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STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
CASE 10126

EXAMINER HEARING

IN THE MATTER OF:

Application of BHP Petroleum (Americas)  
Inc., for an Unorthodox Oil Well Location,  
Lea County, New Mexico.

TRANSCRIPT OF PROCEEDINGS

BEFORE: MICHAEL E. STOGNER, EXAMINER

STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO  
October 17, 1990

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A P P E A R A N C E S

FOR THE APPLICANT: JIM BRUCE, ESQ.  
The Hinkle Law Firm  
500 Marquette, NW, Suite 740  
Albuquerque, N.M. 87106  
\* \* \* \* \*

I N D E X

	Page Number
Appearances	2
RANDALL DAVIS	
Examination by Mr. Bruce	4
Examination by Hearing Examiner	7
WILLIAM J. MORRIS	
Examination by Mr. Bruce	7
Examination by Hearing Examiner	10
Certificate of Reporter	16

E X H I B I T S

APPLICANT'S EXHIBITS:	
Exhibit 1	5
Exhibit 2	5
Exhibit 3	8
Exhibit 4	9

1                   EXAMINER STOGNER: Call next case, No.  
2 10126, which is the application of BHP Petroleum  
3 Americas, Inc., for an unorthodox oil well location,  
4 Lea County, New Mexico.

5                   Call for appearances.

6                   MR. BRUCE: Mr. Examiner, my name is Jim  
7 Bruce from the Hinkle Law Firm in Albuquerque,  
8 representing the Applicant.

9                   I have two witnesses to be sworn.

10                  EXAMINER STOGNER: Are there any other  
11 appearances in this case?

12                  Will the witnesses please stand to be  
13 sworn.

14                                   RANDALL DAVIS

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

17                                   EXAMINATION

18 BY MR. BRUCE:

19           Q.       Would you please state your name and city  
20 of residence?

21           A.       My name is Randall Davis. I'm from  
22 Houston, Texas.

23           Q.       Who do you work for and in what capacity?

24           A.       I'm the area land manager for BHP Petroleum  
25 (Americas) Inc., in the inland business unit.

1 Q. Have you previously testified before the  
2 Division as a petroleum landman?

3 A. Yes, I have.

4 Q. And your credentials were accepted as a  
5 matter of record?

6 A. Yes, they were.

7 Q. Are you familiar with the land matters  
8 involved in this case?

9 A. Yes, I am.

10 MR. BRUCE: Mr. Examiner, are the witness'  
11 qualifications acceptable?

12 EXAMINER STOGNER: They are.

13 Q. Mr. Davis, would you state briefly what BHP  
14 seeks in this case?

15 A. Yes. BHP Petroleum (Americas) Inc., is  
16 seeking approval for an unorthodox oil well location  
17 for its proposed Kimbrough State No. 1 well. The well  
18 will be located 1250 feet from the south line and 1725  
19 feet from the east line of Section 20, Township 17  
20 South, Range 37 East in Lea County.

21 Q. And to what depth will the well be drilled?

22 A. BHP will be drilling the well to an  
23 approximate depth of 11,200 feet to test the Strawn  
24 formation.

25 Q. What is the spacing for the Strawn

1 formation in this section?

2 A. Currently there are no field rules in this  
3 area, so the spacing is under state-wide spacing of 40  
4 acres, so the unit that will make up the well will  
5 comprise the southwest quarter of the southeast  
6 quarter of Section 20.

7 Q. Would you please refer to Exhibit No. 1 and  
8 describe its contents.

9 A. Yes. This is a land plat of the proposed  
10 area and it shows the proposed well with an arrow and  
11 a circle. The yellow on the land plat is the acreage  
12 that is currently owned by BHP.

13 Q. In which direction or directions is the  
14 well unorthodox?

15 A. The well is unorthodox only to the north.

16 Q. Okay. Although the well is not unorthodox  
17 to the west, who is the operator of the southwest  
18 quarter?

19 A. The southwest quarter is leased by Chevron,  
20 and we have given Chevron notice both in their Houston  
21 and their Midland offices.

22 Q. Is a copy of this notice submitted as  
23 Exhibit No. 2?

24 A. Yes, it is.

25 Q. Is that a copy of the Affidavit of Notice

1 prepared by my office?

2 A. Yes, it is.

3 Q. Is the southeast quarter of Section 21  
4 leased?

5 A. Yes, it is. It is State Lease V-2526, and  
6 that's a lease that was dated February 1, 1988 and  
7 issued to BHP Petroleum (Americas), Inc.

8 Q. And therefore, the ownership in all of the  
9 southeast quarter is common, is it not?

10 A. Yes, it is.

11 Q. In your opinion, should this application be  
12 granted without a penalty?

13 A. I believe so, because we are only moving in  
14 a direction toward ourselves and we're not affecting  
15 anyone else's correlative rights.

16 Q. Were Exhibits 1 and 2 prepared by you or  
17 compiled from company records?

18 A. Yes, they were.

19 Q. And, in your opinion, will the granting of  
20 this application be in the interests of conservation  
21 and the prevention of waste?

22 A. Yes, it will.

23 MR. BRUCE: Mr. Examiner, I move the  
24 admission of Exhibits 1 and 2.

25 EXAMINER STOGNER: Exhibits 1 and 2 will be

1 admitted into evidence.

2 EXAMINATION

3 BY EXAMINER STOGNER:

4 Q. Mr. Davis, referring to Exhibit 1, the  
5 north half of Section 29, shows to be leased to  
6 Chevron, is that correct?

7 A. That's correct. From the best of my  
8 information in having recently spoken with Chevron,  
9 I'm more familiar with the northeast quarter of 29,  
10 and I am certain that is leased to Chevron.

11 Q. So, in essence, either BHP offsets itself  
12 around the 40-acre proration unit, or Chevron offsets  
13 all the way around, is that correct?

14 A. That's correct.

15 EXAMINER STOGNER: No further questions of  
16 Mr. Davis. He may be excused.

17 MR. BRUCE: Call Mr. Morris.

18 WILLIAM J. MORRIS

19 the witness herein, after having been first duly sworn  
20 upon his oath, was examined and testified as follows:

21 EXAMINATION

22 BY MR. BRUCE:

23 Q. Would you please state your full name and  
24 city of residence?

25 A. I am William J. Morris. I reside in

1 Houston, Texas.

2 Q. Who is your employer?

3 A. BHP Petroleum.

4 Q. In what capacity are you employed?

5 A. I'm a petroleum geologist.

6 Q. Have you previously testified before the  
7 OCD as a geologist and were your credentials accepted  
8 by the OCD?

9 A. Yes, I have.

10 Q. Are you familiar with the geological  
11 matters involved in this case?

12 A. Yes, I am.

13 MR. BRUCE: Mr. Examiner, is the witness  
14 acceptable?

15 EXAMINER STOGNER: He is.

16 Q. Referring to Exhibit No. 3, Mr. Morris,  
17 would you please describe its contents for the  
18 Examiner?

19 A. Exhibit 3 is a Strawn structure map in the  
20 area of interest. The acreage colored yellow is the  
21 same acreage that was presented in Exhibit No. 1, with  
22 a little dot in that quarter section, that southeast  
23 quarter Section 20, as representing the proposed  
24 location.

25 The green-colored areas are where the



1 Strawn formation is productive in the two neighboring  
2 townships, and it clearly shows that our location is  
3 over a mile from the nearest production.

4 Q. Would you move on to Exhibit No. 4 and  
5 further describe the prospect?

6 A. Okay. This is a detailed structure map  
7 that uses all of the seismic control that BHP has in  
8 this area. Again, BHP's acreage is colored in yellow  
9 with the areas that we believe it to be prospective  
10 based on interpretation from the seismic data, which  
11 is shown in green.

12 The proposed location is shown with an  
13 orange arrow and it falls on the proprietary seismic  
14 line that BHP shot. And that's why we've proposed  
15 that as an unorthodox location.

16 Q. Do you believe by drilling at this location  
17 that you would be more likely to hit a thicker area of  
18 porosity?

19 A. Right. From Exhibit 3, covering that area,  
20 BHP has probably 200 miles of seismic data so we have  
21 a good model of what the Strawn production looks like  
22 on the seismic data. Shot point 1-80 on Kimbrough  
23 Line 1, best fits the model that we have developed  
24 from the other producing areas, and that's why we  
25 would like to get that location approved.

1 Q. In your opinion, should this application be  
2 granted without a penalty?

3 A. Absolutely.

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

7 A. Yes, it is.

8 Q. Were Exhibits 3 and 4 prepared by you or  
9 under your direction?

10 A. Yes, they were.

11 MR. BRUCE: Mr. Examiner, I move the  
12 admission of Exhibits 3 and 4.

13 EXAMINER STOGNER: Exhibits 3 and 4 will be  
14 admitted into evidence.

15 EXAMINATION

16 BY EXAMINER STOGNER:

17 Q. Referring to Exhibit No. 3, Mr. Morris, you  
18 show little green areas and you show Strawn  
19 production. What kind of production? What are these?

20 A. Oil pools? Is that what you're interested  
21 in? The one in Section 8 to the north is the midway  
22 Strawn pool.

23 Q. I'm talking about--it looks like you've got  
24 little pods or something.

25 A. We've interpreted these to be carbonate

1 algal mounds that are relatively small in scope and  
2 stuff, and they are buildups of organic material in  
3 small, relatively circular or oblong areas.

4 Q. Referring to Exhibit 4, is that what you're  
5 showing here with the green shaded area?

6 A. Exactly. That's where we think, based on  
7 the seismic data, where the algal mounds should be  
8 present. It's a change in the amplitude and the  
9 seismic event at the Strawn horizon through that area.

10 Q. In looking at this, it looks like a  
11 standard oil well location would put you in the same  
12 general area, I'm talking 1980 from the east and 660  
13 from the south. How does this unorthodox location--

14 A. The problem is, these things are relatively  
15 small and illusive. If you look throughout the area  
16 in Exhibit 3, you can see that many of these pods are  
17 offset one location away by a dry hole.

18 We've participated in several wells in this  
19 area, and it's easy to get a dry hole if you're just a  
20 little ways off of the seismic data, and we would  
21 prefer to be as close as possible to the seismic.

22 Q. Now, the seismic lines in which you show on  
23 Exhibit 4, are these BHP seismic lines, or are they  
24 purchased, or--

25 A. Most of them are purchased. We have two

1 lines that we shot that appear on that map.

2 Q. Which are those?

3 A. The Kimbrough Line 1, which is a  
4 northwest/southeast line that goes through the  
5 proposed location. That is the line that we find the  
6 best anomaly. The other line extends down from  
7 Section 32 up through Section 28, and that's our  
8 Kimbrough Line 2. You can see the "Kimbrough Line 2"  
9 written down in the lower part of--

10 Q. In the middle of Section 32?

11 A. Right. Those are the only two proprietary  
12 lines that we have on this map.

13 Q. So, strictly from this geophysical evidence  
14 or geophysical interpretation, this algal mound that  
15 you show in Section 20, and you would like to,  
16 essentially, try to get in the middle of it?

17 A. Yeah. If you look to the west there, there  
18 really is not a whole lot of seismic control to  
19 confirm how far that thing goes over there. That's an  
20 interpretation. We've used this map to try and sell  
21 an interest in our prospect to the industry, so we've  
22 tried to make it as optimistic as possible.

23 Q. When do you plan to drill this well?

24 A. I think right now we're scheduled to go in  
25 mid-December.

1 Q. Does BHP have any producing wells in the  
2 area shaded in green on Exhibit 3?

3 A. Yes. In Section 10 of 16 South, 37 East,  
4 there's a well up in the northeast quarter. That's  
5 our Southeast Dean well that we drilled about three  
6 years ago, I believe. And we have an interest in a  
7 well in Section 29 that Tiperary operates.

8 Q. Is that Section 29 of 16/37?

9 A. Right, 16/37, and it's the southernmost  
10 well in that section. It's got a minus 7244 on it.

11 Q. Okay.

12 A. There are two wells immediately to the west  
13 in Section 30, two dry holes.

14 Q. Do you have interest in those?

15 A. We participated in those. We drilled the  
16 first well, we sidetracked it trying to get into the  
17 reservoir, and we missed. And we have a seismic line  
18 that goes right up that section line. You need to,  
19 being right on the seismic can be crucial, and I think  
20 many other operators have found that out in this area.

21 Q. There appear to be dry holes, one in the  
22 northeast quarter of Section 20 and one in the  
23 northwest quarter of 29. Did those penetrate the  
24 Strawn?

25 A. No. Those were, I believe, Bone Spring

1 tests. The closest wells that penetrated the Strawn  
2 would be in Section 27 and Section 16.

3 Q. Section 16 being a dry hole?

4 A. Right. Both of those wells were dry  
5 holes. The logs for those wells show up on Exhibit 4,  
6 with an arrow pointing to their location.

7 Q. In Section 27, there's a well in the west  
8 half. Did that penetrate the Strawn?

9 A. Yeah, that's the well that's on the lower  
10 part there. You can see how dirty that gamma ray  
11 reads on there, and that would tell us that we're in a  
12 flag or mudstone facies, that we're not into the  
13 clean, algal mound carbonate.

14 Q. Does the algal mound carbonate section show  
15 up in the log for the State 16 No. 1?

16 A. No. I believe that, again, is going to be  
17 in the mudstone section. There is a cleaner section  
18 right at the top and I believe that would be a grain  
19 stone, and that's not the same facies that we're  
20 looking for.

21 Q. Most of the Strawn production, if not all,  
22 is spaced on 80 acres, is that correct?

23 A. That is correct.

24 Q. And I'm referring again to Exhibit 3?

25 A. Um-hm.

1           Q.        Would it be BHP's plans to come in and  
2 possibly seek 80-acre spacing if this well is indeed  
3 commercial and productive?

4           A.        I believe so, yes. It would fit in with  
5 the other fields.

6                    EXAMINER STOGNER: Okay. I have no other  
7 questions of Mr. Morris.

8                    Are there any other questions of this  
9 witness? You may be excused.

10                   Mr. Bruce?

11                   MR. BRUCE: I have nothing further in this  
12 matter.

13                   EXAMINER STOGNER: Does anybody else have  
14 anything further in Case No. 10126? If not,  
15 unfortunately, this case will have to be continued to  
16 the Examiner's Hearing scheduled for October 31st, at  
17 which time it will be taken under advisement.

18                   With that, this hearing is adjourned.

19                   (Thereupon, the proceedings concluded.)

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CERTIFICATE OF REPORTER

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

I, Carla Diane Rodriguez, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I caused my notes to be transcribed under my personal supervision; 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 October 17, 1990.

*Carla Diane Rodriguez*  
CARLA DIANE RODRIGUEZ  
CSR No. 91

My commission expires: May 25, 1991

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10126, heard by me on 17 October 1990.

*[Signature]*, Examiner  
Oil Conservation Division