

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: )  
APPLICATION OF PECOS PRODUCTION COMPANY )  
FOR POOL CREATION AND SPECIAL POOL RULES, )  
LEA COUNTY, NEW MEXICO )

CASE NO. 13,125

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, JR., Hearing Examiner

August 7th, 2003

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, JR., Hearing Examiner, on Thursday, August 7th, 2003, 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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Oil Conservation Division

## I N D E X

August 7th, 2003  
 Examiner Hearing  
 CASE NO. 13,125

	PAGE
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>MARK HAWKINS</u> (Geologist)	
Direct Examination by Mr. Bruce	4
Examination by Examiner Jones	16
REPORTER'S CERTIFICATE	20

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## E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	6	16
Exhibit 2	8	16
Exhibit 3	8	16
Exhibit 4	8	16
Exhibit 5	9	16
Exhibit 6	12	16
Exhibit 7	15	16
Exhibit 8	15	16

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## A P P E A R A N C E S

## FOR THE DIVISION:

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

## FOR THE APPLICANT:

JAMES G. BRUCE  
Attorney at Law  
P.O. Box 1056  
Santa Fe, New Mexico 87504

\* \* \*

## ALSO PRESENT:

GAIL MacQUESTEN  
Deputy General Counsel  
Energy, Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2 1:40 p.m.:

3           EXAMINER JONES: Okay, let's go back on the  
4 record, and I'll call Case 12,125, Application of Pecos  
5 Production Company for pool creation and special pool  
6 rules, Lea County, New Mexico.

7           Call for appearances in this case.

8           MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,  
9 representing the Applicant. I have one witness.

10          EXAMINER JONES: Any other appearances? There  
11 being none, will the witness please stand to be sworn in?

12                   (Thereupon, the witness was sworn.)

13                               MARK HAWKINS,  
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. BRUCE:

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

19           A.    My name is Mark Hawkins.

20           Q.    Where do you reside?

21           A.    I live in Midland, Texas.

22           Q.    What is your occupation?

23           A.    I'm vice president of exploration and a partner  
24 in Pecos Production Company.

25           Q.    By training do you have a technical background?

1           A.    Right, I have a bachelor's in geology from Texas  
2 Tech University.

3           Q.    Okay.  Could you summarize -- Have you testified  
4 before the Division?

5           A.    I have not.

6           Q.    Okay, could you summarize -- You said you got a  
7 degree in geology.  Could you give us a little history of  
8 your employment background?

9           A.    Yes, when I got out of school I went to work for  
10 Exxon for nine years, and then I moved to Midland and  
11 worked for Collins and Ware for seven years, and then the  
12 next four years I was an independent geologist doing  
13 consulting work and just generating drilling deals, and we  
14 formed Pecos Production three years ago.

15          Q.    Okay.  And at Pecos are you responsible for  
16 geology in southeast New Mexico?

17          A.    Yes.

18          Q.    And prior to that did you also work geology in  
19 southeast New Mexico?

20          A.    Yes.

21          Q.    And are you familiar with the geology involved in  
22 this Application?

23          A.    Yes.

24                MR. BRUCE:  Mr. Examiner, I'd tender Mr. Hawkins  
25 as an expert petroleum geologist.

1 EXAMINER JONES: Mr. Hawkins is so qualified.

2 Q. (By Mr. Bruce) Mr. Hawkins, briefly, looking at  
3 Exhibit 1, what does Pecos Production Company seek in this  
4 case?

5 A. We seek to create a new Wolfcamp oil pool  
6 covering the southwest quarter of Section 2 of 16 South, 37  
7 East, to be called the East Dean-Wolfcamp Pool.

8 Q. And what type of special pool rules do you seek?

9 A. 80-acre spacing.

10 Q. And as far as well-location requirements, what  
11 setbacks do you request from a quarter-quarter section  
12 line?

13 A. 330 from a quarter quarter.

14 Q. Okay.

15 A. But actually, I noticed on -- This is an 80-acre.  
16 If we get the 80-acre, this will be almost directly in the  
17 middle of the 80-acre.

18 Q. Okay. So in referring to Exhibit 1, which is a  
19 land plat of this area, correct?

20 A. Correct.

21 Q. And it highlights the southwest quarter of  
22 Section 2?

23 A. Yes.

24 Q. And the red dot is the discovery well for this  
25 pool if the OCD grants a new pool?

1 A. Correct.

2 Q. Okay. And we'll get into this in a minute. Also  
3 shown on this map, you highlight a well over to the west  
4 southwest in section 10. Is that the only other Wolfcamp  
5 well within a mile of your proposed pool?

6 A. Correct, uh-huh.

7 Q. Okay.

8 A. It actually shows up better on the 3-D map.

9 Q. Okay, well, we'll --

10 A. It's on that map, but it's -- my copy's not --

11 Q. Okay. Well, we'll get to that in a minute.

12 Let's -- one thing, on the land end, you show -- We have  
13 this southwest quarter of Section 2. Do the title reports  
14 that Pecos Production Company has on this land show that  
15 the southwest quarter is all undivided interests?

16 A. Correct, it's all the same owners.

17 Q. It's all the same owners?

18 A. Uh-huh.

19 Q. Okay.

20 A. So there will be no -- any interest diluted --

21 Q. -- by the well?

22 A. Yeah, uh-huh.

23 Q. Now, you mention that the well, even on the plat,  
24 appears to be unorthodox. It is substantially unorthodox,  
25 is it not?

1 A. Correct.

2 Q. And approval was obtained by the Division for  
3 that unorthodox location?

4 A. That is correct.

5 Q. And is that administrative order marked as  
6 Exhibit 2?

7 A. Correct, it should be in the package.

8 Q. Okay, and then Exhibit 3 is simply the Form C-102  
9 for the well?

10 A. That's correct.

11 Q. And give you a better idea as to where the  
12 location is on that well. Okay. Now, let's go on to the  
13 reason for -- not only for the -- This will give the reason  
14 for the unorthodox location but also as to why you want 80-  
15 acre spacing. Could you identify Exhibit 4 and tell the  
16 Examiner what that shows?

17 A. Yeah, that's a depth map made from the 3-D data  
18 survey on the base of the Wolfcamp shale, which is the  
19 nearest horizon to the pay zone that you can map from the  
20 seismic, and that's a 1-to-1000 map, and the contour  
21 interval is 20 feet. And up in the upper right-hand side  
22 you'll see in Section 2 the location that we drilled, and  
23 it's apparent -- you can see from the map that it was -- we  
24 drilled right on top of the feature.

25 And this was a prospect that I generated, and

1 what I believe the map showed was that you were coming off  
2 the Lovington high to the southwest, and there was a  
3 Wolfcamp pinnacle reef develops more or less on the flank  
4 of that feature, there in the southwest quarter of Section  
5 2.

6 Q. And based on this 3-D you did request the  
7 unorthodox location to be at the top of that feature?

8 A. Correct, we felt like since it was -- It's not  
9 very big. It's pretty sharp on the seismic data but in  
10 areal extent it's not very big, and we felt like it was  
11 important to be right on top.

12 Q. Okay. While keeping that Exhibit 4 in front of  
13 you, could you also move on to your Exhibit 5, the cross-  
14 section, and perhaps discuss why you think this particular  
15 Wolfcamp is separate from the other Wolfcamp well in this  
16 area?

17 A. Okay. Let me first say, I apologize for the size  
18 my partner said. I have not testified before, and he said  
19 that they like things to be small, and all the cross-  
20 sections I've seen today are huge. So I had this thing  
21 shot down so it would be small, but I think you can still  
22 see the detail.

23 That cross-section is shown on the 3-D structure  
24 map, and it starts over on the left-hand side, to the west,  
25 at the Chesapeake B. Medlin well, and that's the nearest

1 Wolfcamp well that produces out there. And that well  
2 produced 16,000 barrels from the Wolfcamp and almost 50  
3 million cubic feet of gas. Really not a very good Wolfcamp  
4 well.

5 And that cross-section progresses to the east,  
6 slightly to the northeast, to a BHP well which did not  
7 produce from the Wolfcamp, it produced from the Penn, the  
8 Lovington Penn.

9 And then finally the last well on the cross-  
10 section is our Overland Number 1, which is our discovery  
11 well. And the cross-section is drawn to reflect what I see  
12 on the 3-D, and you can see that you're coming off of the  
13 structure.

14 The Chesapeake well looks like a typical -- I  
15 just call it a shelf, Wolfcamp rocks. There's a lot of  
16 carbonate but it's kind of a ratty-looking stuff. As you  
17 come into the BHP well you'll see that there's a lot more  
18 shale in that part of the Wolfcamp section. And then when  
19 you get to our Overland well over on the far right-hand  
20 side of the cross-section, you can see there's some pretty  
21 clean carbonate developed with some pretty good-looking  
22 porosity in that part of the Wolfcamp. And that was our  
23 target, and that's indeed where we ended up completing the  
24 well.

25 Q. Now, based on Exhibit 5 showing the well logs and

1 the structure, do you believe that this well is in a  
2 separate reservoir from the Chesapeake well?

3 A. Oh, yeah, for sure. I mean, it's -- You see the  
4 saddle between -- on the structure map, which is what I've  
5 depicted on the cross-section, there's clearly a saddle  
6 that separates the two. But in addition to that, it looks  
7 different. I think that the Chesapeake well is simply just  
8 a little porosity that's developed on the shelf at the top  
9 of that Wolfcamp zone. And you can see from our Overland  
10 well, that looks reefy. It's real clean, you see the  
11 gamma-ray is pegged all the way over to the left, and  
12 you've got some real good porosity development. The only  
13 problem was, it was developed lower into the reef.

14 And one thing that's a little hard to see, you  
15 can see where we -- And there's an exhibit in the package,  
16 how we completed the well. We started pretty low into the  
17 reef and we moved up, and we tested water. And I've drawn  
18 a horizontal line on that, says LPO. That's low proven  
19 oil. So unfortunately, the better part of the reef and the  
20 better part of the porosity was wet. And so although we  
21 did find what we were looking for, I would have much  
22 preferred that that porosity would have been developed in  
23 the upper part, above the oil-water contact.

24 So it's a good well but not a great well. And I  
25 don't expect it will make -- you know, if I had to

1 estimate, maybe 30,000 or 40,000 barrels.

2 Q. Okay. Could you identify Exhibit 6 and discuss  
3 the to-date production history and completion of the well?

4 A. Yeah, Exhibit 6 was the one I talked about. We  
5 started -- Over on that Overland well you'll see there's a  
6 little box with a crosshach through it, down around 11,000.  
7 We perforated 11,006 to 11,010, we displaced our acid and  
8 we swabbed 100-percent water.

9 I'll say this, when we logged this thing we were  
10 very excited about where it came in, we were excited about  
11 the porosity, but the resistivities were pretty iffy. So  
12 we were concerned. We went ahead and started down around  
13 that 11,000-foot depth.

14 So it was all water, so we set a cast-iron bridge  
15 plug and came up to 10,796 to -799, and we perforated there  
16 and displaced our spot acid. And we swabbed 100-percent  
17 water again, so we set a cement retainer, came up and  
18 popped the next zone at 10,774 to -777. And again, we  
19 swabbed all water with just a trace of oil.

20 And so finally we set another cement retainer and  
21 we came up and we perforated right above what's shown on  
22 that cross-section where I've drawn that horizontal line.  
23 We perforated 10,717 to -718 and -723 to -727, and we  
24 swabbed it for three hours and it kicked off flowing. And  
25 that first couple of days it flowed an average of about 136

1 barrels of oil a day, 300 MCF a day and no water.

2 So again, unfortunately all we've got is that  
3 part of the porosity that's above that low proven oil  
4 point, so --

5 Q. What is the current status of the well today?

6 A. It's shut in, we're waiting on a gas-line  
7 connection. And we did a buildup on it when it was shut  
8 in. We drill-stem tested that, and it was -- the  
9 bottomhole pressure was 4828, I believe, which was pretty  
10 close to what you'd estimate for normal gradient. And on  
11 our buildup it was already down to 44, 44, so we already  
12 seen some depletion, but -- which -- I mean, that makes  
13 sense, it's just not very big, and...

14 Q. Now, at this point you haven't produced the well  
15 enough to calculate the well's drainage area or --

16 A. No, not really, it's just estimates. But I feel  
17 pretty good that it came in as mapped, real close to the  
18 map. In fact, I didn't have to change the contours. So I  
19 feel like the 3-D is telling us -- showing us a good  
20 picture of what that bump looks like. And you can see on  
21 the map I've sort of boxed it in, in an 80-acre unit. And  
22 I think it's a one-well deal, you know, one-well deal.

23 Q. So if these pool rules are granted, you would  
24 form an east-half, southwest-quarter well unit?

25 A. That's correct.

1 Q. And now as far as drainage goes the well is what,  
2 1276 feet from the south line, is it not?

3 A. Correct, uh-huh.

4 Q. And just based on what you've seen of the well's  
5 ability to produce, undoubtedly it would drain oil from  
6 both quarter quarter sections?

7 A. Correct, because of where that feature lies,  
8 right there in the middle of those two 40-acre quarter  
9 quarter sections, it's positioned where it should be, and  
10 it's definitely going to drain both sides, and there's just  
11 no reason that there would ever be another well drilled on  
12 that feature.

13 Q. You don't think it would be economic or prudent  
14 to drill another Wolfcamp well in the east half of the  
15 southwest quarter?

16 A. No. In fact, we had another feature that's off  
17 this map that we're not even going to drill, just because  
18 -- You know, that's one thing that you bump into, that  
19 seismic will image the top but you don't know exactly where  
20 that porosity is developed. And in this case it was far  
21 enough down in there, and it's just too small, too small to  
22 drill another well.

23 Q. But conceivably without the 80-acre spacing you  
24 could in the future at some point face an offset demand  
25 which you don't think would be prudent, but nonetheless you

1 don't want to have to deal with that?

2 A. That is correct. I just don't think that would  
3 be wise, and I think in this situation it just fits almost  
4 perfectly into that 80-acre spacing unit.

5 Q. Okay. And does Exhibit 7 list all of the  
6 interest owners in the southwest quarter of Section 2?

7 A. That's correct.

8 Q. And this is working interest as well as royalty  
9 and overriding royalty?

10 A. Correct.

11 Q. It is a fee tract, is it not?

12 A. Yes, uh-huh.

13 Q. Okay, and notice was given to all of these people  
14 as noted in Exhibit 8; is that correct?

15 A. Yes, that is correct.

16 Q. And in addition, we did give notice to Chesapeake  
17 because it is the only other operator in this area; is that  
18 correct?

19 A. Only other operator of a Wolfcamp.

20 Q. Of a Wolfcamp.

21 A. Correct.

22 Q. To the best of your knowledge, has any interest  
23 owner objected to the Application?

24 A. No.

25 Q. And were Exhibits 1 through 8 prepared by you or

1 under your supervision or compiled from company business  
2 records?

3 A. Yes, they were.

4 Q. And in your opinion is the granting of this  
5 Application in the interest of conservation and the  
6 prevention of waste?

7 A. Most definitely.

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

10 EXAMINER JONES: Exhibits 1 through 8 will be  
11 admitted as evidence.

12 EXAMINATION

13 BY EXAMINER JONES:

14 Q. Mr. Hawkins, what about that zone at 10,550?  
15 That's a little bit above the Wolfcamp; is that right?

16 A. Well, actually at some point we might like to  
17 perforate that. It looks kind of tight, and we had a bit  
18 of a show on the mud log, but at some point maybe down the  
19 road we might perforate that zone. So...

20 What's odd about it is, you can see it's not  
21 porous, and it's also -- it's in rock that doesn't appear  
22 as clean on the gamma-ray.

23 Q. Yeah, but what zone, what formation is --

24 A. I would still say it's in the Wolfcamp. All of  
25 this right here is sort of upper Wolfcamp. Not upper,

1 really, sort of mid-Wolfcamp, right beneath that basal  
2 Wolfcamp shale.

3 Q. Okay, yeah, I can see the gamma-ray is much  
4 dirtier there. So your permeability will probably slow  
5 down quite a bit.

6 A. Right. Well, the rock -- you can see in the  
7 Reef, it was a good-looking rock when we drilled it on  
8 the -- I was out there looking at samples, and it just -- I  
9 wish it were up above.

10 Q. Okay. And as far as the differences between  
11 statewide oil rules and these special pool rules, what  
12 would the differences be again? Just the 80 acres versus  
13 40 acres?

14 A. Right, it's 80 acres versus 40. And correct me  
15 if I'm wrong, but on an 80-acre spacing that well is not  
16 unorthodox.

17 MR. BRUCE: Yeah, that well is unorthodox.

18 THE WITNESS: Oh, even on an 80?

19 MR. BRUCE: Yes.

20 THE WITNESS: Because it still would have to be  
21 located in the 330 from the 40?

22 MR. BRUCE: Yes.

23 THE WITNESS: Okay.

24 EXAMINER JONES: Well, it's still got the --  
25 You've already got the approval on that.

1 MR. BRUCE: Yeah, essentially, Mr. Examiner, we  
2 just want the 80-acre spacing. Anything else we don't  
3 think is necessary.

4 Q. (By Examiner Jones) Okay, that's -- Now, is  
5 there any other pools in this Wolfcamp zone that are spaced  
6 on 80s that are similar to this, oil pools?

7 A. I'm not aware of any, nearby at least.

8 MR. BRUCE: Mr. Examiner, when I checked the  
9 Division's records, the Chesapeake well is in the Dean-  
10 Wolfcamp Pool, but that is statewide spacing, and I could  
11 locate no other nearby Wolfcamp pools.

12 EXAMINER JONES: Mr. Brooks?

13 MR. BROOKS: No questions.

14 Q. (By Examiner Jones) Okay, Mr. Hawkins, do you  
15 think we've left anything out here? Anything else you'd  
16 like to say?

17 A. No, I don't think so.

18 EXAMINER JONES: Well, thanks very much for --

19 THE WITNESS: And I also could say I didn't  
20 realize I was supposed to wear a tie, so next time I will.  
21 I walked in here and saw --

22 EXAMINER JONES: This is Santa Fe.

23 THE WITNESS: -- yeah, and the coat and tie. I  
24 thought, boy, I haven't worn one in a long time. All  
25 right, thank you.

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EXAMINER JONES: You have another witness?

MR. BRUCE: No, one other case.

EXAMINER JONES: One other case, okay, yeah.

Okay, with that we'll take Case 13,125 under advisement.

(Thereupon, these proceedings were concluded at 1:55 p.m.)

\* \* \*

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. \_\_\_\_\_ heard by me on \_\_\_\_\_ 19\_\_\_\_.

\_\_\_\_\_, 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 August 10th, 2003.



STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 16th, 2006