

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

APPLICATION OF MEWBOURNE)
OIL COMPANY FOR POOL) CASE NO. 10329
CREATION AND SPECIAL POOL)
RULES, EDDY COUNTY, NEW MEXICO.)
-----)

REPORTER'S TRANSCRIPT OF PROCEEDINGS
EXAMINER HEARING
BEFORE: MICHAEL E. STOGNER, Hearing Examiner
June 13, 1991
Santa Fe, New Mexico

This matter came for hearing before the Oil
Conservation Division on June 13, 1991, at the Oil
Conservation Division Conference Room, State Land office
Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico,
before Linda Bumkens, CCR, Certified Court Reporter No.
3008, for the State of New Mexico.

FOR: OIL CONSERVATION DIVISION
(COPY)

BY: LINDA BUMKENS CCR
Certified Court Reporter
CCR No. 3008

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APPEARANCES

FOR MEWBOURNE
OIL COMPANY:

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FOR THE DIVISION:

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Santa Fe, New Mexico

87504

1 MR. STOGNER: Okay. Let's go back on the
2 record. Call case number 10329.

3 MR. STOVALL: Application of Mewbourne Oil
4 Company for pool creation and special pool rules,
5 Eddy County, New Mexico.

6 MR. STOGNER: Call for appearances.

7 MR. BRUCE: Mr. Examiner, my name is Jim Bruce
8 from the Hinkle Law Firm in Albuquerque representing
9 the applicant. I have two witnesses to be sworn in
10 this case.

11 MR. STOGNER: Are there any other appearances
12 in this matter? Okay. Will the witnesses please
13 stand and be sworn?

14 (Witnesses sworn)

15 EXAMINATION

16 BY MR. BRUCE:

17 Q. Would you please state your name for the
18 record?

19 A. My name is David Shatzer. I'm a petroleum
20 geologist for Mewbourne Oil Company.

21 Q. And have you previously testified before
22 the division as an expert geologist?

23 A. Yes, I have.

24 Q. And are you familiar with the geologic
25 matters involved in this case?

1 A. Yes, I am.

2 MR. BRUCE: Mr. Examiner, I move for the
3 admission of Mr. Shatzer as an expert geologist.

4 MR. STOGNER: Mr. Shatzer's qualifications are
5 acceptable.

6 Q. (By Mr. Bruce) Mr. Shatzer, please refer
7 first to Exhibit 1 and describe its contents for the
8 examiner.

9 A. Exhibit 1 is a Strawn structure map showing
10 the half section of the west half of -- highlighting
11 the west half of section two, township 18 south 30
12 east. We initially drilled a Loco Hill State No. 1
13 that's located in the southwest southwest quarter.
14 It was drilled in an unorthodox location, and was
15 given approval by NSL 2856, and the structure map is
16 generated on the top of the strawn formation
17 approximately 120 feet above the reservoir interval
18 that we found in the Loco Hill State No. 1, and
19 contour intervals 50-foot contour interval.

20 Q. Okay. Please move on to Exhibit 2 and
21 describe its contents.

22 A. Exhibit 2 is a isopach of net strawn
23 porosity. The contour interval is 5 feet for
24 porosity greater than or equal to four percent,
25 which is typical of strawn reservoirs in this area.

1 The colored dots are the strawn producers.

2 There's two strawn producers in section 4,
3 and that are part of the Sand Tank strawn field, and
4 then there's our strawn producer, the Loco Hill
5 State No. 1 in the southwest southwest of section 2,
6 and then I've drawn a half circle for a potential
7 strawn producer or potential strawn pay behind pipe
8 in the State E No. 1 which is in the southeast of
9 the northwest of section 2.

10 Q. And will our next witness discuss that a
11 little bit further?

12 A. Yes. The contouring shows the -- sort of
13 the nature of the porosity -- pods of porosity in
14 this area and shows that there's not a lot of
15 control to the south, but with what control we have
16 we see a strawn reservoir largely found in section 2
17 west half, and that is, you know, this is where we
18 see the reservoir at this time.

19 Q. Okay. Were Exhibits 1 and 2 prepared by
20 you or under your direction?

21 A. Yes, they were.

22 Q. And in your opinion, is the of this
23 application in the interest of conservation and the
24 prevention of waste?

25 A. Yes.

1 MR. BRUCE: Mr. Examiner, I move the admission
2 of Exhibits 1 and 2.

3 MR. STOGNER: Exhibits 1 and 2 will be
4 admitted into evidence.

5 MR. BRUCE: I have no further questions of
6 this witness.

7 MR. STOGNER: You mentioned that the original
8 well was a nonstandard location. For what
9 formations?

10 A. It was originally drilled for a Morrow
11 test, and there is marginal Morrow pay behind pipe,
12 but the economic considerations involved, we're
13 producing in the strawn at this time.

14 MR. STOGNER: The well over there in section 4
15 on your Exhibit Number 2 shows to be some other
16 strawn producers, are those oil wells, gas wells,
17 and do you know what pool those are in?

18 A. They are in the Sand Tank Strawn gas field.
19 The one well shows as an oil well and their
20 characteristics, they're really more like oil wells
21 than they are gas wells, but they were placed by
22 Southland Royalty and I think one of -- one to the
23 south is operated maybe by Anron. I'm not really
24 sure who, but there's three of them. There's one off
25 the Sand too, but they're in the Sand Tank Strawn

1 field for gas. The one well is inactive. There's
2 only one of those wells is -- I don't have my --

3 MR. STOGNER: But those are in the gas Strawn
4 or Strawn gas?

5 A. Yes.

6 MR. STOGNER: And those are the nearest Strawn
7 producing wells in this vicinity?

8 A. Yes.

9 MR. STOGNER: And there's quite a few wells on
10 this map. I take it they're shallower?

11 A. They are in the Loco Hills Jackson
12 Grayburg 7. There's a lot of those shallow zones.
13 Mostly it's Yates through Grayburg-type production.

14 MR. STOGNER: And there shows to be a few
15 scattered, I assume, deeper gas producers?

16 A. Yeah. The larger circles denote those
17 wells that have penetrated at least the strawn, and
18 there's really -- none of the wells -- they all go
19 to the Morrow, so yeah, there are some deep Morrow
20 wells such as in section 34, and actually the
21 production is pretty small now, but the Hondo State
22 CE No. 1 in section 2 is a Morrow producer.

23 MR. STOGNER: And most of these are probably
24 still Morrow producers if they're not plugged and
25 abandoned?

1 A. Right. On that map that you're looking at,
2 about the only Morrow producers -- well, like I
3 said, the State CE is down to 30, down to almost
4 being uneconomic. 30, 35 mcf a day. The well in 34
5 of Anadarko's is still a Morrow producer. Those are
6 the main ones on this map. Everything else is
7 shallow production.

8 MR. STOGNER: Okay. Thank you, Mr. Shatzer.
9 I have no other questions of this witness. Any
10 other questions, Mr. Bruce?

11 MR. BRUCE: No, sir.

12 MR. STOGNER: You may be excused. Mr. Bruce.

13 MR. BRUCE: We call Mr. Pierce to the stand.

14 EXAMINATION

15 BY MR. BRUCE:

16 Q. Would you please state your name and city
17 of residence?

18 A. My name is William A. Pierce. I currently
19 reside in Tyler, Texas.

20 Q. And what is your occupation and whom are
21 you employed by?

22 A. My occupation is that of engineer, employed
23 by Mewbourne Oil Company in Tyler, Texas.

24 Q. Have you previously testified before the
25 division?

1 A. No, sir, I have not.

2 Q. Would you please outline your educational
3 and work experience for the examiner, please?

4 A. I received a bachelor or science degree
5 from Texas Tech University in 1978. Upon graduation
6 I went to work for Mobil Oil Corporation in Denver,
7 Colorado. My assignments with Mobil in Denver were
8 that of a drilling engineer and later production
9 engineer, and in 1981 I left and went to work for
10 Mewbourne Oil Company. I have been employed by
11 Mewbourne as a drilling engineer, production
12 engineer, and currently am manager of drilling and
13 production.

14 Q. And are you familiar with the engineering
15 matters related to the Loco Hill State No. 1 well?

16 A. Yes, I am.

17 Q. And does your area of responsibility
18 include southeast New Mexico?

19 A. Yes, sir it does.

20 MR. BRUCE: Mr. Examiner, I tender Mr. Pierce
21 as an expert.

22 MR. STOGNER: Mr. Pierce is so qualified.

23 Q. (By Mr. Bruce) Mr. Pierce, would you please
24 refer to Exhibit 3 and just briefly outline what it
25 is for the examiner?

1 A. Yes. Exhibit Number 3 is a production
2 history for the Loco Hill State No. 1. This well
3 was completed in February of 1991. This shows
4 monthly production up through May 1991.

5 Q. Okay. And then we move onto Exhibit 4. And
6 discuss it.

7 A. Exhibit Number 4 was the volumetric data we
8 prepared based upon bottom hole pressure we ran on
9 the well. It's also based upon the bottom hole
10 temperatures, the factors derived from the bottom
11 hole pressure data. We took that information and
12 arrived at what we consider to be the number of
13 acres that contain recovery reserves, and our
14 figures show it to be 133 acres.

15 Q. Okay. And is this formula used the
16 standard formula?

17 A. That's correct. That's the standard used
18 in the industry.

19 Q. Okay. Would you please move on to Exhibit 5
20 and discuss the well declines?

21 A. Exhibit number 5 is a decline curve. We
22 based this upon the decline of the Loco Hill
23 Number 1. Also we included the Holly 4 No. 1 which
24 is in the Sand Tank field as Mr. Shatzer has
25 previously mentioned, and the Holly 5-1, and what

1 these curves represent or show cumulative recoveries
2 from each well and what we perceive to be remaining
3 recoverable reserves, and then finally, the ultimate
4 recoverable reserves from each well.

5 Q. Okay. Looking at this, Mr. Pierce, I
6 notice that the time starts with 1983 even for the
7 Loco Hills No. 1. What is the purpose of that?

8 A. That's correct. For clarity purposes we
9 back everything up so the decline curves, you can
10 see how they all match up even though they were
11 completed at different times. For clarity's sake we
12 backed everything up to start all at the same time.

13 Q. And all the decline curves that you
14 subsequently talk about, the same thing was done; is
15 that correct?

16 A. That is correct, yes, sir.

17 Q. Okay. And what is Exhibit 6?

18 A. Exhibit 6 shows decline curves. These are
19 the hyperbolic decline curves of each well, and as
20 you'll see over here on the production curves, a
21 Holly Federal 4-1, at the present time it has a
22 decline rate in the oil production of 20 percent,
23 our Loco Hills No. 1 has a decline rate of 40
24 percent, the Holly Federal 5 No. 1 has a decline
25 curve of 14 percent. This is due to the fact that

1 the life of each one of the wells -- later on in
2 life, the decline curves tend to flatten out while
3 early in the life of the well they tend to be rather
4 sharp.

5 Q. Okay. Would you please then refer to
6 Exhibit 7 and discuss well costs for wells drilled
7 to this depth?

8 A. Yes, sir. Exhibit number 7 is an AFE
9 prepared for a Strawn development well. We prepared
10 this because the Loco Hills State No. 1 was
11 originally a Morrow test, so we developed this based
12 upon a Strawn development well in this field.

13 Q. Okay. And will these figures be used in
14 economic analyses?

15 A. Yes, sir, that is correct.

16 Q. Okay. And moving on, let's look at these in
17 groups. Would you refer to Exhibits 8 and 9, and
18 discuss the economics for wells on -- Strawn Wells
19 -- on 40-acre spacing?

20 A. Yes, sir. If you'll refer to Exhibit
21 number 8, this was based upon 40 acres, this
22 represents production curve for your oil and your
23 gas. The oil we used a hyperbolic-type curve, our
24 gas as a constant percentage decline curve, and if
25 you refer then to Exhibit number 9, it shows, based

1 upon using the figures of Exhibit number 7, plus
2 taking into the fact the monthly operating expense
3 over the life of the well, that this well will not
4 pay out. Actually we wind up losing approximately
5 \$450,000 dollars over the life of the well.

6 Q. Okay. Then referring to Exhibits 10 and 11,
7 discuss the economics on 80-acre spacing, please.

8 A. These were developed on recoverable
9 reserves from 80-acre spacing. Again, your oil
10 production hyperbolic gas is still constant
11 percentage, it shows your decline factors and
12 recovery factors in Exhibit number 10.

13 Exhibit 11, again, goes through the same
14 economics based upon the figure from Exhibit
15 Number 7 taking into account our monthly operating
16 expenses projected over the life of this well. It
17 shows 80-acre recoverable reserves with a result of
18 a net loss of \$99,000 from 80-acre spacing.

19 Q. Okay. And then describe what Exhibits 12
20 and 13 are for the examiner.

21 A. Exhibits 12 and 13 were prepared based upon
22 draining 133 acres, and, again, your two decline
23 curves for oil and gas will be the same as I
24 mentioned before. Exhibit number 13 shows that over
25 the life of this well, if we recover the

1 reserves -- we believe we can -- it will generate a
2 positive cash flow over the life of this project of
3 approximately \$434,000.

4 Q. What conclusions do you draw from your
5 exhibits?

6 A. These exhibits we think point out the fact
7 that 40 and 80-acre spacing make the prospects
8 uneconomic. However, due to limited data that we
9 have before us, 133 acres are all that we can prove
10 at the present time. However, we think as we get
11 more data and do more work in the field, we will be
12 able to show that 160-acre spacing is probably what
13 is required.

14 Q. Okay. At this time, though, you think
15 80-acre spacing is a minimum; is that correct?

16 A. Yes, sir, that is correct at this time.

17 Q. And do you ask that the 80-acre spacing
18 rules be temporary?

19 A. Yes, sir. We would like to have them
20 temporary.

21 Q. For what period?

22 A. A period of one year.

23 Q. Why is that?

24 A. Because we do plan additional work in this
25 area, and if our figures show us that 160 acres are

1 what a well can drain, we plan on asking for
2 160-acre spacing at the end of the temporary rule.

3 Q. Okay. And referring to Mr. Shatzer's
4 Exhibit 1, there's a State CE Well in the -- what
5 would that be -- the southeast quarter of the
6 northwest quarter of section 2. Is that operated by
7 Mewbourne?

8 A. Yes, sir, that is correct.

9 Q. And what are Mewbourne's plans for that
10 well?

11 A. Within the next couple of months we plan to
12 recomplete this well in the Strawn formation.

13 Q. And hopefully that will give you some
14 additional Strawn information?

15 A. That is correct.

16 Q. Okay. Has anyone contacted Mewbourne
17 regarding this application?

18 A. The only contact I had was from Yates
19 Petroleum Corporation ever Artesia, and they
20 expressed a concern for permanent 80-acre spacing,
21 which is what they would oppose us on. After
22 explaining to them our approach that ultimately we
23 feel we would wind up with 160-acre spacing, they
24 agreed with it, and agree with our decision for
25 temporary 80-acre spacing.

1 Q. Okay. And some cleanup matters. What is
2 Exhibit 14, Mr. Pierce?

3 A. Exhibit 14 is a map that has the offset
4 operators within a one-mile radius of the Loco Hills
5 State No. 1 shown.

6 Q. Does it include more than the offset
7 operators?

8 A. Yes, sir. It also includes royalty
9 interest on there.

10 Q. Plus fees and royalties; is that correct?

11 A. Yes, sir.

12 Q. And are these persons listed on Exhibit 15?

13 A. Yes, sir, that's correct. They're listed
14 on Exhibit 15.

15 Q. And what are Exhibits 16 and 17,
16 Mr. Pierce?

17 A. Exhibit 16 are the letters that were
18 prepared and mailed to each individual leasee,
19 offset operator, royalty interest owners listed in
20 Exhibit 15. Exhibit 17 is the return receipts, and
21 the only one that was not notified was a gentlemen
22 named -- or excuse me -- that we did not receive a
23 return receipt from was a gentleman named
24 Mr. Brent. However, the original receipt where we
25 did mail to him is included. That shows the

1 certified number. So we did mail it to him; however,
2 as of yesterday we had not received back the return
3 receipt, but everyone else we received return
4 receipts from.

5 Q. Okay. Now Mewbourne also requested a rule
6 allowing the wells in this pool, if you get the
7 spacing, to be within 330 feet of the boundary of
8 the quarter quarter section. What is the reason for
9 that request?

10 A. Our main reason for that is -- would be to
11 establish more flexibility in spotting future wells,
12 try to get the most favorable position upon the
13 structure.

14 Q. Okay. Were Exhibits 3 through 17 prepared
15 by you or under your direction?

16 A. Yes, sir, they were.

17 Q. And in your opinion, is the granting of
18 this application in the interest of conservation and
19 the prevention of waste and protection of
20 correlative rights?

21 A. Yes, sir, we believe it is.

22 MR. BRUCE: Mr. Examiner, I move the admission
23 of Exhibits 3 through 17.

24 MR. STOGNER: Exhibits 3 through 17 will be
25 admitted into evidence.

1 Mr. Pierce, let's get the preliminaries out
2 of the way. You're asking for 330 offset; right?

3 A. Yes, sir, that's correct.

4 Q. What good will that do if you have four of
5 them bunched up, 660 foot from each other? What
6 good would it be to have 80-acre spacing?

7 A. Well, basically --

8 MR. STOGNER: Other than to hold acreage?

9 A. Other than to hold acreage, that would be
10 the only thing -- the only advantages you would have
11 to it, but basically we do it for structural
12 purposes.

13 MR. STOGNER: Now, you said that it would give
14 you more flexibility. You want to elaborate on that
15 a little bit more? Flexibility for structure or
16 surface obstructions, or --

17 A. Well, I believe Mr. Shatzer would probably
18 be more -- he could probably give you a better
19 definition of it structural wise because he would
20 actually be in charge of any future development in
21 that area.

22 Q. Okay. Mr. Shatzer. Okay. Let me get
23 through with you first. What are you going to
24 designate this pool, what name?

25 A. I believe the contact that I had with

1 Mr. Mike Williams of the Artesia office, it would be
2 designated the Cedar Lake Strawn Pool.

3 MR. STOGNER: And you've been talking to Mike
4 Williams?

5 A. Yes, sir.

6 MR. STOGNER: Okay. I have no other questions
7 of Mr. Pierce. Do you have any questions? You may
8 be excused. Mr. Shatzer, I'm going to pull that
9 question out to you as far as the 330 offsets.

10 MR. SHATZER: You're asking why would we want
11 330 -- be able to drill 330 feet from the quarter
12 quarter section line within the 80-acre pool rules
13 that we've asked for; is that correct?

14 MR. STOGNER: Right.

15 MR. SHATZER: Okay. There's at least one and
16 possibly two other reservoirs. If we were to drill
17 a Strawn well that -- well, we know of one
18 productive reservoir already that Bone Spring is
19 also involved. We have a Bone Spring well already
20 producing in the -- just directly north of the Loco
21 Hill State No. 1, and that's the Loco Hill State
22 Number 2, and it's producing from the first Bone
23 Spring Sand, and we also have had some shows in the
24 Grayburg interval where a lot of the other
25 production is in the area, so there are two other

1 reservoirs that are under consideration in spotting
2 a well here that would go down to TD in the Strawn
3 because these are shallower zones that we pass
4 through and --

5 MR. STOGNER: Well, with the scenario, and if
6 we allow 330 and we get four wells congregated
7 within a little corner here, what good will 80-acre
8 spacing do if you have four --

9 A. I don't think it's our -- I mean -- as I
10 understand it, I don't think it's our intention to
11 drill four wells on top of each other. I think, you
12 know, right now we're going for 80-acre spacing and
13 it wouldn't be our intention to drill.

14 I think we just want the flexibility to be
15 able to drill 330 out of the corner just before the
16 Bone Spring and the Grayburg also. I don't think
17 it's our intention to drill that many wells for the
18 Strawn. I think that as Mr. Pierce pointed out,
19 it's our intention to at least go for the 80 at this
20 time, and ultimately, if production data proves that
21 we have the type of reservoir we think we do,
22 similar to the field to the south of us, that it's
23 based on 160, that we would attempt to have the
24 field based on 160, so I don't think -- it's not
25 really our intention for that. It's just to have

1 the ability of being able to drill in those
2 locations for the other reservoirs.

3 MR. STOGNER: But with 330 offsets that could
4 happen; correct?

5 A. Yes.

6 MR. STOGNER: And what would be a way to
7 alleviate that situation from occurring?

8 MR. BRUCE: If I could say something,
9 Mr. Examiner, I suppose one way to alleviate that
10 would be something that the division has used in the
11 past which would require the well to be in a
12 specific quarter quarter section.

13 A. Yeah, it staggers the locations.

14 MR. BRUCE: And I think -- well, I could ask a
15 followup question of Mr. Shatzer to get out one of
16 the other reasons.

17 MR. STOGNER: Okay, Mr. Bruce, I will hand it
18 over to you.

19 Q. (By Mr. Bruce) Mr. Shatzer, in the past
20 Mewbourne has been up here quite a bit drilling some
21 Morrow tests; has it not?

22 A. Yes, sir.

23 Q. And a lot of those have been unorthodox;
24 correct?

25 A. Yes, sir.

1 Q. And is that due to development of the
2 porosity in the Morrow and the Strawn?

3 A. Yeah. The lineal nature of Morrow sand
4 development and basically, when the orthodox legal
5 locations have already been drilled and they get an
6 edge of sand, why the secondary nature of our
7 program coming in trying to figure out where the
8 sand was leads us to, in the case of this well, the
9 Loco Hill State No. 1, to ask him for an orthodox
10 location and the need to drill it in such a
11 location.

12 Q. And a little bit more flexibility might
13 prevent you from having to come back here to seek an
14 unorthodox location, perhaps?

15 A. Right.

16 MR. STOGNER: Any other questions?

17 MR. BRUCE: No, sir.

18 MR. STOGNER: Mr. Bruce. Anything further?

19 MR. BRUCE: Nothing further in this case.

20 MR. STOGNER: Okay. Does anybody else have
21 anything further in the case 10329? If not, then
22 this case will be taken under advisement.

23 (The foregoing case was concluded at the
24 approximate hour of 2:50 p.m.)

25 I do hereby certify that the foregoing is
a complete and correct report of the proceedings in
the last case reported of Case No. 10329,
heard by me on 13 June 19 91.

Michael E. Stogner Examiner

HUNNICUTT REPORTING
LINDA BUMKENS, CCR 3008

1 STATE OF NEW MEXICO)
) ss.
2 COUNTY OF BERNALILLO)

3 REPORTER'S CERTIFICATE

4 BE IT KNOWN that the foregoing transcript of
5 the proceedings were taken by me, that I was then
6 and there a Certified Shorthand Reporter and Notary
7 Public in and for the County of Bernalillo, State
8 of New Mexico, and by virtue thereof, authorized to
9 administer an oath; that the witness before
10 testifying was duly sworn to testify to the
11 whole truth and nothing but the truth; that the
12 questions propounded by counsel and the answers of
13 the witness thereto were taken down by me, and that
14 the foregoing pages of typewritten matter contain a
15 true and accurate transcript as requested by counsel
16 of the proceedings and testimony had and adduced
17 upon the taking of said deposition, all to the best
18 of my skill and ability.

19 I FURTHER CERTIFY that I am not related to
20 nor employed by any of the parties hereto, and have
21 no interest in the outcome hereof.

22 DATED at Bernalillo, New Mexico, this day
23 July 29, 1991.

24 My commission expires
25 April 24, 1994

LINDA BUMKENS
CCR No. 3008
Notary Public