

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

5 June 1985

EXAMINER HEARING

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IN THE MATTER OF:

Application of Wayne Newkumet for
the contraction and extension of
the horizontal limits of two Permo
Pennsylvanian oil pools, Lea County,
New Mexico.

CASE
8600

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Maryann Lunderman
Attorney at Law
Energy and Minerals Dept.
Santa Fe, New Mexico 87501

For the Applicant:

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MR. QUINTANA: We'll call the next Case 8600.

MS. LUNDERMAN: Application of Wayne Newkumet for the contraction and extension of the horizontal limits of two Permo Pennsylvanian oil pools, Lea County, New Mexico.

MR. QUINTANA: This case was also prior heard by Mike Stogner.

Are there other appearances or testimony in this case?

If not, 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 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 and correct transcript of the proceedings in the Examiner hearing of Case No. 8600 heard by me on June 5 1985.
Gilbert P. Quintana, Examiner
Oil Conservation Division

STATE OF NEW MEXICO

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

22 May 1985

EXAMINER HEARING

IN THE MATTER OF:

Application of Wayne Newkumet for the contraction and extension of the horizontal limits of two Permo Pennsylvanian oil pools, Lea County, New Mexico. CASE 8600

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Jeff Taylor
Attorney at Law
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

For the Applicant: William F. Carr
Attorney at Law
CAMPBELL & BLACK P. A.
P. O. Box 2208
Santa Fe, New Mexico 87501

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I N D E X

DANIEL S. NUTTER

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MR. STOGNER: Call next Case
Number 8600.

MR. TAYLOR: The application of
Wayne Newkumet for contraction and extension of the
horizontal limits of two Permo-Pennsylvanian oil pools, Lea
County, New Mexico.

MR. CARR: May it please the
Examiner, my name is William F. Carr, with the law firm
Campbell and Black, P. A., of Santa Fe, appearing on behalf
of Mr. Newkumet.

I have one witness.

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

These being none, would the
witness please stand and be sworn?

(Witness sworn.)

DANIEL S. NUTTER,
being called as a witness and being duly sworn upon his
oath, testified as follows, to-wit:

DIRECT EXAMINATION

1
2 BY MR. CARR:

3 Q Will you state your full name and place
4 of residence?

5 A Dan Nutter, Santa Fe, New Mexico.

6 Q Mr. Nutter, by whom are you employed and
7 in what capacity?

8 A I'm a consulting petroleum engineer re-
9 tained by Wayne Newkumet in this particular case.

10 Q Mr. Nutter, have you previously testified
11 before the Division or one of its examiners and had your
12 credentials as a petroleum engineer accepted and made a mat-
13 ter of record?

14 A Yes, I have.

15 Q Are you familiar with the application
16 filed in this case on behalf of Mr. Newkumet?

17 A Yes, I am.

18 Q Are you familiar with the subject area?

19 A I am.

20 MR. CARR: Are the witness'
21 qualifications acceptable?

22 MR. STOGNER: They are.

23 Q Will you briefly state what Mr. Newkumet
24 seeks with this application?

25 A In this application Mr. Newkumet seeks

1 the contraction of the High Plains Permo-Pennsylvanian Pool,
2 which is located in Township 14 South, Range 34 East, Lea
3 County, New Mexico.

4 I beg your pardon. He seeks the con-
5 traction of the North Morton-Permo Pennsylvanian Pool, which
6 is located to Townships 14 South, Range 34 East, New Mexico,
7 and Township 14 South, Range 35 East, and Township 15 South,
8 Range 35 East, Lea County, New Mexico; the contraction by
9 the deletion of the south half of Section 25, the southeast
10 quarter of Section 26, and the north half of Section 36 of
11 Township 14 South, Range 34 East; and the concomitant ex-
12 tension of the High Plains-Permo Pennsylvanian Pool to in-
13 clude the southeast quarter of Section 26, the southwest
14 quarter of Section 25, and the northwest quarter of Section
15 36 of Township 14 South, Range 34 East.

16 Q Mr. Nutter, have you had prepared certain
17 exhibits for introduction in this case?

18 A Yes, I have.

19 Q Will you refer to Exhibit Number One,
20 which is the large exhibit on the wall, and first I'd direct
21 your attention to the production map and ask you to review
22 the information on that map for the Examiner.

23 A The production map portion of Exhibit
24 Number One shows the pool -- the wells that are in the High
25 Plains-Permo Penn Pool, being in Township 14 South, 34 East.

1 It also shows a portion of the North Mor-
2 ton-Permo Penn Pool and the Morton-Permo Penn Pool to the
3 east side of the production map.

4 On the production map I indicated by
5 color code the zones of the Pennsylvanian section that is
6 producing in each of the wells.

7 Identified are the Saunders Limestone
8 production, the A Zone production, the B Zone production,
9 and the C Zone production of the Pennsylvanian Lime.

10 There's a note on this production map
11 which is of importance. It states that in the Morton Reef
12 wells, which are the easternmost wells on the production
13 map, all four zones show massive reef production and is dif-
14 ferentiated because all four zones produce in almost all of
15 these wells over to the east.

16 Now we're going to demonstrate in a mo-
17 ment that this is a different environment from the limestone
18 production in the High Plains Pool, so it is important to
19 note that all of the zones produce in the Morton Reef,
20 whereas only selected few zones produce in most of the wells
21 in the High Plains.

22 There's one well in the High Plains on
23 this production map that shows that it produces from all
24 four zones, and that is not in the High Plains. It's to the
25 -- it's on the northwest boundary of the production map and

1 is designated as being the East Saunders Pennsylvanian Pool.

2 Q Mr. Nutter, would you now go to the
3 structure map on the top of the Saunders Limestone and re-
4 view that, please?

5 A Okay. The structure map shows the struc-
6 ture on top of the Saunders Lime. You can see that the High
7 Plains Pool is in an area where the limestone is dipping to
8 the southeast from a high point of about -- of less than -
9 6300 feet to a low down here of -6342 feet, so it's a rela-
10 tively flat pool, but there is some dip to the southeast.

11 Over to the -- farther to the east
12 there's another series of highs, a bunch of little knobs,
13 actually, that are producing in the Morton Reef and the
14 North Morton Reef, and these come up to a -6300, also, in
15 that area.

16 Q Would you now go to the cross section
17 portion of this exhibit, review that, and then relate it
18 back to the structure map?

19 A This structure map and cross section were
20 actually prepared for another purpose than this hearing be-
21 fore it was realized that this hearing would be necessary,
22 but the construction of the cross section is what created
23 the -- or created the recognition that this was -- these
24 wells are in two separate pools, and that certain of the
25 wells have been reclassified in the wrong pool, because the

1 cross section starts way over at point A on the far east --
2 far west, which is several miles from the area that we're
3 immediately concerned with today, and it runs from the west
4 side of the High Plains Penn Pool to the North Morton Pool,
5 which is A' on the far east side of the exhibit.

6 If you will note, there is a dip in be-
7 tween the fourth well and the fifth well, which is reflected
8 in all four producing zones, and this is a low that has been
9 recognized as being a very impermeable, tight zone, but for
10 the time being we'll just say that this -- this trough in
11 between Well No. 4 and Well No. 5 on the cross section re-
12 presents a tight section in which there is no production.

13 Q Okay, would you now go to your structure
14 map and identify the gray area?

15 A Okay, now the gray area on the structure
16 map of the -- which depicts the top of the Saunders Lime, is
17 that tight zone.

18 You'll see that that tight zone, if you
19 look at all of the dry holes that have been drilled in be-
20 tween the High Plains Pool and the Morton Reef wells, you'll
21 see that the -- the band of gray that we've depicted on this
22 structure map starts at about a -6375 and proceeds east from
23 that point.

24 It gets into the troughs, into the very
25 low areas, and then it starts, the gray extends -- there's

1 not a clean cutoff on the east side as there is on the west
2 side, because you'll have some dry holes that are structur-
3 ally higher.

4 I think this is a stratigraphic environ-
5 ment here that caused these -- this permeability to develop,
6 because it's not structural on the east side, particularly,
7 but we've tried to depict the outline of the dry holes and
8 colored the area that is nonproductive in gray, and you'll
9 see that the wells on the east side are separated from the
10 wells on the west side by a belt of impermeable section that
11 runs right down between those pools.

12 And that is the gray area.

13 Q Would you now refer to what has been mar-
14 ked as Newkumet Exhibit Number Two-A through Two-F and re-
15 view the information contained in this exhibit for Mr. Stog-
16 ner?

17 A Okay, this shows the history of how the
18 North Morton Pool was extended and how the High Plains Penn
19 Pool was extended to explain why these wells got into the
20 wrong pool. We think they're in the wrong pool. Whoever
21 the Examiner was that extended the -- recommended some of
22 these extensions, obviously was in error in his order.

23 Q And who was that examiner, Mr. Nutter?

24 A His name -- his initials start with an
25 "N".

1 Okay, we have Exhibit Number Two-A, which
2 shows the High Plains Pool and the North Morton Pool prior
3 to March the 1st of 1974. The boundaries of the pools and
4 the wells that were within the pools at that date are de-
5 picted.

6 Then you'll see in Section 25 there's a
7 well that's in between the two pools. Well, after that well
8 was brought in, it was a good well, and the Division geolo-
9 gist decided we have to extend a pool to take this well in
10 and the well is actually, about the same distance from the
11 nearest well in either one of the pools, but it is closer to
12 the outer boundary of the North Morton Pool.

13 So I guess the geologist decided on the
14 basis of "closeology" that the logical extension would be to
15 take it into the North Morton Pool.

16 So we turn to Exhibit Number Two-B, and
17 the color -- the area that's colored red on that exhibit
18 shows the acreage that was included in the North Morton Pool
19 in order to bring that well into that pool.

20 Now that's the status of the pools after
21 March the 1st of 1974, but prior to any other wells being
22 drilled or any further extension.

23 The next well that was drilled was in the
24 southwest quarter of Section 26 and here the High Plains
25 Pool was extended to take in that quarter section and grew

1 by 160 acres, and there's a 160-acre quarter section that's
2 separating the High Plains Pool from the North Morton Pool
3 at that time, then.

4 This extension was made on February the
5 1st of 1976.

6 The next extension was on June the 1st of
7 1976 and a well was drilled in the southeast quarter of Sec-
8 tion 26.

9 Now if you'll refer back to the previous
10 page, the boundary of the pool, the North Morton Pool, in-
11 cluded the southwest quarter of Section 25, so this well was
12 drilled approximately 660 feet from the outer boundary of
13 the North Morton Pool and "closeology" again dictated that
14 that well should be placed in the North Morton, so the North
15 Morton Pool was extended to take in the southeast quarter of
16 Section 26 and the two pools abutted now at this time. That
17 was June the 1st of 1976.

18 July the 1st of 1977 another extension
19 was made because a well had been drilled in this northwest
20 quarter of Section 36, so that quarter section was taken in
21 and now the entire north half of Section 36, as well as the
22 south half of Section 25, and the southeast quarter of Sec-
23 tion 26 is in the North Morton, and those, incidentally, are
24 the boundaries of the lands that we're seeking to have de-
25 leted from the North Morton Pool today.

1 Exhibit Number Two-F shows the most re-
2 cent extension to either pool, and that's removed from this
3 immediate area and has no bearing on the case whatsoever,
4 but at that time the northwest quarter of Section 22 of 14,
5 34, was taken into the High Plains and that was just in Jan-
6 uary of 1985.

7 So that explains how the pools just
8 developed, kind of like Topsy grew, and these wells were
9 placed in the wrong pool, apparently.

10 Q Mr. Nutter, would you now go to Exhibit
11 Number Three and review that for the Examiner?

12 A Okay. If you'll refer to the structure
13 map of the limestone of the Saunders Lime that's on the
14 cross section, you'll see that I had to use two colors of
15 ink to depict the two pools because they butted against each
16 other.

17 The red pool is the High Plains Pool; the
18 North Morton is the green outline on that map.

19 Now, on Exhibit Number Three I didn't
20 have to use two colors of pens because we've got a separa-
21 tion of the pools here. What we've attempted to do is de-
22 lete sufficient acreage from the North Morton and then sub-
23 sequently extend the High Plains to where a maximum of the
24 acreage in between the two pools is not in either pool.
25 This is the tight zone that should not be included in an oil

1 pool at this time.

2 So we've outlined the proposed extension
3 to the High Plains as being part of the High Plains. This
4 is our proposal and by this you'll see that there's -- the
5 dry holes that are included in the two pools are kept to a
6 minimum and the tight area, which is nonproductive, is also
7 kept to a minimum.

8 Q Mr. Nutter, if this application is gran-
9 ted what effect will it have on the well spacing require-
10 ments for the wells which are currently drilled and produc-
11 ing in this area?

12 A Okay, the High Plains Pennsylvanian Pool
13 is a 160-acre pool.

14 The North Morton Pool is a 40-acre pool.

15 So by taking those three wells out of the
16 North Morton and putting them in the High Plains, they would
17 become 160-acre spaced wells.

18 Q Will you now refer to what has been mar-
19 ked as Newkumet Exhibit Number Four and identify that,
20 please?

21 A Newkumet Exhibit Number Four is a letter
22 of waiver from the operator of those three wells, waiving
23 objection to our proposal here today.

24 It is signed by Joseph J. Kelly, Presi-
25 dent of Elk Oil Company.

1 Q In your opinion will granting this appli-
2 cation be in the best interest of conservation, the preven-
3 tion of waste, and the protection of correlative rights?

4 A I think it will be because, of course,
5 the Commission and the Division have always been interested
6 in being as accurate as possible in the designation and de-
7 lineation of pools, oil and gas, and here we've had a situa-
8 tion that developed by accident but we're trying to make a
9 correction to it at this time, and certainly it will be in
10 the best interest of statistics to know that the production
11 is being attributed to the proper pool.

12 It cannot cause waste for sure. I can't
13 impair correlative rights and I think that the application
14 is certainly in (not understood) interest.

15 Q Mr. Nutter, does Mr. Newkumet request
16 that this application be expedited?

17 A Yes, he would. He's got a location in
18 Section 35 in the northeast quarter. You'll see that marked
19 on all of those plats. It's the location shown in the north
20 -- in the southwest of the northeast quarter of Section 35,
21 and he would like to commence drilling this well as soon as
22 possible if the 160-acre spacing could be approved for his
23 location.

24 He also would request that any location
25 for those three wells that are being moved from the North

1 Morton Pool to the High Plains Pool, he would also request
2 that that -- those locations that do not conform to the
3 special pool rule specified locations for the High Plains
4 would be automatically approved.

5 There's actually only one. The High
6 Plains Pool rules require that wells be located, I believe
7 it's in the northeast and the southwest quarter of the sec-
8 tion, and there may be two there that would have to be ap-
9 proved, but we would request that the wells automatically be
10 included as far as -- exempted as far as their well loca-
11 tions are concerned.

12 Q Do you have anything further to add to
13 your testimony?

14 A No, I haven't.

15 Q Were Exhibits One through Three prepared
16 by you or have you reviewed them and can you testify as to
17 their accuracy?

18 A Yes, I can.

19 MR. CARR: At this time, Mr.
20 Stogner, we would offer Newkumet Exhibits One through Three
21 into evidence.

22 A One through Four.

23 MR. CARR: One through Four.

24 MR. STOGNER: Exhibits One
25 through Four will be admitted into evidence.

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CROSS EXAMINATION

BY MR. STOGNER:

Q Mr. Nutter, that Examiner's name wouldn't have happened to have been Nutter, that started with an "N", would it?

A I didn't check that far. I noticed that the Examiner's name started with an "N" and I didn't look at it that closely.

Q Who was the attorney at that time?

A Some of those extensions, maybe all of those extensions, were made when we had an attorney named -- I don't remember his name, but it started with a "C", I think.

Q Very interesting, Mr. Nutter. We appreciate that little tidbit of historical information.

Mr. Nutter, on your Exhibit One and Number Two you show this gray area.

A Yes, sir.

Q Would you please go over that again? What would you classify your gray area? What would you call it?

A It's a nonpermeable streak in the Pennsylvanian Lime. It's a stratigraphic situation that develops down dip from the area where -- down dip from the High

1 Plains area but it doesn't conform to going back up dip, ne-
2 cessarily, in the Morton Reef Area, because the tightness is
3 down below the Morton Reef, but it also extends up into some
4 high parts of the Morton Reef.

5 So it's a stratigraphic tight zone that
6 just developed as the reefs were being laid down for some
7 reason.

8 Q In Exhibit Number Two-A, and the subse-
9 quent exhibits for Number Two, you show a well in Section 29
10 that was in the North Morton, and you don't show the gray
11 area in your other exhibits, those being Exhibit Number
12 Three and Exhibit Number One.

13 Did the gray area come on around and take
14 in Exhibit -- I mean Section Number 29, or did it sweep up
15 and miss this well that's in the, more specifically, the
16 southwest quarter of the southwest quarter of Section 29?

17 A I'll have to look -- well, let me get a
18 copy of the gray map.

19 Q Section 29, by the way, is not shown on
20 either Exhibit Three or --

21 A Oh, that's -- that's over to the far
22 east. That's in the east end of the North Morton and what
23 was the question regarding that well?

24 Q Did the gray are or this tight zone, did
25 it come on over and take in that portion of Section 29 or

1 did it sweep upwards and miss this particular well in the
2 southwest southwest?

3 A I don't know. Now that was a very poor
4 well, I do know that, over in Section 29. It was a very
5 poor well and it may be a little knob inside the gray area
6 if the gray area extended farther to the east.

7 Q Do you know if that well is still produc-
8 ing?

9 A No, it's not.

10 Q It is not. Okay.

11 A Actually there's only one well, I be-
12 lieve, is still producing in the North Morton and that would
13 be Well No. 5, which is A' on the cross section, and I be-
14 lieve that well has had by far the highest cumulative pro-
15 duction of any well in the North Morton. It's had a cum of
16 -- it's had a cum of 297,000 barrels and is still producing.
17 The other wells have all been abandoned.

18 Q Except those that are in question today
19 that would be moved.

20 A That's correct. Those are still produc-
21 ing. That's another indication this may be a separate res-
22 ervoir.

23 Q So if this application were approved, the
24 only well that would be within the North Morton Pool would
25 be the Well No. 5 in Section 31.

1 A The one that's still producing? That's
2 correct. There's a salt water disposal well over there but
3 the only producing well would be that A' well.

4 Q Were you in discussion or Mr. Wayne New-
5 kumet in discussion on this matter with Paul Coutz, our
6 geologist in the Hobbs District Office?

7 A We sent a copy of the application to Mr.
8 Coutz and stated if he had any questions regarding the ap-
9 plication to give us a ring, and we have not heard from him.

10 Q And that is the only communication that
11 you've had?

12 A That is correct. We invited his com-
13 ments, however.

14 MR. STOGNER: I have no further
15 questions of this witness.

16 Are there any other questions
17 of Mr. Nutter?

18 Mr. Taylor?

19

20 CROSS EXAMINATION

21 BY MR. TAYLOR:

22 Q Mr. Nutter, you said that the wells in
23 the North Morton that you're asking to be moved to the High
24 Plains are on 40-acre spacing?

25 A They are on 40-acre spacing.

1 Q And you're going to move them to 160-acre
2 spacing?

3 A That's correct.

4 Q Is that going to affect the royalty?

5 A No, sir, because those happen to all be
6 located on large leases and it will be very easy for the
7 operator to now dedicate 160 acres.

8 Q So their income will not be reduced.

9 A It will not affect equities in any manner
10 by the rededication of acreage.

11 Q Thank you.

12 MR. STOGNER: Any other ques-
13 tions of Mr. Nutter?

14 If not, he may be excused.

15 Mr. Carr, pertaining to your
16 statement on expediting this order, beyond our control this
17 hearing in this case will have to be continued to the Exami-
18 ner's Hearing scheduled for June 5th, 1985, at which time it
19 will be taken under advisement.

20 Thank you for your understand-
21 ing, Mr. Carr.

22 Anything further in Case Number
23 8600 at this time?

24 MR. CARR: Nothing further.

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(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 Examiner hearing of Case No. 8600, heard by me on 22 May 1985.

Michael J. [Signature], Examiner
Oil Conservation Division