

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

ORIGINAL

Application of Devon Energy Production Company, L.P.
for pool creation, a discovery allowable, and
special pool rules, Eddy County, New Mexico

Case No. 14609

March 17, 2011
8:15 A.M.
Santa Fe, New Mexico

HEARING EXAMINER: WILLIAM JONES
DAVID BROOKS, Esq.

For The Applicant:

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1 HEARING EXAMINER JONES: Okay. Let's call
2 case 14609 which is Application of Devon Energy
3 Production Company, L.P. for pool creation, a
4 discovery allowable and special pools in Eddy
5 County, New Mexico. Call for appearances.

6 MR. BRUCE: Jim Bruce of Santa Fe
7 representing the applicant. I have three witnesses,
8 two of whom have already been sworn.

9 HEARING EXAMINER JONES: Any other
10 appearances in Case 14609?

11 MR. BRUCE: Will you break at a quarter
12 to?

13 MR. BROOKS: That's what I'm requesting.
14 Actually, so far -- and with an engineering witness
15 it's probably very unlikely that he is going to talk
16 about legal issues, so if Mr. Jones would like to
17 continue to get through with his testimony, and let
18 me slip out I would not be offended.

19 MR. BRUCE: In this case, I call Sam
20 McCurty to the witness stand.

21 SAM MCCURTY
22 after having been first duly sworn under oath,
23 was questioned and testified as follows:

24 EXAMINATION

25

1 BY MR. BRUCE

2 Q. Would you please state your name and city
3 of residence?

4 A. Sam McCurty, Oklahoma City, Oklahoma.

5 Q. And who do you work for and in what
6 capacity?

7 A. I work for Devon Energy as a landman.

8 Q. Have you previously testified before the
9 Division?

10 A. Yes, I have.

11 Q. Were your credentials as an expert
12 accepted as a matter of record?

13 A. Yes, they were.

14 Q. Does your area of responsibility at Devon
15 include this area of Southeast New Mexico?

16 A. Yes.

17 Q. Are you familiar with the land matters
18 involved in this case?

19 A. Yes.

20 MR. BRUCE: Mr. Examiner, I tender
21 Mr. McCurty as an expert petroleum landman.

22 HEARING EXAMINER JONES: He is so
23 qualified.

24 Q. (By Mr. Bruce) Mr. McCurty, could you
25 identify Exhibit 1 for the examiner?

1 A. Yeah. What we have in Exhibit 1 is a
2 Midland map which the area discussed today is shown
3 and the ownership surrounding that area is shown as
4 well.

5 Q. And maybe it's clearer on Exhibit 2. What
6 is Exhibit 2 what we are here for today?

7 A. Exhibit 2 is a map with a two-mile radius
8 circle showing the wells that are within the circle
9 and two wells that are included in the sections that
10 are being asked for the increased GOR and the
11 establishment of field are Sections 10 and 11 and
12 both of those wells are operated by Devon.

13 Q. Let's go, first of all -- there's a well
14 in Section 10, the Snapping 10 Federal 1H. Is that
15 the discovery well?

16 A. Yes, it is.

17 Q. And the next-door, the Snapping 11 Fed
18 Well No. 1, that was the second well drilled in this
19 area, correct?

20 A. Yes, it was.

21 Q. You are asking for pool creation for the
22 Southeast Big Six Bone Spring Pool. When you were
23 drilling, was Devon able to locate any other Bone
24 Spring pool in this area?

25 A. To my knowledge, no.

1 Q. And for pool creation, acreage is usually
2 initially assigned to it. What acreage do you
3 request be included in the new pool?

4 A. We request that Sections 10 and 11 of
5 Township 26 South, Range 31 East of Eddy County, New
6 Mexico be included.

7 Q. Now, normally pool rules, you notify
8 operators within a mile of the pool. Who is or are
9 the operators within a mile of the pool?

10 A. Within a mile of the pool's boundaries,
11 Devon Energy is the operator of all wells within the
12 Bone Spring formation.

13 Q. I see up in Section 36 to the northeast
14 there's a Yates well. Has that well been drilled?

15 A. That well has not been drilled but it is
16 permitted to the Bone Spring formation.

17 Q. Okay. And since there are no other
18 operators than Devon, notice of this hearing was not
19 given to anyone, correct?

20 A. That's correct.

21 Q. What is Exhibit 3?

22 A. Exhibit 3 is the NMOCD Form 109 for
23 discovery of allowable and creation of new pool.

24 Q. Did you complete the form with information
25 given to you by the technical staff at Devon?

1 A. Yes, I did.

2 Q. Insofar as the attachments that are
3 normally submitted, geologic and other data, will
4 that be presented by Devon's next two witnesses?

5 A. Yes, it will.

6 Q. Were Exhibits 1 through 3 prepared by you?

7 A. Yes, they were.

8 MR. BRUCE: Mr. Examiner, I move the
9 admission of Devon Exhibits 1 through 3.

10 HEARING EXAMINER JONES: Exhibits 1
11 through 3 will be admitted. I have no questions.

12 (Note: Exhibits 1 through 3 admitted.)

13 MR. BROOKS: You didn't notify Yates even
14 though they have an APD for a well up in 36?

15 MR. BRUCE: Well, they are more than a
16 mile away. If that's required, we can notify them.
17 That's no problem.

18 MR. BROOKS: Well, you know, it's not
19 required if you look at the rules. It seems like it
20 might be a good idea though.

21 MR. BRUCE: That's fine. We can continue
22 the hearing to the 14th and notify them.

23 MR. BROOKS: I think that's a good idea.
24 Make sure they don't have any objection. It's not
25 required by the rules so I can't fault you for not

1 notifying them, but I am wondering if they would
2 have input.

3 MR. BRUCE: I don't think Yates would have
4 a problem. We are glad to do it. No problem.

5 MR. BROOKS: If you could supply a waiver
6 from them, that's fine.

7 MR. BRUCE: Then I would request the case
8 be continued for two weeks in case we get a waiver
9 and we can continue.

10 MR. BROOKS: Seems like a good idea to me.
11 I'm going to slip out at this time and let Mr. Jones
12 carry on. Sounds like there's not any other legal
13 issues that will come up.

14 (Note: Mr. Brooks exits)

15 HEARING EXAMINER JONES: Okay. I don't
16 have anymore land questions. I wouldn't know what
17 to ask you anyway.

18 MR. BRUCE: Our next witness is Carl
19 burying who was previously sworn and qualified as an
20 expert.

21 CARL BURDICK
22 after having been first duly sworn under oath,
23 was questioned and testified as follows:

24 EXAMINATION

25

1 BY MR. BRUCE

2 Q. Mr. Burdick, could you identify Exhibit 4
3 for the examiner?

4 A. Exhibit 4 is a structure map on the top of
5 the Bone Spring in the immediate area with the
6 structural contours of 100 feet.

7 Q. Is structure significant to this prospect?

8 A. No, it's not. There's no structural
9 element to the trapping mechanism for this play and
10 it's just monoclinal dip into the basin.

11 Q. Move on to Exhibit 5. What does that
12 reflect?

13 A. Okay. Exhibit 5 is a type log for the
14 Bone Spring in the immediate area. If you go back
15 to the Exhibit 4, it's the Texas well in the south
16 section of Section 2. This is a gamma ray
17 resistivity log showing that accepted breakdown of
18 the Bone Spring formation, and I have zone of
19 interest. What we are drilling is the very upper
20 part between the top of the Bone Spring and the
21 first sand, which some people are calling the Avalon
22 shale.

23 Q. Devon is landing its laterals in both of
24 the new wells in that zone?

25 A. Yes, that's correct.

1 Q. And what is Exhibit 6?

2 A. Exhibit 6 is a Cross-section A Prime that
3 includes the pilot holes for the two horizontal
4 wells that have drilled, the 10 1H and 11 1H. On
5 this its gamma ray and neutron density porosity logs
6 are displayed.

7 Q. Now, there are some Bone Spring pools
8 further to the west northwest that are currently
9 developed in the Avalon, is there not?

10 A. Yes, there are.

11 Q. In the past, has what you are calling the
12 Avalon shale, had that been significantly developed
13 in those older pools?

14 A. In the horizontal wells?

15 Q. No, I mean the older vertical wells?

16 A. Oh, in previous vertical wells there's
17 been multiple completion attempts in this interval
18 and none of them have been economic.

19 Q. One final thing. On the two wells you did
20 drill pilot holes, correct, in the wells?

21 A. That's correct, yes. And that's what
22 these logs represent. In the green dots on the
23 cross-section it represents the landing depths in
24 the respective wells where we went horizontal.

25 Q. That's all the questions I have for you.

1 Looking -- except for the geology. You are looking
2 at the same geology in Sections 10 and 11 so this
3 particular Avalon shale zone is continuous across
4 this area?

5 A. Yes, it is.

6 Q. Did you prepare Exhibits 4, 5 and 6?

7 A. Yes, I did.

8 Q. In your opinion is the granting of the
9 application in the interest of conservation and the
10 prevention of waste?

11 A. Yes.

12 MR. BRUCE: Mr. Examiner, I move the
13 admission of Exhibits 4 through 6.

14 HEARING EXAMINER JONES: They will be
15 admitted.

16 (Note: Exhibit 4 through 6 admitted.)

17 HEARING EXAMINER JONES: The target in the
18 1H well -- actually, the 10 1H is -- why was it
19 picked there? Was that actually where the
20 horizontal well ended up?

21 THE WITNESS: No, that was the target
22 interval, and that was based on logs in the pilot
23 hole we ran an ECS log and sonic skinner log that
24 suggested that was a good zone to land in.

25 HEARING EXAMINER JONES: by landing, you

1 mean that was the actual --

2 THE WITNESS: That was the actual.

3 HEARING EXAMINER JONES: Where it went
4 horizontal?

5 THE WITNESS: Where we went horizontal and
6 tried to stay in that.

7 HEARING EXAMINER JONES: How will you keep
8 it in that zone? What will you be looking for with
9 the mud log or the gamma ray?

10 THE WITNESS: Yeah, it's basically based
11 on the structural mapping, you know, ahead of time
12 and using the gamma ray to steer.

13 HEARING EXAMINER JONES: Thirty feet back
14 or something?

15 THE WITNESS: Yeah. On the structure map
16 you can see the wells pretty much are running along
17 stripe. So, you know, it's pretty -- you're not
18 seeing a lot of change. As you drill you are pretty
19 much parallel in the beds unless there are small
20 disturbances in the bedding.

21 HEARING EXAMINER JONES: So that is --
22 okay. I'm familiar with the Nash Draw. Avalon --
23 but this is Big Sink. So are you familiar with the
24 Nash Draw? Is there any relation between that pool
25 and this one?

1 THE WITNESS: Yeah. I'm familiar with the
2 Nash Draw. It's fairly -- it's stratigraphically
3 pretty equivalent. Some of the correlations are
4 difficult over several miles, but in general essence
5 it's the same -- you know, roughly the middle of
6 that upper Bone Spring interval.

7 HEARING EXAMINER JONES: Where did you get
8 the name Big Sinks? Was it already the name of the
9 pools?

10 THE WITNESS: That's right. The Ross
11 Ranch 10 Federal 1 there in the southeast northeast
12 of 10 there, that was a Delaware well with the same
13 name.

14 HEARING EXAMINER JONES: Okay. So there's
15 Old Delaware pool, Big Sinks Delaware, Big Sinks
16 Rushie or something?

17 THE WITNESS: I believe it was Big Sinks
18 Southeast Delaware.

19 HEARING EXAMINER JONES: Is there any
20 geologic reason why you would need more gas? In
21 other words, the high point in the reservoir or --

22 THE WITNESS: I think it's more
23 permeability-related. We are dealing with mud rocks
24 or mud grain-sized. They are very --

25 HEARING EXAMINER JONES: Small.

1 THE WITNESS: Small pour throats.
2 Permeability is in the hundreds of nanodarcies, so I
3 think we see some of the oil can't get out so the
4 GORs tend to increase quickly.

5 HEARING EXAMINER JONES: Okay. Let me get
6 familiar with what we are asking for here. It's a
7 new pool, discovery allowable and special pool rules
8 with the 5,000 GOR? It says 2,000 on the
9 application.

10 MR. BRUCE: We had said 5,000.

11 THE WITNESS: I believe it should be
12 5,000.

13 HEARING EXAMINER JONES: The first page
14 said something about -- that would be for the
15 discovery allowable.

16 MR. BRUCE: That is the standard.

17 HEARING EXAMINER JONES: Yeah, relating to
18 the standard. Okay. The geologists haven't kept up
19 with the nomenclators, but this is Eddy County; is
20 that correct?

21 THE WITNESS: Yes, sir, southeast Eddy.

22 HEARING EXAMINER JONES: Have you worked
23 with Jackie much, Jackie Reeves?

24 THE WITNESS: No, sir.

25 HEARING EXAMINER JONES: The geologist in

1 Artesia? I just wondered if she had any feedback on
2 this.

3 THE WITNESS: No, I haven't had any
4 conversations with her about it.

5 HEARING EXAMINER JONES: But this would
6 otherwise be a wildcat? Bone Springs?

7 THE WITNESS: The well is just to the
8 south in Section 15. It made noncommercial amounts
9 of oil at the Bone Spring. I believe the surface
10 location is technically more than a mile.

11 MR. BRUCE: I couldn't find where the
12 Division had ever created a Bone Spring pool.

13 THE WITNESS: I believe it only made about
14 2,000 barrels of oil.

15 HEARING EXAMINER JONES: Okay. So this
16 horizontal well, the one that we see here on A
17 instead of A Prime -- well, both of them. Are they
18 one mile long?

19 THE WITNESS: Roughly 4,000 feet of
20 lateral. There's a curve and then by the time you
21 land it's about a 4,000 foot drain hole.

22 HEARING EXAMINER JONES: Asking still for
23 40-acre spacing so we can always combine them and
24 get NSPs. Okay. I don't know any more to ask you.
25 Thank you.

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1 MR. BRUCE: Mr. Examiner, the engineer is
2 Kevin Olson, and he was previously sworn and
3 qualified.

4 KEVIN OLSON
5 after having been first duly sworn under oath,
6 was questioned and testified as follows:

7 EXAMINATION

8 BY MR. BRUCE

9 Q. Mr. Olson, this is your area of
10 responsibility. This particular proposed pool is
11 within your area of responsibility at Devon, is it
12 not?

13 A. Yes, it is.

14 Q. What are Exhibits -- could you identify
15 Exhibits 7 and 10, describe the production from the
16 wells and the reason for seeking the increased GOR?

17 A. The exhibits show the production volumes
18 and those are plotted against the days that the
19 wells were produced, so it shows barrels of oils per
20 day, MCF per day and barrels of water per day for
21 the Snapping Fed 1H and the Snapping 11 Federal 1H
22 wells.

23 Q. Now, when the wells were brought online
24 they had significant oil production which has
25 tapered off over the weeks, correct?

1 A. Yes, that's correct.

2 Q. But it appears that the gas production has
3 remained more or less constant?

4 A. Yes, that's correct.

5 Q. And is that common in these types of
6 reservoirs?

7 A. Yes, it is. It's a very common
8 performance, especially in the tighter rocks that
9 we're looking at and within the Bone Spring. Even
10 the conventional parts of the Bone Spring, it's a
11 very typical performance.

12 Q. We have alluded to some other pools to the
13 west northwest. If I can just ask you, are those
14 the Southeast Willow Lake Bone Springs and the
15 Pierce Crossing Bone Springs pools?

16 A. Yes, that's correct.

17 MR. BRUCE: Mr. Examiner, for reference,
18 there were increased GORs granted in those pools by
19 ~~Orders R~~ ^{Case Nos} 14419 and ~~14~~ 14420.

20 Q. Alluding to those pools, Mr. Olson, those
21 were older pools that have been developed with
22 vertical wells, correct?

23 A. Yes.

24 Q. The more recent development has been in
25 the Avalon shale for horizontal wells?

1 A. Yes.

2 Q. Who was the operator at that time to seek
3 pool rules with an increased GOR?

4 A. I believe that was Morbob at that time.

5 Q. In looking at those pools and comparing it
6 with your new field here, are they similar?

7 A. They are very similar, yes.

8 Q. And generally, Mr. Olson, these are two
9 brand new wells. The Division usually makes pool
10 rules temporary for a year or so. Is that
11 acceptable to Devon?

12 A. Yes, it is.

13 Q. And in looking at this data -- and you
14 have reviewed data from these other two pools we
15 have just mentioned, have you not?

16 A. Yes.

17 Q. Do you see any harm to the reservoir by
18 having a higher than state-wide GOR?

19 A. No, I don't.

20 Q. Were Exhibits 7 and 8 prepared by you?

21 A. No, they weren't.

22 Q. Who prepared them?

23 A. Adam Klein, a reservoir engineer within
24 Devon.

25 Q. Have you reviewed the data and do you

1 agree with it?

2 A. Yes, I have reviewed the data and I do
3 agree with it.

4 Q. In your opinion is the granting of the
5 application in the interest of conservation and the
6 prevention of waste?

7 A. Yes, it is.

8 MR. BRUCE: Mr. Examiner, I move the
9 admission of Devon's Exhibits 7 and 8.

10 HEARING EXAMINER JONES: Exhibits 7 and 8
11 will be admitted.

12 (Note: Exhibits 7 and 8 admitted.)

13 HEARING EXAMINER JONES: This showed --
14 these two plots showed the gas, oil, water, but what
15 about your focal point in the reservoir or the
16 reservoir pressure and the level point? What do you
17 think is the gravity of the oil?

18 THE WITNESS: We don't have any bubble
19 point information at this time. These are very new
20 wells and we are seeking a temporary order. If
21 bubble point information is required, then that's
22 something that Devon will obtain.

23 HEARING EXAMINER JONES: The standings,
24 could you get it from that? Going in the standings
25 correlation if you --

1 THE WITNESS: We could try to do that.

2 HEARING EXAMINER JONES: Try to do that.

3 THE WITNESS: And submit that.

4 HEARING EXAMINER JONES: That might not
5 be -- what gravity is it at of oil? Is it 40
6 gravity or higher?

7 THE WITNESS: I'm not sure. I would
8 assume it would be around 40 gravity. It's 46.

9 MR. BURDICK: It's 46 or 47, in that
10 range.

11 HEARING EXAMINER JONES: It seems -- am I
12 correct in assuming that one well the GOR is
13 increasing but the other well the GOR looks kind of
14 constant; is that correct? From looking at these
15 production plots? Looks like the well on No. 10 has
16 a relatively stable GOR and the well in No. 11,
17 looks like the GOR is going up with time. Because
18 of the gas production is constant, the oil is going
19 down?

20 THE WITNESS: Yes.

21 HEARING EXAMINER JONES: So you are asking
22 for 5,000?

23 THE WITNESS: Yes, that's correct.

24 HEARING EXAMINER JONES: Okay. I think
25 those other orders, Southwest Willow Lake and I

1 forgot the other pool.

2 MR. BRUCE: Pierce Crossing.

3 HEARING EXAMINER JONES: The current
4 outline of the pool we are asking for here, is that
5 just all of Section 10 and all of Section 11?

6 MR. BRUCE: That's what Mr. McCurty
7 stated. We ask for all of Sections 10 and 11.

8 HEARING EXAMINER JONES: Are these wells
9 still flowing?

10 THE WITNESS: Yes, they are.

11 HEARING EXAMINER JONES: No production
12 equipment out there?

13 MR. BURDICK: I'm not sure. They were
14 flowing naturally. I'm pretty sure they still are
15 because we don't have electricity out there.

16 HEARING EXAMINER JONES: Did you have to
17 put the big frac jobs on them?

18 THE WITNESS: Yes.

19 HEARING EXAMINER JONES: Are you able to
20 capture the flow-back water and use it on the next
21 well to frac it or do you just take that to disposal
22 somewhere?

23 THE WITNESS: Currently it's being sent to
24 disposal.

25 HEARING EXAMINER JONES: Most of the

1 states say that's what's happening, but it's too
2 expensive to --

3 THE WITNESS: Recover, yes, sir.

4 HEARING EXAMINER JONES: Risky to deal
5 with water you don't know the quality of when you
6 start adding everything to it.

7 THE WITNESS: Yes.

8 HEARING EXAMINER JONES: And is this the
9 only interval that you can see here in this Bone
10 Spring or is the Avalon just a target you are going
11 after now?

12 THE WITNESS: The Avalon is something that
13 we are targeting as a company in this part of the
14 world. And in terms of other potential targets
15 within the Bone Spring, I would have to defer that
16 to Carl Burdick.

17 HEARING EXAMINER JONES: I forgot to ask,
18 as far as the pool, you got the name of it but do we
19 have the top and bottom or the formation name for
20 the boundaries, the vertical boundaries?

21 MR. BURDICK: It would be Big Bone
22 Springs.

23 HEARING EXAMINER JONES: Just Bone Spring?
24 So it would include everything in the Bone Springs.
25 Bone Springs oil, but we are not looking at any kind

1 of retrograde?

2 THE WITNESS: No.

3 HEARING EXAMINER JONES: Okay. No more
4 questions.

5 MR. BRUCE: That's all we have.

6 HEARING EXAMINER JONES: Okay. Thank you
7 very much. Thank you all for coming out here today.
8 We will take 14609 under advisement. This case is
9 continued for two weeks.

10 (Note: The hearing stood in recess at
11 12:04 to 1:22.)

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I hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. _____
heard by me on _____
_____, Examiner
Oil Conservation Division

1 REPORTER'S CERTIFICATE

2 I, JAN GIBSON, Certified Court Reporter for the
3 State of New Mexico, do hereby certify that I
4 reported the foregoing proceedings in stenographic
5 shorthand and that the foregoing pages are a true
6 and correct transcript of those proceedings and was
7 reduced to printed form under my direct supervision.

8 I FURTHER CERTIFY that I am neither employed by
9 nor related to any of the parties or attorneys in
10 this case and that I have no interest in the final
11 disposition of this case.

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