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

5 September 1984

EXAMINER HEARING

IN THE MATTER OF:

Application of Hilliard Oil Company CASE
for an unorthodox gas well location, 8335
Chaves County, New Mexico.

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division:	Charles E. Roybal Attorney at Law Energy and Minerals Dept. 525 Camino de Los Marquez Santa Fe, New Mexico 87501
For the Applicant:	W. Thomas Kellahin Attorney at Law KELLAHIN & KELLAHIN P. O. Box 2265 Santa Fe, New Mexico 87501

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I N D E X

TERRY D. CLAY

Direct Examination by Mr. Kellahin 3

E X H I B I T S

Hilliard Exhibit One, Structure Map 4

Hilliard Exhibit Two, Cross Section 6

Hilliard Exhibit Three, Engineering Data 7

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3 MR. QUINTANA: We'll call next
4 Case 8335.

5 MR. ROYBAL: Case 8335. Appli-
6 cation of Hilliard Oil Company for an unorthodox gas well
7 location, Chaves County, New Mexico.

8 MR. KELLAHIN: Mr. Kellahin,
9 I'm Tom Kellahin of Santa Fe, New Mexico, appearing on be-
10 half of the applicant and I have one witness to be sworn.

11 MR. QUINTANA: Any other ap-
12 pearances in this matter?

13 Will the witness stand and be
14 sworn in?

15 (Witness sworn.)

16 TERRY D. CLAY,
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. KELLAHIN:

22 Q Mr. Clay, would you please state your
23 name and occupation, sir?

24 A My name is Terry Clay and I'm Manager of
25 Development and Exploitation for Hilliard Oil and Gas in
Midland, Texas.

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2 Q Mr. Clay, have you previously testified
3 before the Oil Conservation Division of New Mexico?

4 A Yes, I have. I've testified in the engi-
5 neering as well as geological on a number of occasions.

6 Q Mr. Clay, as Manager of Reservoir Engi-
7 neering for your company, did you previously testify before
8 this Commission in September of 1983 for the establishment
9 of temporary special pool rules for the Cedar Point-Strawn
10 Oil Pool?

11 A Yes, I did.

12 Q All right, and have you also prepared ex-
13 hibits for presentation on behalf of your company for to-
14 day's hearing?

15 A Yes, sir, I have.

16 MR. KELLAHIN: We tender Mr.
17 Clay as an expert witness.

18 MR. QUINTANA: He's considered
19 as an expert.

20 Q Mr. Clay, let me direct your attention
21 first of all to Exhibit Number One, which is the structure
22 map included in the package of exhibits, and have you iden-
23 tify for us what is depicted within the area outlined in
24 yellow.

25 A Yes, sir. The area outlined in yellow is
the leasehold of which Hilliard and others have an interest
in. The bulk of the area surrounding the proposed unortho-
dox location is under lease by Hilliard and others.

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Q What type of pool do we have in the Cedar Point-Strawn Oil Pool?

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A We have a depletion-type reservoir. We have one well, which is the Hilliard McClellan Federal Well that's colored in lue that's completed in the Strawn; however it will be noted that there have been two other wells drilled since that time, one immediately to the north that was tight in the Strawn sand and was plugged back to the Cisco or the Bough C.

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 There was also one additional well drilled to the southwest at a standard location, the Hilliard McClellan Federal "A" 1, which was dry and the well was plugged and abandoned.

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Q What are the special pool rules on a temporary basis for the Cedar Point-Strawn Oil Pool as they are now established?

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A The pool rules as they are now established, when dedicating the west half of the southwest quarter of 26, which we plan to do, would call for a standard location or an orthodox location in the southwest of the southwest of 26.

21

22

 And as we will develop, we feel like this is a pretty high risk location and consequently are asking for an exception to this standard location.

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MR. KELLAHIN: For the Examiner's information, I'll give you a copy of the temporary rules for the Cedar Point-Strawn Oil Pool.

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Q Within the southwest quarter of Section 26, then, a standard location would be either the northeast quarter quarter or the southwest quarter quarter.

A That's correct.

Q And you propose to locate this well in the northwest quarter of the southwest quarter.

A That's correct.

Q What acreage would you dedicate to the well, Mr. Clay?

A We would dedicate the west half of the southwest quarter, a proration unit that would run north-south.

Q And would that be a dedication and orientation that is consistent with the current temporary rules?

A Yes, it would.

Q All right, sir, let's go at this point to Exhibit Number Two, which is the cross section.

A What the cross section shows on the left side, or reading from the left, is the dry hole that Hilliard drilled in December of '83, the McClellan "A" No. 1.

The Strawn sand, as you will note there on the cross section, was drill stem tested. It was tight and considered noncommercial, as well as other zones in the wellbore; therefore the well was plugged and abandoned.

Moving to the right, the second well is the discovery well for the Cedar Point-Strawn Field, and it was completed in the Strawn sand in the first part of 1983.

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2 This well, even though it's not denoted
3 on the cross section, is operated by Hilliard Oil. It's the
4 McClellan Federal No. 1 Well. The operator name was inad-
5 vertently left off the cross section.

6 Then moving to the right is the well to
7 the north of the discovery well, which is operated by
8 McClellan Oil Corp. and is designated the McClellan "A" Fe-
9 deral No. 2.

10 It was also drill stem tested in the
11 Strawn sand, as denoted on the cross section; was tight and
12 noncommercial and the well was plugged back to the Cisco or
13 what's sometimes referred to as the Bough C, and completed
14 as an oil well in the first part of '84.

15 Q What wells have been drilled since the
16 temporary rules were established for this pool?

17 A The two wells mentioned, the Hilliard
18 McClellan Federal "A" No. 1 Com, and also the McClellan Oil
19 McClellan "A" Federal No. 2 Well.

20 And both wells point out the stratigraphic
21 nature of the Strawn sand, where the one well is com-
22 pleted. We believe that based on the wells that have been
23 drilled that we are dealing with a channel-type sand deposit
24 in this Strawn interval.

25 Q I direct your attention to Exhibit Number
Three now, Mr. Clay.

I've simply marked as Exhibit Number
Three all the engineering data that you have compiled in the

1
2 binder, Mr. Clay, and if we'll start with page one of the
3 Exhibit Number Three, if you'll identify it and give us the
4 pertinent information.

5 A The Exhibit Three is really a compilation
6 of the engineering data that we have run, pressure data,
7 build-up data, and so forth, run on the discovery well.

8 The first page, it will be noted that the
9 well has produced 77,483 barrels and 113,638 Mcf of gas to
10 August 1 of '84. The well is currently flowing, flowing 150
11 barrel of oil per day and the tubing pressure of about 100
12 pounds.

13 Going to page two it will be noted that
14 we have run build-ups at three different intervals of time.
15 The first build-up which was on -- on completion on February
16 10th of '83, and the next build-up of July 5th of '83, and
17 then the most recent on June 9th of '84.

18 It will be noted that the bottom hole
19 pressure is extrapolated from a Horner build-up plot and the
20 cumulative oil production is shown.

21 What we have done with this data is taken
22 the volumetric data, as we see, from the one well and made a
23 calculation of what we consider to be the productive area
24 that this Strawn sand covers, and from the calculations this
25 productive area, as it will be noted on page two, is 197 ac-
res, and the next page, which is a graph showing a plot of
the bottom hole pressure versus the cumulative production at
each of the three different pressure points, and it will be

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2 noted that the enumerator on the previous page, 240,000 bar-
3 rels recoverable oil is obtained from this plot down to an
4 abandonment pressure of approximately 550 pounds bottom hole
5 pressure.

6 The depth of this reservoir is at 10 --
7 10,600.

8 The next page is a graph showing the most
9 recent Horner plot of the -- run in May and June of this
10 year, showing the extrapolated bottom hole pressure.

11 The next page is another Horner plot of a
12 bottom hole pressure run in July of '83, and the following
13 pages are simply verification of the pressures that were run
14 and recorded at the various times.

15 Q What is your reason for seeking the unor-
16 thodox location in the northwest 40 acres out of the south-
17 west quarter?

18 A There are a couple reasons. The two dry
19 holes, as mentioned previously, that were drilled after the
20 discovery well suggest very strongly that what we've got is
21 a channel sand type deposit of which both of those wells
22 failed to penetrate permeable sand.

23 The drilling costs in -- drilling and
24 completion costs in this area is a little over \$800,000;
25 consequently the -- the with high risk associated with high
costs, it makes a very -- a very unsound type of business
risk to drill these high cost wells and after running our
pressure data and -- and making a determination that we did

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2 in fact have the productive area, to go ahead and drill a
3 second well, we felt like that the standard location based
4 on this 197 acres is a high risk location, and we have
5 played around with the productive area, what the productive
6 area could be, and what kind of configuration it would deve-
7 lop within this 197 acres, and have concluded that the unor-
8 thodox location is the lower risk well and certainly the
9 most prudent from a business standpoint to be drilling to
develop this reservoir.

10 Q Will approval of the unorthodox location
11 preclude somewhat either royalty or working ownership, pre-
12 clude them from participating in a well that they would
13 otherwise participate in?

14 A No, it will not. The outlined acreage,
15 as I mentioned earlier, the outlined acreage in yellow, is
16 Hilliard and others, and the other predominant interest
17 owner in this area is McClellan Oil, who has a 50 percent
18 interest, he and his group have a 50 percent interest in
19 this unorthodox location, similar to what they have in other
wells. So --

20 Q What is your timing, Mr. Clay, on the
21 commencement of this well in terms of your contractual ar-
rangements for this acreage?

22 A We have taken a farm-in from Allied
23 Chemical and we have an obligation to spud the well by Octo-
24 ber 1, and we -- it is Federal acreage and will require a
25 review by the BLM and archaeological people, so October 1 is

1 really our date to spud the well.

2 Q Were Exhibits One, Two and Three prepared
3 by you or compiled under your direction and supervision?

4 A Yes, they were.

5 MR. KELLAHIN: Mr. Examiner, we
6 conclude our presentation of Mr. Clay's exhibits and move
7 the introduction of Exhibits One, Two and Three.

8 MR. QUINTANA: Exhibits One
9 through Three will be so admitted.

10 Are there any further testimony
11 or questions of the witness? If not, the witness may be
12 excused.

13 Case 8335 will be taken under
14 advisement.

15 (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 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 Examiners hearing of No. 8335, heard by me on SEPTEMBER 5 19 84.

Gilbert P. Quintana, Examiner
Oil Conservation Division