| 1  | STATE OF NEW MEXICO  |
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| 2  | ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT              |
| 3  | OIL CONSERVATION DIVISION                                      |
| 4  |  |
| 5  | IN THE MATTER OF THE HEARING )                                 |
| 6  | CALLED BY THE OIL CONSERVATION ) DIVISION FOR THE PURPOSE OF ) |
| 7  | CONSIDERING: ) CASE NO. 10,878                                 |
| 8  | APPLICATION OF KINLAW OIL ) CORPORATION ) )                    |
| 9  | JAN 1 4 1994   |
| 10 | ORIGINAL OF A 159 M  |
| 11 |  |
| 12 | REPORTER'S TRANSCRIPT OF PROCEEDINGS                           |
| 13 | EXAMINER HEARING   |
| 14 | BEFORE: JIM MORROW, Hearing Examiner                           |
| 15 |  |
| 16 | December 16, 1993  |
| 17 | Santa Fe, New Mexico   |
| 18 |  |
| 19 |  |
| 20 | This matter came on for hearing before the Oil                 |
| 21 | Conservation Division on December 16, 1993, at Morgan Hall,    |
| 22 | State Land Office Building, 310 Old Santa Fe Trail, Santa      |
| 23 | Fe, New Mexico, before Steven T. Brenner, Certified Court      |
| 24 | Reporter No. 7 for the State of New Mexico.                    |
|    |  |

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| 1        | APPEARANCES  |
|----------|--|
| 2        |  |
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| 12       |  |
| 13<br>14 | FOR PENNZOIL EXPLORATION AND PRODUCTION COMPANY and CODY ENERGY COMPANY: |
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WHEREUPON, the following proceedings were had at 1 2 10:18 a.m.: EXAMINER MORROW: Call Case 10,878. 3 MR. STOVALL: Application of Kinlaw Oil 4 Corporation for a leasewide high angle/horizontal 5 directional drilling pilot project and for the promulgation 6 7 of special operating rules therefor, Lea County, New Mexico. 8 EXAMINER MORROW: Call for appearances. 9 MR. CARR: May it please the Examiner, my name is 10 11 William F. Carr with the Santa Fe law firm Campbell, Carr, Berge and Sheridan. 12 I represent Kinlaw Oil Corporation, and I have 13 one witness. 14 EXAMINER MORROW: Will the witness stand and be 15 16 sworn? Already standing. (Thereupon, the witness was sworn.) 17 MR. KELLAHIN: There are some additional 18 appearances, Mr. Examiner. 19 EXAMINER MORROW: All right, call for additional 20 21 appearances. MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of 22 the Santa Fe law firm of Kellahin and Kellahin, appearing 23 24 today on behalf of Pennzoil Exploration and Production

Company and Cody Energy Company.

We do not have a witness in this case. 1 MICHAEL R. HILL, 2 the witness herein, after having been first duly sworn upon 3 his oath, was examined and testified as follows: 4 DIRECT EXAMINATION 5 BY MR. CARR: 6 Will you state your name for the record, please? 7 Michael Robert Hill. 8 Mr. Hill, where do you reside? 9 Q. I reside in Austin, Texas. 10 Α. By whom are you employed and in what capacity? 11 Q. I'm employed by Kinlaw Oil Corporation as a 12 Α. petroleum geologist. 13 Have you previously testified before the Oil 14 Conservation Division and had your credentials as a 15 petroleum geologist accepted and made a matter of record? 16 Yes, I have. Α. 17 Are you familiar with the Application filed in 18 this case on behalf of Kinlaw Oil Corporation? 19 Yes, I am. 20 Α. Are you familiar with the proposed wells in the 21 Q. subject area? 22 Yes, I am. 23 Α. MR. CARR: Are the witness's qualifications 24

acceptable?

EXAMINER MORROW: Yes, they're acceptable.

- Q. (By Mr. Carr) Mr. Hill, would you briefly state what Kinlaw seeks with this Application?
- A. Kinlaw seeks approval for a directional drilling pilot project area consisting of Section 2, the north half of the north half, also the southwest quarter of the northwest quarter and the southwest quarter of the northeast quarter, Township 15 South, Range 37 East.

We seek authority to directionally drill four wells on the project area.

The Mexico "F" Well Number 2, which is located in the southwest quarter of the northeast quarter, has already previously been approved by Order Number R-10,023 on November 23rd, 1993.

- Q. What is the status of Kinlaw's efforts on that well at this time?
  - A. We are currently drilling that well.
- Q. And how many additional wells are covered by this Application?
  - A. Four additional wells.
- Q. The Mexico "F" Well Number 2 is actually on the project area, is it not?
  - A. That's correct.
  - Q. So you will have five horizontal wells on the -on what you're requesting be designated the project area?

- 7 That's correct. 1 Is Kinlaw also requesting special drilling 2 Q. provisions for the project area? 3 Yes, we are. We seek the following: Permission 4 Α. to traverse quarter and quarter quarter section lines with 5 horizontal wellbores within the project area. We also seek 6 to drill to within 330 feet of the outer boundary of the 7 8 project area and to administratively receive a project allowable based upon the number of 40-acre proration units 9 within the project area which are developed or traversed by 10 a horizontal wellbore. 11 Now, the Application in this case requested 12 administrative authorization for additional horizontal 13 wellbores. 14 Does Kinlaw desire to pursue that portion of this 15 case in the hearing today? 16 Not in this case today. We hope to join with Α. 17 Meridian at a later date to bring a joint proposal to the 18 Commission. 19 And that would be a proposal for administrative 20
  - procedures for horizontal wellbores?
    - A. Yes, sir.

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EXAMINER MORROW: Repeat your question, please, sir, that you got that answer to.

MR. CARR: My question was, Does Kinlaw in the

Application here today seek to request administrative 1 procedures for drilling horizontal wells? 2 And the intention of Kinlaw, as I understand it, 3 Mr. Morrow, is that we will bring that to the Division at a 4 later time, hopefully in association with Meridian and 5 perhaps other operators. 6 But we're not seeking the promulgation of 7 administrative procedures here today. 8 EXAMINER MORROW: So these five wells that are 9 proposed, you'd come to hearing for each one of those? 10 11 that what you're --THE WITNESS: Yes, that's correct. 12 EXAMINER MORROW: Okay. 13 MR. CARR: We're here today for the five wells 14 that are covered by this Application. But instead of 15 seeking general administrative procedure so we could add 16 additional horizontal wells without hearing -- We're not 17 seeking that in this case. 18 EXAMINER MORROW: So you want five wells approved 19 at this hearing? 20 MR. CARR: We've got one approved. We want four 21 additional wells, but we're not asking for an 22 administrative procedure to go beyond that. 23 EXAMINER MORROW: No administrative approval at 24

all at this time?

MR. CARR: Yes. 1 EXAMINER MORROW: Go ahead. 2 (By Mr. Carr) Mr. Hill, does Kinlaw also seek 3 Q. authority to form nonstandard or irregular-shaped spacing units within the project area for any of these wells? 5 A. Yes, we do. 6 And are you requesting provisions by which 7 special allowables could be assigned to the wells equal to 8 the number of 40-acre tracts dedicated -- or penetrated by 9 a wellbore? 10 11 A. Yes, we are. Let's go to what has been marked Kinlaw Oil 12 Q. Corporation Exhibit Number 1. Could you identify this and 13 review it for Mr. Morrow? 14 Yes, sir. Exhibit Number 1 is a lease acreage 15 plat outlining Kinlaw's acreage in the Denton Pool. 16 17 The well that was previously approved is located in the southwest quarter of the northeast quarter, Section 18 2, designated Well Number 2. 19 The Well Number 4, located in the northwest 20 quarter of the northwest quarter, is a saltwater disposal 21 well. 22 And the wells that we are currently seeking 23 approval on are Wells Number 1, 5 and 10, and also Well 24

Number 3.

| 1  | Q. As to the offset operators, they're indicated on         |
|----|---|
| 2  | this exhibit, are they not?                                 |
| 3  | A. That is correct.   |
| 4  | Q. The Number 2 Well, that is the well you're               |
| 5  | currently drilling?   |
| 6  | A. That is correct.   |
| 7  | Q. In what general direction have you oriented the          |
| 8  | horizontal portion of the wellbore?                         |
| 9  | A. We are intending to drill that well at a 328-            |
| 10 | degree azimuth or to the northwest.                         |
| 11 | Q. So you're drilling away from Cody Energy?                |
| 12 | A. That's correct.  |
| 13 | Q. Has horizontal drilling for a project area, as           |
| 14 | you're requesting here today, been previously approved by   |
| 15 | the Division?   |
| 16 | A. Yes, it has. Petroleum Development Corporation           |
| 17 | received approval, Order Number R-9970, dated September     |
| 18 | 22nd, 1990, which is  |
| 19 | Q. In that Order was Petroleum Development                  |
| 20 | Corporation authorized to drill horizontal wells within a   |
| 21 | project area?   |
| 22 | A. Yes, they were.  |
| 23 | Q. And were they permitted to determine the actual          |
| 24 | orientation of the horizontal portion of the wellbore after |

they were in the wellbore and in the subject formation?

| 1  | A. Yes, they were.  |
|----|---|
| 2  | Q. Did they also receive an allowable equal to the          |
| 3  | allowable for wells of that depth multiplied by the number  |
| 4  | of 40-acre tracts actually penetrated by the horizontal     |
| 5  | portion of the wellbore?                                    |
| 6  | A. Yes, they did.   |
| 7  | Q. Is a copy of Order Number R-9970 included with           |
| 8  | your exhibits as Exhibit Number 2?                          |
| 9  | A. Yes, it is.  |
| 10 | Q. Have other applications for development of               |
| 11 | properties with horizontal wells on the project area been   |
| 12 | approved by the Division?                                   |
| 13 | A. Yes, they have. Yates Petroleum Corporation,             |
| 14 | under Order Number R-10,022, dated November 23rd, 1993, had |
| 15 | similar provisions, and that is our Exhibit Number 3.       |
| 16 | Q. Would you basically summarize for the Examiner           |
| 17 | the reasons behind this Application?                        |
| 18 | A. Yes, we are intending to go in here and drill a          |
| 19 | directional horizontal well in order to increase or extend  |
| 20 | the life of the Denton field and to increase recoveries     |
| 21 | from this reservoir.  |
| 22 | Q. If the first well is successful, do you intend to        |
| 23 | go on and fully develop the project area with the five      |

wells that are before the Examiner today?

Yes, we do.

A.

24

| 1  | Q. What is the status of production from the field          |
|----|---|
| 2  | at this time?   |
| 3  | A. There are currently a number of wells that are           |
| 4  | still producing from the Devonian in the field.             |
| 5  | Q. If you are able to come in and drill the five            |
| 6  | wells that are under consideration today, what results do   |
| 7  | you think you'll be able to obtain in this project area?    |
| 8  | A. We expect to have a well that will hopefully             |
| 9  | produce its allowable, thereby once again helping to extend |
| 10 | the life of the field and recovering oil that has been left |
| 11 | in place in the past.                                       |
| 12 | Q. What acreage do you propose initially to dedicate        |
| 13 | to each of the wells covered by the Application?            |
| 14 | A. Initially, we propose to dedicate 40 acres,              |
| 15 | unless bottomhole locations dictate otherwise.              |
| 16 | Q. And then you might have a wellbore that would            |
| 17 | extend beyond the 40-acre tract?                            |
| 18 | A. That's correct.  |
| 19 | Q. And under any circumstance are you proposing that        |
| 20 | any 40-acre tract be dedicated to more than one well?       |
| 21 | A. No, we do not.   |
| 22 | Q. What is the status of the ownership of the               |
| 23 | acreage within the project area?                            |
| 24 | A. It's a common working interest ownership and             |
| 25 | royalty interest ownership.                                 |

I think at this time it would be helpful, Mr. 1 2 Hill, if you could review for Mr. Morrow the general geologic characteristics of the formation. 3 The Devonian in this area is a shallow-water 4 Α. carbonate consisting of a white crystalline dolomite 5 containing abundant fractures and vugular porosity. 6 Let's go to Exhibit Number 4. Would you identify 7 Q. this exhibit, please? 8 Yes, Exhibit Number 4 is a structure contour map 9 10 on top of the Devonian showing Kinlaw's leasehold in relation to this field. 11 12 The Denton field or pool is actually a large 13 anticlinal feature with two separate structures, one on the north end and one on the south end. The -- Kinlaw's 14 acreage is located basically in the saddle between these 15 two structures. 16 The significance of the structure in making a 17 Q. successful horizontal well is what? 18 We feel like it is significant, but it is --19 Α. There are other things involved with making a successful 20 well, not only structurally but stratigraphically, and also 21 in relationship to faults that are within this field. 22 And the faults are shown on Exhibit Number 4? Q. 23

All right. Let's go to Exhibit Number 5, your

That's correct.

24

25

Α.

Q.

14 isopach. Can you explain the significance of this exhibit 1 to the Examiner? 2 Exhibit Number 5 is a Devonian net pay isopach 3 map. Once again, this is a large anticlinal feature. 4 The net pay on the northern end of the field 5 ranges up to 800 feet of net pay, and on the south end up 6 7 to 1600 feet of net pay. The wells that Kinlaw is currently re-entering 8 right now has over 700 feet of net pay, and our next 9 proposed re-entry would be the Number 3 Well, which is 10 located in the southwest quarter of the northwest quarter, 11 which has close to 800 feet of net pay. 12 So basically what you have here is a portion of 13 Q. the Devonian which is, because of the thickness, well 14 15 suited for a horizontal drilling project? 16 Α. That's correct. With this much pay, there should be no problem 17 Q. keeping the wellbore within the formation? 18 No, sir. 19 Α. What's the cumulative production from the Denton 20 field to date? 21 The Denton field has made over 98 million barrels Α. 22

The north half of Section 2 has produced over 7

of oil out of approximately 118 wells.

million barrels of oil out of eight wells.

23

24

| 1  | Q. What kind of production history do you have on           |
|----|---|
| 2  | the Number 3 Well?  |
| 3  | A. The Number 3 Well has made right at a million and        |
| 4  | seventy thousand barrels of well of oil, excuse me.         |
| 5  | Q. Generally, what conclusions can you reach from           |
| 6  | your geologic study of this portion of the field?           |
| 7  | A. We feel like this field is conducive to drilling         |
| 8  | horizontally, and we feel like we'll be successful at       |
| 9  | attempting to retrieve oil that has been left in place.     |
| 10 | Q. Now, Mr. Hill, let's go to Kinlaw Exhibit Number         |
| 11 | 6. Would you identify this exhibit and then briefly review  |
| 12 | it for Mr. Morrow?  |
| 13 | A. Exhibit Number 6 is actually a wellbore schematic        |
| 14 | of the Number 3 Well, although the heading lists 1, 3, 5    |
| 15 | and 10.   |
| 16 | Each of these wells that are on this leasehold              |
| 17 | have basically the same type of wellbore diagram, differing |
| 18 | only in respect to the depth of the Devonian, top of the    |
| 19 | Devonian, which is within a couple hundred feet.            |
| 20 | This is just a wellbore schematic showing the               |
| 21 | different types of casing, hole size, et cetera, showing    |
| 22 | previous perforations that were done in this well.          |
| 23 | When we When Kinlaw took this well over, we                 |
| 24 | came in and set a cement retainer at approximately 11,900   |

feet and squeezed off the remaining perforations in this

wellbore.

At the present time, we are preparing to put a pulling unit on this well and drill out this cement squeeze to a point where we will cut a window in the 5-1/2-inch casing and prepare the well to go horizontally.

- Q. At what depth do you anticipate kicking off in the Number 3 Well?
- A. We expect to kick off at a depth of approximately 11,960 feet.
- Q. Other than just the variations in the depth at which you'll kick off, you'll be drilling all of these horizontal wells in virtually the same fashion?
  - A. That's correct.
- Q. As to the horizontal drilling portion of the hole, will Kinlaw be using the identical procedure which it has reviewed with this Division on August the 26th and since that time?
  - A. Yes, we will.
- Q. And was the testimony presented at that time by Mr. Phillips, Mr. Dave Phillips, and which was subsequently accepted -- will that testimony be identical to the testimony that will be presented here today concerning the actual technical aspect of the horizontal drilling?
  - A. Yes, it will.
  - Q. How do you propose to go about determining what

direction the horizontal portion of the wellbore will actually be drilled?

A. At the point we have drilled out the squeeze job on the Number 3 Well, we will come in and run a gyro to find the actual bottomhole location of the wellbore.

At that point, depending on where the well is located, we will decide which will be the best direction to drill in order to stay -- to achieve the maximum horizontal drainhole and also stay 330 off of the outer boundary of our leasehold.

- Q. So no matter what direction you take any of these wellbores will be a standard setback from the outer boundary of the project area?
  - A. That's correct.

- Q. And you will not be proposing to dedicate any 40-acre tract to more than one well?
  - A. That's correct.

MR. CARR: Mr. Morrow, at this time we would request that the testimony of David Phillips in Case 10,806, which was presented on August 26th concerning the horizontal drilling techniques being utilized in each of the wells being drilled in this area -- we're requesting that that testimony be incorporated into this proceeding by reference.

EXAMINER MORROW: What case number was that?

MR. CARR: That was 10,806. 1 EXAMINER MORROW: All right, we'll do that. 2 (By Mr. Carr) Mr. Hill, do you anticipate that 3 Q. the acreage that you will dedicate to each of these wells 4 in fact will be drained by those wells? 5 Α. Yes, we do. 6 Do you anticipate any drainage from the tracts 7 offsetting the project area? 8 9 No, we do not. Α. If these wells are successful, can you make an 10 0. 11 estimate as to what the producing life of the wells may be? We're estimating an additional seven to ten 12 Α. 13 years. At the conclusion of the drilling, will Kinlaw 14 15 run a directional drilling survey on the well and provide 16 copies of the survey on each well to the Oil Conservation 17 Division? Yes we will. A. 18 Where is Kinlaw right now in the development of 19 this project area? 20 As I stated earlier, we're currently drilling on 21 the Mexico "F" Number 2 well. We just finished completing 22 our curve, and we are anticipating moving another rig in on 23 the Mexico "F" Number 3 well once we've had time to finish 24

this well up and test it and so forth.

| 1          | Q. Has notice of this hearing been provided as              |
|------------|---|
| 2          | required by Oil Conservation Division Rule 1207?            |
| 3          | A. Yes, it has.   |
| 4          | Q. And is Exhibit Number 7 a copy of an affidavit           |
| 5          | confirming that that notice has been provided, and attached |
| 6          | to that are copies of notice letters and return receipts?   |
| 7          | A. Yes, it is.  |
| 8          | Q. In your opinion, will approval of this                   |
| 9          | Application and the drilling of the subject wells be in the |
| 10         | best interests of conservation, the prevention of waste and |
| 11         | the protection of correlative rights?                       |
| 12         | A. Yes, it will.  |
| 13         | Q. Were Exhibits 1 through either prepared by you or        |
| 14         | compiled at your direction?                                 |
| <b>1</b> 5 | A. Yes, they were.  |
| 16         | MR. CARR: At this time, Mr. Morrow, we move the             |
| 17         | admission of Kinlaw Exhibits 1 through 7.                   |
| 18         | EXAMINER MORROW: Any objection?                             |
| 19         | MR. KELLAHIN: No, sir.                                      |
| 20         | EXAMINER MORROW: Exhibits 1 through 7 will be               |
| 21         | admitted.   |
| 22         | MR. CARR: And that concludes my examination of              |
| 23         | Mr. Hill.   |
| 24         | EXAMINER MORROW: Questions, Mr. Kellahin?                   |
| 25         | MR. KELLAHIN: Yes, sir.                                     |

| 1  | CROSS-EXAMINATION   |
|----|---|
| 2  | BY MR. KELLAHIN:  |
| 3  | Q. Mr. Hill, if you'll take your Exhibit Number 1,          |
| 4  | the locator map   |
| 5  | A. Yes, sir.  |
| 6  | Q help me understand what the plan is.                      |
| 7  | The Number 2 Well, let me go back and ask you               |
| 8  | this.   |
| 9  | The Devonian pool, the Denton Devonian Pool is              |
| 10 | 40-acre oil spacing?  |
| 11 | A. That's correct.  |
| 12 | Q. What's the depth bracket allowable for wells at          |
| 13 | that depth?   |
| 14 | A. I believe it's in the 300-barrel range. I'm not          |
| 15 | sure on that.   |
| 16 | Q. Okay. The Number 2 Well in the southwest quarter         |
| 17 | of the northeast, that was the subject of a hearing back on |
| 18 | November 18th in Case 10,868?                               |
| 19 | A. That's correct.  |
| 20 | Q. Do you have an order on that case yet?                   |
| 21 | A. Yes, we do.  |
| 22 | Q. What's the order number again?                           |
| 23 | A. The order number is R-10,023.                            |
| 24 | Q. That order provided for 330 setbacks                     |
| 25 | A. That's correct.  |

| 1  | Q from the 40-acre tract?                                   |
|----|---|
| 2  | A. That's correct.  |
| 3  | Q. This Application today also includes that spacing        |
| 4  | unit?   |
| 5  | A. That unit  |
| 6  | Q. Yes, sir?  |
| 7  | A. You mean the Number 2 unit?                              |
| 8  | Q. Yes, sir.  |
| 9  | A. Yes, this project area includes that Number 2            |
| 10 | Unit.   |
| 11 | Q. Why is that?   |
| 12 | A. Because we are now asking for a total project            |
| 13 | area on this thing. We're not going to include that unit    |
| 14 | for allowable reasons, or with the Number 3 Well or any     |
| 15 | other well.   |
| 16 | Q. The project area, then, the outer boundary of the        |
| 17 | project area, you're going to maintain a 330 setback for    |
| 18 | the producing interval of any of the high-angle wells?      |
| 19 | A. That's correct.  |
| 20 | Q. Will you have a producing lateral in a well that         |
| 21 | crosses over into another 40-acre tract within the project  |
| 22 | area?   |
| 23 | A. At this point we don't know that. It's going to          |
| 24 | depend on where the bottomhole location actually is located |

on some of these wells.

1 Q. Are you asking for approval of the Division to have that flexibility? 2 A. Yes, we are. 3 All right. Let's look at the Number 3 Well in Q. 4 the southwest of the northwest. 5 Let's assume that well is drilled north and 6 crosses over into the 40-acre tract for the Number 4 Well, 7 and you have the reservoir open in that wellbore in both 8 40-acre tracts. 9 What's going to be the allowable? 10 At this point we would like to request that we be 11 Α. able to utilize both 40-acre units to establish an 12 allowable. 13 So what will you do with the Number 4 Well? 14 Q. The Number 4 Well at this point is a saltwater 15 Α. disposal well, so we don't -- That well is not producing. 16 17 Q. So the plan is, if a lateral encounters multiple 40-acre spacing units, there will be but one well producing 18 out of each spacing unit? 19 Α. That's correct. 20 And the exception for that well, then, would 21 22 allow it to encroach on its interior project 40-acre spacing unit setback? 23 Α. That's correct. 24

25

Q.

Have you done any of these wells in this pool?

| A. No, we have not. We're on This is the first              |
|---|
| well.   |
| Q. Do you have any expectations or any information          |
| with regards to what the anticipated maximum producing rate |
| is of a well?   |
| A. No, we do not.   |
| We know that there were vertical redrills in this           |
| field, on the south end of the field, that had fairly good  |
| initial production rates, and we expect to at least have    |
| that type of production out of these wells.                 |
| Q. Thus far in the pool, are there any other spacing        |
| patterns, other than 40 acres?                              |
| A. Not that I'm aware of.                                   |
| Q. No nonstandard proration units yet in the pool?          |
| A. Not that I'm aware of.                                   |
| MR. KELLAHIN: No further questions. Thank you.              |
| MR. STOVALL: Mr. Carr, I did want to do one                 |
| thing.  |
| It appears that on the two orders that you                  |
| copied, you took two-sided orders and copied them on one-   |
| sided paper.  |
| MR. CARR: We would be happy to provide clean                |
| copies.   |
| MR. STOVALL: I was looking for some specific                |
|   |

provisions, and I couldn't find them.

| 1  | EXAMINATION   |
|----|---|
| 2  | BY EXAMINER MORROW:                                       |
| 3  | Q. Okay, a little more along the line that Mr.            |
| 4  | Kellahin was questioning you there.                       |
| 5  | There are Let's see, I guess six 40-acre                  |
| 6  | tracts in your project area; is that correct?             |
| 7  | A. That's correct.  |
| 8  | Q. And of course the project area is the yellow-          |
| 9  | colored portion?  |
| 10 | A. That's correct.  |
| 11 | Q. Are Wells 1, 5 and 10 Apparently they're               |
| 12 | producing at this time; is that correct?                  |
| 13 | A. 1 and 10 are producing, and 5 is currently shut        |
| 14 | in, temporarily abandoned.                                |
| 15 | Q. What kind of production are they producing at          |
| 16 | this time?  |
| 17 | A. Those wells, 1 and 10, make about 10 barrels a         |
| 18 | day oil and 150 barrels of water.                         |
| 19 | Q. And I believe you testified that at this time you      |
| 20 | don't know what direction you will                        |
| 21 | A. On the Number 3 Well, yes, sir.                        |
| 22 | Q. Is that correct?                                       |
| 23 | A. That's correct, until we know where that               |
| 24 | bottomhole location is where we will be kicking off from, |

we won't know which way we will have to go to stay within

the 330 boundary.

- Q. Do you think it makes any difference which way you go as far as encountering additional pay?
  - A. Not at this time, we do not.
- Q. About what would be the length of the horizontal portion of the wellbore?
  - A. Approximately 600 feet.
- Q. Let's see, if you are right in the middle, the 600 feet would get you to the edge of the 40; is that correct?
- A. It would get us to about -- actually, a little bit less than that. It would get us to within the 330-foot mark.

For instance, the Number 2 Well, when we ran the gyro on the Number 2 Well, the actual bottomhole location at the Devonian was 200 feet south and nine feet east, which enabled us to go to a northwest direction, approximately 648 feet, and stay within the 330-foot boundary.

- Q. So you're going to -- 330 feet from a portion of Section 2 that's not in your project area; is that what you're --
  - A. That's correct.
- Q. You wouldn't worry about the 40, crossing the 40-25 acre boundary?

26 1 Not necessarily. A. Actually, I guess your Number 3 or Number 1 would 2 be the only opportunities you'd have to develop more than 3 one 40; is that correct? Unless one of the others was 4 unsuccessful? 5 That's correct. The main reason that we have 6 Α. 7 applied for all of these wells is that -- one reason is so that we don't have to come back and have another hearing. 8 But as we go and see what type of success we 9 have, at that point we'll decide which will be more 10 11 applicable to drilling. What is the disposal formation in the Number 4 12 Q. 13 Well? It is the Devonian. 14 15 The general rules you talked about that you plan 16 to come in with later in cooperation with Meridian, would 17 those be statewide application? Is that what you --At this time that's what we're discussing. 18 Α. Do you have any time frame on that? 19 Q. No, sir, I do not. Bill might have a time frame 20

operators that are doing a lot of this, and I think it's

on that.

21

22

23

24

MR. STOVALL: I think, Mr. Examiner, just for

just -- Fitting it into the work flow, I think, is what it 1 amounts to. Is that not right, Mr. --2 MR. KELLAHIN: That's correct. 3 MR. STOVALL: And nobody's really set a date or 4 set up any official committee or anything. We're just --5 MR. KELLAHIN: We're moving ahead. I think the 6 next month or so we're going to get to... 7 EXAMINER MORROW: Say about March 1st then? 8 MR. KELLAHIN: I think we'd be ready to come to 9 the Division about then. 10 11 MR. CARR: Yes, sir. (By Examiner Morrow) There was -- I found some 12 Q. other recent orders relating to horizontal wells that 13 Kinlaw has applied for, I believe in this same pool. 14 15 10,011 and 10,012, are those --That would be --16 Α. 17 Q. What? We've applied for permission to drill 18 horizontally in actually two pools. One is the Denton 19 Pool, and the other is the South Denton Pool. 20 Okay. So 10,011 and 10,012 are probably in that 21 other --22 I don't have those in front of me. I'm not real 23 Α. sure what those --24 10,013 covers Well Number 2; is that what you 25 Q.

| 1  | said?   |
|----|---|
| 2  | A. That's correct. Let's see here.                          |
| 3  | MR. CARR: 10,023.   |
| 4  | THE WITNESS: 10,023.  |
| 5  | Q. (By Examiner Morrow) Okay. And I believe you             |
| 6  | did say that Number 3 has also been authorized. Is that     |
| 7  | correct, or did I misunderstand?                            |
| 8  | A. No, sir, that's We're requesting that at this            |
| 9  | hearing.  |
| 10 | Q. Your Number 2 Well will be the first horizontal          |
| 11 | well in the   |
| 12 | A Denton field, yes, sir.                                   |
| 13 | EXAMINER MORROW: Bob, what have you got?                    |
| 14 | MR. STOVALL: Just a question, either Mr. Hill or            |
| 15 | Mr. Carr, as I was looking through the Order attempting to  |
| 16 | find the provisions.  |
| 17 | My recollection on the Petroleum Development                |
| 18 | order which was really the I think the first of the         |
| 19 | project area cases, kind of a precedent-setting case was    |
| 20 | that the allowable was one depth bracket allowable for each |
| 21 | 40-acre tract which has been developed                      |
| 22 | MR. CARR: That is correct.                                  |
| 23 | MR. STOVALL: which has a well.                              |
| 24 | And my recollection is that there was not a                 |
| 25 | restriction as to whether you got a horizontal or vertical  |

| 1  | well or even you could penetrate the same 40 with a        |
|----|--|
| 2  | horizontal and vertical but still only get one allowable   |
| 3  | for that 40; does that                                     |
| 4  | MR. CARR: That's how the Petroleum Development             |
| 5  | Corporation order was written.                             |
| 6  | MR. STOVALL: Okay.   |
| 7  | MR. CARR: And then the Yates order, the                    |
| 8  | difference there was that the entire project allowable was |
| 9  | assigned to one well, whether or not the wellbore actually |
| 10 | traversed each of the 40s.                                 |
| 11 | MR. STOVALL: That was a single-well project,               |
| 12 | though, wasn't it?   |
| 13 | MR. CARR: That was a single-well project.                  |
| 14 | Q. (By Examiner Morrow) Well, what are you asking          |
| 15 | for here?  |
| 16 | A. We would like permission to have the allowable          |
| 17 | increased based on the number of 40 acres we actually      |
| 18 | traverse.  |
| 19 | MR. STOVALL: Without a limitation on the wells             |
| 20 | necessarily; is that correct?                              |
| 21 | THE WITNESS: That's correct.                               |
| 22 | EXAMINER MORROW: So if you had Go ahead, Bob.              |
| 23 | EXAMINATION  |
| 24 | BY MR. STOVALL:  |
| 25 | Q. Well, let me I guess an example would be                |

I'll pick on the Number 10. Let's say you took the Number 1 10 -- or the Number 1, took it east and got into the 2 northwest of the northeast. And the Number 5 -- You told 3 me that's shut in right now? 4 Α. Uh-huh. 5 If that were put back on production, you would 6 Q. want to have an allowable for each of those 40s, but not be 7 restricted from producing either the Number 1 horizontal or 8 the Number 5; is that --9 Not necessarily. I --10 Α. MR. CARR: What we would want there is an 11 allowable for the Number 5, the straight hole, but we would 12 13 also want for the Number 1, since the wellbore traversed more than one 40, the ability to have the extra allowable 14 for the Number 1. 15 MR. STOVALL: In other words, you would have two 16 times the allowable for a 40-acre tract --17 MR. CARR: For the Number --18 MR. STOVALL: -- for the two wells, and you could 19 produce it all out of the Number 1 if you wanted to, 20 essentially; is that correct? 21 EXAMINER MORROW: They want more than that, I 22 think. 23 MR. CARR: No, we would have two wells. We'd 24

have the Number 5 on a 40-acre tract --

```
MR. STOVALL: Right.
 1
 2
               MR. CARR: -- a 40-acre allowable.
               MR. STOVALL: Right.
 3
               MR. CARR: And we would have the Number 1 on the
 4
     tract going to the Number 4, and that's the only well on
 5
     those two tracts. The Number 4 --
 6
               MR. STOVALL: Well, I say the well went to the
 7
     Number 5 --
8
               THE WITNESS: He's going east.
9
               MR. STOVALL: I was going the other way with that
10
11
     well.
               THE WITNESS: In that case, we wouldn't want a
12
     double allowable for the Number 1. I think we would
13
14
     just --
               (By Mr. Stovall) Yeah, for the two wells you'd
15
     have a two-times-40 allowable?
16
17
          Α.
               Right.
               So you could produce it up to the max out of the
18
    Number 5 for a single 40-acre tract, or you could allocate
19
     it to the Number 1 and produce both allowables out of the
20
     Number 1, essentially; is that --
21
          Α.
               Correct.
22
               Yeah, I understand if you go the other way and
23
          Q.
     you're not --
24
25
          Α.
               Yeah.
```

| 1  | Q and you don't have a producing well it's not            |
|----|---|
| 2  | an issue.   |
| 3  | A. Right.   |
| 4  | Q. It's just a question of you've got a producing         |
| 5  | vertical well and you enter that tract with a horizontal  |
| 6  | A. Yeah, I don't think we'd want to keep the you          |
| 7  | know, produce the Number 1 on a double allowable and then |
| 8  | keep the Number 5 at its 40-acre allowable also.          |
| 9  | Q. Yeah, I don't think that would work.                   |
| 10 | A. Yeah.  |
| 11 | MR. STOVALL: But I think My recollection is,              |
| 12 | that's what Petroleum Development did.                    |
| 13 | MR. CARR: You're right on that.                           |
| 14 | FURTHER EXAMINATION                                       |
| 15 | BY EXAMINER MORROW:                                       |
| 16 | Q. Have you given us anything that shows the exact        |
| 17 | footage location for the wells that have not yet been     |
| 18 | approved for directional drilling?                        |
| 19 | A. No, sir, I have not.                                   |
| 20 | Q. We would appreciate it if you would go ahead and       |
| 21 | submit us an exhibit                                      |
| 22 | A. Okay.  |
| 23 | Q that shows that.  |
| 24 | A. The actual Depthwise or surface location?              |
| 25 | Q. Well, surface location, and you may as well go         |

| 1  | ahead and fill in approximate kickoff point.              |
|----|---|
| 2  | A. Okay. We can do that.                                  |
| 3  | FURTHER EXAMINATION                                       |
| 4  | BY MR. STOVALL:   |
| 5  | Q. You haven't done your surveys, actually, on those      |
| 6  | to find out where the bottomhole is at the moment, have   |
| 7  | you?  |
| 8  | A. No, we have not. We'll wait until after we get         |
| 9  | in the well and pull them and squeeze them and drill them |
| 10 | out to where our kickoff point will be, so we'll know     |
| 11 | exactly where we're at, at that point.                    |
| 12 | MR. STOVALL: I have no further questions.                 |
| 13 | EXAMINER MORROW: Thank you, Mr. Hill.                     |
| 14 | THE WITNESS: Thank you.                                   |
| 15 | MR. CARR: We have nothing further in this case.           |
| 16 | EXAMINER MORROW: Anything more, Mr. Kellahin?             |
| 17 | MR. KELLAHIN: No, sir.                                    |
| 18 | EXAMINER MORROW: Case 10,878 will be taken under          |
| 19 | advisement.   |
| 20 | (Thereupon, these proceedings were concluded at           |
| 21 | 10:50 a.m.)   |
| 22 | * * *   |
| 23 |   |
| 24 |   |
| 25 |   |

| 1  | CERTIFICATE OF REPORTER   |
|----|---|
| 2  |   |
| 3  | STATE OF NEW MEXICO )   |
| 4  | ) ss.<br>COUNTY OF SANTA FE )   |
| 5  |   |
| 6  | I, Steven T. Brenner, Certified Court Reporter                                    |
| 7  | and Notary Public, HEREBY CERTIFY that the foregoing                              |
| 8  | transcript of proceedings before the Oil Conservation                             |
| 9  | Division was reported by me; that I transcribed my notes;                         |
| 10 | and that the foregoing is a true and accurate record of the                       |
| 11 | proceedings.  |
| 12 | I FURTHER CERTIFY that I am not a relative or                                     |
| 13 | employee of any of the parties or attorneys involved in                           |
| 14 | this matter and that I have no personal interest in the                           |
| 15 | final disposition of this matter.   |
| 16 | WITNESS MY HAND AND SEAL January 2nd, 1994.                                       |
| 17 |   |
| 18 | Slitter by the State of   |
| 19 | STEVEN T. BRENNER<br>CCR No. 7  |
| 20 |   |
| 21 | My commission expires: October 14, 1994   |
| 22 | I do hereby certify that the foregoing is a complete record of the proceedings in |
| 23 | the Examiner hearing of Case No. 10878.   |
| 24 | heard by me on Dec 16 1993.   |
| 25 | Oil Conservation Division   |