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I N D E X

RICHARD A. ERICKSON

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MR. STOGNER: We'll call now  
Case Number 6479.

MR. TAYLOR: The application of  
Anadarko Production Company for an unorthodox gas well loca-  
tion, Eddy County, New Mexico.

MR. KELLAHIN: If the Examiner  
please, I'm Tom Kellahin of Santa Fe, New Mexico, appearing  
on behalf of the applicant, and I have one witness to be  
sworn.

MR. STOGNER: Are there any  
other appearances in this matter?

Will the witness please stand  
and be sworn?

(Witness sworn.)

RICHARD A. ERICKSON,  
being called as a witness and being duly sworn upon his  
oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Mr. Erickson, for the record would you  
please state your name and occupation?

A My name is Richard Erickson and I'm Staff  
Geological Engineer with Anadarko Production Company in Mid-

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land, Texas.

Q Mr. Erickson, have you previously testified before the Oil Conservation Division of New Mexico as a geological engineer?

A Yes.

Q And pursuant to your employment have you made a study of the geologic characteristics surrounding this application?

A Yes.

MR. KELLAHIN: We tender Mr. Erickson as an expert geological engineer.

MR. STOGNER: He is so qualified.

Q Mr. Erickson, let me show you what has been marked as Applicant Exhibit Number One and have you, first of all, identify that exhibit.

A This is the structure map, the top of the Morrow Clastics.

Q Would you locate for us on the exhibit the proration unit that Anadarko seeks to drill this well on?

A The proration unit that Anadarko seeks is the south half of Section 22, Township 21 South, Range 27 East.

Q Would you identify for the Examiner what the unorthodox location is that you seek with this application?

1  
2           A           The unorthodox location is indicated by  
3 the red dot and arrow.

4           Q           Let me direct your attention to the sec-  
5 tion immediately to the west of Section 21. Would you iden-  
6 tify for us any other unorthodox well locations in that sec-  
7 tion that have been approved for any other operator?

8           A           Cities Service has a well, the Government  
9 "AD" No. 3, in the northeast quarter of Section 21, and that  
10 was Order No. R-7679.

11           Q           What is the distance that well is from  
12 the common section line between your section and their sec-  
13 tion?

14           A           660 feet.

15                           MR. KELLAHIN: Mr. Examiner, we  
16 show you for your informatin a copy of Division Order R-7679  
17 entered in that case on the adjoining well.

18           Q           What is the spacing and proration unit  
19 assigned by Cities Service to their well in Section 21?

20           A           320 acres. It's the north half of Sec-  
21 tion 21.

22           Q           In Section 22, your section, Mr. Erick-  
23 son, is the north half of your section dedicated to a produ-  
24 cing Morrow well?

25           A           Yes, it is.

          Q           Would you identify that well for us?

          A           That's the Bass State 22 Com No. 1 in the  
northwest quarter of the section.

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2 Q Would you now explain what conclusions  
3 you reach from this exhibit in terms of your location?

4 A Okay. We feel from this, this location  
5 will be approximately 100 feet high to the presently plugged  
6 and abandoned well on the lease we hold, and about 40 feet,  
7 or so, low to the Cities Service "AD" No. 3.

8 Q In your opinion, Mr. Erickson, is this  
9 the optimum location in the south half of Section 22 from  
10 which to test for production in the Morrow Clastics?

11 A Yes, we believe so.

12 Q Why could you not move this, in your  
13 opinion, to a standard location farther to the east?

14 A We don't wish to go down dip. The poro-  
15 sity, we believe, becomes poorer that direction. Also,  
16 there are two wells that have been tested water wet in that  
17 direction.

18 Q All right, sir, let's turn to Exhibit  
19 Number Two, which is the Isopach, and have you identify and  
20 describe that.

21 A Exhibit Number Two is the Isopach of the  
22 Lower Morrow with a field porosity greater than 8 percent.

23 Q Would you describe for us the signifi-  
24 cance of the proposed well location in terms of the Ispach?

25 A Okay. The well location will have ap-  
proximately 50 net feet of pay versus 32 in the well that's  
plugged on our lease, and 67 in the Cities Service well.

It's a channel sand sequence. We antici-

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pate excellent porosity in the area.

Q You've identified on that exhibit the two wells that are wet in the interval to be tested?

A Yes. In section 23 are two wells colored in blue. One was an Amoco well and one was a Read and Stevens well. They were both production tested and DST'ed in the Lower Morrow, which is the pay in the area, and they both were water wet producing up to several hundred barrels of water.

Q All right, sir, let's turn to the cross section now, Mr. Erickson.

A All right, sir, would you identify and describe for us the wells contained on that exhibit?

A Yeah. This is a basically west/east cross section. It begins at the Cities Service Elizondo "A" Federal 2-Y in Section 21, Township 21 South, Range 27 East on the left.

The next well, second from the left, is the Cities Service Government "AD" Com No. 3, the recently drilled well.

The next well is the Texas International Petroleum Corporation Sun State No. 1 in Section 22, Township 21, 27. That's the well presently on the lease we have and is now abandoned.

The next well is the Amoco State "IR" No. 1 in Section 23, Township 21 South, Range 27 East. That was a well that was tested in the Lower Morrow and the Upper

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Morrow and found to be water productive.

The last well is the Read and Stevens Hisson State Com No. 1, and it was also tested in the Lower Morrow and found to wet.

Q Would you describe for us the geology between the Cities Service well in Section 21, across through your location in Section 22?

A Okay. The Cities Service well will be higher on the structure, indicating this. The structure dips to the southeast and through the Texas International Petroleum location. Our location will be, like I said, about 40 feet low to the Cities Service well.

Q Are you able to correlate the Morrow sands between your proposed location and the Cities Service Well?

A Yes. Some of the sands do correlate very well. There are some others that do not.

Q What is the experience of the operators in the area with regards to the original bottom hole pressures in this portion of the Morrow?

A The original bottom hole pressure, the shut-in wellhead pressure which I have record of, is approximately 3600 pounds.

Q And how does that compare to what Cities Service tested in their well?

A Cities Service's shut-in wellhead pressure after completion was 2690 pounds.

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Q With regards to your acreage in the south half of Section 22, what conclusion can you draw from a comparison of the pressure information and the correlation of the Morrow formation across this area?

A We believe that the decrease in pressure does indicate some -- some depletion in the area.

Q And unless your proposed location is granted, do you have an opinion as to whether or not your share of the gas from this zone will be produced by others?

A We feel that Cities would probably produce our share out of the immediate area.

Q Were Exhibits One, Two, and Three prepared by you?

A Yes.

Q In your opinion will approval of this application, Mr. Erickson, prevent waste, protect correlative rights, and be in the best interest of conservation?

A Yes.

MR. KELLAHIN: We move the introduction of Exhibits One, Two, and Three.

MR. STOGNER: Exhibits One, Two, and Three will be admitted into evidence.

Q Mr. Erickson, when do you propose to commence the drilling of this well?

A We need to commence before April 1st, 1985.

Q Why is there a need to commence before

1  
2 April 1st of '85?

3 A Our State lease expires at that time.

4 Q All right, sir. Thank you.

5  
6 CROSS EXAMINATION

7 BY MR. STOGNER:

8 Q I'd like to refer back to Exhibit One.  
9 Is the Burton Flat Morrow a prorated gas pool or a nonpro-  
rated gas pool?

10 A I believe it's nonprorated, I think.

11 MR. KELLAHIN: Burton Flats  
12 Morrow is a prorated gas pool, Mr. Stogner.

13 A Okay.

14 Q Obviously the well offsetting you to the  
15 northwest is an unorthodox location by Order No. R-6979.

16 Is the Amoco well in Section 23, offset-  
ting to the northeast, is that an unorthodox location?

17 A I am not sure on that one. I believe it  
18 is an orthodox location. It is an Atoka producer.

19 Q Oh, it's an Atoka. Okay.

20 Do you know if there's very many unortho-  
21 dox locations within the Burton Flat Morrow Pool?

22 A There are -- I don't believe there are  
23 very many unorthodox locations. There are a number of wells  
24 that are completed closer than these two wells would be com-  
pleted.

25 MR. STOGNER: I have no further

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questions of this witness.

Are there any other questions?

If not, he may be excused.

Is there anything further in

Case Number 8479?

MR. KELLAHIN: No, sir.

MR. STOGNER: If not, this case  
will be taken under advisement.

(Hearing concluded.)

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8479 heard by me on 13 February 1985.

Michael E. Higgins, Examiner  
Oil Conservation Division