

4-22-1981

## Trial Transcript, Vol. 44

Frontier Reporting Service

Follow this and additional works at: <https://digitalcommons.law.uidaho.edu/all>

---

### Recommended Citation

Frontier Reporting Service, "Trial Transcript, Vol. 44" (1981). *Hedden-Nicely Collection, All*. 183.  
<https://digitalcommons.law.uidaho.edu/all/183>

This Transcript is brought to you for free and open access by the Hedden-Nicely at Digital Commons @ UIIdaho Law. It has been accepted for inclusion in Hedden-Nicely Collection, All by an authorized administrator of Digital Commons @ UIIdaho Law. For more information, please contact [annablaine@uidaho.edu](mailto:annablaine@uidaho.edu).

File 151  
4402  
Box 11

case # 4993

File # 151

4402

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

IN THE DISTRICT COURT FOR THE FIFTH JUDICIAL DISTRICT

WASHAKIE COUNTY, STATE OF WYOMING

IN RE: )  
)  
THE GENERAL ADJUDICATION )  
OF RIGHTS TO USE WATER )  
IN THE BIG HORN RIVER )  
SYSTEM AND ALL OTHER )  
SOURCES, STATE OF WYO- )  
MING. )

Civil No. 4993

FILED

5/11

1981

*Margaret V. Hampton*

CLERK

DEPUTY

VOLUME 44

Wednesday, April 22, 1981

**ORIGINAL**

APPEARANCES

1

2

3

FOR THE STATE OF  
WYOMING:

4

SIX MONTH

5

HALL & EVANS

2900 Energy Center One Building

717 17th Street

Denver, CO 80202

6

BY: MR. JAMES MERRILL and  
MR. MICHAEL D. WHITE, Special  
Assistant Attorneys General  
and

7

MR. STUART RIFKIN and

8

MR. SCOTT KROB

9

FOR THE UNITED STATES  
OF AMERICA:

10

MR. JAMES CLEAR and MR. JOSEPH MEMBRINO

Attorneys at Law

11

Land and Natural Resources  
Division

12

Department of Justice

Washington, DC 20006

13

FOR THE SHOSHONE  
TRIBE:

14

SONOSKY, CHAMBERS & SACHSE

200 M. Street, N.W.

15

Washington, DC 20006

16

BY: MR. HARRY SACHSE

17

18

19

20

21

22

23

24

25

1 THE SPECIAL MASTER: Will you please  
2 come to order? Mr. Membrino?

3 MR. WHITE: Before Mr. Membrino starts,  
4 could I just inquire as to the schedule for today?  
5 Are we going to go straight through until 2:00? I'm  
6 just trying to arrange the cross-examination.

7 THE SPECIAL MASTER: We can if you want to.  
8 When we get to 12:00, if you want to go through  
9 lunch hour, we will.

10 If you want to take a short break for  
11 lunch and come back at 1:00, however it works out  
12 with the evidence and --

13 MR. WHITE: I'm sorry for the interruption,  
14 Your Honor.

15 DIRECT EXAMINATION (CONTINUED)

16 BY MR. MEMBRINO:

17 Q Mr. Toedter, yesterday you testified that you  
18 were responsible for preparing the land  
19 classification standards for the Wind River  
20 Reservation drainage. Did you have any further  
21 responsibility in the case?

22 A Yes, I did.

23 Q What was that responsibility?

24 A My first responsibility was to, first of all,  
25 toedter-direct-membrino

1 structure the standards and then, secondly,  
2 it was to see that these standards were met  
3 during the land classification for determination  
4 of arability.

5 Q And did you make a conclusion about whether or  
6 not the lands in the Wind River Indian  
7 Reservation did meet the standards for the  
8 drainage, the drainage standards?

9 A Yes. This was done as part of a team effort,  
10 and I observed each piece of land and insured  
11 that it met the standards.

12 Q Did you have any other responsibility?

13 A Yes, I did.

14 Q And would you describe that responsibility?

15 A Yes. That responsibility was to determine what  
16 the actual hydraulic conductivities were and  
17 also the actual depth to barriers as pointed  
18 out in these exhibits previously displayed,  
19 and these were provided for the use of the  
20 agricultural engineer, namely Stetson Engineers,  
21 for use in their drainage design analysis.

22 Q When you are referring to the exhibits, you are  
23 referring to the United States Exhibits WRIR  
24 C-231 through 240?

25 toedter-direct-membrino

1 A Yes, that is correct.

2 Q Now, why is it necessary for a drainage engineer  
3 to have the actual depth to barrier rather than  
4 simply to know that the minimum standards for  
5 hydraulic conductivity and depth to barrier  
6 have been met?

7 A Okay. This is important in terms of the  
8 agricultural engineer structuring his drain  
9 spacing.

10 THE SPECIAL MASTER: Structuring his what?

11 THE WITNESS: His drain spacing. In other  
12 words, he uses the depth to barrier and the  
13 hydraulic conductivity in order to set the width,  
14 or they are two components.

15 THE SPECIAL MASTER: The 200-foot thing?

16 THE WITNESS: Yeah, the 200-foot thing,  
17 but it will be wider than that.

18 THE SPECIAL MASTER: If permissible?

19 THE WITNESS: Right.

20 Q (By Mr. Membrino) And what goes in to that  
21 decision to make the drain spacing wider or  
22 narrower?

23 A There are three items that go into that decision.

24 First of all, one must consider what the  
25 toedter-direct-membrino

1 deep percolation rate is under a given method  
2 of irrigation.

3 Secondly, one must consider what the  
4 hydraulic conductivity is.

5 And, thirdly, one must consider what the  
6 depth to barrier is.

7

8

9

10

11

\* \* \* \* \*

12

13

14

15

16

17

18

19

20

21

22

23

24

25

toedter-direct-membrino



1 Q (By Mr. Membrino) And is it that when the hydraulic  
2 conductivity is incrementally greater than a tenth  
3 of an inch an hour and the depth to barrier is in-  
4 crementally greater than 6 feet that you may have  
5 wider drain spaces or narrower drain spacing?

6 THE SPECIAL MASTER: I don't understand that  
7 question. Do you understand that question?

8 THE WITNESS: Yes, I understand it.

9 THE SPECIAL MASTER: All right, then, you at-  
10 tempt to answer.

11 A. Okay, the exact answer or -- the conditions that you  
12 have given me create some trouble from the standpoint  
13 of you cannot obtain a 200-foot drain spacing with  
14 that set of conditions. However, given the greater  
15 hydraulic conductivity and greater depths to barrier,  
16 one will realize a drain spacing greater than the  
17 200 feet.

18 Q (By Mr. Membrino) And it is that information that's  
19 important to the drainage designer?

20 A. Very important.

21 Q. Now, what are the exhibits labeled C-231 through 244,  
22 what is their purpose?

23 A. Their purpose is to display the actual hydraulic  
24 conductivity and depth to barrier for each specific

25 toedter - direct - membrino

- 1 area of analysis having uniform conditions.
- 2 Q Has that information been transmitted to the drainage  
3 engineer?
- 4 A Yes, it has been transmitted to Dr. Wooldezion Mes-  
5 ghinna with Stetson Engineers.
- 6 Q These exhibits then contain the conclusions you have  
7 reached as to hydraulic conductivity and depth to  
8 barrier?
- 9 A Yes, sir, the conclusions for the actual values.
- 10 Q Yesterday you also testified that you did additional  
11 fieldwork after Mr. Kersich's testimony began, what  
12 did you do in that fieldwork and what was the purpose  
13 for it?
- 14 A I made two trips to the field. The first trip was  
15 -- there were some lands in question whether or not  
16 they did, in fact, meet the 6 foot depth to barrier  
17 requirement in our standards.
- 18 Q What do you mean they were in question?
- 19 A Based on the data that we had from the Bureau of  
20 Reclamation, there was some question as to whether  
21 or not they were sufficiently deep to the shale and  
22 the sandstone to actually meet the 6-foot requirement.  
23 We went out in the field and hand augered holes in  
24 these areas. One area, the study area right in here  
25 toedter -direct - membrino

1 (witness indicating) in the North Crowheart area --

2 THE SPECIAL MASTER: Would you identify that to  
3 which you have just pointed?

4 A. Okay, that is identified as study area NC-34.

5 Q. (By Mr. Membrino) On U.S. Exhibit WRIR C-231?

6 A. Yes.

7 THE SPECIAL MASTER: Now, what did you do then?

8 A. We drilled several holes in the area and the depth to  
9 barrier was at least 6 foot of greater. It was  
10 shallow. However, it just met the 6-foot standard.

11 Q. (By Mr. Membrino) Had you originally made a conclu-  
12 sion about the depth to barrier in NC-34? When I  
13 say "originally", I mean prior to Mr. Kersich's testi-  
14 mony?

15 A. Yes, I had.

16 Q. And what was your conclusion at that time?

17 MR. WHITE: Objection to foundation, Your Honor.

18 THE SPECIAL MASTER: Overruled. You may answer.

19 A. My conclusion was that it was sufficiently deep based  
20 on our data that there was no problem with the area.  
21 Our reason for going to the field was just to ensure  
22 that this assessment was, in fact, accurate.

23 Q. (By Mr. Membrino) And the later field trip showed  
24 what?

25 toedter - direct - membrino

- 1 A. Showed that it was accurate.
- 2 Q. That your original judgment was accurate?
- 3 A. Right.
- 4 Q. Did you do any other fieldwork?
- 5 A. Yes, I did.
- 6 Q. Would you describe that, please?
- 7 A. That fieldwork was done as a component of this
- 8 analysis particularly structured for the agricul-
- 9 tural engineer on the job, and it was an attempt in
- 10 certain areas just to gain a little bit more informa-
- 11 tion to accurately depict the depth to barrier and
- 12 hydraulic -- the actual depth to barrier and hydraulic
- 13 conductivity.
- 14 Q. What did you do to determine the actual depth to
- 15 hydraulic -- depth to barrier and the hydraulic con-
- 16 ductivity in this second field trip?
- 17 A. I went out to the field and observed cut sections
- 18 in the area, for the most part along stream channels,
- 19 road banks and that sort of thing, and drilled a
- 20 couple of hand auger things.
- 21 Q. And what did that work reveal?
- 22 A. That was a thing that we were talking about yesterday
- 23 afternoon; that, in fact, some of my results went up
- 24 like for hydraulic conductivity and some of it came
- 25 toedter - direct - membrino

- 1 down likewise with depth to barrier.
- 2 Q In any case, did you lose lands as not being within  
3 the standards as a result of the second or the first  
4 field trip?
- 5 A No, no lands were lost. The purpose of this trip  
6 really wasn't for that. The purpose was, in fact,  
7 to determine what the actual hydraulic conductivity  
8 and depth to barrier was.
- 9 Q And when you had that information, what did you do with  
10 it?
- 11 A I transmitted that information to Dr. Woldezion Mes-  
12 ghinna of Stetson Engineers.
- 13 Q Now, Exhibits C-231 through 240 were prepared by you?
- 14 A Yes.
- 15 Q Are these exhibits the product of solely these two  
16 field trips that you have just described?
- 17 A No, they were not. Most of the data was gathered,  
18 in fact, the substantial portion of the data was  
19 gathered prior to that time.
- 20 Q Prior --
- 21 A And --
- 22 Q Prior to --
- 23 A Prior to going to the field this last time. The  
24 only reason why we went to the field was just to  
25 toedter - direct - membrino

1 buttress a few minor areas.

2 Q And that time in which this was done was prior to  
3 Mr. Kersich's taking the stand?

4 A Yes. Most of the work had all taken place prior to  
5 Mr. Kersich's taking the stand.

6 MR. MEMBRINO: Thank you, Mr. Toedter.

7 Your Honor, at this time I would move into  
8 evidence United States Exhibits WRIR C-231 through  
9 240, the exhibits -- the maps of the study units,  
10 and Exhibit C-241-A, which is the Wind River drain-  
11 age analysis appendix regarding the future lands and  
12 their depth to barrier and hydraulic conductivity  
13 prepared by Mr. Toedter, and C-241-B, the Wind River  
14 drainage analysis appendix for the historic lands  
15 regarding hydraulic conductivity and depth to bar-  
16 rier, also prepared by Mr. Toedter.

17 THE SPECIAL MASTER: Will you assist me in  
18 identifying those exhibits beginning with 237 to  
19 240?

20 MR. MEMBRINO: 237, Your Honor, is the Upper  
21 Wind Study Unit.

22 THE SPECIAL MASTER: Let me make sure of those  
23 again. Just a second, please.

24 That's all right. That's a helpful thing, but

25 toedter - direct - membrino

1 I want to make sure I have identified them so I can  
2 trace them on my study work report.

3 You see, we have broken up some of them -- some  
4 of these exhibits you applied to various portions of  
5 the Wind River Federal Irrigation Project. For  
6 example, 237 dealt with the Wind River A Canal, is  
7 that right? What else -- Is that correct?

8 THE WITNESS: Okay, that's not completely accurate.  
9 It would deal with both the Wind River A Canal and --

10 THE SPECIAL MASTER: And --

11 THE WITNESS: And the Dinwoody Canal, Dry Canal,  
12 that Upper Bench Canal along there.

13 THE SPECIAL MASTER: Just a second. All right.  
14 So it actually -- Does 237 deal with anything else  
15 besides Dinwoody and Wind River A Canal and the Din-  
16 woody Bench Canal?

17 THE WITNESS: Let's just say it is the Upper  
18 Wind Project.

19 THE SPECIAL MASTER: Okay.

20 THE WITNESS: Which includes all the areas up  
21 in that Upper Wind area.

22 THE SPECIAL MASTER: What does 238 include  
23 besides the Johnstown Unit?

24 THE WITNESS: It is just the Johnstown Unit.

25 THE SPECIAL MASTER: All right. Now, what does

1 239 deal with?

2 MR. MEMBRINO: That was the Ray and Coolidge  
3 study.

4 THE WITNESS: Okay. So that has just -- Well,  
5 it has Ray and Coolidge totally.

6 THE SPECIAL MASTER: But not Subagency?

7 THE WITNESS: There's just a little bit of the  
8 edges of Subagency in there.

9 THE SPECIAL MASTER: All right. What does 240  
10 deal with besides the Subagency?

11 THE WITNESS: Lefthand also.

12 THE SPECIAL MASTER: All right. Your motion for  
13 admission is through Exhibit 241-B, is that correct?

14 MR. MEMBRINO: And I wasn't complete, Your Honor.  
15 For illustrative purposes, we would introduce the  
16 Exhibit C-242, which is the sketch prepared by Mr.  
17 Toedter, and C-243, which is the work map used by Mr.  
18 Toedter.

19 THE SPECIAL MASTER: That he was referring to  
20 yesterday?

21 MR. MEMBRINO: That's correct.

22 THE SPECIAL MASTER: Mr. White, do you want to  
23 interrogate?

24

25

\* \* \* \* \*



1 MR. WHITE: Could I inquire as to whether  
2 or not C-243 is also offered for illustrative  
3 purposes?

4 MR. MEMBRINO: It is offered for the  
5 truth of its contents.

6 MR. WHITE: Your Honor, with respect to  
7 C-242, which was offered for illustrative  
8 purposes, the State has no objection.

9 Your Honor, with respect to -- if I could  
10 deal with these objections sort of seriatum,  
11 perhaps I can save some of the Court's time.

12 With respect to Exhibits 231 through 240,  
13 there are several areas that I would like to  
14 voir dire, but especially with respect to  
15 Exhibits 233, 234, 235 and 237, I would like to  
16 object. That's the Riverton East, Owl Creek,  
17 Big Horn Flats, and Upper Wind maps.

18 I would object to their admission based on  
19 the violation of the ten-day rule. Those  
20 exhibits were delivered to us the evening after  
21 supper on April 16th.

22 If I could get a ruling on that, then I  
23 know whether or not to voir dire those.

24 THE SPECIAL MASTER: Well, it pains me to  
25 have to take a departure from what you had

1 requested on this, but I'm going to admit them  
2 into evidence despite the fact that they did  
3 literally fracture the ten-day rule down to seven-  
4 or six-day notice, but it just isn't a substantive  
5 damage to you. It isn't a substantive to the  
6 preparation of your case.

7 I think you probably knew the contents of  
8 them before you got them.

9 MR. WHITE: That's not true, Your Honor.  
10 They were delivered to us at the deposition of  
11 Mr. Toedter. The original representation by  
12 the previous counsel for the United States was  
13 that Mr. Toedter would not be called as part of  
14 the case in chief.

15 We were able to depose him through the  
16 cooperation of the present counsel late last  
17 week, and at the deposition on Thursday evening  
18 he provided the maps that I have just described,  
19 and it has significantly affected the ability  
20 of the State to prepare for cross-examination  
21 and to prepare for voir dire.

22 Providing them on Thursday night, which  
23 means really only the weekend is available to  
24 work on them, does fracture the ten-day rule,  
25 violates not only its letter but its spirit, and

1 has significantly affected the ability of the  
2 State to deal with them.

3 THE SPECIAL MASTER: Friday, Saturday,  
4 Sunday, Monday, Tuesday, Wednesday, that's six  
5 of ten. It's a fracture, but it's a minority  
6 fracture. I'm going to admit them into  
7 evidence. I just have to.

8 MR. WHITE: Will the State of Wyoming have  
9 the same opportunity to provide information  
10 six days prior to the time it's used, Your  
11 Honor, rather than the ten days?

12 THE SPECIAL MASTER: If an occasion comes  
13 up that it's six days that we did this on one  
14 occasion for the United States and that fair  
15 play would require that, I will try to do it.

16 MR. WHITE: I will try to flag it in the  
17 transcript.

18 THE SPECIAL MASTER: Flag it, and you have  
19 got one coming on the ten-day rule.

20 MR. WHITE: I think I have got four coming,  
21 Your Honor.

22 THE SPECIAL MASTER: All right. You keep  
23 track.

24

25

VOIR DIRE EXAMINATION1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

BY MR. WHITE:

Q With respect to Exhibits 231 through 242, Bob --

A Yes.

Q Are the lands indicated with hatches lands that were classified arable for sprinkler or for gravity or for both?

A For both.

THE SPECIAL MASTER: Mr. White, he said for both, but I had a question on your question because when you said identified with hatch marks, are they hatches running from northeast to southwest or hatches running from right to left or hatches running vertically or hatches running horizontally?

MR. WHITE: That was my next question.

THE SPECIAL MASTER: Well, I had to ask it.

Q (By Mr. White) On, let's take, for example, Exhibit 231, which involves Mr. Kersich's land -- is that correct -- future arable lands testified to by Mr. Kersich?

A Okay.

Q On the original exhibits, which I believe were C-44 and 45, the direction of the hatching had a  
toedter-voir dire-white

1 significance with respect to the classes of  
2 the lands involved.

3 Did those same directional hatches connote  
4 the same classes as developed by Mr. Kersich?

5 A That isn't important in what we're trying to  
6 show here.

7 THE SPECIAL MASTER: Well, that's really up  
8 to the Court to tell. If you can answer his  
9 question, you really ought to answer, and we  
10 will decide whether it may really not be  
11 important.

12 THE WITNESS: All right.

13 A (By The Witness) What I attempted to do here  
14 was just to identify those lands that were  
15 classified as being irrigable, either from the  
16 standpoint of gravity or sprinkler upon this  
17 map, and they were shown by the cross-hatched  
18 lines in either direction.

19 One of the problems that we have at HKM,  
20 in order to meet the ten-day rule, was to try  
21 to get something together on a base map, and  
22 so we just took a base map that had the cross-  
23 hatched lines on it showing the arable lands  
24 and started our work effort with this foundation.

25 toedter-voir dire-white

1 Q (By Mr. White) Is it your testimony then that  
2 the cross-hatched lands on Exhibit C-231 through  
3 234 simply indicate the lands classified as  
4 arable and that the cross-hatchings do not reflect  
5 any particular class?

6 A They are not meant to reflect any class.

7 Q On Exhibit 231, for example, I direct your  
8 attention to the area that is identified -- the  
9 study area that's identified as NC-11.

10 A Okay.

11 Q Isn't it true that within the study area are  
12 located both future arable lands and lands which  
13 have not been classified as arable?

14 A Within the total area of analysis, this would  
15 be accurate.

16 Q Okay. NC-11, with respect to NC-11; is that  
17 correct?

18 A That's correct. The outline around the area  
19 of analysis would show, if that's what we were  
20 trying to show, both lands that were arable and  
21 lands that are not arable.

22 However, all we were trying to show in this  
23 case is a circle around those arable lands having  
24 similar hydraulic conductivity and depth to

25 toedter-voir dire-white

1 barrier within that area.

2 Q But within the area, for example, in NC-11,  
3 only roughly, say, 35 or 40 percent of the  
4 land contained within the area was actually  
5 classified as arable; isn't that correct?

6 A That would be correct.

7 Q And your opinion with respect to the average  
8 weighted hydraulic conductivity and the average  
9 depth to barrier for area NC-11 would apply to  
10 the entire area within the red line, the entire  
11 study area; is that correct?

12 A No, it would not.

13 Q It only applies to the arable lands within that  
14 area?

15 A Yes.

16 Q Okay. What is the relationship between Exhibits  
17 231 through 240 and 241-A and 241-B, which are  
18 your calculation documents?

19 THE SPECIAL MASTER: What is the relationship  
20 between them? Was that the question?

21 MR. WHITE: Yes, sir.

22 A (By The Witness) What I attempted to do in  
23 241-A, which I believe is the sketch -- is that  
24 correct?

25 toedter-voir dire-white

1 Q (By Mr. White) No, those are the calculations.

2 A Oh, the calculations. Okay.

3 Q 241-A is the future lands, and 241-B is the  
4 historic lands.

5 A The relationship between the exhibits and this  
6 was prior to final development of these study  
7 areas, I had to make a set of computations in  
8 order to determine an assignment for, first of  
9 all, hydraulic conductivity and, secondly, depth  
10 to barrier.

11 Another component that had to be strongly  
12 considered was to determine those areas having  
13 similar characteristics so that I could assign  
14 a constant depth to barrier and hydraulic  
15 conductivity for them.

16 Q Is it true then that the annotations which appear  
17 for each study area on Exhibits C-231 through 240  
18 simply are duplications of the information  
19 which appears at the bottom of the page for each  
20 study area within Exhibits 241-A and B relating  
21 to average weighted hydraulic conductivity and  
22 average depth to barrier?

23 A Yes, that is correct. They should be equivalent.

24 Q Let's turn to 241-A and B then.

25 toedter-voir dire-white



1 MR. WHITE: Before I ask the witness anymore  
2 questions about them on voir dire, I would pose  
3 an objection based on the ten-day rule to 241-A  
4 and -B.

5 THE SPECIAL MASTER: When did you receive  
6 those?

7 MR. WHITE: Tuesday evening.

8 THE SPECIAL MASTER: Okay. That's the same  
9 short end of the deal.

10 MR. WHITE: We got six days rather than ten,  
11 so I hope my ledger is up to six rather than  
12 four now, Your Honor.

13 Q (By Mr. White) Bob, would you get 241-A before  
14 you, please?

15 A Okay.

16 Q Turn to the fourth page, which I believe is a  
17 number that is headed, "Hydraulic Conductivity  
18 Values Used by HKM in Profile Weighting Analysis  
19 for Drain Spacing."

20 A This is Table 2?

21 Q Yes, it is. I'm sorry. My Table 2 was covered  
22 up by the binder.

23 A Okay.

24 Q Did you testify on direct examination that these  
25 toedter-voir dire-white

1 values were mostly derived from your own field  
2 work within the Wind River Indian Reservation?

3 A Quite a few of them were derived from field  
4 work, and the rest were based on my judgment  
5 and other texts.

6 Q Isn't it true that of the 23 values of hydraulic  
7 conductivity only four were based on your field  
8 work within the Wind River Indian Reservation?

9 A Well, that may be true in terms of actual  
10 assignment and the values that were presented  
11 in the report.

12 However, again based on the ten years of  
13 experience that I have in this drainage business,  
14 I have no reason to believe that the values do  
15 not accurately depict the values that one would  
16 find in these soils.

17 Q What previous experience did you have in the  
18 field for the Wind River Indian Reservation?

19 A I think one can conclude, or at least I can from  
20 my previous field work, that within areas  
21 textures generally have about the same rate of  
22 hydraulic conductivity.

23 Oftentimes plasticity and stickiness,  
24 become very important in terms of this analysis.

25 toedter-voir dire-white

1 Now, this is not apparent on this sheet.  
2 Plasticity and stickiness is not a real problem  
3 in the Wind River Reservation and, consequently,  
4 for the most part, soils had good permeability.

5

6

7

\* \* \* \* \*

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

toedter-voir dire-white

1 THE SPECIAL MASTER: Let me ask a question, Mr.  
2 White.

3 MR. WHITE: Yes, sir.

4 THE SPECIAL MASTER: Your symbols under the  
5 column "Texture" on this Table 2, were those the  
6 symbols that you used as work aids in the field,  
7 or are these the same symbols that are used in the  
8 two charts by your colleagues in their Exhibit C-  
9 138 and C-43?

10 THE WITNESS: Okay, I don't believe they are  
11 used in those exhibits. Now, the exhibits that  
12 were presented by my colleagues that show the land  
13 classification logs and the deep logs that were  
14 drilled within the Wind River Reservation are repre-  
15 sented on those sheets. What I'm trying to say is  
16 these textures are annotated on those logs.

17 THE SPECIAL MASTER: All right. Thank you.

18 Q (By Mr. White) On Table 2, isn't it true that the  
19 hydraulic conductivity values which you actually  
20 derived from fieldwork are those listed for sandy  
21 loam, loam, sandy clay loam and gravelly sandy clay  
22 loam, as well as silty clay loam?

23 A Yes.

24 Q Isn't it true that the professional experience upon  
25 toedter - voir dire - white

1 which you primarily relied in developing the other  
2 hydraulic conductivity values was obtained in the  
3 State of North Dakota?

4 A. Quite a bit of it. I have some experience in the  
5 State of Washington, I have experience in the State  
6 of New Mexico.

7 Q. Would you turn on a couple of pages in Exhibit 241-A  
8 to the Arapahoe Area 1?

9 A. Okay.

10 Q. Isn't it true that of the 18 total holes listed on  
11 Pages 1 and 2, you only used 3 holes to develop the  
12 average hydraulic conductivity?

13 A. Yes.

14 Q. And isn't it true that the way you determined the  
15 number of holes which you used is to count the number  
16 of values which appear in the numerator as a fraction  
17 on Page 2 and similar pages?

18 A. Okay. I think you're giving a misleading impression  
19 of the interpretation of this data. As I testified  
20 to yesterday, there was some question about the ac-  
21 curacy of texturing upon which Reclamation did in  
22 their work. Consequently, as much as possible, we  
23 heavily relied upon the data that was obtained by  
24 HKM in the field, and I think you will note that the

25 toedter - voir dire - white

1 three values used for developing an average hydraulic  
2 conductivity for this area were based on HKM holes.  
3 Q Those would be matching up the values in the numerator  
4 with those listed on Pages 1 and 2 for individual holes,  
5 would indicate that you used Holes 59-A, 60-A and 61-A?

6 A Yes, that's correct.

7 Q Offhand, do you know the number of arable acres within  
8 Study Area A-1 for which you used the three holes?

9 A That wasn't important to me, Sandy.

10 THE SPECIAL MASTER: Is the answer, no, you  
11 don't?

12 THE WITNESS: It would be "no".

13 THE SPECIAL MASTER: Okay.

14 Q (By Mr. White) Is there any way to determine for  
15 Area A-1 or any other area simply from the face of  
16 Exhibit 241-A or 241-B whether or not the holes that  
17 are listed or the holes which you actually used in  
18 your formula are inside of or outside of the arable  
19 lands included within that study area?

20 A This is not shown on my exhibits. However, my work-  
21 sheets had the location of every single hole that  
22 was used.

23 THE SPECIAL MASTER: Don't you have one such  
24 exhibit already in evidence being offered as proof?

25 toedter - voir dire - white

1 THE WITNESS: Yes. Yes, I do.

2 THE SPECIAL MASTER: Okay.

3 Q (By Mr. White) Is that one such worksheet, C-243,  
4 which applies to the North Crowheart area?

5 A. Yes, it is.

6 MR. WHITE: Your Honor, before asking further  
7 questions about C-243, I would wish to interpose an  
8 objection to its admission based on violation of the  
9 10-day rule. Again, it was provided last Thursday,  
10 April 16th.

11 THE SPECIAL MASTER: Same ruling.

12 MR. WHITE: Is my score up to 7, Your Honor?

13 THE SPECIAL MASTER: I would guess.

14 MR. WHITE: Okay.

15 THE SPECIAL MASTER: I would like to measure it  
16 with substance as well as numerically though.

17 MR. WHITE: Okay.

18 Q (By Mr. White) Isn't it true, Mr. Toedter, that  
19 there is no evidence in the record or no evidence  
20 that has been put on through you rather -- Let me  
21 start again.

22 Isn't it true that there is no evidence that's  
23 been put on through you which would allow one to  
24 determine, based on the record, whether the holes

25 toedter - voir dire - white

- 1 which are listed on Pages 1 and 2 of C-241-A are  
2 either inside or outside arable lands?  
3 A. Except for this Exhibit C243.  
4 Q. But that doesn't apply to the Arapahoe area that  
5 we're talking about. It applies to the North Crow-  
6 heart, isn't that correct?  
7 A. That's correct.  
8 Q. So is the answer that there is no evidence put on  
9 through you which would allow one to determine  
10 whether or not the lands --

11 THE SPECIAL MASTER: Holes.

12 MR. WHITE: Excuse me.

- 13 Q. (By Mr. White) -- the holes for Study Area A-1 are  
14 inside or outside the arable lands contained within  
15 that study area?

16 A. That's correct.

17 THE SPECIAL MASTER: But in any event, they are  
18 inside your study boundaries, are they not?

19 THE WITNESS: Yes, they are.

20 THE SPECIAL MASTER: So they may be out of  
21 arable lands?

22 THE WITNESS: Right.

- 23 Q. (By Mr. White) Let me ask you about that. Mr.  
24 Toedter, isn't it true that in order to calculate  
25 toedter - voir dire - white



1 the average weighted hydraulic conductivity within  
2 the arable lands, you often used values from holes  
3 that were outside of the arable lands?

4 A. Yes, and the rationale behind this --

5 THE SPECIAL MASTER: You gave it yesterday; you  
6 don't have to repeat it unless there is something  
7 unique.

8 MR. WHITE: Okay.

9 THE WITNESS: Okay.

10 Q (By Mr. White) Turning to Page 6 of Exhibit 242 --  
11 excuse me, 241-A, which lists the holes and the  
12 values you determined for Study Area 5, I notice  
13 that there is on several other areas, there is no  
14 formula shown, but simply the --

15 THE SPECIAL MASTER: Conclusion.

16 Q (By Mr. White) -- the conclusion. In those instances  
17 where no formula is shown, how can one determine the  
18 number of holes which you used to develop that average  
19 weighted hydraulic conductivity as well as the identity  
20 of those holes?

21 A. Okay, there is no technique of identifying the iden-  
22 tity of the holes. However, using the same rationali-  
23 zation that was presented earlier, there was one HKM  
24 hole within this area, namely, Hole 9/B that was

25 toedter - voir dire - white

1 used for deriving my average rated hydraulic conduc-  
2 tivity. Also, I noted the fact that the hydraulic  
3 conductivity for the Bureau holes for the most part  
4 were either equal to or greater than the value which  
5 I used.

- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

\* \* \* \* \*

1 Q (By Mr. White) On Page 6 for area A-5, how  
2 did you develop a depth to barrier for that  
3 area of 15 feet when the hole which you used,  
4 9-B, approached barrier at 10 feet.

5 A Well, the rationale behind that, as I said  
6 earlier, for the most part there's no problem  
7 with Bureau data on their conclusions for  
8 depth to barrier.

9 Hole 6-C indicates a depth to barrier of  
10 something greater than 15 feet.

11 Hole 7-C indicates a depth greater than 20  
12 feet.

13 Hole 9-C indicates a depth greater than 10  
14 feet.

15 Hole 8-C again represents a depth greater  
16 than 15 feet, and Hole 9-B represents a depth  
17 approaching 10 feet.

18 Based on the compilation of all this data  
19 and averaging it out, trying to just use a  
20 little bit of reasonableness in my approach,  
21 I felt that 15 feet was a reasonable value.

22 Q Is it true that there was not a mathematical  
23 computation made to arrive at 15 feet, but that  
24 was a professional judgment by you?

25 toedter-voir dire-white

1 A Yes.

2 Q Is it true then that you feel comfortable  
3 relying on the Bureau holes for depth to  
4 barrier although you may not feel comfortable  
5 relying on them for hydraulic conductivity?

6 A For the most part, that is correct.

7 Q Would you turn to Page 7, area A-6, and tell  
8 me, please, which hole you used to determine  
9 the average weighted hydraulic conductivity  
10 of 2.4 inches per hour?

11 A That was based on Hole 65-A. The reason for  
12 using 2.4 rather than 2.39 was just rounding.

13 Q So for areas A-5 and A-6, you used only one  
14 hole to determine the average hydraulic  
15 conductivity for the entire area; is that correct?

16 A Okay. You will note, however, in area 6 that  
17 the Bureau hydraulic conductivities are  
18 substantially greater than this.

19 Q But you have chosen to ignore those Bureau  
20 hydraulic conductivities?

21 THE SPECIAL MASTER: I'd say that's  
22 argumentative. He didn't ignore it. He said  
23 that he took the most conservative figure,  
24 which happened to be his, in comparing to all

25 toedter-voir dire-white

1 the others.

2 THE WITNESS: That's correct.

3 THE SPECIAL MASTER: And used it. It  
4 isn't a question of ignoring. This is 2.39.  
5 The others are 98, 10.5, 5.8, and 5. Now,  
6 he's already testified to that, and the reason  
7 I reluctantly made this observation is that  
8 we have 64 areas left in this exhibit, and I'm  
9 hoping we don't go through each one the way  
10 we've gone through the last three.

11 MR. WHITE: I'm just trying to find out how  
12 he derived that.

13 THE SPECIAL MASTER: But this is the second  
14 time you asked that question regarding weighted  
15 hydraulic conductivity when there was only one  
16 HKM hole and five or six Bureau holes.

17 MR. WHITE: Let me make one more inquiry  
18 because I believe I have misunderstood his  
19 testimony, and I would like to get it straight  
20 in my own mind if I might.

21 Q (By Mr. White) Mr. Toedter, with respect to  
22 hydraulic conductivity, do you feel that the  
23 Bureau values are reliable?

24 A I feel that if you used the Bureau textures,  
25 toedter-voir dire-white

1 for the most part, you will arrive at higher  
2 hydraulic conductivity results than what we  
3 did with HKM.

4 Q Turn to Page 8, please, area A-7.

5 Will you please just give me the hole  
6 identification number for the hole which you  
7 used to come up with the average weighted  
8 hydraulic conductivity of 1.5?

9 A This is based on Hole 68-A.

10 THE SPECIAL MASTER: Sixty what?

11 THE WITNESS: 8-A.

12 MR. WHITE: I'm sorry. I can't find 68-A.

13 Can you tell me --

14 THE SPECIAL MASTER: Are you sure you  
15 don't mean --

16 THE WITNESS: You are on Page 8? I'm  
17 sorry. I was on Page 9.

18 Okay. Can you repeat that?

19 Q (By Mr. White) Which hole did you rely on  
20 to come up with the hydraulic conductivity  
21 of 1.5?

22 A Okay. It was actually based on a weighted  
23 average between Hole 66-A and 6-B. However,  
24 apparently the computations in this case were  
25 toedter-voir dire -white

1 omitted.

2 Q The same question with respect to area A-8  
3 on Page 9. Was that Hole 68-A?

4 A Yes.

5 Q The same question with respect to area A-10  
6 on Page 11. Was that Hole 6-C?

7 A Yes, it was.

8 Q For Big Horn Flats, area 1, which begins on  
9 Page 1 again when you begin renumbering?

10 A Yes.

11 Q Does your 4.4 HC based on Hole 114-A?

12 A That is correct.

13 THE SPECIAL MASTER: Mr. White, I'm  
14 approaching that point where I think I have  
15 a duty to object to and forbid any further  
16 questioning along that line. We have been  
17 through about 10 of them.

18 MR. WHITE: Your Honor, I think I'm  
19 entitled to find out for the purposes of the  
20 record which holes he relied on when it's  
21 not shown in the document.

22 THE SPECIAL MASTER: I think you have  
23 done an excellent job of that.

24 MR. WHITE: Well, there are numerous other  
25 toedter-voir dire-white

1 omissions, Your Honor. I think I'm entitled  
2 to find out about them.

3 THE SPECIAL MASTER: You may inquire about  
4 any omissions you want to, but I will impose  
5 now an objection to any further questions on  
6 that which you have proven beyond a reasonable  
7 doubt as to what he relies on for finding the  
8 average weighted hydraulic conductivity in  
9 those exhibits and pages in 241-A where the  
10 formula is not given.

11 MR. WHITE: Well, Your Honor, that virtually  
12 hamstringing the State of Wyoming.

13 THE SPECIAL MASTER: Mr. White, that's  
14 nonsense. That's just pure nonsense.

15 You go back over your last ten minutes  
16 of questions, and you made a beautiful  
17 foundation for finding out exactly and precisely  
18 what he was relying on on his average weighted  
19 hydraulic conductivity when the formula isn't  
20 shown.

21 I'm not going to sit here and let you  
22 go through a day's testimony on 72 more pages  
23 of these to find exactly the answer you found  
24 on the last eight or nine.

25 Let me ask this one question: Is there any



1 example that was any different in all of your  
2 work from what you've recited in the answer  
3 in the last six or seven examples?

4 THE WITNESS: The same technique of  
5 approach was used throughout.

6 THE SPECIAL MASTER: Okay. Then how  
7 can I in good conscience do anything more  
8 than what I am doing?

9 MR. WHITE: Your Honor, I would state --

10 THE SPECIAL MASTER: Your face tells me  
11 that you agree.

12 MR. WHITE: No, my face doesn't say that  
13 I agree.

14 THE SPECIAL MASTER: I'm not saying your  
15 face agrees. Your face tells me that you have  
16 an understanding of the fact that this is  
17 quite proper.

18 MR. WHITE: No, I have an understanding  
19 that you wish to save time, but I also notice,  
20 based on my own work with myself and our  
21 experts working on this material, which was  
22 provided inside of the ten-day rule --

23 THE SPECIAL MASTER: I appreciate that.

24 MR. WHITE: -- that where there's no  
25 formula given, there often is a reasonable

1 doubt as to what value Mr. Toedter used in  
2 arriving at -- or what values he used in  
3 arriving at the hydraulic conductivities for  
4 each area.

5 The hydraulic conductivities for these  
6 areas undoubtedly will be used by Mr. Mesghinna  
7 as part of the foundation for his work,  
8 especially concerning drainage.

9 If we are unable to inquire as to the  
10 specifics for each of these areas, then we will  
11 be virtually prevented from effective cross-  
12 examination of Mr. Mesghinna.

13 THE SPECIAL MASTER: I'm interested in  
14 saving time, but not at the cost of any  
15 substantive shortchanging to anybody. This  
16 witness has stated time and time again that  
17 he took the least, the least -- in other words,  
18 the one most unfavorable to his position and  
19 used it.

20 If Mr. Mesghinna comes on with the same  
21 formula and applies it, I can't imagine where  
22 you find yourself jeopardized or limited in  
23 any way in your work. That just is totally  
24 unreasonable to me.

25 MR. WHITE: Let me ask one question. If you

1 are right, Your Honor, you're absolutely right  
2 if you are right on your basic assumption.

3 THE SPECIAL MASTER: I can't see how I  
4 missed.

5 MR. WHITE: Let me ask him the question.

6 Q (By Mr. White) Mr. Toedter, where there is  
7 no formula given for the calculation of  
8 hydraulic conductivity within Exhibits 241-A  
9 and 241-B, is it true that you always used  
10 the lowest value of weighted hydraulic  
11 conductivity given for any of the holes listed  
12 on the page or pages for that particular  
13 study area?

14 A Okay. That is not true in every case. However,  
15 let me qualify this.

16 I used reasonably close to the lowest  
17 value that was indicated on the page.

18 Q Could you please tell the Court those specific  
19 areas, study areas, such as A-3, that sort of  
20 study -- please tell the Court those specific  
21 study areas for which you did not use the  
22 lowest value of hydraulic conductivity listed  
23 for any hole in that area?

24 A I don't know, Sandy, without taking some time.

25 toedter-voir dire-white

1 THE SPECIAL MASTER: Mr. White, you have  
2 the documents. What you are trying to do, I  
3 think, is show me that you could have used four  
4 days to examine it and you might have found  
5 those cases for yourself without having to ask  
6 the witness, and you are going to get it out  
7 of this witness by asking him. Is that about  
8 what --

9 MR. WHITE: That's part of it, Your Honor.  
10 That's half of it.

11 The other half is that, as Mr. Toedter  
12 testified, he delivered this information to  
13 Dr. Mesghinna.

14 Dr. Mesghinna will probably get up on  
15 the stand and base his opinion on the information  
16 provided by Mr. Toedter.

17 THE SPECIAL MASTER: Base his conclusions,  
18 certainly the next step.

19 MR. WHITE: Yes, and in order to effectively  
20 deal with those opinions of Dr. Mesghinna, we  
21 need to know or be able to challenge the  
22 calculations of the weighted hydraulic conductivity  
23 for those areas which Dr. Mesghinna uses.

24 I do not know at this time those areas that  
25 Dr. Mesghinna will use. However, whatever areas

1 they are, I need to know the basis of the  
2 calculation which Dr. Mesghinna relied upon  
3 and which Mr. Toedter made in order to be  
4 able to effectively cross-examine Dr. Mesghinna.

5 THE SPECIAL MASTER: It is my ruling that  
6 you already have that.

7 MR. MEMBRINO: Your Honor, we might get  
8 some help with this if Mr. White, who in spite  
9 of not receiving the exhibits in a timely  
10 fashion, but has worked with his experts and  
11 come up with some questions, if he has them  
12 specifically in mind in different areas or  
13 different forms of technique, then why doesn't  
14 he just volunteer them and --

15 THE SPECIAL MASTER: I don't know that,  
16 and that's none of my business. Obviously,  
17 it's Mr. White's case and he's handling it.

18 If he had some examples like that, I would  
19 assume he would proceed with them, or he wants  
20 to take and ask a question about every one,  
21 and I have ruled on this, Mr. White, that you  
22 have an adequate basis for the average  
23 weighted hydraulic conductivity in every area  
24 in this exhibit without having to inquire of  
25 each and every one along the lines you have the

1 last four or five.

2 NOW, do you want to take a break for  
3 ten minutes and go through Pages 1 through  
4 72 and the remainder is in Riverton East  
5 after that and in South Crowheart to see if  
6 you can find examples of where there is not  
7 the most conservative figure used on which  
8 you might have a question?

9

10

11

12

\* \* \* \* \*

13

14

15

16

17

18

19

20

21

22

23

24

25

1 MR. WHITE: Well, I would like to be able to  
2 ask the questions to the witness of which ones he  
3 didn't use the most conservative figure. It seems  
4 to me he should know.

5 THE SPECIAL MASTER: He said that generally --  
6 he's answered that as his guide was not true liter-  
7 ally in every one that you asked --

8 MR. WHITE: That's right.

9 THE SPECIAL MASTER: -- but generally, he used  
10 it in virtually every one where he qualified it with  
11 an exception or two.

12 MR. WHITE: Well, Your Honor, the point is if  
13 this witness who did the work can't tell us the  
14 answer to the question as to those ones that he  
15 didn't use the most conservative figure, having  
16 worked probably weeks on this project, how can we  
17 develop that information having had six days to  
18 work with the material?

19 MR. CLEAR: Your Honor, maybe if we took a  
20 break, maybe Mr. Toedter can identify those. Maybe  
21 he can --

22 THE SPECIAL MASTER: Well, we are going to  
23 take a break in a few minutes, but let me say I  
24 don't have any objection to you taking every page  
25 and going through this, that's fine. That will

1 give us another couple of days with him.

2 MR. WHITE: I don't want another couple of days  
3 of him.

4 THE SPECIAL MASTER: We can sit here -- I can  
5 sit here getting paid \$60 an hour while you do that  
6 and each of us gets paid our professional fee and  
7 each month the State will pay out several hundred  
8 thousand dollars to me and others for their work,  
9 and we add to the general criticism of this lawsuit  
10 by doing these kinds of things. Now, if you're out  
11 any substantive mechanism to help you with your case  
12 as a result of any actions by me, then my actions  
13 are erroneous and you can sure overrule them. And  
14 that's the last thing in the world we want to do,  
15 but, Mr. White, we began with the four pages before  
16 the numbered pages and got into this subject matter,  
17 and you've got the same answer in virtually every  
18 case, EVERY CASE. And he has stated that rule of  
19 his applied for every one of the remaining cases --

20 MR. WHITE: No, he didn't Your Honor.

21 THE SPECIAL MASTER: He did, except glaring  
22 exceptions, of course.

23 MR. WHITE: What I would like to do is ask him  
24 what are those glaring exceptions. That's the ques-  
25 tion that's outstanding. That's the question I would



1 like to ask him, and it is the question you won't let  
2 me ask him.

3 THE SPECIAL MASTER: No, I didn't say I wouldn't  
4 let you ask that question at all. We are in the pro-  
5 cess of deciding whether you will. You have not asked  
6 him what were those exceptions yet. He just barely  
7 stated that he had those exceptions.

8 MR. WHITE: I believe I did a couple of times.  
9 Let me do it again. We'll see what happens.

10 Q (By Mr. White) Mr. Toedter, are you able to state  
11 those study areas for which no formula appears within  
12 Exhibits 241-A and -B, that with respect to those  
13 areas you-- excuse me. Let me start again, Your  
14 Honor.

15 Mr. Toedter, are you able to identify those  
16 areas contained in Exhibits 241 and 241-B (sic)  
17 which have no formula shown for the calculation  
18 of hydraulic conductivity and for which you did  
19 not use the lowest value of weighted hydraulic  
20 conductivity shown for any hole in that area?

21 A. No, I'm not.

22 THE SPECIAL MASTER: Yes.

23 MR. WHITE: Well, that's exactly the problem,  
24 Your Honor. If he could do that, we wouldn't have

25 toedter - voir dire - white

1 to go through it page by page.

2 THE SPECIAL MASTER: I think your request poses  
3 both an unreasonable mental and physical burden on  
4 the witness and on a reasonable person -- a reason-  
5 able person who just finished his professional work  
6 here, has worked on various hundreds of items. The  
7 physical evidence in this case shows that he's had  
8 the land forms to deal with, the soils, the con-  
9 ductivity as well as the two factors that he's re-  
10 lied upon, which is his -- which is the -- the rate  
11 at which the water travels and the depth to barrier.  
12 And to come back to a man and say to him, you know,  
13 why can't you pick out those one or two out of 150  
14 before you, I think it is a totally unreasonable re-  
15 quest of him.

16 Let's take a ten-minute break.

17 (Recess, 10:21 a.m. to approxi-  
18 (mately 10:35 a.m.)

19 THE SPECIAL MASTER: All right. Shall we re-  
20 sume, please?

21 Q (By Mr. White) Mr. Toedter --

22 THE SPECIAL MASTER: In the interum, I'm happy  
23 to observe that we think we are near a solution,  
24 Mr. White.

25 toedter - voir dire - white

1 MR. WHITE: I didn't know we were near a solu-  
2 tion, Your Honor. I would still like to ask him  
3 that same question:

4 Q (By Mr. White) Whether or not he is able to identify  
5 those areas for which no formula was given and for  
6 which he used less than the lowest value for any  
7 hole of weighted hydraulic conductivity?

8 A. Not without going through the exhibit.

9 MR. WHITE: Well, that leads me to the next  
10 question, Your Honor.

11 Q (By Mr. White) On Area Big Horn Flats 3, Page 3,  
12 where the numbering starts again for Big Horn Flats,  
13 which of those holes are in Subarea 3-A?

14 A. 17-B.

15 Q Is that the only one in 3-A?

16 A. Yes, it was.

17 Q Okay.

18 A. The reason for breaking this particular area out  
19 into subareas was because of this dissimilarity  
20 in hydraulic conductivities.

21 Q Let me ask you a question that contains a long  
22 series and you perhaps could follow along with it:

23 Is it true that you used the -- Strike that.

24 For Big Horns Flat Area 7 --

25 toedter - voir dire - white

1 THE SPECIAL MASTER: Page what, Mr. White?

2 MR. WHITE: Page 9.

3 Q (By Mr. White) You have an average weighted HC of  
4 5 and yet the lowest value for any single hole is  
5 3.06. Is that an example of where you did not use  
6 the lowest value?

7 A Yes, that is. However, you should note that most  
8 of the values above this are significantly greater  
9 by about a factor of 3 than what I show for my  
10 average for the area.

11 Q On Page 13 for Big Horn Flats, Area 9 -- Strike the  
12 question.

13 MR. SACHSE: Ha-ha.

14 Q (By Mr. White) On Page 17, Big Horn Flats Area 13,  
15 you show no holes in that area?

16 A That is correct.

17 THE SPECIAL MASTER: How do you conclude that  
18 the average weighted hydraulic conductivity for the  
19 area is 5 inches per hour?

20 THE WITNESS: Okay. What I used in that analysis  
21 was I flew out by the area and got on the ground and  
22 looked at the cut section, and the material was a  
23 gravelly, sandy loam. So I noted here this area is  
24 a glacial deposit having cobble, gravel and sandy

25 toedter - voir dire - white

1 matrix greater than 6 feet deep, and then I noted  
2 that the depth was 50 feet deep along Sage Creek  
3 which is adjacent to that area, and I just concluded  
4 that that was a reasonable value for that formation.

5 Q (By Mr. White) Mr. Toedter, would you turn back to  
6 Page 4 in Big Horn Flats for Big Horn Flats Area 4,  
7 as well as Page 5 for Area 5. Is it true that you  
8 had no holes in those areas?

9 A. That is correct. I've got some photographs, however,  
10 with me to show what the materials are like in those  
11 areas. They are very similar in nature, although a  
12 little bit coarser than those which were found in  
13 the previous example.

14 Q For North Crowheart, which is Page 14 in the North  
15 Crowheart Area 13, is that another example of where  
16 you did not use the lowest weighted hydraulic con-  
17 ductivity for any of the holes shown on the page?

18 A. Okay. Yeah, that is one of the examples that I re-  
19 ferred to as being an exception. This particular  
20 hole, I felt, was an outlier from a statistical  
21 standpoint.

22 THE SPECIAL MASTER: Where are you talking about,  
23 2/C?

24 THE WITNESS: Yes, Hole 2/C with .06.

25 toedter - voir dire - white

1 Q (By Mr. White) Is it true that with respect to  
2 those holes that you have described as outlyers,  
3 you ignored those?

4 A. Well, I didn't totally ignore them. It's just one  
5 hole in that area was like that. So, as a conse-  
6 quence, there is no reason to arrive at the con-  
7 clusion that the area is either nonarable or non-  
8 drainable. Some consideration would have to be  
9 given to the placement of drains around that area,  
10 however.

11  
12  
13  
14  
15  
16  
17  
18 \* \* \* \* \*  
19  
20  
21  
22  
23  
24  
25

1 Q (By Mr. White) For North Crowheart area, 17  
2 on Page 18, is this another example of where  
3 you did not use the most conservative value  
4 for hydraulic conductivity?

5 A Yes, it is. What I attempted to do in this  
6 case was I looked at the hydraulic conductivity  
7 values derived for this area and compared them  
8 for the areas around having similar land forms  
9 and then, rather than using the 1.4, I concluded  
10 tht the 3.5 inches an hour was a reasonable  
11 approximation for that area since my analysis  
12 would have been based on the results of just  
13 one hole.

14 You will note again that the Bureau holes  
15 indicate hydraulic conductivities significantly  
16 greater than what I have used.

17 Q On Page 19 for North Crowheart area 18 there's  
18 no formula shown. There are five holes with  
19 lower hydraulic conductivity than your average.

20 Could you explain how you derived that  
21 average weighted hydraulic conductivity?

22 A Okay. You might first off look at the hydraulic  
23 conductivity values for the HKM holes.

24 THE SPECIAL MASTER: Which were --  
25 toedter-voir dire-white

1 THE WITNESS: They are shown on Page 20  
2 by 52-A, 7-B, and 50-A. All of these hydraulic  
3 conductivities are significantly greater than  
4 the three and a half inches per hour.

5 Okay. Upon scanning back through the  
6 Bureau information, there's a great deal of  
7 range found, so as a consequence, I end up  
8 concluding that the 3.5 was probably a reasonable  
9 estimate for the hydraulic conductivity for  
10 that area.

11 Q (By Mr. White) So that's an estimate rather  
12 than a calculation?

13 A That's right, in that particular instance.

14 Q With respect to the five holes having a weighted  
15 hydraulic conductivity less than your estimated  
16 average, were those holes done by the Bureau?

17 A Yes, they were.

18 Q The North Crowheart area 19 on Page 21 has three  
19 values less than the average which you calculated.

20 Would you please describe the computation  
21 or calculation which you used to determine the  
22 average hydraulic conductivity of 5.7 for that  
23 area?

24 A Okay. This was based -- the 5.7 was based  
25 toedter-voir dire-white



1 on the HKM Hole 51-A.

2 Again, there is a lot of deviation in the  
3 Bureau results. This was probably one of my  
4 liberal -- in other words, I used a more liberal  
5 value in this case than most instances throughout  
6 the study. I wouldn't say this is typical  
7 of what I generally do.

8 Q Is this another instance where the Bureau values  
9 for hydraulic conductivity were less than your  
10 average?

11 A I would say an average of Bureau was greater or  
12 equal at that time to mine.

13 Q But the others were lower with Bureau; is that  
14 correct?

15 A Yes, the values were lower with Bureau.

16 Q North Crowheart 22 on Page 25, you have an  
17 average shown of 4.9, no calculation and again --

18 THE SPECIAL MASTER: Where do you get the  
19 average of 4.9, from what page, Mr. White?

20 MR. WHITE: Page 25, Your Honor.

21 THE SPECIAL MASTER: Oh, I beg your pardon.

22 Q (By Mr. White) And yet Hole 7-C is less than  
23 that average. How did you arrive at the average?

24 A Okay. The average was based on HKM Hole 76-A.

25 toedter-voir dire-white

1 Again, the 4.2 in Hole 7-C was the only Bureau  
2 value lower.

3 You might note one value by the Bureau  
4 is two times or approximately two times greater  
5 than my values.

6 Q Let's see if I can ask a conclusionary question  
7 that might wrap it up.

8 Is it true that for those areas for which  
9 no formula is shown in Exhibit 241-A and B you  
10 always used the most conservative HKM value  
11 for hydraulic conductivity?

12 A For the most part, I tried to go with HKM data  
13 as much as what I could. Then I reviewed the  
14 Bureau data in order to determine what they  
15 had for the particular area.

16 In many cases we have already gone through,  
17 the Bureau values were higher and I used  
18 considerably lower values, relying upon HKM  
19 results.

20 Q Well, turn to Page 26 for North Crowheart area  
21 25 -- excuse me -- area 23, Page 26, area 23.

22 Here you had a Bureau value that was  
23 roughly one-seventh your average value, and is  
24 it true that you ignored that value and went to  
25 toedter-voir dire-white

1 one of the two other Bureau holes that had a  
2 6.0 value?

3 A Okay. Well, I think one has to keep statistics  
4 in mind in this context. We are dealing with a  
5 number of holes here. We have got one hole that  
6 has a low value. Most of the rest of the data  
7 shows that it's considerably higher in that  
8 data -- or in that area, so, consequently, I  
9 concluded that the area in general had a higher  
10 value.

11 THE SPECIAL MASTER: A higher value than  
12 the lowest hole but a lower value or more  
13 conservative value than your own HKM hole; is  
14 that correct?

15 THE WITNESS: Yes, that's correct, in this  
16 instance.

17 THE SPECIAL MASTER: Well, Mr. White, you  
18 have gone through half of them, and I think you  
19 have done as exhaustive and thorough job of  
20 voir diring an exhibit as I have ever been  
21 exposed to observe.

22 MR. WHITE: Well, Your Honor, I would like  
23 to find out the facts with respect to each area,  
24 at least the methodology.

25 toedter-voir dire-whtie

1 THE SPECIAL MASTER: You can sure cross-  
2 examine him in a few minutes.

3 MR. WHITE: If I can go on in cross-  
4 examination, Your Honor, I will then.

5 THE SPECIAL MASTER: It will be in  
6 evidence and you certainly can.

7

8

9

10

\* \* \* \* \*

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 Q (By Mr. White) Mr. Toedter, would you direct your  
2 attention, please, to that portion of Exhibit 241-A  
3 on Page 12 for the Arapahoe Area 11?

4 A Okay.

5 Q You have one hole there, Hole No. 9/B, upon which  
6 you relied to come up with your average, is that  
7 correct?

8 A Yes.

9 Q Isn't it true that that hole is about three quarters  
10 of a mile outside of the arable lands?

11 A I would have to look at my worksheet in order to  
12 determine that.

13 THE SPECIAL MASTER: Were you in 241-B and, if  
14 so, what page?

15 MR. WHITE: A, Your Honor.

16 THE SPECIAL MASTER: What page?

17 MR. WHITE: Page 12.

18 THE SPECIAL MASTER: Page 12 under Arapahoe?

19 MR. WHITE: Yes, sir, for Area 11. It should  
20 be about 12 to 15 pages from the front.

21 Q (By Mr. White) If Hole 9/B is three quarters of a  
22 mile outside of the arable lands, what process did  
23 you go through to determine that the average weighted  
24 hydraulic conductivity within the arable lands was

25 toedter - voir dire - white

1 the same as for that one hole that was outside the  
2 arable lands?

3 A. I think, in order to make this clear, we should get  
4 the exhibit on the Arapahoe area.

5 (Brief pause.

6 A. Okay. I reached my conclusion because the land form  
7 in this area was generally similar, the topography  
8 was about the same. You had the nice flat line  
9 slope lying above the Popo Agie River shown on the  
10 geology map. The derivative of the land form is  
11 uniform throughout this area.

12 HKM had one land classification hole in the  
13 middle of the area that was greater than 72 inches.  
14 So it was on these facts that enabled me to arrive  
15 at my conclusion that that, in fact, would be re-  
16 presentative of the area.

17 Q So you relied on a hole that was not shown in  
18 Exhibit 241-A?

19 A. Yes, there is no holes shown on this exhibit.

20 Q Let me ask you --

21 A. However, let me make one point, Sandy, I think, is  
22 the location of all these holes are in evidence.  
23 They are not in an easy place to get at. They were  
24 located on the '69 air photos for the future lands,

25 toedter - voir dire - white

1 as testified to by Mr. Kersich, and on Mr. -- or  
2 during Mr. Ross' -- Waples' testimony. They are  
3 shown on the 1980 air photos.

4 Q What's the greatest distance from the arable land  
5 which a hole could be and still be considered by  
6 you in Exhibits 241-A and -B as a basis for the  
7 determination of the weighted hydraulic conducti-  
8 vity within that arable land?

9 A. Okay, I guess I really never looked at it from that  
10 standpoint. I was more concerned about whether or  
11 not my holes were, in fact, representative of the  
12 land forms in the area and, if so, I used them.

13 Q Isn't it true that you excluded from your analysis  
14 holes, many holes, which were less than or showed  
15 less than 6 feet to barrier and were included with-  
16 in the arable lands?

17 A. I don't know if that's the case.

18 Q Okay. Would you turn to the North Crowheart Unit  
19 Area 25, please?

20 THE SPECIAL MASTER: Is that Page 29?

21 MR. WHITE: Yes, sir, it is.

22 THE SPECIAL MASTER: Mr. White, you have  
23 accomplished three fourths of what I said I wasn't  
24 going to let you do.

25 toedter - voir dire - white

1 A. I've got that in front of me.

2 Q (By Mr. White) Isn't it true that there is U.S.  
3 Bureau of Reclamation Drainage Hole No. 23 within  
4 those arable lands that shows 2 1/2 feet to shale?  
5 Or do you know?

6 A. I don't know. However, I have the materials to  
7 review this and reach a conclusion.

8 (Brief pause.)

9 THE WITNESS: Which hole number was that  
10 again?

11 MR. WHITE: 23.

12 THE SPECIAL MASTER: 23. Which is not on his  
13 exhibit page for the area, is that right?

14 MR. WHITE: That's correct.

15 THE WITNESS: Okay. You might note the fact  
16 that within reasonably close proximity of that very  
17 hole there was an HKM hole which was a deep hole  
18 numbered 48 that was 10 feet deep. This hole was  
19 located to the southwest. You might also note that  
20 to the southeast there was an HKM land classifica-  
21 tion hole in which the land classifier was stopped  
22 by gravel. That was 54 inches deep. This was the  
23 reason why this hole was not included.

24 Q (By Mr. White) But that hole did show 2 1/2 feet  
25 toedter - voir dire - white



1 to shale, did it not?

2 A. Yes, it did.

3 Q. And in the same section isn't there another Bureau  
4 of Reclamation Hole No. 22 that goes 5 feet to shale?

5 A. Okay, yes. However, you might note again that Hole 48  
6 is 10 feet deep.

7 THE SPECIAL MASTER: How much distance between  
8 48 and the hole to which Mr. White alludes?

9 THE WITNESS: Okay, there's a quarter of a mile  
10 or less; reasonably close to that. Then a quarter  
11 of a mile to the northwest of that in the same land  
12 form the depth on that hole was 7 feet.

13 THE SPECIAL MASTER: Are those holes in your  
14 study area or are they in the arable land conclu-  
15 sions?

16 THE WITNESS: Okay, I'm not sure.

17 THE SPECIAL MASTER: Those are the holes that  
18 we're talking about, are they in your study area?

19 THE WITNESS: Yes.

20 THE SPECIAL MASTER: Are they also in the  
21 arable --

22 THE WITNESS: They are in the arable lands.

23 THE SPECIAL MASTER: Okay.

24

25

\* \* \* \* \*

1 Q (By Mr. White) In the same study area isn't  
2 it true that there's another Bureau Hole  
3 No. 2 that shows five feet to hard sandstone?

4 A Okay. That hole is on the edge of the arable  
5 land. There's a hole just to the south of that  
6 dug by an HKM land classifier and identified  
7 as Hole No. 8, which was 44 inches to ground.

8 Q Turning to North Crowheart area 31, which  
9 is on Page 35, isn't it true that there's  
10 another Bureau hole within the arable lands  
11 numbered 8, which does not appear in Exhibit 241-A  
12 and shows four and a half feet to shale?

13 A Whereabouts is that hole? What section?

14 Q It should lay on the common boundary of Section  
15 18 in Township 4 North, 2 East, and Section 13  
16 in Township 4 North, 3 East.

17 A Okay. You might note that there's a Bureau  
18 hole identified as Hole No. D-26. It was six  
19 feet. It's adjacent to this hole and to the  
20 east.

21 Another Bureau hole is in the same general  
22 area identified as D-17. This hole was greater  
23 than 16 feet deep.

24 There is another Bureau hole to the Northwest  
25 toedter-voir dire-white

1 identified as D-16, and this hole was greater  
2 than 12 feet.

3 THE SPECIAL MASTER: Why are none of those  
4 three holes you just mentioned listed in your  
5 North Crowheart area 31 listing on Page 35?

6 THE WITNESS: Probably because of the  
7 volume of data that was involved, getting them  
8 down on paper.

9 Q (By Mr. White) Directing your attention to  
10 area 39 within North Crowheart, Page 43, isn't  
11 it true that in Section 35 there's a Bureau  
12 Hole No. 16 which shows four feet to shale which  
13 is within the arable lands but not listed within  
14 the holes that you considered on Page 43?

15 A Okay. There are other holes again in the  
16 general proximity of this area, similar land  
17 forms. Note particularly Hole D-13, which is  
18 greater than 20 feet deep. This hole is  
19 located southwesterly of hole D-16.

20 There's another Hole 7, which is an HKM  
21 land classification hole. That hole was greater  
22 than 120 inches.

23 There is another Bureau Hole, D-11, to  
24 the southeast, which was 14 feet deep.

25 toedter-voir dire-white

1 THE SPECIAL MASTER: Mr. White, I have got  
2 to observe that I have been very, very generous  
3 in this subject matter and that his answers now  
4 on the questions of the last 30 minutes have  
5 more than answered, I think, and shown his  
6 pattern of what was done in each specific  
7 instance you have asked him about. His answers  
8 seem to be duplicative or repetitious.

9 MR. WHITE: Let me ask a general question,  
10 Your Honor, that may bring that out.

11 Q (By Mr. White) Mr. Toedter, could you explain  
12 why in instances such as we have described or  
13 discussed for the North Crowheart Units 25, 31,  
14 and 39 you did not conclude within Exhibit 241-A  
15 or 241-B or your calculations of averages logged  
16 holes showing depth to barrier of less than six  
17 feet?

18 A Okay. I think you will note if you go through  
19 the holes that met this case that were left off,  
20 previously in our testimony we have identified  
21 holes that were, in fact, included that had  
22 either low hydraulic conductivity results or  
23 depth to barrier results and we did not use these  
24 totally to come to our conclusions.

25 toedter-voire-dire-white

1 In other words, it gets back to the  
2 point that I made about statistics earlier.

3 Also, there are techniques in drainage  
4 to accommodate these conditions and maintain  
5 the lands under sustained productivity in an  
6 irrigable condition.

7 Q Is it true to say then that you did not include  
8 within the analysis illustrated by Exhibits  
9 241-A and B all the logged holes which could  
10 be found within the arable lands within each  
11 study unit?

12 A Yes, that is correct, and they work both ways.

13 In other words, there were some logged  
14 holes that weren't included in my analysis that  
15 met or that were higher, exceeded our depth  
16 to barrier and hydraulic conductivity standards.

17 Q Isn't it true that the depth to barrier which  
18 is shown on Exhibit 241-A and 241-B for each  
19 study area is an estimated average, depth  
20 to barrier, for the arable lands within that  
21 study area?

22 A Yes, it is.

23 Q And if it's an average, isn't it true that  
24 some lands have a greater and some lands have  
25 toedter-voir dire-white

1 a lesser depth to barrier than the average?

2 A That's true, but I think I was probably  
3 conservative in those cases.

4 In other words, rather than using the  
5 exact average, I used a lower value than the  
6 average.

7 Q Isn't it true that based on the information  
8 contained in Exhibits 241-A and 241-B as well  
9 as Exhibits C-231 through 240 you cannot  
10 determine those lands which have the lower or  
11 have a value less than the average depth to  
12 barrier for the entire area?

13 THE SPECIAL MASTER: Would you like that  
14 question read back to you?

15 THE WITNESS: Yes. I didn't understand it.

16 MR. WHITE; I will repeat it.

17 THE SPECIAL MASTER: Read it back.

18 (Whereupon, the following  
19 (question was read back as  
20 (follows; "Q Isn't it true  
21 (that based on the information  
22 (contained in Exhibits 241-A  
23 (and 241-B as well as Exhibits  
24 (C-231 through 240 you cannot  
25 (determine those lands which  
(have the lower or have a value  
(less than the average depth to  
(barrier for the entire area?"

24 A (By The Witness) You cannot determine it from  
25 toedter-voir dire-white

1 my exhibits.

2 However, there is appropriate documentation  
3 in my field notes or worksheets to make this  
4 determination.

5 Q (By Mr. White) Was that documentation provided  
6 to Dr. Mesghinna?

7 A No.

8 Q Thank you.

9 MR. WHITE: Your Honor, the State would  
10 object to Exhibits C-231 through 240, in  
11 addition to the grounds previously stated with  
12 respect to the ten-day rule, on the basis of  
13 relevancy since the values contained therein  
14 for average weighted hydraulic conductivity  
15 and depth to barrier are misleading and  
16 irrelevant because the averages are based on  
17 values -- are based on, in part, values for  
18 holes, logged holes, outside of the arable lands.

19 It defies common sense to conclude that an  
20 average for lands -- or an average for arable  
21 lands can be calculated by using values for  
22 lands outside of the arable lands.

23 We would object to Exhibits 241-A and  
24 241-B because they are, first, irrelevant.

25 toedter-voir dire-white

1 There's no connection of the logged holes  
2 listed with arable lands.

3 It's impossible to tell whether or not  
4 those particular holes listed in those two  
5 exhibits are within arable lands.

6 Not all the holes that were listed were  
7 actually used. Not all the calculations are  
8 listed and, therefore, in addition to being  
9 irrelevant, they are misleading and perhaps  
10 incompetent, in the legal sense of the word,  
11 not --

12 THE SPECIAL MASTER: Should we file  
13 charges against somebody that prepared them?

14 MR. WHITE: No, Your Honor, I said in the  
15 evidentiary sense of the words.

16 I would also object to the admission of  
17 Exhibits 231 through 240 on the basis of  
18 foundation. Only the exhibits in the North  
19 Crowheart area has been supported by Mr. Toedter's  
20 work map which he himself testifies allow one  
21 to make the kind of determinations upon which  
22 the other objections are based.

23 And since that information has not been  
24 provided as foundation, those exhibits are  
25 objected to for lack of foundation.



1 Those are my objections, Your Honor.

2 THE SPECIAL MASTER: All of your objections  
3 are overruled. The Exhibits WRIR C-231 through  
4 C-243 are hereby admitted into evidence.

5 While they may not be letter perfect, I  
6 find them no better or worse in professional  
7 expertise than the hundreds of exhibits of both  
8 the United States and the State which have  
9 preceded them in evidence in this litigation.

10 I do not find them irrelevant or misleading.  
11 Each one deals with its own specific area, and  
12 I do not believe that the objection is valid  
13 that states that every probe hole has to be  
14 in arable lands when it is now so clear in this  
15 case that land forms, geologic structure,  
16 alluvial and other characteristics can identify  
17 soils and be used as well as the specific  
18 information from a hole in the arable lands.

19 (Whereupon, Exhibits C-231  
20 (through C-243 were received  
(in evidence.

21 THE SPECIAL MASTER: Was that funny?

22 MR. WHITE: No, sir, it wasn't funny.

23 THE SPECIAL MASTER: I just wondered about  
24 the laughing that took place.

25 MR. WHITE: I'm sorry.

1

THE SPECIAL MASTER: Let's proceed. Mr.

2

Membrino?

3

4

5

6

\* \* \* \* \*

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 MR. MEMBRINO: Your Honor, I believe it is --  
2 now that the voir dire of the exhibits has been  
3 completed, Mr. White may proceed with his cross.

4 I'm completed with my direct examination.

5 THE SPECIAL MASTER: You are completed with  
6 your direct?

7 MR. MEMBRINO: Yes, sir.

8 THE SPECIAL MASTER: All right, Mr. White,  
9 you may proceed with cross-examination, if there's  
10 any left.

11 MR. WHITE: I didn't laugh, Your Honor.

12 CROSS-EXAMINATION

13 BY MR. WHITE:

14 Q Mr. Toedter, you testified that you played a very  
15 important role in the development of the land  
16 classification standards, is that correct?

17 A Yes.

18 Q Mr. Toedter, there has been previous testimony in  
19 this action that those land classification stan-  
20 dards were not based on any specific dollar value,  
21 is that correct?

22 Well, do you know if that's correct?

23 A I only know as it relates to my work.

24 Q Assuming that there was previous testimony that the  
25 toedter - cross - white

1 land classification standards were not based on  
2 specific value or specific dollar values, that  
3 testimony would not be correct, would it?

4 MR. CLEAR: Your Honor, I object. It is out-  
5 side -- he didn't -- on direct he didn't testify as  
6 to what the previous testimony was.

7 THE SPECIAL MASTER: Can you reframe it? Can  
8 you also eliminate the ambiguity between values and  
9 dollar values -- are you speaking of only one value,  
10 is it the dollar value?

11 MR. WHITE: Let me try again, Your Honor.

12 Q (By Mr. White) Mr. Toedter, with respect to those  
13 standards dealing with subsurface drainage with  
14 which you were involved --

15 A Okay.

16 Q -- isn't it true that those standards were based on  
17 specific dollar values?

18 A You can't get away from some economic limitations --

19 Q That's right.

20 A -- within these standards. There's just -- these  
21 standards, there's just no way that you can divorce  
22 yourself completely.

23 Q In deriving the subsurface drainage standards --

24 THE SPECIAL MASTER: Deriving what, Sandy?

25 toedter - cross - white

1 MR. WHITE: The subsurface drainage standards,  
2 land classification standards.

3 Q (By Mr. White) Specifically, the 6 foot to barrier  
4 and the tenth of an inch per hour HC, isn't it true  
5 that you assumed that drainage costs could not ex-  
6 ceed \$1600 per acre?

7 A. Okay.

8 THE SPECIAL MASTER: I heard no direct testi-  
9 mony of any kind from this witness dealing with the  
10 dollars per acre for drainage costs.

11 MR. WHITE: Well, Your Honor --

12 THE SPECIAL MASTER: I wonder if the question  
13 on cross is appropriate.

14 MR. WHITE: His direct testimony went into the  
15 development as well as the application of the stan-  
16 dards. I am now inquiring into the development of  
17 the standards, and I'm asking him weren't they de-  
18 veloped based on an assumption of drainage costs  
19 being \$1600 per acre.

20 MR. MEMBRINO: Your Honor, the witness testi-  
21 fied that economic considerations can't be entirely  
22 gotten away from.

23 THE SPECIAL MASTER: Well, that's just now --

24 MR. MEMBRINO: That's right.

25 toedter - cross - white

1 THE SPECIAL MASTER: -- on his direct.

2 MR. MEMBRINO: On his direct examination he  
3 didn't -- he testified as to principally as to the  
4 physical constraints that require one to select  
5 the conductivity and barrier that he did. And I  
6 think the cross-examination should be limited to  
7 that.

8 THE SPECIAL MASTER: Well, I think so, too,  
9 but I'm going to let the question be answered. I  
10 think -- you can answer it, if you can, if you're  
11 able to, if it is in your province of competence.

12 THE WITNESS: Okay. I got an idea what the  
13 answer is.

14 First of all --

15 MR. WHITE: Ha-ha-ha-ha.

16 A What we have to put in perspective here and what  
17 Sandy is alluding to is the 200-foot drain spacing  
18 that was set forth in our standards. Then, after  
19 one considers that, you have to consider the number  
20 of linear feet of drain that would be placed in the  
21 ground with a 200-foot drain spacing. Since an  
22 acre is approximately 200 feet by 200 feet, approxi-  
23 mately 200 feet of drain would be required to be  
24 placed in the ground for a 200-foot drain spacing.

25 toedter - cross - white

1 Therefore, if the assumption was made that the cost  
2 of placing drain in the ground was \$8 per linear  
3 foot, which is actually out of my area of testimony  
4 in this case, but, if that assumption nevertheless  
5 was made, one could derive that the cost would be  
6 1600 feet -- or \$1600, excuse me, per acre.

7 Q (By Mr. White) And those were the assumptions which  
8 you made in deriving the subsurface land classifica-  
9 tion standards, isn't that true?

10 A No, that's not totally -- as I testified to earlier,  
11 really, that decision was based on some judgment and  
12 also recommendations from the engineering and re-  
13 search center in Denver, which is the technical por-  
14 tion of the Bureau of Reclamation. In other words,  
15 they have the last say in technical decisions that  
16 are made within Reclamation.

17 THE SPECIAL MASTER: I have a question that  
18 can't wait: At what point, gentlemen, do you in-  
19 ject into these formulas whether or not that acre  
20 then is to be used for an annual cash crop with  
21 the price-supporting legislation on it as distin-  
22 guished from an annual crop with a violent fluctua-  
23 tion or for nothing but pasturage, where does that  
24 factor come into whether or not you proceed with

25 toedter - cross - white

1 the work on this acre?

2 THE WITNESS: Since --

3 THE SPECIAL MASTER: Does anyone want to answer  
4 that for me?

5 MR. WHITE: I think the United States counsel  
6 can. I would be glad to answer it, but it is their  
7 case.

8 MR. MEMBRINO: Your Honor, I don't have the  
9 specific answer, but there is an economic considera-  
10 tion that will be dealt with in large part by our  
11 economist who will be testifying.

12 THE SPECIAL MASTER: All right. All right.  
13 I just wondered how -- at what point do we integrate  
14 all these factors, and I guess that's at the end of  
15 all of the -- all of the cases -- at the end of the  
16 case, I suppose.

17 MR. MEMBRINO: That's right, Your Honor. These  
18 standards go largely to the physical constraints in  
19 land classification and establishing drainage cri-  
20 teria just like the testimony of Mr. Kersich and Mr.  
21 Waples distributed to economic consideration except  
22 for the fact that there are some inherent considera-  
23 tions that go into that concerning economics.

24 THE SPECIAL MASTER: All right. Thank you.

25 toedter - cross - white



1

Thank you, Mr. White.

2

Q (By Mr. White) Isn't it true that the \$1600 per acre drainage costs was one of those inherent considerations just described by Mr. Membrino which you took into account in developing the subsurface drainage standards?

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

A. It really isn't one. I mean, it relates to it, but yet it doesn't. This whole process is a narrative type process and drainage becomes a portion of the project development costs, and the 200 foot is just a lower limit established by Reclamation which can't be supported economically on lands producing lower value crops.

Q You indicated in your last answer that the drainage standards assumed that drainage costs are a project cost, is that correct?

A. That is correct.

Q Isn't it true that by making drainage a project cost instead of an on-farm cost, the result is to perhaps increase the land classification of some lands by one or two classes?

MR. MEMBRINO: Your Honor, I object. That's not at all the subject of Mr. Toedter's testimony, and we have other experts to talk about project cost

toedter - cross - white

1 development.

2 MR. WHITE: It is quite a part of his testimony.  
3 He also testified not only to the development of the  
4 land classification standards, but the application,  
5 and I think the Court is entitled to know, as this  
6 witness will testify, that by using the drainage as  
7 a project cost as opposed to an on-farm cost has the  
8 effect of elevating the number of acres in a parti-  
9 cular class.

10 THE SPECIAL MASTER: I think this witness was  
11 qualified as an agricultural engineer. He's not a  
12 Bureau economist, not had expertise or experience  
13 in establishing the benefit-cost ratios to warrant  
14 the project or unwarrant appropriations or funding  
15 for the project. Therefore, I'm going to sustain  
16 the objection, Mr. White.

17 MR. WHITE: Let me try to lay a foundation,  
18 Your Honor.

19 Q (By Mr. White) Mr. Toedter, isn't it true that  
20 your responsibilities included the application of  
21 the standard which you helped develop?

22 A Yes.

23 Q Isn't it true that the application of those stan-  
24 dards resulted in lands being classified as Class

25 toedter - cross - white

1 1, 2, 3, 4, or 6, as shown by Mr. Kersich's testi-  
2 mony?

3 MR. MEMBRINO: Your Honor, I object to that.  
4 The land classification standards speak for them-  
5 selves and the hydraulic conductivity and depth to  
6 barrier criteria are the same for all three classes  
7 of lands. There's already been testimony given for  
8 classes, that is, 1 through 3; as to Class 4, there  
9 are no drainage requirements provided for. So the  
10 question as to whether land classification gets  
11 changed from 1 to 2 to 3 is not appropriate because  
12 in applying standards the same criteria are applied  
13 across the board.

14 THE SPECIAL MASTER: It is a hard argument to  
15 overcome, Mr. White.

16 MR. WHITE: Not at all, Your Honor. If you  
17 sustain the objection, I think I have a very good  
18 motion to strike all the testimony of this witness  
19 relating to the application of the standards and  
20 his verification of it that the lands were correctly  
21 classified as arable. That's what he testified  
22 about and that's what I'm inquiring into.

23 THE SPECIAL MASTER: You see, your question  
24 takes a departure from this and goes into whether

25 toedter - cross - white

1 the project costs should include the costs of drain-  
2 age or whether those costs should go to ongoing  
3 farming.

4 MR. WHITE: No, I'm not arguing that question,  
5 Your Honor. He said that they include on-project  
6 costs -- or, excuse me, that drainage is included  
7 within project costs. I'm going to ask him the  
8 same question I asked him in his deposition a year  
9 ago. He will give me the same answer he gave in  
10 his deposition a year ago, and that is that by --

11 THE SPECIAL MASTER: Are you going to make an  
12 offer -- Are you making an offer of proof now?

13 MR. WHITE: Well, that's essentially what I'm  
14 doing, Your Honor.

15 THE SPECIAL MASTER: All right, go ahead.

16 MR. WHITE: I think when you hear the answer,  
17 you will let me ask the question.

18 THE SPECIAL MASTER: Go ahead with your offer  
19 of proof on the last overruling that I made on  
20 your question.

21 MR. WHITE: He will testify that by placing  
22 drainage in the project costs as opposed to on-farm  
23 cost category, the effect is to increase the classi-  
24 fication of lands --

25 THE SPECIAL MASTER: Increase the volume?

1 MR. WHITE: Increase the class number that is  
2 awarded to a particular acre.

3 THE SPECIAL MASTER: From 1 to a 2 to a 3?

4 MR. WHITE: No, perhaps the other way, 3 to a  
5 2 to a 1.

6 THE SPECIAL MASTER: 3 to a 2 to a 1?

7 MR. WHITE: By one or two classes in some in-  
8 stances, and I think the Court ought to know that,  
9 and it ought to know that from the person who  
10 helped develop standards and who applied the stan-  
11 dards and who was certain that the standards were  
12 met. Because --

13 THE SPECIAL MASTER: If the standards for the  
14 two matters to which he's testified, one, hydraulic  
15 conductivity and depth to barrier is identical in  
16 all three classes, what difference does it make if  
17 they are a 3, 2 or a 1?

18 THE WITNESS: I would like to make a point.

19 MR. WHITE: Just a minute --

20 THE SPECIAL MASTER: Mr. White, just a minute.  
21 I want to hear your point. Go ahead. We are try-  
22 ing to find the truth of the matter --

23 MR. WHITE: If I'm limited to an offer of proof,  
24 I don't think it is appropriate.

25 THE SPECIAL MASTER: I don't mind an interruption

1 when it serves the truth. Go ahead and say what you  
2 want to.

3 THE WITNESS: Mr. White's appraisal of this  
4 situation is not accurate.

5 MR. WHITE: Well, Your Honor --

6 THE SPECIAL MASTER: In what way? In what way?

7 THE WITNESS: Okay, it is not accurate from the  
8 standpoint that it would downgrade land, the land  
9 class, from, say, like a 3 to a 2 -- or from a 2 to  
10 a 3 if drainage considerations were made for on-farm  
11 development.

12 THE SPECIAL MASTER: No, he's saying it is the  
13 other way around. He said it would take it from a  
14 3 to a 2.

15 THE WITNESS: That would increase it?

16 THE SPECIAL MASTER: (Nodding head affirmatively).

17 THE WITNESS: Because drainage costs were or  
18 were not considered?

19 THE SPECIAL MASTER: Because drainage costs  
20 are applied to project costs rather than to ongoing  
21 farm figures. We are in a bookkeeping discussion  
22 now.

23 THE WITNESS: Okay.

24 THE SPECIAL MASTER: And this is not a strange  
25 discussion to me to have been through it before on

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

appropriations regarding the Bureau of Reclamation projects and what is the benefit-cost ration and what isn't. This is very, very appropriate to this lawsuit and to what we are trying to determine on the Reservation.

\* \* \* \* \*

1 MR. MEMBRINO: Your Honor, I think we are  
2 at a stage in the case where there have been  
3 conclusions testified to about the arability  
4 of lands including their drainage. Now, any  
5 cost considerations that go into that will come  
6 up in the next phase.

7 THE SPECIAL MASTER: We appreciate that.  
8 Another factor, just to throw this light on  
9 this, you said, "When I took his depositions one  
10 year ago."

11 That makes my ruling this morning look  
12 pretty good on the ten-day rule. If you were  
13 deposing this witness a year ago, you have  
14 been living with this --

15 MR. WHITE: I think you had better read  
16 the deposition --

17 THE SPECIAL MASTER: I don't want to look  
18 at any more depositions.

19 MR. WHITE: -- before you stick your neck  
20 out on that.

21 THE SPECIAL MASTER: Isn't it true that you  
22 did depose this witness a year ago?

23 MR. WHITE: That's true.

24 Wait a minute. You want to know the  
25 facts.



1                   At that time he did not present any of  
2 the facts and data which are contained in  
3 Exhibits 231 through 242-B.

4                   THE SPECIAL MASTER: He had not yet  
5 adduced some of them, in other words?

6                   MR. WHITE: He hadn't collected them and  
7 he hadn't analyzed them.

8                   THE SPECIAL MASTER: All right.

9                   MR. WHITE: Your Honor, I think for the  
10 purposes of the record at this time I would  
11 like to offer, since Mr. Toedter was allowed  
12 to make his statement --

13                   THE SPECIAL MASTER: All right.

14                   MR. WHITE: I would like to offer into  
15 evidence the deposition taken of Mr. Toedter  
16 on May 19, 1980, and specifically --

17                   THE SPECIAL MASTER: I will not permit --  
18 I will overrule and not permit the introduction  
19 of the deposition into evidence, but I will  
20 welcome your offer of proof that if you would  
21 be permitted to put it in evidence, it would  
22 show, and then proceed to show what it would  
23 show.

24                   MR. WHITE: If that's the case, I would  
25 move to strike Mr. Toedter's comments --

1 THE SPECIAL MASTER: Those comments were  
2 not damaging to you and were not damaging to  
3 the State. They are an observation. There's  
4 no need to have to remove them, Mr. White.

5 MR. WHITE: I would offer to prove as  
6 follows --

7 THE SPECIAL MASTER: Go ahead, please.

8 MR. WHITE: -- if allowed to testify in  
9 response to my question --

10 MR. CLEAR: This is an improper way to  
11 do this.

12 THE SPECIAL MASTER: Let him proceed.  
13 We're doing the best we can.

14 MR. WHITE: Well, it's hardly an improper  
15 way. I am the captain of my offer.

16 MR. CLEAR: He offered to move the  
17 deposition in evidence without having Mr.  
18 Toedter identify the depposition as his deposition.

19 THE SPECIAL MASTER: I appreciate that,  
20 and we can have that done if you demand it.

21 MR. WHITE: I will be glad to do that.  
22 Can I have the sealed --

23 THE SPECIAL MASTER: He called it to his  
24 attention. Let's go ahead.

25 MR. WHITE: I would rather do it his way.

1 It's a better way.

2 Could I have the sealed copy of the  
3 deposition?

4 THE SPECIAL MASTER: Gentlemen, I'm trying  
5 to hold this thing down, and we understand that  
6 this was his deposition. If you want to demand  
7 the strict proof, we will do it, but I'm sure  
8 Mr. Clear appreciates that we can waive the  
9 strict compliance in this case with the witness  
10 sitting here.

11 MR. WHITE: If he will waive the objection,  
12 I will be glad to proceed, but if he will not  
13 waive the objection, I think we ought to go ahead.

14 MR. CLEAR: I will waive it.

15 THE SPECIAL MASTER: He waived the objection,  
16 so please proceed, probably with a little force  
17 from the Master, but he did anyway.

18 MR. WHITE: If I were allowed to question  
19 Mr. Toedter, he would respond in the same  
20 manner as he did during his deposition on  
21 May 19, 1980, specifically on Pages 25, 26 and  
22 27, beginning with line 9 on Page 25 concerning  
23 the drainage standards supplied by Mr. Toedter,  
24 and I will pick up with the answer of Mr. Toedter  
25 concerning those standards on line 23 of Page 25.

1 After a preparatory phrase, he begins: The  
2 decision had to be made --

3 THE SPECIAL MASTER: Please read slowly.

4 MR. WHITE: The decision had to be made  
5 whether we were going to go on ahead and handle  
6 the drainage portion of the cost for the project  
7 as an on-farm cost or whether it was going to  
8 be handled as a project cost and assumed as a  
9 part of the overall construction costs.

10 Now, the decision that was made was that  
11 it would be developmental, a project developmental  
12 cost.

13 Who made that decision?

14 Answer: It was made by people above me,  
15 Billstein.

16 What was your recommendation with respect  
17 to that decision?

18 Answer: That we follow Bureau of Reclamation  
19 standards which use project development cost.

20 Question: What are the countervailing  
21 considerations in a decision like that, whether  
22 to use it as an on-farm cost or development cost?

23 THE SPECIAL MASTER:; Not too fast.

24 MR. WHITE: What are the countervailing  
25 considerations in a decision like that, whether

1 to use it as an on-farm cost or development cost?

2 Answer: Well, if you use it as a development  
3 cost, it goes into your total project economics.  
4 If you rationalize it as an on-farm cost, it  
5 goes into your land classification and your  
6 lands will be downgraded a class or two depending  
7 on the decision accordingly.

8 Question: So by making it a development  
9 cost, you essentially increased the irrigable  
10 land base; is that correct?

11 No, that is not correct.

12 What is correct? Did it make any difference  
13 at all in your arable land base?

14 It doesn't.

15 Question: But it does have the effect of  
16 upgrading the land a class or two; is that  
17 correct?

18 Answer: It may fall into a higher  
19 classification.

20 That's the end of the offer of proof.

21 THE SPECIAL MASTER: Very good. Thank you,  
22 Mr. White.

23 Is it the wish of most of you that we have  
24 a sandwich of some kind between now and 2:00?

25 MR. WHITE: I would just as soon keep going,

1 Your Honor. With any luck, I might finish  
2 today.

3 THE SPECIAL MASTER: 12:30 or 1:00, you  
4 mean, before the 2:00 break?

5 MR. WHITE: If I could talk the Court into  
6 it, I would just as soon steam right through  
7 from now until 2:00. Maybe we could take a  
8 break or two in there.

9 THE SPECIAL MASTER: Let's go ahead. Then  
10 if you finish up sooner, that will be fine.

11 MR. MEMBRINO: The witness has been  
12 testifying for awhile, and I wonder if we could  
13 give him a short break to give him a rest if  
14 we are going to go through?

15 THE SPECIAL MASTER: Do you want to take  
16 a ten- or fifteen-minute break?

17 MR. MEMBRINO: Five or ten.

18 MR. WHITE: I have no objection.

19 THE SPECIAL MASTER: A five to ten-minute  
20 break.

21 (Whereupon, a ten-minute  
22 recess was taken.

23

\* \* \* \* \*

24

25

1 (Beginning at 11:55 a.m.)

2 MR. WHITE: Bob, are you ready?

3 THE WITNESS: Yes.

4 THE SPECIAL MASTER: All right, Mr. White,  
5 let's proceed.

6 Q (By Mr. White) Mr. Toedter, you established a  
7 depth to barrier of a tenth of an inch per hour,  
8 is that correct -- or, excuse me, a hydraulic con-  
9 ductivity of a tenth of an inch per hour, is that  
10 correct?

11 A. Yes.

12 Q Isn't it true that that is one half the standard  
13 set forth in the Bureau of Reclamation's Drainage  
14 Manual?

15 A. Yes, it may be.

16 Q You previously testified -- well, it is true that  
17 your standard is one half of that set forth in the  
18 Bureau of Reclamation's Drainage Manual, isn't it?

19 THE SPECIAL MASTER: Yeah, he said it may be.  
20 I think that's pretty much -- I'm going to accept  
21 it as an affirmative answer: Yes, it is true.

22 MR. WHITE: I'll get rid of one exhibit then,  
23 Your Honor.

24 Q (By Mr. White) You previously testified about the  
25 toedter - cross - white

1 drainage investigation by the Bureau of Reclamation  
2 in 1963 for the North Crowheart area, is that cor-  
3 rect?

4 A. Yes, I mentioned it in my testimony.

5 Q. Isn't it true that the hydraulic conductivity values  
6 developed by the Bureau were substantially lower  
7 than those developed by HKM?

8 MR. MEMBRINO: Just for the sake of clarity,  
9 are we referring to the Wind Division report?

10 THE SPECIAL MASTER: I'm still confused as to  
11 where -- what specific case is this? Where are you  
12 referring to those?

13 MR. WHITE: I'll refer to the Wind Division  
14 report.

15 THE SPECIAL MASTER: Wind Division report?

16 MR. WHITE: Yes, sir.

17 Q. (By Mr. White) Now, isn't that true with respect  
18 to the Wind Division report?

19 A. Yes, the results obtained by the Bureau were lower  
20 than the results obtained by HKM.

21 Q. Mr. Toedter, in Table 2 which appears in Exhibit  
22 241-A and 241-B, is it true that your hydraulic  
23 conductivity for various textures, aside from the  
24 four that we described on voir dire, were estimates

25 toedter - cross - white



- 1 made in your professional judgment?
- 2 A. Yes, they were.
- 3 Q. Did you try to be conservative in making those esti-  
4 mates?
- 5 A. I would say for the course of textures I was very  
6 conservative. I have ran into situations with sand  
7 and gravel and loamy sand and gravel, as I've iden-  
8 tified it here, that have hydraulic conductivities  
9 in the range of 200 inches an hour.
- 10 Q. Isn't it true by being conservative in making your  
11 estimations, you may have increased the depth to  
12 barrier which you determined?
- 13 A. I don't believe that it cuts that way in this  
14 analysis. And from a practical standpoint in terms  
15 of drain spacing, I don't think it is really that  
16 important.
- 17 Q. But isn't it true that where you have a coarser  
18 texture over a finer texture, such as sand and  
19 gravel over loam, the effect of having a lower  
20 hydraulic conductivity for sand and gravel in-  
21 creases the depth to barrier?
- 22 A. Sure. By the same token, if I could use a higher  
23 hydraulic conductivity, I might be able to get a  
24 wider drain spacing.
- 25 toedter - cross - white

1 Q But the answer is yes, by making those estimates,  
2 conservative estimates, could have the effect of  
3 increasing depth to barrier, isn't that true?

4 THE SPECIAL MASTER: He answered the question.

5 A. Yes. I think you just have to put this whole thing  
6 in perspective in terms of where you're going with  
7 this stuff. Drain spacing is the end result that  
8 you're looking at. If you start playing with depth  
9 to barrier and you decrease that and you increase  
10 hydraulic conductivity, you're going to end up with  
11 a similar end result or something that's approxi-  
12 mately the same thing. You have to put this thing  
13 in perspective and look at it on an individual  
14 basis here.

15 Q (By Mr. White) Sure. And isn't the real perspec-  
16 tive that the land classification standards weren't  
17 really 6 feet to barrier and a tenth of an inch  
18 per hour hydraulic conductivity, but instead, were  
19 really 200-foot drain spacing?

20 A. No, I wouldn't say that's the case.

21 Q Okay. Now, you couldn't meet the 200-foot drain  
22 spacing by using 6 feet to barrier and a tenth of  
23 an inch per hour hydraulic conductivity, could you?

24 A. No.

25 toedter - cross - white

- 1 Q But 200-foot drain spacing was essentially the stan-  
2 dard which you used, wasn't it?
- 3 A It was one of the three.
- 4 Q Okay.
- 5 A They all interact.
- 6 Q Well, when your classifiers went to the field, how  
7 were they able to determine for a particular piece  
8 of land, if you know, that drain spacing would be  
9 200 feet or greater?
- 10 A They were not able to determine that.
- 11 Q Okay.
- 12 A That was determined in a subsequent office analysis.
- 13 MR. WHITE: Excuse me for taking some time,  
14 Your Honor. I'm trying to jump over stuff and make  
15 sure that --
- 16 THE SPECIAL MASTER: No problem.
- 17 MR. WHITE: -- that I haven't left something  
18 out.
- 19 Q (By Mr. White) Bob, the general methodology which  
20 is depicted on Exhibits 231 through 240 is not  
21 specifically described in the Bureau of Reclama-  
22 tion Drainage Manual, is it?
- 23 A No, that particular methodology isn't.
- 24 Q Is not?
- 25 toedter - cross - white

1 A. Is not. However, it's used within the Bureau of  
2 Reclamation.

3 Q Do you have your Drainage Manual with you?

4 A. Yes, I do.

5 Q Isn't it true that the methodology for subsurface  
6 investigation set forth in the Bureau of Reclama-  
7 tion Drainage Manual is contained on Pages 115,  
8 beginning with Paragraph 4-5 through 118, or end-  
9 ing on 118?

10 A. Okay. Yes, this is a recommended technique.

11 Q I hand you what has been marked for identification  
12 as Plaintiff's Exhibit WRIR BT-2, and ask you if  
13 that exhibit accurately sets forth pages -- or is  
14 an accurate copy of Pages 115 through 118 of the  
15 Bureau Manual?

16 A. Okay. Yes, it does. However, I would like to  
17 point out that this is just one of the techniques  
18 that is commonly used within Reclamation and all  
19 drainage work done within the Bureau is not neces-  
20 sarily approached precisely according to this  
21 technique.

22  
23  
24 \* \* \* \* \*

25

1 Q (By Mr. White) Well, on Page 115, a quarter  
2 of the way from the bottom, do you find (A)  
3 that says log and drainage holes?

4 A Yes.

5 Q Is it the Bureau's practice to use other than  
6 completely logged holes that are called for  
7 by that paragraph?

8 THE SPECIAL MASTER: Are you competent to  
9 testify what the Bureau practice is?

10 Mr. White, do you think he is competent  
11 to testify on what the Bureau practice is?

12 MR. WHITE: Let me ask him a couple  
13 questions, Your Honor.

14 THE SPECIAL MASTER: All right.

15 Q (By Mr. White) Have you been involved, Mr.  
16 Toedter, with any Bureau field work done in  
17 the area of the Wind River Indian Reservation?

18 A No, I have not. However, I did Bureau field  
19 work in the State of North Dakota and two  
20 locations within the State of Washington.

21 Q Isn't it true on the bottom of Page 115 where  
22 it says: When the average hydraulic, and  
23 then continues on Page 118, so that the complete  
24 sentence says: When the average hydraulic

25 toedter-voir-dire-white

1           conductivities have been obtained for all the  
2           different texture-structure combinations in  
3           the project, the data can be used to estimate  
4           the weighted hydraulic conductivity at every  
5           site that a hole has been logged?

6           A     Okay. That's correct, and that's what we  
7           attempted to do in the Wind River Reservation.

8           Q     Isn't it true, however, that Table 2 in Exhibit  
9           241-A and 241-B sets forth values of hydraulic  
10          conductivity only for textures and not for  
11          texture-structural combinations?

12                   THE SPECIAL MASTER: My, my.

13          Q     (By The Witness) I think we are getting pretty  
14          precise. Now, in this business I think commonly  
15          structure particularly four foot or below four  
16          feet of depth in most soils is either single  
17          grained or massive in nature. Subsequently,  
18          it can be concluded, for the most part, that  
19          structure isn't as much a component.

20          Q     (By Mr. White) Isn't it true that the soil  
21          profile logs developed by HKM actually called  
22          for a determination of soils structure?

23          A     Yes, they did.

24          Q     I hand you what's been marked for identification  
25          toedter-voir dire-white

1 as Plaintiff's Exhibit WRIR BT -- that's  
2 Bravo Tango -- 3 and ask you whether or not  
3 that is the collection of soil profile logs  
4 that was used by you in Exhibit 241-B for the  
5 Ray Unit No. 4?

6 A Yes, it was.

7 Q Isn't it true that those forms make provision  
8 for a determination of soils structure?

9 A Yes, they do.

10 Q And isn't it true that no such determination  
11 of structure was made?

12 A Yes, it was, and the reason why, as I pointed  
13 out earlier, is for the most part below four  
14 feet in depth, which is the area of principal  
15 interest for me and the area that most of the  
16 hydraulic conductivity testing was performed  
17 in, the structure is massive in nature.

18 I think one of the key considerations in  
19 my field work that I have found as a drainage  
20 engineer that is not pointed out in the Bureau  
21 of Reclamation drainage map is stickiness and  
22 plasticity of a given soil upon which you are  
23 testing.

24 I think this is a very, very important

25 toedter-voir dire-white

1 consideration.

2 Q Isn't it true that soils structure as opposed  
3 to texture is a characteristic that is very  
4 useful in evaluating and correlating the  
5 hydraulic conductivities of soils with similar  
6 textures?

7 A As I related to earlier, when you got a massive  
8 type structure that's uniform throughout, I  
9 just can't appreciate the importance which  
10 you place on it.

11 Q Isn't it true that the importance suggested  
12 by that question is an importance placed on it  
13 by the Bureau drainage manual?

14 THE SPECIAL MASTER: You are arguing with  
15 the witness now, Mr. White. I asked you not  
16 to do that. The document speaks for itself,  
17 and the testimony speaks for itself.

18 Q (By Mr. White) I hand you what's been marked  
19 for identification as Plaintiff's Exhibit BT-4  
20 and ask you to turn to Page 20 and verify that  
21 that is a true and accurate copy of Page 20  
22 out of the drainage manual?

23 A Yes, it is.

24 MR. WHITE: Off the record.

25 toedter-voir dire-white



1 (Off-the-record discussion.)

2 Q (By Mr. White) I direct your attention to  
3 Page 20 as set forth in Plaintiff's Exhibit  
4 WRIR BT-4 and ask you if you would read the  
5 first sentence after the heading (D), Structure,  
6 that appears about a third of the way down the  
7 page.

8 You needn't read it aloud. Just read it  
9 to yourself.

10 THE SPECIAL MASTER: Read it aloud if it's  
11 all right with you, Mr. White.

12 THE WITNESS: All right. Soils structure  
13 is a characteristic that is very useful in  
14 evaluating and correlating the hydraulic  
15 conductivities of soils with similar textures.  
16 Structure refers to the aggregation of primarily --  
17 of primary soil particles and to compound  
18 particles which are separated from adjoining  
19 aggregates by surface of weakness. See the figure  
20 below.

21 THE SPECIAL MASTER: He only wanted one  
22 sentence so --

23 Q (By Mr. White) Referring to figure 2-4 at the  
24 bottom of Page 20, which is entitled, "Types of  
25 toedter-voir dire-white

1 soils structure," did you make or cause to be  
2 made any determination of the soils structures  
3 that are set out in that figure 2-4?

4 A Okay. I observed the soil structure during my  
5 drilling efforts, particularly those situations  
6 where platting structure is apparent, common in  
7 lacustrine type materials. Granular structure  
8 is apparent in many of the coarse sandy-type  
9 materials.

10 You will observe subangular blocking type  
11 structure in some of the medium textured soils.

12 Q Isn't it true that on BT-3 on the soil log  
13 set forth in BT-3 as well as the other soil logs  
14 prepared by HKM personnel in the field those  
15 typing conclusions are not reflected?

16 A Okay. Those typing conclusions are not  
17 reflected.

18 One thing that we should point out for the  
19 record here is that actually there's two types  
20 of structures commonly found in soils.

21 One type is referred to as a macrostructure,  
22 which is the common structure found in place in  
23 soil.

24 Another type of structure is your microstructure,  
25 toedter-voir dire-white

1 which is apparent when you dig up some soil  
2 and break it apart.

3 Now, the area that we are looking at here  
4 is the area that deals with your microstructure  
5 which actually means that you have to further  
6 break that massive soil apart in order to make  
7 this determination.

8 Q And isn't it true that that determination was  
9 not made on the soil profile logs such as those  
10 that are included in BT-3?

11 A Okay. I think the point that I'm trying to  
12 arrive at here is your macrostructure in a lot  
13 of that area is granular, relating to single  
14 grain type particles or massive type structure,  
15 and this structure is what is the important  
16 part of your hydraulic conductivity analysis.

17 Now, as set forth in the structure as  
18 identified by HKM in the logs, that just deals  
19 with the microstructure rather than dealing with  
20 macrostructure.

21 Q Mr. Toedter, when you made your threshold  
22 determination of structure that you just  
23 described, macro versus micro, did you do so  
24 based on the holes which you drilled personally,

25 toedter-voir dire-white

1 the deep holes, or based on the land classification  
2 holes?

3 A The macrostructure?

4 Q Yes.

5 A I actually -- you can't deal with macrostructure  
6 based on holes that are dug. You have to look  
7 at pits and things of this nature in order to  
8 make that determination.

9 Q You had approximately nine or ten pits --

10 A Yes.

11 Q -- is that correct?

12 A In the Big Horn Flats area, and they were dug  
13 for land classification purposes.

14 Q And based on the nine or ten pits in the Big  
15 Horn Flats area, you would reach conclusions  
16 concerning soils structures for the other areas;  
17 is that correct?

18 A No.

19 THE SPECIAL MASTER: I have given a lot  
20 of latitude in asking those, but I don't want  
21 you to try and trick him, but you are close  
22 to that.

23 MR. WHITE: I don't think this witness  
24 can be tricked, Your Honor.

25 toedter-voir dire-white

1 THE SPECIAL MASTER: You have been  
2 deposing him for a year.

3 MR. MEMBRINO: You can't blame him for  
4 trying.

5 Q (By Mr. White) Did you tell me that the  
6 structure was determined by pits or not?

7 A I'm saying it can be determined by pits.

8 Q How did you determine it for the various arable  
9 land areas shown on Exhibits C-231 through 240?

10 A Well, as I pointed out earlier, I wasn't  
11 involved in the test pitting process. That  
12 was done as a portion of the land classification  
13 procedures.

14 The areas in which the pits were dug  
15 were gravelly and the guys couldn't get down  
16 with their hand augers so, as a consequence,  
17 we had to have some means of determining, in  
18 fact, that those lands were arable and so, yeah,  
19 the stuff is granular in nature out there and,  
20 you know, one could just conclude that from  
21 handling sandy soil, any sandy, gravelly,  
22 cobbly type soil that you've got, that they  
23 are going to fall in certain structural conditions.

24 Q Is it true that you made the determination of  
25 toedter-voir dire-white

1 soils structure based on the pits or not?

2 A No, the pits had nothing --

3 Q What field investigation did you make to  
4 determine the soils structure for each of  
5 the arable areas outlined on Exhibits C-231  
6 through 240?

7 A As I pointed out earlier, I don't think in this  
8 case, since the soils structure on a micro  
9 or macro basis is massive in nature, that it  
10 does not have the importance which you place  
11 upon it. There's other things that have greater  
12 considerations and so subsequently I didn't  
13 place that importance upon it.

14 Q So to make sure the record is clear, is it true  
15 you made no field investigation of the soil  
16 structures contained within the arable lands  
17 shown on Exhibits 231 through 240?

18 A Okay. I conclude that the soils structures are  
19 generally about the same on a macro basis.

20 MR. WHITE: Could you read the question  
21 back?

22 THE SPECIAL MASTER: He answered that.  
23 He concluded they were the same on a macro  
24 basis, and I think his answer is no, he didn't.

25 toedter-voir dire-white

1 Is you answer no because you concluded  
2 what you did?

3 THE WITNESS: Yes, yeah.

4 THE SPECIAL MASTER: All right. This is  
5 an observation, while you are thinking, Mr.  
6 White. When someone answers a question okay,  
7 that's the result of television the last 25  
8 years.

9 I have two sons that can't begin a  
10 sentence without saying okay.

11 Does that mean yes or not?

12 MR. WHITE: Well, I was just trying to  
13 make sure the record was correct, and I believe  
14 everyone understands the record to be that he  
15 answered no to the question.

16 Q (By Mr. White) Is that correct, Mr. Toedter?

17 THE SPECIAL MASTER: And he gave his reason  
18 for it, and he followed on with it, and that's  
19 fine.

20 THE WITNESS: Put it this way: I would  
21 like to just clarify to the point that it was  
22 only considered on a limited basis. It was  
23 given limited consideration because of the fact  
24 that it's massive and that was as far as I took it,

25 toedter-voir dire-white

1 and this goes back to geomorphology and the  
2 general development of soils and your horizons  
3 if your elements are such that your soil  
4 development is in the top portion of your  
5 profile generally.

6 MR. WHITE: I'm not sure we have a record  
7 of the answer to that question, Your Honor.  
8 I would like to make sure that the answer to  
9 the question about the field work is no.

10 Q (By Mr. White) Was that your answer, plus  
11 the reason why you didn't do the field work?

12 A No, my answer is not no.

13 THE SPECIAL MASTER: I object to that.  
14 Let's let the record speak for itself. The  
15 question was put on whether it was made on the  
16 basis of structure and then you said you did  
17 rely on these studies through the exhibits of  
18 any of the structure and he said that is correct  
19 and he told his reasons for it. It simply  
20 isn't that much of a necessary element.

21 We are getting into a parody of words.  
22 He went through the texture and what is texture.  
23 He defined structure and what he thinks is the  
24 measurement. You have an exhibit criteria from  
25 toedter-voir dire-whitie



1 manuals of BLM. That's where we are so far  
2 on this examination.

3 MR. WHITE: Let me ask the question I  
4 thought I did and clearly didn't from your  
5 observation, Your Honor.

6 Q (By Mr. White) Is it true, Mr. Toedter, that  
7 you conducted no field work to determine the  
8 structure of the soils contained within the  
9 arable lands shown within Exhibits 231 through  
10 240 and by "You," I mean you personally?

11 A Okay. That is not correct.

12 Q Please describe the field work which you  
13 conducted to determine the soils structure  
14 of those lands classified as arable on those  
15 exhibits.

16 A Okay. Limited importance, as I pointed out  
17 earlier, was given to structure. It was  
18 considered massive because of the soil  
19 geomorphology in the area. It was considered  
20 where appropriate. I think you will find that  
21 probably on some of my other logs I did for  
22 the future work -- in fact, let's just check  
23 that out -- that some designation was given to --

24 MR. WHITE: Can I step away from the podium  
25 toedter-voir dire-white

1 to confer with my consultant, Your Honor?

2 THE SPECIAL MASTER: Yes.

3 A (By The Witness) Okay. It was not denoted.

4 on the logs on either the future program or  
5 the historic.

6

7

8

\* \* \* \* \*

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

toedter-voir dire-white

1 Q (By Mr. White) Would you please describe then that  
2 fieldwork which you did do to determine soils struc-  
3 ture within the arable land on Exhibits 231 through  
4 240?

5 A Well, again, it's obvious when you're drilling when  
6 you get into certain areas that have, say, platy  
7 structure which is very -- a very important consi-  
8 deration on the permeability of the materials that  
9 are present --

10 Q So you personally did some drilling then, is that  
11 correct?

12 A Yes.

13 THE SPECIAL MASTER: Mr. White, I thought he  
14 answered that question once for you when the sen-  
15 tence contained the word "morphology" --

16 THE WITNESS: Yeah, soil morphology.

17 THE SPECIAL MASTER: And you asked him that  
18 same question again. So I think it's been asked  
19 and answered.

20 Q (By Mr. White) Where did you do the drilling that  
21 you referred to?

22 A I drilled in all the areas -- or logged behind the  
23 driller in all the areas except the Big Horn Flats  
24 area.

25 toedter - cross - white

1 Q How many holes did you drill?

2 A Okay, there were 117 holes drilled in the future  
3 lands. These are the lands that were testified to  
4 by Mr. Kersich during his testimony.

5 And 26 holes in the historic project lands.

6 One thing I might point out in this discussion  
7 is even though the Bureau of Reclamation in their  
8 Drainage Manual here shows structure, that work that  
9 was done for the Wind Division, there were approxi-  
10 mately 100 sheets or whatever, there is no -- there  
11 is some identification of structure in the area, but  
12 every textural zone does not have an identification  
13 of structure, and that is a Bureau study.

14 Q When was that Bureau study done?

15 A 1962.

16 Q Isn't the Drainage Manual to which you've been re-  
17 referring the First Edition dated 1978?

18 A Yes.

19 Q When you drilled the holes which you described,  
20 what sort of drill bit did you use?

21 A We used what they call a rock bit.

22 Q Isn't it true that when you drill through a soil  
23 texture with a rock bit, that soils strata or tex-  
24 ture is disturbed?

25 toedter - cross - white

1 A Okay. Yes, it is. In fact, I'm very pleased that  
2 you brought this point up because this is a common  
3 technique of drilling on drainage programs by the  
4 U.S. Bureau of Reclamation throughout the western  
5 United States. This was commonly used throughout  
6 the Columbia Basin Project.

7 Q How do you determine soils structure from disturbed  
8 soils samples that are brought up by a rock bit?

9 THE SPECIAL MASTER: I thought your first ques-  
10 tion said that the rock bit disturbed the texture.  
11 Do you say it destroys the structure also?

12 MR. WHITE: I was asking him how he determined  
13 it, Your Honor.

14 THE WITNESS: Okay. Actually, the rock bit  
15 destroys the structure and doesn't influence the  
16 texture at all.

17 THE SPECIAL MASTER: If it is sandy, it is  
18 still sandy?

19 THE WITNESS: Right.

20 THE SPECIAL MASTER: But if it is granular,  
21 it isn't granular any more?

22 Q (By Mr. White) If the rock bit destroys the struc-  
23 ture, how were you able to determine structure from  
24 your drilling program?

25 toedter - cross - white

1 A. Okay, that's the point I made earlier, and the  
2 Drainage Manual here says, you know, that you have  
3 to identify the soils structure, and yet, how can  
4 you identify the soils structure when you use a  
5 technique of drilling that destroys it?

6 THE SPECIAL MASTER: Can you answer that, Mr.  
7 White?

8 MR. WHITE: I think I would, but I think the  
9 counsel for the United States might object, and I'll  
10 have my own expert address that issue.

11 THE SPECIAL MASTER: I think he mentioned that  
12 when he mentioned pits and the reason for the pits.

13 MR. WHITE: We'll come back to it later on in  
14 the case.

15 THE WITNESS: There is a technique to use to  
16 go on ahead and identify the structures, there's no  
17 question about that. However, you know, the point I  
18 want to make is the fact that the Bureau of Reclama-  
19 tion does, in fact, set forth this stuff in their  
20 standards, they don't follow it.

21 THE SPECIAL MASTER: Well, we are soon --

22 MR. WHITE: We'll get back to it, Your Honor.

23 THE SPECIAL MASTER: We are entering a new era  
24 of Federal Government regulations and standards.

25 toedter - cross - white

1 There will be less and less of them, I'm sure, in the  
2 next few years.

3 Q (By Mr. White) Mr. Toedter, I hand you my copy of  
4 Exhibit C-226, which has already been admitted which  
5 is Mr. Waples' historic lands study. I refer you to  
6 Table 8 on Page 39 and ask you if you could indicate  
7 orally those lands on Table 8 that were included  
8 within your study of depth to barrier and hydraulic  
9 conductivity and those lands which were not?

10 A. Okay, those lands that were included within the con-  
11 text of my study are shown and labeled as major irri-  
12 gation project.

13 Q Thank you.

14 That would be for 7221 acres --

15 A. Yes.

16 Q -- of the Waples' land?

17 A. Yes.

18 Q Mr. Toedter, when you indicated on direct examination  
19 that not all of your hydraulic conductivities for the  
20 various soils textures were based on fieldwork, you  
21 indicated that your estimates or your professional  
22 judgment was based on various texts as well as your  
23 experience. Could you please describe and identify  
24 those texts upon which your estimated hydraulic

25 toedter - cross - white

- 1                   conductivities were based?
- 2       A       Okay, that was based on some SCS literature.
- 3       Q       Could you specifically describe that literature,
- 4                   please?
- 5       A       Well, one of the texts that I considered was Soil
- 6                   Survey Analysis that was done in Montana out in
- 7                   Rosebud County.
- 8       Q       Any others that you can specifically identify?
- 9       A       Okay, there is some guidelines given in soil mechanics
- 10                  texts. I can't cite the exact text right now. It
- 11                  deals with soils as they relate to soils engineering.
- 12       Q       During your work on drainage in this litigation,
- 13                  isn't it true that you had occasion to prepare some
- 14                  drain spacing charts?
- 15       A       Yes, I did.
- 16       Q       I hand you what has been marked for identification
- 17                  as Plaintiff's Exhibit WRIR BT-11 and BT-12. How
- 18                  were those graphs derived and how were they used
- 19                  in establishing the land classification standards?
- 20       A       Okay, I believe that you obtained these as part of
- 21                  my deposition, is that not correct?
- 22       Q       That's correct, in May of 1980 when you were just
- 23                  working on the standards.
- 24       A       Okay. What I did here was I made some assumptions
- 25                  toedter - cross - white



1 that would be common to the business in order to  
2 determine deep percolation quantities both on the  
3 basis of time and the amount. Upon doing that,  
4 HKM has a computer program which was developed by  
5 myself. It's based on the transient flow equation  
6 used commonly by the Bureau of Reclamation. Then  
7 the program --

8 Q Excuse me, Bob. Was that the irrigation scheduling  
9 program that you discussed in your direct testimony?

10 A No, it doesn't have anything to do with the irriga-  
11 tion scheduling programming.

12 Q Okay, go ahead, I'm sorry.

13 A Okay, after I determined quantities of deep percolation  
14 with respect to time, we generated a set of drain  
15 spacing analyses, first of all, holding the depth  
16 to barrier constant and then going through a number  
17 of different iterations, as can be seen by the num-  
18 bers shown on this paper, for hydraulic conductivity.  
19 Then the depth to barrier was varied and the same  
20 series of iterations for hydraulic conductivity were  
21 run through again. This was done until the number  
22 of different combinations that are shown on these  
23 sheets were determined. After obtaining this infor-  
24 mation, it was plotted graphically on these sheets,

25 toedter - cross - white

1 which have been reduced, and then --

2 Q Reduced in size, right?

3 A What's that?

4 Q Reduced in size from larger paper to letter size  
5 paper?

6 A Yeah, to letter sized paper.

7 Then similar lines that would have drain --  
8 or similar drain spacings were interpolated in  
9 based on the results of these different combina-  
10 tions of hydraulic conductivity and depth to bar-  
11 rier.

12 Q Using Exhibit BT-12, assuming that you wanted 1000-  
13 feet drain spacing and assuming that your hydro--  
14 your hydraulic conductivity was 1 inch per hour,  
15 would that mean that you would have to be located  
16 in an area having a depth to barrier of approximately  
17 15 feet?

18 A If you had 1000-foot drain spaces?

19 Q Yes, sir.

20 A Yes.

21

22

23

\* \* \* \* \*

24

25

1 THE SPECIAL MASTER: Can I hear that again,  
2 please, Mr. White or the witness? Do you have  
3 one hydraulic conductivity inch per hour?  
4 That would be about -- that would be up five-  
5 tenths. Does that read up on the left five-  
6 tenths?

7 MR. WHITE: The five is five inches, Your  
8 Honor.

9 THE WITNESS: That's correct.

10 THE SPECIAL MASTER: Then the one you  
11 would read over to 15 and you get about 750  
12 foot spacing; is that correct?

13 THE WITNESS: You would read over until  
14 you intersect the line that's 1,000.

15 MR. WHITE: So really that would be  
16 around sixteen and a half or seventeen feet.

17 THE WITNESS: Correct.

18 MR. WHITE: I was trying to deal with  
19 approximations.

20 THE SPECIAL MASTER: I've got it. That's  
21 fine.

22 THE WITNESS: One thing I think that should  
23 be made clear is that Dr. Mesghinna was  
24 responsible for the determination of drain  
25 spacing in this litigation, and the only

1 consideration that HKM made was the 200-foot  
2 drain spacing.

3 THE SPECIAL MASTER: Minimum?

4 THE WITNESS: Minimum concept.

5 Q (By Mr. White) But these graphs, were, in  
6 fact, part of the general work you did to  
7 develop your standards, were they not?

8 A Not really. Two hundred feet was all that was  
9 important.

10 Q Show me how you come up with 200 feet on these  
11 graphs. You can come up with more. That's  
12 what counts, I guess.

13 Show us any example of less than 200  
14 feet on any graph.

15 THE WITNESS: No, they don't have less  
16 than 200 feet. Now --

17 THE SPECIAL MASTER: I have a question or  
18 two on these if it's not inappropriate to  
19 interrupt now.

20 MR. WHITE: That's all right. I was  
21 galloping towards 1:00.

22 THE SPECIAL MASTER: I'm troubled with  
23 this observation. A plot of land cannot serve  
24 both as sprinkler or gravity. It must be one  
25 toedter-voir dire-white

1 or the other at any given season?

2 THE WITNESS: That's correct.

3 THE SPECIAL MASTER: Or maybe even a  
4 given year and maybe it elapses for some  
5 other reason?

6 THE WITNESS: Correct.

7 THE SPECIAL MASTER: Is that factor  
8 cranked into your work in some way in these  
9 evaluations, or is it not?

10 THE WITNESS: All right. I'll tell you  
11 the consideration that was given to it.

12 As we classified lands as sprinkler lands  
13 and classified lands as gravity lands, it became  
14 necessary and appropriate to identify, you  
15 know, with that land classification.

16 THE SPECIAL MASTER: And the rest of it  
17 is up to management then, I suppose?

18 THE WITNESS: Well, it's carried on  
19 through the context of the study in other  
20 witnesses.

21 THE SPECIAL MASTER: If it's 2 gravity  
22 and 5 sprinkler and a manager is foolish  
23 enough to put 5 sprinkler on, that will result  
24 in less sustained yield or less crop values?

25 toedter-voir dire-white

1 THE WITNESS: No, I think the only point  
2 that we were trying to make here is that, in  
3 fact, there was a 200-foot drain spacing.

4 THE SPECIAL MASTER: Out there on a given  
5 parcel of land.

6 I think I understand.

7 THE WITNESS: Given the deep percolation  
8 conditions for sprinkler and then given the  
9 deep percolation conditions for gravity.

10 THE SPECIAL MASTER: This is strictly  
11 a case of drainage and nothing else as far as  
12 you are concerned,, right?

13 THE WITNESS: Right.

14 THE SPECIAL MASTER: Go ahead, Mr. White.

15 Q (By Mr. White) In your direct examination  
16 you referred to the use of an HKM computer  
17 program involving irrigation scheduling analysis.

18 Would you please describe how that fit in  
19 to either the development of the land  
20 classification standards, the application of  
21 those standards, or the analyses which is  
22 represented by Exhibits 231 through 241-B?

23 A Okay. They don't have anything to do with  
24 this analysis here that has been presented.

25 toedter-voir dire-white

1                   What they relate to or what it relates  
2 to is the determination of whether or not  
3 lands -- well, it does indirectly but not  
4 directly.

5                   It relates to the determination of arable  
6 lands.

7                   Okay. Getting back to the question  
8 that you asked me about an irrigation scheduling  
9 program, actually HKM does not have an  
10 irrigation scheduling program as such, a  
11 package.

12                   What it is is it's a component of the  
13 drainage program. What we attempt to do is  
14 using consumptive use analysis, which for this  
15 particular study we chose to use Jensen-Haise,  
16 we developed soil moisture budget analyses.

17                   Essentially this whole thing is an inter-  
18 play of soil, moisture budgeting, the amount  
19 of moisture that you have in your soil profile,  
20 so you have to start with an initializing  
21 condition.

22                   Then you have to consider the quantity  
23 of consumptive use and the quantity of effective  
24 precipitation.

25                   toedter-voir dire-white

1           Once all the moisture based on your  
2 consumptive use and effective precipitation  
3 analysis, which I will just call irrigation  
4 requirement for simplicity, uses up all the  
5 moisture in the soil profile, and irrigation  
6 event would be required.

7           Then we identify the amount of application  
8 that would be placed on the land, which is  
9 just a typical situation, subtract the  
10 amount of moisture that will be held by the  
11 soil, which again is just the typical case  
12 situation, deriving a difference.

13           Now, a portion of that difference will be  
14 deep percolation and a portion will be  
15 evaporation.

16           That portion that's evaporation will not  
17 pass on down through the root zone in the form  
18 of deep percolation, so that's no longer  
19 important to us in our consideration.

20           THE SPECIAL MASTER: I wish I could say  
21 that evaporation was no longer important to  
22 me, but that's not the case.

23           Go ahead.

24           THE WITNESS: Okay. Then continuing in  
25 toedter-voir dire-white



1 this analysis, the call for an irrigation,  
2 so we bring our soils profile up to its  
3 maximum capacity.

4 Then we start the irrigation requirement  
5 or consumptive use process, if you will, until  
6 all the moisture is utilized within the soil  
7 profile, and this is the process throughout  
8 the irrigation season.

9 THE SPECIAL MASTER: If you see an area  
10 in your arable studies that is fraught with  
11 massive water consuming growth like free  
12 autophytes, does it affect your conclusions, or  
13 does it have nothing to do with that?

14 THE WITNESS: No, we really didn't take  
15 that into consideration. That's in another  
16 subject area.

17 THE SPECIAL MASTER: Go ahead, Mr. White.

18 Q (By Mr. White) In all this that you have  
19 described as a part of what you call your  
20 drainage program --

21 A Yes.

22 Q -- that's a computer program?

23 A Yes.

24 Q And was that used in this study even indirectly  
25 toedter-voir dire-white

1 and I think it's just inappropriate for Mr.  
2 White to be requesting it.

3 THE SPECIAL MASTER: Well, will you ask  
4 your employers and, if so, you can have it  
5 ready for Mr. White, if it's an appropriate  
6 document.

7 MR. WHITE: Even if it's proprietary,  
8 if it's part of the work he did leading up  
9 to these conclusions, we are entitled to it.

10 THE SPECIAL MASTER: I would think so,  
11 and he said it's no problem to obtain it.

12 MR. ECHOHAWK: May I address that?

13 In various depositions that we have had  
14 since last spring we've been through this  
15 interchange time and time again of each side  
16 asking the other side for their computer  
17 program listings and so forth, and on each  
18 occasion it was understood that those were  
19 proprietary and would not be turned over.

20 We have asked Wyoming's experts for  
21 their's, and they have refused to give them  
22 to us, and likewise, we have refused to give  
23 them our computer listings.

24 I think it's tangentially related to  
25 what Mr. Toedter has talked about, and I think

1 for the development of the opinions which  
2 are illustrated by Exhibits 231 through 241-B?

3 A Only as applies to the arable land base, as  
4 identified by HKM.

5 Q So it was used in your analysis as applied  
6 to the arable land base; is that correct?

7 A Right.

8 Q Do you have a program listing for that computer  
9 program?

10 A Okay. I don't think I do with me.

11 MR. WHITE: Your Honor, I would ask that the  
12 witness be instructed to provide a program  
13 listing so we can determine whether or not the  
14 program does what the witness hopes it does  
15 and whether or not we wish to attack the  
16 programming.

17 THE SPECIAL MASTER: How much of a problem  
18 is that, Mr. Toedter? Can you do it --

19 THE WITNESS: It's no problem

20 THE SPECIAL MASTER: No problem?

21 MR. MEMBRINO: Your Honor, this drainage  
22 program was only incidentally related to his  
23 conclusions on drainage. It's also proprietary  
24 information that neither side has exchanged,

25 toedter-voir dire-white

1 he can explain for the most part, as he has  
2 done right now.

3 MR. WHITE: I will state for the record,  
4 Your Honor, that when the State of Wyoming  
5 completes the programs which it's using, I think  
6 it's bound by the rules to provide them either  
7 at the time prior to their use as part of  
8 direct examination or their reliance on it  
9 during direct examination or when requested to  
10 deliver them during cross-examination.

11 THE SPECIAL MASTER: Let me hear one more  
12 time what it is you have asked for.

13 MR. WHITE: I have asked for the program  
14 listings or the description of the program for  
15 the drainage program which Mr. Toedter has  
16 testified were involved in his drainage analyses  
17 with respect to the arable lands within the  
18 study areas shown on Exhibits C-231 through 241-B.

19 THE SPECIAL MASTER: Do you need them all,  
20 for all areas?

21 MR. WHITE: No, just one thing. It's one  
22 program, and they plug in data, and we just  
23 want to see the program how they mesh the  
24 program.

25 THE SPECIAL MASTER: It's going to be hard

1 for me to say that that is not relevant to  
2 this lawsuit. If you want -- do you object  
3 to that? Does the United States object?

4 MR. ECHOHAWK: Yes, Your Honor.

5 THE SPECIAL MASTER: You are going to  
6 have to give me some pretty good reasons for  
7 sustaining your objection.

8 Why don't you think about that and come  
9 back at me later, and in the meantime we will  
10 let sit the fact that I'm going to ask the  
11 witness to produce them.

12 MR. ECHOHAWK: I will discuss that with  
13 the heads of each of the companies that deal  
14 with that information.

15 THE SPECIAL MASTER: Go ahead, Mr. White.

16 MR. WHITE: Your Honor, --

17 THE SPECIAL MASTER: Let's go eat.

18 MR. WHITE: If you rule eventually that we  
19 may not have the program listings, then I would  
20 ask two things:

21 First, that this witness be required to  
22 return to be cross-examined, orally cross-  
23 examined, with respect to that program --

24 THE SPECIAL MASTER: Which I denied you  
25 by the rule.

1 MR. WHITE: And, second, that the same  
2 rule with respect to the proprietary nature  
3 of the programs be extended to the State  
4 as well as the United States.

5 Those are the two things I ask if you  
6 eventually deny it.

7 I think you nodded your head yes.

8 THE SPECIAL MASTER: Well, I understand  
9 your two requests, and I just don't believe  
10 that there is much of a case to deny the fact  
11 that you ought to provide the materials. There's  
12 no big deal, as he said.

13 I will reserve the final ruling on it  
14 until I hear from the United States.

15 MR. MEMBRINO: Thank you, Your Honor.

16 Q (By Mr. White) Mr. Toedter, do you have with  
17 you the soil logs which you developed or other  
18 field notes which you prepared based on your  
19 1981 field investigation?

20 MR. CLEAR: If we are going to go into  
21 another area, shall we take a ten-minute break?

22 THE SPECIAL MASTER: No, let's go and see  
23 if we can finish up in ten or fifteen minutes.

24 MR. WHITE: I think I have about 15 minutes  
25 more cross.

1 THE SPECIAL MASTER: I think you can  
2 condense it to seven and a half minutes.

3 MR. WHITE: I would have no objection  
4 to a short break.

5 THE SPECIAL MASTER: I think it's up to  
6 you. Do you want to go on or do you want to  
7 take a break?

8 THE WITNESS: I'm not sure I can put my  
9 finger right on these materials that Mr. White  
10 has requested, so it would probably be a good  
11 idea to take a break.

12 THE SPECIAL MASTER: All right. Let's take  
13 a ten-minute break.

14 (Whereupon, a ten-minute  
15 recess was taken.)

16

17

18

19

20

21

22

23

24

25

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

(Beginning at 1:12 p.m.)

THE SPECIAL MASTER: Come to order, please.

Q (By Mr. White) Mr. Toedter, is it --

MR. MEMBRINO: Your Honor, before we continue, I just want to make something clear about the information that has been requested by Mr. White. The information that was used was used only indirectly and it was used to prepare the footnote to the standards. There is a 200-foot drain spacing. The calculations that go into the actual drain spacing that the United States is going to present will be through another witness using perhaps a completely different program. And I think the whole issue regarding this witness' knowledge of his company's program is all out of proportion to its relevancy in this hearing.

MR. WHITE: Whether or not that's true, Your Honor, if it is relevant to one footnote or twenty footnotes, it is still discoverable and we maintain our order --

THE SPECIAL MASTER: Go ahead.

Q (By Mr. White) Mr. Toedter, --

A. Yes.

MR. WHITE: -- excuse me, or maintain our request for an order. I'm sorry.

toedter - cross - white



1 Q (By Mr. White) Mr. Toedter, were you able during  
2 the break to find your 1981 soil logs or field  
3 notes, or have they disappeared in one of the many,  
4 many boxes of materials that you brought with you?

5 A. Okay, I have misplaced them.

6 Q Will you be able to provide the State of Wyoming  
7 with copies of those?

8 A. Yes, I will.

9 Q Will you be able to provide us with copies prior  
10 to week's end, prior to Friday, this being Wednes-  
11 day?

12 A. Yes.

13 MR. WHITE: Thank you.

14 Q Is it true that you provided the information con-  
15 tained in Exhibits 231 through 241-B to Dr. Mes-  
16 ghinna?

17 A. Yes, I did.

18 Q Did you provide the information contained in your  
19 work maps -- or, excuse me, let's strike that.

20 Did you provide your work maps of the type  
21 that's been admitted as Exhibit 243-C, 243, to Dr.  
22 Mesghinna?

23 A. No, I did not.

24 Q Okay. Thank you.

25 toedter - cross - white

1                   Isn't it true, Mr. Toedter, that over 90 per-  
2 cent of your study areas shown on Exhibits 231 through  
3 240 lie within one or more of the following land  
4 forms: alluvium, terrace and Wind River Formation?

5   A.   I would say that's probably an accurate appraisal.

6   Q.   I hand you what's been marked for identification as  
7 Plaintiff's Exhibit BT-10, which is entitled, "Re-  
8 port to the Regional Director of Region VI, Bureau  
9 of Reclamation", by the Board of Consultants, River-  
10 ton Project, Wyoming, regarding drainage in land  
11 classification problems on the Third Division of  
12 Riverton Project, dated December 15, 1961, and ask  
13 you to turn to the fourth page, which is a map show-  
14 ing the North Portal and the North Pavillion areas of  
15 the Third Division, and further ask you, using Exhi-  
16 bit C-33, to tell me or tell the Court, state for  
17 the record, the land forms which are included within  
18 the North Pavillion and North Portal areas, as de-  
19 picted on that map.

20                   MR. MEMBRINO: Your Honor, before he begins,  
21 I should point out that Mr. Toedter's description  
22 of land forms earlier testified to were based only  
23 in part on the United States Exhibit WRIR C-33.

24                   He was also in the field and was on these lands.

25                   toedter - cross - white

1 MR. WHITE: I think the record speaks for it-  
2 self, Your Honor.

3 THE SPECIAL MASTER: Have you got any indica-  
4 tion, Mr. White, of what the township is of the  
5 North Portal area?

6 MR. WHITE: Well, they lie along 2 East and 3  
7 East on either side of Muddy Creek.

8 THE SPECIAL MASTER: 2 and 3, Township 2 and 3  
9 North?

10 MR. WHITE: I'm sorry, 2 and 3 East, Your Honor.  
11 The Bureau map omits the township. I gave him the  
12 ranges.

13 THE SPECIAL MASTER: Oh, I see. All right.

14 MR. WHITE: I think it is easily figured out  
15 from the other features shown on here.

16 THE WITNESS: Okay. Similar geologic materials  
17 are shown in these areas.

18 Q (By Mr. White) That's the Wind River Formation,  
19 alluvium and terraces?

20 A That's correct.

21 Q In other words, over 90 percent of your study areas  
22 contained the same land forms as contained in the  
23 Third Division?

24 A That's correct.

25 toedter - cross - white

1 THE SPECIAL MASTER: Well, the first time he  
2 asked you, you said that's generally correct, so I  
3 assume you still want to keep it somewhat consistent.

4 THE WITNESS: All right, I'll keep it generally.  
5 I don't know whether the 90 percent figure is  
6 exact or not.

7 MR. WHITE: Well, do you want to go through  
8 them one by one?

9 THE WITNESS: No.

10 (Laughter.)

11 MR. WHITE: Okay. If it's any help, I came up  
12 with 94 percent.

13 Q (By Mr. White) Would you turn to Page -- Pages 2  
14 and 3, please, beginning at the bottom of Page 2  
15 where it says, "Soil Logs", would you read to your-  
16 self or aloud, if you like? You might as well read  
17 it aloud, the last paragraph on Page 2, which be-  
18 gins, "The purpose of soil logging," and the first  
19 paragraph on Page 3, which begins, "The 400-foot  
20 grid holes"?

21 A. Okay.

22 Q Isn't it true that the 400-foot grid described in  
23 the last paragraph on Page 2 converts to a hole  
24 density of one hole for approximately 4 acres?

25 toedter - cross - white

1 A. Okay, that would be correct.

2 Q And isn't it true that in the first paragraph of  
3 Page 3 those 400-foot grid holes are indicated as  
4 being logged for a variety of items, including  
5 structure?

6 A. Yes, they were.

7

8

9

10

11

12

13

14

15

16

\* \* \* \* \*

17

18

19

20

21

22

23

24

25

1 THE SPECIAL MASTER: Is it among other  
2 things?

3 MR. WHITE: Yes, sir, I meant to say  
4 among a variety of items.

5 Q (By Mr. White) Isn't it true that the hole  
6 density utilized in your analysis depicted  
7 on Exhibits C231 through 241-B is based on  
8 a hole density of several hundred feet --  
9 excuse me -- several hundred acres per hole?

10 A That's reasonable to assume.

11 MR. MEMBRINO: Your Honor, I think we  
12 should point out what this document was  
13 prepared for and what we're involved with in  
14 this case.

15 This is prepared about an existing  
16 irrigation project with very severe drainage  
17 problems, and it's a report on what might be  
18 done about it, and the level of intensity is  
19 far greater than what we have to be concerned  
20 with in proposed project development and, in  
21 fact, taking preventive measures and good  
22 design in the first place to avoid going into  
23 what has gone on here.

24 I think we are involved in what may not be

25 toedter-voir dire-white

1 a fair comparison.

2 THE SPECIAL MASTER: I appreciate your  
3 observation. Go ahead with your questions.

4 MR. WHITE: I'm glad Mr. Membrino mentioned  
5 that, Your Honor, because it gives me a chance  
6 to indicate that that's the kind of spacing  
7 and the kind of work that was done for a project  
8 that failed.

9 THE SPECIAL MASTER: I'm interested in  
10 any evidence that will give us some record of  
11 the projects in Wyoming that failed. That  
12 we want to try to avoid if we can in cranking  
13 in the conclusions of water in this area, and  
14 that's understandable.

15 MR. WHITE: Can I have just one moment,  
16 Your Honor, and I'm about to offer these  
17 exhibits?

18 THE SPECIAL MASTER: If the project  
19 succeeds, Mr. Toedter, we thank providence,  
20 the nature of the soil, the abundance of  
21 water, and the great dedication and excellence  
22 of the farmers.

23 If it fails, we blame the professionals,  
24 the experts, the planners, and the politicians.

25 THE WITNESS: There you go.

1 THE SPECIAL MASTER: The old saying is that  
2 when adversity came to a man, he blamed his  
3 wife and his staff. In this business it's the  
4 same thing.

5 MR. WHITE: Did you say something to me,  
6 Your Honor? I was spaced out a hundred miles  
7 away.

8 THE SPECIAL MASTER: Just making an aside  
9 while you were working.

10 MR. WHITE: Your Honor, at this time we  
11 would offer the following exhibits: BT-2,  
12 which is an excerpt from the drainage manual;  
13 BT-3, which is a collection of soil profile  
14 logs.

15 THE SPECIAL MASTER: You are not going to  
16 offer 10 itself?

17 MR. WHITE: I will, Your Honor. BT---

18 THE SPECIAL MASTER: All right.

19 MR. WHITE: BT-4, another excerpt from the  
20 drainage manual; BT-9 -- excuse me -- BT-10,  
21 the Third Division Report; BT-11 and BT-12,  
22 drain spacing charts.

23 They are offered for the purpose --

24 MR. SACHSE: Your Honor --

25 MR. WHITE: -- as follows: BT-2 for the



1 truth of its contents; BT-3 to show facts and  
2 data upon which the expert, the witness, based  
3 his opinion; BT-4, for the truth of its contents;  
4 BT-10 for the truth of its contents; BT-11 and  
5 12 to illustrate a portion of an analysis  
6 accomplished by Mr. Toedter.

7 THE SPECIAL MASTER: Any voir diring by  
8 anybody?

9 Mr: Sachse?

10 MR. SACHSE: I wish to object to the  
11 introduction of BT-10 for the very reason that  
12 no foundation has been laid for it and there  
13 is no way to voir dire as to it.

14 Now, as to what Mr. White is trying to do  
15 is introduce documents that he could very well  
16 introduce if he wishes to by one of his own  
17 witnesses in his case in chief, in which event  
18 we would have the opportunity to cross-examine --  
19 to voir dire that witness as to his knowledge  
20 about the document and its relevance to this  
21 case, but to take a 1961 study of a portion of  
22 the Riverton Reclamation Project, make the  
23 assumption that that portion, A, is relevant,  
24 though my assumption was it was a gravity  
25 project rather than a sprinkler project; two,

1 make the assumption that nothing has been done  
2 to improve and make productive those areas  
3 where the fact may be that much that was  
4 considered bad is actually in production today.

5 With no way to cross-examine a witness  
6 as to what is actually happened out there, this  
7 evidence is inadmissible for lack of foundation  
8 and incompetent to show anything of relevance  
9 to this suit.

10 Now, at a later time it may very well turn  
11 out to be relevant and we would get the  
12 document with a witness, I suppose presented  
13 by Mr. White, who could be cross-examined as  
14 to what's really happened and as to how that  
15 document is relevant to this case.

16 THE SPECIAL MASTER: If this document  
17 had been used for any purpose other than what  
18 it was, very briefly a moment ago, applied only  
19 to generalizations dealing with land forms  
20 and if 90 percent of the area similar to that  
21 in that it is an alluvium or parts of the  
22 Wind River valley floor or it's a terrace --  
23 I believe those were the questions -- that's  
24 what this document serves as a function.

25 MR. SACHSE: But Mr. White has introduced

1 it for the turth of its contents.

2 THE SPECIAL MASTER: Right.

3 MR. SACHSE: He's done that quite  
4 deliberately.

5 THE SPECIAL MASTER: And its contents  
6 deal with a different project back in 1961  
7 with many, many matters that don't have a  
8 relationship except they find themselves in  
9 similar soil forms.

10 MR. SACHSE: There's no way this document  
11 can prove its contents unless someone has  
12 testified that these things are true. In other  
13 words, it's a --

14 THE SPECAIL MASTER: Mr. White, would you  
15 put Plaintiff's Exhibit BT-10 introduced for  
16 the same purposes as 11 and 12? You remove  
17 the objection if you do.

18 MR. WHITE: I would introduce -- I would  
19 amend my offer as follows: I offer it as a  
20 copy of what it purports to be and, second,  
21 for the purpose of impeachment.

22 THE SPECIAL MASTER: Doesn't that remove  
23 your objection, Mr. Sachse?

24 MR. MEMBRINO: No, the Government also  
25 objects, Your Honor.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

THE SPECIAL MASTER: All right. Let's hear your objection, Mr. Membrino.

MR. MEMBRINO: The relevancy of this to the testimony that we are speaking about I just briefly discussed a few moments ago. It's about a different project with different problems that accrued over time.

It's historical in its approach and we are looking to propose projects that will be designed to obviate these problems in the future.

We haven't had a chance to review this at all. We've got items in it that we haven't had a chance to examine.

Much of this is taken out of context. The very presentation of the information involved is out of context in the fact that it was an historical long-standing problem.

\* \* \* \* \*

1 THE SPECIAL MASTER: Let me ask a question, Mr.  
2 Membrino, at the risk of having to interrupt you.

3 The material is in the record regarding what  
4 you adduced from the record by use of BT-10--

5 MR. SACHSE: Just --

6 THE SPECIAL MASTER: Just a minute, Mr. Sachse.

7 Would you, Mr. White, agree to withdraw Exhibit  
8 10 and reserving the right to introduce it as your  
9 own exhibit with your own witnesses at that time?

10 MR. WHITE: I will make a further compromise,  
11 and I will offer it only for the purposes of impeach-  
12 ment, and I can offer a bowl of spaghetti for impeach-  
13 ment if that's what I elect to do.

14 THE SPECIAL MASTER: You offer to do that pretty  
15 soon and the Special Master will offer to eat it.

16 MR. WHITE: It's offered for the purpose of  
17 impeachment.

18 MR. SACHSE: There's no rule that just anything  
19 can be offered for the purpose of impeachment. There  
20 is no showing that this has any relevance to what Mr.  
21 Toedter has testified to, and as far as -- it really  
22 is just purely hearsay. It's inadmissible.

23 THE SPECIAL MASTER: This document was introduced  
24 for a look at a map in it which showed the position of  
25 two of the areas of Water Division No. 3.

1 MR. CLEAR: No, Your Honor. He asked him to  
2 read from it. He read from it.

3 MR. WHITE: He didn't read from it, Your Honor.

4 MR. SACHSE: Let Mr. White just introduce the  
5 map if that's what is there, but what he's trying  
6 to do is very clever and so forth --

7 THE SPECIAL MASTER: He read only from two  
8 paragraphs which added nothing new, and the fact  
9 that, among other things, the word "structure"  
10 appeared along with "texture", "depth to water  
11 tables", "color", "visual salts" and other reasons  
12 that holes are drilled --

13 MR. SACHSE: If Mr. White wants to introduce  
14 those two paragraphs, perhaps we would have no ob-  
15 jection; but if he wants to put in what really is  
16 a bulk of material where we have had no chance to  
17 test his witnesses as to the relevancy of that  
18 material -- and our witnesses certainly have seen  
19 no relevance in it -- then I think this is improper.

20 THE SPECIAL MASTER: All right. Let me ask Mr.  
21 White one more question.

22 MR. WHITE: I can solve the problem, Your Honor.  
23 I'll limit the offer to the map and the two para-  
24 graphs referred to.

25 THE SPECIAL MASTER: All right. That's going

1 to be -- the offer now is the map and two pages from  
2 the total document.

3 MR. WHITE: I offer the whole thing, Your Honor  
4 -- or the whole thing comes in, but the only thing  
5 I'm offering, the only thing the Court should con-  
6 sider, is the map and the two paragraphs.

7 MR. SACHSE: Then the whole thing doesn't come  
8 in.

9 THE SPECIAL MASTER: The whole thing doesn't  
10 come in. The whole thing stays out except the map  
11 and the two pages which are important to your cross-  
12 examination.

13 MR. MEMBRINO: Your Honor --

14 MR. WHITE: Well, it makes no difference to me.

15 THE SPECIAL MASTER: You are going to get it in  
16 later on anyway.

17 MR. WHITE: It's a violation of the Rules of  
18 Evidence, but I will waive the objection.

19 THE SPECIAL MASTER: I appreciate that. Exhi-  
20 bit 10 will be -- the description will be corrected  
21 as it contains one page, the Riverton Project draw-  
22 ing, and Page 2 and Page 3 of the document that had  
23 been offered.

24 MR. MEMBRINO: Your Honor, I nevertheless object  
25 to even that offer.

1 THE SPECIAL MASTER: That objection is over-  
2 ruled.

3 MR. WHITE: Your Honor, for the purpose of keep-  
4 ing things straight, could I please have those pages  
5 back. I will put them back in order in the parent  
6 document. The parent document was offered and,  
7 therefore, has to accompany the reporter, and I  
8 will prepare another exhibit called 10-A, and that  
9 would contain just those three items.

10 THE SPECIAL MASTER: All right, but 10 is not  
11 a part of it, is not admitted into evidence. It's  
12 not a part of the record.

13 MR. WHITE: I understand, Your Honor. It is  
14 rejected.

15 May I have just a moment to do that?

16 THE SPECIAL MASTER: All right. When we ad-  
17 journ in a few minutes, we will adjourn until 9:15  
18 tomorrow morning in this same room, and we'll put  
19 on a good strong day tomorrow and a good strong  
20 day Friday, if necessary.

21 MR. MERRILL: While Mr. White is getting his  
22 exhibits in order --

23 THE SPECIAL MASTER: Yes, Mr. Merrill?

24 MR. MERRILL: I would like to ask that, as the  
25 Court is aware, Wyoming filed a request for production



1 to the United States several days ago requesting  
2 essentially a copy of any land classification stan-  
3 dards that were developed with respect to the Crow  
4 Reservation.

5 Mr. Echohawk and I have discussed the matter in-  
6 formally off the record, and as you will recall,  
7 during Mr. Kersich's testimony, the United States  
8 resisted production of those documents on the grounds  
9 that they were privileged.

10 I believe Mr. Echohawk will state now that they  
11 would respond similarly to the formal request for  
12 production, and I would like to ask that the request  
13 be now treated as a motion to compel production under  
14 the Rules of Procedure and that the matter be set for  
15 hearing at the commencement of our proceedings on May  
16 5, if that's agreeable with counsel for the United  
17 States.

18 THE SPECIAL MASTER: I would like to hear some  
19 good argument from you gentlemen as to what should  
20 compel me to order the procedure that something can  
21 be produced from another tribe of Indians on another  
22 reservation in another state, none of which is in the  
23 jurisdiction of the Special Master.

24 MR. ECHOHAWK: Especially in another lawsuit,  
25 Your Honor. That's the key point the United States

1 is concerned about.

2 THE SPECIAL MASTER: Well, get your cases  
3 ready and your argument, and I'll hear you on May  
4 5 with some motions, and this will be one of them.  
5 I have it marked for May 5..or.6.

6 MR. MERRILL: All right, Your Honor. I assume  
7 we need not make a formal motion to compel, but is  
8 that agreeable with you, Tom?

9 MR. ECHOHAWK: It's agreeable, and let the re-  
10 cord stand as it is.

11 THE SPECIAL MASTER: It's in the record, and  
12 remind me to get to it if we don't do it first thing  
13 on May 5. Tuesday, May 5.

14 Also, Mr. White wants those two days that week.  
15 You still have a reservation here to pull them if  
16 you want them.

17 MR. WHITE: If I really need them, I will have  
18 somebody else cover the bases for me, Your Honor. I  
19 just don't want to hold things up on that account.

20 Your Honor, I have got 10-A, which is paper-  
21 clipped --

22 THE SPECIAL MASTER: Stapled together?

23 MR. WHITE: It's not stapled, Your Honor. I  
24 don't have a stapler,

END

25 THE SPECIAL MASTER: I will staple it.

1 MR. MEMBRINO: Your Honor, may I make an inquiry,  
2 what is the status of the exhibits that were offered?  
3 The United States --

4 THE SPECIAL MASTER: I'm about to admit them  
5 all into evidence; all those offered by Mr. White and  
6 all of those, meaning that -- let me find my notes.  
7 I'm getting a little bit -- meaning BT-2, -3, -4,  
8 -10-A, -11, and -12.

9 MR. MEMBRINO: Your Honor, we note the govern-  
10 ment objection to the admission of any of them.  
11 B-2 and B-4 are excerpts from --

12 THE SPECIAL MASTER: From a manual.

13 MR. MEMBRINO: -- from a manual.

14 THE SPECIAL MASTER: Sure.

15 MR. MEMBRINO: Again, the context of which is  
16 not complete.

17 THE SPECIAL MASTER: Well, now, you can't have  
18 it both ways. You can't argue that the manual was  
19 not complete there, having just thrown out 180 pages  
20 of the manual,

21 MR. WHITE: I might ask you to reconsider on  
22 10, Your Honor.

23 THE SPECIAL MASTER: That can hardly be a basis  
24 for your objection to BT-2.

25 MR. MEMBRINO: Well, Your Honor, we also object

1 to the introduction of 11 and 12, even for the pur-  
2 pose of illustrating Mr. Toedter's work. Mr.  
3 Toedter's work in this had to do with the establish-  
4 ing the footnote in his standards related to 200-foot  
5 drain spacings. These have nothing to do with that.

6 THE SPECIAL MASTER: The objections are res-  
7 pected, but respectfully overruled.

8 MR. MEMBRINO: Thank you, Your Honor.

9 (Whereupon Exhibits BT-2, BT-3,  
10 (BT-4, BT-10-A, BT-11 and BT-12  
(were received into evidence.

11 MR. WHITE: We have no further questions on  
12 cross, Your Honor.

13 THE SPECIAL MASTER: Thank you all very, very  
14 much, ladies and gentlemen -- or we don't have --  
15 one lady in court.

16 Yes, Mr. Echohawk.

17 MR. ECHOHAWK: Your Honor, in discussing the  
18 matter on the motion to compel the Crow information,  
19 I have had further discussions with Mr. Merrill, and  
20 this is a point of great importance to the United  
21 States, and what we would like to do is we would  
22 like to also file briefs and have a chance to res-  
23 pond to Wyoming's brief. If we could file briefs  
24 by, say, next Friday and then set the motion to be  
25 argued possibly either the following Thursday of

1 the week that we resume on Friday, that gives us a  
2 chance to consider Wyoming's briefs and possibly  
3 respond to some of the points --

4 THE SPECIAL MASTER: Mr. Echohawk, if it is  
5 found that this becomes so much of a gravamen to the  
6 United States, that's as to the law of the Indian  
7 Reservations, we can reserve it another month or  
8 two and will set it for a hearing for one week in  
9 Mammoth Falls or Yellowstone Park or someplace for  
10 one week along about August. We can do this, too.  
11 That's not joking. If it is a serious enough mat-  
12 ter, let's set it down the road sometime where we  
13 can a few days away from the tribulations of this  
14 lawsuit. Because it has nothing to do with Water  
15 Division 3.

16 MR. ECHOHAWK: That may be more appropriate  
17 because it is a matter that affects or could have  
18 a potential effect on all of the United States'  
19 lawsuits on behalf of Indian Tribes or lawsuits  
20 in general.

21 THE SPECIAL MASTER: I would believe so.

22 MR. ECHOHAWK: Perhaps that would be a good  
23 idea to set it two or three weeks down the road.

24 THE SPECIAL MASTER: Wyoming is going to  
25 argue in the matter you have used the same people

1 in the same areas to find conclusions regarding  
2 certain lands that can have a similarity. There-  
3 fore, it has a direct relation to the work being  
4 done in Water Division 3.

5 MR. MERRILL: That's part of the argument,  
6 Your Honor.

7 MR. ECHOHAWK: And part of our argument is --

8 THE SPECIAL MASTER: If we're going to take  
9 this on the morning of May 5th and it takes up all  
10 of the 5th, 6th, 7th and 8th, then I don't want to  
11 set it on May 5th. Do you understand what I mean?

12 MR. ECHOHAWK: Perhaps we can set it towards  
13 the end of May.

14 THE SPECIAL MASTER: It isn't all that urgent.

15 MR. MERRILL: Your Honor, I would like to have  
16 it heard late next week or the next week of hearings,  
17 but the matter is very important to Wyoming's pre-  
18 paration of its case in chief as well as preparation  
19 of the continuation of cross-examination in the  
20 Federal Government's case.

21 THE SPECIAL MASTER: All right. Now, let's go  
22 back --

23 MR. MERRILL: If Mr. Echohawk wants --

24 THE SPECIAL MASTER: Let me go back to the be-  
25 ginning on May 5th. Mr. Echohawk, if you've got the

1 last week in April to prepare a little bit of this  
2 and you've got the help -- you should have some help  
3 with some of the excellent counsel --

4 MR. ECHOHAWK: The problem is if we get Wyoming's  
5 brief on Friday and it's to be argued on Monday, we  
6 don't really have a whole lot of time to respond to  
7 their points. If we've got nothing else, just set it  
8 later on in that week, say, Thursday --

9 MR. MERRILL: That's fine with us, Your Honor.

10 THE SPECIAL MASTER: All right, it will be set  
11 for Thursday of that week.

12 We are in recess until tomorrow at 9:15.

13 MR. WHITE: Your Honor, is this witness ex-  
14 cused? If he was --

15 MR. MEMBRINO: We've got redirect, Your Honor.

16 THE SPECIAL MASTER: Some redirect tomorrow?

17 MR. MEMBRINO: Tomorrow morning.

18 THE SPECIAL MASTER: All right, we'll see you  
19 tomorrow morning.

20 MR. SACHSE: Before we all scatter and off the  
21 record --

22 THE SPECIAL MASTER: The record is closed.

23

24

(Proceedings recessed at  
approximately 1:40 p.m.)

25

END

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

INDEX TO EXAMINATION

PAGE

WITNESS: ROBERT TOEDTER

Direct Examination Continued	By Mr. Membrino	3822
Voir Dire Examination	By Mr. White	3837
Cross-Examination	By Mr. White	3892

INDEX TO EXHIBITS

IDENTIFIED      RECEIVED

C-231 through C-243		3990
WRIR BT-2	3917	3973
WRIR BT-3	3920	3973
WRIR BT-4	3921	3973
WRIR BT-10-A	3969	
WRIR BT-10	3955	3969 Rejected
WRIR BT-11	3937	3973
WRIR BT-12	3937	3973



1

REPORTERS' CERTIFICATE

2

State of Wyoming )

: SS

3

County of Laramie )

4

We, Lamont Miller and Viola J. Lundberg,

5

Registered Professional Reporters and Notaries Public,

6

hereby certify that we did at the time, date and place,

7

as set forth, report the proceedings had before the

8

Honorable Teno Roncalio, Special Master Presiding, in

9

stenotype; that the foregoing pages, numbered 3820-

10

inclusive, constitute a true, correct and complete tran-

11

script of our stenographic notes as reduced to typewrit-

12

ten form under our direction.

13

We further certify that we are not agents,

14

attorneys or counsel to any of the parties hereto, nor

15

are we interested in the outcome thereof.

16

Dated this 22nd day of April, 1981.

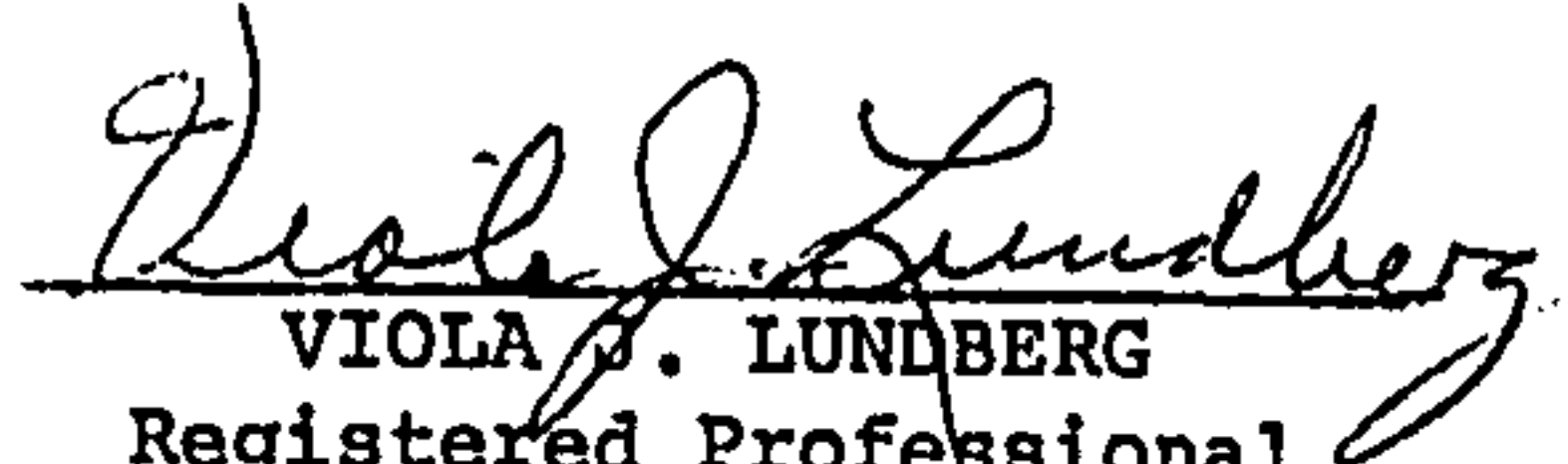
17



LAMONT MILLER

Registered Professional  
Reporter

18



VIOLA J. LUNDBERG

Registered Professional  
Reporter

19

20

21

22

23

24

25

