STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 1 OIL CONSERVATION DIVISION STATE LAND OFFICE BUILDING 2 SANTA FE, NEW MEXICO 3 13 April 1988 4 EXAMINER HEARING 5 6 IN THE MATTER OF: 7 Application of Nearburg Production CASE Company for an unorthodox gas well 9352 8 location, Eddy County, New Mexico. 9 10 11 BEFORE: David R. Catanach, Examiner 12 13 14 15 TRANSCRIPT OF HEARING 16 17 APPEARANCES 18 19 For the Division: Charles E. Roybal Legal Counsel for the Division 20 Oil Conservation Division State Land Office Building 21 Santa Fe, New Mexico 87501 22 For the Applicant: William F. Carr 23 Attorney at Law CAMPBELL & BLACK P.A. 24 P. O. Box 2088 Santa Fe, New Mexico 87501 25

INDEX CHARLES E. NEARBURG Direct Examination by Mr. Carr Cross Examination by Mr. Catanach 11 EXHIBITS Nearburg Exhibit One, Land Plat Nearburg Exhibit Two, C-102 Nearburg Exhibit Three, Isopach Nearburg Exhibit Four, Cross Section

3 ١ 2 MR. CATANACH: Call next Case 3 9352. 4 MR. ROYBAL: Case 9352. Application of Nearburg Producing Company for an unorthodox well 5 location, Eddy County, New Mexico. 6 7 MR. CATANACH: Are there ap-8 pearances in this case? 9 MR. CARR: May it please the 10 Examiner, my name is William F. Carr with the law firm Campbell & Black, P. A. of Santa Fe. We present Nearburg Pro-11 ducing Company and I have one witness. 12 MR. CATANACH: Are there any 13 other appearances in this case? 14 Will the witness please stand 15 and be sworn in? 16 17 18 (Witness sworn.) 19 20 CHARLES E. NEARBURG, 21 being called as a witness and being duly sworn upon his 22 oath, testified as follows, to-wit: 23 24 25

4 1 DIRECT EXAMINATION 2 BY MR. CARR: 3 0 Will you state your full name for the 4 record, please? 5 Charles Eugene Nearburg. A 6 Mr. Nearburg, where do you reside? \mathcal{O} 7 Dallas, Texas. Ä 8 By whom are you employed and in what $\mathbf{\hat{z}}$ 9 capacity? 10 I'm president of Nearburg Producing A 11 Company. 12 Ç. Mr. Nearburg, have you previously 13 testified before this Division and had your credentials 14 accepted and made a matter of record? 15 Yes, sir, on several occasions. A 16 Are you familiar with the application Q 17 filed on behalf of Nearburg in this matter? 18 А Yes, sir, I am. 19 ୁ And are you familiar with the subject 20 well? 21 A Yes, I am. 22 MR. CARR: Are the witness' 23 qualifications acceptable? 24 MR. CATANACH: They are. 25 Mr. Nearburg, would you briefly state Q.

5 what you seek with this application? 1 We seek approval of an unorthodox gas A 2 well location 1980 feet from the north line and 330 feet 3 from the west line of Section 11, Township 20 South, Range 4 25 East, Eddy County, New Mexico. 5 And to what formation is this well 0 6 projected? 7 R To the Morrow in the Cemetery Morrow Gas 8 Pool. 9 ਼ Could you -- are you familiar with the 10 rules for this particular pool? 11 h Yes. 12 \mathcal{O} And what is the spacing requirement in 13 this pool? 14 The spacing is 320 acres. A 15 Ç, And the well location requirements? 16 A The well location requirements are for a 17 stand-up unit such we have are 1980 from the north, 660 from 18 the west. 19 Ċ. Have you prepared certain exhibits for 20 introduction in this case? 21 Å Yes, we have. 22 \bigcirc Would you refer to what has been marked 23 for identification as Nearburg Exhibit Number One, identify 24 this and review the information contained on this exhibit? 25

6 1 A Yes. This exhibit is a land plat showing in -- showing the proposed spacing unit outlined in yellow 2 with the proposed well location indicated by a red dot with 3 an arrow. 4 Other development in the area 5 is the Nearburg Producing Company Anderson Com No. 1, which is the 6 orange proration unit in the north half of Section 10 immed-7 iately to the west of the proposed well location. 8 There is common mineral ownership under 9 the areas striped in green. 10 Now, Mr. Nearburg, you represent or con-11 \mathcal{O} trol all of Section 10, do you not? 12 That's correct. Α 13 And the proposed well location 14 0 is a standard distance from the north line of the acreage 15 dedicated to this well. 16 That's correct. 17 Α The only direction in which we're moving nonstandard is toward ourself. 18 And what is the status of this well? 19 Q А The well is currently drilling. We had 20 to commence operations as a result of not being able to get 21 22 an extension from -- on some of the leases. 23 0 And so you spudded the well to prevent 24 lease expiration? 25 That's correct. Α

7 Is Exhibit Number Two a copy of Division $\mathbb{C}^{\mathbb{N}}$ 1 Form C-102 approving the location subject to this hearing? 2 Yes, it is. A 3 Mr. Nearburg, how important is structure 4 \mathbb{C} in determining whether or not you're going to have a 5 successful well in the area, and you might in response to this 6 question refer to Nearburg Exhibit Number Three. 7 Structure is -- is somewhat important but A 8 it's less important than stratigraphic position. 9 As Exhibit Three points out, this is our 10 interpretation of the Isopach of the Lower B Morrow Sand, 11 which is our primary target here, and based on offset well 12 control to the -- to the -- further to the east, we are 13 quite concerned that if we drilled at the standard location 14 we might miss the productive Isopach interval. 15 And by locating the well at the proposed 0 16 location you're really in the center of the -- what you be-17 lieve to be the productive area? 18 Right. We feel like for this proration A 19 unit this is the only location that really gives us a chance 20 worth -- of hitting this sand worth taking the risk in dril-21 ling the well. 22 23 $\hat{\Sigma}$ Would you refer to what has been marked Nearburg Exhibit Number Four, which is a cross section, 24 as 25 and identify that and briefly review it for Mr. Catanach?

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A Yes. This cross section traverses several wells from north to south and a little to the east in
this area.

4 The leftmost well is the former J. M. Huber Irami (sic) Federal, which was subsequently re-entered 5 by Chama Petroleum, which was the forerunner of the Nearburg 6 7 Producing Company, and we re-entered in the Clorieta Yeso; however, this well was drilled to the Morrow and as the log 8 indicates, it was tight and was drill stem tested tight, and 9 would not make a Morrow well. 10

We then proceed on down to the -- what is now the Nearburg Producing Company Huber Federal No. 2, which was drilled by Nearburg, and was -- encountered some very thin lenses of Morrow Sand which required fracture stimulation in order to produce.

16 We then moved to the next proration unit 17 south, which is the Nearburg -- now the Nearburg Producing Company Huber Federal No. 1. This well, actually, chrono-18 19 logically was drilled before the Huber No. 2, and here we 20 encountered a very thick deposition of Morrow Sand and the 21 well completed naturally for a very good well, but the close 22 spacing between these two wells is very indicative of what can happen in the Morrow in this area of Eddy County, where 23 24 one proration unit away, or a few feet away, you can run out 25 of depositional thickness and sand quality.

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We then proceeded south to the -- what is now the Nearburg Producing Company Anderson Com No. 1, which intersected portions of the sand that was found in the Huber Federal No. 1 but with not quite as good a development, although it was completed naturally.

6 We are now proposing to move over onto 7 this same mineral owners acreage in Section 11 and drill an offset to this Anderson well. The -- this is the first off-8 set we've drilled in this area in several years, due to the 9 nature of the gas market, and we feel it's very important to 10 try to make the best well possible in this current gas 11 climate. But we feel like at this proposed location we have 12 an opportunity to intersect some of the stratigraphic build-13 ups which occurred in the Anderson Com No. 1, whereas, if we 14 move further to the east we're quite concerned about running 15 into the sequence that occurred in the Amoco-Rio Siete Well, 16 17 which is the last well on the cross section and is in the 18 northwest of the southeast of Section 11. This well encountered very little gross thickness of sand. 19 None of it was very clean. It had very low porosity and low permeability. 20 21 It ws completed as a fairly marginal well by Amoco, produced 22 at only 139,000 MCF of gas and was subsequently after that point plugged and abandoned. 23

24 They made a recompletion attempt in the25 Yeso, which was also marginal and the well has now been to-

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1 10 tally plugged and abandoned. 2 Now, Mr. Nearburg, in your opion would 3 0 approval of this application enable you to produce gas that 4 otherwise might not be produced? 5 6 A We feel very strongly that it would. 7 In your opinion will approving this ap-Ú. plication be in the best interest of conservation, the pre-8 vention of waste and the protection of correlative rights? 9 A Yes, we do. 10 Ó Were exhibits One through Four either 11 prepared by you or compiled under your direction? 12 Yes, they were. A 13 And can you testify as to their accuracy? 14 C A Yes. 15 MR. CARR: At this time, 16 Mr. 17 Catanach, we would move the admission of Nearburg Exhibits One through Four. 18 MR. CATANACH: 19 Exhibits One 20 through Four will be admitted as evidence. 21 CARR: MR. And, Mr. Catanach, at this time I would state that inasmuch as were only moving 22 23 coward ourselves, there was no one to whom notice was re-24 quired to be given pursuant to Division Rule 1207. 25 That concludes my direct examination of Mr. Nearburg.

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11 1 CROSS EXAMINATION 2 BY MR. CATANACH: 3 4 \bigcirc Mr. Nearburg, did I understand that you control all of Section 10? 5 7 Yes, sir, that's correct. 6 Looking at your Isopach map, I can't -- I 7 \mathcal{O} can't really see how 330 feet would make a difference in the 8 amount of sand you'd encounter. 9 Well, we really believe it is. Δ 10 We've drilled probably in excess of 12 wells in this area now and 11 we've had offsets as close as -- we've had offsets closer 12 than, for instance, between the Huber Federal No. 1 and the 13 Huber Federal No. 2. There, the Huber Federal No. 2 is 1980 14 from the north and the Huber Federal No. 1 is 1980 from the 15 south and so in the gap between those two wells, which is 16 closer than the distance between this well and any other 17 producing well out there, if you'll look at the cross sec-18 tion, you can see the dramatic difference between the Huber 19 Federal No. 1 and the Humber Federal No. 2, and we, you 20 know, while the Isopach map in itself is just a measure of 21 sand thickness, it isn't -- it doesn't really contain the 22 detailed information about the quality of the sand and as 23 you get to the edges of these channels, you can get higher 24 25 cementation and secondary -- secondary factors that affect

12 1 and limit the permeability and the porosity, and this is what we're primarily concerned about here, is -- is that we 2 feel that distances, you know, we'd probably try to drill it 3 even closer, if we could. 4 0 The Anderson Well, you said that was 5 а pretty good well? 6 7 A Yes, sir, it's quite a good well. It's cumed in excess of a billion cubic feet at this point and --8 9 and had a calculated open flow of about 3-million, 3.3-million when it was originally completed. 10 O. And the other well in Section 11, I guess 11 12 Α That was the Amoco-Rio Siete Well, which 13 is 1980 from the south and 1980 from the east, and this is a 14 well that has convinced us that we need to move to the west 15 16 as much as feasible because, as you can see on the cross 17 section, not only did we not get any decent sand thicknesses but we developed -- I mean there's virtually no clean sand. 18 The amount of crossover in any of those A or B intervals is 19 20 almost nonexistent and it's just a, you know, extremely marginal well, and so somewhere between our proposed location, 21 22 you know, this pinchout of these sands occurs somewhere between these two wells, and we think there is probably a 23 I didn't comment on that earlier. 24 fault occurring. We 25 think there's probably a fault occurring, not a major fault,

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1	but a minor fault occurring between these two wells, which
2	is helping control this deposition, and we just it's not
3	possible on seismic to pick up something of this magnitude
4	in this area, due to the velocity, the lack of velocity dif-
5	ferences between the between the Morrow sands and the en-
6	casing shales, and so we just feel that the well, that
7	the 660 location was just was just too risky and as the
8	Anderson 10 was drilled at a standard location, and the min-
9	oral ownership was the same, we felt like this would be in
10	the best interest of all parties.
11	MR. CATAMACH: I have no
12	further questions of the witness.
13	You may be excused.
14	MR. NEARBURG: Thank you.
15	MR. CATANACH: Is there
16	anything further in Case 9352?
17	MR. CARR: Nothing further.
18	MR. CATANACH: All right, it
19	will be taken under advisement.
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21	(Hearing concluded.)
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CERTIFICATE I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) 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. Jaely W. Boyd CSIZ I do hereby certify that the foregoing is a consistence of the particulars in the toteland and in follows the 4350, individually state on 4-13- 19 FF. David R. Catank . Corrison CH Construction 12.1 Inc.

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NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE , NEW MEXICO

Hearing Date_

APRIL 13, 1988

Time: 8:15 A.M.

REPRESENTING NAME LOCATION muchall and Ear Van My Genchell Jan 1- Jan UCD SF Houtel Law From 1. Bruce V. Handon OCD SF Kele Deles De aukrun Santa 7. J. Kellohim mieland moncrief cil During Sharaton Charles Nearburg Nearburg Producing Dellez Tracy LeCoca Byram Santate Smith Fe Energy Company GARY Green Midland Kriti Exploration and a second second Adam Vavonakis Midlarich Santa Fe Energy Co. Darport of Tondard South DMOGA Mairie Turin