STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 12,921

APPLICATION OF V-F PETROLEUM, INC., FOR AN UNORTHODOX GAS WELL LOCATION AND SIMULTANEOUS DEDICATION, EDDY COUNTY, NEW MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

September 5th, 2002

Santa Fe, New Mexico

This matter came on for hearing before the New:

Mexico Oil Conservation Division, DAVID R. CATANACH,

Hearing Examiner, on Thursday, September 5th, 2002, at the

New Mexico Energy, Minerals and Natural Resources

Department, 1220 South Saint Francis Drive, Room 102, Santa

Fe, New Mexico, Steven T. Brenner, Certified Court Reporter

No. 7 for the State of New Mexico.

* * *

INDEX

September 5th, 2002 Examiner Hearing CASE NO. 12,921

PAGE

APPEARANCES

3

APPLICANT'S WITNESS:

LOUIS J. MAZZULLO (Geologist)

Direct Examination by Mr. Carr 5
Examination by Examiner Catanach 15
Examination by Examiner Jones 20
Further Examination by Examiner Catanach 23

REPORTER'S CERTIFICATE

26

* * *

EXHIBITS

Exhibit 1 8	24
Exhibit 2 9	24
Exhibit 3 (does not	exist)
Exhibit 4 9	24

* * *

APPEARANCES

FOR THE DIVISION:

DAVID K. BROOKS
Attorney at Law
Energy, Minerals and Natural Resources Department
Assistant General Counsel
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

FOR THE APPLICANT:

HOLLAND & HART, L.L.P., and CAMPBELL & CARR 110 N. Guadalupe, Suite 1 P.O. Box 2208
Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

* * *

ALSO PRESENT:

WILLIAM V. JONES, JR.
Petroleum Engineer
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, NM 87505

* * *

WHEREUPON, the following proceedings were had at 1 2 8:15 a.m.: 3 4 5 6 7 8 EXAMINER CATANACH: Let's go ahead and call the hearing to order for Docket Number 26-02. 9 Let me call the continuances and dismissals 10 first. 11 12 (Off the record) EXAMINER CATANACH: At this time I'll call Case 13 14 12,921, which is the Application of V-F Petroleum, Inc., 15 for an unorthodox gas well location and simultaneous dedication, Eddy County, New Mexico. 16 17 Call for appearances. 18 MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe office of Holland and 19 20 Hart, L.L.P. We represent V-F Petroleum, Inc., in this 21 matter, and I have one witness. 22 EXAMINER CATANACH: Any additional appearances in this case? 23 24 There being none, please stand to be sworn in. 25 (Thereupon, the witness was sworn.)

1	LOUIS J. MAZZULLO,
2	the witness herein, after having been first duly sworn upon
3	his oath, was examined and testified as follows:
4	DIRECT EXAMINATION
5	BY MR. CARR:
6	Q. Would you state your name for the record, please?
7	A. My name is Louis J. Mazzullo.
8	Q. Mr. Mazzullo, where do you reside?
9	A. Albuquerque, New Mexico.
10	Q. By whom are you employed?
11	A. I'm a self-employed petroleum geological
12	consultant.
13	Q. And what is your relationship with V-F Petroleum,
14	Inc.?
15	A. I am retained by V-F Petroleum, Inc., as a
16	geological consultant.
17	Q. Have you previously testified before the New
18	Mexico Oil Conservation Division?
19	A. Yes, I have.
20	Q. At the time of that testimony, were your
21	credentials as an expert in petroleum geology accepted and
22	made a matter of record?
23	A. They were.
24	Q. Are you familiar with the Application of V-F
25	Petroleum, Inc., filed in this case?

A. Yes, I am.

- Q. Are you familiar with V-F Petroleum's proposal to simultaneously dedicate two Morrow gas wells to a quarter section in the north half of Section 31, Township 17 South, Range 31 East?
 - A. Yes, I am.
- Q. Are you familiar with the status of the ownership of the lands in the area of this Application?
 - A. Yes, I am.
- Q. Have you made a geological study of the Morrow formation in the area which is the subject of this case?
- A. I supervised and modified an interpretation, a geological interpretation of the Morrow.
- Q. Are you prepared to share the results of your work with the Examiner?
 - A. Yes, I am.
- MR. CARR: Are the witness's qualifications acceptable?
 - EXAMINER CATANACH: They are.
 - Q. (By Mr. Carr) Mr. Mazzullo, initially would you summarize for Mr. Catanach what it is that V-F Petroleum, Inc., seeks with this Application?
 - A. V-F Petroleum seeks authorization to re-enter and recomplete the Dow "B" Federal Well Number 2, which they now own, at an unorthodox well location that's 660 feet

from the north line and 2310 feet from the west line of Section 33, Township 17-31, in Eddy County, New Mexico, and they want to recomplete it in the lower Morrow sand, in the East Cedar Lake-Morrow Gas Pool.

- Q. Mr. Mazzullo, is that well at an unorthodox location?
 - A. Yes, it is.

- Q. And has that previously been approved by the Division?
 - A. It was approved by Order Number NSL-3856.
- Q. Now, that's the first well, the Dow "B" Federal Number 2?
 - A. Yes.
- Q. What is the other well that's the subject of the Application?
- A. The other subject of the Application is the authorization to simultaneously dedicate the existing 320-acre gas spacing unit, comprised of the north half of the section, to the Dow "B" Federal Well Number 2, which is to be completed in the lower Morrow sand, and the newer Denali "33" Federal Well Number 2, which produces currently from a middle Morrow sand.
- Q. And what will govern the development of this acreage in the Morrow?
 - A. I believe that would be statewide Rule 104.C,

320-acre spacing, 660-foot setbacks.

- Q. Do the Rules require that if an additional well is drilled on a 320-acre unit it shall be located in the quarter section not containing the initial well?
 - A. Yes.

- Q. And that's the provision we're seeking an exception to here today?
 - A. That's right.
- Q. Have you prepared exhibits for presentation in this case?
 - A. I have.
- Q. Let's go to what has been marked for identification as V-F Petroleum, Inc., Exhibit Number 1.

 I'd ask you to first identify this and then review the information on it.
- A. Exhibit Number 1 is a land plat of the subject area showing the north half of Section 33, 17-31, highlighted in yellow, a partial line of cross-section across the section showing a well in Section 32, the Denali Federal 1 and 2 well cluster in the middle, and the Dow "B" Federal well at the end, on the right side of that line of cross-section.
- Q. Now, before we go to the cross-section, could you identify the offset operators for Mr. Catanach?
 - A. Yes, I can. The south half unit of Section 33 is

also leased by V-F Petroleum. The lands adjacent in Section 27, the southwest quarter of Section 27, the west half of Section 34, the west half and the east half of Section 34, are federal acreage that is currently open, previously leased by Heyco.

The south half of Section 28, to the north of the subject proration unit, is currently leased by Texaco. The east half of Section 32, offsetting our acreage to the west, is currently leased by Heyco. And the south half of Section 29, to the northwest of our subject acreage, is leased by Prairie Sun.

- Q. Is V-F Exhibit Number 2 an affidavit confirming that notice of this Application has been provided to each of the offset operators identified by you?
 - A. Yes, it has.
- Q. And attached to that affidavit is a list of the parties notified and a copy of the letter, as well as certified receipts?
 - A. Yes.

Q. Let's go to what has been marked, now, as V-F Petroleum Exhibit Number 4.

Mr. Examiner, we don't have an Exhibit 3, the reason being that the structure map which was Exhibit 3 has been incorporated and is included on Exhibit Number 4, and so we have just an Exhibit Number 4.

And Mr. Mazzullo, I would ask you to first go to the structure map, which is on the right-hand side of the exhibit. Identify and review this for Mr. Catanach.

A. Okay, this is a structure map drawn using a datum in the middle Morrow called the 2L marker, which is just above the subject pay zones of this Application. And the structure map shows the line of cross-section that's included on this exhibit, on the left-hand side of this exhibit, extending from M1 to M1'. It takes in a few more wells than what we saw in the previous exhibit. It goes from west to east and then down to the south part of Section 33 to incorporate all the pay zones in Section 33.

Simply, it shows structural decline generally to the east across the subject acreage, which is the north half of Section 33 in this case.

- Q. Let's go to the cross-section, and I'd ask you to review the wells shown on this portion of the exhibit.
- A. The cross-section on the left side of this exhibit shows the two major pay sands within the middle and lower Morrow intervals that we've defined in this area.

 Notice that the 2L structure marker is indicated. That corresponds to the horizon that I've mapped on the right side on the structure map.

And below the 2L horizon there are two major pay zones designated as t-5, t-5a and -b, and t-3. t-5 is the

major producing zone in this area and is included in every well that has produced in Section 33. Some of these wells have been plugged, some of them are still currently producing.

The t-5b zone had been producing in the Dow "B"

Federal "33" Number 2, which you see is the proposed reentry well. It was originally completed in the t-3 zone
but only produced out of the t-3 zone for about three
months, I believe, or not even that, two months, before a
bridge plug was set above it and a new zone was completed
in the t-5b. So currently that zone t-3 in the Dow "B"

Federal Number 2 is shut in, for all intents and purposes,
and the t-5b zone had been producing and was subsequently
abandoned in the t-5.

If you go over to the Denali Federal "33" Number 2, which is the well that was recently drilled -- it was completed in June of this year -- it has been completed in the t-5a and probably -b zone. There's no distinguishing between the two; they're apparently connected, pressure-connected, to the t-5b.

You can see that the Denali Federal "33" Federal Number 2 has been completed in the t-5a and was initialed at 1100 MCF of gas a day, plus 36 barrels of water per day.

That zone was, by initial pressure readings, being drained by offset wells, particularly the Harvey

Yates Cedar "32" State Number 1, which is on the left side of the cross-section, and also by the Dow "B" Federal "33" Number 2, which was abandoned recently in the t-5.

- Q. So what you're proposing to do is, you're proposing to re-enter the Dow "B" "33" Federal Number 2, the central well on the cross-section, and attempt to again establish production in the t-3 interval in that well?
- A. Yes, exactly. According to my calculations, or according to the production, the two months of production, that zone, the t-3 zone, was not depleted in the Dow "B" "33" Number 2, it was merely completed in the t-5b in order to produce reserves that were being drained in other offset wells.

Now, we propose to go back down into the t-3 and recomplete in that zone. And as you can see from the cross-section, that zone is pretty much isolated from any other producing zones, both above it or laterally adjacent to it in any well, including the Dow "B" Federal "33" Number 2.

- Q. And when you do that, you'll have no well on that spacing unit producing from the t-5?
- A. On that spacing -- No, the t-5 has been abandoned on that spacing unit, the only well that was producing from it is the well that we're going to re-enter.
 - Q. And the t-5 is the well that is currently being

produced by the Heyco well that offsets this tract to the west?

A. That's correct.

- Q. And if your Application is approved, you would have one well in the t-5 in the northwest quarter of Section 33 and one well in the t-3 in that acreage?
 - A. That's correct.
 - Q. These are separate zones?
 - A. They're separate zones.
- Q. If you're not allowed to simultaneously dedicate by adding the Denali "33", that acreage would be subject to drainage by the Heyco well; isn't that correct?
 - A. Yes, it would be.
 - Q. And that is the reason for this Application?
- A. Yes, it is.
 - Q. And if this Application is granted, would V-F
 Petroleum agree that there would be no more than two Morrow
 wells drilled and producing, recompleted and capable of
 producing, in the north half of Section 33?
 - A. Only two.
 - Q. Can you summarize quickly your conclusions from your geological work?
 - A. The conclusions from the geologic work is that the t-3 zone in the Texaco -- now the V-F Dow "B" Federal "33" Number 2, the t-3 zone is currently not producing, it

is capable of production, and it is separate from any other producing zones within that wellbore or in any adjacent wellbore.

It is separate from the t-5 zone, which is currently producing in this same proration unit, and it is present in the Harvey Yates Cedar "32" State Number 2, where it has not produced yet, but by calculations it's capable of being produced.

We seek to produce reserves out of the t-3 separately from reserves that are being produced out of the t-5 zone in the Denali Federal "33" Number 2 in the same proration unit.

- Mr. Mazzullo, will approval of this Application Q. and the completion of the wells proposed be in the best interest of conservation, the prevention of waste and the protection of correlative rights?
 - Yes, it would. Α.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

- Were Exhibits 1 through 3 either prepared by you, or have you reviewed them and can you testify as to their accuracy?
- They were prepared by me, and they are accurate, as far as I know.
- And you have reviewed the land exhibits, and you Q. have checked that information as well?
 - Yes, I have. Α.

1 MR. CARR: May it please the Examiner, at this time we'd move the admission into evidence of V-F Petroleum 2 Exhibits 1 through 3. 3 EXAMINER CATANACH: Exhibits 1 through 3 will be 4 5 admitted as evidence. 6 MR. CARR: That concludes my direct examination 7 of Mr. Mazzullo. EXAMINATION 8 9 BY EXAMINER CATANACH: Mr. Mazzullo, the well in Section 32 is currently 10 being produced in the t-5? 11 Α. That's correct. 12 But it is capable, in our opinion, of being 13 0. 14 produced from the t-3? Yes, there were no tests that I could see that 15 Α. were run on that zone, but it has adequate porosity and an 16 adequate profile on its resistivity log that to me it seems 17 like it would be productive. 18 But you don't know why that hasn't been completed 19 Q. 20 in that zone yet? No, I could only speculate that the t-5 zone has 21 22 been the major producer here, and these wells are being 23 produced out of the t-5 because of competitive drainage in 24 the area.

25

Q.

Okay.

The well next to that, the Denali "33"

Federal Number 1, that was never produced in either of those intervals?

A. That well had a casing failure, it was junked ---

it had a casing failure above the pay zone after it was drilled and completed. It would have been capable of production had the casing not collapsed on it and had the wellbore not been abandoned.

The Denali Federal "33" Number 2 was drilled as a replacement.

- Q. And did you acquire that interest from EOG, or what was the --
- A. I believe that V-F acquired the interest in this, in the "33" Federal Number 1, from EOG and subsequently from Concho, which I believe bought EOG's interest.
 - Q. Okay.

- A. One fish swallowing the other.
- Q. Now, in the Denali "33" Federal Number 2, your testimony is, that well is not capable of producing from the t-3?
- A. It doesn't have any t-3 that's capable of any production, or any sand whatsoever.
- Q. Okay. Now, the well that you propose to reenter, that was, I guess, drilled in 1994?
 - A. Yes.
 - Q. And did it produce out of the t-5 for a long

time? Is that --

A. It has been producing -- As you can see from the narrative down at the bottom, it was originally completed in January of 1994 from the t-3, and then a bridge plug was set, plugged back to 11,650 in March -- that should be March of 1997, yeah, March of 1997, before it was ever depleted.

It still had a -- pretty much a flat decline in the t-3 zone before it was bridged off and recompleted in the t-5 where it had produced since March of 1997 and abandoned -- I believe abandoned earlier this year, in the t-5.

- Q. Okay, so the t-3 only produced for a short period of time in that well?
 - A. Yes, it did.
 - Q. And do you know why they did that?
- A. I believe they did that -- Once the OXY Panther Federal Number 1 was completed in December of 1996, in order to not be drained, Texaco at the time went in and recompleted the t-5 zone to capture their share of the reserves in that zone.
- Q. I see. At the time the t-3 was abandoned, do you know what rate it was producing at?
- A. I believe it was producing at about a million and a half a day, but that's totally off the top of my head. I

do recall that it had a relatively flat decline.

- Q. Now, does that t-3 -- There's very little well control, I guess, in the northeast quarter of Section 33.

 Does that t-3 zone extend on to that --
- A. There's a little bit of t-3 in the southeast quarter of Section -- of the south half of Section 28.

 It's a rather limited -- not a limited reservoir, but it's a rather small areal-extent reservoir, it's more of a lobate-type reservoir that maybe fills up 320 to 400 acres, according to the way I've mapped it, but that's my interpretation.

And then it reappears again in the east half of Section 32, as you see in the Cedar State "32" Number 1. If little bit of it fingers into the Denali Federal "33" Number 1, and then between the "33" Federal 1 and the Denali Federal "33" Number 2 it actually disappears and then reappears again in our proposed well.

- Q. Now, how about the t-5? That extends on to the northeast quarter?
- A. That has a little bit more areal extent to it.

 It's more of a mappable unit that you could actually extend down to the south and into Section 33 for quite a ways.
- Q. Okay. Do you believe that the existing well, the Denali well, is capable of draining that north half in that zone by itself?

The Denali well capable of draining the --1 Α. Q. -- t-5. 2 -- the t-5. Yes, it had gone on production 3 Α. already with some pressure depletion in it, and it's 4 currently -- I don't know what the current rate of 5 6 production is, but it's under a million a day. So you don't believe another well in the 7 Q. 8 northeast quarter would be necessary to drain the t-5? 9 No, I believe that it's pretty much drained by the Dow "B" Federal "33" Number 2 and the Denali "33" 10 Number 2. 11 12 So in the Dow "B" "33" Federal Number 2, it's your intent only to complete in the t-3 zone? 13 Yes. 14 Α. And at no point in the future you'll recomplete 15 16 uphole to the t-5? 17 Α. That zone has been depleted at this point. 18 0. Okay. So as far as the offset operators again, the east half of Section 32, you said, was operated by 19 20 Heyco? 21 Α. Yes. And the south half of Section 29, you said, was 22 Q. Prairie Sun? 23 Prairie Sun, right. 24 Α. Was it the south half of 28 is Texaco? 25 Q.

1	A. Yes.
2	Q. Okay, and south half of 33 is V-F Petroleum?
3	A is also V-F, right.
4	Q. And you said there was some open acreage, again,
5	in was it the west half of 34?
6	A. The west half west half of 34, the west half east
7	half of 34, the southeast southeast of 34 and the southwest
8	quarter of 27.
9	Q. Southwest quarter of Section 27. So as far as
10	you know, there's no production in the south half of 27?
11	A. There is no Morrow production in the south half
12	of 27 or, as far as I know, no production whatsoever in the
13	south half of 27.
14	Q. West half of 34?
15	A. The west half of 34 has one plugged Morrow
16	producer in the southeast of the southwest quarter.
17	EXAMINER CATANACH: Okay, I believe that's all
18	the questions I have.
19	Do you guys have anything else?
20	MR. JONES: I could ask a question.
21	EXAMINATION
22	BY MR. JONES:
23	Q. Mr. Mazzullo, this the Dow "B" Federal "33"
24	Number 2, you don't have a neutron log on that well; is
25	that right?

1	A. The neutron log starts at the point where it says
2	"Run 2". Do you see "Run 1, Run 2" in the depth track?
3	They drilled that well down basically to the t-5 zone,
4	Texaco did, and then they decided to deepen it. And when
5	they deepened it, for some reason they just ran a neutron
6	log.
7	Did they set a casing? I don't I think they
8	set a liner. I believe there's a liner through there.
9	Q. So it's a cased-hole neutron?
10	A. Well, from "Run 2", from that point, "Run 2" on
11	down
12	Q. Yeah.
13	A. Yeah. So that crossover that I'm showing is
14	estimated.
15	Q. Yeah.
16	A. Right.
17	Q. But obviously it had production
18	A. Yes, it had production before.
19	Q before?
20	A. It was initialed at almost 2 million a day.
21	Q. Okay. The t-5 zone has been squeezed?
22	A. The t-5 zone, yes, it's been squeezed off.
23	Q. And the Atoka is perforated right now?
24	A. Right now, no, it's not perforated anywhere, it's
25	not producing anywhere right now. It's plugged there right

at the moment, shut-in.

- Q. Okay. And so you would just drill it out and perforate and --
- A. Reperforate the t-3 -- Drill out that bridge plug, reperforate the t-3.
- Q. How do you complete it, besides just perforate it?
- A. That's going to depend upon whether or not they can do a natural completion on it or not. We prefer to do natural completions on it, but we won't know until we get there if there's any damage that needs to be cleaned up.
- Q. Okay. One more question on that Denali "33"

 Federal Number 1 and Number 2 location. It's kind of real close to --
- A. Yes.
- Q. -- each other, and yet one was drilled about a year different than the other, it looks like. And for some reason in the t-3 zone your logs act a lot differently there.
 - A. Yes.
 - Q. What's going on there?
- A. Well, these are -- as I said, these are very -the t-3 zone, at least, is a very restricted zone.
- Actually, it's composed of two separate pods of sand, one off to the west that's represented in the Harvey

1 E. Yates and the EOG Denali "33" Number 1 well, and then another pod that looks like it may be centered around the 2 Dow "B" Federal Number 2. It extends a little bit to the 3 northeast into Section 28, but it doesn't produce out of 4 that zone in Section 28, actually that dryhole in Section 5 28, and it's just a very areally restricted zone, more so 6 than the t-5. 7 So basically, you just move the -- not very many 8 Q. 9 feet away --That's right, that's the Morrow --10 Α. 11 Q. Okay. 12 Α. -- that's the Morrow. 13 So basically, this reservoir may not last very 0. 14 long? It may or may not last very long. Like I said, 15 Α. it was abandoned while it was still making a little bit 16 17 over a million MCF of gas a day with a flat decline, so we don't know. 18 19 That's all my questions, thank you. MR. JONES: I had a couple more. 20 EXAMINER CATANACH: FURTHER EXAMINATION 21 BY EXAMINER CATANACH: 22 Mr. Mazzullo, the t-3 in the Dow "33" Number 2 23 Q. doesn't extend into Section 32. It's discontinuous; is 24 25 that correct?

It doesn't extend across the Denali Federal Α. 1 Number 2 location. Yeah, it's discontinuous. There's a 2 3 gap in there. If you were to map this out, you'd have a pod 4 centered around the Dow federal well, and then another pod 5 off to the west. Actually, it extends into the west half 6 7 of 32 more than anywhere. So the recompletion is not necessarily in order 8 Q. 9 to protect your correlative rights from drainage --It's in order --10 Α. 0. -- it's in order to recover the reserves. 11 12 Α. -- to recover reserves. 13 Q. Because the Harvey E. Yates well probably won't 14 drain anything from you guys? Α. According to the way I mapped it, although there 15 16 might be a connection somewhere in that sand, I don't know. But according to the way I mapped it, it would be to 17 recover reserves. 1.8 19 EXAMINER CATANACH: Okay, I have nothing further. MR. CARR: Mr. Catanach, I misspoke. 20 21 exhibits are 1, 2 and 4, not 1, 2, 3 and 4. I would 22 request the record show they've been admitted. EXAMINER CATANACH: Okay, Exhibits 1, 2 and 4 23

will be admitted as evidence in this case.

Anything further, Mr. Carr?

24

MR. CARR: No. EXAMINER CATANACH: There being nothing further in this case, Case 12,921 will be taken under advisement. (Thereupon, these proceedings were concluded at 8:44 a.m.)

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL September 6th, 2002.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 2002