NEW MEXICO OIL CONSERVATION DIVISION

COMMISSION HEARING

SANTA FE, NEW MEXICO

Hearing Date	OCTOBER 30, 1997 Ti	me 9:00 A.M.
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NAME	REPRESENTING	LOCATION
Welljolin	Xelloli & Zuli	
MIT Shepard	Markourne Oil Co	If TX
Bryan Montgomery	Menbourne oilco	
Evillant Sour	MENEOWENE OIC	an Just te
BARH MOSER		
Bill Collina	Mentaurne Ail	Milland
Fith Tellia	Unisonere Oil	MIDLAND
Steve Cont	Memberene Oil Co.	midland.
Call Brown	Fasten	midland
LOUIS LINT	Frsken	milland
chades Ticke	Forker	Midland
Charles Hedges	Fasher	Midlad
Weller Harmon	FASKEN	MIDIAND
James Bruce		Sanda Fr

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

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

) CASE NOS. 11,723

APPLICATION OF MEWBOURNE OIL COMPANY FOR AN UNORTHODOX GAS WELL LOCATION AND NONSTANDARD GAS PRORATION UNIT, EDDY COUNTY, NEW MEXICO

APPLICATION OF FASKEN OIL AND RANCH, LTD. FOR A NONSTANDARD GAS PRORATION AND SPACING UNIT AND TWO ALTERNATE UNORTHODOX GAS WELL LOCATIONS, EDDY COUNTY, NEW MEXICO

APPLICATION OF TEXACO EXPLORATION AND PRODUCTION, INC., FOR CLARIFICATION OR, IN THE ALTERNATIVE, AN EXCEPTION TO THE SPECIAL POOL RULES AND REGULATIONS FOR THE CATCLAW DRAW-MORROW GAS POOL, EDDY COUNTY, NEW MEXICO

11,868

11,755

(Consolidated)

REPORTER'S TRANSCRIPT OF PROCEEDINGS (Volume II) COMMISSION HEARING

BEFORE: WILLIAM J. LEMAY, CHAIRMAN WILLIAM WEISS, COMMISSIONER JAMI BAILEY, COMMISSIONER

ORIGINAL

October 31, 1997 Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Commission, WILLIAM J. LEMAY, Chairman, on Friday, October 31st, 1997 (Volume II), at the New Mexico Energy, Minerals and Natural Resources Department, Secretary's conference room, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

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Additional submission by Mewbourne, not offered or admitted:

Identified

ICA letter in support of Mewbourne Application

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By: WILLIAM F. CARR

* * *

1	WHEREUPON, the following proceedings were had at
2	8:35 a.m.:
3	CHAIRMAN LEMAY: We shall resume yesterday's
4	deliberation.
5	Is this Are we going to discuss this later?
6	MR. CARR: Yes, sir.
7	CHAIRMAN LEMAY: We shall resume with Mr. Carr.
8	MR. CARR: May it please the Commission, at this
9	time Texaco calls David Uhl, U-h-l.
10	DAVID A. UHL,
11	the witness herein, after having been first duly sworn upon
12	his oath, was examined and testified as follows:
13	DIRECT EXAMINATION
14	BY MR. CARR:
15	Q. Will you state your name for the record, please?
16	A. David Uhl.
17	Q. Where do you reside?
18	A. I reside in Denver, Colorado.
19	Q. Mr. Uhl, by whom are you employed?
20	A. With Texaco.
21	Q. And what is your current position with Texaco?
22	A. I'm a geologist responsible for working southeast
23	New Mexico, right now primarily Eddy County.
23	New Mexico, right now primarily Eddy County. Q. Have you previously testified before the Oil

1	A. No, but I have testified before the Division.
2	Q. Could you summarize your educational background,
3	please?
4	A. Bachelor's of science and a master's degree from
5	the University of Nebraska, master's in 1981.
6	Q. And since 1981, for whom have you worked?
7	A. For Texaco.
8	Q. Are you familiar with the Applications filed in
9	each of these cases on behalf of Mewbourne, Fasken and
10	Texaco?
11	A. I've become very familiar with them.
12	Q. Could you initially explain to the Commission,
13	what is Texaco's interest in this case?
14	A. Texaco owns acreage immediately to the south of
15	the proposed Mewbourne location. Because it's a Mewbourne
16	location, it is a location exception, we feel that they
17	would be encroaching on our acreage.
18	Q. Would you identify the wells that you currently
19	have drilled and completed on Section 12?
20	A. Yes. If you refer to Exhibit 1
21	CHAIRMAN LEMAY: Is this separate another set
22	of exhibits? I don't
23	MR. CARR: It's in a
24	COMMISSIONER WEISS: It's in this It's
25	underneath here.

1	MR. CARR: Yes, sir.
2	CHAIRMAN LEMAY: Thank you, excuse me.
3	Q. (By Mr. Carr) All right, would you identify the
4	wells that you've drilled and completed in Section 12?
5	A. All right. If you refer to Exhibit 1, Texaco has
6	the acreage in Yellow, Section 12. We operate the Number 1
7	E.J. Levers and the Number 2 E.J. Levers, the Number 1 to
8	the south, Number 1 excuse me, Number 2 approximately in
9	the middle of the section.
10	Q. Those are shown with the gray circles around
11	them, correct?
12	A. Greenish color, that's correct.
13	Q. Whatever color they are, they have the circles
14	around them?
15	A. They have the circles around it.
16	Q. Okay. Have you made a geological study of the
17	area which is the subject of this Application?
18	A. Yes, I have.
19	Q. And are you prepared to share the results of that
20	geological work with the Commission?
21	A. Yes.
22	MR. CARR: We would tender Mr. Uhl as an expert
23	in petroleum geology.
24	CHAIRMAN LEMAY: His qualifications are
25	acceptable.

1	Q. (By Mr. Carr) Mr. Uhl, briefly state what Texaco
2	seeks in this case.
3	A. We seek one of two things, is that Mewbourne is
4	proposing an unorthodox location at a immediately
5	offsetting our acreage. We ask that that location be
6	denied. Or, in the alternative, we ask that a significant
7	production penalty be applied to that well, if that
8	location is approved.
9	Q. What about the Texaco Application? What are we
10	seeking with that Application?
11	A. Essentially we're seeking clarification of the
12	rules of the Catclaw Draw-Morrow Pool.
13	Q. And is it your desire that Texaco be authorized
14	to return the E.J. Levers Number 1 well to production at
15	the earliest possible time?
16	A. We'd like it as soon as possible.
17	Q. Are you familiar with the current rules which
18	govern development of the Catclaw Draw-Morrow Pool?
19	A. As much as possible, yes, I am.
20	Q. And are there special rules in effect for the
21	pool?
22	A. There are special rules. It's Order R-8170 in
23	1986.
24	Q. And what are the well-location requirements for
25	the pool?

640-acre spacing, 1650-foot setbacks and 330 feet A. 1 2 from any quarter-quarter. Is this pool a prorated pool? 3 0. It was prorated at one time, but proration was 4 suspended, so -- I guess the last one we had on that was 5 Mr. Stogner's ruling, and he's calling that a technically 6 7 prorated pool. Have you prepared exhibits for introduction in 8 Q. this case? 9 10 Α. Yes. All right. Let's go now back to Exhibit Number 11 Q. 1, and I'd ask you first to identify it and then review it 12 for the Commission. 13 Exhibit Number 1 -- Probably the best way to look 14 A. at the exhibits would be to look at Exhibit Number 4, the 15 cross-section, and the geologic maps, 1 through 3, at the 16 17 same time. So if you look at Exhibit Number 4, the cross-18 section, and also Exhibit Number 1 at this time. With Exhibit Number 1 I'm attempting to map the 19 20 principal producing zone in our Levers Number 2 well, the 21 well that we drilled in 1995 and completed in 1996. 22 zone is in the middle Morrow, what I'm calling the B1 zone.

Mr. Williams from Mewbourne also called that the orange

zone, I believe. And I believe that Faskens also are

counting that as an orange zone.

23

24

Q. Okay, what does this show?

A. What that's showing is that in and around the Texaco acreage, Section 12, we've got one, two, three, four, five -- approximately half a dozen points of control immediately adjacent to that acreage.

Our first well to the south, our E.J. Levers

Number 1, encountered very -- just a very -- inkling of

porosity in that well. The resistivity on that is also

indicating there's a fairly tight zone. Although that well

was perforated in that zone to start off with, we believe

that it contributed practically nothing to that well.

The well to the north of that, our E.J. Levers

Number 2, that was completed in 1996, we ended up finding

the reservoir on that, that was virtually unexpected, based

on the well control in that area. We found 18 percent of

porosity within the B1 zone or the orange zone, and it

ended up being a very significant well.

At one time it was -- We had an absolute open flow of approximately 9 million a day on that well out of that middle zone, the middle Morrow zone, and it's still producing for us, a little over 4 million a day.

To the northeast, in Section 1, we have that point up there, the old Fasken well, the point with six feet of control, six feet of porosity control on that.

That well was also completed out of the same stratigraphic

interval, but it only cum'd about approximately a third of a BCF of gas.

To the west of that in Section 2, we have another point with about approximately six feet of porosity control. The old Continental or Conoco Number 2 Levers well. That well was never tested in the zone, and it looked a little skinny on the porosity also.

And then to the south of that well, in the southeast-southeast of Section 11, we have the Pure Federal Number 2, that has produced approximately 2.5 BCF out of that zone.

What we have are -- when we drilled our well -- I might throw a little more background. When we drilled that well we encountered some fairly significant pressures in the well.

Q. That's the Number 2?

A. Our Number 2 well, that's correct.

Although our Number 1 well had been open in that -- had technically been open in that zone from 1972 up to about 1988, the pressures in the Number 1 were only slightly depleted from what we considered the original bottomhole pressure.

Now, the nearest well that had been producing to that was the Pure Federal Number 2 in the southeast-southeast of Section 11. That originally had fairly

significant P/Z, about 4500 pounds, whereas the P/Z in our wells was somewhere around 4000 pounds. So if there was any decline it was -- a pressure decline, it was probably declining from that well immediately to the southwest, the Pure Federal Number 2. But again, the pressures were so high -- it looks to me as if there might -- a little bit of pressure drawdown, but it's very insignificant.

To the northeast up there in Section 1, you had the old Fasken well. It originally had a P/Z of approximately 4000 pounds also. 4000 up there to the northeast, 4000 pounds in our well -- I mean, those are probably equivalent to one another. Yet that well only produced about a third of a BCF of gas.

I think that well to the northeast was an edge well, an edge well to the reservoir, that there's a better reservoir to the west of there.

What I've mapped on here, or what I've attempted to map on here, is the trend of the porosity of that "B" zone. I see more or less a north-south trending on that.

Mr. Williams had a similar trend on that, although he tends to pull the contours a little more favorably toward the Fasken well, favorably as far as his argument goes.

I see that well to the west, the Conoco Levers well, as being another edge well over there, and that you can also pull the contours off the west. Now, as far as

how far to the north it goes, that's open to conjecture 1 right now. We're just going to have to drill a well to 2 find out. 3 So basically, you've mapped this "B" zone in a Q. 4 more due-north-south orientation than was mapped by Mr. 5 Williams? 6 I think the well control indicates that. 7 Α. You were present yesterday and heard testimony 8 Q. presented by Fasken concerning faulting in the reservoir? 9 That's correct. 10 Α. Do you see those faults? 11 Q. Based on well control, I don't see the faults in Α. 12 the reservoir. But then I have not had access to the 13 14 seismic. 15 Q. And so you can't really render an opinion on 16 that? I really can't render an opinion on that. 17 18 Now, in preparing your maps, have you utilized 19 any seismic information? The only seismic information that I've utilized 20 Α. was a couple of 2-D lines, fairly far to the south, in 21 order to set up a fault on my structure map. I'll show you 22 that in a few minutes. But no seismic in this immediate 23

When you've been mapping the reservoir, have you

area.

Q.

24

tried to integrate pressure drainage areas into your mapping of this particular zone?

- A. As far as pressure and drainage goes, we have attempted to map the volume of the reservoir. We have looked the P/Z data and approximated what type of ultimate production that we're going to get from our well. But as far as far as how many wells you can ultimately put within that zone, we have not attempted that.
- Q. When you look at this map in this -- your isopach of this zone, would you concur with Mr. Montgomery yesterday that a well at the proposed Mewbourne location will probably be competing for reserves with the Levers Number 2?
- A. I think it will be competing for our reserves because it's encroaching on our lease line by so much, it almost has to take our reserves away.
- Q. Let's go to Exhibit Number 2, your isopach on the C2 sand.
 - A. Okay.

- Q. Would you review that for the Commission, please?
- A. The C2 sand, if you look on the cross-section,

 Exhibit Number 4, that is the very lowermost sand that I

 have continued to map in that area. It produced originally
 in our Number 1 well from 1972 to 1988. Since then, our

 Number 1 well has been plugged. We had set a bridge plug

and we had come uphole, and now producing from an upper Morrow sand, our "A" sand, in that well.

We originally had a bottomhole pressure of -- or a shut-in pressure on the drill stem test of 4346 pounds in our Number 1 well. When we drilled the Number 2 well -- The Number 1 well drilled in 1972, the Number 2 well was drilled in -- or tested in 1986. And we ran a DST on that and only had about 1368 pounds on that. So about 3000 pounds pressure drawdown between those two zones.

So we're indicating that that zone has quite a bit of connectivity in it. That's fairly consistent with the production in the area. It was one of the original, principal producers in the field. It has a strong north-sound trend, slightly-to-the-northwest trend, and it's a fluvial sand, coarse-grained sand.

- Q. Are these isopach maps the same maps that you presented to the Examiner at the April hearing?
 - A. Yes, I have. I have not changed them.
- Q. Is there any new geological data in the area that would cause you to revise or alter the mapping that you made at that time?
- A. There's no additional wells have been drilled in that area.
- Q. Now, you may have addressed this already, but based on these basically six control points that you have,

do you have sufficient well-control information to map the extent of these zones north of Section 12?

- A. I can project them reasonably north of Section 12. But as with any geologic control, the further north you move, the greater risk you start running into.
- Q. Let's go to Exhibit Number 3, your structure map on the top of the Morrow "A". Would you review that for the Commission?
- A. If you look at the cross-section again, we have the very top sand on that, the "A" sand, the yellow sand at the top is called the "A" sand. That's essentially where we're losing the Morrow carbonates and it becomes the Morrow clastics or the -- in this case, the Morrow sand. That's a very good structural marker, and that's what I've attempted to map here, the structural position of the wells in the field.

The map that I've generated is based purely on well control. Seismic has not -- or excuse me, mostly on well control, because I did utilize a seismic line in Section 26 and 27 to the south. But for the most part it's based on well control within the area of interest.

What we're seeing here is that Catclaw Draw is basically developed on a structure. As soon as you start moving off the structure, within two of the sands, the "A" sand and also your lower Morrow sands, you start running

into water legs.

Within the middle Morrow interval, we have not really encountered water. I believe the middle Morrow interval to be essentially full of gas. The water is not really an issue there. But it is an issue in the uppermost Morrow sand and lowermost Morrow sands.

- Q. This exhibit also contains a trace on it for a subsequent cross-section?
 - A. That's correct.
 - Q. Are you ready to go to that cross-section?
- A. Well, I guess I've kind of been talking off the cross-section. That's the cross-section A-A', also Exhibit 4.
- Q. What does the cross-section show you that you haven't already reviewed?
- A. Essentially it shows the continuity of the sands throughout the mapped area. You can see going from A' to the north, on the right of the cross-section, to A on the southwest, on the left of the cross-section, that the sands are fairly continuous throughout the area in question, going across the Mewbourne location.

By making this cross-section, I'm attempting to portray that a well drilled in the south half of Section 1 would be -- most likely would be connected to the reservoir, so we have developed in Section 12. And a well

1 drilled too close to us in Section 1 would be essentially taking gas from Section 12. 2 Q. Now, this cross-section shows the Levers Number 3 4 2, correct? That's correct --5 Α. Q. You left the --6 -- the Levers Number 2. 7 Α. You did not include the Levers 1? Q. 8 For expediency in the cross-section I did not 9 A. 10 include that. I believe that Fasken has included that on their cross-section. 11 From what zones is the Levers Number 2 producing? Q. 12 The Levers Number 2 is producing -- as you can 13 14 see, the second well from the right on the cross-section --15 is producing from two different zones. The way that we 16 completed the Levers Number 2 is that we ran a drill stem test in the lowermost sand, our "C" sand, which I believe 17 is also their -- trying to think what -- Is that your 18 yellow sand? 19 20 MR. HARMON: Orange. 21 THE WITNESS: That was their orange sand, excuse 22 me. (By Mr. Carr) The Fasken orange --23 Q. The Fasken orange sand. We ran a drill stem test 24

across that, we found low pressures, pretty much what we

Α.

expected, low pressures in there. But we knew that that would be a zone that would, you know, contribute the gas from the area and help pay the well out.

The next thing that we did is that we set a one-way check valve on the bridge plug there, and it came uphole to the "B" interval, perforated across the "B" interval, and it came on with a sand that flowed about 9 million a day with -- I'm trying to think. About 3600 pounds, plus, of bottomhole pressure. So a fairly significant sand at that time.

We didn't know how well that sand was going to hold up, but we decided to produce that, and knowing that, especially when pressures would diminish, that the sand down below would start contributing that.

We believe that we also have production capability within the "A" sand, the uppermost sand in there, and that's going to be a good producer in the future. But right now we have all the production that we can handle out of those bottom sands. We believe at this time that that bottom sand down there is only now starting to contribute, that with the pressure drawdown in the well it is starting to contribute at this time. That's probably only been the last couple months.

Q. What zone is the Levers Number 1 producing from at this time?

A. That's producing from the "A" interval, the uppermost interval in the Texaco Levers Number 2 and the interval that is not perforated in the Texaco Levers Number 2.

- Q. So the Levers 1 is in the "A" zone and the Levers 2 in the lower zone?
- A. Right, they're in totally separate zones at this time.
- Q. Yesterday Mr. Williams had, on his cross-section, included a log for the Levers Number 2 and indicated presence of the brown sand on that exhibit.
- A. That's erroneous. We drilled -- When we drilled the Levers Number 2, I admit, I did expect to see a brown sand, or the very lowermost Morrow sand when we drilled the Levers Number 2, and we drilled through that, ran a drill stem test across the entire interval where that sand should have been present.

Now, on the mud logs we did not see any evidence of sand, we did not see any drilling breaks, we did not see any sand in the samples. We also -- Of course, then when we ran a drill stem test we had gas across so we knew that something was coming out. We were in the logs, and that sand was not present.

If you notice on the logs, that was -- we're also getting towards the bottom part of the hole, and because of

the tool size and everything, there's reason to expect, well, maybe those logs -- maybe we just didn't have enough rathole in there, and so we didn't have a log across it.

After we cased the well, we then ran logs and ran a neutron across the interval and found no sand whatsoever.

When we were perforating those intervals, we also decided to do one final check on that, just in case we weren't getting a proper neutron response in the cased hole log. We ran a couple perfs across that same stratigraphic interval that the brown sand should have occurred, and got no blow whatsoever. So I mean, that's another confirmation point that we just didn't have a sand there.

If you look on the well to the right, the Fasken

Number 1 on the cross-section, that well also does not have
a brown sand in there. It appears as if this was a little
bit of a structural high during deposition.

Mr. Lint on his testimony yesterday also put in on his seismic exhibits that he saw faulting in the lower part of the Morrow. I believe that there is a little bit of structure in the lower part of the Morrow but that it is not present from possibly our C2 sand on up. And that's just a little bit of positive feature; the sands just kind of migrated around the side of it. That sand isn't there.

Q. What conclusions can you reach from your geological study of the area?

A. The conclusions that I reached is that the sands are fairly continuous. The principal producing sands, except for that very lowermost sand that you just -- Mr. Williams is calling the brown sand -- are continuous throughout the area.

But a well drilled in the south half of Section 1 has a very reasonable chance -- almost -- I would say almost a 100-percent chance of it encountering one, if not all of the reservoirs that we're encountering in the Number 2 well.

- Q. Let's talk for a minute about your recommended penalty calculation. Could you refer to what has been marked as Texaco Exhibit Number 6 [sic] and review that for the Commission?
- A. That's Texaco's Exhibit Number 6 [sic]. What we're attempting to do with Exhibit Number 6 is use a couple of things.

To begin with, the standard setback within the Catclaw Draw-Morrow field is 1650 feet from a section line, from a unit boundary.

The proposed Mewbourne location is only 660 feet from the section line. At that point, they are 60 percent closer to us than what the field rules allow. We're asking for a variance factor of 60 percent to be applied to that location.

1	Q. And that's just nothing more than just surface
2	encroachment?
3	A. That is nothing more than surface correct, that's
4	correct.
5	Q. Do you think you have any better information you
6	can rely until, in fact, you have a well in the south half
7	of Section 1?
8	A. I think there is a very reasonable chance that we
9	can predict that a well there will encounter the same
10	reservoirs that we have encountered in our section. But
11	until that well gets drilled I cannot say how well that
12	well will be.
13	Q. Now, the offsetting Levers well in Section 12 is
14	in excess of 1650 feet from that common line; is that not
15	correct?
16	A. That's correct.
17	Q. And so you have complied with the setback
18	requirements in the drilling of the Number 2 well?
19	A. When we drilled the Number 2 Levers well, we were
20	required to have 1650-foot setbacks. That's just the way
21	the field rules work.
22	Q. Okay. Now, Mr. Uhl, that's the first factor that
23	you've just discussed, that's the variance from a standard
24	setback?
25	A. That's correct.

What is the second page of this exhibit? 1 Q. The second page is another proposed factor, what 2 we're calling the acreage factor. 3 Would you review that? 4 Q. The acreage that Mewbourne has dedicated is 5 essentially the southern one-third of Section 1, 297.88 6 A standard proration unit in the Catclaw Draw-7 Morrow pool is 660 acres. We're asking for an 8 additional --9 Q. 640 acres? 10 Or excuse me, 640 acres. I get a little tongue-11 Α. tied. 12 We're asking for an additional factor of 46.5 13 percent to be applied, based on that, on them not having an 14 entire 640-acre unit. 15 Now, if we go to the last page, how should these 16 Q. two factors be applied to this location? 17 18 A. What we're doing is timesing the acreage factor time the variance factor, to get the allowable factor. 19 20 We're asking for an allowable factor of 18.6 percent to be applied to the well's flowing capacity at sales line, if 21 that well was allowed to be drilled. 22 23 Q. And to what should this be applied?

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

forth on that, is that there's not a good measure to apply

It should be -- Well, we've been talking back and

24

25

A.

a penalty to. You can apply it to absolute open flow, you can apply it to the well's ultimate flowing capacity. But really, what is the significance that you're going to be applying these factors to?

At this time we would like to recommend that we're going to -- that we will apply it to the well's flowing capacity, essentially the well's flowing capacity, at sales line conditions

- Q. And would that be determined by deliverability tests?
 - A. Essentially by deliverability tests.
- Q. And how often would you recommend these tests be conducted?
- A. Every three months for the first year, six months thereafter.
 - Q. And should these tests be monitored?
- A. We would like them to be monitored by the Commission and also by any affected offset operator.
- Q. In your opinion, will the recommended penalty offset the advantage being gained by Mewbourne by virtue of its proposed unorthodox location?
- A. I'd rather that the well would not get drilled at that location. I'd rather that be a standard setback. But if that well is permitted to be drilled, we would like that penalty applied.

Q. Now, they're 60 percent too close. We're asking for an additional factor based on the number of acres available to the well?

- A. That's correct, the number of acres dedicated to that well.
- Q. Could you explain why the 60-percent penalty alone would not be adequate to offset the advantage gained on the Texaco tract?
- A. I have another exhibit, Exhibit Number 6, that helps portray the reason why we think that an additional factor is necessary. Exhibit Number 6 is taking the wells that have been drilled to the Morrow in the sections immediately adjacent to -- or excuse me, immediately in that area, essentially the six sections in that area that are producing from the Morrow.

We have -- On there I have the locations, the completion date, what zones have been perforated, their initial production, flowing tubing pressure, and what is significant is their calculated open flows. And also, in the column just to the left of the right, the first year's average rate.

If you can see on there, the calculated open flow versus the first year's average rate, for the most part there's just a slight resemblance there. We have anywhere between 7 percent and 45 percent of that first year's

average rate, versus -- of the calculated open flow that that well was actually producing.

Now, although these wells have been drilled at different times, probably under different market conditions, under different sales conditions, we still have — the fact is, we still have a lot of durability in what that well was able to produce, versus what our calculated open flow was. That's why we're thinking about, although a well may have a calculated open flow, that is somewhat of a meaningless term as far as something to really apply a penalty to.

The average percentage of that AOF on the wells within the Catclaw Draw area, the area that -- really in question, is only 28 percent of that first year's flow rate versus its calculated open flow.

- Q. So you're seeing in excess of a 70-percent decrease in the ability -- in the flow rate of the well?

 Is that what you're saying?
- A. Yeah, essentially, if we don't have those penalty factors applied somewhere in that manner, we feel as if a penalty based on a calculated open flow is essentially meaningless.
- Q. Okay. If we looked at the deliverability of a well and we only apply a 60-percent penalty based on the encroachment, is what you're saying that, in fact, with a

1	A. That's correct.
2	Q. All right. When was the next change?
3	A. That occurred in 1974 when at that time the pool
4	was prorated. The reason behind the prorating is that
5	because of the limited amount of sales lines I went in the
6	area to make sure that all operators had an equal chance to
7	sell their gas.
8	Q. And that was Order Number R-4704?
9	A. R-4704, correct.
10	Q. All right. What happened later in When was
11	the next significant change in the pool rules?
12	A. There was also There is a 4157-B.
13	Essentially, that's just defining the limits of the pool
14	boundary.
15	But really, the next significant one occurred in
16	1980 when Tenneco applied for 320-acre spacing for the
17	pool.
18	Q. And was that adopted?
19	A. That was adopted, that's correct.
20	Q. And were statewide setbacks then approved for the
21	pool?
22	A. Statewide setbacks were applied to that pool.
23	Q. And how long did the 320-acre spacing order
24	remain in effect?
25	A. Just a short period of time, approximately a year

and a half. When Tenneco realized that they had made a mistake, that owners within the pool had a chance of losing acreage, of -- It was kind of a -- it was a nightmare for operators. And so the 640-acre spacing was then reapplied to the pool.

Q. And was that in August of 1981?

- A. That was August of 1981, that's correct.
- Q. And that was Order 4157-D?
- A. Correct.

- Q. Did that order also authorize an optional second well in each 640-acre unit?
 - A. It does address a second well within the -- And that second well also calls for standard 1650-foot setbacks.
 - Q. The next two documents in this packet, behind Tab
 7 and 8, are memoranda of the Division. What's the
 significance of those memos?
 - A. That was the one-well rule, a memorandum from Mr. LeMay, that I was not aware of until just recently. And also a memorandum from Mr. LeMay regarding concurrent development of multiple wells on standard -- on nonstandard proration units.
 - Q. Basically --
 - A. Or, excuse me, spacing units.
 - Q. Basically these memos provide for single wells on

1	spacing units in nonprorated pools?
2	A. That's correct.
3	Q. Let's go to item number 9. What is that?
4	A. Item number 9 is Order Number 8170, in March of
5	1986. It's the rules and regulations for gas pools in the
6	State of New Mexico.
7	Q. For the prorated pools?
8	A. For the prorated pools in the State of New
9	Mexico. And it contains special rules for selected pools
10	and basically is silent on second well spacing on second
11	wells within the Catclaw Draw unit.
12	Q. So there are special rules in this order for
13	Catclaw Draw-Morrow Gas Pool?
14	A. That's correct.
15	Q. They provide for 640-acre spacing?
16	A. They do provide for 640-acre
17	Q. For 1650-foot setbacks?
18	A. For 1650-foot setbacks.
19	Q. But they're at that time silent on an optional
20	second well on each 640?
21	A. That's correct.
22	Q. And that was in 1986?
23	A. That's correct.
24	Q. In February of 1994, was an additional well
25	drilled in the pool as a second well on a spacing unit?

1	A. In February of 1994, an additional well was
2	drilled in Section Excuse me.
3	Q. Section 17?
4	A. Section 17. That's just a little bit off the
5	map, over to the east.
6	Q. And is that operated by Devon?
7	A. It's operated Well, it was operated by Devon.
8	It's plugged at this time.
9	Q. Okay. But this well was, in fact, drilled after
10	the prorationing rules were amended in 1986 and the at
11	which time they were silent on the authority for a second
12	well?
13	A. That's correct. And so you had at least one
14	instance where a second well had been drilled in the
15	Catclaw Draw pool.
16	Q. Okay. Now, the next order that affects the
17	status of prorationing in this pool was entered in March of
18	1995. What did that order do?
19	A. At that time that was when prorationing was
20	suspended in certain pools in the State of New Mexico.
21	Q. And that
22	A. Catclaw Draw was one of those pools.
23	Q. And that's Order Number R-10,328?
24	A. Correct.
25	Q. Did that order provide for the grandfathering in

of any wells that had been drilled since 1986 when second 1 well authority had been -- well, at least the order was 2 silent on second-well authority? 3 It was silent on second-well authority. 4 Α. Was it silent on grandfathering in any well Q. 5 locations? 6 7 Α. I really didn't see any thing about grandfathering in the order. 8 When was the Levers Number 2 actually drilled? Q. 9 We drilled that in October of 1995 and completed A. 10 11 it in the first part of 1996. Q. And you filed an APD for that well? 12 Correct, we filed an APD for that well. A. 13 And was this approved? 14 Q. It was approved by the BLM. 15 A. Texaco appeared at the April hearing and opposed 16 Q. the Application of Mewbourne for an unorthodox well 17 18 location, correct? A. Right. 19 Following that hearing, was Texaco contacted by 20 Q. 21 the Division? We were contacted by the Division. At the 22 A. request of the Division -- There was a question whether we 23 24 had legally drilled our second well or not. We were

requested by the Division to shut in one of our wells, and

324 we did shut in subsequent to that request, pending 1 clarification of the rules. 2 And is the last document, document 12 in Exhibit 3 Q. 7, a copy of a Division memorandum summarizing that 4 meeting? 5 That's correct. Α. 6 Did that memo indicate that once prorationing was 7 Q. suspended, the one-well rule should apply to the pool? 8 It did indicate that. A. 9 And did it classify the pool as a technically Q. 10 prorated pool? 11 Yes, it did, although I'm uncertain what 12 A. technically prorated means. 13 When you drilled the Levers Number 2, looking at Q. 14 the rules, did Texaco determine whether or not a second 15 well on the unit was authorized? 16 Yes, we did. 17 Α. Q. And what did you conclude? 18 We concluded that we were within the Catclaw Draw 19 Α. Pool outline, that the Catclaw Draw field rules allowed for 20 a second well. That second well had to have 1650-foot 21 setbacks. We staked our location based on those setbacks, 22

In your opinion, is there confusion as to what is Q. meant by the term -- by the -- confusion concerning the

and we drilled our well.

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effect of the suspension of prorationing? 1 I think there's a great deal of confusion. 2 A. Do you understand the term, "technically prorated 3 Q. pool"? 4 To the best of my understanding, a technically 5 A. prorated pool would be a pool that essentially has no 6 production restrictions, but yet wells still have to abide 7 by the field rules in order to be drilled within that pool. 8 9 Q. And you're just basing that on what that term means to you; is that correct? 10 11 A. That's what I would indicate. 12 Q. You --That's what I would understand. 13 Α. 14 Q. Do you have anything that you can turn to that would define that term for you? 15 16 Α. No. Q. 17 And you have shut in the E.J. Levers Number 1; is that correct? 18 19 A. Correct, we have shut that well in. 20 And that is the well that is the only well on the Q. tract producing from the "A" sand or the --21 From the "A" sand. And shutting in that well has 22 A. been costing us a thousand dollars a day in lost revenue. 23 24 Q. Now, when we initially talked with the Division,

we were advised that what was needed was an exception to

the pool rules; is that not correct?

A. That's correct.

- Q. Why is Texaco seeking an exception or, in the alternative, clarification of the rules?
- A. Really, we would just like the simplest procedure to get our well back on line.
- Q. And in conversations with Division staff, was it not suggested that a clarification is all that would be required?
 - A. It was suggested, that's correct.
- Q. If the rules for the pool, because of the suspension of prorationing, making the pool now technically prorated and no longer subject to unpublished memos if that's where we are, will Texaco's wells in Section 12 be the only wells in this pool to which the one-well rule is now applicable?
- A. No, there are a number of tracts within the Catclaw Draw outline that have multiple producing wells at this time.
- Q. Are you aware of any of those to which the onewell rule would require that one of those wells be shut in?
- A. There would probably be four or five tracts where one well would have been shut in on the Catclaw Draw Pool.
 - Q. Unless they're grandfathered in?
 - A. Unless they're grandfathered in, in which -- At

that time, I cannot see anything in the rules that accounts 1 for grandfathering. 2 At the present time, are you aware of any other Q. 3 operator that's being told to shut in a well? 4 A. No. 5 Are you aware of any other 640-acre unit on which 6 7 an operator has not been allowed to simultaneously produce two wells in this pool? 8 A. No. 9 Q. What does Texaco basically request from the 10 Division? 11 We're requesting the Division to allow us to open 12 A. our Number 1 well again and produce that Number 1 well. 13 Were Texaco Exhibits 1 through 7 prepared by you 14 0. or compiled at your direction? 15 A. Yes, they were. 16 MR. CARR: May it please the Commission, at this 17 time we would move the admission into evidence of Texaco 18 Exhibits 1 through 7. 19 CHAIRMAN LEMAY: Without objection, those 20 21 exhibits will be entered into the record. MR. CARR: And I would like to tender to you a 22 copy of a notice affidavit. We notified the owners of all 23 24 the offsetting properties. You will note that there were 25 two interest owners that owned very small lots that we

1	notified two days late. They were notified, the letters
2	are here showing that the hearing was this date, but
3	technically I think the record should stay open for two
4	days in case one of those people call. But this is an
5	affidavit confirming that we advised the offsets of our
6	request.
7	And that concludes our direct presentation.
8	CHAIRMAN LEMAY: Thank you, Mr. Carr.
9	Mr. Kellahin, do you want to go next?
10	MR. KELLAHIN: Sure.
11	CHAIRMAN LEMAY: Mr. Bruce, since you're working
12	at the table, I assume you would without objection, Mr.
13	Bruce, you would be the next?
14	MR. BRUCE: I have no objection.
15	CROSS-EXAMINATION
16	BY MR. KELLAHIN:
L 7	Q. Mr. Uhl, if you'll take out your cross-section,
18	it's Exhibit I have Exhibit 4 from the Examiner hearing;
19	I'm not sure what your number is for today's hearing.
20	A. It's still Exhibit 4.
21	Q. Still Exhibit 4? All right.
22	No changes in this display from the Examiner
23	hearing; is that true?
24	A. No, there were no wells drilled, and so I elected
25	not to change the cross-section.

1	Q. All right. When I look at the B1 sand, I'm going
2	to find the B1 sand map presented as your Exhibit 1 today?
3	A. Correct.
4	Q. All right. That interval that you have isopached
5	is the top portion of the two that are perforated in the
6	Levers 2 well in the middle Morrow; is that not true?
7	A. That's correct.
8	Q. All right. That would correspond to what Mr.
9	Harmon did on his cross-section when we look at the Levers
10	2 well?
11	A. That would be his green sand.
12	Q. All right, sir. Let me make sure we're talking
13	the same thing. Here's his cross-section and here's his
14	green sand.
15	A. That would be his green sand.
16	Q. All right. So the two of you have isopached that
17	same interval, and he's called it the green sand and you've
18	called it the B1?
19	A. That's correct. There's probably confusion as
20	far as the terminology. Different companies, different
21	terminology.
22	Q. All right. I just want to make sure we're
23	talking about the same interval.
24	A. Right.
25	Q. In addition, Mr. Harmon had mapped the next sand

down, which was his blue sand map?

- A. That's correct, he did.
- Q. And that interval is shown on his cross-section with the next set of perforations in the Lever 2 that I'm showing you here, that he's color-coded with blue?
 - A. Correct.

- Q. You have chosen not to isopach that interval.

 What is your explanation for not including a sand map for what Mr. Harmon has color-coded blue?
- A. Primarily because before the April hearing I just didn't have time to map that interval, and I chose not to make any additional displays for this hearing.
- Q. All right. That is not to be taken, then, as an indication by you or a conclusion by you that that sand interval is not making a contribution?
 - A. No, not in the slightest.
- Q. When we look at Mr. Williams' map, his green map, we'll have included the B1 sand that you mapped. In addition, it would have included the other sand map that Mr. Harmon mapped?
 - A. Mr. Williams took a little different technique --
 - Q. All right, sir.
- A. -- is that he was mapping on net clean sand and also -- whereas I was mapping on porosity. Of course, you can't have porosity unless you have a clean sand. And

there's similar techniques to kind of get to the same overall -- the same end, but yet they may yield slightly different results.

- Q. Okay. Mr. Williams's montage from yesterday,
 Marathon Exhibit 10, is what I'm about to show you. I'm
 going to direct your attention to the green sand that he
 has mapped on his montage and ask you to compare it to your
 B1 map.
- A. When you compare the two maps, he has oriented slightly to the north, to the northwest, whereas my map is a little more oriented to the north, as far as the potential reservoir within Section 1.

What he has done is that he has taken the Fasken well to the northeast, the old Fasken well -- essentially he has taken that as a limiting point way to the north.

That's a fairly pessimistic mapping style.

I believe that based on the well control, the Continental well to the west over there is also a control point. And as you go over -- and a point over that honors the Fasken well should also be honoring the Continental well. So essentially, you can bring your contours further to the north. Again, we won't know for certain until a well gets drilled up there, but my indications are to me is that that potential reservoir should go quite a ways to the north.

1	Q. Has Mr. Williams shown you anything in his
2	presentation or his exhibits in this case that have
3	persuaded you to change your conclusion, as demonstrated on
4	this Exhibit 1?
5	A. No, there has been no well drilled to change the
6	conclusion.
7	Q. When we look at your Exhibit 1, the net thickness
8	at the Texaco Levers 2 well is 18 feet; am I reading this
9	correctly?
10	A. 18 feet within that "B" sand interval.
11	Q. As we move to the proposed Mewbourne location,
12	what is the net footage at that point?
13	A. I'm projecting somewhere around 10 or between
14	10 and 12 feet.
15	Q. When we contrast that to the Fasken location,
16	what are you projecting in this sand package for the Fasken
17	location?
18	A. I'm projecting somewhere around 18 feet.
19	Q. When we go to your next map, it's Exhibit 2. I
20	think it's the C2 sand.
21	A. Uh-huh.
22	Q. We're down in the lower Morrow, are we not?
23	A. That's correct.
24	Q. Is there a corresponding map that Mr. Williams
25	introduced that is the equivalent interval that you have

mapped on your Exhibit Number 2? 1 No, he didn't introduce one of those. 2 introduced a map with a sand immediately below that, the 3 brown sand, but the brown sand just isn't present at our 4 wellbore or at the Fasken wellbore, so I'm indicating that 5 it's not really present in that area. 6 7 Q. Let's look at your interpretation of the C2 map. When we look at this, we find what net thickness at the 8

- Levers 2 for this sand?
- Levers 2 had 14 feet of poro- -- of net Α. thickness, excuse me, not porosity but net thickness.
- When we move to the Mewbourne location, what is Q. your projected conclusion about the net thickness for that location?
 - I'll have to count up just a minute. A.
 - At the Mewbourne location? Q.
 - Oh, excuse me, approximately 10 feet. Α.
 - It's right on that 10-foot contour line? Q.
 - Ten feet. A.

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- Now at the Fasken location, we're looking at --Q. the smaller contour lines are two-foot contour lines?
- That's correct. So we have potentially 16 to 18 A. feet at the Fasken proposed location.
- Did Mr. Williams tell you anything yesterday or Q. demonstrate anything to you that would cause you to change

your conclusions about this exhibit?

- A. No, he did not present a map on that interval.
- Q. Let's talk about the depositional environment.

 If we look back on your structure map, start at the bottom of the C2 map. I believe you testified back in April that you had examined some sidewall core data that was available to you on the Levers 2 well.
 - A. I did on Levers 2, that's correct.
- Q. On the Levers 2 well for the C2 interval, what was your examination of that sidewall core, and what was your conclusion?
- A. We did not have sidewall core within the C2 interval, but we did within the uppermost sand, the "A" sand.
- Q. All right. So we have no conclusion available from the sidewall core to assist us in determining the C2?
- A. No, but we do have sample work that operators have reported in many of the wells in the area, and the operators will record a coarse-grained sand, coarse-grained being consistent with a fluvial sand.

We also have a northwest-south- -- primarily a northwest-southeast orientation to these sands, the lower Morrow sands. The literature is all pointing towards fluvial sands. That's consistent with the way that has been mapped.

1	Q. And that's consistent with the ultimate
2	conclusions of both Mr. Harmon and Mr. Williams as to that
3	lower sand?
4	A. That's correct. As far as all three companies,
5	there's very little differences as far as the lower Morrow,
6	about the depositional environments.
7	Q. All right, let's skip the middle Morrow and go to
8	the upper Morrow. Did you examine the sidewall core of the
9	Levers 2 well as to the upper Morrow?
10	A. I did.
11	Q. And what conclusion did you reach?
12	A. That is a very coarse-grained sand. It's
13	definitely a fluvial sand. And it will also have a
14	primarily northwest-southeast orientation to it.
15	Q. Did you examine the sidewall core in the Levers 2
16	well to cause you to reach any conclusion with regards to
17	the middle Morrow?
18	A. No, the middle Morrow is dominantly a marine
19	environment. But even when It's a series of marine
20	beaches, shoals, occasional deltaics. It's a very mixed
21	environment.
22	But the well control in this immediate area is
23	pointing to somewhat of a dominant pod that extends from
24	the north-south within the as you can see on the "B"

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map.

As you move in different areas within this portion of Eddy County or this portion of southeast New Mexico, you may have different orientations within that interval. It's very much a mixed set of environments.

- Q. The data, then, that's available to you would support the conclusion Mr. Harmon reached about the depositional nature of the "B" -- I mean of the middle Morrow interval, right?
- A. I have no problem with his orientation. I mean, that's really -- As far as the middle Morrow goes, that's a little more conjecture than the rest of the intervals. And that's something that if a well was drilled at the Fasken well, based on the well control, it could really be either one of those orientations.
- Q. Let me show you Mr. Williams' Exhibit 9 from the April hearing and direct your attention on the green sand.

 Do you see the size and the shape of the green sand that he's projected on that display from April?
- A. Right. It's quite bit larger than what the projection is now of that sand.
- Q. When you contrast it to his Exhibit 10 from yesterday's presentation by Mr. Williams, he has substantially altered the size of that sand package, has he not?
- A. Correct.

1	Q. Would you have done that kind of thing if your
2	engineer had told you that there was a certain container
3	size by his engineering calculations? Would you have
4	conceded your map and reduced it?
5	A. No, the primary reason is that the engineering
6	data was essentially providing you with what that well
7	would what one well would be capable of draining. The
8	geology would provide you with approximately the direction
9	or where that container may be heading, but the engineering
10	data wouldn't provide you with where that ultimate barrier
11	is to the north.
12	Q. So you would not have done what Mr. Williams did?
13	A. No, I would not.
14	MR. KELLAHIN: Thank you, no further questions.
15	CHAIRMAN LEMAY: Thank you, Mr. Kellahin.
16	Mr. Bruce?
17	CROSS-EXAMINATION
18	BY MR. BRUCE:
19	Q. Mr. Uhl, did you play any part in the
20	selecting the drill site or planning the drilling of the
21	Levers Number 2?
22	A. Yes, I was responsible for I took on the
23	project in 1995, after Keith Williams had sent a memo to us
24	saying there was a potential location in the north. I had

done a little bit of regional work in there, but not in

this immediate area.

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I then took the well control in that area and took some of Keith's maps, used that as a basis and kind of built on the regional framework within the area.

- Q. So the Levers Number 2 is basically drilled based upon Mr. Williams' geology?
- A. I'd say it's a combination. Keith did some work in 1990. There were other parties who did work prior to that, when the original well was drilled in that area.
- Q. Looking at your Exhibit 1 -- I mean, you basically agree with a north or slightly north trend in the middle Morrow; is that correct?
- A. I'd say that Mr. Williams -- in the middle
 Morrow, I'd say Mr. Williams and myself, is that the trend
 is not that far off. I've elected to honor the data point
 to the west, where he did not.
- Q. Looking at your Exhibit 1, how do you square having what you -- I mean, you terminate your map kind of in the middle of Section 1, but obviously you think the middle Morrow extends quite a bit further north.
- A. It has potential to extend further north. I just did not use any data points to the north.
- Q. How do you square that with the lack of commercial production north of Section 12?
 - A. All that map is, is a map showing the orientation

of the reservoir. It is not tied into the production to 1 2 the north. Q. There is no production to the north, is there? 3 A. Has there been any wells drilled one mile to the 4 north? 5 I said to the north of Section 12 --6 Q. 7 To the north of ---- how many commercial wells are there to the 8 north of Section 12? 9 I'm not aware of one immediately to the north of 10 Section 1. 11 12 0. Certainly not in Section 1 or Section 2. How about the township to the north? Are you aware of any 13 14 immediately -- In the immediate township to the north, are you aware of any commercial Morrow wells? 15 Α. No. 16 Now, you show Section 1 as being highly 17 18 prospective in -- well, in both Morrow zones that you show 19 maps on; is that correct? 20 Α. That's correct. 21 Why did Texaco sell its interest in Section 1? Q. 22 I was not working that project at that time. That project was being handled by our group in Midland, of 23 which Mr. Williams was a member. 24 Could you have drilled the Levers Number 2 25 Q.

further north than you did, within the pool rules?

A. Within the pool -- We originally attempted to go for a 1650-1650 location. As you can see on the map, there is kind of a string running through. That -- of the northwest portion, and also in the north portion there. That is a draw that is running through to the northwest and then connecting with the Pecos River, that is running through Section 6 and kind of going up along the township line, over to Section 1, if you can see that double line. That's the Pecos River.

We were ordered by the BLM to stay above a certain contour level. I believe it was the 3271-foot contour level that we had to stay above. And because of that, we had to move our location to the south to honor that contour.

The Bureau of Reclamation, after the drilling of Brantley Dam, is allowing that for section flood control and will not permit a well below that 3271-foot contour.

That's why we had to move that well to the south.

- Q. Now, I think, looking at your Exhibit 1, you said, Well, the Fasken in -- what is that? -- lot 28 of Section 1 was an edge well?
 - A. That's correct.
- Q. Well, wouldn't that same comment apply looking at the southeast quarter of Section 11 or the northeast

quarter of Section 14? Those are relatively edge wells 1 too, aren't they? 2 A. Two and a half BCF is a little better than an 3 edge well, I would indicate. 4 It's roughly the same -- five feet versus six 5 Q. feet, isn't it? 6 7 I have eight feet on Section 11 --Α. Okay, eight feet on Section 11. Q. 8 9 A. -- and then six feet on the Fasken well up there. 10 Q. And five feet in the northeast quarter of Section 11 14? I'll have to look at 14. Five feet in the north 12 A. half of Section 14. I don't have the cum on that well, but 13 that well is also completed in the "B" zone. 14 15 And that well, I believe, produced a couple of Q. 16 BCF of gas. That's just as much of an edge well as the 17 Fasken well, isn't it? That has the potential of being an edge well 18 also, that's correct. A couple BCF is a pretty good edge 19 20 well. 21 Q. It sure is. Couldn't that indicate that perhaps 22 the Fasken well isn't an edge well but maybe the northern terminus of this reservoir? 23 I was wondering about that point too, is that the 24 A.

Fasken up there to the northwest -- or the northeast -- it

would have to drain -- There's several drill stem tests across that interval. And at one point it's flowing 6.6 million a day. The first month of production was 1 million a day.

They did acidize that, and the Fasken well is -or, excuse me, the Morrow is very sensitive to acid. There
is very much potential that that well could have had
formation damage within it during the completion. That
well should have been better than just a third of a BCF of
gas.

- Q. Did you acidize both of the Levers wells in Section 12?
 - A. No, they were natural completions.
- Q. Now, looking at it, you're complaining about
 Mewbourne being to you, but look at these wells now. The
 Levers Number 2, the Levers Number 1 in Section 12, the -I think it's the Pure Federal Number 2 in the southeast
 quarter of Section 14, the -- excuse me, the southeast
 quarter of Section 11 -- the well in the northeast quarter
 of Section 14 and the Tenneco State well in the northwest
 quarter of Section 13. How many of those five wells are at
 unorthodox locations under the pool rules?
- A. Under the present pool rules, none of them are at unorthodox locations, because those wells were drilled back when the pool rules allowed for poor locations closer to

the edge line than what they allow now.

- Q. So they're basically 660 feet off the section line?
- A. Some of them are 660 feet off the section line, and a lot of those wells were drilled during that brief period of time when there were 320-acre spacing in the field.
- Q. But if you look at that area, if you draw a line enclosing the southeast quarter of Section 11, the southwest quarter of Section 12, the northwest quarter of Section 13 and the northeast quarter of Section 14, you basically have five wells drilled in a one-section area, don't you?
- A. Well, volumetrically that is just a little larger than one section.
- Q. So there are lots of instances where wells are quite a bit closer to each other than, really, the Mewbourne well would be to any Texaco well?
- A. There are instances where those wells are closer than the distance between the proposed location.
- Q. And those wells don't have any penalties on them, do they?
 - A. No, they do not.
- Q. Now, you don't have -- I forget what you call it,

 Mr. Uhl -- MWA sand. That's the upper Morrow, is it not?

1	A. In the Morrow "A" sand. Mr. Williams provided a
2	map of that, and the map that I have back at the office is
3	one with similar orientation as what Mr. Williams had.
4	Q. Okay, that was my question. So it's oriented
5	similarly to Mr. Williams?
6	A. I see really, really, no dispute on that.
7	Q. Do you see any evidence poolwide of faulting
8	controlling middle Morrow production?
9	A. Faulting does control Oh, excuse me, middle
10	Morrow production. I do not have the seismic to indicate
11	that there are fault barriers within the middle Morrow.
12	The well
13	Q. So you don't believe
14	A. Based on the well control, I cannot put faults
15	in.
16	Q. Okay. You have no opinion one way or the other
17	on the
18	A. No.
19	Q Fasken geophysical testimony?
20	A. If I had the seismic I could probably put faults.
21	I simply don't have
22	Q. If the fault that Fasken hypothesizes is in
23	Section 12 and Section 1, would that separate the Morrow
24	reservoirs between Texaco's wells and Mewbourne's proposed
25	well?

But again, without having a Potentially. 1 A. seismic, I really can't say whether that fault is there or 2 3 not. If the fault is there, would that change your 4 Q. opinion on the penalty you propose? 5 No, it would not. 6 Α. Why wouldn't it change your opinion? 7 Q. Because at that the proposed Mewbourne well would Α. 8 still be draining it and adversely draining our section. 9 10 Q. Is the Texaco well currently draining Section 1, 11 Texaco Levers Number 2? 12 A. Based on the P/Z, we have -- Fasken, Mewbourne and ourselves are all indicating that we have somewhere 13 around 5.5 BCF of potentially recoverable -- 5 to 5.5 BCF 14 15 of potentially recoverable reserves within that "B" zone. From what I can see there, we have -- We 16 planimetered the area, based on my map and also based on 17 Mr. Williams' map, and we're indicating an equivalent 18 amount of drain- -- or, excuse me, an equivalent amount of 19 20 acreage between the two tracts. 21 I just don't see to where -- If you look back to Mr. Montgomery's testimony and -- as indicating 320-acre 22 23 spacing, and if you look on our tract -- or, excuse me,

320-acre drainage. And if you look on our tract in there

and take that six- to eight-foot contour, we've got

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approximately 519 acres within Section 12 that is potentially productive. Mewbourne has approximately 605 acres.

If we're only draining 320-acre spacing, chances of us draining their acreage is -- Mewbourne's acreage, is pretty minimal.

- Q. Would drainage be along the trend you show on your Exhibit 1?
- A. I think it would be that we would initially go with a radial drainage, and then after that well would start encountering a flow barrier we would start doing a little more elliptical drainage.
 - Q. Okay, you elongate it, like Mr. Montgomery said?
- A. Yeah, but I -- But what reason dictates is that you're probably going to have a little more drainage around the well, instead of starting at our well and heading to the north, as Mr. Montgomery stated. You know, that football-type of drainage pattern that he indicated.
- Q. Of course, would you drain much -- Would the Levers Number 2 drain much to the south, considering there's already a couple of producing wells --
 - A. Well if you look at our --
 - Q. -- to the south and southwest?
- A. If you look at our National well down there that only had about two feet of porosity in that interval, and

if you look at the bottomhole pressures we encountered around there, is that -- between our Number -- and our Number 2 well, we essentially had very little drawdown when that Number 2 well was drilled. And the Number 1 well, although it's perforated in that interval, it really didn't contribute hardly anything to that well.

All indications that we have is that although it had a couple feet of porosity in there it probably didn't have much reservoir.

- Q. If you only have a couple feet of porosity, why do you have ten feet of perforations in that zone in your Levers Number 1?
- A. Our practice is to oftentimes perforate a lot larger intervals than what the porosity indicates. It depends. Some operators perforate only two feet out of ten feet of porosity; some operators perforate five times as much porosity as what's indicated in the well.
- Q. What about the Levers Number 2 in the middle Morrow? What number of feet did you perforate as compared with your 18 feet of porosity that you show?
- A. We perforated pretty much all of the clean sand in the Levers Number 2 well. Different completion times, different engineers, different geologists working the project.

There's really not a whole lot of difference as

1	far as what you're going after. It's just, sometimes you
2	have to add more perfs than what a previous operator might
3	have added.
4	Q. Would Texaco drill a well in this pool with an
5	81.4-percent penalty on the well?
6	A. Probably not.
7	Q. What does prorated production mean to you, Mr.
8	Uhl?
9	A. Prorated production means there's a limit on
10	production, oftentimes due to market demands or capacity of
11	the sales line or a number of factors.
12	Q. Could it be based on reservoir drainage
13	conditions?
14	A. That could be a factor.
15	Q. Oil pools in New Mexico are basically prorated by
16	the depth bracket allowables, are they not?
17	A. There is a depth allowable, that's correct, in
18	the oil fields in New Mexico.
19	Q. There is no current production limit in the
20	Catclaw Draw-Morrow Gas Pool, is there?
21	A. That prorationing has been suspended as far as
22	the production in the production proration unit has been
23	suspended in Catclaw Draw.
24	Q. Have you looked at Rule 104, Statewide Rule
25	104.D.3 before?

I'm going to have to look that up. Is that --1 A. I don't know that it's in your exhibit. 2 Q. Is it -- Can you tell me which exhibit that is A. 3 4 or --Do you want to show that --5 MR. CARR: THE WITNESS: -- which item that is? 6 7 MR. CARR: -- rule to him? MR. BRUCE: I don't have the rule book with me. 8 9 MR. CARR: I do. Rule 104 starts there and goes some pages, okay? 10 11 What was your question? 12 MR. BRUCE: I asked him if he had reviewed Rule 13 104.D.3 before. THE WITNESS: No, have not. 14 (By Mr. Bruce) If I can paraphrase, if you could 15 Q. read that rule, just -- I think it will just take you a 16 second. 17 104 -- I'm trying to find it right now. You said 18 A. it was 104 what? 19 D.3. Does that rule pertain to the number of 20 Q. wells and unprorated gas units? 21 It's talking about nonprorated pools. Catclaw 22 Draw, the prorationing has been suspended, but it's -- The 23 way I indicate, the way I understand, it's still 24 25 technically a prorated pool.

1	Q. Well, you just said you didn't know what
2	"technically prorated" means. What does "technically
3	prorated" mean, then?
4	A. Again, what
5	MR. CARR: Do you know?
6	THE WITNESS: To the best of my knowledge, it's
7	that production prorationing has been suspended but that
8	the setbacks are still in effect.
9	Q. (By Mr. Bruce) But there's no production
10	limitation?
11	A. No production limitations.
12	Q. In reading Rule 104.D.3, is that rule unclear as
13	to the number of wells allowed on a well unit in a
14	nonprorated pool?
15	MR. CARR: In a nonprorated pool?
16	Q. (By Mr. Bruce) In a nonprorated pool.
17	A. It states in the first paragraph, one well per
18	spacing unit is permitted in nonprorated pools.
19	Q. Were you aware of that rule and the prior
20	Division memorandums to the same effect before you sought
21	the drilling of the Levers Number 2?
22	A. No, I was not.
23	Q. Now, regarding the Fasken well, Texaco doesn't
24	seek a penalty on that, do they?
25	A. The Fasken is not offsetting our lease, it's not

1	encroaching our lease behind us, it's not crowding our
2	lease line. And so we elected to go silent on that.
3	Q. But that well only has a half a section dedicated
4	to it, doesn't it?
5	A. To the best of my understanding, that's correct.
6	Q. So wouldn't the same reasoning on your penalty
7	apply on the Fasken well, to apply an acreage factor to the
8	Fasken well?
9	A. The potential exists.
10	Q. Has Texaco made a I think you Excuse me,
11	Mr. Uhl, I think you said that Texaco's estimate is that
12	the Levers Number 2 will produce 5.5 BCF?
13	A. Right, and that's also somewhat within reason of
14	Mewbourne's and Fasken's estimates, based on the P/Z data.
15	Q. Okay.
16	A. And that's out of the middle Morrow zone the "B"
17	zone.
18	Q. When making your
19	A. This is in the Morrow.
20	Q estimate on reserves, what did you use for
21	porosity, water saturation, et cetera?
22	A. I did not do the reserves.
23	Q. Has anyone at Texaco done a volumetric estimate
24	for the Levers Number 2 well?
25	A. Not at this time.

Q. Does Texaco not do that on good wells or what? I
mean, you would classify the Levers Number 2 as a pretty
good well?
A. It's a very good well. Normally we will do a
volumetric study if indications are that we will be
drilling additional wells. Since we have already drilled
up our lease with two wells on that lease, we do not intend
to drill any more.
MR. BRUCE: Just a second, Mr. Chairman, maybe I
can
Q. (By Mr. Bruce) Now, regarding the Levers Number
2, do you have an estimate of what it would have been able
to produce wide open?
A. At present time, it's producing just a little
over 4 million a day, at 800 pounds flowing tubing
pressure. Line pressure is 500 pounds. So it's able to
produce a little more, but not much more than that.
Q. What about when it was initially completed in the
first six, nine, twelve months of its life? What could it
have produced?
A. Its absolute open flow is 9 million a day, and
one of our initial potential tests was 5 to 5.5 million a
day. We did not do any more than that

That was still choked back slightly. I don't

25

A.

1 have the exact choke, and so I can't refer to that. Finally, Mr. Uhl, on your Exhibit 6, your little 2 chart here, how many of these wells were prorated during 3 the first year of production? 4 It looks like from the dates of the completion 5 that there's a possibility that it could have been half or 6 a little more than half that were prorated. 7 0. Could that have affected their average first 8 year's rate of production? 9 That's a possibility. But for a good example, if 10 Α. you can refer to the E.J. Levers Number 2 -- or, excuse 11 me, the E.J. Levers Number 1, we had a CAOF of 29 million a 12 13 day on that but only 4 million a day for the first year's average rate. And that was not prorated. 14 Was that choked back, or were there any other 15 Q. production problems rather than just --16 I cannot address that. 17 A. Q. You don't know? 18 19 Α. No, I don't have the history there. Just one final question, Mr. Uhl. 20 Q. 21 Basically your penalty does not take into account 22 any -- your proposed penalty on the Mewbourne well, 23 strictly based on land reasons; is that correct? 24 A. That's correct. 25 MR. BRUCE: Thank you.

REDIRECT EXAMINATION

2 BY MR. CARR:

- Q. Mr. Uhl, in response to that last question, you're basically recommending a penalty on some general assumptions: number of acres and percentage of encroachment; is that right?
- A. That's the bulk of our recommendation, that's correct.
- Q. Until a well is actually drilled up there and you have better information on the reservoir in Section 1, do you think there's any better thing you can turn to?
- A. I don't think that anybody can really -- We can assume that there's going to be equal or greater or lesser production up there, but until the well actually gets drilled there's still a tremendous unknown.
- Q. Mr. Bruce pointed out to you that there are several wells in the immediate area that are closer than 1650 feet to the outer boundary of the tract and that those wells do not bear production penalties; do you recall that?
 - A. Correct.
- Q. Are you aware of any circumstance in this pool where someone has proposed drilling a well closer than the 1650-foot setback and that application has been opposed by an offsetting operator because, as here, there's concern about drainage and no penalty has been imposed?

1	A. We attempted to look into that, and we could not
2	find that example.
3	Q. So you find no case where there has been an
4	opposed location and no penalty drainage?
5	A. Correct.
6	Q. If you were considering drilling a well in
7	Section 1, I believe you testified if it was encumbered
8	with an 81.4-percent penalty, Texaco probably wouldn't
9	drill that well; is that correct?
10	A. That's correct, and what amazes me is that based
11	on the geology there's plenty of locations to drill in
12	Section 1. I mean, I wouldn't drill a well based on that
13	81-percent production penalty.
14	Q. Would you consider looking for another location?
15	A. I would consider looking for one that would have
16	no production penalty on it, and I see plenty of locations
17	for the well to be drilled.
18	MR. CARR: That's all I have. Thank you.
19	CHAIRMAN LEMAY: Thank you, Mr. Carr.
20	Commissioner Bailey?
21	EXAMINATION
22	BY COMMISSIONER BAILEY:
23	Q. You testified that there are four or five tracts
24	that have multiple wells.
25	A. Right.

1	Q. Do you know if the other operators obtained
2	special extensions for the pool rules in order to produce
3	both wells?
4	A. No, they have not. To the best of my knowledge,
5	this case the case with our well is the first time that
6	this rule has been applied. And that rule is based on
7	interpretation of the memo.
8 -	Q. I'm trying to remember the interests for the
9	different well locations.
10	A. Pardon?
11	Q. I'm trying to remember the different interests
12	for the well locations that were presented yesterday. Does
13	Texaco have an interest in the Fasken well?
14	A. No, we have no interest whatsoever in Section 1
15	anywhere.
16	Q. Okay. Do you have an opinion after listening to
17	yesterday's testimony on the Cisco potential in Section 1?
18	A. It would be difficult for me to render outside of
19	just a cursory look, but it looked like it was a reasonable
20	prospect.
21	Q. But you haven't done any independent
22	A. I did map the Cisco in the area, but I was but
23	I did not have I was not privy to the seismic. That is
24	a seismic prospect. And based on the geology, you could

put it there or you could take it away.

But based on the seismic, it looked like 1 something -- there is an anomaly there. Now, whether it's 2 going to hold out or not, I don't know. 3 COMMISSIONER BAILEY: That's all I have. 4 CHAIRMAN LEMAY: Thank you, Commissioner Bailey. 5 Commissioner Weiss? 6 7 EXAMINATION 8 BY COMMISSIONER WEISS: Let's see, how did you draw your maps? Are they 9 hand drawn, are they --10 Actually, I used a Geographics contouring program 11 on it. 12 I start out by doing -- generally, by using a 13 14 computer map, getting the -- putting preferential weighting 15 to a certain direction that I know from depositional 16 trends, and then take those contours, adjust them around to 17 where I put a geological slant on them. 18 It kind of starts out as a computer map where I 19 kind of get the orientation on it, kind of use as a go-by, and then from that point on it becomes a hand-drawn map. 20 Was the one-rule well [sic] in effect when you 21 drilled the Levers Number 2? 22 23 I was not aware of any one-well rule when we drilled that well. 24 25 Who would tell you that there was a -- How do you Q.

know that that rule was there? I'm lost here. I don't understand why you drilled the well if there was a one-well rule.

- A. Well, if there's a one-well rule, we shouldn't have drilled the well. If that was, indeed, the rule that applied to this tract, we shouldn't have drilled it. But nobody within our company -- our attorneys, nobody that we talked to, the BLM, the State, whatsoever, knew about this rule.
- Q. Well, was it the OCD's problem to advise you that that rule was in effect or -- I don't --
 - A. Well, I --
- Q. I mean, when you got the drilling permit --
- 14 A. Right.

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- Q. -- didn't somebody -- couldn't they have stamped it with "one-well rule" on it or something, or --
 - A. You would hope so.
 - But obviously, is that, if there was a one-well

 -- if there really was a one-well rule, it either slipped

 by somebody, or maybe that one-well rule is a liberal

 interpretation.
 - Q. Okay. But at any rate, nobody told you. You didn't know about it and --
- 24 A. No.
- 25 Q. -- the State didn't advise you that this was in

effect when you got the drilling permit? 1 No, I think that rule is being misapplied. 2 COMMISSIONER WEISS: That's all the questions I 3 have. Thank you. 4 EXAMINATION 5 BY CHAIRMAN LEMAY: 6 7 Q. Just a couple. I want to get back to the onewell rule myself. I understand the confusion, if there is 8 such a thing in this -- and there is confusion, I'll grant 9 10 you that. But the confusion lies in the fact that once 11 prorationing was suspended --12 13 Α. Uh-huh. -- then the argument went, you went back to the 14 one-well rule because prorationing was suspended? Is that 15 what they mean by the -- by Examiner Stogner and his 16 interpretation? 17 That's the best of our understanding. 18 19 Q. Because obviously before that you were -- no one 20 questioned a second well on a proration unit? A. And --21 No. 22 Q. So --23 A. -- we're well within the outline -- I mean, we're surrounded by the Catclaw Draw Pool, by wells drilled 24

within the Catclaw Draw Pool.

We are -- Although we are on the northern end of it, slightly, is that all the wells around it are a part of that pool.

We assume, is that those pool rules are still in effect, standard 1650-1650 setbacks, and that we're allowed to drill that optional well.

- Q. The institution of prorationing, or the suspension of prorationing, does it ever affect the spacing in a pool? To your knowledge? Have you ever seen a case where there's been a change in the spacing because of prorationing either being suspended or instituted?
- A. I haven't seen -- My knowledge is somewhat limited on this. This is the first time I've really run into this instance, and I'm not aware of that.
- Q. Nor am I. That's why -- I think we -- Your Application, in terms of this case, besides the penalty you're asking for either clarification of this --
 - A. Yeah.

- Q. -- or, if we clarify, I guess, the situation in upholding the Examiner, then you're asking for an exception to that particular interpretation; is that correct?
- A. That's correct. Essentially, whatever is faster to get our well back on line.
- Q. Okay. I think I understand that part of it. I was trying to clarify that. I don't know if there's much

confusion concerning that.

You owned the acreage in Section 1 at one time?

- A. No, that's -- No -- Well, that's somewhat correct. We owned -- If you notice on Section 1, there's a number of 40-acre lots in there.
 - Q. Yes.
- A. Like -- I believe that we owned -- It's underneath some writing on my map, but the northeast of the southwest quarter -- Is that 31? I can't read that on my map because there's writing. Is it 31 or 32 or something? 35?

Let me look for a map that's not marked up, and

I'll show you -- Well, we held one of those 40-acre tracts.

We then -- We farmed out to Fasken on the original well. That was back in the 1970s, I believe, when farmed out to the operator on the original well. And we still own that tract.

That tract was subsequently sold back in 1994, I believe, and that was when Mr. Williams was working with Texaco at that time.

Q. As I understand it now, though we don't have a lot of land testimony, you've got this roughly 300-acre proration unit which is forbidden, or at least it's not possible to enlarge that to the north because there's another 300-acre tract that's been reserved as a wildlife

habitat?

- A. I guess, from what I understand from the Mewbourne and Fasken testimony, that there's a falcon study going on and that the BLM is not allowing that be leased.
- Q. Is there additional acreage beyond that falcon study in the north half of Section 1 that is leased and available for a drill site?
- A. You're going to have to refer to the Fasken landman on that. We haven't attempted to pick that up.
- Q. Okay. And also, you're saying that your Levers Number 2, as I understand it, has some pay definitely in the bottom. It's not brown sand, but it's lower Morrow, that --
 - A. Yeah --
- Q. -- will be opened up as soon as the pressures are equalized?
- A. We believe that it's starting to contribute right now, is that our bottomhole pressures are probably down, but just about to the point to where that one we checked out is starting to contribute, and the two zones are being commingled at this point.
- Q. What do you estimate for bottomhole pressure on that zone?
- A. From the drill stem test it was 1360-some pounds, so that was about a third of what the original bottomhole

pressure was.

- Q. And that is the main pay in the field to the south?
- A. That was one of the principal pays of what the field was originally developed on, that's correct.
- Q. So your interpretation is, that has been drained to some extent?
- A. It has been drained, but then when we moved off that zone in our Number 1 well, we were down to about -- I think were on 600 pounds pressure on that.

So as you move just one location north and you're up to 1300, that indicates the further north that you move, the more that you're going to start moving into a little better pressure, still within that same interval.

- Q. Is it your interpretation, your testimony that it's -- With these pressures we tend to say they don't necessarily reflect the original bottomhole pressure, but they don't reflect drainage either, that we're talking about pressure somewhere in between with imperfect drainage, or do you see these as compartmentalized units?
- A. I see -- I think compartmentalized is probably the best explanation for a lot of these reservoirs here.

The type of environments that the sands were deposited in to start off with are -- It's almost inherent that you're going to have a compartmental -- the exact -- I

1	mean, we can project trends that the sands may exist in,
2	but the overall Is this draining to the north or to east
3	or to the south? Is this a point bar that it's draining
4	out of, or is this a little more of a bar sand? And things
5	like that.
6	We can project trends, but sometimes it's very
7	hard to look at the exact extent of that reservoir that
8	that one well is draining from.
9	CHAIRMAN LEMAY: Okay. Thank you very much, Mr.
10	Uhl. You may be excused without additional questions?
11	MR. CARR: That concludes our presentation.
12	CHAIRMAN LEMAY: You may be excused. Thank you
13	very much.
14	Do you all want to sum up, or shall we take it
15	from here?
16	MR. CARR: I think Mr. Bruce may have a witness?
17	CHAIRMAN LEMAY: Oh, you have a rebuttal witness,
18	Mr. Bruce?
19	MR. BRUCE: I think I have a couple, Mr.
20	Chairman.
21	CHAIRMAN LEMAY: Okay. Let's take about a ten-
22	minute break before we get to the rebuttal witness.
23	(Thereupon, a recess was taken at 10:05 a.m.)
24	(The following proceedings had at 10:25 a.m.)
25	CHAIRMAN LEMAY: We shall resume. Mr. Bruce?

BILL COLLINS, 1 the witness herein, after having been first duly sworn upon 2 his oath, was examined and testified as follows: 3 DIRECT EXAMINATION 4 BY MR. BRUCE: 5 Would you please state your name for the record? Q. 6 7 My name is Bill Collins. Α. Where do you reside? Q. 8 I live in Midland, Texas. 9 A. What's your occupation? 10 Q. I'm a consulting geophysicist. 11 A. What is your relationship to Mewbourne in this 12 Q. case? 13 I'm a consultant for Mewbourne Oil. 14 A. Have you previously testified before the Oil 15 Conservation Division or Commission? 16 A. No, I have not. 17 Would you briefly outline your educational and 18 19 employment background? 20 Α. I have a BA degree from McMurray University in Abilene, Texas, in 1964. I've been associated with the 21 geophysical profession ever since 1964. I've worked for 22 23 major oil companies, independent oil companies, and I've been a geophysical consultant for the last seven years. 24 Does your area, the area that you've reviewed in 25

Q.

1	geophysical matters, include west Texas, southeast New
2	Mexico?
3	A. Yes, almost my entire career has been spent in
4	those areas.
5	MR. BRUCE: Mr. Chairman, I tender the witness as
6	an expert geophysicist.
7	CHAIRMAN LEMAY: Mr. Collins' qualifications are
8	acceptable.
9	Q. (By Mr. Bruce) Very briefly, Mr. Collins, you're
10	here to discuss this Cisco prospect, aren't you?
11	A. That's correct.
12	Q. Could you refer to I think it's Fasken
13	Exhibit
14	A 17.
15	Q and discuss what issues you see with respect
16	to this Cisco prospect?
17	A. Okay, from the seismic data that was presented
18	yesterday
19	Q. Just a minute, let the Commissioners get Exhibit
20	17 out.
21	CHAIRMAN LEMAY: Which exhibit are we working
22	with here? I'm sorry.
23	THE WITNESS: Number 17.
24	CHAIRMAN LEMAY: Seventeen.
25	MR. BRUCE: It's Let me hold it up.

Commissioner Weiss just --1 COMMISSIONER WEISS: Got it. 2 MR. BRUCE: The one with the red --3 4 COMMISSIONER WEISS: -- red -- yeah, he put 5 the --MR. BRUCE: -- ellipse on it, yes. 6 COMMISSIONER WEISS: 7 Yes. Q. (By Mr. Bruce) Go ahead, Mr. Collins. 8 9 Α. The lines that have been presented was an eastwest line through the Fasken location, a north-south line 10 through the Fasken location, and an east-west line through 11 the Mewbourne location. 12 Now, the east-west and north-south lines 13 presented do indicate some reversal at the Cisco level. 14 The question I have is -- which I think is key -- is, why 15 wasn't a line presented from the Spring field to the 16 northwest across the saddle between the Spring field and 17 the Cisco prospect? 18 19 0. Is that the key line? 20 Α. That would be a key line. And as Mr. Lint testified yesterday, since this is a 3-D shoot, you can 21 pull out what we call arbitrary lines and place them 22 23 basically any way you want to run them. So I think that would very key to establishing 24 the quality of the Cisco prospect in here to see what the 25

separation is from this prospect and the Spring field to the northwest. It's possible this could just be a nose extending down here with no closure.

- Q. So you cannot determine the quality of the Cisco without seeing that northwest-southeast --
 - A. That's correct.
 - O. -- 3-D line?

Do you have anything further to state, Mr. Collins?

A. The other variable in here is the velocity function that was used to convert the seismic times to depth. And as Mr. Lint testified, this is probably a 10 or less millisecond closure.

Without knowing what the velocity control points -- what the values were and how that map was contoured, it's hard to say how much that effect has on this overall closure. I think 50 or 60 feet of closure is probably not within the resolution of this tool with a hundred percent, but that is where I think the risk comes in when you're dealing with such a low as these prospects.

- Q. So based on what you've seen, you can't say that that Cisco feature is there on the Fasken location?
- A. Not -- I can't verify this closure from the data that I've seen. I can't verify that this closure is actually there.

1	MR. BRUCE: Thank you, Mr. Collins.
2	Pass the witness.
3	CHAIRMAN LEMAY: Mr. Kellahin?
4	CROSS-EXAMINATION
5	BY MR. KELLAHIN:
6	Q. Mr. Collins, when were you retained by Mewbourne
7	to participate in this case?
8	A. Approximately a week and a half ago.
9	Q. Were you aware that Matador offered its 3-D
10	seismic data to all the interest owners in Section 1,
11	including Mewbourne?
12	A. Not originally.
13	Q. You're aware of that now, are you not, Mr.
14	Collins?
15	A. Yes.
16	Q. Did you use any of the Matador data?
17	A. No. All I've seen is what was presented
18	yesterday.
۱9	Q. You don't have any independent conclusions or
20	work product to show us based on any kind of seismic study
21	of the Cisco?
22	A. That I've done?
23	Q. Yes, sir.
24	A. No, sir.
25	Q. Did you do any geologic work, geophysical work,

1	with regards to the faulting in Sections 12 or Section 1?
2	A. I reviewed the exhibits that were presented
3	yesterday.
4	Q. No independent work by you?
5	A. On other data?
6	Q. Yes, sir.
7	A. No, sir.
8	Q. On any of this data?
9	A. No, sir.
10	MR. KELLAHIN: No further questions.
11	CHAIRMAN LEMAY: Mr. Carr?
12	MR. CARR: No questions.
13	CHAIRMAN LEMAY: Commissioner Bailey?
14	COMMISSIONER BAILEY: No questions.
15	CHAIRMAN LEMAY: Commissioner Weiss?
16	COMMISSIONER WEISS: No, thank you. No
17	questions.
18	EXAMINATION
19	BY CHAIRMAN LEMAY:
20	Q. Just one quick one, Mr. Collins. As I understand
21	your testimony, that you say the region of critical dip in
22	the Springs field was not established by seismic?
23	A. Not from the exhibits that were presented
24	yesterday.
25	O. What kind of risk factor would you assign to the

1	Cisco prospect? From what you see?
2	A. Well, from what I've seen yesterday I would say
3	one out of ten, something like that.
4	CHAIRMAN LEMAY: Thank you. Those are the only
5	questions I have.
6	Additional questions?
7	You may be excused.
8	MR. BRUCE: Recall Mr. Williams.
9	Mr. Chairman, if I could have the record reflect
10	that Mr. Williams was previously sworn and qualified in
11	this matter.
12	CHAIRMAN LEMAY: Okay.
13	<u>KEITH WILLIAMS</u> ,
14	the witness herein, having been previously duly sworn upon
15	his oath, was examined and testified as follows:
16	DIRECT EXAMINATION
17	BY MR. BRUCE:
18	Q. Mr. Williams, let's refer to what's been marked
19	as Exhibit 12A. Now, first of all, you sat through the
20	testimony yesterday, did you not?
21	A. Yes, sir.
22	Q. The Fasken testimony?
23	A. Yes, sir.
24	Q. And there was testimony about faulting in the
25	Morrow near the proposed Mewbourne location?

A. Yes, sir.

- Q. Could you describe what your Exhibit 12A shows and discuss what effect, if any, minor faulting in the Morrow can have on production in a Morrow well?
- A. This is a couple of cross-sections involving the same three well. The little index map shows three wells within the Catclaw Draw-Morrow Pool. They were all drilled around 1972 to early 1973. The northernmost well is on the left of the cross-section, the southernmost well is on the right of the cross-section.

The upper cross-section is a stratigraphic section. It's hung on the top of the lower Morrow. You see that all the markers are essentially flat going across from the north to the south. Stratigraphically, you have the brown sand and the orange sand in the lower Morrow, and then the middle Morrow purple and green coming up the hole.

Now, the bottom cross-section is the same three wells hung on a subsea datum of 7300 feet. What you see is, the well on the left had a cum of 1 BCF produced out of the brown sand, the orange sand and the purple sand.

Again, these all were contemporaneously drilled wells.

The well in the middle is the Hanagan Nan-Bet

Number 1. It produced from the orange sand and the purple

sand. Its cum is over 11 BCF, and it's still currently

about a half a million a day.

My regional work within this field puts this well on the downthrown side of a fault. That fault has about 100 to 125 feet of throw.

The last well on the cross-section, to the right, is an old Inexco well that, again, was drilled within the same time period and was noncommercial, had a cum of about a half a BCF from the purple sand. It tested the orange sand wet, tested the middle Morrow -- base of the middle Morrow wet, as did the Hanagan well. But the little bars indicate DSTs. If they're blue-colored, that indicated a wet test. If they're red, that indicated a gas test. If there is a bar colored red across from the sand, that indicates perforated interval.

So the point of this cross-section is, Mewbourne really doesn't see the fault on Fasken's Exhibit 20. If you look at Fasken's Exhibit 20, you can almost see that the south cross-section, you have a marginal well on the upthrown side.

COMMISSIONER WEISS: Give us a minute.

CHAIRMAN LEMAY: Exhibit 2 or 20?

THE WITNESS: Twenty, it's the seismic section.

CHAIRMAN LEMAY: Found it.

THE WITNESS: Did you find it?

CHAIRMAN LEMAY: Yeah.

THE WITNESS: Okay. Just ask you to note the

similarity to the well positions, Number 1 being on the upthrown side, Number 2 being on the downthrown side against the fault, and Number 3 being too far away from the fault. And note the similarity. Even though there have been no wells drilled along line 70 or Exhibit 20, it looks like a very similar situation could occur.

Q. (By Mr. Bruce) So you don't see a fault as precluding very good production from the Morrow?

- A. No, sir. Throughout southeast New Mexico, there are numerous good Morrow wells drilled on the downthrown sides as well as upthrown sides of the faults.
- Q. Let's move on to your next exhibit, 12B, Mr. Williams. First, what is Exhibit 12B?
- A. 12B is a regional cross-section that goes from the northernmost part of Spring field, down across the nearest wells to both the proposed locations, and farther south to the Texaco well.

The index map is contoured. It's a subsurface contour map on top of the Cisco reef. It runs from north, being on the left, to south, being on the right. This is along the Cisco shelf edge, and that results in this very large structural closure, trending northeast-southwest.

And it puts pretty much both the Mewbourne and the Fasken location at the shelf break of the Cisco. We show the field wells in Spring field, we show the nearest

well as Number 7, to the prospect, and we show the gaswater contact. We show a regional top of the Cisco/Canyon across the Fasken location, as well as a projected top of the Cisco/Canyon across the Fasken Cisco/Canyon.

Mewbourne recognized the Spring field in here when we were putting together a Morrow prospect, but really believe we're off the shelf edge in both instances and don't see the -- don't see any analogues for buildups right at the shelf edge in southeast New Mexico.

- Q. Mr. Williams, looking at your index map, it looks like there were a number of Cisco/Canyon tests immediately adjacent to the Springs Pool that were not productive; is that correct?
- A. Yes, sir. There are at least ten dry holes that ring the Spring field. The majority tested wet in that reservoir due to low structural position off that shelf edge.
- Q. Based on this map, do you see any reason to risk a Morrow producer due to testing of a risky Cisco/Canyon?
 - A. I do not.

- Q. Were Exhibits 12A and 12B prepared by you or under your direction?
 - A. Yes, sir.

MR. BRUCE: Mr. Chairman, I tender the admission of Exhibits 12A and 12B into the record.

1	CHAIRMAN LEMAY: Without objection, those
2	exhibits will be entered into the record.
3	Mr. Kellahin Are you through? I'm sorry, Mr.
4	Bruce, do you have any more questions?
5	Mr. Kellahin?
6	MR. KELLAHIN: May I have just a moment to find
7	the map, Mr. Chairman?
8	CROSS-EXAMINATION
9	BY MR. KELLAHIN:
10	Q. Mr. Williams, I'm trying to find the area that
11	you have investigated with your Exhibit 12A, and it appears
12	to me that the northernmost well is in Section 18.
L3	A. Yes, sir.
L4	Q. And if we look on your Exhibit 12B, Section 18 is
15	down in the southeast corner of your locator map; is that
16	not true?
L7	A. Yes, sir. In general, the Cisco is north and the
18	Morrow is south.
۱9	Q. When we look at your three-well cross-section,
20	then, we are looking
21	A. I believe they're off that map.
22	Q. Yes, they're
23	A. I can point them to you. The
24	Q. They're off the Fasken structure map, Exhibit 2?
25	A. Well, one The northernmost well is that well

in Section 18, right there. 1 Yes, sir, I see that. 2 Q. The other two wells are off the display, and 3 they're moving into Section 19 and 30, farther south and 4 east of the area identified on the Fasken Exhibit 2? 5 Α. Yes, sir. 6 All right. And you have made a three-well cross-7 Q. section, and the northernmost well compared to the second 8 well, you show a fault displacement? 9 Α. Uh-huh. 10 That displacement is carried up through the base 11 Q. of the green sand? 12 13 A. Yes. But you have not extended the fault up through 14 Q. 15 the top of the green sand. Am I reading this correctly? 16 A. Right. 17 Did you have information to cause you to believe Q. 18 that that fault stopped at the top of the green sand? No, I don't. That's just where I chose to die it 19 A. out. 20 21 Q. All right, so that -- You made the choice to stop 22 it at that point, as opposed to the data telling you that that fault stopped at that point? 23 24 A. Yes. 25 Do you remember Mr. Lint's testimony from Q.

yesterday where he says his seismic study shows within the section in review that the entire Morrow interval in the upper, the middle and the lower is entirely fault displaced?

- A. That's likely the case. It doesn't change the productivity either side of the fault.
- Q. All right, sir. But that fault will separate the production on each side of that fault line, will it not?
 - A. It does in most cases.

- Q. In our area of review, if you're on the downthrown side of the fault, you're moving closer to known water?
- A. Even on the downthrown side of the fault, the Mewbourne location projects to be over 100 foot high from Morrow -- from water contact in the lower Morrow only.

 There is no other known water contacts within the pool that I've found.
- Q. There's nothing in this Exhibit 12A that is intended to rebut Mr. Lint's conclusion about the fact that the entire Morrow interval within Section 12 is fault-displaced?
- A. No, sir, this exhibit is intended to show the vast difference in productivity on the downthrown side of the faults within the Morrow. This 11-BCF well is about the third-highest production well within the field, and it

1	is downthrown to many wells that made significantly less
2	gas.
3	Q. All right, sir. So none of that is
4	A. And that's the intent.
5	Q directed to the location and the displacement
6	of a fault in Section 12?
7	A. No sir, it's just showing the potential on the
8	downthrown as well as the upthrown sides of faults within
9	the pool.
10	MR. KELLAHIN: All right, sir. No further
11	questions. Thank you.
12	CHAIRMAN LEMAY: Mr. Carr?
13	MR. CARR: No questions.
14	CHAIRMAN LEMAY: Commissioner Bailey?
15	COMMISSIONER BAILEY: No questions.
16	CHAIRMAN LEMAY: Commissioner Weiss?
17	COMMISSIONER WEISS: Yeah, I have one.
18	EXAMINATION
19	BY COMMISSIONER WEISS:
20	Q. This kind of difference in the This isn't an
21	AOF, this is
22	A. That is a cumulative.
23	Q cumulative?
24	A. Yes, sir.
25	Q. Could these faults be such that they would result

in a naturally fractured reservoir? 1 I believe there is some evidence to suggest that 2 that enhances productivity, and subsequently why you can 3 have good wells next to faults, wither side of faults. 4 COMMISSIONER WEISS: That's the only question, 5 thank you. 6 CHAIRMAN LEMAY: I actually have a couple. 7 You've raised some questions for me, Mr. Williams. 8 EXAMINATION 9 BY CHAIRMAN LEMAY: 10 Have any wells cut the faults so you can actually 11 Q. see them in a log section? 12 I have not found any. They are extremely 13 Α. vertical faults, as most out here are. But I have not 14 15 found any differences in section, and I've looked in this area -- I haven't in other areas -- but in this area I have 16 17 not seen that, no, sir. It looks like the faults you carry are regional 18 Q. faults which are -- I think most geologists would agree --19 20 are present in the brittle formation, Devonian-21 Mississippian --Yes. 22 Α.

-- but aren't there interpretations that show, Q. when you get to the more fluid sections of the Morrow, that your sediment, your shales and even the sands will flow

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over the fault rather than actually break in a brittle manner? That's why they die out in the Morrow somewhere?

A. Well, a lot of them die out in the Morrow. A lot of them continue up in the Morrow. I think you get into a little bit of trouble because there are different ages of these faults, and that's why they don't go up as far, and that's why some go up a lot farther, is the timing.

But I've mapped an awful lot of fields that there is no other explanation for pressure differences, other than the faults. The correlations are very good, and where you do have good pressure data you can show that this is just more thing in this erratic reservoir that compartmentalizes production in a regional sense.

Q. So --

A. On the west side of Catclaw Draw there are about five dry holes that are fault-separated. They're downthrown in that case by a major fault that pretty much breaks off that brown sand production.

Regional dip continues to the west after that fault, and there's a lot of sand, but the majority of it is wet on that side.

- Q. You're talking the extension of the Huapache monocline coming up?
- A. Yes, sir. There are a lot. This fault that I show on this particular display comes from down into 25 and

26 on the index map and actually strikes northeastsouthwest.

- Q. It's really a point of interest. I didn't know whether -- if no faults in this field were cut by wells.

 Your regional work has shown that there are definitely faults in the lower Morrow that displaces Morrow sands and does control production to some extent?
- A. Well, I think -- Yes, sir, I think when you look at the correlations on the upper part of this cross-section, these are laydown correlations. You have the top of the lower Morrow, which is a shale, and you have the Barnett at the bottom of that, which is a shale. Both excellent correlative markers.

So you have these two sands that line up, and when you fault these you can see the relative productivity is just, you know, pretty unexpected but likely to -- these differences in major productivity. There's a lot of sand in Catclaw Draw-Morrow Pool, unlike some areas.

- Q. One other question on your other, your regional cross-section showing the Spring field and that shelf edge.
 - A. Yes, sir.
- Q. Have you done any sample work, or do you know if that's limestone or dolomite?
- A. In this area, it is dolomite. There is about 800 -- At the maximum, there's about 800 foot of reef here.

But there's only about 60 foot of column at this field, due to being able to displace all that water.

- Q. But the upper section, or the entire section here, is dolomitized?
- A. Yes, sir, from the sample logs and things I've seen, the majority of it is, all the way to the Strawn, which is about 850 feet or so in Section 34, the bulk of the field.

CHAIRMAN LEMAY: That's all the questions I have.

Any additional questions of the witness?

MR. BRUCE: Just one.

FURTHER EXAMINATION

BY MR. BRUCE:

- Q. On the Cisco map, Mr. Williams, there's a couple of arrows pointing to wells. What do those arrows represent?
- A. Well, the northernmost arrow is really a Matador well that we talked about yesterday that was drilled on a similar prospect. It is on a flat area, there's no doubt it's on a flat area at the Cisco level from just the subsurface work. But it did not find any closure and did not make a productive well.

We believe this location to the south of Fasken is a similar flat area, but we also believe it will not find relief necessary to break it off from Spring field,

1	which is a significant field with a lot of water
2	production.
3	That's just our regional picture of the Cisco.
4	It's not something we haven't looked at; it's just not what
5	Mewbourne Oil chooses to chase, because of the risk
6	involved.
7	CHAIRMAN LEMAY: Is that it?
8	MR. BRUCE: (Nods)
9	CHAIRMAN LEMAY: Are you through with this
10	MR. BRUCE: I'm through.
11	CHAIRMAN LEMAY: Any other questions of the
12	witness? Thank you, Mr. Williams. You may be excused.
13	Any other testimony?
14	Any statements in the case?
15	MR. BRUCE: One more rebuttal.
L6	CHAIRMAN LEMAY: I'm sorry.
L7	MR. BRUCE: One more rebuttal, Mr. Chairman.
L8	And once again, Mr. Chairman, Mr. Montgomery has
L9	been previously sworn and qualified.
20	BRYAN M. MONTGOMERY,
21	the witness herein, having been previously duly sworn upon
22	his oath, was examined and testified as follows:
23	DIRECT EXAMINATION
24	BY MR. BRUCE:
5	Q. Mr. Montgomery, first, what is Exhibit 18 and

what do you want to show with that?

A. Exhibit 18 is something that I'd like to work from to show our analysis of the Cisco with respect to the reservoir engineering after we've looked at the geology, the potential recovery that an analogous field at the Section 1 would have. And so I'd like to just quickly go through this.

This is a paper from Roswell Geologic Society.

It's a two-page exhibit. It's on the upper -- Springs upper Penn gas field that we've all been talking about.

And if you flip to the second page you see their depiction of the areal extent, the productive wells -- there's six of them there -- the structure map.

And the conclusions are back on the first page, as far as the total acreage, the total thickness, the net thickness of which is productive in the gross. It is dolomite, so you can see the type of trap, the type of rock. So we'd like to have the Commissioners have this with them also.

This raw data will go into my next exhibit that will be referring to some of this, so we might leave them both out and begin with Exhibit 19 also.

- Q. Exhibit 19.
- A. Exhibit 19 is my analysis of the Spring field to try to see if I can take the geologic data that this paper

had, and the total amount of gas that was produced -- And by the way, this paper was written in August of 1976, when the vast majority of the reserves had already been produced in this Spring field. It's a water drive -- We can go into great detail.

But I'd like to highlight the volumetric estimate

-- it fits the production -- and then how that applies to

our location.

So on the first page of Exhibit 19 you see the Spring field summary, and it just refers everything except the calculated data back to that original paper.

The productive area, 1280 acres, much bigger than what we've heard them say here at 90 acres, which I'm not sure I agree with.

Gross pay, 50 feet. Net pay, 30 feet. Porosity, water saturation, et cetera, pressure. The production, as of December, 1992, which is the approximate abandonment — there was some slight production in the late Seventies and Eighties — was 23 BCF, approximately.

When you use the 30 feet of net pay, not the 50 feet of gross pay -- and they claim 60 feet of relief. I just believe this field is much, much larger, and they've been overly aggressive with their estimates of acreage and thickness from seismic, that they agree that the accuracy of this is suspect.

But when I take this volumetric calculation I come up with the 26 BCF you see near the bottom of the page under "Original Gas in Place." The recovery factor of 88 percent below that seems very reasonable to me in a water-drive reservoir, and that what the system is, we can use this as an analogy if we know the size of the trap, prospective size of the trap on an unrisked basis in Section 1, and that's the second page of this exhibit.

What I've done is taken my data and my review of the seismic, and I've used 40 acres. You've heard 90 acres, but I only see 40 acres. Without that critical seismic line that they're not, you know, showing to Mewbourne Oil Company or to the Commission, I'll have to go with what I know. So I use 40 feet.

Gross pay, well, I use 50 feet with 30 feet net.

I'm trying to do an analogy here. I give them the benefit of the doubt. We don't know if this is fully filled with water, if it's fully filled with gas. They said a total of 60 feet is the maximum. That would be the maximum amount of gas under their scenario. I'm giving that number 30 feet, with the same porosity and water saturation, same fluid data and recovery factor of Spring field.

The upside potential of this Cisco is only 700 million. There is no home run here. This does not work with the risk associated. If you have high risk, you need

a high recovery on the upside. This is the maximum upside Mewbourne Oil Company believes will be recovered in the Cisco, and therefore we have elected to not join their well.

Even if we use their 90 acres and their 60 feet, this number jumps up only to 1.5 BCF, unrisked. Their 1-in-10 risk is 150 million cubic feet of risked reserves.

Down at the bottom you see our risked reserves.

We take the 726 million cubic feet and say, What if it's not the full 30 feet thick of gas, what if it's not gas all the way to the top? Well we -- There's no good way to risk this, but let's take a 50-percent risk there. Let's take a risk of the quality of the seismic data, that the total area is correct, that there even is even a bump there at all. With another 50-percent risk there, you see how we're going to severely impact the risked reserves on the unrisked reserves of 700 million.

At the bottom -- I also use a 10-percent risk, just saying, What if it's not as good dolomite? You know, what if it doesn't have the porosity and the permeability?

So not knowing exactly what to use, I use 10 percent there, come up with 163 million. It's silly to drill a well 8000 feet for 163 million of risked reserves. Fasken agrees with that. They won't drill this on their own. By their own admission, the risked reserves must be

389 less than the payout of this well, or they would drill it. 1 So I think they haven't given us reserves. 2 They've given us 3.8 BCF. But on a risked basis, I think 3 this is a better analysis. And I do not by any means buy 4 3.8 BCF as the upside, the home-run potential. I think 5 it's closer to 700 million. 6 That concludes that exhibit. 7 I do want to talk about Fasken's exhibit. Ι 8 quess maybe I've said what I wanted to say already, but 9 this is a different exhibit not in my packet. So if you'll 10 reach into Exhibit 24, Fasken's exhibit of the Cisco 11 12 reservoir engineering by analogy of the Spring field, the McKittrick field and the Indian Basin-Upper Penn field, 13 they went through and tried to prove by analogy there's 3.8 14 BCF in place. So take a minute and find that, and we'll 15 just real quickly go through a couple inconsistencies here. 16 COMMISSIONER WEISS: What exhibit is that? 17 18 THE WITNESS: This would be 24. It's a typewritten single page. Fasken Exhibit Number 24. 19 MR. BRUCE: Mr. Brown's exhibit. 20 21 THE WITNESS: The engineering. Yes. Okay? CHAIRMAN LEMAY: We'll huddle on this and we'll 22

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and it makes the -- it's trying to make the analogy from

THE WITNESS: This is a table we've seen before,

follow you.

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these offset fields to this field. And the logic is right. You know, you take the offset field and you say, Well, we have so much area and thickness. Therefore we should get 3.8 BCF.

But if you look at the McKittrick field and you take that first column, the EUP, that's the 19 BCF they think that well will do -- there's a one-well field -- and you divide by the final column, the acre-feet, that's about -- You have to move the decimal, but that's three to one, where the other two fields are both one to one.

I've studied the McKittrick field. I think it's much larger than 252 acres. I believe a one-to-one ratio of EUR to acre-feet would not be unreasonable.

But, also in the Spring field, they use 744 acres. I don't see that in the geologic report that I read. I see the 1280 acres. When I review his map and I see how the wells are laid out, it certainly looks to be double a 640-acre area. The 60 feet of closure is right, but that's not the net pay. Now there's some pluses and some minuses, and the number's not all that bad in an end result.

But it's just -- There's just some inconsistency, such that by taking this total acre-feet at the bottom like they did and multiplying times this recovery factor of 1413 and get the 3.8 BCF is just not right.

- Q. (By Mr. Bruce) Okay.
- A. So I'd like to --

- Q. And that's your comments on the Cisco?
- A. That's it for the Cisco. We have looked at the Cisco. Believe me, we've looked at the Cisco, and we just aren't in that well. We don't like it, for the reasons we've discussed.
 - Q. Okay. Let's move on to your Exhibit 20 and --
- A. Exhibit 20 will be an exhibit that will discuss potential penalty of the Mewbourne location. And it kind of goes alongside, I suppose, with the Texaco exhibit of penalties, which they have a two-component system, one for acreage and one for too close to the line.

Mine is a one-component system, just too close to the line. The reason I don't go for the acreage penalty is, they're here trying to get two wells on a 640. That's 320 equivalent. The whole field is developed on 320 acres. Their own maps show much more than 320 acres productive. Why can they -- How can they ask for a 320 divided by 640, 50-percent penalty, right off the bat? It just doesn't make sense. And I won't dwell on that.

I'll go on to a -- too close to the line.

Because, as we said before, we think we're being drained.

And to have a penalty will keep us from getting back to equal with these folks. We don't think we can wait much

longer and still make this prospect a do-able deal, this low-risk Morrow idea that we have.

But if the Commission decides that a penalty is necessary, we think it should be fair. We think it should not include 320 acres over 640 and that if it includes a distance too close to the line, it should be set up like this exhibit that I have here, and I think it will just take me a minute to go through this.

If you have two wells at 1650 feet away from a common boundary in a field where that was the field legal rules, the no-flow boundary, everything else being equal, would be on the lease line. So there would be no penalty. You'd have -- Each would have 1650, divided by the total 3300 feet to drain from.

Certainly, if you move one well south, the noflow boundary would move to halfway between those two points. And here at 660 and 1650, the number would be 2310.

You can see my little 495-foot measurement.

That's the amount of encroachment in this type of example that we have.

And then what do you have? You have -- The well with too much gas has 1650 plus 495 -- they've got too much -- divided by 3300. You see at the bottom there, that's .65 instead of .5. That's too much.

The bottom, of course, is lacking the 495 feet.

1650 minus 495 is 3300 -- or divided by 3300, is .35.

There is an inequality there.

To calculate the penalty to get it back to 50-50, you've got to figure out what to multiply times the one that has too much, more than 50 percent -- or what times .65 equals .5? That penalty is 77 percent. We believe that if there's a penalty here, it should be only that we should be able to produce 77 percent of our calculated open flow.

We would even go as far as to do a deliverability test with it, but not at 81-percent penalty. This is really a 23-percent penalty or a 77-percent flow. Theirs is an 80-percent penalty. We would only get to produce 20 percent of our flow.

I only think we have 1.1 BCF remaining. Well, 20 percent of 1.1 BCF is not acceptable. The penalty that they've provided is not fair, it would cause us to not be able to protect our correlative rights. And if a penalty would be considered, I think this type of approach would be fair.

- Q. Again, Mewbourne doesn't think a penalty is appropriate in this case?
- A. No, as I've stated before, there are a lot of wells that are closer than -- There's several reasons to

say we shouldn't have any penalty at all.

- Q. Okay. Mr. Montgomery, please move on to your final exhibit, Exhibit 21, and discuss what you see as the cost of finding gas in Section 1.
- A. This is the bottom line for Mewbourne as we see both locations. We've heard Fasken, we've heard Texaco, talk about a lot of things. We've never heard risked reserves. Here's what we think we're going to find at our location.

We asked them point blank. They push it off to the next guy. The next guy says, Well, I've calculated but I don't have a number for you.

Well, we have numbers, and this is what we think. The Mewbourne location will cost \$750,000 to drill. We believe 1.5 BCF would be a risk number. We think if we're able to produce with no penalty, we might get 1.8 BCF, as I've said in earlier testimony.

So with some slight penalty it doesn't work out exactly, but 1.5 BCF, the finding costs are decent at 50 cents, when you divide the two numbers, 750,000 divided by 1500 million cubic feet.

As you've seen in the Fasken location -- I've already talked about the Cisco reserves of 160 million. When you add that to the Morrow reserves -- which, let me just say now, I see the Morrow reserves up at their

location as potentially a complete zero. It's in between a zero in all upper, middle and lower, and a 300 million in all upper, middle and lower Morrow.

So I've averaged them to give it 150 million.

When you divide the \$800,000 -- It costs a little more to complete both wells. They say they wouldn't commingle them; they would redrill the well. So really, you'd double these drilling costs if you really wanted to stick it to them.

But the finding cost just goes way out of whack. You can't drill for \$2.58 because you've got to pay operating costs, and time, value, money -- You're not getting that price of gas anyway.

And let me say something about the price of gas right now. Texaco says they're getting -- they're losing \$1000 a day. We believe we're losing the Section-1 owners 4 million a day, times the 30-percent allocation that I give that well, times maybe \$2.50, \$3000 a day, just by sitting here and not drilling and protecting our rights in Section 1.

In summary, Fasken's location is a high-risk

Morrow, a high-risk Cisco, with no compensating upside

reserves. And Mewbourne's location is a much lower-risk

Morrow with no Cisco potential. But we feel that it's also

the one that can protect correlative rights for the owners

1	of Section 1.
2	That's what I have.
3	Q. Were Exhibits 18 through 21 prepared by you or
4	under your direction?
5	A. They were.
6	MR. BRUCE: Mr. Chairman, I'd move the admission
7	of Mewbourne Exhibits 18 through 21.
8	CHAIRMAN LEMAY: Without objection, Exhibits 18
9	through 21 will be admitted into the record.
10	MR. BRUCE: And I pass the witness.
11	CHAIRMAN LEMAY: Mr. Kellahin?
12	MR. KELLAHIN: I have no questions for
13	Montgomery.
14	CHAIRMAN LEMAY: Mr. Carr?
15	CROSS-EXAMINATION
16	BY MR. CARR:
17	Q. Mr. Montgomery, would you turn to Exhibit 20?
18	A. Okay.
19	Q. It's my understanding from your testimony that
20	you think there should be no penalty, but if there is a
21	penalty, this would be a fair way to do it?
22	A. That's correct.
23	Q. If we look at this exhibit, you're treating both
24	tracts as if they have 320 acres in them; is that right?
25	A. I'm treating both tracts as if they're productive

1 up to the 1650 mark. Do you think it's inappropriate to consider an 2 acreage factor? 3 If all you did was consider an acreage factor, 4 A. we'd be happy, using Texaco's map. I think we'd come up in 5 6 good shape there. 7 But in your recommended formula, you are not Q. recommending that there be an encroachment factor and an 8 acreage factor? 9 That's correct. 10 Α. 11 Q. And you have somewhat less than 320, but 12 approximately a 320 to dedicate to your well in the south 13 half of 1, correct? 14 Α. That's correct. And there are 640 acres dedicated to the wells 15 Q. that Texaco has drilled in Section 12? 16 To the two wells that they have drilled in 17 A. 18 Section 12. 19 Q. Correct. 20 A. 320 --You understand that one of those wells is open in 21 Q. the "A" zone only; is that right? 22 It's now shut in, but was open in the "A" zone 23 A. 24 until --25 And you understand that the other well is not Q.

opened in the "A" zone but in other Morrow zones? 1 In the zone we believe draining Section 1. 2 So there is one well producing from any of 3 Q. these zones, not two, on that 640? 4 That's correct. There are multiple zones out 5 Α. there. 6 Now, if we look at this exhibit, you would agree 7 Q. with me that the Texaco well was not 1650 feet into Section 8 12 but at 2448; is that not right? 9 That's correct. 10 Α. And if, in fact, we do what is -- if you drill 11 Q. 12 the 660 and our well is at 2448, the drainage area would go farther into Section 12 than is shown on this --13 You could make that calculation. 14 Α. But when we look at this exhibit, we're going 15 Q. back to general assumptions, aren't we? We have to look at 16 17 general assumptions because we don't know where the well 18 is --19 Α. Right, that's correct. And we don't know if the well drilled 660 off 20 Q. 21 that line would, you know, drain preferentially toward the south where the reservoir is better or not, do we? 22 23 A. It could be a dry hole. We just don't know until 24 we drill it. 25 And you think there is a potential that you could Q.

399 drill a dry hole 660 from that lease line? 1 Absolutely, there's always a potential of --2 A. Well, if that should be the case, then you Q. 3 wouldn't be losing \$3000 a day, would you? 4 A. At that case, right. But we would have to be 5 able to drill that well to determine that. 6 Yeah, but to say that you're losing \$3000 a day, 7 Q. you have to assume you drill a pretty good well 660 from 8 the south line of 1, do you not? 9 Yes, it would -- I think -- It's my opinion that 10 there's a high probability we would drill a very good well 11 at that section -- location. 12 And then that wouldn't really be such a high-risk 13 Q. prospect, if you're going to drill a will that right now, 14 just because of its absence, you're losing \$3000 a day. Is 15 that fair to say? 16 Could you repeat that? 17 Well, I mean, you were talking about this being a 18 Q. high-risk prospect in one sense, but --19 Α. 20 No. -- as I understood your testimony, you were 21 Q. saying that you would -- were losing \$3000 a day because 22

Maybe I misspoke or you misunderstood me.

not believe this is a high-risk Morrow prospect.

I do

that well wasn't there.

A.

23

24

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- Well, I didn't --Q. 1 This is one of our lowest-risk Morrow prospects 2 A. I've seen in quite a while. 3 You would agree with me that a 660 location, as Q. 4 opposed to the 1650 standard setback, is 60 percent closer 5 to the offsetting acreage to the south than permitted by 6 7 rule? A. Yes. 8 It's 60 percent closer, and you're seeking a 23-9 percent penalty, correct? 10 11 A. That's correct. And you would also agree with me that wells in 12 Q. this pool demonstrate a very rapid decline rate during 13
 - their first years of production?
 - A. That's not correct. The well at 12F has not declined at all in the last 18 months.
 - And is that's because that's what it does when Q. you look at its potential, or is it because of other reasons that the well has not declined?
 - Had it been produced wide open, it probably would A. have been able to do somewhere close to its calculated open flow and, yes, would have had some decline. I don't know the exact decline.
 - Q. Did it experience a pressure decline?
 - Α. Absolutely.

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- Q. A substantial pressure decline?
- A. Substantial would be -- If it was a 300-million well, it would have been very substantial. It's a 6-BCF well. So it had pressure decline, but I wouldn't call it substantial.
 - Q. You saw Texaco Exhibit Number 6, did you not?
 - A. Yes, I did.

- Q. That's the exhibit that compared initial flow rates or calculated open flows against what wells actually did?
 - A. Yes, I did.
- Q. And the data on that exhibit was not incorrect, was it?
- A. Absolutely incorrect. The conclusions that are derived from that exhibit were fallacies because you're comparing first year's production versus calculated open flow, but most of the wells' first year's production were prorated by the Commission, told not to produce what they could have produced.

Had they been able to produce like the Texaco well could have, they would have been able to achieve much closer to the calculated open flow. I have a real problem with that exhibit.

Q. Do we need -- As I recall your testimony from April, there were certain wells that you have looked at in

this pool that experienced as much as a 70-percent decline 1 during their first year? 2 That's correct. A. 3 Q. And that is potentially what could happen at a well 660 from the south line; is that not true? 5 That's correct. 6 7 Q. And you're asking for a 23-percent penalty; is that right? 8 9 A. That's correct. MR. CARR: That's all I have. 10 CHAIRMAN LEMAY: Commissioner Bailey? 11 COMMISSIONER BAILEY: I have no questions. 12 CHAIRMAN LEMAY: Commissioner Weiss? 13 COMMISSIONER WEISS: Yeah, what exhibit was it 14 15 that spelled out the interests in the south half of Section 1? 16 MR. BRUCE: In the south half I believe it was 17 18 Exhibit 2 of Mewbourne's first land exhibit, was Exhibit 2, I believe. 19 COMMISSIONER WEISS: Does everybody agree on 20 that? 21 MR. BRUCE: You'd have to ask Fasken. 22 that's a pretty accurate listing of interests in the south 23 24 half of Section 1. It was based on a title opinion. 25 COMMISSIONER WEISS: That's all I wanted, that's

my only question. Thank you. 1 **EXAMINATION** 2 BY CHAIRMAN LEMAY: 3 Just a quick one on Exhibit 21. 4 Q. Yes, sir. A. 5 What kind of risk factor do you give to Q. 6 Mewbourne's location in the Morrow? 7 That risk factor is not an exact number so that A. 8 we could be multiplied here, but I include this in what I 9 call proved reserve category, which gives me a 90-percent 10 confidence, based on the well control, the size and the 11 strength of the well at 12F and how it spills in. There's 12 always a chance, of course, that it will not happen, but --13 So I would have to give you my best guess is somewhat near 14 15 90 percent. It looks like at a billion and a half you didn't Q. 16 give it any risk factor on that calculation? 17 No -- well, there's some -- I think we could give 18 My hope is now, if we can drill it real quickly we 19 20 might get 1.8 BCF. So maybe that would help clarify the unrisked and the risked. And if we divide those two, it 21 22 may be a little less than 90. I don't know, looking at these economics, whether 23 Q. 24 you even want to --

I know it.

Α.

25

1	Q you want to drill these prospects.
2	A. I know. It looked better a year ago.
3	Q. No, I'm just commenting on your economic
4	analysis, that's Evidently, you don't believe in the
5	geologists' creed that thou shalt not condemn another
6	geologist's lousy deal.
7	A. There Yeah. This is still an interesting
8	prospect. We are still here wanting to drill this well.
9	We're very very much so, want to drill this well at this
10	location, as soon as possible.
11	CHAIRMAN LEMAY: The only questions I have. Any
12	other questions of the witness?
13	MR. BRUCE: No, sir, I
14	CHAIRMAN LEMAY: If not, he may be excused.
15	MR. BRUCE: I think we're through, Mr. Chairman.
16	CHAIRMAN LEMAY: Are we ready to conclude? Let's
17	close.
18	MR. CARR: I'm ready for closing.
19	May it please the Commission, in my closing I'm
20	only going to address the two parts of this case in which
21	Texaco is interested: the Mewbourne unorthodox well
22	location and our request for clarification of the rules.
23	As to the Mewbourne location, I would submit this
24	is really a relatively simple case. It's a correlative-
25	rights case. Mewbourne is proposing a well that is too

close to the offsetting tract under the applicable pool rules, and we believe they will gain an advantage on us as the owner and operator of offsetting Section 12.

2.2

We're in one reservoir. Mr. Montgomery and Mr.

Uhl have agreed on that. The wells -- A well at their

proposed location, at the Texaco Levers Number 2, will

compete for the reserves. Mr. Montgomery and Mr. Uhl agree

on that. And there can be no dispute that they're 60

percent closer than authorized by the rules. And so we

object, and we're seeking a meaningful penalty.

The Mewbourne location was drilled for one reason. They wanted to be as close as possible to the Texaco tract. That's what Mr. Williams testified, that's what Mr. Montgomery testified, that's what they've asserted in the complaint they filed in the lawsuit related to this matter in Midland, Texas.

What we have is a classic case of closeology.

And all the science that they have offered is information that they have developed after they picked their location, in an attempt to justify being 660 feet from our lease line. In fact, we submit the evidence for that location is quite thin.

When you look at the geology, we have three -- or four interpretations. We have Fasken's, we have Texaco's, and we really have two from Mewbourne because, you see,

evaluated their geological interpretation and came forward with a new map that, when you look at it, really isn't mapping the reservoir; it's mapping reserves. And it is adjusting the data in an effort to present something that they can sell to you here today in this hearing.

They then recently have prepared some volumetric work. I think it's important to remember that volumetrics can only be as good as the underlying data. We have such a wide variety in geology it's hard to know where you start, but that's where you have to start when you do a volumetric study.

We look at porosity and there's six wells, but there are only really two wells that give you valid information as to porosity. And as to thickness of the reservoir, you really key off the Levers Number 2. You have one point.

We've had a number of witnesses, they argue the geology, they argue the volumetric work, they argue their interpretations.

Look at the Mewbourne volumetric interpretation,
Mr. Montgomery's map. He had to go and arbitrarily draw in
some drainage areas after he had allocated reserves in
various zones, based on the best data available. But the
problem is, the production has been commingled.

And when you start looking at the way they've allocated production between zones and you compare it to the pressure information, it just doesn't wash.

And then after they allocate the reserves, the map -- and you look at the way they've mapped the drainage areas, they don't even line up. They're not even consistent with the geological contours. There's just not enough data to do this right.

There's also disagreement between the witnesses before you as to what zones actually produced in each well.

But in the midst of all this disagreement, there's one thing they agree on. We're not going to know what we have until we drill a well. We're not going to know the porosity, we're not going to know the thickness in Section 1, we're not going to know the ability of the well to produce.

And so we go and we have to look at a penalty.

I think that when Mr. Bruce and Mewbourne argue, Well, there are other wells in the pool that aren't penalized, that begs the issue. This is the first time someone in this pool has been encroaching on their neighbor and the neighbor says, No, you're impairing my rights, we go to hearing.

So this is the first case where that's happened.

Density is a false issue. You can pick parts of

the reservoir and say, Oh, yes, well, they're on 320-acre spacing or Penwell's on 320-acre spacing. The issue is, are they too close to us? Are they trying to obtain an opportunity, not to produce their share of the reservoir, but ours?

And so those are the issues.

And when we don't have data on the well, when we're working in this kind of environment, we do have to go to general assumptions. We know they're 60 percent too close. We know the wells decline at 70 percent during their first year of production.

And for that reason, we tried to come up with a proposed penalty, based on some general assumptions, the only things we really know, how many acres they have and how close they are. Because unfortunately, we impose penalties before wells are drilled, and that's all we have to work with.

And yes, they are 60 percent too close, but we looked at that alone and that doesn't work. That's why we added the acreage factor.

And so they say, Well, that's, you know, playing a game with us. If you think we've got too few acres, so does Fasken.

Well, Fasken is not encroaching on us. They're more than a standard setback. And it would be simply

ludicrous for us to come in here trying to produce two wells in Section 12 and complain that they only have half a section.

The only reason we added the acreage factor to the formula for the penalty that we're recommending on the Mewbourne well is that without that factor in that formula, the formula, the penalty that results, is no penalty at all.

Now, we can look at what Mr. Montgomery presented this morning, and we can look at what we argued yesterday about the no-flow boundary. But when we look at what actually happens in this pool, if they're 660 from and we're 2448 from them, there is 894 feet of additional drainage on us. And that's assuming all things are constant.

But Mr. Montgomery admits that the reservoir gets better to the south, and there may be preferential drainage that way, and it will be elliptical, not radial. So we could be in a worse situation than what this no-flow boundary example portrays.

But we have to work with general assumptions, and so that's why we've recommended this penalty. We think it's meaningful, we think it will impair correlative rights, and we know it's very heavy.

But when you look at the data, if you have a very

heavy penalty on a proposed location, that's the time that you don't look at draining your neighbor, but you may look at a better location on your tract. And that's a decision not for the Commission. The decision for you is, are they encroaching? It's a decision not for Texaco. It's a decision for them after they know what kind of a penalty they may be looking at. Then they can decide what they want to do.

Now, as to the clarification of the pool rules, I don't really think there is a question that we're in a 640-acre-spaced pool, that you need to drill 1650 feet from the outer boundary.

But there truly is confusion about the effect of current prorationing rules on other rules governing the development of the Catclaw draw, and the current posture of these prorationing rules as they impact certain memos and other policies of the Division. I'm not going to go into it in detail, but this is where the rules stand.

The pool was prorated and created back in the early 1970s, and it was from the beginning developed on 640-acre spacing with 1650-foot setbacks.

But for a period of about 18 months, from 1980 to 1981, we reverted to statewide 320-acre spacing, and there were problems with that. And so in the application of Tenneco in 1981, we went back to 640-acre spacing. And the

order that was entered in that case authorized a second well on each of these 640-acre units.

Then we have kind of a break in the orders. We have an order that creates special pool rules, but then that order is also incorporated into Order R-1670, the old prorationing order.

And then we come along, and in 1986 we recodify, in essence, those old prorationing rules. We get rid of 1670, we adopt Order 817. And what we do is come forward with some new pools that are attached to the general order, and they're silent on a second.

But in the meantime, we've had this -- what we now know -- or recently, at least, are calling the one-well rule. It springs from certain memos that you prepared, Mr. LeMay.

And so following the recodification of prorationing, and during that following period, if I understand what we were told in the memos and meetings with Mr. Stogner, is that because of these memos and the one-rule policy, you could still, even if the rule, general prorationing rules, didn't authorize a second one, you could still drill a second well because of the one-well rule.

Then we -- And Devon had a well, they did it, they did not get an exception, they weren't required to.

Then we come along, and there was a case in 1995 to suspend prorationing. And we suspended prorationing, you did, because -- based on testimony that basically said there are no wells in this pool that are allowable-restricted, so why have it?

And yet there was concern that there is a value to maintaining prorationing within the overall umbrella of this regulatory agency. And so instead of saying we're going to terminate prorationing, then we'd be in an unprorated pool, like Mr. Bruce was talking about this morning, we would be under Rule 104.

But you didn't do that; you suspended it. Which suggested to me, and I think to others, that it wasn't abolished, but you weren't going to set allowables until we got into a situation where allowables became meaningful again.

So we had suspension of prorationing. The Division calls the pool technically prorated.

And then we find that because we're technically prorated -- I'm not trying to play games. This is typical of pools with long histories, with all kinds of development issues that evolve over 25 or 30 years. But we now find ourselves where we're in a technically prorated pool, as opposed to a prorated pool, and that because technically prorated may mean nonprorated, then the one-well rule

doesn't apply.

And so consequently, for the first time here is an operator, Texaco, who drilled a well, got an APD approved, not by you but by the BLM, but after they've been producing the well and after offsetting developments were told, Shut it in, you're in violation of the one-well rule.

One-well rule comes from memos that are issued -two memos issued by Chairman LeMay. And memos have been
used in the past by Directors. They are generally
statements of the position of the agency that are not
elevated to the level of a rule.

When Joe Ramey was director of the Oil

Conservation Division and we were looking at substantial

curtailment of gas production, he issued a memo that set

priorities for curtailment. You shut wells in. Where you

had wells that would suffer damage, they were last. And

it's something that you don't put in a rule but really

defines the policy of the agency.

And so in the late 1980s and early 1990s when there were some real disputes going on between operators about second wells on spacing units, those memos were issued to clarify the position of the Division. They're not in the rule book. And if you get the rule book from the agency, they're not in the rule book. You have to have been here, and you have to know.

And so that's why that, I think, contributes to the confusion that we have.

And so we went out, we drilled a well. We drilled a second well. We thought we were all right. We got an approved APD.

And then we came to this hearing where we were opposing a location encroaching on us, and what did we get? Well, you denied the location at the Examiner level, the Division level, that we objected to. But we also were called over for a meeting and told we needed to shut in a well. And we have done that, and it is costing us \$1000 a day.

And the bottom line is that when we went back through the rules, we couldn't find anything that grandfathered in other operators but they're not being asked to go back and get exceptions to the rules.

And we find that we are the only operator in this pool who is now subject to the one-well rule; we are operating the only tract on which, because of this rule, we have to shut in a well; and we've got the only well in the pool that's shut in because of the one-well rule.

And we think it's because there is confusion about how the prorationing system relates to the pool rules. We're confused, we admit that. Mewbourne, we think, when we cross-examined Mr. Montgomery, there's

confusion there. The BLM is confused about it as well.

And so what we're here requesting is that you authorize -- you clarify the rule.

I cannot believe that use of the term "suspending prorationing" was intended to mean you could change the development requirements in pools as part and parcel of that suspension. I can't believe that was the Division's intention. If that was the intention, you should have just deprorated the pool.

We read it as no allowables until allowables will be meaningful again. And keeping that in reserve so you can reinstate it if you get a very good well, and it's time to reprorate.

But where we stand right now is as -- we've shut in a well because you asked us to do it. We weren't ordered to do that. There were meetings with you, your staff, about it. And we're losing \$1000 a day.

And if we have to wait until an order following the next hearing -- by my calculations that's December the 11th, 41 days from now -- we will have suffered a \$70,000 penalty because we were confused, along with others, about the one-well rule and how it relates in a technically prorated pool as opposed to a prorated pool.

And so we're asking for clarification. I suggest that clarification is important, not just to Texaco but

overall, because you've suspended prorationing in four or five other pools.

And the real question is, if you suspend prorationing and it wipes out, you know, the development requirements, it triggers a one-well -- Maybe it wipes out all spacing requirements. Maybe it wipes out everything. And you're stuck under statewide rules. It's an important issue, and we would request that you clarify that.

And we furthermore would request that since we're not under an order that requires us to shut in, that the Commission immediately authorize us to return the Levers Number 1 to production. It's not in the zone we're fighting over; it's in the "A" zone.

And to require that to be shut in under the -- in these fact circumstances we think is punitive, we think it's arbitrary, we think it's capricious. We think it's an unreasonable response from an agency when all we come and ask for is, we've asked you to exercise your statutory prerogative, and that is to impose a penalty on someone really close if you believe they're gaining an advantage on us.

And so that's why we're here today.

Thank you very much.

CHAIRMAN LEMAY: Thank you.

Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Chairman.

I'll ask you to find Texaco's Exhibit 7. It's a spiral notebook with a number of items that Texaco has provided for you. I'm going to look at a couple of these items with you.

I want to find Mr. Stogner's letter contained in here, and I believe it's under Tab 12. If you'll look through the content of the letter, you can start down at the bottom of the first page, and you find some information concerning the prorated gas pool Catclaw Draw-Morrow, under Division Order R-8170.

And as you read through Mr. Stogner's memo, you get over to the issue that Mr. Carr has talked about. It says, "Although technically classified as a 'prorated gas pool', gas prorationing was suspended..." And he referenced some other orders for you. And as you continue to look through the memo, you see references to prorationing orders.

Those references, in my opinion, have caused Mr. Stogner to forget about something that's very important.

When I was admitted to practice before this

Commission and before the courts of the State of New Mexico

back in 1968, we took an oath and an obligation to

represent our clients as diligently as we can, to the best

of our ability. But we took a higher oath that day, and

that was to help the courts and the Commission of this New Mexico State to avoid making legal mistakes and errors.

It doesn't matter to Fasken what you do about this Texaco problem; this is Texaco's problem. But I feel obligated to tell you, I think Mr. Stogner's letter is absolutely wrong. And here's why.

If you'll turn back to the front cover, you're going to find the history of Catclaw Draw summarized for you. I lived this history. I was the attorney responsible for Tenneco when we got the spacing changed to 320.

I was overwhelmed with the quality of their geology and their engineering work with regards to this reservoir, and I failed to recognize in that excitement over their technical case that we were making an error in judgment about the ownership of those spacing units. And once we realized that, I came back and helped fix the mistake I helped make.

And that's why we have continuing jurisdiction of this agency. Mr. Stogner has made a mistake, and we need to fix it.

Here's the mistake. When you look at suspending or terminating prorationing, what happens if it's terminated? Do you go back to the statewide rules? Only if there are not special rules in place for the pool. And do you find? There are special rules in this pool. Mr.

Carr has got them outlined for you. They have a different series number, and that is significant.

When you look at the proration order, it is Order 4704. When you look at the order number sequence for all the rules in this pool, they're under 4157, and they go A, B, C and D.

Bear with me. If you'll go back now, look at the memo that -- under Tab 9, if you'll turn to Tab 9. You're going to find the new prorationing order. It's Order R-8170, and it has replaced proration order 6170. If you turn to the first page, there's a header. Texaco has provided a copy of this rule out of Byram's.

I've worked with Byram's book for more than 25 years. I'm not sure I have ever found a mistake in the way they edit and compile that book. It's a reliable reference tool, we consistently utilize it in this industry, the lawyers, the engineers, the landmen, we use this rule -- we use this book to see the rules.

Look at the header, look at the references they give you on what they did in 8170. I simply cannot find any reference to the fact that Order R-4157-D, which reestablished 640 spacing in Catclaw Draw, with an optional second well, has ever been terminated or suspended.

So when you talk about this notion that in a prorated pool you can have multiple wells, I think you're

misdirecting your attention. You need to look at the fact that the underlying special rules and regulations for this pool provide you with those rules. And the rules are as we've discussed, 640 gas spacing, 1650 setbacks, and an optional second well.

When you look at another reference in Byram's, you can turn to the special rules they keep. It's under Volume 2, it's found at page 380, and if I'm looking for Catclaw Draw Pool rules I'll look at page 380.

And what do I find? I find under that rule I can have 640 gas spacing. My initial well, under Rule 2, my initial well has to be no closer than 1650 from the side boundaries. And they have a Rule 2B. It says the second well. This is what we have to work with. There's nothing wrong with this rule. Mr. Stogner simply misinterpreted what he was doing and overlooked the rule.

I'm here representing Fasken today. But there's another Fasken case. There was a Fasken case in 1975. It went to the New Mexico Supreme Court. And the reason the Supreme Court agreed with Fasken in their appeal of a Commission order was the fact that that order did not contain reasons and findings that the Commission could explain their decision.

The Supreme Court of New Mexico in the Fasken case requires you to give us findings that explain your

reason and your conclusion. We have given you your jurisdiction in this case.

Your jurisdiction is to protect correlative rights and prevent waste. This case has nothing to do with the ownership interest in the spacing unit. This is not compulsory pooling. It is not your responsibility to interpret the operating agreement. You need to look at your jurisdiction.

If you are trying to decide this case using the Division guideline for compulsory pooling resolutions of disputes, you're using the wrong outline. There are components of this case that give you the flavor and the feel of force pooling. We have competing well locations. But that's not the topic here.

The topic here is a well that's at an unorthodox well location.

In making those decisions and findings, if you're going to make a decision about who has how much of an interest in the spacing unit, you're making the wrong decision.

If you're making a decision based upon who proposed the well first, you're making the wrong decision.

If you think you can remember what the 1956 operating agreement that was adopted by these parties means, you're making the wrong decision. The 1956

agreement by industry, agreement, has been modified in 1970, 1980, 1982, 1989. There's substantial differences of opinion and agreement about that contract. I urge you to avoid, in your decision process, any of those contractual issues. It matters not who proposed the well or what percentage interest they may have. That's a matter of contract dispute in litigation.

The correlative rights has brought this case before you. Had the Fasken Application not been rolled into the Mewbourne location exception, Fasken could have their Application approved administratively. We could have had this approved administratively. There is no opposition to our location, and in those circumstances the custom and practice of the Division is to approve that Application. You don't have to make a decision based upon recoverable gas, you don't have to make a decision based upon which well would be profitable. The Division need not engage in that topic.

Texaco advances the notion that somehow -
Mewbourne advances the notion that somehow Texaco has

produced illegal gas. That's absolute nonsense. It

doesn't work, it's a bogus argument, and I suggest that you

make a serious mistake if you find according to that

argument. If you make that finding, please tell us so that

we know that's how you decided the case.

The geology is complicated. We've had four geologists give you various opinions. You may decide this case based upon how you've decided unorthodox well locations in the past. You look at the magnitude of encroachment toward the party to whom the objection has been raised. We have done this for years. We started off trying the double-circle penalty formula, we've tried to do it based on productive acreage, we've done it on a footage encroachment. I suggest to you that there's an opportunity to continue to do that here.

But sometimes truly the simple answer is the best answer. How are you going to craft and construct a penalty in this case that is any way going to be meaningful? The simple answer is that you deny the unorthodox location for which there's opposition. That is consistent with Division practice. When they are faced with these cases at the Division level, if there's a location encroachment at an unorthodox location, the test is whether or not there exists an alternative location that is standard to the party who has raised the objection.

We have demonstrated to you in this case that there are multiple options for which there is no objection.

We ask that you deny the Mewbourne Application, approve the Fasken Application, and affirm what Mr. Stogner did at the Division level. We think it's an appropriate

solution, it's a simple solution, and it's a fair solution and it's what we ought to do in this case.

Thank you.

CHAIRMAN LEMAY: Mr. Bruce?

MR. BRUCE: Mr. Chairman, members of the Commission, as I understood the Commission's ruling yesterday, it said it would look at geology and engineering, so I'll address that first. And there were different geologic interpretations, but let's look at Fasken's first.

They admit it, that their well is a wildcat well in the Morrow and in the Cisco. They claim they want to drill the Cisco in order to reduce risk. However, their location in the Cisco has only a 10-percent chance of success, and the Morrow location they choose is directly between a dry hole in the Morrow and a noncommercial well in the Morrow. It doesn't reduce risk; it increases the overall risk.

The seismic they rely on has never found a satellite Cisco pool, and what we're here looking at is maybe a 75-foot event with 70 to 90 feet of error. That's just not worth going after.

I would point out that Fasken's location is opposed, by Mewbourne, just like Mewbourne's location is opposed by Fasken.

And to merely approve Fasken's location because of Mr. Kellahin's claim to no opposition would violate Division memo 3-89. It states that unorthodox locations will not be granted merely because they are unopposed.

Let's look at Mewbourne's geology. First of all, Mewbourne has the most experienced geologist in this area, and his geology best honors the well control. As far as the trend in this area of the Morrow, I think all you have to do is look at the simple production map, Mewbourne Exhibit 8. Look at that. It's north or north northeast. It's as simple as that. Based on that alone, you can see that Mewbourne has the better geology. That geology shows that Mewbourne's well is a development well and minimizes the risk.

Now, as to the main objective, the Mewbourne location, the Mewbourne map did change somewhat from the original hearing. That was based on data that we had to subpoena from Texaco, which they would not voluntarily turn over, which they did turn over to Fasken, and which proves the limited extent of this reservoir to the north.

If you accept Mewbourne's geology, then Section 1, the south half of Section 1, is being drained right now.

Texaco's geology generally agrees with

Mewbourne's interpretation, except they claim there's a

substantial reservoir to the north of Section 12. That

doesn't pan out. There is no commercial well to the north of Section 12.

Everyone agrees that the Morrow is the primary zone in this area. What you need to do is approve the best Morrow location and not look at the highly speculative Cisco/Canyon.

Now, as my opposing counsel are fond of quoting correlative rights, I'll quote it once in my closing argument. That is the opportunity to produce reserves under a tract. Now, in order to do that, you need to calculate the reserves under each tract, and Mewbourne is the only party to this proceeding that presented that evidence. This is based on a substantial well control in this area. Again, look at Mewbourne Exhibit 8. It's not often that you have this type of well control in an area.

Mewbourne calculated the original gas in place, the remaining reserves, went through the pressures, permeabilities, porosities. They found that the south half of Section 1 is being drained right now. And its correlative rights, the correlative rights of all interest owners in the south half of Section 1, are being impaired by the Levers Well Number 2. Based on that, Mewbourne needs to drill a well without penalty to prevent further drainage.

Now, one factor comes in: this fault. Maybe it's

there, maybe it's not. But if it is there, then the drilling of Mewbourne's well would have little or no effect on the Levers Number 2 well. Once again, another reason for no penalty.

Let's go into Texaco's Application for a minute.

As Mr. Carr said, the drilling permit was from the Bureau of Land Management; it wasn't from the Oil Conservation Division. But as to the memos as to rule changes, the Division sends out these memos and rule changes to operators with its bi-weekly docket sheets.

It's the operator's responsibility to read those and comply with the rules. The Division shouldn't have to write a letter to every operator on every well, explaining what they have to do with respect to that particular well.

These agency memos, although they are not formal rules, are in the *Byram's Reporter*, which I, Mr. Carr, Mr. Kellahin and most operators have in their possession. Now, we think the rules are clear, the pool rules; it is a 1650-foot setback. Is it one well or two wells per section? The latest pronouncement by the Division only provides for one well per unit. A later order supersedes the prior order.

Finally, Rule 104.D.3, you can only have one well per unit in an unprorated pool. We're getting into the term "technically prorated". As Mr. Uhl said, prorated

means there's some production limitation. There is no production limitation on the Catclaw Draw-Morrow Pool. Whether you want to use the word "technically" or "effectively" or whatever, this pool is not prorated.

But what Texaco wants is, they say, Strictly enforce the setback rules against Mewbourne, but excuse us from compliance with all the other rules. Why? So they can produce 2.2 to 5.5 BCF out of their Levers Number 2 well without competition. That's not fair. Either you enforce both rules, the one well per section and the setback, or you grant exceptions to both.

Texaco claims it's losing \$1000 per day. I suppose in current revenue, yes, but that gas is still in the ground.

Now, Mewbourne, what they want is to drill a well. If they can drill their well, then they don't really have any opposition to what Texaco seeks. If they can drill their well without a penalty, in essence developing the pool on 320 acres, just like Texaco says, then they don't have any problem with what Texaco wants.

Now, if you look at the factors as in a pooling case, then I think Mewbourne Oil Company wins. It has the largest interest in the well, it's shown the best geology. Furthermore, we wouldn't be here today if it wasn't for Mewbourne.

Fasken hadn't even looked at a well in the south half of Section 1 until it received Mewbourne's proposal in January of 1997, even though it had owned that interest for decades. David Fasken was a signatory to that operating agreement 25 years ago.

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Now, what about a penalty? As our witnesses have stated, they're being drained or, in the alternative, they're on the downthrown side of a fault. Either way, we don't think a penalty is necessary.

Rule 104.G says the Commission can take such action as is necessary to offset any advantage gained over offset operators by an unorthodox location. Now, to determine this the Commission should look at permeability, remaining reserves, structure, productive acreage, pressure, any similar factors. You can't just look at footages as Texaco would have you do. That ignores the massive amount of geologic and engineering data in this pool.

No one else in this area is penalized for any wells that are currently at what are not orthodox locations in this pool. What Mewbourne is proposing will result in approximately two wells in a one-section area, as, if you look at Texaco's map or any other map, there are many areas where there are three, four, five wells in a one-section area. We don't think, in this case, any advantage is

gained by Mewbourne, and a penalty is not necessary.

Two final issues. They Commission ruled yesterday that they will look at Fasken Oil and Fasken Land as the same entity. Just for the record, I have to disagree. They are different entities. Fasken Oil doesn't own an interest, it can't be an operator under Rule 1203 because it has no interest in the south half of Section 1.

Furthermore, Case 11,755 was improperly noticed under Rule 1205. Fasken Land had six months to correct that. It took no action. That's not Mewbourne's fault.

As a result, we believe that case should be dismissed.

Now, Mr. Kellahin just got up here and says,
Well, you can't use force-pooling principles in looking at
this case. Well, if you don't then you look at the
operating agreement, which is what I was arguing yesterday.
And as I noted yesterday, if you do look at that operating
agreement, then the only proposal on the table is
Mewbourne's. And that's what should be approved.

We ask the Commission to approve the Mewbourne location and either deny the Fasken Application at this time, or approve it with the stipulation that Mewbourne's well was drilled first. That decision is in harmony with the operating agreement. What Fasken would have you do is issue a decision contrary to the operating agreement.

If you approve the Fasken well and deny

Mewbourne's location, then you're condoning Fasken's 1 manipulation of the operating agreement. 2 Again, we ask that you reverse the decision of 3 the Division's Order and grant Mewbourne's Application. 4 Thank you. 5 CHAIRMAN LEMAY: Thank you, Mr. Bruce --6 MR. BRUCE: One final thing, Mr. Chairman --7 CHAIRMAN LEMAY: Go ahead. 8 MR. BRUCE: -- I did receive a letter from ICA 9 I won't mark it as an exhibit. It is a letter in Energy. 10 11 support of Mewbourne's Application. ICA Energy is the 12 party that farmed out to Mewbourne. I believe a copy will be sent to the Division. 13 CHAIRMAN LEMAY: Okay, does that conclude your --14 15 MR. BRUCE: Yes, sir. CHAIRMAN LEMAY: Are there any other statements 16 in the case? 17 I want to huddle just for a couple minutes before 18 we conclude on this, if I can. 19 MR. KELLAHIN: Would you like us to leave the 20 room so you can talk about this? 21 CHAIRMAN LEMAY: Well, our deliberations are 22 public; I don't think we need to leave the room at all. 23 We 24 can just come over here, just for a second. 25 (Off the record)

CHAIRMAN LEMAY: Okay, we have a preliminary ruling here which states that Texaco can turn on their well effective immediately, the second well, pending the final rule that comes out from the Commission. MR. CARR: Thank you, Mr. Chairman. CHAIRMAN LEMAY: Also, we will -- Is there anything further in the case? I guess I asked that. We will leave the record open for five days and then close the record and take the case under advisement. MR. CARR: Thank you. CHAIRMAN LEMAY: Thank you very much, excellent presentation. (Thereupon, these proceedings were concluded at 12:00 noon.)

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 Commission (Volume II) 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 November 14th, 1997.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 1998