

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

6 21 June 1989

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 Application of Yates Petroleum Corp- CASE
10 oration for a unit agreement, Eddy 9688
11 County, New Mexico.

12 BEFORE: David R. Catanach, Examiner
13

14
15 TRANSCRIPT OF HEARING
16

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

19 For the Division: Robert G. Stovall
20 Attorney at Law
21 Legal Counsel to the Division
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24 For Yates Petroleum Corporation: David R. Vandiver
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CY COWAN

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RAY BECK

| | |
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1 MR. CATANACH: We'll go back
2 up to the top and call Case 9688.

3 MR. STOVALL: Application of
4 Yates Petroleum Corporation for a unit agreement, Eddy
5 County, New Mexico.

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

8 MR. VANDIVER: Mr. Examiner,
9 I'm David Vandiver of Artesia, New Mexico, appearing on
10 behalf of the applicant, Yates Petroleum Corporation, and
11 I have two witnesses in this case.

12 MR. CATANACH: Any other ap-
13 pearances?

14 Will the witnesses please
15 stand to be sworn in?

16

17 (Witnesses sworn.)

18

19 MR. VANDIVER: May I proceed?

20 MR. CATANACH: Please.

21

22

CY COWAN,

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

25

1 DIRECT EXAMINATION

2 BY MR. VANDIVER:

3 Q State your name, your occupation and by
4 whom you're employed, please, sir.5 A My name is Cy Cowan. I'm employed by
6 Yates Petroleum Corporation as an associate landman.7 Q Are you familiar with the title to the
8 land proposed to be committed to the Desana unit agreement?

9 A Yes, I am.

10 Q And you've made a study of the land sit-
11 uation?

12 A Yes.

13 Q Have you previously testified before the
14 New Mexico Oil Conservation Division in your capacity as a
15 landman and had your qualifications accepted and your qual-
16 ifications are a matter of record?

17 A Yes.

18 MR. VANDIVER: Mr. Examiner,
19 are the witness' qualifications acceptable?

20 MR. CATANACH: They are.

21 Q Mr. Cowan, what is the purpose of Yates
22 Petroleum Corporation's application in Case Number 9688?23 A Yates Petroleum Corporation is seeking
24 approval for the Desana Unit, an area comprising of 1280
25 acres, more or less, of State and Federal lands, and in all

1 portions of Sections 8, 17 and 18 of Township 18 South,
2 Range 24 East, in Eddy County, New Mexico.

3 Q Mr. Cowan, if you could refer to what
4 we've submitted to the Examiner as the applicant's Exhibit
5 Number One and orient the Examiner with regard to your
6 proposed unit.

7 A Exhibit Number One is a plat outlining
8 the unit location in Township 18 South, Range 24 East.

9 The unit is comprised of 87-1/2 percent
10 federal lands and 12-1/2 percent state lands.

11 The initial test well is in red and it
12 is located 1980 feet from the north line and 1980 feet from
13 the east line in Section 17, 18 South, Range 24 East.

14 This well is to be an 8500 foot Morrow
15 test with the primary objective being the Morrow well.

16 Q Now I would ask you to refer to what's
17 been submitted as Applicant's Exhibit Two and describe that
18 for the Examiner, please, sir.

19 A Exhibit Two is the unit agreement for
20 the Desana Unit that's on the standard Federal and State
21 form.

22 It outlines the unit area. It talks
23 about the unitized lands and substances, which will be all
24 oil and gas in any and all formations in the unitized lands
25 and --

1 Q What paragraph is that?

2 A I'm sorry, paragraph 3 on page 3, and be
3 all oil and gas from any and all formations of the unitized
4 lands and they will be unitized under the terms of this
5 agreement herein and will be called the unitized sub-
6 stances.

7 It describes in paragraph 4 the unit
8 operator as Yates Petroleum Corporation.

9 Q Then if I could refer you to Exhibit A
10 of the unit agreement and ask you to describe that, please,
11 sir?

12 A Yes. Exhibit A is a plat showing the
13 townships and ranges and outline of the unit; the names of
14 the operators or the leaseholders of the leases; the serial
15 numbers; expiration dates and tract numbers. It has an
16 open acreage portion which is also shown on this.

17 It also describes that 1120 acres are
18 State of New Mexico lands and 160 acres are Federal lands.

19 Q What's the status of the open Federal
20 acreage described as Tract 2?

21 A The open Federal acreage will come up on
22 the Federal lease sale this August and Yates Petroleum will
23 bid on this property. If we do not purchase it in the land
24 sale, whoever does purchase it will be invited to join us
25 in this unit.

1 Q But if Yates Petroleum Corporation is
2 successful in purchasing it, it will be committed to the
3 unit?

4 A Yes, sir.

5 Q Now if I could refer you to Exhibit B of
6 the unit agreement and ask you to describe generally what
7 information is contained in that exhibit.

8 A Exhibit B is a unit agreement for the
9 Desana Unit in Eddy County, New Mexico. It has the de-
10 scription of the land, sections, townships and ranges and
11 quarter quarters, the number of acres, serial numbers and
12 expiration dates of the leases, basic royalty owner and
13 percentage of royalty, lessees of record, overriding roy-
14 alty percentages, and the working interest owner and per-
15 centages, totals of federal acreage and it also totals the
16 state acreage in the recapitulation of this unit.

17 Q Mr. Cowan, referring again to Exhibit B,
18 what is the earliest date of a lease proposed to be commit-
19 ted to the unit which is expiring the earliest expiration
20 date?

21 A We have an expiration date of 7-1-89 and
22 we're asking the state to give us a quick approval on this
23 unit.

24 Q And you're requesting, if possible, that
25 an order be entered prior to 7-1-89 since you'll commence

1 drilling, I presume, prior to that date.

2 A Yes, sir.

3 Q Now if I could refer you to Applicant's
4 Exhibit Three and ask you to describe what that is, please,
5 sir.

6 A Okay, Exhibit Three is the proposed unit
7 operating agreement on our standard form AAPL Form 610,
8 1977, for the Desana Unit. It's -- the operating agreement
9 is dated June 1, 1989. It designated Yates Petroleum Cor-
10 poration as the operator and has a description of the con-
11 tract area in Eddy County, New Mexico.

12 Q And the contract area comprises those
13 lands proposed to be committed to the Desana unit agree-
14 ment, is that correct?

15 A Yes, sir.

16 Q If I could refer you to Exhibit A to the
17 unit operating agreement and summarize for the Examiner the
18 interests of the parties to the unit agreement and the
19 status of their joinder to the unit agreement.

20 A Okay. Amoco Production Company has 25
21 percent of the unit they have farmed out before project
22 payout and after project payout.

23 Yates Petroleum Corporation has 44.0625
24 of the unit with 61 percent of the working interest.

25 Yates Drilling Corporation has 12.1825

1 percent working interest.

2 Abo Petroleum Corporation has 10.3125
3 percent of the unit with 12.8125 percent working interest.

4 And MYCO Industries has 10.3125 percent
5 of the unit with 12.8125 percent working interest.

6 Desana Corporation has farmed out their
7 interest until after the project payout where they will
8 back in for a working interest of 11.178750.

9 Q And all of these parties have ratified
10 or agreed to ratify the unit agreement and unit operating
11 agreement?

12 A Yes, they have.

13 Q Now if I could refer you to Yates' Ex-
14 hibit Number Four and ask you to describe what that is,
15 please.

16 A Exhibit Number Four is a letter to the
17 Commissioner of Public Lands, dated June 13th, 1989, for
18 the Desana Unit, asking for primary approval of the Desana
19 Unit.

20 Q You mean preliminary approval?

21 A Excuse me, preliminary approval of the
22 Desana Unit, and also we are asking for an early review of
23 this proposed project since this expiration date of July
24 1st, 1989 for one the leases in the unit.

25 Q And has Yates had contact with the

1 Commissioner of Public Lands regarding the status of pre-
2 liminary approval of this unit agreement?

3 A Yes, we have.

4 Q And what is the status?

5 A They are still looking at it and with --
6 a few changes had to be made in the agreement for the Fed-
7 eral people, we don't see any approval that's -- any prob-
8 lem with the approval of this unit.

9 Q Now if I could refer you to Applicant's
10 Exhibit Five, which is a letter to the Bureau of Land
11 Management, and ask you to describe that, please.

12 A This is -- Exhibit Five is a letter
13 dated June 13th, 1989, to the Bureau of Land Management in
14 Roswell, asking them to allow this unit to be approved,
15 preliminary approval, and also pointing out the expiration
16 date of July 1st, 1989.

17 Q And have you had contact with the Bureau
18 of Land Management concerning the proposed unit in this --

19 A Yes, we have.

20 Q And what's the status of their review
21 and approval of the unit agreement?

22 A Their review is favorable towards us,
23 although they're waiting to decide -- or to see what the
24 State is going to do before they can give us approval of
25 this unit.

1 Q Have they indicated that they will ap-
2 prove this unit agreement?

3 A Yes, they have.

4 Q Then if I could refer you to Applicant's
5 Exhibit Six and ask you to describe what that is, please.

6 A Exhibit Number Six is a letter dated
7 June 12th, 1989, to the Commissioner of Public Lands
8 telling the Commissioner that we have plans to drill a well
9 in Section 17 of 18, 24, and we are sending our 6-year
10 rental payments for the leases and we've also enclosed a
11 check covering the rental payments.

12 Q Now if I could refer you to the Appli-
13 cant's Exhibit Seven and ask you to describe that, please.

14 A Exhibit Seven is an application for
15 permit to drill, deepen or plug back to the Oil Conserva-
16 tion Division for the Desana Unit, giving its location and
17 drilling prognosis, and this was submitted to the Oil Con-
18 servation Division on 6-15-89.

19 Q Has that application been approved, to
20 your knowledge?

21 A Yes, it has.

22 Q And -- and Exhibit Seven shows you
23 propose to drill and test the Morrow and the intermediate
24 formations, correct?

25 A Yes.

1 Q If I could refer you to Applicant's
2 Exhibit 8 and ask you to describe that, please.

3 A Exhibit Eight?

4 Q Yes, this.

5 A Okay, Exhibit Eight is an Authority for
6 Expenditure from Yates Petroleum for the Desana State Unit
7 No. 1 and gives the location and estimated TD to be 8500
8 feet and it describes the cost of this well to drill and
9 outlines the working interest parties as Yates Petroleum,
10 Yates Drilling Company, Abo Petroleum and MYCO Industries,
11 Incorporated.

12 MR. VANDIVER: Mr. Examiner, I
13 move admission of Applicant's Exhibits One through Eight.
14 And I have no further questions of this witness.

15 MR. CATANACH: Exhibits One
16 through Eight will be admitted as evidence.

17

18 CROSS EXAMINATION

19 BY MR. CATANACH:

20 Q Mr. Cowan, did you say Amoco had farmed
21 out to Yates?

22 A Yes. That --

23 Q Their acreage?

24 A -- is correct.

25 Q So what is the percentage of the unit

1 that's effectively tied up at this point?

2 A 100 percent of the unit is tied up.

3 Q Except for the open Federal tract.

4 A Exactly, yes.

5 Q As I understand it, you don't have pre-
6 liminary approval from the State Land Office as of yet, or
7 from the BLM?

8 A No, sir.

9 MR. CATANACH: That's all I
10 have.

11 MR. STOVALL: Couple of ques-
12 tions.

13

14

CROSS EXAMINATION

15 BY MR. STOVALL:

16 Q You indicated that the Feds were re-
17 quired to change the unit agreement?

18 A A couple minor changes.

19 Q Are those reflected in, what is it,
20 Exhibit Two or Three, whichever the unit agreement is?

21 A They have -- I do not know exactly what
22 they were but they were taken care of at the office and the
23 unit agreement and the unit operating agreement do reflect
24 all the changes. This is a correct copy.

25 Q And do you know if that open Federal

1 acreage is going to be put up to bid subject to the -- to
2 the unit, with any requirements by the Feds to join the
3 unit?

4 A I don't understand the question. Would
5 you --

6 Q Sometimes when a -- when unleased land
7 is within a Federal unit it will be put up for sale sub-
8 ject to the requirement that the purchaser join the unit.

9 Do you know if that will be the case for
10 this particular tract?

11 A It is my understanding that they will be
12 required to join the unit by law.

13 Q Thank you.

14 MR. STOVALL: That's all.

15 MR. CATANACH: Any other
16 questions?

17 The witness may be excused.

18 MR. VANDIVER: May I proceed?
19

20 RAY BECK,
21 being called as a witness and being duly sworn upon his
22 oath, testified as follows, to-wit:
23
24
25

1 DIRECT EXAMINATION

2 BY MR. VANDIVER:

3 Q Please state your name, occupation, and
4 by whom you're employed.5 A Ray Beck, geologist, Yates Petroleum,
6 Artesia.7 Q Mr. Beck, you've previously testified on
8 numerous occasions before the New Mexico Oil Conservation
9 Division and had your qualifications accepted and they are
10 a matter of record, are they not?

11 A Yes, that's correct.

12 Q You've made a study of the available
13 geologic data and you're familiar with the geological basis
14 for the formation of the proposed Desana unit agreement, is
15 that correct, Mr. Beck?

16 A Yes.

17 MR. VANDIVER: Mr. Examiner,
18 are the witness' qualifications acceptable?

19 MR. CATANACH: They are.

20 Q Mr. Beck, if you could refer to Yates
21 Petroleum Corporation Exhibit Number Nine and describe what
22 that is, please, sir.23 A Exhibit Number Nine is an index map
24 showing the location of the Desana State Unit. This is
25 about 14 miles southwest of Artesia. The Desana State Unit

1 is located on the Northwest Shelf of the Permian Basin
2 where gas production has been obtained from the Morrow,
3 stratigraphically higher Penn sands and Wolfcamp carbon-
4 ates.

5 To reiterate, the primary objective of
6 the test well of the Desana State Unit is the Morrow. The
7 secondary objective would include uphole Pennsylvanian
8 sandstones and Wolfcamp carbonates.

9 Q Now, Mr. Beck, if I could refer you to
10 the applicant's Exhibit Ten and ask you to describe that
11 for the Examiner, please.

12 A Exhibit Number Ten is an isopach map
13 showing the varying thickness of the total Morrow Clastics
14 as interpreted from the excellent subsurface data.

15 The contour interval is 20 feet. The
16 Morrow Clastics interval seen on the geological Exhibit
17 Number Four, is defined as that predominant siliciclastic
18 interval between the post-Mississippian unconformity below
19 and the Morrow limestone oolites above.

20 The 100 foot contour interval outlines
21 the proposed unit on the west, north and east sides of the
22 unit, colored yellow, and the south side is bounded by an
23 area of tight and limited reservoir sands.

24 The Amoco Federal "J" Well in Unit M of
25 Section 21 of 18, 24, also shown on Exhibit Four, cross

1 section, this well has 60 feet of total Morrow sand in an
2 overall Morrow Clastics interval of 160 feet; however,
3 drill stem testing of the well and testing through perfor-
4 ations, indicated limited reservoir and the well was never
5 produced into a pipeline for sales.

6 Logs showed the untested zones to be
7 tight.

8 The large area of this isopach map was
9 excerpted from a continuously updated work map and showed
10 two relationships; one, areas with 100 feet or more of
11 Morrow Clastics have a greater abundance of Morrow gas
12 well completions, which are colored red; and, two, the
13 bifurcated thick of Morrow Clastics alluvial valley fill
14 interpreted for the unit is very similar to the bifurcated
15 thick the Morrow Clastics alluvial valley fill shown in the
16 northeast quadrant of the map, which was drawn from subsur-
17 face data of drilled Morrow test wells.

18 Dashed lines are structural contours on
19 the top of the Morrow Clastics showing regional dip of
20 about 125 feet per mile to the southeast near the proposed
21 unit.

22 Trace of Exhibit Number Four, cross
23 section, is also shown on the map.

24 Q You mean Exhibit Number Twelve, do you
25 not?

1 A I mean Exhibit Number Twelve, yes.
2 Exhibit Number Twelve, the last cross section is shown on
3 this map.

4 Q Now, Mr. Beck, if you would refer to
5 what we've submitted as Applicant's Exhibit Eleven and de-
6 scribe that, please.

7 A Exhibit Number Eleven is an isolith map
8 showing the varying thickness of total clean Morrow sand.
9 Clean sand is defined as sand with less than 50 gamma ray
10 API units. The contour interval is ten feet. Morrow gas
11 well completions are colored red.

12 The Morrow Clastics subcrop, taken from
13 the previous map, is shown by dashed lines. Comparison of
14 this isolith map with the previous isopach map shows that
15 the greater abundance of Morrow sand, and thus a greater
16 chance for Morrow gas sand reservoirs, is found in the
17 areas where the overall Morrow Clastics interval is
18 thickest.

19 The 10-foot contour interval outlines
20 the unit on the west, the north and east sides, colored
21 again in yellow.

22 The south side is bounded, as in the
23 previous map, by an area of tight and limited reservoir
24 sands, as indicated by the tight and limited Morrow sands
25 found in the Amoco Federal "J" Well, discussed in the

1 previous exhibit.

2 The proposed location is interpreted to
3 have a possible potential in excess of 60-foot of total
4 Morrow sand.

5 Q Now, Mr. Beck, identify applicant's
6 Exhibit Twelve for the Examiner and briefly describe the
7 information shown in that cross section.

8 A Okay. Exhibit Number Twelve is a
9 generally west-to-east stratigraphic cross section hung on
10 the top of the Atoka formation.

11 The cross section shows the pertinent
12 correlations, especially the important correlation of
13 the unconformity at the top of the Mississippian Austin
14 Cycle and the correlation of the top of the Morrow
15 Clastics.

16 This cross section shows in vertical
17 third dimension the Morrow Clastics isopach interval.

18 Yellow coloring in the gamma ray column
19 of the logs shows how the clean sands were counted for the
20 isolith map.

21 In summary, the proposed unit outline is
22 justified as follows: On the west, north and east sides
23 by a 100 foot contour interval of total Morrow Clastics and
24 by a 10 foot contour of total clean Morrow sand.

25 On the south side of the unit it is

1 bounded by an area of tight, limited Morrow reservoir sands
2 as indicated by tight and limited Morrow sands found in
3 the Amoco well in Section 21 of 18, 24.

4 Generally, in northern Eddy County a
5 test well for the primary objective Morrow formation, which
6 encounters 100 or more feet of Morrow clastics and 10 feet
7 or more of clean reservoir sand will produce economic
8 amounts of gas, and many of these wells can be very pro-
9 fitable. Secondary objectives such as uphole Pennsyl-
10 vanian sands and Wolfcamp carbonates can add to the income
11 from these wells.

12 Q Mr. Beck, were Applicant's Exhibits
13 Nine, Ten, Eleven and Twelve prepared by you or under your
14 direction and supervision?

15 A Yes, they were.

16 Q And in your opinion will approval of
17 Yates' application in this case be in the interest of
18 conservation, the prevention of waste and the protection of
19 correlative rights?

20 A Yes, it will.

21 MR. VANDIVER: Mr. Examiner,
22 applicant would move admission of Exhibits Nine through
23 Twelve at this time and I have no further questions of this
24 witness.

25 MR. CATANACH: Exhibits Nine

1 through Twelve will be admitted as evidence.

2
3 CROSS EXAMINATION

4 BY MR. CATANACH:

5 Q Mr. Beck, in preparing your maps, what
6 type of data did you utilize? I -- I -- there's not too
7 much well control in the area. Did you use anything other
8 than well control?

9 A No, sir. The maps were constructed
10 totally from the available well control in the area.
11 There's some -- the control is better to the south and
12 southeast and to the east, but to the northwest there's
13 very little control.

14 No seismic data was used.

15 Q Did you use a cutoff porosity for -- for
16 your sand thickness?

17 A For the sand I counted the clean sand,
18 that sand which is less than 50 gamma ray API units, and
19 other indications on the log, it did indicate that it was a
20 sand, but as far as porosity, I didn't measure porosity.

21 In general, you get a -- usually 10 or
22 more feet of clean sand, you have a chance of making a well
23 and the more sand you have under the proposed location,
24 then the better chance that you do have of making a well,
25 usually.

1 MR. CATANACH: I have no
2 further questions of the witness. He may be excused.

3 Is there anything further in
4 this case?

5 MR. VANDIVER: Nothing fur-
6 ther, Mr. Examiner, except to reiterate that one of the
7 leases will be expiring in July 1st and we'd request this
8 matter be given consideration at the earliest possible
9 time.

10 MR. CATANACH: Thank you, Mr.
11 Vandiver.

12 There being nothing further in
13 this case, this case will be taken under advisement.

14
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 (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. 9608, heard by me on June 21 1988.

David R. Catant, Examiner
Oil Conservation Division

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date

JUNE 21, 1989

Time: 8:15 A.M.

| NAME | REPRESENTING | LOCATION |
|-----------------|------------------------------------|----------|
| Tracy LeCocq | R.W. Bryan | Roswell |
| W. T. Kelhunen | Kelhunen Kelhunen Anthony Santa Fe | Santa Fe |
| Frank Fleming | Murdan Oil | Midland |
| Ray Beck | Yates | Artesia |
| Cy Cowan | " | " |
| Dave Bonneau | Yates Petroleum | Artesia |
| [unclear] | BIA | Santa Fe |
| David R. Catron | Fisk, Vandiver + Catron | Artesia |
| J W CATRON | " | " |
| Sturley Fly | Yates | " |