STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 1 OIL CONSERVATION DIVISION STATE LAND OFFICE BUILDING 2 SANTA FE, NEW MEXICO 3 4 January 1989 4 EXAMINER HEARING 5 6 IN THE MATTER OF: 7 Application of Nearburg Producing CASE Company for an unorthodox gas well 9569 8 location, Eddy County, New Mexico. 9 10 BEFORE: David R. Catanach, Examiner 11 12 13 TRANSCRIPT OF HEARING 14 15 APPEARANCES 16 17 For the Division: Robert G. Stovall Attorney at Law 18 Legal Counsel to the Division State Land Office Bldg. 19 Santa Fe, New Mexico 20 For Nearburg Producing Scott Hall Attorney at Law Company: 21 CAMPBELL and BLACK, P. A. P. O. Box 2208 22 Santa Fe, New Mexico 87501 23 24 25

INDEX CHARLES E. NEARBURG Direct Examination by Mr. Hall Cross Examination by Mr. Catanach LOUIS J. MAZZULLO Direct Examination by Mr. Hall EXHIBITS Nearburg Exhibit One, Plat Nearburg Exhibit Two, Plat Nearburg Exhibit Three, Structural Map Nearburg Exhibit Four, Isopach Nearburg Exhibit Five, Affidavit

3 1 MR. CATANACH: Call Case 9569. 2 MR. STOVALL: Application of 3 Nearburg Producing Company for an unorthodox gas well loca-4 tion, Eddy County, New Mexico. 5 MR. CATANACH: Are there ap-6 pearances in this case? 7 MR. HALL: Mr. Examiner, Scott 8 Hall from the Campbell & Black law firm on behalf of the 9 Applicant, Nearburg Producing Company, with two witnesses. 10 MR. STOVALL: Same two? 11 Yes, they've been MR. HALL: 12 previously sworn. 13 MR. CATANACH: The record will 14 show that the witnesses have previously been sworn and you 15 may proceed, Mr. Hall. 16 17 CHARLES E. NEARBURG, 18 being called as a witness previously sworn and remaining 19 under oath, testified as follows, to-wit: 20 21 DIRECT EXAMINATION 22 BY MR. HALL: 23 All right, Mr. Nearburg, in view of the Q 24 fact you've been previously sworn, let me just direct your 25 attention to Exhibit One, please, sir. Would you please • explain that to the Examiner?

A Okay. Do you want me to state what
we're seeking?

Q Yes.

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A Nearburg Producing Company in this case
seeks approval of a Morrow test well at a location 1980
feet from the south line and 990 feet from the west line of
Section 7, Township 19 South, Range 26 East, Eddy County,
New Mexico, on a south half proration unit.

The pool rules in this case of the Four Mile Draw Morrow Pool call for 320-acre proration units with wells located a minimum of 660 feet from the side boundary and 1980 from the end boundary of the proration unit, with 1320 feet between wells.

In this case our proposed well is standard in one direction but nonstandard in the other direction by 990 feet.

18 Exhibit Number One is a reflection of
19 ownership of the offsetting proration units to the north
20 and west and identifies the current wells in the area.

Basically all of the offsetting producing wells in this immediate area are operated by Nearburg
Producing Company. Last year we drilled the north offset
well, which is the Glass 7-E No. 1, which is a -- not an
outstanding, but a good Morrow well. It produces approxi-

5 1 mately 1000 -- I think I'm safe in saying it produces about 2 1000 MCF per day. 3 The Rose No. 12-A No. 1 was also drilled 4 last year and was not successful in the Morrow. We made a 5 completion attempt in the Atoka, which also was very mar-6 ginally successful, and we are now attempting a completion 7 in the Strawn in that well. 8 The other well in Section 12 is an aban-9 doned Morrow producer and the other well in Section 7 is a 10 Morrow dry hole drilled sometime in the past by Dorchester. 11 Basically there is also a well that's 12 not shown that shows up on Exhibit Two, the Muchas Hombres, 13 which is in the west half of the southwest quarter of 14 Section 8, which was drilled by Nearburg last year, and it 15 was a Morrow dry hole, also. 16 Therefore, we are proposing to drill 17 this well at this location in order to basically fit the 18 geology that's been shown by the drilling that we've done. 19 The ownership of these leases, in the 20 south half, the working unit, Nearburg would have .125 per-21 Yates would have 34.375 percent; and there are some cent; 22 et als (sic) that have a .5 percent working interest. 23 Q Do you believe that production from this 24 well should be restricted due to its proposed location? 25 No, I don't believe it should. We feel А

6 1 that it needs to be drilled here in order to drain any re-2 serves that might be in the south half of 7. We feel that 3 the well in Section 8 pretty well condemned the east --4 well, we feel that the dry hole in the north part of 7 and 5 the dry hole in the southwest part of 8 basically condem-6 ned most of the east half of 7 and therefore we feel this 7 location is necessary to produce whatever gas is there. 8 Are you requesting that a minimal --Q 9 minimum allowable be set for the well if production is in 10 fact penalized? 11 If it were penalized, we would request a Α 12 minimum of 1000 MCF per day. 13 And if a penalty is imposed, what affect 0 14 will that have on your plans for the well? 15 It would -- it would -- we would prob-А 16 ably not drill the well. It would be very doubtful that we 17 would drill the well. 18 0 Do you believe that the granting of 19 Nearburg's application will be in the best interest of con-20 servation, the prevention of waste, and protection of cor-21 relative rights? 22 Yes, I do. А 23 And were Exhibits One and Two prepared Q 24 by you or at your direction? 25 А Yes, they were.

7 1 MR. HALL: We'd move the 2 admission of Exhibits One and Two and that concludes our 3 direct of this witness. 4 5 (There followed a discussion off the record.) 6 7 MR. CATANACH: Do you want to 8 go into that at this time, Mr. Hall? 9 Notice is -- let me hand you what's been Q 10 marked as Exhibit Five and ask you if that is a copy of an 11 affidavit you have directed your counsel to send out show-12 ing that notice has been provided to all the (unclear). 13 А Yes, it is. 14 MR. HALL: That's it. That 15 concludes my direct of this witness. 16 17 CROSS EXAMINATION 18 BY MR. CATANACH: 19 The only party that this notice was sent Q 20 to was Yates Petroleum, is that correct? 21 А Correct. 22 Q Who is the owner in the south half of 23 Section 12. The -- in the north half of Section 13, is 24 Nearburg the operator of that acreage? 25 Α The north half of 13, that's a combin-

1 ation of ownership. Basically it's owned by -- primarily 2 those leases are owned by Nearburg and Yates. 3 The subject well location actually does 4 not move to nonstandard in the direction of that to the 5 south and we're actually, I guess we're moving slightly in 6 that direction by moving to the west, but we're not moving 7 in the south toward that acreage, but I believe that Yates 8 and Nearburg are the owners of the leases in there. 9 Nearburg, where do you -- where did 0 Mr. 10 you come up with the minimum allowable for wells in this 11 area? 12 Well, we feel that at today's gas prices А 13 and with the production restrictions that we have, and the 14 difficulty we have marketing the gas, that if we're -- if 15 we're not allowed to sell at least that amount when we are 16 able to sell, it's very doubtful that we could justify --17 well, we couldn't justify the economics of trying to drill 18 the well and take the risk associated with, you know, with 19 drilling these wells and therefore we feel it's the minimum 20 that would substantiate the risk or provide an amount 21 economic payout to our partners, should we find a well. 22 MR. CATANACH: No further 23 questions. 24 MR. HALL: Mr. Examiner, we'd 25 also move admission of Exhibit Five.

9 1 MR. CATANACH: Exhibit Five, 2 did we get the other two? 3 MR. HALL: Yes. 4 MR. CATANACH: Exhibit Five 5 will be admitted as evidence. 6 7 LOUIS J. MAZZULLO, 8 being called as a witness and being previously sworn upon 9 his oath, testified as follows, to-wit: 10 11 DIRECT EXAMINATION 12 BY MR. HALL: 13 For the record please state your name. Q 14 Louis Mazzullo. А 15 Mr. Mazzullo, you've previously been Q 16 sworn and had your credentials accepted of record today, 17 have you not? 18 А Yes, I have. 19 Q Have you prepared certain exhibits in 20 connection with this application? 21 А I have two exhibits. 22 Q All right, let's refer to Exhibit Three, 23 please, and explain that to the Examiner. 24 The primary target horizon on this pro-А 25 posed location is the Morrow formation. Morrow formation

10 1 again here, as it did in the previous case, produces out of 2 approximately a 200 foot section of sands and shales, the 3 sandstones being the reservoir in this case. This map on Exhibit Three is a structure 5 map drawn on top of the Morrow section that contains these 6 It's drawn on a contour interval of 50 reservoir sands. 7 feet and firstly it shows southeasterly regional dip on top 8 of the Morrow in this case, in this area, rather. 9 I'd like to draw your attention to a 10 couple of key wells here, the first of which is the No. 1 11 Secrest in the northeast guarter of Section 7. That well 12 with a subsea of 5739 feet encountered a number of tight 13 Morrow sands as well as one or two wet sands, sands that 14 produced water on drill stem tests, one of which is the 15 primary target horizon at the proposed location. 16 The second key well is in the southwest 17 quarter of Section 8, which is the Nearburg No. 1, 8-1 18 Muchas Hombres, which was just recently drilled and aban-19 doned after encountering a wet section of Morrow in this 20 primary target zone. 21 These two wells indicate that water is 22 much -- is a problem in this area in terms of the Morrow 23 reservoirs, and that when we look at the No. 7-1 Glass, the 24 Nearburg No. 7-1 Glass in the northwest guarter of Section 25 7, that well is currently productive out of the Morrow and

1 not produced any water our of the primary has thus far 2 target zone. 3 So these wells indicate the sensitivity 4 of structure this area to the presence or absence of in 5 water in any of these Morrow reservoirs, particularly the 6 main target that I'll be addressing here in a moment. 7 The -- moving this location towards a 8 more standard location, that is, towards the east, would 9 run the risk of being significantly down dip on the Morrow 10 reservoir. By significant I mean up to 25 feet, which in 11 this area could make a difference between gas or water. 12 All right, let's refer to Exhibit Four, Q 13 if you'd explain that to the Examiner, please. 14 Okay, the primary target in the Morrow, А 15 there's only one real target horizon in the Morrow at this 16 location and that's what I refer to as Zone 1-B. It's ap-17 proximately the upper middle part of the Morrow reservoir 18 section, the 200 foot section that I was talking about 19 This is a map of the total sand, thickness of previously. 20 total sand in this Morrow 1-B in the area. If you note, 21 the Morrow -- I mean the Nearburg No. 7-1 Glass in the 22 northwest guarter of Section 7 contains 34 net feet of 23 porous sand in Morrow Zone 1-B. 24 Ιf you look at the Secrest No. 1 in the 25 northeast guarter of Section 7, that contains 17 feet of

1 marginally porous sand. By porous, I refer to the areas in 2 stippled pattern of greater than 10 feet of 8 percent poro-3 sity.

4 Proceeding down to the southwest quarter 5 of Section 8, the well that's indexed with the number 20, 6 is the Nearburg No. 1 Muchas Hombres. That contains 20 7 feet of sand in Morrow 1-B and a drill stem test that was 8 run across this sand or testing across this sand, indi-9 cated that it was wet.

If you cross reference this map to
previous Exhibit Number Three, you'll note that the Muchas
Hombres and the Secrest Wells are down dip of the Glass No.
7-1.

14 The intent of moving of -- of drilling a 15 well at the proposed nonstandard location is to attempt to 16 remain within the productive -- what I consider the produc-17 tive porosity fairway on Zone 1-B, and at the same time 18 trying to maintain as high a structural position on that 19 zone as possible so as not to get into a situation that 20 both the Secrest and the Muchas Hombres got into, that is 21 production of water from this zone.

I can't tell from the log response on the 7-1 Glass where the gas/water contact is because these sands are typically hard to read. It's hard to read a gas/oil/water contact in the Morrow. They're tight sands

13 1 to begin with, inherently tight sands to begin with, and 2 it's hard to make such a determination. 3 But I would venture to guess that by 4 keeping the location as far west as possible, away from a 5 standard location, we lessen the risk of significant water 6 production out of the proposed well. 7 Do you have anything further you'd wish Q 8 to add with respect to this exhibit? 9 No, I don't. Α 10 Mr. Mazzullo, do you believe that there Q 11 is a greater likelihood that the well, if completed in this 12 location, would be a successful well than if it were com-13 pleted in a standard location? 14 А Yes, definitely. 15 Q In your opinion do you believe that the 16 granting of the application will be in the interest of con-17 servation, the prevention of waste, and protection of cor-18 relative rights? 19 А Yes, I do. 20 Q And were Exhibits Three and Four pre-21 pared by you? 22 Q They were prepared by me. 23 MR.HALL: We'd move the admis-24 sion of Exhibits Three and Four and that concludes our 25 direct in this case.

MR. CATANACH: Exhibits Three and Four will be admitted as evidence. I have no questions of the witness. He may be excused. Is there anything further in Case 9569? MR. HALL: That's all I have. MR. CATANACH: IF Not, this case will be taken under advisement. (Hearing concluded.)

15 ł 2 3 4 CERTIFICATE 5 6 BOYD, C. S. R. DO HEREBY I, SALLY W. 7 CERTIFY that the foregoing Transcript of Hearing before the 8 Oil Conservation Division (Commission) was reported by me; 9 that the said transcript is a full, true and correct record 10 of the hearing, prepared by me to the best of my ability. 11 12 13 Sally W. Bay 14 15 16 17 18 I do hereby certify that the foregoing is a complete record of the proceedings in 19 the Examiner hearing of Case No. 7569 heard by me on fanuary 4 1989 20 _, Examiner atano mel 1 21 **Oil Conservation Division** 22 23 24 25