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NEW MEXI	CO OIL CONSERVATION COMMISSION	
	EXAMINER HEARING	
	SANTA FE , NEW MEXICO	
Hearing Date	DECEMBER 19, 1990	Time:8:15 A.M.
NAME	REPRESENTING	LOCATION
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STATE OF NEW MEXICO 1 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 2 OIL CONSERVATION DIVISION 3 4 IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION 5 DIVISION FOR THE PURPOSE OF CONSIDERING: 6 CASE NO. 10177 7 APPLICATION OF BTA OIL PRODUCERS FOR UNORTHODOX OIL WELL LOCATION,) EDDY COUNTY, NEW MEXICO 8 9 10 REPORTER'S TRANSCRIPT OF PROCEEDINGS 11 EXAMINER HEARING 12 BEFORE: MICHAEL E. STOGNER, Hearing Examiner 1.3 December 19, 1991 2:22 p.m. 14 Santa Fe, New Mexico 15 This matter came for hearing before the Oil 16 Conservation Division on December 19, 1991, at 2:22 p.m. 17 at the Oil Conservation Division Conference Room, State 18 Land Office Building, 310 Old Santa Fe Trail, Santa Fe, 19 New Mexico, before Maureen R. Hunnicutt, RPR, Certified 20 Shorthand Reporter No. 166, for the State of New Mexico. 21 22 23 FOR: OIL CONSERVATION BY: MAUREEN R. HUNNICUTT, RPR DIVISION Certified Shorthand Reporter 24 CSR No. 166 25

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2	APP	E A R A N C E S
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1	EXAMINER STOGNER: This hearing will come to order.
2	Call next case, No. 10177.
3	MR. STOVALL: The application of BTA Oil Producers
4	for an unorthodox oil well location, Eddy County,
5	New Mexico.
6	EXAMINER STOGNER: Call for appearances.
7	MR. CARR: May it please the examiner, my name is
8	William F. Carr, with the law firm of Campbell &
9	Black, P.A. I represent BTA Oil Producers, and I have two
10	witnesses.
11	MS. AUBREY: Karen Aubrey with the Santa Fe law firm
12	of Kellahin, Kellahin & Aubrey. I represent Bird Creek
13	Resources, Inc., and I have no witnesses.
14	EXAMINER STOGNER: Any other appearances?
15	(No response.)
16	EXAMINER STOGNER: Will the witnesses please stand
17	and be sworn?
18	(The witnesses were duly sworn.)
19	EXAMINER STOGNER: Mr. Carr.
20	MR. CARR: At this time we call Mr. Logan.
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1 KEITH E. LOGAN, the Witness herein, having been first duly sworn, was 2 examined and testified as follows: 3 DIRECT EXAMINATION 5 BY MR. CARR: Will you state your full name for the record, Q. 6 7 please? 8 Α. Keith E. Logan. 9 Q. Mr. Logan, where do you reside? Α. Midland, Texas. 10 11 By whom are you employed and in what capacity? Q. For BTA Oil Producers as a reservoir engineer. 12 Α. 13 Q. Have you previously testified before this 14 division and had your credentials as a reservoir engineer 15 accepted and made a matter of record? 16 Yes, I have. Α. 17 Q. In fact, you testified in hearings earlier in 18 an examiner hearing in March of this year concerning 19 development of the tract which is involved in this case; is that correct? 20 Yes, I did. 21 Α. 22 Q. Are you familiar with the application filed in 23 this case on behalf of BTA? 24 Α. Yes, I am. 25 Are you familiar with BTA's efforts during 1990 Q.

for the development of the 40-acre tract on which this 1 proposed well will be located? 2 Yes, I am. 3 Α. Are you familiar with this 40-acre tract? Δ 5 Α. Yes. MR. CARR: Are the witness's qualifications 6 acceptable? 7 EXAMINER STOGNER: Are there any objections? 8 MS. AUBREY: I have no objection. 9 EXAMINER STOGNER: Mr. Logan is so qualified. 10 (By Mr. Carr) Mr. Logan, would you explain 11 12 what BTA seeks with this application? 13 Α. We seek to drill unorthodox location 611 feet from the south line 1,504 from the west line of Section 11 14 15 of 23 South, 28 East in Eddy County to the Loving-Delaware 16 east pool. 17 Will you refer to what has been marked as BTA 18 Exhibit No. 1, identify that and review it for the 19 Examiner? What this is, is it's really an expanded copy 2.0 Α. 21 of the U.S.G.S. topographic map, which we used also in the 22 March 7th hearing. There have been a few additions 23 because there have been some other things going on here,

and I just want to point those out and get you oriented as

to what we're talking about.

24

If you look up towards the, oh, top center part, you see the number 11. That is the center of Section 11. The scale of this map is one inch equals 500 feet. The smaller red outline is showing the 40-acre tract which we are here to discuss today.

Q. That's the southeast of the southwest; is it not?

A. Correct.

Now, also what I've got on there is, I've got two triangles, which No. 1 was the location we attempted to stake. The No. 2 was another one we attempted to stake, but they were in canals coming off the Pecos River. As you can see, right there in the middle of the tract is the main course of the Pecos River.

- Q. Now, you attempted to stake the wells that are indicated by the triangles in the Nos. 1 and 2. That's prior to the March hearing; is that right?
 - A. That is correct.
 - Q. All right.
- A. And also on this map, I've shown the location which we drilled, the "C" No. 1, which is the square within that, the little red square within that proration unit. That was what was approved, based on the hearing March 7th, and we subsequently drilled that well. We're asking today for the proposed location which is in the

circle, the red circle.

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- Q. What does the blue square in the center of the 40-acre tract indicate?
- A. The blue square, I've just outlined the area which would be a standard location within this pool. In other words, 330 from the outer boundary of that proration unit.
- Q. Now, have you added the railroad right-of-way to this plat since the March hearing?
 - A. Yes, I have.
- Q. What is BTA's primary objective in drilling wells on this 40-acre tract?
- 13 A. It's completing the Delaware formation.
- Q. Is this the undesignated East
- 15 Lovington-Delaware pool?
- A. East "Loving-Delaware" pool.
- Q. What are the spacing requirements for wells in that pool?
- 19 A. 40-acre spacing.
- Q. And what are the setback requirements from the outer boundary of the tract?
 - A. 330 feet.
- Q. How far from the Bird Creek acreage to the south is the proposed location?
 - A. We're 611 feet.

What are the allowable rates for this pool, do 1 0. 2 you know? 3 Α. 142 barrels a day. I guess at this point I should ask you why has Q. 4 5 BTA proposed now with the four wells indicated on this 40, why has BTA proposed to develop this tract with wells 6 7 proposed at unorthodox locations? Well, from the topo map, as you see the blue 8 9 outline showing what is unorthodox location, and there are 10 several topographic problems there, and I think some of 11 them are quite obvious. 12 0. Why don't you just go through the topographical 13 conditions on this 40-acre tract for the Examiner? 14 Α. Okay. The problems: You've got the Pecos 15 You've got --River. 16 That runs through the center of the tract. Q. 17 Α. Runs through the center of the tract, yes. 18 You've got canals coming off the Pecos River. 19 You've got low-lying areas of flood planes in the area. 20 Q. These are the areas shaded in yellow? 21 Yes. Α. 22 Q. And are these areas that were drawn from, what, 23 BLM maps? 24 Α. U.S.G.S. 25 Q. U.S.G.S. maps, all right.

A. Right.

- Q. And what else?
- A. You've got the railroad running through there, and then on the western side, which I've shown in a dashed line, is El Paso pipeline which ties into another El Paso pipeline in the northern part of the acreage.
- Q. Are there also some general bluffs and other surface conditions?
 - A. Correct.
- Q. I think it might be appropriate at this time, Mr. Logan, to review for the Examiner the efforts BTA has undertaken this year to develop this 40-acre tract.
- A. All right. Early this year we decided to go ahead and develop this 40-acre tract. We made application to the commission and had the hearing March 7th for approval of that location because we were opposed by Bird Creek Resources.

We received an order from that hearing that we felt was an equitable penalty assessed, so we spudded the well. And right after that Bird Creek filed for a de novo hearing, which was held June 21st, and the results of that hearing were the 47 percent penalty was assessed for the life of the property.

Q. Okay. And what did this -- What happened after that penalty was assessed?

- A. Well, after that we had several in-house
 meetings trying to find a way to develop this. We knew
 the area was capable of top allowable. I don't think that
 can be denied. And we had considerations of that
 potential from royalty owners, since Amoco, Kerr-McGee and
 Teledyne are all royalty owners on that lease, and just
 decided to evaluate other possibilities.
 - Q. And what you have today is another possibility you're proposing for development of the tract?
 - A. Correct.

- Q. Now, at the time of the March 7 hearing, a geological witness was called and presented several exhibits. Is geology -- does it play any real factor in determining whether or not you can make a successful well out there?
 - A. No, I don't believe it does.
- Q. And you're not intending to presum -- represumpt (sic) the geologist today?
 - A. No, I'm not.
- Q. Now, at the March 7 hearing, Mr. Logan, did you testify that the Pardue "C" No. 1 well was the only location on which a well could be drilled on this 40-acre tract?
 - A. Yes, I did.
- Q. How do you reconcile that statement with the

proposal that you have brought to the oil conservation division today?

- Well, in my opinion it is the only good If I were to go out there again today, that would be the location I would choose.
- 0. How does the location that you're discussing today compare to the original location?
- Well, it's moving north. It's only encroaching Α. on BTA, not Bird Creek Resources.
- Q. And to drill a well, if you're permitted to at this location, what will BTA have to do?
- Well, we'll have to spend more money because in the area of the location, you've definitely fallen off from the location we originally drilled approximately 20 feet to an area that I believe is susceptible to flooding, and we would have to build a pad to get it above what we feel is the surface location and take some precautions in the event of flooding too.
- To ensure that there are no environmental Ο. problems?
 - Α. Correct.

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- Q. If the water rises in that area, will you have 23 to shut the well down for a period of time?
 - Α. Oh, I'm sure that would be the case.
 - Q. In your opinion if these additional precautions

are taken, is it possible to drill a well at that 1 2 location? It's possible. 3 Is BTA going to call Mr. Wilkinson to testify 4 0. in detail about the measures and the kinds of monitoring 5 that will have to be required? 6 7 Α. Yes. And will Mr. Wilkinson be available to explain 8 Q. why directional drilling has been ruled out as the 9 10 possible way for developing the tract? 11 Yes, he will. Α. 12 Can you identify what has been marked as BTA Q. 13 Exhibit No. 2 and just identify what that is? 14 All this is, is the "C" 101, "C" 102, just Α. 15 showing the proposed location. 16 Q. And that just shows the surface survey location 17 of where you're proposing the well? 18 Α. Correct, correct. 19 And this well will be unorthodox in what Ο. 20 respect? 21 It will be moving closer to the west line of 22 the proration unit. 23 Q. And who is the operator of the tract to the west? 24 25 Α. BTA.

And do you have the same royalty owners under 1 the tract to the west as in the 40 that's involved in this 2 case? 3 Α. Yes, we do. 4 5 Can you explain to the examiner why this particular location on this 40-acre tract is being sought? 6 7 Α. What we're tying to do is be as high as we 8 possibly can and still be far enough away from the pipeline. 10 There's an existing well on the tract, the 11 Pardue "C" No. 1, the well that was approved earlier this 12 year? 13 Α. Yes. What is that -- the current status of that 14 15 well? Is it producing? 16 It is producing. 17 Q. And if this application were to be granted, what would BTA do with the "C" No. 1 well? 18 19 Α. We would convert it to salt water disposal. 2.0 Q. In your opinion will the well's proposed 21 location impair the correlative rights of any interest 22 owner in the pool? 23 Α. No. 24 Q. How far from the Bird Creek tract, do you know, 25 will the well actually be located?

It will be 611 feet from their tract. Α. 1 Was notice of today's hearing required to be 2 0. given under the rules of the division? 3 We were only encroaching on ourselves. Α. We 4 did notify Bird Creek. 5 And a copy of the application was provided? 0. 6 Yes. 7 Α. Were Exhibits 1 and 2 either prepared by you or Q. 8 complied under your direction and supervision? 9 10 Α. Yes, they were. 11 MR. CARR: At this time, Mr. Stogner, we would move 12 the admission of BTA Exhibits 1 and 2. 13 EXAMINER STOGNER: Are there any objections? MS. AUBREY: No objection. 14 EXAMINER STOGNER: Exhibits 1 and 2 will be admitted 15 16 into evidence at this time. 17 (Applicant BTA Exhibits 1 and 2 18 were admitted into evidence.) 19 That concludes my direct examination of 20 Mr. Logan. 21 Mr. Examiner, with your permission, and MR. STOVALL: 22 with Ms. Aubrey's permission, I would like to ask Mr. Logan some questions prior to Bird's 23 24 cross-examination. 25 EXAMINER STOGNER: Is there any objection?

No objection. MS. AUBREY: 1 **EXAMINATION** 2 3 BY MR. STOVALL: Mr. Logan, let me ask you first: Do you have a 4 copy -- you presented a similar exhibit to this as 5 Exhibit No. 1 at the March hearing; is that correct? 6 That is correct. 7 Α. 8 Do you have a copy of that here? I don't seem to find it in this case file. 10 MR. CARR: I don't think I have one. 11 Mr. Stovall, I have two copies of it. MS. AUBREY: 12 If I could just look at it, I'll give MR. STOVALL: 13 it back to you. I just don't have one. That's marked as Exhibit No. 7 from 14 MS. AUBREY: 15 Case No. 9883. 16 MR. CARR: Right. 17 (By Mr. Stovall) And Mr. Logan, if I remember Q. 18 correctly, BTA presented the case and discussed numerous locations and was cross-examined by Bird Creek with 19 20 respect to many of those locations as alternates; is that correct? 21 22 That is correct. 23 I would like to pass down, and if you would, 24 hand Mr. Carr a copy of the transcript. 25 MR. CARR: Okay.

(By Mr. Stovall) If you would, turn to page 19 Q. 1 of the transcript, Mr. Logan. 2 3 Α. Okay. The question starting on line 10 of page 19, 4 would you mind reading that? 5 Let me back up for a moment here first. Ιf 6 you'd look at page 15, you'll see that Keith E. Logan --7 is you; is that correct? 8 9 Correct. So this would be a transcript of your 10 Q. 11 testimony; is that correct? 12 Α. Yes. 13 If you would, go and read the question and answer starting on line 10 of page 19. 14 15 Α. "Based on all of these 16 topographical conditions, pipelines, 17 railroads, Pecos River, flood plains, 18 bluffs, is there any other location other 19 than the proposed location from which you 20 could drill a well on this 40-acre tract? 21 "No, there was not." 2.2 Q. And the next question? 23 Α. "Yes, we did consider directionally 24 drilling." (sic) Or "Did you consider directional --25

"Yes, we did consider directional 1 drilling and moving to the northeast to a 2 3 standard location. The problem that we see is increased drilling costs. We also 4 see, yes, initially these wells will 5 flow, but eventually they will need to be 6 artificially pumped. 7 In doing that you increase your operating costs due to 8 excessive rod wear, potential tubing 9 10 leaks which leads to premature 11 abandonment and loss of reserves." 12 MR. CARR: Do you want him to go on, Bob? 13 MR. STOVALL: No, that's all right. That's the question and answer on that. 14 15 MR. CARR: Good. 16 Ο. (By Mr. Stovall) If you will, turn to the next 17 page, page 20, the question begins on page 9, the question 18 -- the single question and answer. MR. CARR: On page 9? 19 20 o. (By Mr. Stovall) I mean line 9, excuse me, on 21 page 20. 2.2 "Other than directional drilling 23 was there any other option available to 24 BTA that would enable you to develop the 25 reserves under this 40-acre tract from

1	the location thereon?
2	"No, there wasn't."
3	Q. "No, there wasn't" was the answer; is that
4	correct?
5	A. Yes.
6	Q. Look at page 24. The question that begins on
7	line 6 and the answer on line 8.
8	A. "What would be the effect of
9	imposing a production penalty on this
10	well?
11	"The well could keep us from
12	drilling the prospect."
13	Q. And the question on line 23 and the answer that
14	goes with that?
15	A. "If substantial penalty is placed
16	on this well, could BTA produce those
17	reserves?
18	"No, they could not."
19	Q. On page 33 if you would turn there, I believe
20	this is now under cross-examination
21	MR. CARR: It is.
22	Q. (By Mr. Stovall) from Ms. Kellahin (sic).
23	A. Uh-huh.
24	Q. And you're actually responding there. The
25	answer begins on line 11, and you're responding to a

question from Mr. Carr regarding the clarification, so that the record is clear, if I'm not mistaken. And if you would, read the sentence beginning on line 16.

A. "I went out and looked at all these potential locations. I must say that, and we felt like this was the only one we could get everything in there we needed to drill and get all of our equipment in there."

- Q. And one more on page 38, the question that begins on line 12 and the answer is on line 15.
 - A. Okay. "And with all these folks out there, this is the only location, this quarter-quarter section, that is feasible?

"Yes, it is."

- Q. Were you present at the de novo commission hearing on the de novo application of Bird Creek?
 - A. I was present, yes.
- Q. So you were there when you heard the chairman of the commission deny Bird Creek's offer of evidence that there were alternate locations available in this proration unit; isn't that correct?
 - A. Yes, I did.
 - Q. Is it correct to say, or is it your

understanding, that that was done because the commission believed that your location information had been presented in good faith to the division and that you had drilled the well based upon that approval and that the issue really to be considered was the penalty?

- Well, that's what I believed, yes. Α.
- That's what I'm asking, is what your Q. interpretation of that was.

Has -- subsequent to the commission order imposing the -- I think it's a 47 percent penalty; is that correct?

12 Α. Correct.

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- 13 0. --- has BTA filed any other applications with respect to this proration unit? 14
 - Yes, we have.
- 16 Q. And what -- Other than the one that is being heard right now? 17
- 18 Α. Right.

Α.

- 19 And what was that application for? 0.
 - Well, there were actually two applications. The first one was to drill at the location we've got today, and directional drill to a standard location. The one after that was to reenter the existing wellbore and deviate to a standard location.
 - Then you filed this one to drill a straight Q.

hole at this new unorthodox location; is that correct?

A. Correct.

- Q. Do you remember during the course of the testimony in the original Case 9883, were you asked about the location, the area there which is now the subject of this application? Do you remember some discussion about that?
- A. I don't know that I was asked exactly about that location, but I know there were discussions about something in the west half of the northwest quarter.
- Q. No discussion about this particular area -Now, this area is -- let me back up -- this location, if I
 look at the contour lines, is actually physically lower
 than your existing location; is that correct?
- A. Yes. Mr. Stovall, what -- if you see the contour due north -- or due south, excuse me, these are 10-foot contours, so we're essentially 20 feet, 20 to 25 feet low to our existing well.
- Q. Well, Mr. Logan, I am, as you might gather, quite concerned about the fact that we had some very strong testimony from you in the March 19, '90, hearing regarding the fact that only one location was suitable and that, in fact, even if a penalty was imposed, even that location couldn't be drilled.

I am a little concerned about reconciling those

statements made under oath on March 7, 1990, with the 1 applications that have subsequently been submitted by BTA. 2 Do you make decisions about those? Are you the 3 decisionmaker on those? 4 I am not the decisionmaker. Α. 5 Who is the decisionmaker on those matters? 0. 6 The decisionmaker on those matters would be 7 Α. Barry Beal (phonetic approximation). 8 0. Is he here today? No, he is not. 10 Α. 11 Do you report to Mr. Beal? Q. 12 Yes, I do. Α. 13 0. What direction has he given you in this matter? 14 What direction did he give you back prior to the March 15 hearing as far as finding a location for this well? 16 Α. Well, of course, we wanted a standard location 17 out here, and that was not possible. Our drilling people 18 went out there and looked at it, and he made his decision 19 based on topographic reasons and input from the drilling department. 20 21 Q. Were you part of that input? 2.2 I was part of getting a well drilled within 23 that proration unit, yes; but not as far as a surface 24 location, no. Now, I think you did testify -- and part of the

25

Q.

24 testimony which you just read is -- you've been on the 1 proration unit? 2 Yes, I have. 3 Α. And from the testimony that we just read over from the March hearing, it appears that you have made the 5 statement that based upon your personal observation that 6 the original location where the Pardue "C" 1 is now 7 situated, that that was the only suitable location. 8 I still believe that. Α. 9 Are you saying, then, that Mr. Beal and the 10 decisionmakers in the company are ignoring your advice? 11 12 Is that what you're saying? 13 Α. Well, I'm just saying that a lot of -- with the penalty that was assessed, I'd say my decision was 14 overruled. 15 16 And at that time you testified that if a 17 substantial penalty was imposed, that this prospect would 18 likely not be developed; is that correct? Correct. 19 Α. 20 And the penalty of approximately 50 percent --Q.

Q. And the penalty of approximately 50 percent -
If I remember -- Let me back up for a moment.

The original examiner order imposed a penalty
with a volume cap on that; is that correct?

A. Correct.

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Q. And then when it came back de novo and after

the well was drilled --

- A. Correct.
- Q. -- the commission imposed a 47 percent penalty.

 Is BTA now then taking the position that an additional

 50 percent production rate is worth the cost of drilling a second well?
 - A. Yes, we are.
- Q. So in other words, there was -- What you've said in that March hearing with respect to a substantial -- What do you consider a substantial penalty? Let me ask that.
- A. Well, based on what I've seen, that 47 penalty is quite substantial.
- Q. Substantial enough that, in effect, it's worth doubling your costs to double your recovery?
- A. Right. But a consideration that I think is really being made right now is more exposure to royalty owners since these wells out here are capable of top allowable. We've got a well that we're only producing, essentially, half of that amount.
- Q. Well, I won't ask you for an opinion as the effect of a commission order on royalty owner litigation.

 I don't think that's probably within your sphere of expertise; and I'm sure you would rather not answer it, so I won't ask you that.

Just from the standpoint as an engineer, how do you reconcile your testimony today with the statements you made in March?

A. Because the statement I made in March I still

- believe is true. Like I said, if I was to go out there again, I would pick that location.
 - Q. As the only possible location on that --
- A. Yes.

1.7

Q. -- proration unit?

Have you been back out since that well was drilled and looked at the location proposed in today's hearing?

- A. I haven't actually seen the new location, no, but I've been to the site of the existing well two or three times, so I'm -- I know what it looks like when you go north.
- Q. Who actually -- Is there anybody from your company who has gone out and participated in the staking? Has this well been staked? I'd better find that out first.
 - A. Yes, I believe it has.
- Q. Did anybody from your company participate in the staking of that well, actually go onsite and look at that well?
- 25 A. Yes.

1	Q. Who did that?
2	A. Pete Wilkinson.
3	Q. And he is here and is going to testify; is that
4	correct?
5	A. Correct.
6	MR. STOVALL: Mr. Examiner, I'm not going to ask
7	Mr. Logan any further questions. I certainly would like
8	to request that he not leave, and I'm sure he won't at
9	this point
10	MR. CARR: He won't.
11	MR. STOVALL: just in case there should be any
12	further one that raises some concerns here. I'll not go
13	any further at the movement.
14	EXAMINER STOGNER: Thank you, Mr. Stovall.
15	Ms. Aubrey.
16	MS. AUBREY: Thank you.
17	CROSS-EXAMINATION
18	BY MS. AUBREY:
19	Q. Mr. Logan, your Exhibit No. 1 is essentially a
20	reprint of the Exhibit No. 7 you used at the original
21	examiner hearing, isn't it?
22	A. Yes, it is.
23	Q. 9883?
2 4	A. Yes.
25	Q. That exhibit doesn't show the entire extent of

28 the flood plain in the 40-acre tract that we're talking 1 2 about, does it? In the 40-acre tract? 3 Q. Yes. 4 It shows everything that I could pick up based 5 on the U.S.G.S. topo map. 6 Have you compared your Exhibit No. 1 to the 7 U.S.G.S. flood plain boundary map to see whether or not 8 9 you've accurately represented the flood plain on your 10 No. 1? 11 No, I have not. Α. 12 Q. Do you recall that issue being raised at the 13 examiner hearing in March of 1990? 14 Α. Yes, I do. 15 Your "B" No. 2 well, which is located in the Q. 16 northwest, up to the northwest of your proposed location, 17 is in the flood plain, isn't it? 18 Α. I believe it is. 19 Q. And you don't show that on your map, do you? 20 No, I do not. Α.

- Q. Have you ever had to shut that well in because of flooding?
 - A. No, we have not.

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Q. Have you ever had any problem with that well because it's located in the flood plain?

- A. No, we haven't.
 - Q. Do you know who John West is, Mr. Logan?
- A. Yes, I do.

- Q. Are you aware that he is an engineer who was retained by Bird Creek to examine the surface locations available here and to make recommendations? Are you aware of that?
 - A. Yes.
- Q. Are you aware that Mr. West proposed a location which was a standard location for a Loving-Delaware well in this area?
 - A. I thought that was correct, yes.
- Q. And you received some of that information, didn't you?
 - A. I don't know that we actually received any of that.
 - Q. He was going to testify at the commission hearing in this matter, but the commission would not allow Bird Creek Resources to put on that testimony. Do you recall that?
 - A. Yes, I recall that.
 - Q. Let me tell you, sir, he proposed a location which is roughly 1,473 from the west line and 330 from the south line. Would that be a standard location?
 - A. How much from the west line?

1,473. 1 0. That would not be standard. 2 Α. 3 Q. Would that be a location that you would choose? It's not a location I would choose, no. 4 MR. STOVALL: Let me interrupt you just for a moment 5 just so I can clarify. 6 7 About where would that be, say, in relation to "C" 1? 8 MR. CARR: North and west. 10 MS. AUBREY: North and west. 11 THE WITNESS: Oh, north. Oh. 12 Α. Wasn't it 330 from the south, 14 --13 Q. (By Ms. Aubrey) **--** 73. 14 Α. 15 Q. 1,473 from the west. 330 --16 330 from the south. Well --Α. 17 Could you look at --Q. 18 -- Mr. Stovall -- I'm guessing here, but you 19 see the thick contour here (indicating) where it kind of curves down and goes south, it's just a little bit -- it's 20 21 a little bit south of there, is the best I can --22 MR. STOVALL: Kind of northwest of the quotation marks C --23 24 MR. CARR: "C" No. 1. 25 MR. STOVALL: -- is that correct?

THE WITNESS: Correct. 1 MR. CARR: Is that right? 2 3 THE WITNESS: Yes. (By Ms. Aubrey) From your study of the area, 4 that would be roughly on your blue line, is that right, 5 your blue square that you've drawn on Exhibit 1? 6 7 Α. Not 1,470 from the west would not be, no. 0. It would be farther to the west, then? 8 9 Α. Correct. 10 Do you have -- Let me strike that. 0. 11 Have you looked at that particular location as 12 a location for the well? 13 Α. I have not, no. Have you eliminated that as a possible 14 Q. 15 location? 16 I just have not looked at it. 17 Have you looked -- I believe that you testified Q. previously that you looked at every possible location. 18 19 I recall that correctly? 20 Α. Well, I have looked at the acreage, yes, and 21 there just wasn't enough places in there, we felt, to put 22 equipment in there to drill the well. 23 0. Have you made any study, drawn any maps, to 24 show whether or not you could put a well pad at that 25 proposed location 330 from the south, 1,473 from the west?

- Α. No, I have not. 1 What demands have you had from royalty owners 2 Q. to change the location of your producing well? 3 Well, I didn't testify we'd had any demands, 4 5 but we do have exposure to them. Have any of them complained to you about the 6 Q. reduced allowable? 7 8 Α. No, they haven't. So claims or threats or threats of demands from 9 0. 10 royalty owners are not a reason, then, for your seeking to abandon the existing well "C" 1 and drill a new well? 11 12 The potential for that is. Α. 13 But not in reality or actuality; is that right? Q. Well, the potential is still there. 14 Α. 15 Q. Who are the royalty owners? 16 Amoco, Teledyne and Kerr-McGee. Α. 17 And I believe Teledyne is also a royalty owner Q. 18 in the Bird Creek acreage; isn't that true? 19 Α. That is true. 2.0 Q. How many acres do you think your well will 21 drain at the location which you've proposed in the 22 application that we're hearing today? 23 Oh, I'm just really going to have to guess on

Would you guess for me?

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that.

Q.

- A. 20 to 40 acres about.
- Q. Do you remember the testimony that was presented at the commission hearing that these wells would drain only 20 or 22 acres?
 - A. Yes, I do.

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- Q. Are you standing by that testimony today?
- A. Well, we've got a little more information now than we had then.
- Q. And you think that -- and the wells now drain more toward the 40-acre end of that estimate you just gave me?
- A. We're seeing good performance out of them with much more history than we had at that time, yes.
- Q. And will the area drainage of the well at the proposed unorthodox location be the same as the drainage area of the "C" 1 where it is now?
- MR. CARR: You mean the same number of acres?

 MS. AUBREY: The same acres.
 - A. Oh, I would say they ought to be pretty close.
- Q. (By Ms. Aubrey) Aren't they going to be contiguous acres? I mean not contiguous, but will they be exactly the same acres? Will there be acreage drained by your new well that are not now being drained by "C" 1?
 - A. Oh, yes.
 - Q. And will there be acres that are presently

being drained by the "C" 1 that will not be drained by your new well?

A. I'd say that's fair.

- Q. What's going to happen to the reserves under those acres that will not be drained by your new well?
- A. Well, we're trying to do the best we can to produce our tract. I mean, I really think -- yeah, to be optimum, of course you'd want to move east, but you've got the Pecos River and the canals off of it.
- Q. Do you have an opinion today, Mr. Logan, as to whether or not you're going to condemn any productive acreage that is now being produced by the existing "C" 1 by moving this well to the new location?
 - A. Well, that is possible.
- Q. Have you done any calculation? Do you have an exhibit -- you or Mr. Wilkinson have an exhibit here today to give the examiner an estimate of what the extent of that condemnation may be?
 - A. No.
- Q. I don't know whether I missed this or not, but did you explain why it is you're not going to deviate the location you've proposed today back to a standard location?
 - A. I would like to defer that to Mr. Wilkinson.
 - Q. Do you recall testimony at the first hearing in

March of 1990 that it was not economical to spend the \$70,000 or so that it would have cost to deviate that original well?

- A. Yes, I do.
- Q. And is it your testimony today that it's now economical for BTA to drill a new well and turn the existing well into a salt water disposal well?
- A. I think there are a lot more considerations at this point than there were at that time.
- Q. Well, is that your testimony, sir, from an economic point of view?
- A. Yes.

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- Q. That 50 percent -- the 47 percent allowable that you're suffering now on the "C" 1 is less expensive than the \$70,000 it would have cost you to deviate that hole in the first place?
- A. Well, I realize the \$70,000 at the time and the -- we are not considering deviating it at this time either.
 - Q. But about a month and a half or two months ago you did consider deviating; isn't that right?
 - A. We did consider it.
 - Q. Do you know how much money it has cost Bird Creek Resources to appear and represent its interests at the March hearing, the June hearing and this hearing?

- A. I really don't know.
- Q. Have you filed a "C" 108 in connection with your suggestion that you will turn the existing wellbore of the "C" 1 into a salt water disposal well?
 - A. No, we haven't.
 - O. Who's the surface owner?
 - A. I assume the Pardues.

EXAMINER STOGNER: I'm sorry. What?

THE WITNESS: Well, I would assume the Pardues are out here.

- Q. (By Ms. Aubrey) Have you contacted them?
- 12 A. Not as yet.

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- Q. Do these wells make a lot of water, the Loving-Delaware wells in the area?
- 15 A. Not the wells right in here, no; but ultimately
 16 I think we could expect them to.
 - Q. Ultimately you will expect these wells to make a lot of water; is that your testimony?
 - A. Well, I believe that's a possibility, yes.
- Q. Do you intend to use this as a commercial salt water disposal well?
 - A. No.
- Q. From what wells do you intend to dispose of
 water into the "C" 1 once it's completed as a salt water
 disposal well?

Well we've got six wells out here now that we 1 Α. operate. 2 How are you disposing of your salt water now? Q. 3 We are not disposing of it now. Α. 5 Q. What are you doing with it now? I'm sure we're trucking it now. Α. What kind of volume are you talking about? 7 Q. Right now I would say probably not more than 8 Α. 150 barrels a day. 9 Would it be economic to convert the "C" No. 1 10 0. to a salt water disposal well in order to dispose of 150 11 barrels of water a day? 12 1.3 Α. Well, we are looking down the road. We're not looking at current conditions. 14 15 Q. Is it presently economic? 16 Α. Probably not. 17 MS. AUBREY: Mr. Examiner, I don't want to repeat any of Mr. Stovall's questions, to I'll just end my 18 19 examination now. 20 EXAMINER STOGNER: Thank you, Ms. Aubrey. I have 21 some questions. 22 EXAMINATION 23 BY EXAMINER STOGNER: In BTA's proposal to convert the "C" 1 into a 2.4 Q. 25 salt water disposal well, what formation would be utilized for disposal?

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- A. We are evaluating that right now.
- Q. And which ones have you at least narrowed it down to?
- A. Oh, either somewhere within the Delaware, but another possibility would be down into the Bone Spring, but that's just -- that's not anything that's been approved or anything.
 - Q. So the Delaware is being considered?
- A. But there are several sands which produce there and -- or not produce, but are present there that are nonproductive.
- Q. So if the Delaware was considered, it would be a nonproductive stringer; sand stringer, perhaps?
- 15 A. Yes.
- Q. Not the present perforations which are there now?
- 18 A. Oh, certainly not.
- 19 Q. I hate to be redundant, but I didn't hear the
 20 first case. The "C" 2 well over in the southeast -- I
 21 mean, sorry, the southwest --
- 22 A. Southwest.
- Q. -- is that presently producing?
- A. Yes, it is.
- Q. Now, when I go over to unit N or the southeast

of the southwest quarter, I noticed a little nose, and that's where the "C" 1 is now, and I'm looking at the topographic portion of it; and I believe the location which Ms. Aubrey stated would have been 330 off the south line. That would have got you away from Bird Creek's property, but of course moved it closer to yours. Why wasn't that considered in the first place?

- A. We didn't feel it was an acceptable location.
- Q. The same topographic conditions as your present one?
- A. There just wasn't enough room at that location, we felt, to put in the equipment to drill the well.
- Q. How big of a pad do you need for your equipment?
 - A. I believe I stated 150 by 150.
- Q. Now, that square I see, is that 150 by 150 where your present well pad is?
 - A. No. That's going to be smaller than that.
- Q. Okay. Now that square I see. The minerals out here, are they fee, state or federal?
 - A. They're fee.

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- Q. How many other locations out here that are acceptable -- not acceptable but drillable as opposed to acceptable?
 - A. I really don't know of any.

How about if I moved north and west of your 1 0. proposed location? Is there any topography out there that 2 would prevent me from putting a 150-by-150-foot pad? 3 Well, you are -- you're going to be on that 5 It's where it's going to be going across that bluff. 6 Well, now, if I move north and west? 7 Q. 8 MR. STOVALL: Of the proposed location? 9 Q. (By Examiner Stogner) The proposed location. 10 Well, that dashed line is a pipeline also, and Α. 11 that's a consideration too. How about the other side of the pipeline? 12 that drillable? 13 14 I personally don't think it's big enough to put 15 in what you need to. 16 Q. It looks like you have more of an area over 17 there than you do at your proposed location. What am I not seeing? 18 19 Well, the proposed location, I think what we intend to do -- and I would prefer deferring the questions 20 on that to Mr. Wilkinson. 21 2.2 Q. Mr. Wilkinson is a geologist, right? 23 Α. No. 24 Q. No? 25 MR. CARR: No, he's an engineer.

He's an engineer. 1 Α. (By Examiner Stogner) So he can tell me a 2 ο. little more about the topography out there? 3 Α. Well, he's going to testify to the directional 4 drilling. 5 Well, I'm talking about the topography. I'm Q. talking about surface at this point. You're not the one I 7 need to talk about surface obstructions? 8 9 Α. Well, I thought you were wanting to talk about 10 -- I know his intent is to have the pad extend almost to that blue line right there. 11 12 Q. Well, I guess what I'm getting at, you said 13 there was only one location when there was the "C" 1 14 testing. Now we have another one. How many other ones are out there? 15 In my opinion the first one was the location. 16 Α. 17 Q. Well, obviously that's not correct today. 18 There is another one. Well, how many others are there? 19 How many others are drillable, on the other Α. 20 side of that pipeline in that green area? 21 Α. In my opinion none of them are. 22 EXAMINER STOGNER: I have no other questions of this witness. 23

Are there any other questions of Mr. Logan at

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this point?

MR. CARR: I have just a couple. 1 EXAMINER STOGNER: Mr. Carr. 2 REDIRECT EXAMINATION 3 BY MR. CARR: 4 Mr. Logan, the proposed location is how many 5 feet approximately north of the location on the "C" No. 1? 6 Α. It's going to be about 435 feet. 7 0. Now, when you were talking or answering some of 8 Ms. Aubrey's questions about draining the same acreage, 9 you weren't meaning the same exact acres, but the same 10 11 number; is that correct? What did you mean when 12 Ms. Aubrey asked you about draining the same acres? 13 we talking about the identical same acres or not? 14 Α. They're going to drain roughly the same amount of acreage surrounding each wellbore. 15 16 Q. And you were present at the March 7 hearing? 17 Α. Yes, I was. 18 And you were present when Bird Creek talked Q. 19 about the proposed location resulting in overlapping 20 drainage areas? 21 Yes, I was. Α. By moving to this location, do you avoid some 22 23 of that concern about overlapping drainage areas? 2.4 Α. Definitely. 25 Now, you were asked about the costs that Bird

Creek had incurred in opposing these locations. What did 1 they obtain as a result of that opposition? 2 3 Α. They obtained the penalty that they were seeking. 4 Ο. And that has resulted in having to seek other 5 options for the 40; is that correct? 6 Α. Correct. 7 MR. CARR: That's all I have. 8 9 EXAMINER STOGNER: Any other questions of Mr. Logan? 10 MS. AUBREY: May I question him just briefly, 11 Mr. Examiner? 12 EXAMINER STOGNER: Ms. Aubrey. 13 RECROSS-EXAMINATION BY MS. AUBREY: 14 15 Mr. Logan, is it your testimony that one must have a 150-foot by 150-foot pad in order to produce this 16 17 well? 18 Α. That is my opinion, yes. 19 And that you can't produce it from a well which 20 is, say, 115 feet by 225 feet? 21 I'm not sure of that. 22 0. Let me show you a map which was produced by 23 John West. It was marked as an exhibit at the June 24 hearing, but it wasn't offered or used. And I would just

like you to look at that. This is a drawing that Mr. West

made of the location I asked you about earlier, which is 1 1,473 from the west and 330 from the south, and on it he 2 has drawn both a pad area and a pit area. 3 Can you look at that and see whether or not you 5 think that while it may not exactly -- may not be exactly what you would do, whether or not you think it is a 6 reasonable proposal for this well, in terms of the size of 7 the pad and the size of the pit area? 8 Α. Oh, I would say it's a possibility. 10 Ο. Within a reasonable engineering possibility. 11 MR. STOVALL: I'm not asking you to say you like it. 12 I would say it's within a possibility, yes. 13 MS. AUBREY: Mr. Stogner, I have marked this as Bird Creek Exhibit No. 1. I'll offer it for whatever the 14 Examiner would like it for. I obviously don't have a 15 16 witness to sponsor it. 17 MR. CARR: Then I would object on the grounds that 18 there's no one to sponsor it, but I suspect it can be entered for whatever weight you want to give it. 19 2.0 EXAMINER STOGNER: We're going to enter it as Bird Creek's Exhibit No. 1. 21 22 (Bird Creek Exhibit No. 1 23 was admitted into evidence.) 24 MR. STOVALL: Do you have one for us? 25 MS. AUBREY: I have one photocopy and I have the

original copy, which I would also mark, Mr. Stovall.

MR. STOVALL: Let the record reflect that what has been offered as Bird Creek Exhibit No. 1 is identified as a topographical study. It involves an area in the south half of the southwest quarter of Section 11, Township 23 South, Range 28 East, E -- 28 East NMPM, Eddy County, New Mexico.

This is a photocopy. We're told we have the original that contains the signature and registered professional engineer's seal of John W. West, Engineer and Land Surveyor No. 676.

MS. AUBREY: Mr. Stovall, I'm now handing you the original with Mr. West's signature on it.

MR. STOVALL: And I am assuming, Ms. Aubrey, that neither you nor are you asking the witness to testify as to any foundation or accuracy or manner in which it was drawn or -- It's simply being offered to -- I suppose your intent is to show that there is another possible location? Is that what the intent of this --

MS. AUBREY: That's correct, Mr. Stovall, and with the witness's testimony that it's not, that it is within some reasonable engineering probability a reasonable configuration of a pad and pit area at the location that Mr. West proposed in the 40-acre tract.

EXAMINER STOGNER: Are there any other questions of

Mr. Logan?
MS. AUBREY: I have no more questions.
MR. CARR: I have no questions.
EXAMINER STOGNER: If not, Mr. Logan may be excused.
MR. CARR: At this time I would call Pete Wilkinson.
EXAMINER STOGNER: Mr. Carr.
PETER B. WILKINSON,
the Witness herein, having been previously duly sworn, was
examined and testified as follows:
DIRECT EXAMINATION
BY MR. CARR:
Q. Would you state your full name for the record?
A. Peter B. Wilkinson.
Q. Mr. Wilkinson, by whom are you employed and in
what capacity?
A. BTA Oil Producers as the exploitation manager.
Q. Have you previously testified before the oil
conservation division or commission?
A. Yes, sir.
Q. Were your credentials as petroleum engineer
accepted and made a matter of record at that time?
A. Yes, sir.
Q. How long have you been employed by BTA?
A. Thirteen years.
Q. Does your geographic area of responsibility

include the portion of southeastern New Mexico involved in this case?

- A. Yes, sir, that's correct.
- Q. Are you familiar with the application filed in this matter on behalf of BTA?
- A. Yes, I am.

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- Q. Are you familiar with the subject area, the proposed well location and prior development on this tract?
- 10 A. Yes, I am.
- MR. CARR: Are the witness's qualifications acceptable?
- 13 EXAMINER STOGNER: Are there any objections?
- MS. AUBREY: I have no objection.
- 15 EXAMINER STOGNER: Mr. Wilkinson is so qualified.
- 16 Q. (By Mr. Carr) Mr. Wilkinson, have you been 17 involved in the decision to pick the well location which 18 is the subject of this application?
 - A. Yes, I have.
 - Q. What was your involvement?
 - A. Initially we evaluated the area for development from this formation based on showings that we had in our Pardue No. 1, which was completed as an Atoka well, and then additional information that we gained from activity of the wells that were drilled by other operators.

Once we found that this wasn't going to be a 1 potentially commercial reservoir, then we proposed to 2 drill this location at the point No. 1 that Keith referred 3 to on his Exhibit No. 1. 4 That's the location for "C" No. 1 well? 5 0. Yes, sir, that's correct. 6 Were you involved in the decision to drill a 7 Q. well at that location? 8 Α. Yes, sir, I was. 9 10 Q. Then you were a witness at the hearing, the commission hearing this summer, were you not? 11 12 Α. Yes, I was. 13 And following that hearing, you're aware that Q. the order was entered that increased the penalty? 14 That's correct. 15 Α. 16 Have you been involved in the decisions that 17 were involved in the picking of alternative location or an alternative plan for the development of this acreage? 18 19 Yes, sir, I have been. Α. 20 What was your involvement? Q. 21 Α. Initially my --22 Q. Why don't we wait? 23 Okay. And what was your involvement in picking 24 the alternative location?

Once we found that the order from the de novo

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Α.

hearing was unacceptable to BTA because of our fiduciary responsibility to our royalty owners, I personally went out and inspected this 40-acre tract for an alternate location. The location that is staked and proposed here is the one that I came up with myself.

- Q. You're the party that picked it?
- A. Yes, sir, I am.

- Q. Now, in making a decision of this nature, there are a number of resources available to you, are there not?
 - A. Yes, sir, there are.
- Q. Would the input of a man like John West be of some value to you?
- A. The input of a man like John West would be of some value, but by no means would BTA allow someone to pick our locations for us; it's only an employee of BTA.
- Q. Bird Creek has offered into the hearing today what they have marked as Exhibit No. 1. Would you look at that, please? By looking at that exhibit, can you tell what it is? I can't.
- A. Well, it's a proposed pad and pit area for a proposed location. It was a -- let's see -- 1,473 feet from the west line and 330 feet from the south line.
- Q. In terms of your responsibility with BTA, would the determination of the appropriate configuration of drilling equipment at the site fall within your area of

responsibility?

- A. Somewhat, yes.
- Q. Would that be more within your responsibility or, say, more within Mr. Logan's responsibility?
 - A. It would be more within mine.
- Q. And as you look at this, does this seem like a reasonable way to configure the equipment on the surface at this location for the drilling of the well that we're talking about today?
 - A. No, sir, I would not agree with this at all.
 - Q. And why not?
- A. Well, from the first point, your pit area is such that I don't believe that you could adequately build the location with this pit where it is and drill the well without encountering problems with your pits and your mud within the pits.
- Q. Now, Mr. Stogner a few minutes ago was asking questions of Mr. Logan, questions about what other possible locations might there be on this 40-acre tract. Now, could you explain how you view the 40-acre tract and what other possible location there might be? And in doing that, I'm asking you to really define for him and for us any possible locations.
- A. Okay. From looking at the flat plat, the areas outlined in blue, as Keith mentioned previously, are the

orthodox locations of which there are none, based upon the following considerations of the railroad, the river, the draining area, the drainage canals and some bluffs that exist.

- Q. When you say there's no location, do you mean there is no 150-foot by 150-foot location for a well pad in that area?
 - A. In the orthodox location, yes, sir.
- Q. And when we talk about a 150-foot by 150-foot well pad, can that be changed to 140 by 160, that kind of play in it?
- A. Yes, sir. We upon times do have to change our pits and our pad configurations to accommodate topographical considerations.
- Q. When you are drilling a well like the one we're proposing here today, is 150-by-150-foot well pad or some modification of basically that size all that you need for the purposes of drilling a well?
- A. No, sir. That would need to be extended somewhat for the pit area.
- Q. Okay. Now, keeping that in mind, within the blue triangle that represents the area in which this well could be drilled at the standard location, in your opinion could BTA drill a well in that area?
 - A. No, sir, we could not.

- Q. Now, Ms. Aubrey mentioned an alternative location 1,470 feet from the west line and 330 feet from the south line?
 - A. Yes, that's one of Mr. West's exhibits.
- Q. Do you believe that is a satisfactory location for drilling a well on the tract?
 - A. No, sir, I do not.

- Q. That location would actually be closer to the Bird Creek acreage than what you're proposing, isn't that correct?
- A. That location would be about 281 feet closer to Bird Creek than the proposed location, and also about a hundred feet closer to our tract to the west.
- Q. Now, Mr. Wilkinson, you've stated that you picked this particular location.
 - A. Yes, sir, I did.
- Q. How would you compare this location to the originally proposed location for the Pardue No. 1?
 - A. This is a far substandard location.
- Q. Now, is it possible, in your opinion, to drill a well at this location?
- A. Yes, sir, it is.
- Q. And is that going to require additional work over and above what would be required at the originally proposed location?

A. Yes, sir, it will.

- Q. Could you just describe for the examiner the kinds of additional work that you'll have to undertake and what you'll have to do to drill a well and to maintain it at that location.
- A. Initially, it will require extensive dirt work, first off, just to build a road into the location. Then we will be required to build a different-type pad to ensure the fact that we don't have any subsidence on our location. We estimate that this -- this is just a rough number, of course -- 30 to 40 thousand dollars additional costs.
- Q. Now, once the well is drilled and completed, are there any additional considerations that you're going to be confronted with by virtue of this location?
- A. Certainly. If this does indeed lie within the flood plain area that Ms. Aubrey alluded to before, then I would certainly think that we would have to have closer monitoring of the well to ensure the fact that we did not have any pollution in it upon the times at which we had rising water.
- Q. Mr. Wilkinson, since the entry of the order following the examiner hearing, as Mr. Logan noted, there have been three applications brought to this commission with alternative proposals for development of this 40-acre

tract.

- A. Yes, there have. Yes, sir.
- Q. Are you familiar with each of those proposals?
- A. Yes, I am.
- Q. This is the first of those proposals that does not include provisions for directional drilling?
 - A. Yes, sir; that's correct.
- Q. Were you involved in the decisions to not go forward with applications for directional drilling?
 - A. Yes, sir, I was.
- Q. Could you explain the reasons for that decision?
- A. The primary reason for not directionally drilling the well to a standard location is not the \$70,000 additional cost of drilling the well. The primary reason of not deviating the well to a standard location is a loss of reserves because of higher economic limit due to increased operating expenses.

artificially lift this well. One is conventional rod pump. Well, when you have a conventional rod pump situation, you incur additional friction between your rods and your tubing. You have premature replacement of your tubing. You have rod parts. You have tubing leaks. Your well is off quite a bit. Your operating expenses increase

considerably.

I have been personally involved with numerous wells that have been deviated. The operating costs, we feel as if, will be three- to four-fold what they would be under a situation of a straight pole versus deviated.

The other two methods that I'm familiar with that we could produce a well, would be a submersible pump and also a hydraulic pump, both of which are much, much more expensive to operate than a conventional rod pump.

And with the gaseous nature of this type fluid, they would also be very, very poor in efficiency.

- Q. Were these the considerations that caused Bird Creek to withdraw or dismiss applications for directional drilling on this tract?
 - A. BTA; not Bird Creek.
 - Q. I'm sorry.

In your opinion, can a well at the proposed location, in fact, be drilled into the Delaware?

- A. Yes, sir.
- Q. There was some discussion with Mr. Logan about the possibility of converting the existing Pardue No. 1 to the salt water disposal.
 - A. Yes, sir.
- Q. Are your plans firm concerning the conversion for disposal purposes at this time?

A. No, sir. This is just something that has been discussed internally amongst BTA. First and foremost in the minds of the commission, I'm certain, is the fact that prior to producing the proposed location, the "C" 1-Y, we would shut in the "C" 1. Of course, that's just a matter of everyone knows that you have to do that, and we certainly would abide by the rules.

We intended upon the drilling of the "C" 1-Y location to test several formations on the way down for potential disposal zones. Once we've tested this, got the well down, then we will evaluate it and then make a formal proposal to the commission for a salt water disposal well. At this point in time we are not making that formal proposal.

- Q. Based on your personal review of this tract, the topography, is the proposed location the best remaining location to produce the reserves under the tract?
- A. In my opinion, it is the best location that's available, yes.
- Q. Is there any other alternative that you have been able to develop that would permit you to effectively produce the reserves in the Delaware underlying this 40-acre tract?
 - A. No, sir.

I have nothing further of Mr. Wilkinson. MR. CARR: 1 EXAMINER STOGNER: Thank you, Mr. Carr. 2 Ms. Aubrey, your witness. 3 MS. AUBREY: I would defer to Mr. Stovall if he'd 4 5 like to go first. EXAMINER STOGNER: Mr. Stovall. 6 MR. STOVALL: Let me just --8 EXAMINATION 9 BY MR. STOVALL: 10 You did not testify in the March hearing; is that right? 11 12 No, sir, I did not. Α. 13 Q. Did you participate in the decision to pick that location at that time? 14 15 Yes, sir, I did. Α. 16 Q. Do you supervise Mr. Logan? 17 Α. Yes, I do. 18 Q. And what were your instructions to him with respect to the -- Well, let me back up. 19 20 What was his participation in the selection of the Pardue "C" 1 location back in March? 21 What were your 22 instructions to him and what did you understand his 23 responsibility was? 24 Α. Okay. Our instructions initially were not to Keith; they were to our drilling department to find the 25

most suitable location on the tract.

As seen, there are no orthodox locations, which BTA would have preferred to drill. We gain no benefit whatsoever geologically for moving to an orthodox location. If we could have drilled the center-center of this quarter-quarter section, we would have.

Upon our drilling department -- information that they gained from being in the field, they relayed to me. I got with Keith. I got the topographic map that you've seen today presented into evidence, and from that information we deduced that this would be probably the best -- not probably -- would be the best location available.

- Q. The current "C" 1 location?
- A. The current "C" 1 location, yes, sir. The "C" 1-Y is a substandard location.
- Q. Once that, saying after the commission order was entered and the penalty was imposed on the "C" 1, who made the decision that another well was going to have to be drilled in this proration area?
- A. This was done by Barry Beal. He asked us, would we be able to produce the well adequately to protect our correlative right. Our answer to him was no.

 Therefore, he said to us, "Find an alternative location or

find a way to produce the well to adequately produce our

reserves under this tract."

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- Q. And what happened after that? Who is "us" first? You said "he asked us."
- A. Well, there's a group of people. Keith and myself primarily. We did have a geologist that was sitting in on the discussion, but we feel as if geology is not a factor here, so, therefore, we did not bring a geologist to testify.
- Q. Are you the only engineers in the exploitation department?
- A. We had one additional engineer in the exploitation department, but he was not involved in this decision.
- Q. Mr. Beal said, "Go find another location." Who was responsible for finding that location?
 - A. I did.
- Q. You actually went out in the field and inspected?
- A. Yes, sir, I spent about six hours out there tramping around. I took a dirt contractor, a drawing contractor and a drawing foreman with me, and got their input as we had had on the initial location also. I said, "Can we drill here?"
- Q. Had you been out there before when the "C" 1 location was picked?

A. No, sir.

- Q. So this was your first time out there in the field?
 - A. At this particular location, yes.
- Q. When was that? I mean, when did you go out there? Did you not ever go out there before the "C" 1 was drilled; is that correct?
- A. No, sir, I did not. I went out there prior to the de novo hearing, but after completion of the well; and I just looked at the location of the well to see if it was, yes, indeed the best location available; and at that time I agreed that it was the best location available.
- Q. After Mr. Beal made the decision to drill another well, did you seek Mr. Logan's input at all in picking another location?
 - A. I discussed it with him, yes, sir.
 - Q. Did he make any recommendations to you?
- A. He recommended that we not drill this location. He felt as if it was not a suitable location in his opinion; and as is with most organizations, there is a hierarchy, and I overruled him.
- Q. Now, you've testified, I believe, that it's some 30 to \$40,000 more expensive to drill the proposed location here than to -- say, to drill the "C" 1; is that correct?

- 61 Yes, sir, that's correct. 1 Α. How much did the "C" 1 cost? 2 Q. 3 Α. I don't have an exact figure on the completion cost. 4 Well, just give me a round figure. 5 0. Α. \$450,000. 6 7 So does that, in effect, become an incremental Q. 8 cost in drilling this well too? Α. Without taking into consideration that we may 10 have some salvage, yes. And salvage meaning some 11 equipment around also salvaging this wellbore for 12 utilization as a salt water disposal well. 13 All these factors were discussed and considered prior to the decision that was made to drill an 14 15 alternative location here. 16 After the division order was entered, you Q. 17 elected to proceed with the drilling of the C-1, subject to the penalty and the division order at that time; is 18 19 that correct? 2.0 Α. Yes, sir. 21 And you commenced that drilling prior to Bird 22 Creek's filing their de novo application?
- 23 Yes, sir, approximately four to five days, if I 2.4 can recall.
 - Four to five --Q.

Well, it was between four -- four or five days 1 Α. before theirs, we received notice of theirs. 2 Were you aware that they have the right to file 3 0. 4 a de novo hearing? 5 Α. Yes, sir. Q. Were you aware that in that de novo hearing, 6 7 the issue of both location and penalty could become an 8 issue and in fact the penalty that you were electing under 9 was not necessarily the penalty that you would be drawing 10 up? 11 Yes, sir. That was a business decision that we 12 made at the time that we commenced drilling of the well. 13 We had a rig available, and we felt as if the penalty that 14 was imposed was protective of everyone's correlative 15 rights, and we decided as a business matter to go ahead 16 and proceed with the drilling of the well. 17 Ο. With the benefit of 20-20 hindsight, do you 18 feel that perhaps the additional expenditure of 30 to 19 \$40,000 for the current proposed location with drilling 20 the "C" 1 might have been a --21 Α. Definitely, yes, sir. Hindsight forces are beneficial. 22 23 0. And whose decision was it that Mr. Logan would

He was requested by --

come back today and testify?

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1	MR. CARR: I told him that he had to be here, because
2	I believe you or maybe Ms. Aubrey requested that both
3	Mr. Logan and Mr. Crawford be here.
4	MS. AUBREY: I wrote a letter to that effect.
5	MR. CARR: Yes.
6	MS. AUBREY: And I believe you did also.
7	MR. STOVALL: Well, I wrote a letter, yes, when the
8	directional drilling application was filed.
9	MR. CARR: That's right.
10	MR. STOVALL: I requested that the witnesses that
11	testified and decisionmakers be present at the hearing.
12	MR. CARR: Yes.
13	Q. (By Mr. Stovall) The final decision was made
14	by Mr. Beal, though; is that correct?
15	A. Yes, sir; all final decisions. We make
16	recommendations.
17	Q. And Mr. Beal is not here today?
18	A. No, sir.
19	MR. STOVALL: I don't think I have any further
20	questions.
21	EXAMINER STOGNER: Ms. Aubrey.
22	MS. AUBREY: Thank you.
23	CROSS-EXAMINATION
24	BY MS. AUBREY:
25	Q. The well location that you proposed today moves

- away from BTA -- from Bird Creek's location; is that
 correct?
 - A. Are you talking about their alternative location?
 - Q. Well, the location you're proposing here today, the unorthodox location is farther away from the Bird Creek acreage; isn't that right?
 - A. It's 611 feet, yes, ma'am, and state route 330.
 - Q. And it's farther away than the present location at the "C" 1; isn't that right?
 - A. Yes, it is.

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- Q. Now, you've testified that on your Exhibit 1 there is no location that you can drill within that blue square; is that right?
- A. Yes, ma'am.
- Q. What about the area just to the northwest of your No. 1 triangle?
- 18 A. That's in the flood plain.
- 19 Q. Isn't B -- excuse me. But the "B" 2 is in the 20 flood plain, too, isn't it?
 - A. When we staked the No. 1 well, the one shown by the triangle, several authorities, I believe one of them was -- I believe it was the highway patrol. I guess --
 - MR. STOVALL: I think the testimony, I think there was some reference to discussions --

THE WITNESS: Yes. I --

MR. STOVALL: -- with the Corps of Engineers in the transcript.

THE WITNESS: Yeah. The Corps of Engineers were contacted, and we were told that we could not drill in that location. The No. 1 well is actually in a drainage canal off of the river.

- Q. (By Ms. Aubrey) There is a certainly aerial extent of your yellow-shaded area on your Exhibit 1, isn't there?
- A. Yes.

- Q. Is it your testimony that you have examined all locations up to the edge of that yellow shading and that you cannot drill in any of them?
 - A. That's correct.
 - Q. You will agree with me that your "B" 2 well is in the flood plain; is that correct?
 - A. I agree that that's what you said.
 - Q. Do you dispute whether -- Do you dispute that?
 - A. No, I'm not disputing what you said; no, ma'am.
 - Q. Have you looked at the flood hazard boundary map published by HUD for Eddy County, New Mexico, and compared that to the shading which you claim is the flood plain on your Exhibit No. 1?
 - A. I have not.

Mr. Logan mentioned that there were concurrent 1 sands in the Pardue "C" No. 1 which were nonproductive, 2 some Delaware sands. Do you know which ones those are? 3 As far as -- we don't know if they are or are 5 not nonproductive. We intend on testing these sands as we drill the Pardue "C" 1-Y. 6 The testimony at the commission hearing -- and 7 8 there may have been some dispute on this issue, but at the 9 commission hearing there was testimony as to at least four 1.0 Delaware sands which could be productive in these wells; 11 is that right? 12 Α. Yes, ma'am, that's correct. 13 And Mr. Allen Barron from Bird Creek identified 0. 14 those as the A, B, C and D. Do you recall that? 15 I remember the nomenclature, yes. Α. 16 Q. Are those the sands, the Delaware sands, that 17 you're going to test? 18 Α. No, ma'am. 19 0. Which Delaware sands are you going to test? 20 They're at an approximate depth of about 23,000 21 and 3,500 feet (sic). 22 So those would be shallower, then? Q. 23 Α. Considerably shallower than this, yes. Do you have an opinion now as to the A, B, C 2.4 Q.

and D Delaware sands will be productive in your new well?

- A. Well, we certainly believe that the D, as your nomenclature stated, would be productive. I have no opinion about the A, B or C.
- Q. The "C" No. 1 is presently completed in what Bird Creek calls the D sand?
- A. That's correct, yes. All of our wells are completed in the same sand, the first sand body above the top of the Bone Springs.
- Q. You were asked questions by Mr. Carr about the location that John West has indicated is available 1,473 from the west, 330 from the south.
- A. Uh-huh.

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- Q. And I believe that you testified that you wouldn't allow anyone outside BTA to pick a location for you.
- 16 A. No, ma'am.
- Q. Was it your understanding that Mr. West was trying to do that for you?
- A. No, ma'am.
 - Q. What's wrong with his location, to your understanding?
- A. The configuration of his location with his pits.
- Q. So is it just the pit configuration that you object to?

That would be my primary objection, yes, ma'am. 1 2 I did not look at that exhibit in detail enough to --3 MR. STOVALL: Let me recommend again here, we are testifying based on Ms. Aubrey's testimony as to what 4 5 Mr. West's exhibit represents, so any answers you give will be with that qualification. Think about that in 6 7 terms of how far we need to go with the discussion of this 8 theoretical pit that we really can't verify.

- A. If I had a choice between this location and the one that I picked, I would take the one that I picked.
- Q. (By Ms. Aubrey) All right. Let's assume that you do have the choice between those two locations.
 - A. I do have a choice, okay.
- Q. And you would pick the one that we're here talking about today?
 - A. That's correct.

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- Q. And without -- I certainly don't mean to limit you to anything that Mr. West has shown on his exhibit, but what I want to know is: Assuming that the pit problem could be solved, would his proposed location be as acceptable as the location you've proposed for the "C" 1-Y?
- A. I'm not qualified to state that without going out and visually inspecting it, because the way his location falls and with my memory of where this bluff is,

we would have to do extensive dynamiting to build this location, and I would have to evaluate the difference in the cost between this location and the location as we proposed. I'm not qualified to do that at this point in time.

- Q. So do you know today, can you tell the Examiner today whether or not that location that Mr. West has indicated on that exhibit is on the bluff, for instance?
 - A. It's right on the edge, yes, ma'am.
 - Q. It's on the edge?

- A. From my memory of the area, yes. And this bluff does have a considerable, large, thick cap of very dense, hard rock on top of it; therefore, if we had to do any dirt work -- and I assume from looking at this, you've got a 10-foot elevation between here and here, drops 16 feet between here and here (indicating) -- yes, that's a considerable amount; so therefore, there would be a considerable amount of dirt work; and that 30,000, 40,000 that I mentioned earlier on the alternative location might yet indeed be 75,000 without going out there. Without going out there with a dirt contractor, I can't testify to that.
- Q. I just want to be clear about that. You can't say that this is necessarily an impossible or absolutely unacceptable location to drill today?

- 1 A. It's unacceptable to me, yes.
 - Q. So you examined this one? That's what I'm trying to get you --
 - A. I'm saying --
 - Q. Did you look at this one?
- A. I'm saying -- Yeah, I've been out there. I've walked right across here, yes, I have.
 - Q. Did you consider this location?
 - A. It would have been considered, yes, ma'am.

 This specific location, no; but the area, yes.
- 11 Q. Has anything changed in the section between

 12 March and now that now makes it possible for you to drill

 13 at the location that you're proposing for the "C" --
- 14 A. No.

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- 15 Q. -- "C" 1-Y?
- 16 A. No, ma'am.
 - Q. So if I understand your testimony, considering the \$450,000 you spent to drill the "C" 1, the 30 to \$40,000 you're going to spend to do dirt work at the proposed location for the "C" 1-Y, is that still an economic prospect for BTA?
 - A. Yes, ma'am, we'll double our reserves.
- Q. How will you double your reserves?
- A. We won't be penalized for the life of the well at approximately a 50 percent rate.

- Q. So you're drilling this well to avoid the penalty on the "C" 1; is that correct?
 - A. That's basically it, yes.
- Q. And you testified, I believe, that Mr. Beal at least felt your correlative rights were being impaired; is that correct?
 - A. Yes, they are.
 - Q. How is that?

- A. We're not allowed to produce at a maximum, allowable rate, nor all the reserves that we would be entitled to at that rate.
- Q. So it's the rate that you're objecting to?
 - A. No, it's not the rate; it's the ultimate recovery, and that is most definitely tied to rate.
 - Q. You don't believe whether or not -- as an engineer, do you know whether or not there is a point in time at which your well, the "C" 1, will no longer produce its allowable?
 - A. Certainly there will be that point in time.
 - Q. Do you believe that there's a time -- as an engineer do you know if there's a time which the "C" 1 will no longer produce even a reduced allowable?
 - A. That's correct.
- Q. Are you doing any particular monitoring on the "B" 2 well located --

- A. Yes, we monitor all of our wells daily.
- Q. But you said you'd need closer monitoring --
- A. Yes, ma'am.

- Q. -- of the "C" 1 or "C" 1-Y if it were drilled in the flood plain.
- A. The proximity of the river would, of course, require us to do that. Whether the elevation is the same between this location and the "B" 2, the proximity of the river, if my understanding of the flood plain is correct, you have your most turbulence nearest to the deepest portion of the river which is the closest to the proposed location.
- Q. But you don't know today how the elevation of the "C" 1-Y proposed location or the "C" 1 location compares to the "B" 2; is that correct?
- A. The "C" 1-Y is approximately the same elevation as the "B" 2. I believe it's about three or four feet less than it is. The "B" 2 is approximately 25 feet less than the "C" 1.
- Q. Is it still -- is your testimony today that the increased operating expenses of producing the directionally drilled well are what have convinced you -- convinced BTA not to pursue directional drilling? Is that correct?
 - A. That's one of several considerations, yes; and

the primary consideration.

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- Q. And is another consideration the cost of the directional drilling?
- A. The \$70,000, certainly; that's not a small sum of money.
- Q. And how many dollars a month do you propose it would cost, an increase, to drill -- to produce a directionally drilled well?
- A. From my experience producing wells that have been directionally drilled -- of course, at the point in time that we're at right now, there would be no increase because the wells are flowing, so there's no problem there; but once we start having to artificially lift the well, we feel as if our operating costs will probably increase, let's say, \$1,800 a month to \$6,000, \$6,500 a month.
- Q. Are any of these Delaware wells in the area on artificial lift?
- 19 A. Yes.
- Q. Which one?
- A. On our map the "D" 1. It's the furthest well from the north and west.
- Q. So that's in the northwest quarter of 11; is that right?
- 25 A. Yes.

Were you aware that Mr. Joe Janica was present 1 Q. and available to testify for Bird Creek Resources at the 2 commission hearing in June on the question of directional 3 drilling, costs of directional drilling and operation 4 5 costs? I'm not familiar with his name, no, I'm not. 6 Α. 7 Q. Didn't one of your applications filed over the course of this spring or summer after the commission order 8 9 from the June hearing include converting the "C" 1 to a 10 salt water disposal well? 11 Well, the one that you have that we presented 12 today has that on there, I believe. Let me look at it. 13 It states, "BTA operates Pardue "C" 1 in this 14 quarter-quarter section. This will be a replacement well. 15 The well No. 1 will be shut in upon completion of the 16 well, possibly converted to SWD." 17 I'm referring to one of your earlier Q. 18 applications. 19 I don't have those with me, so I could not 20 testify to the accuracy of that statement. 21 MS. AUBREY: I believe that that's all I have. 2.2 Do you want to introduce your second exhibit? 23 MR. CARR: If I didn't move the admission of my 24 exhibits, Mr. Examiner, I really would like to move the

admission of Exhibits 1 and 2.

EXAMINER STOGNER: I believe we did. 1 MR. CARR: Okay. 2 That's all I have. MS. AUBREY: 3 EXAMINER STOGNER: Let's see. 4 EXAMINATION 5 BY EXAMINER STOGNER: 6 Are you familiar with the wells "C" 1 -- of 7 course you are -- "C" 2, "B" 1, "B" 2 and "B" 1? 8 Yes, sir. 9 Α. Are any of them -- have any of those had 10 11 directional surveys done on them? No, sir, other than Topco's (phonetic 12 13 approximation) as we drill the wells. 14 Q. Have you reviewed those for these wells? 15 Yes, sir. Maximum deviation, of course, Α. according to our drilling contracts, is 3 degrees, and 16 17 they've all stayed less than 3 degrees upon -- while they 18 were being drilled. They're a matter of public record. 19 do not have those with me, and to testify to the exactness 2.0 of it, I could not. But none of them are over 3 degrees that you 21 Q. know of? 22 23 No, sir, not to my knowledge. Α. 24 And looking at Exhibit No. 2, casing program Q. 25 8-5/8 and a run of 500 feet, and 5-1/2 to 6,450, what

would be the maximum deviation for a directionally drilled well if it was kicked out underneath the surface casing to the depth of 6,450?

- A. Our proposal to drill to the center-center of the quarter-quarter section, I believe, was 17-1/2 degrees.
 - Q. That's to drill to the center?

- A. To the center-center, yes, sir, which is our preferable location. We would prefer to drill to the center-center.
- Q. How about drilling to 330 foot of the blue window, I should say?
- A. I don't have those numbers, and nor did we ever ask a directional drilling company to give us a proposal on that, to my knowledge.
- Q. 17 degrees would that be a kick-off point from underneath the 8-5/8-inch casing?
- A. Not directly underneath it. I will -- my recollection, it was going to be a thousand or 1,200 feet, something of that nature. Of course, we were going to generally build ours angled instead of having any dog legs in the well.
- Q. Are you familiar with Order No. R-9147A? That was the de novo case -- or de novo order issued in Case 9883?

(Discussion off the record.)

- Q. Let me back up a little bit. Is all of Section 11 one lease, or how are the leases out here in this west half of Section 11?
 - A. We have, I believe, three separate leases.
 - Q. Three separate leases?
- A. Yes, sir. That's the designation of the B, C and D. I can't testify to that; I'm not a landman.

 That's just my recollection.
- Q. Is it safe to say that "C" 1 and "C" 2 are probably on the same lease, at least that would be the south half of the southwest quarter?
- A. Yes, sir, that would be safe. Yes, sir, I believe that's true.
- Q. Now, your proposed well location, as it is today, does encroach off of a standard location, which is your blue window, towards the southwest of the southwest quarter, does it not?
 - A. Yes, sir, it does.
- Q. Would that, in essence, also be draining production from that quarter-quarter section?
 - A. It would, yes.
- Q. Are ultimate reserves from underneath the south half of the southwest quarter, could there be some potential waste or some production left behind, especially

over in the east side of the southeast quarter of the southwest quarter, if this well was allowed to be drilled?

- A. There would be some, yes.
- Q. Are you familiar -- You are familiar with Order R-9147A?
 - A. Yes, sir.

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- Q. Do you know how the penalty was assessed?
- A. It was a 47 percent penalty.
- Q. Do you know the population?
- A. Well, yes, sir. It was the encroachment upon the lease line to Bird Creek minus -- the standard location minus the encroachment. It would be the encroachment divided by the standard amount, is what it would be. 330 minus 176 divided by 330.
- Q. Was it the encroachment to Bird Creek or the encroachment to a standard location?
 - A. It's the encroachment towards Bird Creek's lease from a standard location, a standard location being 330, and the actual location being 176 feet from the south line.
- Q. Since this well is encroaching a standard -22 I'm sorry. A proration unit has a standard location.
 23 Should it be also assessed a penalty?
 - A. We're only encroaching upon ourselves as common mineral owners.

But you also testified potential loss of 1 0. production on the east side of the proration unit due to 2 3 the well being moved to an unorthodox location to the west? 4 We feel as if this location would probably have 5 -- leave less oil on the ground than the "C" 1 location 6 7 would. MR. STOVALL: Let me clarify that answer, just if I 8 9 might. 10 THE WITNESS: Okay. 11 MR. STOVALL: "C" 1 with the penalty; is that what 12 you're talking about? THE WITNESS: Yes, sir; that's correct. 1.3 14 MR. STOVALL: You're not talking about the 15 engineering --16 THE WITNESS: Oh, with --17 MR. STOVALL: -- character of the well itself, but 18 rather at the penalized production rate? 19 THE WITNESS: That's correct. MR. STOVALL: Excuse me. I just wanted to clarify 20 21 that. 22 EXAMINER STOGNER: Thank you for the clarification, Mr. Stovall. 23 24 With that, I have no other questions of this 25 witness. Are there any other questions of Mr. Wilkinson?

MR. STOVALL: I've got a couple. 1 EXAMINATION 2 BY MR. STOVALL: 3 Mr. Wilkinson, you stated that either you or 4 Q. your Mr. Beal determined that the "C" 1 producing at its 5 penalized rate results in an impairment of BTA's 6 correlative rights; is that correct? 7 8 Α. Yes, sir. Q. Would you explain that, please? 9 Our producing rate being reduced by some 10 Α. 47 percent would result in a decrease in recoverable 11 12 reserves at this location. 13 Q. Well, let me ask you something. Do you know why proration units and spacing locations, well location 14 15 requirements are established? Do you know what the purpose of those are? 16 17 Α. That's right. Yeah, I do, yes, sir. 18 Would you explain your understanding of it? Q. My understanding is to prevent waste. 19 Α. 20 In what way? 0. 21 Overproduction, too many wellbores within the 22 same proration unit, thus one producing company and/or 23 individual would gain an unfair advantage over an offset. 2.4 Law of capture I believe is . . .

Does that not happen when you move the "C" 1

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Q.

176 feet closer to another proration unit?

- A. We didn't drill it there because we wanted to; we drilled it there because we --
- Q. All right. I'm not questioning -- at this point I'm not questioning your motives; I'm questioning the effect. Would it --
 - A. The effect of it would be, yes. I agree.
- Q. And if I remember the geological testimony from the original hearing, we're talking a relatively homogeneous reservoir; is that correct?
 - A. Yes, sir, that's correct.
- Q. And is it safe to say that for all practical purposes as an engineer there is radial drainage for the most part in this area? I remember there was some differing testimony. I'm just asking for a --
- A. We, unfortunately, don't have the tools to state that this is, yes, indeed radial drainage, but I would safely to assume my own opinion of it to be that it's somewhat radial drainage, not exactly. I don't believe there's such a thing as exact radial drainage.
- Q. I accept that. I accept that that term is within standard engineering understanding, that you're talking more or less circular with --
 - A. That's correct.
 - Q. -- more or less equidistant from a wellbore

unless there's some geological reason that that doesn't occur.

- A. That's right. Pressure zones. Yes, sir.
- Q. Now, it's my understanding that in terms of protection of the waste and assuming prevention of wastes and protection of correlative of correlative rights that the division attempts to locate wells towards the center of a proration unit so that that proration unit is effectively drained and each owner of each proration unit has an opportunity to drain its reserves without draining its neighbor's reserves in excess of -- is that correct?
 - A. Yes, sir.

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- Q. You move outside that window, which is a fairly large window in this particular area -- you have a 330 offset -- the fact is that with some -- with radial drainage as we've defined it here, that in fact BTA would be draining Bird Creek's resources. Whatever its intent was, whatever its reasons are, it would continue to drain that; is that not --
- A. That was ascertained at the de novo hearing, yes, sir.
- Q. I think that's probably a good answer because I think that's what the commission has stated, that in order to protect Bird Creek's correlative rights, they would have to --

A. That's right.

- Q. -- limit the production.
- A. That's right.
- Q. And if that results in a reduction of production from the BTA well, it is not because BTA is loosing those reserves underlying its tract, but rather because BTA is not producing as much reserves underlying the Bird Creek tract? Would that be --
 - A. That would be a fair --
- Q. -- assessment of how you would believe the commission intends --
- 12 A. Yes, sir. That's how I believe that the order was entered, yes.
 - Q. So it's, in fact, not the penalty imposed, but rather the location that causes the impairment of -- any impairment that there may be of BTA's correlative rights to recover its reserves?
 - A. Yes, that's correct.
 - Q. And is it safe to characterize your testimony that the new proposed location better enables BTA to recover its own reserves and hopefully -- you hope without a penalty, and because it's further away from Bird Creek, at least will not recover as much of Bird Creek's reserves? And when I'm talking about reserves, I'm talking about oil in place under the proration unit.

- A. That would be a fair assessment, yes, sir.
- Q. And it's your contention that there should be no penalty imposed on this well because, in fact, while it may cause waste by not draining the eastern half of the proration unit as effectively as it could, it is not impairing anybody's correlative rights because the oil underlying the south half of the southwest quarter all belongs to the same people?
 - A. Yes, sir, that's correct.
- Q. And it may be somewhat wasteful to have the wells not as evenly spaced as we'd like, but at least there's no harm to anybody else; is that right?
 - A. Yes, sir.

- Q. I just want to make sure we had a clarification as to the reasoning behind the imposition of the penalty, not -- well, there to impair BTA's correlative rights.
- A. No, I agree with you. No, I -- I certainly didn't mean that you were impairing us. It was just we were impaired by our location.
- EXAMINER STOGNER: Are there any other questions of this witness?
- MR. STOVALL: I have nothing.
- MR. CARR: I have none.
 - EXAMINER STOGNER: Ms. Aubrey, I'm going to ask you a question.

1 MS. AUBREY: Sure. You asked this gentleman what it cost MR. STOVALL: 2 -- if he knew how much it cost Bird Creek. How much did 3 it cost Bird Creek? MS. AUBREY: Well, I'll be happy to state on the 5 record what my understanding is, that attorney fees for 6 7 the de novo hearing and the examiner hearing, plus expert 8 witness fees, John West's fee, Joe Janica's fee, Allen Barron's fee, for the commission hearing, all in excess of \$30,000. 10 11 That does not count any internal costs to them. 12 That's simply fees paid to outside consultants in 13 connection with these hearings. 14 EXAMINER STOGNER: Thank you. I appreciate you're 15 answering that question. 16 Do you want to change companies now, Mr. Carr? 17 MR. CARR: I'm going to raise my rates. 18 (Discussion off the record.) 19 EXAMINER STOGNER: With that, are we ready for 2.0 closing statements? 21 Ms. Aubrey, I'll let you go first. 22 MS. AUBREY: Thank you, Mr. Stogner. 23 Bird Creek is here today in opposition to the 24 most recent request for an unorthodox location, and our 25 opposition is based not on the usual theory that BTA is

now crowding our location, but that this location was on the ground in March of 1990, and the testimony before the examiner in March of 1990 was that it was not a drillable location.

2.2

BTA now comes before you and says, "Oh, well, now that you penalized our production, it suddenly looks drillable." That has caused Bird Creek not only to have its correlative rights impaired by the drainage which occurred back then, but to have its property rates impaired by having to continue to argue with BTA in Section 11 over whether or not there is a surface location which can be drilled. One would think that was a fairly easy question to answer.

We were prepared to show you and bring you expert testimony at the commission level on what we believed to be the true state of the surface of Section 11. We didn't put that on. And you have one exhibit before you today, our Exhibit No. 1, to show you that there is still a location in that section which could be drilled, and there's still an argument about it.

I would suggest to you that BTA has once again failed to sustain its burden of proof of a prima facie case that it's entitled to an unorthodox location on this well; and I'd ask you to deny it.

That's all I have.

EXAMINER STOGNER: Thank you, Ms. Aubrey.

Mr. Carr.

MR. CARR: May it please the Examiner, I would like to look at this from two perspectives. The first is the simplest one, and that is as to the question of unorthodox location available on the tract.

If we look at the record before you in this and, in fact, all proceedings involving this location, there is not a shred of evidence from anyone that oil can effectively be drilled in that blue window on Exhibit 1 today at an orthodox location. In fact, the evidence shows that you have to go to an unorthodox location.

Of the four proposed locations that have been attempted on this tract, none of them are within that blue orthodox window. We've met our burden, and we have shown you why we have to have and unorthodox location.

Now, Bird Creek is objecting now, as they have before, because of concerns about correlative rights. And I will tell you that in my -- I don't see how, on the record before you, correlative rights could have been impaired.

The reason is that when the Pardue No. 1 was drilled, it's been drilled and produced under penalties that have been approved by the OCD. Its rates have been restricted, and the restrictions or the \$30,000 that Bird

Creek has invested may result in the additional costs of a new well at \$450,000 and a salvage effort.

2.2

And the fact of the matter is, any time an operator comes in and proposes an unorthodox location and someone else wants to fight it, there're costs associated with that. In this case the -- I hate to say, Ms.

Aubrey's been terribly successful for \$30,000. We've had to reevaluate the whole development plan for the property and are now looking at an additional investment of approximately \$450,000.

And when you look at the record of all the proceedings -- and they're all available, and you certainly are free to do that -- you will see that from the very beginning at the examiner hearing, the amount in question because of the original location, even based on the examiner records, was something in the neighborhood of 12,000 barrels.

without belaboring the point, we have told you exactly how we got to this point, why we're before you today. We've told you step by step how we've proposed the original location, what's transpired and why we've come back. We've asked you to consider this new proposal, and we're requesting that you approve this location so that we can go forward at a location now 611 instead of the required 330 setback from Bird Creek; and we can go

forward and develop reserves, reserves that we own the working interest in, and the royalty interest owners are common in the only other tract upon whom we're encroaching.

So for all these reasons we request that the application today be granted and that it provide that this well not be produced until the "C" 1 well is shut in and stays that way.

That's all I have.

EXAMINER STOGNER: Does anybody else have anything further in Case No. --

MR. STOVALL: Yeah. I just want to say one thing,
Mr. Examiner. I've never made closing argument in anybody
else's case before, but I always do something different.

Unfortunately, this is not only a case of location, but it is a case of credibility, and I think it's important to realize that this commission has been very successful for several decades because it relies on what it hears from the people who appear before it.

I think, unfortunately, I'm going to say perhaps the corporate integrity of BTA, which may be -- which has been challenged here -- and I'm not going to make any statements as to the quality of that integrity, but I would certainly say it has been challenged.

You have had testimony by a witness, who in

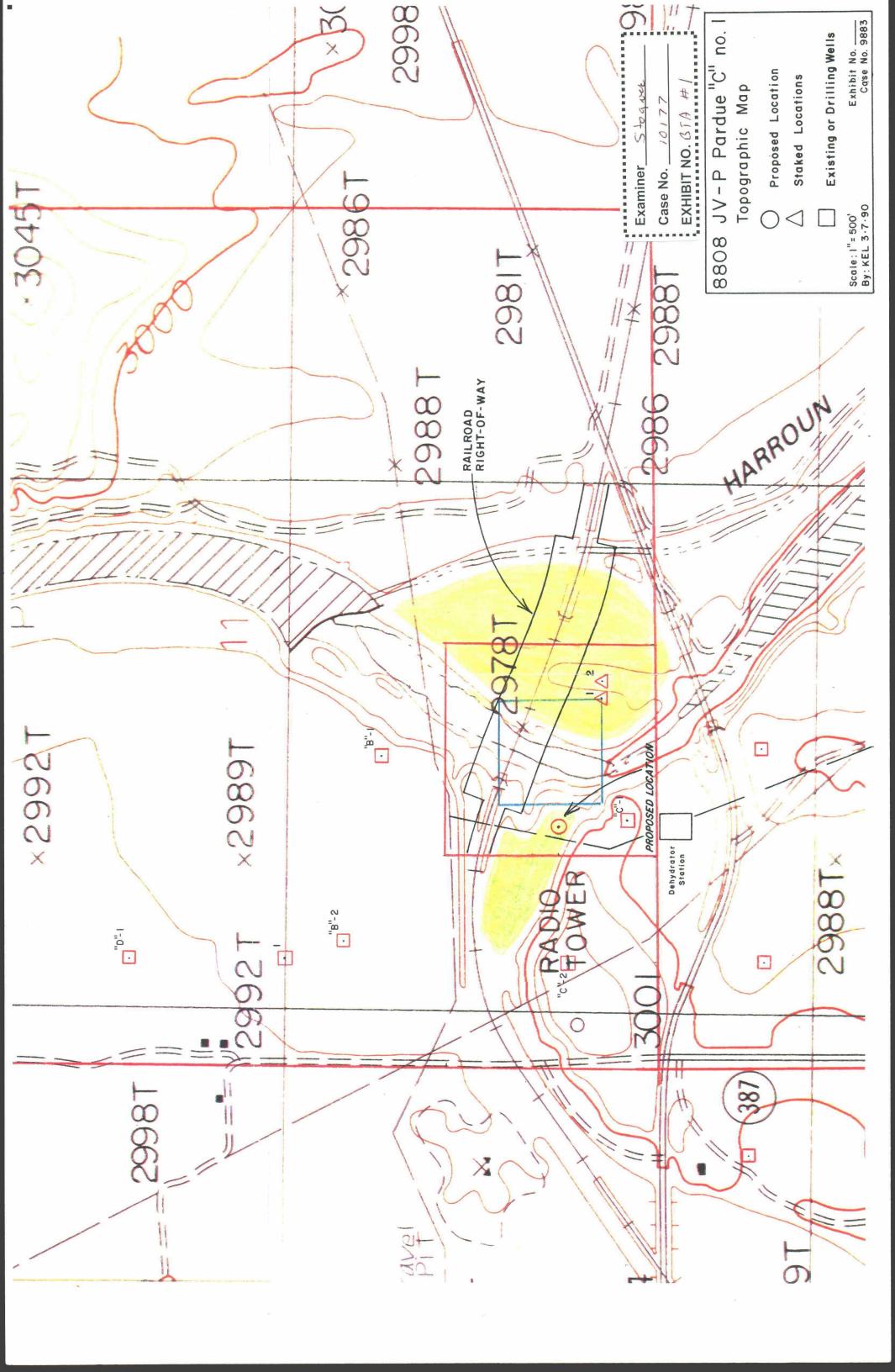
fact today said he still believes that his testimony was correct, that the proposed location for the Pardue "C" 1 was the "only" available location at any costs, that there just simply were no other locations. But now we've discovered that that's nost exactly true from the corporate standpoint, that that location -- that there were, in fact, other locations if the price was right.

this. I'm not -- I'm not expressing any judgments, but I would say that this being the case, that the question of appearances and credibility having been raised, I would admonish -- admonish BTA in particular in this case to be aware of that: that if it is a matter of money, then tell us that it's a matter of money, that in fact a location is available, but it cannot -- it is not desirable because of the additional incremental costs, and at what point does that cost become a compelling factor. And that's what you've told us now; and if we heard that the first time, then perhaps it wouldn't be the same here.

The commission in denying Bird Creek's offer of testimony from Mr. West and others regarding locations relied on that initial evidence., and of course the question is immediately raised when a new application is filed which asks for that which we were told could not be done.

So with that, I will end this case because that's why we've been here for two hours as opposed to half an hour, is not the issue of whether this application should be granted, but rather what have we heard before. EXAMINER STOGNER: Does anybody else have anything further in Case 10177? (No response.) EXAMINER STOGNER: If not, this case will be taken under advisement. And with that, hearing adjourned. (The foregoing hearing was concluded at the approximate hour of 4:12 p.m.) I do benefit certify that the form to high 1.3 Coll Conservation Division

1 2 STATE OF NEW MEXICO 3 ss. COUNTY OF SANTA FE 4 REPORTER'S CERTIFICATE 5 6 I, MAUREEN R. HUNNICUTT, RPR, a Certified Shorthand 7 Reporter and Notary Public, DO HEREBY CERTIFY that I 8 stenographically reported these proceedings before the Oil 9 Conservation Division; and that the foregoing is a true, 10 complete and accurate transcript of the proceedings of 11 said hearing as appears from my stenographic notes so 12 taken and transcribed under my personal supervision. 13 I FURTHER CERTIFY that I am not related to nor 14 employed by any of the parties hereto, and have no 15 interest in the outcome hereof. 16 DATED at Santa Fe, New Mexico, this 31st day of 17 January, 1991. 18 19 20 MAUREEN R. HUNNICUTT, RPR 21 My Commission Expires: Certified Shorthand Reporter April 25, 1993 CSR No. 166, Notary Public 22 23 24 25



BEFORE EXAMINER STOGNER OIL CONSERVATION DIVISION

CASE NO.

BTA EXHIBIT NO. 1