, Jr. has leased or is holding by produc-
11 tion.

12 MR. STOGNER: Mr. Padilla, be-
13 fore we leave this exhibit, would you kindly re-describe
14 that yellow line? I believe I heard 320-acre prration
15 unit.

16 A It's a 320-acre proposed pool boundary,
17 excuse me. I may have said prration unit. Would you like
18 the description as to where it's located?

19 MR. STOGNER: Yeah, please.

20 A Okay, the 320-acre proposed pool boundary
21 will be located as the northwest quarter of Section 27 and
22 the northeast corner of Section 28 -- quarter, I should say
23 -- and --

24 Q What's the township and range of that?

25 A The township is 7 South, Range 37 East,

1 in Roosevelt County, New Mexico.

2 Q What's document number three in your
3 booklet?

4 A Document number three is our proposed 80-
5 acre proration unit for the Federal 27 Com No. 1.

6 Q And does that --

7 A And it's the south half of the northwest
8 quarter of Section 27, again Township 7 South, Range 37
9 East.

10 Q And that shows your well location by
11 footage as that proration unit, correct?

12 A That's right.

13 Q Okay. You have a second page attached to
14 document number three. What is that?

15 A The second page attache to document num-
16 ber three is a Form C-102, which we will submit if we are
17 approved this 80-acre proration unit. We've already submit-
18 ted one C-102, but it was for a Wolfcamp well and it in-
19 cluded -- the former C-102 or the one that's presently
20 filed, included the west half of that section, the 320 acres
21 that's the west half of Section 27.

22 Q Okay. Let's go on to number four and
23 tell us what that is.

24 A Document number 4 is a letter sent to
25 Jerry Sexton proposing a new pool be created for the Federal

1 27 Com No. 1.

2 Q Explain for the Examiner the attachments
3 to that letter and what they propose to do.

4 A We filed a Form C-123, which is a
5 creation of a new pool form, and just outlines where our
6 pool is to be located and what our suggested name is, which
7 is the North Bluett Siluro-Devonian Pool.

8 Q Okay, what else --

9 A Also attached is, again, that same
10 proposed new pool boundary map.

11 Q Okay. Is that all you have concerning
12 document number four?

13 A That's correct.

14 Q Okay, let's go to document number five
15 and tell us what that is.

16 A Document number five is a structure map
17 of the top of the Devonian. We have located on this
18 structure map the Federal 27 Com No. 1, the discovery well,
19 and the -- the structure is based on the seismic of the
20 Devonian that we've obtained.

21 Q Does that structure map attempt to define
22 the limits of the pool in any way?

23 A As far as we know, it does.

24 Q Okay, and that's based on --

25 A From seismic.

1 Q From seismic.

2 A That's correct.

3 Q Okay. I notice also on that structure
4 map that you have cross hatched covering the south half of
5 the northeast quarter of Section 28. What is that?

6 A The 80 acres that are cross hatched in
7 Section 28 are where we propose to drill our next well. We
8 have yet to file an application, as far as I know, to drill
9 that well, but that's where we will drill, in that
10 particular --

11 Q Do you plan to drill that well within the
12 next year sometime or --

13 A Yes, we hope to drill, drill it in the
14 next couple of months.

15 Q Will that well be able to tell you more
16 about the reservoir characteristics?

17 A Yeah, we feel that by drilling an offset
18 to this well we'll be able to run some interference tests
19 and things of that nature that will be able to define what
20 the actual drainage radius of this reservoir is.

21 Q Okay. Let's go on to your document
22 number six and tell the Examiner what that is.

23 A Document number six the Bureau of Land
24 Management completion form that was filed, and on it is
25 contained several, several items, such as the location,

1 which is 1650 from the north line and 660 from the west line
2 of Section 27, Township 7 South, Range 37 East, in Roosevelt
3 County, New Mexico. That's the location of the Federal 27
4 Com No. 1.

5 Q Okay, what's the producing interval as
6 shown on that completion report?

7 A We're producing from 8845 to 8892 and
8 that's 47 feet of gross pay, and our net pay is 18 feet,
9 which are described by the individual perforations there.

10 Q What do you propose to be the vertical
11 limits of the pool?

12 A From the log analysis that we've got,
13 that 47 feet on this original well is -- is the limits.

14 Q You going to discuss the logs next? Is
15 that -- or --

16 A Yeah, I believe they're the next docu-
17 ment.

18 Q Okay. Is there anything else you want to
19 tell the Examiner concerning this completion report?

20 A I don't believe so.

21 Q Okay.

22 A Just general information regarding the
23 well.

24 Q Okay, the next document you have here is
25 a document 7-A, 7-B- and 7-C. Why don't you discuss the re-

1 levancy of those documents for the Examiner?

2 A Okay. Document number 7-A, B, and C, are
3 the logs for your review. They're awfully small and I apol-
4 ogize for the -- if they're difficult to read.

5 I've highlighted the perforated interval
6 for you on each log and the logs themselves are the litho-
7 density compensated neutron, the duolateral log, micro-
8 lateral log, and the Cyberlook.

9 MR. STOGNER: You want to spell
10 that?

11 A Yeah, C-Y-P-E-R-L-O-O-K.

12 Q Are these logs consistent with each other
13 as far as the vertical limits of the pool are concerned?

14 A Yes. Yes, they are.

15 Q Okay, what's document number eight?

16 A Document number eight is a bottom hole
17 pressure test that we took. It's a build-up test and it was
18 taken when the well had flowed for 964 hours. It gives the
19 data from a -- from a flowing phase to -- to a, let's see,
20 69 hour shut-in pressure.

21 Q Mr. Feagan, did you attempt to use this
22 information in calculating the drainage pattern for the
23 well?

24 A Yes, we tried a pressure transient analy-
25 sis several different methods in finding what our drainage

1 radius was, and from this particular bottom hole pressure
2 data that we've got, we were unable to conclude what our
3 drainage radius was because this bottom hole pressure has --
4 looks like it could possibly be a multi-layered reservoir or
5 possibly a fractured reservoir, and I couldn't find anything
6 that would fit a drainage radius calculation for those fig-
7 ures, possibilities.

8 Q In terms of 40-acre spacing versus 80-ac-
9 re spacing, do you have sufficient information to tell the
10 Examiner now whether you should be on 40-acre spacing or 80-
11 acre spacing?

12 A Well, not at this time, other than econo-
13 mic waste, but we propose that the drilling of the next well
14 we'll be able to -- we'll be able to run some interference
15 tests and with it being in the adjacent 80-acre spacing pro-
16 duction unit, we'll be able to find out whether the 80 acres
17 or 40 acres are actually the --

18 Q You mentioned economic waste. How would
19 economic waste result should you not be on 80-acre spacing?

20 A If -- if we were forced to drill on 40
21 acres, obviously we would have two wells where we have one
22 draining the same, same reserves, but with twice the cost.

23 Q Your -- your application is for temporary
24 rules. Would you be prepared to be back here in a year or
25 so to further -- to give the Division further evidence con-

1 cerning 80-acre spacing?

2 A Yes, and by that time we should have re-
3 sults of -- of an offset well and any test that we're able
4 to run between the two.

5 Q Tell us what documents nine and ten are
6 in this booklet.

7 A Documents nine and ten are rules for two
8 other Devonian fields, the first being the North Sawyer De-
9 vonian Pool and the second being the South Prairie Devonian
10 Pool. Both of these are 80-acre spacing rules and they are
11 the closest as far as we know Devonian production to our
12 well. They're about ten miles away.

13 Q Is there a reasonable probability that
14 you will have similar reservoir characteristics to these two
15 pools in this new pool that you're proposing?

16 A We believe that they will be similar.

17 Q And that acre -- 80-acre spacing would be
18 appropriate for that pool?

19 A That's correct.

20 Q Let's go on now to document eleven and
21 have you tell the Examiner what those are.

22 A Document number eleven is the special
23 pool rules that we recommended be established for this.

24 Q And are those pool rules similar to other
25 pool rules for 80-acre spacing for Devonian pools?

1 A Yes, they're similar to the -- to pool
2 rules, special pool rules that are -- that are in place for
3 the two pools that I mentioned previously.

4 Q Okay. Let's go on now to document twelve
5 and tell us what that is and what it contains.

6 A Document number twelve is a letter from
7 Padilla and Snyder, Attorneys at Law, to offset interest
8 owners and it's a notice of application for special pool
9 rules, and it might be noted at this time that EP Operator
10 is an offset to our pool boundary, not the 80-acre proration
11 unit that we're asking for, but to the pool boundary, and we
12 were not able to find an address, so they were the only ones
13 that were not notified of the special pool rules that we're
14 applying for.

15 Q To your knowledge did you receive any
16 negative response from any of these people listed on this
17 exhibit?

18 A No, we did not.

19 Q And you have not found -- where is EP
20 Operators' acreage, do you know?

21 A Yes, we could turn back to document num-
22 ber two and EP Operators own the quarter section in Section
23 21. It would be the southwest quarter. That offsets our
24 proposed pool boundary to the EP Operators. It's to the
25 northwest of our proposed pool boundary.

1 Q With respect to the -- looking at that
2 document number two, with respect to the unorthodox loca-
3 tion, as I see that, H. L. Brown is the offset operator all
4 the way around.

5 A That's right, we surround the acreage
6 surrounding that 80-acre proration -- or proposed 80-acre
7 proration unit, and we would offset that well in all
8 directions.

9 Q Mr. Feagan, would approval of this
10 application be in the best interest of conservation and
11 protection of correlative rights?

12 A Yes.

13 Q In your opinion?

14 A It would.

15 MR. PADILLA: Mr. Examiner, we
16 pass the witness and we offer Exhibit Number One.

17 MR. STOGNER: Exhibit Number One
18 will be admitted into evidence.

19

20 CROSS EXAMINATION

21 BY MR. STOGNER:

22 Q Mr. Feagan, you're asking for Siluro-
23 Devonian Pool. What formations are you actually covering
24 when you refer to Siluro-Devonian?

25

1 A It's my understanding from our geologist
2 that -- that Siluro-Devonian has been a name adopted by
3 geologists who -- some contend that it's Silurian and some
4 contend that it's Devonian and so they have just combined
5 the name as Siluro-Devonian.

6 It's all the same formation, as far as
7 I'm concerned.

8 Q Well, in your logs were you able to tell
9 the difference between -- now -- well, let me back up a
10 little bit.

11 When we're talking about Devonian and
12 Silurian, we're talking about the age of the system and not
13 the exact formation, then, is that correct?

14 A Uh-huh.

15 Q And when we're talking --

16 MR. PADILLA: Is that yes?

17 A Yes.

18 Q When we're talking about Silurian, is
19 that the Fusselman, covers the Fusselman formation, as we
20 know it?

21 A I don't believe so, not according to our
22 geologist. He simply says that in this area, that there are
23 two turns of thought. Some of them call it Devonian and
24 some -- some call it Silurian, and both are not identified,
25 so many people have just combined the two names and that way

1 you're covered by whichever formation you prefer to call it,
2 Silurian or Devonian.

3 Q Okay. The Silurian or the Devonian
4 and/or in this particular area, is it a limestone, a sand-
5 stone, what are you encountering?

6 A It's a limestone.

7 Q Okay. This limestone, what is the --
8 where is the top of this particular formation considered?

9 A Well, the top of the pay is, of course,
10 marked on the log, which --

11 Q I guess what I'm talking about, what --
12 what formation is preceded by this formation?

13 A I don't have -- obviously, I don't have
14 that -- the rest of the log and I don't know off the top of
15 my head. Let me look at this BLM completion form. We do
16 list --

17 Q Now what are you talking --

18 A You can see the Wolfcamp --

19 MR. PADILLA: It's document
20 six.

21 A It's document number six and it's the
22 second page, and I apologize for the difficulty in reading
23 this, but it's a very thin -- it's a very thin page. This
24 is the back of the completion form of the BLM and if you'll
25 read over in the righthand side you'll see that the Wolfcamp

1 is above the Siluro-Devonian. We don't show any other for-
2 mation listed between those two.

3 Are -- are you with me?

4 Q Yes.

5 A Okay.

6 Q The Wolfcamp, so there's really no
7 Mississippian between your Wolfcamp and your Siluro-Devonian
8 in there.

9 A We're not identifying any Mississippian.

10 Q Okay. And preceding the Siluro-Devonian
11 is your Granite Wash?

12 A That's correct.

13 Q And then you've got the PreCambrian below
14 that, is that correct?

15 A That's correct.

16 Q And these geological markers were taken
17 off your log.

18 A That is correct, and if you don't have a
19 copy of those logs, we'll be happy to send them. I know
20 your Hobbs District Office does, but we'll be happy to send
21 you the full logs.

22 Q Do you know if Mr. Kautz down in our Ar-
23 tesia -- I'm sorry, our Hobbs District Office, does he agree
24 with these tops? Have you had any discussions with him?

25 A Well, I had talked to Paul. Isn't --

1 Paul Kautz, isn't that correct?

2 Q Paul Kautz.

3 A Correct, yeah. I have talked to him on
4 several occasions regarding this particular matter. I
5 haven't discussed the particular tops but -- with him on
6 that matter, I sure haven't.

7 Q Okay. You're seeking a temporary time
8 period. Would you nail that down to a certain time period?

9 A We've mentioned a year and I feel like
10 that will give us sufficient time to drill and complete and
11 analyze any tests between two -- another well and the dis-
12 covery.

13 Q And, also, referring back to Exhibit Six,
14 or part six of your Exhibit One, you show us a perforation
15 interval roughly from 8845 to --

16 A 8892.

17 Q -- 8892, and that would correspond with
18 our Rule 505, given that depth bracket allowable for wells
19 in that particular depth. You show 222, if I remember
20 right, in your -- in your booklet.

21 A 220. Is it actually 330? Or 40 -- it's
22 -- on 40 I know it's 220, and I noticed that as we were sit-
23 ting here, so if the depth allowable is 310 I'd like to make
24 that change.

25 Q Okay.

1 A I believe the 220 is for 40 acres and not
2 the 80 acres, which we're applying for.

3 Q I'll take note of that. And you said the
4 closest Devonian pools are ten miles. Is that to the south?

5 A According to Paul Kaut, approximately ten
6 miles is the closest Devonian producing wells, and, yes,
7 it's to the south.

8 Q Okay, when I refer to Part 2 of your Ex-
9 hibit Number One, you're showing 320 acres that you'd like
10 to put into the pool, and I specifically refer back to the
11 yellow mark in your page here. The -- where is your next
12 well? Where do you plan to drill it?

13 A It will be located, let's see, I might
14 can more easily show you on document number five, which is
15 the structure map. If you'll see the cross hatched 80-acre
16 to the -- in Section 28, and due west of the proposed 80-
17 acre proration unit, do you see another 80 acres cross
18 hatched?

19 Q Well, I look -- I see a whole 320 acres
20 cross hatched.

21 A On -- on document number Five?

22 Q Oh, I'm sorry, you're referring to --
23 okay, you're referring to the south half of the northeast
24 quarter of Section 28, is that correct?

25 A Yes, sir.

1 Q Okay.

2 A And that's where we propose to drill our
3 next well.

4 Q Now, when I'm -- there again I'm refer-
5 ring back to Section -- Part Two here. There's several
6 wells, dry hole wells, and it shows some producing wells,
7 also, to the south, and particularly part -- there's two
8 wells in the south half of Section 27, they both show to be
9 producing. No, one's plugged back and the other is produc-
10 ing. What formations are those producing from?

11 A They're producing from the Wolfcamp and
12 more specifically the Bluett Wolfcamp Pool.

13 Q I'm referring to, looks like the Holly
14 Energy No. 1 Well in the southeast quarter, and it TD'ed at
15 9202. Do you if that was tested in the Devonian formation
16 or did you get any Devonian information from that particular
17 well?

18 A I did not get any information regarding
19 that. It's completed in the San Andres. I mean it was
20 attempted to be completed in the San Andres and I don't
21 believe they tested the Devonian.

22 Q Okay. Is that one of the -- is that an
23 H. L. Brown operated well?

24 A It is now. We -- we took over that
25 acreage.

1 Q Do you know if any of these wells, even
2 to the further -- further to the south have been tested in
3 the Devonian?

4 A I do not know. I know a couple of them
5 have been but I'm not sure which ones. I don't know that
6 it's the one shown on this particular map.

7 Q Okay, now you referred to the name, the
8 North Bluett. Have you spoken with Mr. Kautz, there again,
9 in our Hobbs District Office to reconfirm this name?

10 A I have told him what we propose to name
11 the pool.

12 Q Did he have any objection that you know
13 of?

14 A No, he had no comments.

15 MR. PADILLA: We don't have a
16 poem, either.

17 MR. STOGNER: Thank you, Mr.
18 Padilla. I appreciate you not having a poem for me today.

19 I have no further questions of
20 Mr. Feagan.

21 Are there any other questions
22 of this witness?

23 If not, he may be excused.

24 Mr. Padilla, do you have
25 anything further in this case?

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MR. PADILLA: Nothing further.

MR. STOGNER: Does anybody else
have anything further in Case Number 9270?

The case will be taken under
advisement.

(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 record of the proceedings in
the Examiner hearing of Case No. 9270,
heard by me on 2 December 1987.

Michael Stagner, Examiner
Oil Conservation Division