

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. 12,788
)
APPLICATION OF ARCO (BP) FOR)
SIMULTANEOUS DEDICATION, EDDY COUNTY,)
NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

January 10th, 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, January 10th, 2001, 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.

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January 10th, 2002
Examiner Hearing
CASE NO. 12,788

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A P P E A R A N C E S

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 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 10:36 a.m.:

3 EXAMINER CATANACH: At this time we'll call Case
4 12,788, the Application of ARCO (BP) for simultaneous
5 dedication, Eddy County, New Mexico.

6 Call for appearances.

7 MR. CARR: May it please the Examiner, my name is
8 William F. Carr with Holland and Hart, L.L.P. We represent
9 ARCO (BP) in this matter, and I have two witnesses.

10 EXAMINER CATANACH: Additional appearances?
11 Will the witnesses please stand to be sworn in?
12 (Thereupon, the witnesses were sworn.)

13 LEE M. SCARBOROUGH,
14 the witness herein, after having been first duly sworn upon
15 his oath, was examined and testified as follows:

16 DIRECT EXAMINATION

17 BY MR. CARR:

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

19 A. Lee Scarborough.

20 Q. Mr. Scarborough, where do you reside?

21 A. Houston, Texas.

22 Q. And by whom are you employed?

23 A. BP.

24 Q. What is your position with ARCO (BP)?

25 A. Landman.

1 Q. Have you previously testified before this
2 Division?

3 A. Yes, sir.

4 Q. At the time of that testimony, were your
5 credentials as an expert in petroleum land matters accepted
6 and made a matter of record?

7 A. Yes, sir.

8 Q. Are you familiar with the Application filed in
9 this case on behalf of ARCO (BP)?

10 A. Yes, sir.

11 Q. And are you familiar with the plans of your
12 company to simultaneously dedicate two Morrow gas wells to
13 a portion of irregular Section 31, Township 20 1/2 South,
14 Range 22 East?

15 A. Yes, sir.

16 MR. CARR: Are the witness's qualifications
17 acceptable?

18 EXAMINER CATANACH: They are.

19 Q. (By Mr. Carr) Initially, Mr. Scarborough, would
20 you summarize what it is that we seek in this case?

21 A. Yes, sir, it's authorization to drill the Sweet
22 Thing Federal Unit Well Number 5 -- it's the new well -- at
23 a location 660 feet from the north line and 1800 feet from
24 the west line of Section 31, Township 20.5 South, Range 22
25 East, Eddy County, in the Morrow A sand, Little Box Canyon-

1 Morrow Gas Pool; also authorization to simultaneously
2 dedicate the existing 233.79-acre gas spacing unit
3 comprised of irregular Section 31 too, the Sweet Thing
4 Federal Unit Well Number 2, which is the existing well and
5 produces from the B sand, and the Sweet Thing Federal Unit
6 Well Number 5, which is the new drill, and which will
7 produce from the A sand.

8 Q. Mr. Scarborough, what rules currently govern the
9 development of these lands?

10 A. Statewide Rule 104.C, 320-acre spacing, 660-foot
11 setbacks, and preapproved infill wells in the opposite
12 quarter section.

13 Q. And so what you're actually seeking here is
14 authorization to put two Morrow wells on what is basically
15 the equivalent of one quarter section; is that correct?

16 A. Yes, sir.

17 Q. And you've prepared exhibits for presentation
18 here today?

19 A. Yes, sir.

20 Q. Let's go to Exhibit Number 1. Would you identify
21 that and review it for Mr. Catanach?

22 A. Exhibit Number 1 is an orientation map, and it
23 shows the proposed well location in Section 31, along with
24 the existing well; the boundaries of the Sweet Thing
25 Federal Unit, which is a dashed line on the map; and it

1 shows all of the offset wells operated by ARCO (BP) -- most
2 are Morrow completions -- and it shows all well control in
3 the area.

4 Q. In fact, the offset wells are, with just a couple
5 of exceptions, the wells that are shown there are our ARCO
6 properties and ARCO wells; is that right?

7 A. Yes, they are.

8 Q. Let's go to Exhibit Number 2. Is this a notice
9 affidavit confirming that notice of today's hearing has
10 been provided to all affected parties in accordance with
11 Division Rules?

12 A. Yes, sir.

13 Q. To whom was notice provided?

14 A. We noticed all offset operators and the working
15 interest owners under each one of those tracts, and also
16 working interest owners in all effective tracts that we
17 operate.

18 Q. And have you received any response from any of
19 the parties to whom notice was provided?

20 A. We have received some response. That response
21 has been from our working interest owners, and we have
22 heard mostly questions about our AFE costs and the reason
23 we're drilling the well.

24 Q. And you've provided that information?

25 A. Yes, sir.

1 Q. Have you had anyone object to this proposal?

2 A. No, we have not.

3 Q. Now, under the unit agreements, what percentage
4 of the interest in this spacing unit is at this time
5 voluntarily committed to the well?

6 A. 77 percent.

7 Q. Will ARCO call a technical witness to review the
8 reasons for this Application?

9 A. Yes, sir.

10 Q. Were Exhibits 1 and 2 either prepared by you or
11 compiled at your direction?

12 A. Yes, they were.

13 MR. CARR: Mr. Catanach, at this time we move the
14 admission into evidence of ARCO (BP) Exhibits 1 and 2.

15 EXAMINER CATANACH: Exhibits 1 and 2 will be
16 admitted as evidence.

17 MR. CARR: And that concludes my examination of
18 Mr. Scarborough.

19 EXAMINATION

20 BY EXAMINER CATANACH:

21 Q. Mr. Scarborough, the area outlined with the
22 dashed line is part of the -- Is that an exploratory unit?

23 A. Yes, sir, it's the Sweet Thing Federal Unit.

24 Q. Okay. Is the -- And I assume in the west half of
25 Section 6, is that a Morrow well?

1 A. Yes, sir.

2 Q. Okay. Is the interest ownership different
3 between Section 31 and the west half of Section 6?

4 A. Yes, it is.

5 Q. Okay. And ARCO also operates wells in Section 1,
6 correct, to the west?

7 A. Yes.

8 Q. And those are Morrow wells?

9 A. Yes, sir.

10 Q. And I assume again that that interest is
11 different from Section 31?

12 A. Yes, sir.

13 Q. Okay. Also in Section 36, those are Morrow
14 wells?

15 A. One is a Morrow well, and one is a Cisco well.

16 Q. That answers my other question, okay.

17 But I assume again that that interest is
18 different from Section 31?

19 A. Yes, sir.

20 Q. And up in Section 36, is that also operated by
21 ARCO?

22 A. Yes, sir.

23 Q. And there are some Morrow wells up there, I
24 assume?

25 A. Those are all Morrow wells, yes, sir.

1 Q. And again, that interest is different from
2 Section 31?

3 A. Yes, sir.

4 Q. Okay. Now, according to your testimony, you
5 notified all the working interest owners in these offset
6 sections?

7 A. Yes, sir.

8 Q. Even though ARCO operates, you notified all your
9 working interest owners?

10 A. Yes, I did.

11 Q. Okay, and that includes Sections 6, 1, 36 to the
12 west and 36 to the north; is that correct?

13 A. Yes, sir.

14 Q. Okay. And nobody had any objection to your
15 proposal?

16 A. No, sir.

17 Q. It's my understanding that the Number 5 well is
18 not going to be producing from the same interval as the
19 Number 2 well?

20 A. That's right.

21 Q. Is this all federal acreage out here?

22 A. No. No, sir, it's not. Section 36 to the north,
23 where you'll see the Little Box wells, that is a state
24 section.

25 Q. State.

1 A. Everything else is federal, except for Section 32
2 directly to the east. Section 32 is a state section also,
3 that half-section 32.

4 Q. Okay. So the only difference in royalty would be
5 in the two state sections?

6 A. Yes, sir.

7 Q. Okay. Are there any overriding differences that
8 you know of in --

9 A. Not that I know of, no, sir.

10 Q. Okay. None of your interest owners have
11 expressed any concern about this second well?

12 A. No, sir.

13 EXAMINER CATANACH: Okay, no further questions.

14 MR. CARR: Mr. Catanach, at this time we call
15 Tony McClain.

16 TONY McCLAIN,
17 the witness herein, after having been first duly sworn upon
18 his oath, was examined and testified as follows:

19 DIRECT EXAMINATION

20 BY MR. CARR:

21 Q. Would you state your full name for the record?

22 A. Tony McClain, M-c-C-l-a-i-n.

23 Q. And where do you reside?

24 A. Houston, Texas.

25 Q. By whom are you employed?

1 A. BP.

2 Q. And what is your position with BP?

3 A. Senior petroleum geologist.

4 Q. Mr. McClain, have you previously testified before
5 the New Mexico Oil Conservation Division?

6 A. No, I have not.

7 Q. Could you review your educational background for
8 Mr. Catanach?

9 A. Sure. I received a bachelor's in geology in 1982
10 from Brigham Young University and a master's in geology in
11 1985 from Texas A&M University.

12 Q. Following graduation from Texas A&M, for whom
13 have you worked?

14 A. ARCO and BP, for 17 years.

15 Q. Does the general geographic area of your
16 responsibility for ARCO (BP) include the portion of
17 southeastern New Mexico which is involved in this case?

18 A. Yes.

19 Q. Are you familiar with the Application filed in
20 this matter on behalf of ARCO (BP)?

21 A. Yes.

22 Q. Are you familiar with the proposal to
23 simultaneously dedicate two Morrow wells to what is, in
24 effect, a quarter section?

25 A. Yes.

1 Q. Have you made a geological study of the area
2 which is the subject of this Application?

3 A. Yes, sir.

4 Q. Are you prepared to share the results of your
5 work with the Examiner?

6 A. Yes.

7 MR. CARR: We tender Mr. McClain as an expert in
8 petroleum geology.

9 EXAMINER CATANACH: He is so qualified.

10 Q. (By Mr. Carr) Mr. McClain, let's go first to the
11 structure map, and I'd ask you just to quickly review what
12 this shows.

13 A. Okay, we provide this primarily as background
14 information. You can see that across Section 31 we have
15 just eastward dip. It doesn't play a crucial role in the
16 production characteristics of the wells in the immediate
17 area of concern.

18 Q. All right, let's go to Exhibit Number 4, the
19 isopach.

20 A. Okay, this is actually a schematic map of the two
21 separate channel sands, two separate Morrow channel sands
22 in the area, the lower A channel sand and the lower Morrow
23 B channel sand. It shows the A in the shaded horizon. It
24 is actually based on my isopaching in the area, and so the
25 boundaries of these two channels represent the zero lines

1 for each of those two channels.

2 The lower channel sand that is the target for the
3 Sweet Thing Federal Number 5 drill well is shaded there,
4 and you can see from the boundary line for that channel
5 that the existing well in Section 31, the Sweet Thing
6 Federal Number 2, does not penetrate any of that lowermost
7 A channel sand.

8 Q. If we look at the Number 2 well, that is the well
9 that is well that is currently producing from the B sand;
10 is that correct?

11 A. That's correct.

12 Q. When was that well drilled?

13 A. About 1994.

14 Q. And is that a good producing well from the Morrow
15 formation?

16 A. Yeah, it's been a very good well.

17 Q. What would you estimate to be the remaining
18 producing life of the Sweet Thing Number 2?

19 A. Probably 18 months or less.

20 Q. Now, when you look at the log on that well, the
21 existing well is producing from the B sand. Is the A sand
22 present in that well?

23 A. Not present.

24 Q. Now, let's look at the proposed location for the
25 ARCO Sweet Thing Federal Number 5. That is placed, based

1 on this exhibit, in the center of the lower channel; is
2 that correct?

3 A. That's correct.

4 Q. Are there other wells producing from that lower
5 channel?

6 A. Yes, if you look due south of that proposed well
7 they are -- The ARCO Permian Sweet Thing Federal Number 1,
8 has produced from that lowermost channel.

9 Q. Is that a fairly good Morrow well?

10 A. It produced a little over a BCF.

11 Q. Okay.

12 A. And to the north of the proposed well, the Little
13 Box State Number 5 well was completed last year and IP'd 3
14 million a day out of this lowermost channel sand.

15 Q. So you have a producing Morrow well due north and
16 due south of the proposed location?

17 A. That's correct.

18 Q. And it's in this channel?

19 A. That's correct.

20 Q. And the channel is not present in the existing
21 well?

22 A. That's correct.

23 Q. The existing well only has a short producing life
24 left?

25 A. That's correct.

1 Q. Would it make any sense to be drilling the
2 proposed well as a second well in the upper sand?

3 A. No, our economics will not support any additional
4 wells targeted for the upper sand only.

5 Q. When you look at your mapping of the area, would
6 BP Arco have any plans for putting a third Morrow well in
7 this acreage?

8 A. No.

9 Q. And so the target for this well is truly just the
10 lower sand?

11 A. That's correct.

12 Q. At this point in time, have you -- demands from a
13 working interest owner to go forward and complete a well on
14 this acreage in the lower sand?

15 A. There is interest in additional wells on the
16 federal unit to the south of the Sweet Thing Federal Number
17 2.

18 Q. And at this time you have the necessary company
19 approvals to go forward with the drilling of this well?

20 A. Yes, sir.

21 Q. If the well is not drilled at this time, is there
22 a chance that by the time you have completed the existing
23 and plugged and abandoned that well, then there could be
24 reason that you would not develop this lower sand?

25 A. That's possible, yes.

1 Q. And if that occurred, then the reserves in that
2 channel under this acreage would never be produced?

3 A. That's correct.

4 Q. Let's go to what has been marked as BP ARCO
5 Exhibit Number 5, and I'd ask you to identify and review
6 that for Mr. Catanach.

7 A. That is just the two-well cross-section that's
8 indicated on the channel map, A-A' between the existing
9 well in Section 31, the Number 2 well, and heading south
10 down to the Number 1 well that does penetrate and produce
11 from that lowermost sand. It's a stratigraphic cross-
12 section, hung on the lower Morrow marker. You can see
13 there in blue, that's a limestone marker that's a very
14 consistent marker throughout the field area.

15 And based on that correlation, it's clear from
16 this cross-section that the A and B sand are indeed two
17 different channel sands separated by a considerable
18 thickness of section through there.

19 Q. Mr. McClain, summarize your conclusions.

20 A. Well, the main point, then, would be that we have
21 two separate Morrow channel sands through the field area
22 and through this section in particular. They are not in
23 communication, and a second well would be needed in the
24 west half of Section 31 in order to penetrate the lowermost
25 sand since the first well there does not penetrate it at

1 all.

2 Q. How soon do you hope to spud the well?

3 A. Sometime in the first quarter of this year.

4 Q. In your opinion, will approval of this
5 Application and the drilling of the subject well result in
6 a recovery of hydrocarbons that otherwise would be left in
7 the ground?

8 A. Yes.

9 Q. And thereby waste will be prevented?

10 A. Yes.

11 Q. Will approval of the Application also be in the
12 best interest of conservation and the protection of
13 correlative rights?

14 A. Yes.

15 Q. Were Exhibits 3 through 5 prepared by you?

16 A. Yes.

17 MR. CARR: At this time, Mr. Catanach, we move
18 the admission of ARCO (BP) Exhibits 3 through 5.

19 EXAMINER CATANACH: Exhibits 3 through 5 will be
20 admitted as evidence.

21 MR. CARR: And that concludes my examination of
22 Mr. McClain.

23 EXAMINATION

24 BY EXAMINER CATANACH:

25 Q. Mr. McClain, the Number 2 well, you said, has

1 about 18 months left?

2 A. Approximately.

3 Q. Do you know what it's producing, at its current
4 rate?

5 A. Present rate is still several million a day.
6 These are fairly high rate wells when they catch that
7 channel sand that thick. The pressure is down to about 700
8 pounds, though, now, and so --

9 Q. So they deplete rather quickly?

10 A. They're on a steep decline.

11 Q. And it's your testimony the A sand is not present
12 at the Number 2 location?

13 A. That's correct, as indicated on the cross-
14 section.

15 Q. Has any consideration been given to waiting till
16 the Number 2 depletes and then maybe directionally drilling
17 that well?

18 A. We've thought about those types of things, but
19 because of the relationship between working interest owners
20 out here and the fact that not just the operator but anyone
21 can propose wells, we've attempted to maintain full control
22 of the field as the majority interest owner by proposing
23 wells ourselves in, you know, our own locations.

24 Q. So as I understand it, there are some interest
25 owners that are requesting that another well be drilled in

1 Section 31?

2 A. That's correct.

3 Q. Are these interest owners -- I'm sorry, that have
4 an interest in Section 31, I guess; is that right?

5 A. Yes.

6 Q. Is that in part due to the well to the south
7 producing from that channel?

8 A. Yes.

9 Q. So it's your testimony that the lower sand cannot
10 be accessed from the Number 2?

11 A. Not in the existing borehole, that's correct.

12 Q. So it's necessary to drill the Number 5 well to
13 access that sand?

14 A. That's correct.

15 Q. Do you have any idea how much gas you'll recover
16 from that lower sand?

17 A. Well, based on -- The well to the south has
18 produced about a BCF. The well to the north has not begun
19 to produce yet, but based on the IP and pressure
20 information we believe it will be on the order of 2 to 3
21 BCF, and so obviously we're hoping to duplicate something
22 more closely akin to the Little Box State Number 5 and 2-
23 plus BCF.

24 Q. Okay. In terms of the B sand, when the Number 2
25 well is depleted, you testified there's no more potential

1 for that sand --

2 A. That's correct.

3 Q. -- in that section?

4 A. That's correct.

5 Q. It looks like that sand extends into the eastern
6 portion of Section 31.

7 A. That's correct.

8 Q. Why isn't that potentially productive out there?

9 A. Well, as indicated by the high cums and high
10 rates that I mentioned, that B sand is considerably higher
11 porosity and permeability than the A sand, and so its area,
12 radius of drainage, is considerably greater. And the wells
13 to the north of it, combined with the Sweet Thing Federal
14 Number 2, we feel, more than adequately drain everything
15 you see on the map there in the upper sand, in the B sand.

16 Q. What will that Number 2 well ultimately recover,
17 do you know?

18 A. I'm not sure offhand. It's several BCF, I think,
19 greater than 5 BCF. I don't have that number with me, but
20 some of the wells out here are 10 BCF or better, and
21 actually that Sweet Thing Fed Number 2 may be one of those.

22 Q. Okay. So there's no plans to perforate or try
23 and complete the B sand in the Number 5 well?

24 A. No.

25 Q. In fact, it probably wouldn't be beneficial to do

1 that anyway, if it's depleted?

2 A. It will be rate acceleration reserves only and
3 would not be economic to my knowledge.

4 EXAMINER CATANACH: Okay, I think that's all I
5 have.

6 MR. CARR: That concludes our presentation in
7 this case.

8 EXAMINER CATANACH: Okay, there being nothing
9 further, Case 12,788 will be taken under advisement.

10 (Thereupon, these proceedings were concluded at
11 10:55 a.m.)

12 * * *

13
14
15
16
17
18
19 I do hereby certify that the foregoing is
20 a complete record of the proceedings in
the Examiner's hearing of Case No. 12788
heard by me on January 10 1982.
David R. Catnach Examiner
Oil Conservation Division

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 January 14th, 2002.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002