

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

IN THE MATTER OF THE HEARING)
CALLED BY THE OIL CONSERVATION)
DIVISION FOR THE PURPOSE OF)
CONSIDERING:)
APPLICATION OF CONOCO, INC.)
_____)

CASE NO. 11,242

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

April 6th, 1995

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on Thursday, April 6th, 1995, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

STEVEN T. BRENNER, CCR
(505) 989-9317

I N D E X

April 6th, 1995
 Examiner Hearing
 CASE NO. 11,242

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* * *

A P P E A R A N C E S

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By: W. THOMAS KELLAHIN

* * *

1 WHEREUPON, the following proceedings were had at
2 1:08 p.m.:

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EXAMINER CATANACH: Okay, call the hearing back to order at this time, and I'll call Case 11,242, which is the Application of Conoco, Inc., for an unorthodox gas well location, Eddy County, New Mexico.

Are there appearances in this case?

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the Santa Fe law firm of Kellahin and Kellahin, appearing on behalf of the Applicant, and I have two witnesses to be sworn.

EXAMINER CATANACH: Any additional appearances?

Will the witnesses please stand to be sworn in?

(Thereupon, the witnesses were sworn.)

MR. KELLAHIN: Call as our first witness, Bill Hardie.

Mr. Examiner, we would request that Mr. Hardie's prior testimony from the previous case be considered by you whereby he has been qualified as an expert witness in the field of petroleum geology and that he continues under oath in this case.

EXAMINER CATANACH: Okay.

1 currently producing from the Upper Pennsylvanian, the
2 Cisco/Canyon formation, and they're shown as the solid
3 black circles, producing oil wells.

4 The red circles shown on there are the more
5 recently drilled Cisco/Canyon locations, or in some cases
6 some of those have been recompleted from the Morrow, and
7 you can see that it's an overlay of both a gas well and a
8 red circle, and that indicates some of the more recent
9 development in the Upper Penn formation.

10 Q. Will you subsequently have a display that
11 specifically identifies for the Examiner those Morrow
12 locations that you've utilized as part of your geologic
13 interpretation of the Morrow potential?

14 A. Yes.

15 Q. If this well is successful in the Morrow, has the
16 Division identified the name by which we will know this
17 production?

18 A. This will be associated with Cemetery-Morrow
19 Pool, and --

20 Q. Gas wells in that pool are typically dedicated to
21 an acreage spacing unit of what size, sir?

22 A. 320 acres.

23 Q. And where will standard well locations be?

24 A. Standard well locations are shown on this map for
25 the north half of Section 32 with the green-shaded boxes,

1 and it's fairly standard for a 320-acre proration unit.

2 Q. Is the proposal for the Savannah State 1 well the
3 same type of exploitation strategy that Conoco and others
4 in this area have recently utilized as you described for
5 the Examiner in the prior case, whereby you're drilling
6 essentially a Cisco well and take the additional risk at
7 reduced cost to test the Morrow?

8 A. That is correct.

9 Q. Describe for us the reason, before we talk about
10 the details, the basic reason why you're proposing this
11 location in the Cisco.

12 A. This location, as we see it, is the best Cisco
13 location which exists in the northeast quarter of Section
14 32. Again, Cisco proration units are 160 acres and
15 comprise a quarter section.

16 That is the best available Cisco location, and it
17 is also coincidentally -- we believe, has Morrow potential
18 beneath it. But in order to access that potential, we feel
19 that the borehole needs to be deviated beneath the Cisco to
20 a different bottomhole location.

21 Q. We will get to it shortly, but describe generally
22 the type of Morrow deposition you're dealing with, within
23 that formation.

24 A. This is different from the previous case, and
25 more typical of Morrow production in that we're expecting

1 to find a Morrow channel sand, the geometry of which is
2 very narrow and very linear.

3 Typically, Morrow channel sands in this area are
4 less than 1000 feet wide, and they require precise
5 locations in order to access their reserves.

6 Many times those channels do not underlie the
7 orthodox Morrow windows.

8 Q. Is that going to be true in this case?

9 A. That is true in this case.

10 Q. Why don't you go to the alternative option of
11 taking the proposed bottomhole location in the Morrow and
12 simply drilling vertically so that you are also at a
13 similar location in the Cisco?

14 A. As future exhibits will show, that would,
15 according to our interpretation, result in missing the
16 Cisco reservoir.

17 Q. Let's turn to those displays, then. If you'll
18 start with Exhibit 2, let's see if there are any surface
19 topographical limitations for locating your Savannah well
20 as you propose to locate it at the surface.

21 A. Exhibit Number 2 is a surface topographic map
22 copied from the USGS 7-1/2-minute quadrangle series, and it
23 indicates -- I've shown on it again the orthodox Morrow-
24 location windows in green shading, and there are no surface
25 constraints to our proposed location or to the orthodox

1 Morrow windows.

2 Q. All right, let's direct your attention to the
3 Cisco geologic maps. If you'll turn to Exhibit 3, identify
4 that display.

5 A. Exhibit 3 is an isopach or thickness map of the
6 Cisco/Canyon dolomite. It's the reservoir interval that we
7 are isopaching.

8 On this I've also shown the outline of the Morrow
9 proration unit and the Morrow orthodox windows, again
10 shaded in green.

11 This map clearly indicates that we are right at
12 the very edge of the Cisco dolomite reservoir and that if
13 we were to attempt to drill a location south of the
14 proposed one, we would risk missing that reservoir
15 entirely.

16 We expect to find somewhere in the neighborhood
17 of 50 feet of dolomite in the proposed well.

18 Q. If your location for the Cisco is successful,
19 this would be within the existing North Dagger Draw-Upper
20 Pennsylvanian Pool?

21 A. That is correct.

22 Q. Have the pattern of development and the location
23 of the North Dagger Draw wells been almost always at
24 standard locations?

25 A. Yes, they have, with very, very few exceptions.

1 Q. With regards to the Morrow, though, the Morrow in
2 this area, for the Cemetery Morrow, have those wells been
3 drilled at standard deep gas well locations?

4 A. About half of them have, and about half of them
5 have not.

6 You can see in Section 32 alone, there were two
7 Morrow dryholes drilled, the Albert State Number 1 and the
8 State K 6096B Number 1. Both penetrated at standard
9 locations and were both dry holes.

10 And elsewhere within that Morrow pool, some of
11 those locations are unorthodox.

12 Q. Identify for the Examiner your approximate
13 bottomhole target for the Morrow and give him a reference
14 point in terms of a vertical dimension. When we look at
15 the top of the Morrow, approximately what vertical depth
16 are we going to be?

17 A. We are hoping to encounter the top of the Morrow,
18 I believe, at about 9200 feet of measured depth. The top
19 of the Cisco is at about 7400 feet, 7500 feet of measured
20 depth.

21 Our plan is to drill to the Cisco vertically.
22 Once we've drilled through the bottom of the Cisco
23 reservoir, then we would deviate the wellbore to a
24 bottomhole location that would coincide with the top of the
25 Morrow sand, and that bottomhole location would be 1100

1 feet from the north and east.

2 Q. There will be subsequent exhibits sponsored by
3 the engineer that will provide the specifics for that
4 proposal?

5 A. That is correct.

6 Q. But when we look at the geologic displays, the
7 bottomhole target that you've approximated on your displays
8 represents approximately 1100 feet from the north and east
9 boundaries of the spacing unit?

10 A. That is correct.

11 Q. When we look at your geologic display, there's a
12 bit of information that was not presented in the prior
13 case. There is a line running east and west that is a red
14 line with a series of dots?

15 A. That is a seismic line that was shot by --
16 jointly by Nearburg and Conoco, approximately one month
17 ago.

18 Q. How is that information of importance to you as a
19 geologist in looking at where to put the Savannah State 1
20 well?

21 A. Based on that line, we are able to determine that
22 in fact the Savannah State 1 location was prospective at
23 the Cisco/Canyon formation, as well as we identified a
24 seismic anomaly that we believe may be a Morrow channel
25 sand, that we would otherwise never have known to be there.

1 Q. All right. Let's turn now to Exhibit 4. Again,
2 is Exhibit 4 your work product?

3 A. Yes, it is.

4 Q. And what are we looking at in this exhibit?

5 A. Exhibit 4 is a structure map on the top of the
6 Cisco/Canyon dolomite. It reflects both well control from
7 the various development wells within the field, and it is
8 also incorporating elevations that were derived from that
9 seismic line.

10 And that indicates that at the Savannah State
11 Number 1 location there is a localized structural nose
12 which would -- we expect, based on that, to find the top of
13 the dolomite reservoir at approximately an elevation of, I
14 think, minus 4200 feet. We believe that the oil-water
15 contact is at minus 4300 feet, so that should be well above
16 the oil-water contact.

17 Q. Tomorrow the Examiner is going to hear a disputed
18 case between Conoco and Yates with regards to a Yates-
19 proposed well called the Aspden Number 2 well.

20 A. That is correct.

21 Q. Is that well shown on this display?

22 A. It is. It's just north of the 320-acre proration
23 unit we're discussing here. I believe the footage on that
24 well is 1980 feet from the west line and 330 feet from the
25 south line, in Section 29.

1 Q. When we look in Section 32, which is your
2 section, of which the Savannah is part of the spacing unit
3 in the northeast quarter, there's a heavy dark red line.
4 What does that represent?

5 A. I believe you're referring to the deviation of
6 the borehole. The proposed --

7 Q. No, sir, not the dashed line.

8 A. Oh. Oh, the heavy red -- okay.

9 Q. The heavy red line --

10 A. Yes, fine.

11 Q. -- this boundary line, I guess. What is that?

12 A. That is -- would correspond with the zero isopach
13 indicating the southern limit of the dolomite fairway.

14 Q. If you're on the other side of this limit, what
15 happens?

16 A. The reservoir itself would not be dolomitized.
17 It would most likely -- that interval would be a limestone.
18 Typically, that limestone is tight and nonproductive.

19 Q. Does the Savannah State 1 proposed well location
20 represent the optimum remaining well location in the
21 northeast quarter of 32 for a Cisco attempt?

22 A. Yes, it does. There are potentially two
23 additional -- or two locations in that quarter section,
24 representing the northeast quarter of Section 32.

25 The other one would be at a position between the

1 Savannah State 1 and the proposed Joyce Federal Number 2.
2 That one, we believe, will be about 20 to 30 feet low to
3 the Savannah State Number 1. We want to drill our best
4 location first.

5 Q. All right, sir, let's turn to the topic of the
6 Morrow. If you'll look at Exhibit 5, identify that
7 display, please.

8 A. Exhibit Number 5 is a combination of two maps.

9 The dark purple contours are a structure map on
10 top of the Morrow sand, or at least a marker that's very
11 near the top of that sand. That indicates that in general
12 the dip is from the northwest to the southeast, moving down
13 toward the southeast.

14 The other part of this map is a color-filled
15 isopach of the Morrow sand, and in it you can see -- We
16 started at about 30 feet of sand thickness. That seems to
17 be the limit of what can actually produce out here. So I
18 began contouring at 30 feet. And I believe that -- That
19 goes from 30 feet with the light-yellow color, to thicker
20 sections all the way up to 80 feet in thickness in places
21 where it becomes more red in shade.

22 This indicates that -- and this is -- A lot of
23 this information is based on what we found in that seismic
24 line, that there is a rather narrow Morrow channel that
25 trends through the northeastern corner of Section 32.

1 The object with our Savannah State Number 1 is to
2 deviate that Cisco location so that it encounters the
3 Morrow at the thickest part of that channel. And then
4 that's shown by the bottomhole location. We expect
5 something in excess of 40 feet for sand thickness at that
6 bottomhole location.

7 Q. An alternative option would be to drill a single
8 Morrow stand-alone well vertically so that it bottomed at
9 this proposed location in the center of the channel as
10 you've interpreted it. Why not do that?

11 A. If we were to do that, then we would most likely
12 miss the Cisco/Canyon reservoir.

13 Q. So you'd have to drill an extra well to access
14 the Cisco/Canyon?

15 A. Right, and the risk of actually producing from
16 the Morrow is too excessive to do as a standup well. We
17 really need to be testing Morrow in this part of the world
18 as a tail on an existing Cisco development well.

19 Q. If the Division should not approve that
20 particular portion of your Application, is there a
21 probability that there are Morrow gas reserves that will
22 not otherwise be recovered?

23 A. Conoco will not drill a well to the Morrow in
24 this part of the world without having a good development
25 location uphole, certainly not hunting for Morrow channel

1 sands here. They're very narrow and very risky. Even if
2 you do find them, oftentimes they don't have sufficient
3 porosity and permeability to produce.

4 Q. Is the seismic line that's displayed on this
5 exhibit the same one that we looked at on Exhibit 4?

6 A. Yes, it is.

7 Q. And did it give you reflections on the Morrow
8 potential?

9 A. It did, it gave us reflections. The most notable
10 one was at the base of the Morrow in the Barnett --
11 Mississippian Barnett formation.

12 And what we saw on that line was -- it fit with
13 the geologic model for finding Morrow sands, that is, you
14 look for a low in the Barnett where Morrow sands might tend
15 to accumulate. And there is a low in the Barnett at that
16 location, and reflectors above it that we think may
17 indicate there's a channel sand in that spot.

18 Q. Identify for us, Mr. Hardie, the offsetting
19 operators that would control the Morrow interests towards
20 which this well is encroaching.

21 A. That would be shown best on Exhibit Number 1.
22 Exhibit 1 shows in the red text all of the offset operators
23 that are contiguous to the north half of Section 32.

24 The one most adversely affected would be
25 Mewbourne Oil Company that operates the north half of

1 Section 33, and they are the ones that we are encroaching
2 on the most.

3 Also affected would be Yates Petroleum, in a
4 diagonal sense. They operate the south half of Section 28.

5 Q. Have you received any opposition from either of
6 those companies concerning your proposed Morrow unorthodox
7 location?

8 A. We have not.

9 Q. Did you advise those companies that your
10 intention is to deviate this wellbore to a bottomhole
11 location that was unorthodox, 1100 feet from the north and
12 east lines of the section?

13 A. Yes, we did.

14 MR. KELLAHIN: That concludes my examination of
15 Mr. Hardie.

16 We move the introduction of his Exhibits 1
17 through 5.

18 EXAMINER CATANACH: Exhibits 1 through 5 will be
19 admitted as evidence.

20 EXAMINATION

21 BY EXAMINER CATANACH:

22 Q. Mr. Hardie, the -- In Section 28, the State K
23 Number 3, is that a Morrow-producing well?

24 A. In Section 28 -- I believe you're referring to
25 the well in the south half of Section 28?

1 Q. Correct, right.

2 A. That is a Morrow producer. I'm not sure that it
3 still produces from the Morrow currently.

4 That was drilled by Getty, and it was completed
5 in a Morrow channel sand, and I believe it cum'd in the
6 neighborhood of about 2 BCF.

7 I'm not sure that it still produces. If it does,
8 it's at a very low rate.

9 Q. That well is -- Well, forget it.

10 A. The other area that might be affected, there's a
11 well -- It's kind of difficult to see because it's
12 underneath the seismic line.

13 In the north half of Section 33, the State B
14 Number 1 --

15 Q. Uh-huh.

16 A. -- is operated by Mewbourne. They attempted a
17 Morrow completion on that, and I think ultimately went up
18 to the Atoka and made a gas well in the Atoka and then,
19 here recently, recompleted from the Atoka into the
20 Cisco/Canyon, and it's a good Cisco/Canyon well.

21 Q. If you were to move this well to a standard
22 location for both Cisco/Canyon and Morrow, you would lose
23 structural position in the Cisco?

24 A. That's correct. One option that we contemplated
25 was drilling in the -- at a location which would have been

1 660 from the north line and 1980 from the west line of
2 Section 32. That would have been --

3 Q. From the west line?

4 A. East line, I'm sorry. That would have been
5 standard at both the Cisco and the Morrow.

6 But ultimately our goal is to encounter the
7 greatest thickness of Morrow sand, so we would have wanted
8 to deviate to our proposed bottomhole location anyway.

9 Plus that location is also lower in elevation at
10 the Cisco, and we would prefer to drill our best location
11 first in order to prove up Cisco production in this quarter
12 section.

13 Q. How much structural position would you lose at
14 that --

15 A. Referring to Exhibit Number 4, which shows the
16 top of the Cisco/Canyon, across that seismic line we
17 estimate a loss of approximately 20 to 30 feet of
18 elevation. And because we are dealing with such a thin
19 Cisco/Canyon section, that loss in elevation could be
20 significant.

21 We are -- This is a somewhat risky Cisco location
22 as well, because we are so close to the edge, we think it's
23 paramount that we try our best location first in order to
24 eliminate that risk.

25 Q. You don't really have any wells that penetrate

1 that thicker Morrow channel section, do you?

2 A. No, we don't. That -- The Morrow prospect itself
3 is based almost entirely on what we saw in the seismic
4 line. We would have never tried this without the seismic
5 line itself.

6 It's kind of a concept that we'd like to try, see
7 if the anomaly we see on the line is a Morrow channel. If
8 it is, it has the potential of us doing this again
9 elsewhere, shooting seismic across the field and perhaps
10 deepening existing depleted Cisco wells.

11 Q. So this seismic technique has not been used to
12 drill Morrow wells?

13 A. Not in this part of the world, that I know of.
14 This was a very high-effort 2-D seismic line. I think it
15 reached almost 140-fold at its center, so it has very high
16 resolution, something that you cannot typically get even
17 with a 3-D seismic survey.

18 Q. So that thick Morrow section, that's kind of
19 subject to interpretation at this point?

20 A. Certainly is. It's a concept that we would like
21 to see proved up because it could result in a lot more gas
22 production.

23 EXAMINER CATANACH: That's all I have of the
24 witness, Mr. Kellahin.

25 MR. KELLAHIN: My next witness is Bob Beamer.

1 Mr. Beamer is a petroleum engineer.

2 ROBERT BEAMER,

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

5 DIRECT EXAMINATION

6 BY MR. KELLAHIN:

7 Q. Would you please state your name and occupation?

8 A. My name is Bob Beamer. I'm a petroleum engineer
9 with Conoco in Midland, Texas.

10 Q. Mr. Beamer, on prior occasions have you testified
11 before the Division and been qualified as an expert in the
12 field of petroleum engineering?

13 A. Yes.

14 Q. Have you made a study of some of the engineering
15 factors that are involved in Conoco's proposal for the
16 Savannah State Number 1 well?

17 A. Yes.

18 Q. As part of that study, have you examined the
19 proposed deviation aspects of this well so that it could be
20 bottomed in the Morrow formation, hitting the target that
21 Mr. Hardie proposes for this well?

22 A. Yes.

23 MR. KELLAHIN: We tender Mr. Beamer as an expert
24 witness.

25 EXAMINER CATANACH: Mr. Beamer is so qualified.

1 Q. (By Mr. Kellahin) Let me turn your attention to
2 Exhibit Number 7.

3 Mr. Hardie approximated for us some various tops,
4 and I'm not sure he got the exact approximation correct.
5 Let's use this display to make --

6 A. Okay, I think it's Exhibit 6.

7 Q. 6, yes, sir.

8 A. Okay.

9 Q. Exhibit 6, which is the DIG vertical section and
10 the horizontal plan for the well.

11 A. Yes. This was prepared for our drilling
12 department at their request by DIG, Incorporated, out of
13 Midland, Texas, directional drilling service company.

14 It shows that the proposed well plan -- Well,
15 first of all, let me explain what's the sheet of paper.

16 There are two plans. One is a vertical section
17 which shows the vertical profile of the wellbore from the
18 base of the Cisco section. It's located on the left half
19 of the sheet.

20 On the right half is a horizontal view of the
21 wellbore, looking down from the surface.

22 Q. Let's give the Examiner some reference points.
23 If you'll look at the vertical section, there's a kickoff
24 point identified at approximately 7900 feet?

25 A. That's right. That should be approximately the

1 base of the Canyon section, at which point we would build
2 angle at approximately five degrees per hundred feet until
3 we reach an angle of about 30 degrees from vertical.
4 That's expected to occur at a measured depth of about 8490
5 feet, or a true vertical depth of 8465.

6 At that point, they would plan to maintain that
7 angle and drill to the target at 1100 feet from north and
8 east lines. The target should be reached at approximately
9 9450 feet measured depth.

10 Q. Geologically, where will that put us?

11 A. Top of the Morrow section, which -- and the
12 target also is drawn as a 100-foot-radius target.

13 Q. Your proposal, then, would be to have regulatory
14 authority to stay within a 100-foot-radius target of a
15 point at the top of the Morrow with a dimension of 1100
16 feet from the north and east lines of the section?

17 A. That's right.

18 Q. All right, then what happens?

19 A. We would continue drilling the well to the top of
20 the Mississippian section, anticipate it to be encountered
21 at about 9853 feet measured depth.

22 I might say that the direction of this well is
23 due southwest from surface. The target, top of the Morrow
24 sand, should be encountered approximately 622 feet from the
25 surface location at -- at southwest.

1 Q. In terms of its complexity, how would you
2 characterize this type of directional drilling?

3 A. It should be relatively simple.

4 Q. Describe what happens. After the well is
5 drilled, what then happens?

6 A. Depending on the sample shows in the Morrow sand
7 and open-hole logs, we'll make a decision on whether to run
8 casing and complete the well.

9 If it's prospective, we'll run seven-inch casing,
10 cement it, perforate and test the Morrow.

11 If it's not successful, we'll plug back an open
12 hole and run casing through the Cisco and complete it as a
13 Cisco/Canyon.

14 Q. Again, the completion process, like the drilling,
15 is a rather conventional application of this type of
16 method?

17 A. Yes, it is. It would be the same techniques that
18 we used in our Preston Federal Number 6 well.

19 Q. And that was a directionally drilled well to
20 accomplish the same type of objectives?

21 A. Yes, sir.

22 Q. If you'll turn to Exhibit Number 7, identify that
23 for us.

24 A. Exhibit 7 is the exact same information, provided
25 in a digital format.

1 Q. And I'll let you sponsor the last two exhibits
2 then, 8 and 9. What do those represent, Mr. Beamer?

3 A. Exhibits 8 and 9 are letters signed by Mewbourne
4 Oil company in which they waive all objections to the
5 unorthodox location and to the Morrow sand.

6 MR. KELLAHIN: That concludes my examination of
7 Mr. Beamer.

8 We move the introduction of Exhibits 3 through 9.

9 EXAMINER CATANACH: Exhibits 3 through 9 will be
10 admitted as evidence.

11 EXAMINATION

12 BY EXAMINER CATANACH:

13 Q. Mr. Beamer, assuming a successful Morrow test,
14 would the well be just a single completion in the Morrow?

15 A. Again, that depends on the rate at which we test
16 the well.

17 Q. Possibly be a dual completion?

18 A. Possibly, but probably not likely. Dual
19 completions could be difficult to manage. But we can't say
20 for sure until we see the results.

21 Q. So assuming you've got a good rate in the Morrow,
22 you would probably produce the Morrow for a period of time?

23 A. To depletion, yes, sir. There's always the
24 possibility, then, of drilling a twin well to it to access
25 the Cisco reserves.

1 Q. You've done this type of directional drilling in
2 this pool prior to this?

3 A. South Dagger Draw, Preston Federal Number 6,
4 approximately two years ago.

5 Q. Assuming no production in the Morrow, is the well
6 just plugged back from TD?

7 A. Yes, sir.

8 Q. Back to the --

9 A. It would be plugged back and open-holed to TD --
10 I mean, to the base of the Cisco. Casing would be run,
11 then, and perforated and tested for the Cisco production.

12 EXAMINER CATANACH: I have nothing further, Mr.
13 Kellahin.

14 MR. KELLAHIN: All right, sir. We would request
15 that the case be continued to give you an opportunity to
16 have it re-advertised, to remove any technical flaw about
17 the directional drilling aspect.

18 We do have waivers, notice and agreements from
19 the offset as to this bottomhole location being deviated,
20 but I think the Division practice is to also re-advertise
21 it.

22 EXAMINER CATANACH: All right. Did we miss the
23 20th, April 20th?

24 MR. KELLAHIN: Yes, sir.

25 EXAMINER CATANACH: Okay.

1 MR. KELLAHIN: So we're looking at the first
2 docket in May.

3 EXAMINER CATANACH: Okay, this case will be
4 continued to the first docket in May. I don't know what
5 the date on that is at this time.

6 MR. KELLAHIN: I can tell you here in just a
7 second. It's May 4th.

8 EXAMINER CATANACH: May 4th. This case will be
9 continued to May 4th, at which time there shouldn't be any
10 additional testimony, right?

11 MR. KELLAHIN: We don't anticipate any, Mr.
12 Examiner.

13 EXAMINER CATANACH: Okay. All right, thank you.
14 (Thereupon, these proceedings were concluded at
15 1:40 p.m.)

16 * * *

17 I do hereby certify that the foregoing is
18 a complete record of the proceedings in
19 the Examiner hearing of Case No. 11240
heard by me on April 6 1998

20 David R. Catanach, Examiner
21 Oil Conservation Division
22
23
24
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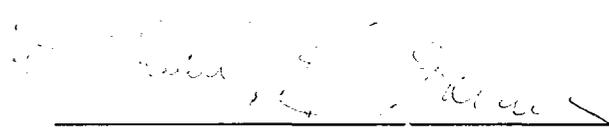
CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; 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 April 16th, 1995.

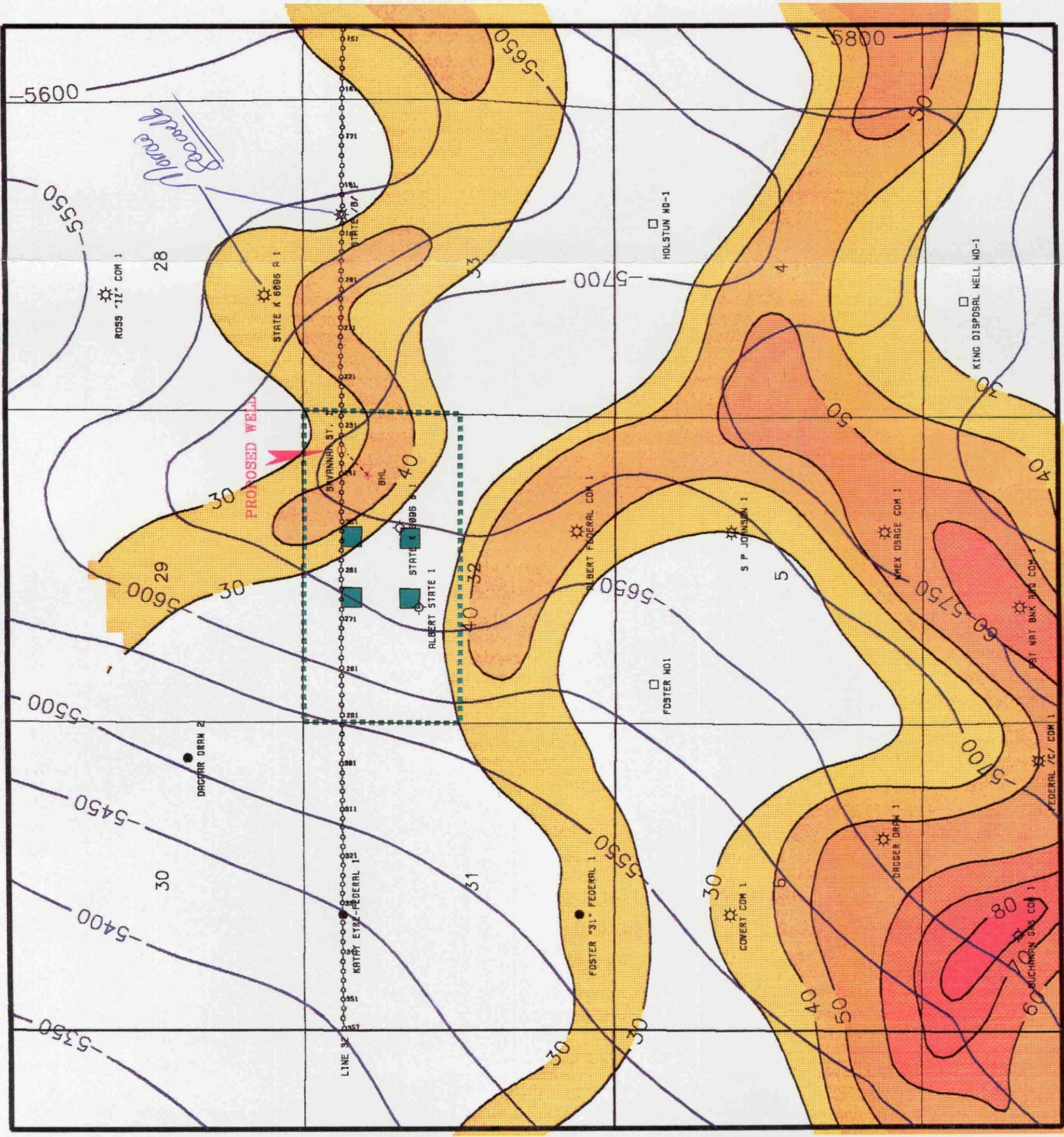

 STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 1998

CASE 11242 -- CONOCO INC.

Savannah #1 - Unorthodox Morrow Location

R25E



T19S

T20S

ORTHODOX MORROW LOCATION WINDOWS IN GREEN

PROPOSED MORROW PRORATION UNIT

ONLY MORROW PENETRATIONS SHOWN

PROJECTION: STATE PLANE
STATE: NM ZONE: 5

MIDLAND DIVISION
MIDLAND, TEXAS

PROJECT: DAGGER DRAW
AREA / PROJECTIONS: TIPPROU
MAP TYPE: BASEMAP PLOT

MORROW SAND ISOPACH (COLORFILL)
TOP MORROW SAND
PROPOSED SAVANNAH ST. #1 WELL

DAGGER DRAW/CEMETERY
EDDY COUNTY, NM

SCALE: 1:12000 UNITS/FT

DATE: 15

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. **5**
CASE NO.: 11242
Submitted by: Conoco Inc.
Hearing Date: Apr 6, 1995



PROJECTION: STATE PLANE
STATE: NM ZONE E

MIDLAND DIVISION
MIDLAND, TEXAS

PROJECT: DAGGER DRAW
AREA / PROJECTION: TUPPERO
MAP TYPE: BASEMAP PLOT

TOP CISCO-CANYON DOLOMITE

SCALE: 1:12000 UNIT: FT DATE: 15-94

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

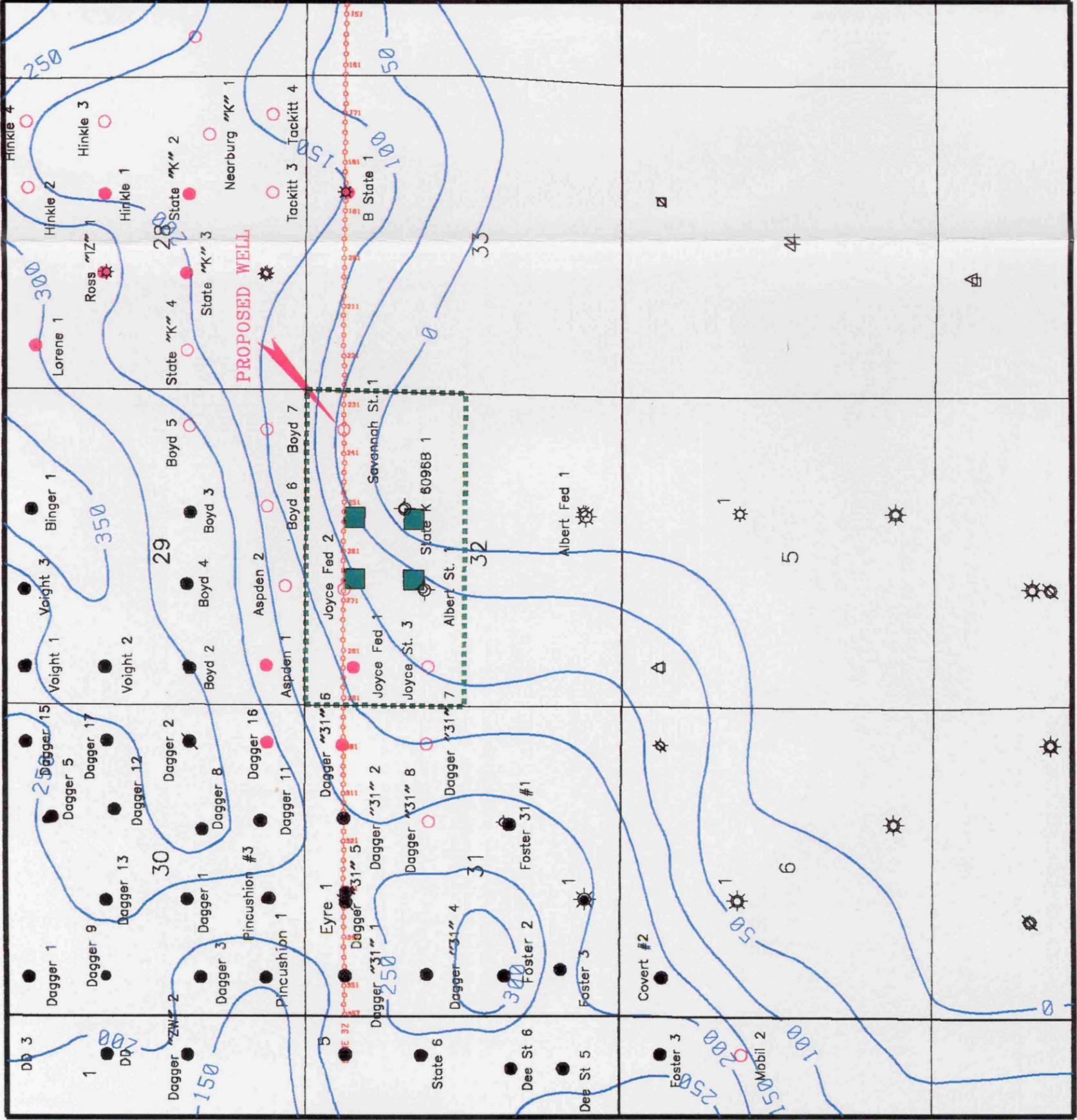
EXHIBIT NO. **4**

CASE NO.: 11242

Submitted by: Conoco Inc.

Hearing Date: Apr 6, 1995

R25E



T19S

T20S

ORTHODOX MORROW LOCATION WINDOWS IN GREEN

PROPOSED MORROW PRORATION UNIT -----

PROJECTION: STATE PLANE
STATE: NM ZONE: E

MIDLAND DIVISION
MIDLAND, TEXAS

PROJECT: DAGGER DRAW
AREA / PROJECTION: TMAPRO
MAP TYPE: BASEMAP PLOT

CISCO-CANYON DOLOMITE ISOPACH

SCALE: 1:12000 UNITS: FT DATE: 15-MAR

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

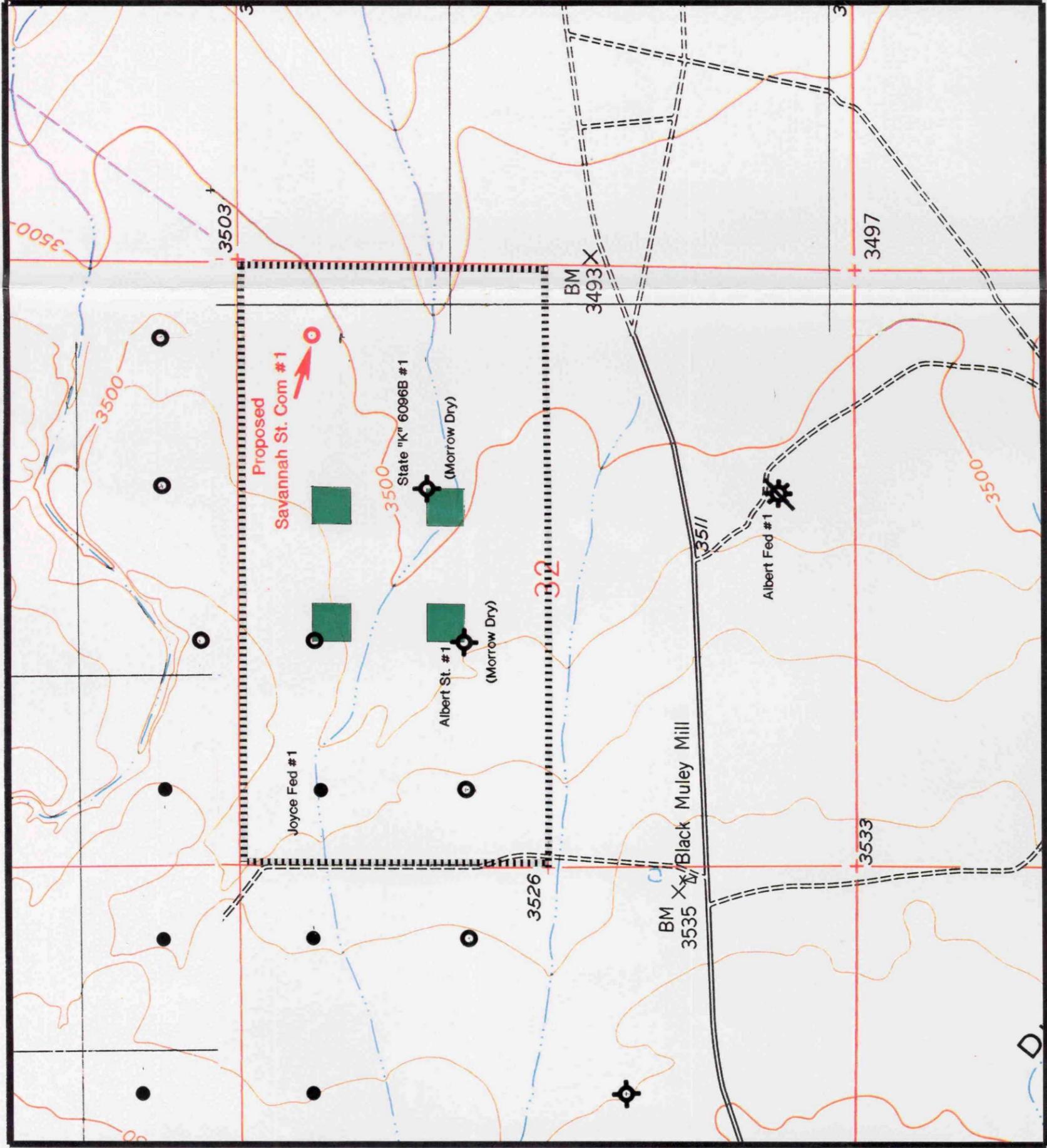
EXHIBIT NO. 3

CASE NO.: 11242
Submitted by: Conoco Inc.
Hearing Date: Apr 6, 1995

R25E

T19S

T20S



- Orthodox Morrow Location Windows
- Proposed Morrow Proration Unit

CONOCO MIDLAND DIVISION

SURFACE TOPOGRAPHIC MAP
NORTH DAGGER DRAW FIELD

SCALE 1" = 1000'	DRAWN USGS 7.5' QUA	
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BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

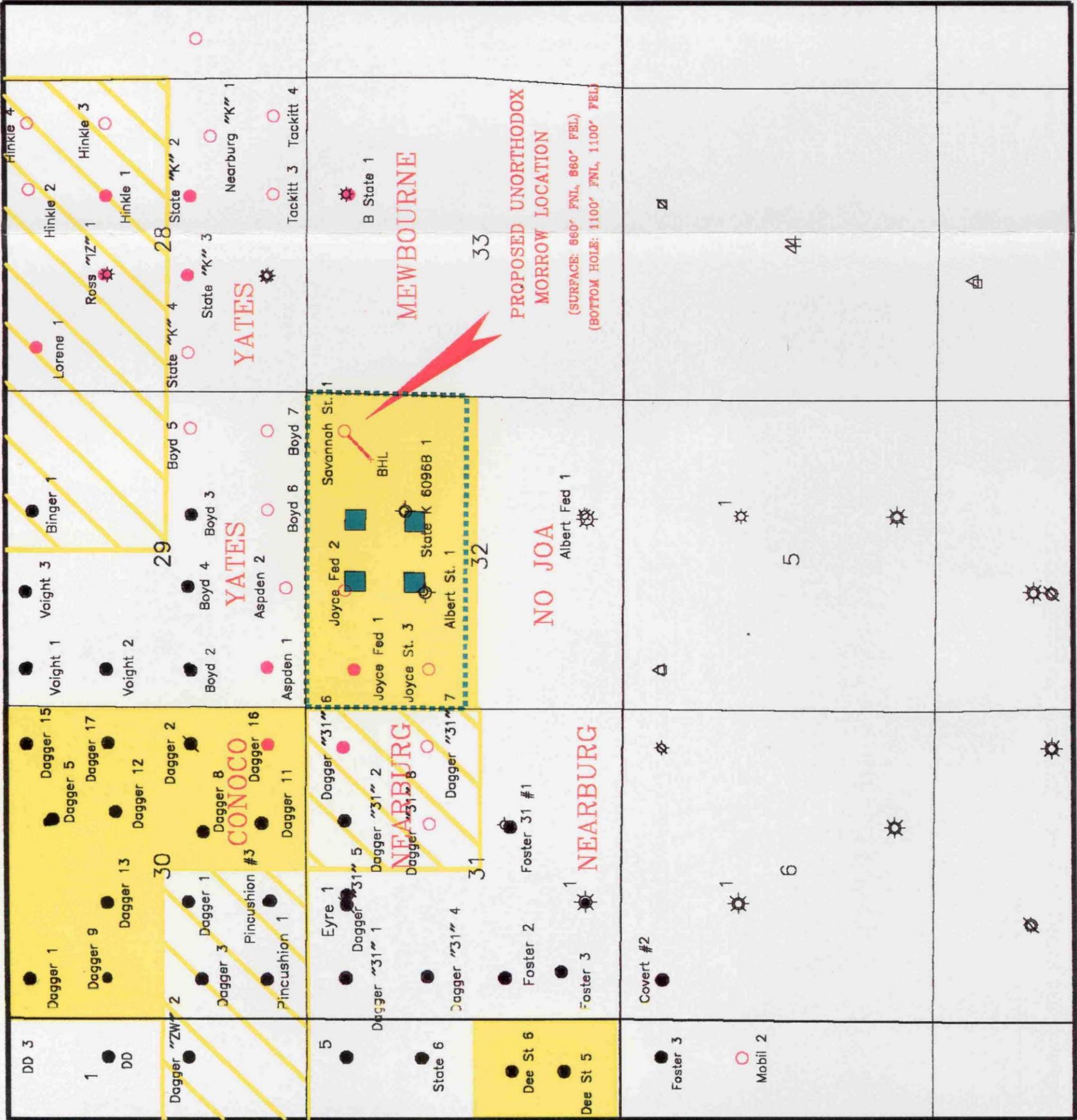
EXHIBIT NO. 2

CASE NO.: 11242

Submitted by: Conoco Inc.

Hearing Date: Apr 6, 1995

R25E



CONOCO-OPERATED ACREAGE = SOLID YELLOW

PARTNER-OPERATED W/ CONOCO W.I. = CROSS-HATCHED YELLOW

ORTHODOX MORROW LOCATION WINDOWS IN GREEN

PROPOSED MORROW PRORATION UNIT

T19S

T20S

PROJECTION: STATE PLANE
STATE: NM ZONE: 6

MIDLAND DIVISION
MIDLAND, TEXAS

PROJECT: DAGGER DRAW
AREA / PROJECTION: T19P19C
MAP TYPE: BASEMAP PLOT

NORTH DAGGER DRAW
BASEMAP

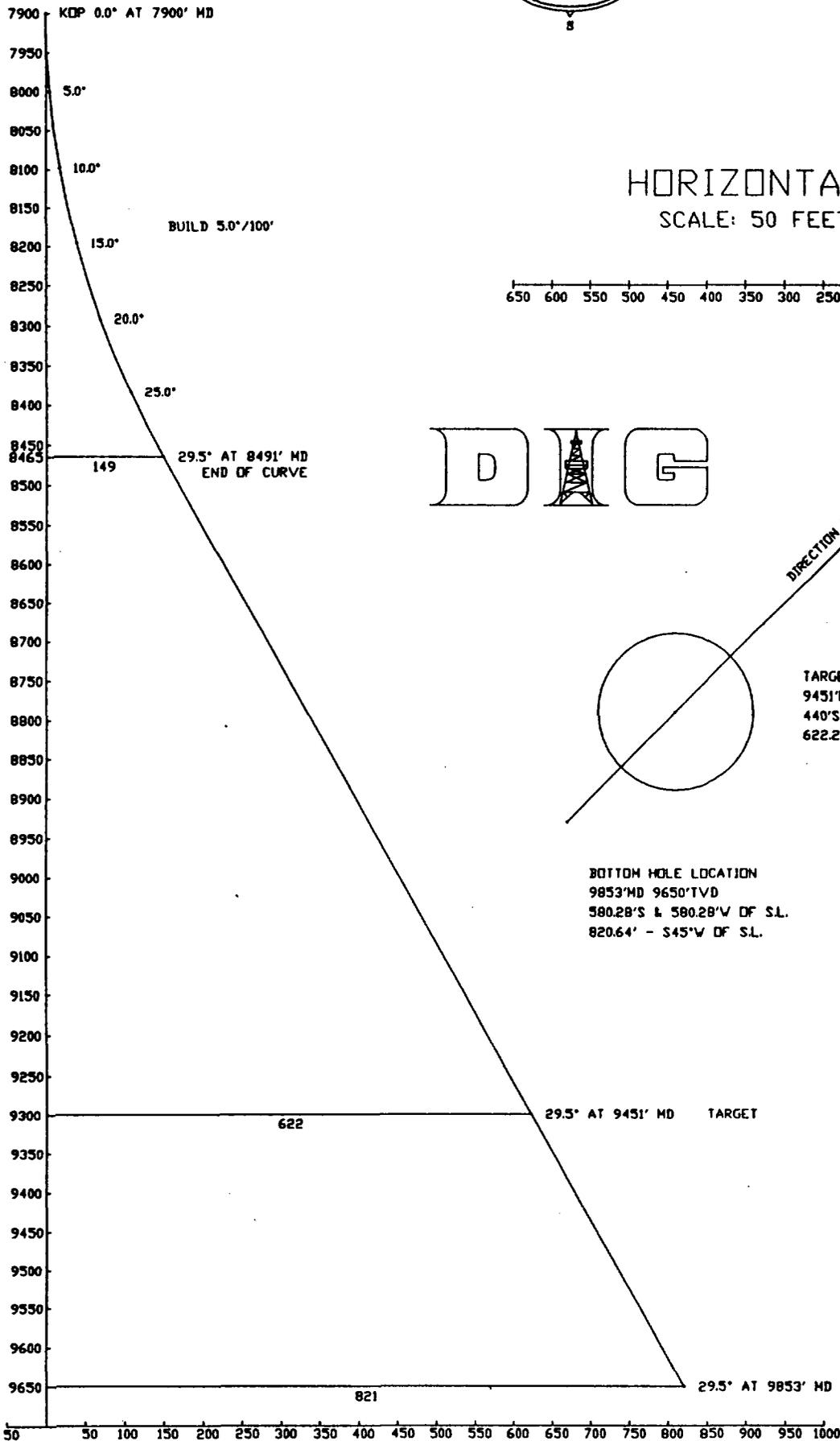
SCALE: 1:12000 UNIT: FT DATE: 15-MAR-1995

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

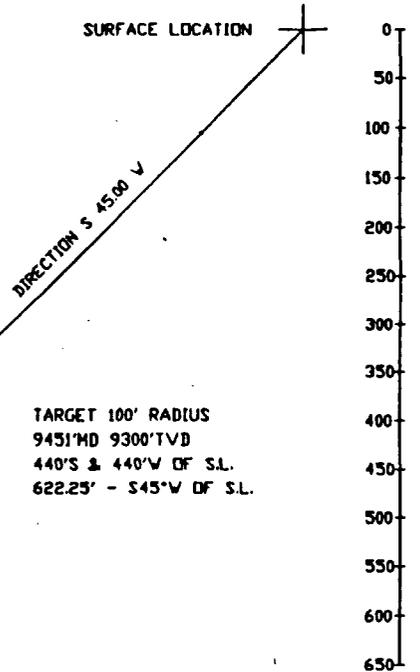
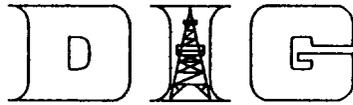
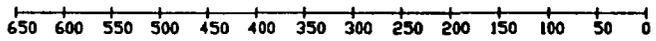
EXHIBIT NO. **1**
CASE NO.: 11242
Submitted by: Conoco Inc.
Hearing Date: Apr 6, 1995

CONOCO, INCORPORATED
 SAVANNAH STATE #1
 EDDY COUNTY, NEW MEXICO

VERTICAL SECTION
 SCALE: 50 FEET/DIVISION



HORIZONTAL PLAN
 SCALE: 50 FEET/DIVISION



TARGET 100' RADIUS
 9451' MD 9300' TVD
 440'S & 440'W OF S.L.
 622.25' - S45'W OF S.L.

BOTTOM HOLE LOCATION
 9853' MD 9650' TVD
 580.28'S & 580.28'W OF S.L.
 820.64' - S45'W OF S.L.

VERTICAL SECTION PLANE: S 45.00 W

BEFORE AN EXAMINER OF THE
 OIL CONSERVATION DIVISION

EXHIBIT NO. 6
 CASE NO.: 11242
 Submitted by: Conoco Inc.
 Hearing Date: Apr 6, 1995

D.I.G., INC.

CONOCO, INCORPORATED
 SAVANNAH STATE #1
 EDDY COUNTY, NEW MEXICO

Calculated by Minimum Curvature Method
 Vert Sect Plane: S 45.00 W

- DIRECTIONAL WELLPLAN -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)	VERTICAL SECTION (FT)	C L O S U R E DISTANCE (FT)	DIRECTION (DEG)	DOGLEG SEVERITY (DG/100')
7900.00	0.00	N 0.00 E	0.00	7900.00	0.00 N 0.00 E	0.00	0.00	N 0.00 E	0.00
8000.00	5.00	S 45.00 W	100.00	7999.87	3.08 S 3.08 W	4.36	4.36	S 45.00 W	5.00
8100.00	10.00	S 45.00 W	100.00	8098.99	12.31 S 12.31 W	17.41	17.41	S 45.00 W	5.00
8200.00	15.00	S 45.00 W	100.00	8196.58	27.61 S 27.61 W	39.05	39.05	S 45.00 W	5.00
8300.00	20.00	S 45.00 W	100.00	8291.93	48.87 S 48.87 W	69.11	69.11	S 45.00 W	5.00
8400.00	25.00	S 45.00 W	100.00	8384.28	75.92 S 75.92 W	107.36	107.36	S 45.00 W	5.00
END OF CURVE									
8490.90	29.54	S 45.00 W	90.90	8465.06	105.36 S 105.36 W	149.00	149.00	S 45.00 W	5.00
TARGET									
9450.63	29.54	S 45.00 W	959.74	9300.00	440.00 S 440.00 W	622.25	622.25	S 45.00 W	0.00
BOTTOM HOLE LOCATION									
9852.95	29.54	S 45.00 W	402.31	9650.00	580.28 S 580.28 W	820.64	820.64	S 45.00 W	0.00

BEFORE AN EXAMINER OF THE
 OIL CONSERVATION DIVISION

EXHIBIT NO. 7
 CASE NO.: 11242
 Submitted by: Conoco Inc.
 Hearing Date: Apr 6, 1995

MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020
MIDLAND, TEXAS 79701

(915) 682-3715
FAX (915) 685-4170

March 27, 1995

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, Texas 79705

Attn: Mr. Warren D. Richardson

Re: Conoco's Savannah State No. 1 Well
Unorthodox location for the Morrow
1,100' FNL & 1,100' FEL (Directional bottom
hole location), Section 32, T19S, R25E
Eddy County, New Mexico

Gentlemen:

Mewbourne Oil Company acknowledges receiving your letter dated March 23, 1995 regarding the captioned well wherein Conoco requested Mewbourne's waiver of objection for Conoco's proposed bottom hole unorthodox location for the Morrow formation. Mewbourne accepts the terms offered in Conoco's letter subject to the following:

- 1) In exchange for Mewbourne waiving all objections to this application, Conoco agrees to provide to Mewbourne a copy of all logs, test information and daily production reports obtained from the captioned well from the date of initial production for a period of 60 days production commencing within 30 days of Conoco's obtaining such information.
- 2) In the event Mewbourne desires to drill a well at an unorthodox location in the NW/4 of the adjoining Section 33 to a formation which is spaced on 320 acres, Mewbourne agrees to locate such well a minimum of 1,110' from the West line of said Section 33. If such well is located at least said minimum distance from such West line, Conoco agrees to waive objection for an application for said unorthodox location. As a consideration for such waiver of objection, Mewbourne agrees to furnish Conoco the well information for such Mewbourne well and within the time period described in condition (1) above.

Conoco's cooperation in connection with the above is greatly appreciated.

Sincerely,

MEWBOURNE OIL COMPANY



D. Paul Haden
Landman

BEFORE AN EXAMINER OF THE
OIL CONSERVATION DIVISION

EXHIBIT NO. 8
CASE NO.: 11242
Submitted by: Conoco Inc.
Hearing Date: Apr 6, 1995



Warren D. Richardson
Staff Landman
Midland Division
Exploration Production
North America

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, Texas 79705-4500
BUS. (915) 686-5576
FAX (915) 686-5596

March 23, 1995

Mewbourne Oil Company
500 West Texas Avenue
Midland, Texas 79701

Attn: Land Manager

Re: Application for Unorthodox Location Savannah State No. 1, North Dagger Draw Penn / Cemetery Morrow, 660' FNL, 660' FEL (Cisco Location), 1,100' FNL, 1,100' FEL (Directional Morrow bottom hole location), Section 32, T19S, R25E, Eddy County, New Mexico

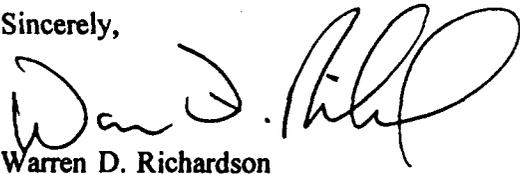
Gentlemen:

Conoco Inc. has applied for the captioned unorthodox Morrow location that is offset to the East by Mewbourne's acreage in Section 33. The nonstandard location is required due to geological considerations.

In exchange for Mewbourne waiving all objections to this application, Conoco agrees to provide all logs and test information on the well to Mewbourne within 30 days of acquisition. Also, under similar terms, Conoco agrees to waive all objections to similar unorthodox bottom hole location (i.e., orthodox Upper Penn, unorthodox Morrow) should Mewbourne wish to drill in Section 33, T19S, R25E.

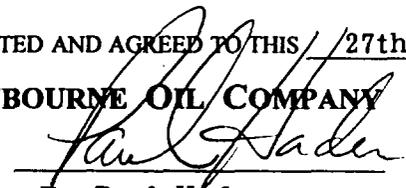
If you accept this agreement, please signify by signing below and return one copy of this letter to the undersigned at the letterhead address.

Sincerely,


Warren D. Richardson

* ACCEPTED AND AGREED TO THIS 27th DAY OF March, 1995.

MEWBOURNE OIL COMPANY

By: 
Name: D. Paul Haden
Its: Landman

* Execution hereof is subject to that certain conditional letter dated March 27, 1995 from Mewbourne addressed to Conoco. *WDR*

D:\DATA\WDR\038\dkr

BEFORE AN EXAMINER OF THE OIL CONSERVATION DIVISION

EXHIBIT NO. 9
CASE NO.: 11242
Submitted by: Conoco Inc.
Hearing Date: Apr 6, 1995

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

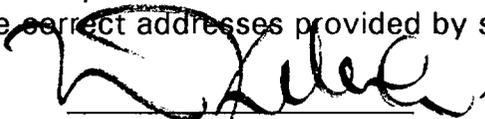
IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION
FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11242

Application of CONOCO Inc.
for an Unorthodox Gas Well
Location, Eddy County, New Mexico.

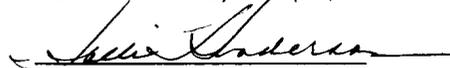
**CERTIFICATE OF MAILING
AND
COMPLIANCE WITH ORDER R-8054**

W. THOMAS KELLAHIN, attorney in fact and authorized representative of CONOCO Inc., states that the notice provisions of Division Rule 1207 (Order R-8054) have been complied with, that Applicant has caused to be conducted a good faith diligent effort to find the correct addresses of all interested parties entitled to receive notice, that on the 16th day of March, 1995 I caused to be sent, by certified mail return receipt requested, notice of this hearing and a copy of the application for the referenced case along with the cover letter, at least twenty days prior to the hearing set for April 6, 1995, to the parties shown in the application as evidenced by the attached copies of receipt cards, and that pursuant to Division Rule 1207, notice has been given at the correct addresses provided by such rule.



W. Thomas Kellahin

SUBSCRIBED AND SWORN to before me on this 5th day of April, 1995.



Notary Public

My Commission Expires: June 15th, 1998

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3 and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.

CONOCO/SAVANNAH
MARCH 16, 1995

I also wish to receive the following services (for an extra fee):

1. Addressee's Address

2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Yates Petroleum Corporation
 105 South Fourth Street
 Artesia, New Mexico 88210

4a. Article Number
 321 036 765

4b. Service Type

Registered Insured

Certified COD

Express Mail Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

Thank you for using Return Receipt Service.

P 135 851 332

Receipt for Certified Mail

No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Yates Petroleum Corporation
 105 South Fourth Street
 Artesia, New Mexico 88210

Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.

CONOCO/SAVANNAH
MARCH 16, 1995

I also wish to receive the following services (for an extra fee):

1. Addressee's Address

2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mewbourne Oil Co
 POB 5270
 Hobbs, New Mexico 88241

4a. Article Number
 321 036 741

4b. Service Type

Registered Insured

Certified COD

Express Mail Return Receipt for Merchandise

7. Date of Delivery
 3-20-95

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

Thank you for using Return Receipt Service.

P 321 036 761

Receipt for Certified Mail

No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Mewbourne Oil Co
 POB 5270
 Hobbs, New Mexico 88241

Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.

CONOCO/SAVANNAH
MARCH 16, 1995

I also wish to receive the following services (for an extra fee):

1. Addressee's Address

2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Nearburg Producing Company
 3300 North "A" Street
 Bldg. 2, Ste. 120
 Midland, TX 79705
 Attn: Bob Shelton

4a. Article Number
 321 036 742

4b. Service Type

Registered Insured

Certified COD

Express Mail Return Receipt for Merchandise

7. Date of Delivery
 3-21-95

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

Thank you for using Return Receipt Service.

P 321 036 762

Receipt for Certified Mail

No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Nearburg Producing Company
 3300 North "A" Street
 Bldg. 2, Ste. 120
 Midland, TX 79705
 Attn: Bob Shelton

Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom & Addressee's Address	
POSTAGE & FEES PAID	\$
Postmark (Date)	

CONOCO/SAVANNAH
 MARCH 16, 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
 • Complete items 1 and/or 2 for additional services.
 • Complete items 3, and 4a & b.
 • Print your name and address on the reverse of this form so that we can return this card to you.
 • **CONOCO/SAVANNAH** if space
 • **MARCH 16, 1995** article number.
 • The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

3. Article Addressed to:
 Yates Drilling Company
 105 South Fourth Street
 Artesia, New Mexico 88210

4a. Article Number
P 321 036 760

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
MAR 20 1995

5. Signature (Addressee)

6. Signature (Agent)
Lauren Larson

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 321 036 760



Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Yates Drilling Company
 105 South Fourth Street
 Artesia, New Mexico 88210

Special Delivery Fee

P 321 036 763



Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Myco Industries Inc.
 105 South Fourth Street
 Artesia, New Mexico 88210

June 1991

P 321 036 764



Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Abo Petroleum Corporation
 105 South Fourth Street
 Artesia, New Mexico 88210

3800, June 1991

CONOCO/SAVANNAH
 MARCH 16, 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
 • Complete items 1 and/or 2 for additional services.
 • Complete items 3, and 4a & b.
 • Print your name and address on the reverse of this form so that we can return this card to you.
 • **CONOCO/SAVANNAH** that we can
 • **MARCH 16, 1995** ck if space
 • The Return Receipt will show to whom the article was delivered and the date delivered. article number and the date

I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

3. Article Addressed to:
 Myco Industries Inc.
 105 South Fourth Street
 Artesia, New Mexico 88210

4a. Article Number
321 036 763

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:
 • Complete items 1 and/or 2 for additional services.
 • Complete items 3, and 4a & b.
 • Print your name and address on the reverse of this form so that we can return this card to you.
 • **CONOCO/SAVANNAH** that we can
 • **MARCH 16, 1995** ck if space
 • The Return Receipt will show to whom the article was delivered and the date delivered. article number and the date

I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

3. Article Addressed to:
 Abo Petroleum Corporation
 105 South Fourth Street
 Artesia, New Mexico 88210

4a. Article Number
321 036 744

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

7. Date of Delivery
MAR 20 1995

5. Signature (Addressee)

6. Signature (Agent)
Lauren Larson

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.