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Record of Proceedings at the Trial, Vol. V

Wayne C. Lenhart

Court Reporter, Spokane, Washington

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IN THE DISTRICT COURT OF THE UNITED STATES
FOR THE EASTERN DISTRICT OF WASHINGTON

FILED IN THE
U. S. DISTRICT COURT
Eastern District of Washington

FEB 13 1960

UNITED STATES OF AMERICA,)
)
Plaintiff,)
)
v)
)
BARBARA J. ANDERSON, et al,)
)
Defendants.)

J. R. FALLQUIST, Clerk

No. 3643

Deputy

VOLUME V

pgs 801-1000

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1 them, as I said, were becoming overgrown, perhaps,
2 plugged up a little bit.

3 Q You mentioned a measuring device at the springs which
4 would measure the flow. Is there a device at the
5 outflow of the ponds which would catch everything
6 coming out of Galbraith Springs?

7 A Yes, there is. Mr. Woodward has installed this weir
8 on the extreme lower end of the property, at the
9 fence line. It does, it's below the lower dam and
10 would catch all the flow.

11 Q You stated that this was kind of a recreational
12 development; who is allowed to fish in those ponds?

13 A A member of the Spokane Tribe, and anyone else that
14 the Spokane Tribe issues a permit to.

15 Q Has the Spokane Tribe issued any permits to any non-
16 Indians?

17 A Yes, I think I mentioned previously, we give permits
18 to spouse of our Tribal members, to the Bureau of
19 Indian Affairs, Public Health Service employees who
20 are stationed at Wellpinit.

21 Q In your testimony you mentioned some three lakes, I
22 believe, that are on the reservation?

23 A Yes.

24 Q And where did they get their fish?

25 A We get the fish from the Ford Fish Hatchery.

1 Q And do you know anything about why the fish hatchery
2 provides fish?
3 A Yes, I do.
4 Q Could you expand on that?
5 A Ford Fish Hatchery was constructed in 1940 or 1941 by
6 the government; it was then leased to the State of
7 Washington for a period of 50 years, at a fee of \$1.00
8 a year. It's been maintained by the Washington State
9 Game Department since that time. The initial plants
10 that were made in Turtle Lake, McCoy Lake, approximately
11 in 1950. This is largely through cooperation. In
12 1960, Ford Fish Hatchery observed that there was a
13 decrease in the flow of water in their springs. They
14 approached the Tribe for more water. We entered into
15 an agreement with the State of Washington, John Biggs,
16 at the time, and entered into an agreement where we
17 would try, would provide additional water, and if they
18 found sufficient amount of water, they would stock the
19 lakes and streams of the Spokane Reservation, and in
20 return for the water, they would provide a fishery
21 management program for the Reservation.
22 Q And has that happened; is there a fisheries management
23 program ongoing on the Reservation?
24 A Yes, they have done quite well, perhaps other than
25 with Chamokane Creek.

1 Q And do you know anything about those lakes as fisheries
2 prior to the time--

3 A Yes.

4 Q --that the Department started stocking them?

5 A Yes.

6 Q Could you tell us about that?

7 A We start with McCoy Lake, this is a lake with about 40
8 acres, on the west side of the Reservation. The lake
9 gets a little warm in the summertime, and years ago,
10 there was, uh, I'm trying to think of the name-- Fish
11 were planted in there, without much success. It was
12 never thought to be a fishing lake. A lot of people
13 observed an algae growth on this lake that they assumed
14 to be a mud. It wasn't, it was a little growth in the
15 water itself, and this lay idle until what, 1950, when
16 the Bureau of Indian Affairs and Alex Sherwood worked
17 out a program with the Game Department and had them
18 check this lake. They determined then it was probably
19 one of the better trout lakes in the area, and the
20 Game Department then did plant Eastern Brooks in there.
21 This time, this lake was opened to the public.

22 Then Turtle Lake, which is five miles north
23 and west of Wellpinit, it's a deeper lake, out of a
24 glacier, very cold water, it's a smaller lake, about
25 70 feet deep. Perch were planted in there for many

1 years. In 1950, this lake was also checked by the
2 Game Department, and determined that it should be a
3 good trout lake; it was treated with Rotenone, and
4 rainbow trout were planted there, and have been planted
5 ever since.

6 Later, in the 1950's, we approached the Game
7 Department to make a study of Benjamin Lake, which is
8 south and west of Wellpinit.

9 Q Excuse me; could you say the name of that lake again?

10 A Benjamin.

11 Q Benjamin?

12 A Benjamin Lake. And I was out there with them, we
13 checked the depth, the temperatures, and concluded to
14 try this lake with trout. They treated the perch in
15 this lake with Rotenone, and it has been a good trout
16 lake, in a sense, but as I pointed out, these are small
17 lakes and cannot stand a large group of people fishing.

18 Q Are these lakes, likewise, closed to fishing by the
19 general public at this time?

20 A Yes, they are. We kept McCoy Lake and Benjamin Lake
21 open till about five, four or five years ago, I think.

22 Q And how extensively are they fished by members of the
23 Tribe?

24 A They fish them quite extensively.

25 Q And, generally speaking, could you give me a comparison

1 of the quality of the fishery in those lakes since the
2 Game Department started their program?

3 A Well, we're talking about different types of fish.
4 Before we had perch, now we have trout. Trout, of
5 course, is a more exciting fish to catch. Rainbow
6 trout has always been considered as one of the trout
7 fish and game fish for sportsmen. Eastern Brook is
8 probably a better food fish, or, from my observation,
9 more of our members prefer to eat Eastern Brook rather
10 than Rainbow, but they have done a good job, and do
11 have a constant supply of fish there.

12 Q What--

13 A As long as we control it.

14 Q I'm sorry, take your time.

15 A I was going to point out, as long as these lakes are
16 controlled, we control them, or at least watch these
17 quite closely.

18 Q Are these lakes more heavily fished now than they were
19 before the Game Department program came in?

20 A Yes, they are. As I pointed out, then all there was
21 was perch, and although many people like perch, there
22 are many things more of interest in fishing for trout
23 than there are for perch.

24 Q In your Direct Examination, some reference was made to
25 hunting on the Reservation?

1 A Yes.

2 Q Is the Reservation area used extensively for hunting?

3 A The Spokane Indian Reservation is probably one of the
4 better white-tail deer areas in Stevens County, in my
5 opinion. Our deer, and blue grouse, ruffed grouse,
6 or native grouse, waterfowl. We do not have an
7 abundance of birds that have been introduced into this
8 country. Mainly, the native birds.

9 Q Who is permitted to hunt on the Reservation?

10 A The same people that are allowed to fish. The permit
11 generally includes hunting and fishing.

12 Q In the course of your duties for the Tribe, or your
13 duties for the Game Commission, have you at any time
14 had any work which involved you definitely or directly
15 in the area of water rights, in the Game Department's
16 involvement in water rights?

17 A We have had some instances of water right with the
18 Game Department. It's not with the Tribe; I mean,
19 within the general area of the State.

20 Q Are you personally aware of any provisions in the
21 water rights program of the State dealing with notice
22 to people that someone has applied?

23 A I haven't actually participated in this as Game
24 Commission, because this doesn't fall within our
25 responsibility, it's handled by the personnel and is

1 not handled directly or observed by the Game Commission.

2 Q With respect to--

3 A I have always been told and understand that there are

4 certain procedures that have to be followed, as far as

5 posting and putting it in the papers, notices of permits.

6 Q With respect to the pumping applications and permits

7 issued by the State, and then, again, Mr. Smithpeter's

8 permit, I think it was your testimony that the Tribe

9 received no notice?

10 A Not to my knowledge.

11 Q When you speak of "notice", are you talking about

12 direct communications, either from Mr. Smithpeter or the

13 State that this was apparent?

14 A When I speak of a "notice", I assum this is what should

15 be. We didn't receive or read any, or observe, or in

16 any way know that there was a permit issued.

17 Q Now, you testified, I believe, that with respect to

18 Chamokane Creek, over the last 10 years or so, there

19 has been a decline in the quality of fishing, is that

20 correct?

21 A Yes.

22 Q And you attributed that to a decline in the flow of

23 Chamokane?

24 A Partially.

25 Q What else do you have?

1 A The day that stated the other day, I believe
2 it was 1966 when they quit stocking the stream.
3 Q If they were to stock the stream, would the situation
4 change?
5 A It would, as long as that line of fish lasted.
6 Q Now, with respect to the flow, is this a matter, a
7 conclusion that you have drawn based on your own
8 observation, the decline of the flow?
9 A Yes.
10 Q Have you, yourself, been involved in any study of what
11 might be causing this?
12 A I haven't been in any studies.
13 Q With respect to what the cause may be, do you base your
14 opinions on those of other people?
15 A Well, partially, and until this study came about, about
16 all I knew was that we didn't seem to have the supply
17 of water that we used to.
18 Q On the subject of fish, and--
19 THE COURT: Counsel, if you're changing the
20 subject, it might be a good time to take a 10-minute
21 recess.
22 MR. DUFFORD: Fine.
23 (A 10-minute recess was taken
24 at this time.)
25

1 Q (By Mr. Dufford) Mr. Galbraith, is there any commer-
2 cial fishing done on the Spokane Indian Reservation?
3 A No.
4 Q Are any of the fish caught there sold?
5 A No. Under our Law & Order Code, no fish or game can
6 be sold to anyone, other than a member. I don't know
7 of this happening. If somebody catches a few extra
8 fish, they generally give them to some of the older
9 people who aren't able to fish anymore.
10 Q At the present time, can you tell me what importance
11 the fish that are caught on the Reservation play in the
12 food store for the tribe?
13 A Going back in history, fishing, or fish of some type,
14 has always been of great importance to the Indian
15 people, and it certainly is today. They use these
16 fish for part of their food, a large part of their
17 food, and other people today, the high cost of other
18 types of meat, there will probably be more people
19 fishing.
20 Q Is it your opinion that some of the members of the
21 Tribe do depend upon fish caught on the Reservation,
22 to some extent, as a source of their basic necessities?
23 A It certainly isn't like it was in the early days, but
24 there are still members who smoke fish and dry fish
25 and they use them for a pretty good, staple food item.

1 Q I have one more question, and this, again, relates
2 back to Galbraith Springs. Is there any deeded land,
3 that is land that is owned in fee by a non-Indian,
4 which contributes anything to the flow of that spring,
5 or contributes to the ponds?

6 A No. All of the flow rises on this particular-- No,
7 there could be-- I don't know of any spring in high
8 water right now. There could be a very, very minor
9 amount, not any amount that you could see bubbling
10 from this land, it's a very remote, a very small corner
11 of the tract of land you could possibly concede there
12 is a little water.

13 MR. DUFFORD: No further questions.

14 THE COURT: Mr. Torve?

15

16 DIRECT EXAMINATION

17 BY MR. TORVE:

18 Q Mr. Galbraith, as Executive Director, do you keep or
19 have charge or have custody of the tribal records?

20 A Yes, I do.

21 Q I have asked a number of questions of other witnesses
22 relating to land transactions, and I've been referred
23 to further witnesses as we go along, and I assume we
24 have got to the point, to the witness where, having
25 custody of those records, you are, have the information

1 as to the various land transactions that the Tribe has
2 carried on over the years?

3 A I have the bulk of them. There is still the Bureau of
4 Indian Affairs, who has the, who is the realty officer
5 whose particular job is handling land transactions.

6 Q Now, Mr. Galbraith, as to the custody of these records,
7 and as a member having been involved in Tribal affairs
8 for quite a number of years, are you familiar with what
9 lands were classified by the Secretary of the Interior
10 as agricultural lands and also timberlands, pursuant to
11 the Act of May 29, 1908?

12 A Yes, basically so.

13 Q Do you have those records in court with you today?

14 A I don't have any records in court, so--

15 Q Do you have--

16 A Personally, I haven't brought anything up here.

17 Q Do you have those records back at Wellpinit, or some-
18 place?

19 A Yes, they would be at Wellpinit.

20 Q Are they readily accessible?

21 A Our records are available upon request by who we feel
22 are people entitled to see our records.

23 Q And can you tell us, here on the stand, right today,
24 where those lands might be that were so classified by
25 the Secretary of the Interior?

1 A Well, the basic agricultural area was the eastern
2 portion of the Reservation along the Chamokane areas,
3 but the Bureau of Indian Affairs classed as farmland
4 or agricultural land largely what we would term the
5 eastern portion of the Reservation.

6 Q Do you know how much area was classed as agricultural
7 land by that directive?

8 A 1908?

9 Q Yes.

10 A I don't specifically remember the number of acres.

11 Q Would the figure of 5,781 acres be about what you would
12 remember?

13 A I would merely be guessing. I think it's probably
14 reasonably accurate.

15 Q Do you know how much land was classified as timberland
16 under that Act?

17 A 1908?

18 Q Yes.

19 A Well, there was 154,000 acres, more or less, in the
20 original Reservation, and over a period of years I'm
21 required, or compelled to work with figures that are
22 changing from time to time, and for me to quote a
23 figure of that time, I'm guessing it's around 100,000
24 acres.

25 Q You haven't checked, specifically, those records, for

1 the purpose of this trial?

2 A I have a multitude of duties and the Bureau of Indian
3 Affairs and the Board of Supervisors is responsible for
4 the management of our forestry.

5 Q Do you know how much lands were included within the
6 Indian allotments at that time, in 1908, or that were
7 allotments completed pursuant to that Act?

8 A As I recall, there would probably be 60 or 70,000 acres.
9 Probably somewhere over 600 individual allotments.

10 Q Now, there were other acts which opened part of the
11 Spokane Indian Reservation to mineral entry, were there
12 not?

13 A Yes.

14 Q Do you have records as to what lands were included in
15 that, or actually taken?

16 A I think you would have to go and do a lot of checking
17 to find out what was actually on this land at this time,
18 which was about 1910, as I recall, and I think it would
19 take a lot of searching to say there were specific
20 lands open.

21 Q Now, in 1958, the federal government returned to tribal
22 ownership the lands that were opened up--

23 A Yes.

24 Q --for homesteading, is that correct?

25 A Yes.

1 Q Do you remember how many acres that might have been?
2 A As I recall, it was 25 or 2600 acres, more or less.
3 Q Do you have a record of those lands--
4 A They're at the Spokane Indian Agency.
5 Q Are they readily accessible by you?
6 A Yes, if I wish to see them.
7 Q In addition thereto, the Tribe has had the authority
8 and the funds available to purchase both allotment and
9 homesteaded lands--
10 A Yes.
11 Q --for quite a number of years, has it not? Can you
12 tell us how many years that program has been going on?
13 A The Tribe has been able to purchase some lands for a
14 number of years. We, more specifically, had the
15 Spokane Land Bill, which was adopted by, passed by
16 Congress in 1968, which broadened this, gave the Tribe
17 authority to purchase, sell and exchange lands on the
18 Reservation; any types of lands.
19 Q Can you tell us just how far back?
20 A We purchased allotments back in the 1930's, which is
21 a large block of land generally owned by Deer Park
22 Logging Company.
23 Q How about the homestead fee lands; when did your program
24 first start purchasing those?
25 A I'm not positive of that particular date.

1 Q Do you have the land transactions, or records of those
2 transactions, as to when they occurred, and what lands
3 were involved?

4 A The Bureau has, there are records of all land trans-
5 actions, regardless of what it was.

6 Q Do you know approximately how many acres of land has
7 been repurchased by the Tribe, other than allotments?

8 A I do not have that particular information. Our
9 superintendent, who is to testify, may or may not have
10 this particular information. If I was to be questioned
11 on every facet that I worked on, I guess I would have
12 to bring in about five filing cabinets that I have
13 accumulated over the last 20 years, but I think in
14 these pictures that you observed that Mr. Dellwo put
15 in the photo album, you will observe that our
16 Reservation is what we call very much checkerboard,
17 allotments, tracts of land throughout this Reservation,
18 different colors, and for me to have the exact amount
19 of land the Tribe has purchased, for me to quote at
20 this time, I'm unable to do so.

21 Q Now, in addition, I believe other witnesses testified
22 that the tribal organization manages their timberland
23 on a sustained-yield basis, is that correct?

24 A Yes, in conjunction with the Bureau of Indian Affairs.

25 Q I gather that the sustained-yield-basis program

1 resulted from the proposals made by the Tribe to the
2 federal government pursuant to the Indian claims?

3 A No, this sustained-yield program has been going for
4 many years.

5 Q In the sustained-yield program, correct me if I'm
6 wrong, but do you not set aside various lands you've
7 classified as mainly timber-producing lands and
8 calculate from that base how much you can cut each year
9 and still have a continual cut of that, into infinity?

10 A The Reservation is divided into specific timber units,
11 and these are generally offered for sale, and the
12 Forestry officials cruise this timber and it's all
13 marked before it's cut, and they have an estimate, of
14 course, on the volume, and the sale shall be completed
15 in a certain length of time.

16 Q But prior to that time, before you put up any lands
17 for sale, is it not determined what the Tribe has
18 considered mainly timber-producing land, and to
19 calculate what you could cut every year and still
20 maintain the same cut?

21 A Oh, yes, it's necessary to determine the volume to be
22 cut. They have run a total program on the Reservation
23 as a separate unit.

24 MR. GERMERAAD: Your Honor, I haven't objected up
25 to this time to any questions asked by Mr. Torve, but

1 if he is going to assist and insert definitions of what
2 sustained yield is, I think he should have a forester
3 on the stand. If he persists in this line of
4 questioning, I will start objecting, because I don't
5 think this is within the area of Direct Examination,
6 and I think the testimony has established that the
7 B.I.A. forestry people are the ones who do manage the
8 forests, and Mr. Galbraith is the second person to so
9 testify.

10 THE COURT: Well, in addition to whether this
11 witness is the proper one to inquire, what is the
12 relevancy of the nature of sustained yield to the issue
13 we have here?

14 MR. TORVE: Well, Your Honor, part of the bench,
15 as Mr. Woodward has defined it, was all timber, and we
16 have had statements by the various witnesses as to the
17 characterization of that area as not being their best
18 timberland, and I think it's relevant to the Court, in
19 looking at the irrigable land situation, whether or
20 not this area is within their timber area in which they
21 are saying, this is part of our sustained-yield base,
22 and I think that's material to the Court, looking at
23 the issues as to the potential uses of the lands.

24 THE COURT: Well, I suppose there is some material-
25 ity, but have you got the right witness to go into the

1 question of the sustained-yield program?

2 MR. TORVE: Well,--

3 THE COURT: I guess that's up to him. He can
4 answer if he can. If he can't, he can say he doesn't
5 know.

6 Proceed.

7 Q (By Mr. Torve) Do you know whether or not, in the
8 Forestry program, the bench area, uh--

9 A I'm sure any timber we have is included someplace in
10 one of our timber units, and in the sustained-yield
11 program.

12 Q Now, I believe on Direct you said that that was not one
13 of your better-forested areas, is that correct?

14 A Correct.

15 Q Do you know why it isn't?

16 A I believe I pointed out that the Chamokane area, or
17 the early Ford, it was called the "Ford unit", or
18 early Chamokane unit, was heavily logged, back in the
19 1920's, much more than they are today, in the 1920's,
20 and this is not a rapidly-growing, probably not a
21 better soil-- Trees, like anything else, grow where
22 the soil is better, and the better timber-growing areas
23 are in the areas that have probably a little more
24 rainfall, and the higher areas, I believe Mr. Woodward
25 testified.

1 Q I wonder what part of that would be due to the fact
2 that good management practices had not been carried
3 on in the 1920's?

4 A It could have made a difference.

5 Q Well, changing to another subject, Mr. Galbraith, I
6 believe on Direct you testified that one of the
7 problems with the fish hatchery is that they saw a
8 decline in flow; do you know what year they were
9 talking about in reference to that?

10 A We entered into this agreement in 1960. I don't know
11 when they might have declined the flow. Apparently,
12 prior to that time.

13 Q Sometime prior to 1960. Do you know-- Well, strike
14 that.

15 When you were referring to the fishing of
16 Chamokane Creek, can you tell us what time span that
17 occurred and how many times, approximately, a year,
18 you would fish in Chamokane Creek?

19 A How many times a year do I fish Chamokane Creek?
20 Probably a dozen times a year.

21 Q And when you were speaking of the relative increase or
22 decrease in flows, over what time span are you refer-
23 ring to?

24 A As I pointed out at the map, I started fishing Lower
25 Chamokane, as I termed it, from Ford to the mouth,

1 about 1937; from that time on.

2 Q Now, the hatchery at Ford, I take it, was established
3 pursuant to an agreement with the federal government;
4 is that correct?

5 A Yes.

6 Q Can you tell us the background of why that hatchery was
7 established there?

8 A It was established with the State of Washington to
9 replenish, for the State of Washington, the fish runs
10 that were destroyed when Grand Coulee Dam was built.
11 The Indian tribes were, unfortunately, led to believe
12 this was for their purpose, but the agreement doesn't
13 say this, it says, for the State of Washington.

14 Q Now, I take it that hatchery actually was used for
15 stocking Chamokane Creek at one time?

16 A Yes.

17 Q Am I correct, you said that stopped in 1966?

18 A I believe this is the year that Dick gave the other
19 day here for the State Game Department.

20 Q And it has not been stocked since that time?

21 A Not to my knowledge, other than that there are a few
22 escaped from the hatchery, but it's not stocked, what
23 we, the Game Department term "stocking" the stream.

24 Q Now, the lakes you referred to are stocked annually at
25 this time?

1 A Yes.

2 Q How about Little Chamokane Creek, is that stocked?
3 Has there been--

4 A To my knowledge, it's never been stocked.

5 Q Has there ever been a planting there, a planting of
6 fish in there?

7 A Not to my knowledge, no.

8 Q Is there fishery on the Little Chamokane?

9 A There are some native trout in there. I believe it's
10 been pointed out that this is an intermittent stream,
11 portions of it go dry, and the lower part do generally
12 survive and have some water throughout the summer. It
13 cannot always be depended upon, it's not a flowing
14 stream, as is Big Chamokane.

15 MR. TORVE: I believe that's all the questions I
16 have.

17 THE COURT: Mr. Galbraith, throughout this trial,
18 there has been constant reference to different types
19 of Reservation land, by title?

20 THE WITNESS: Yes.

21 THE COURT: I don't think, that there is anything
22 in the record to identify this, and perhaps you're the
23 best one to do this; what are trust lands?

24 THE WITNESS: Trust lands can be two types. A
25 title is held in trust by the federal government,

1 either for the Tribe, or for the individual. Originally,
2 after the Reservation was created, the total thing, as
3 I understand it, would have been tribally owned, but
4 it's still held in trust by the federal government.
5 When it was allotted, these are divided up to the
6 individual members, some 600-plus members, but each
7 one living at that time was given an allotment, their
8 name was placed on a map, and they were numbered, and
9 this land is also trust land; it was held in trust
10 until the homestead, I would say was "awarded", the
11 title was given to the individual, if they followed
12 through with their requirements, and then there could
13 have been, I believe it was around 1916 or '17, some
14 of the members were allowed to sell, or get a patent
15 fee title to their land, which took it out of trust,
16 it became taxable, as any other land, and some of them
17 may have sold their land to individuals; so this has
18 resulted in what we call the "checkerboarding" of the
19 Reservation.

20 There are a lot of tracts of land that have
21 been sold and are owned by non-Indians today.

22 THE COURT: And what are so-called "tribal lands"?

23 A Land remaining that was never allotted or issued in
24 homestead parcels, that is owned in common by the
25 Tribe.

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THE COURT: And as you repurchased land that was drawn out by homestead or other device, sale, sale or allotment, do those go back as tribal lands when you repurchase them?

THE WITNESS: This is one of the problems of the Spokane Land Bill of 1968, it restricted the amount of land we could put back in trust each year. We couldn't put back more land than went out of trust. We have, in the process of amending this bill today, it was passed by the House two weeks ago, and we testified in Washington in January, before the Senate, and it appears that the Senate will pass this bill. If this amendment goes through, then there will not be any restrictions anymore in the amount of lands, so any member, or the Tribe, who purchases land within the Reservation, it can be put in the trust status. Today, we're limited to the amount that can be put in trust.

THE COURT: Mr. Campbell?

MR. CAMPBELL: No questions for Defendant Smithpeter, Your Honor.

THE COURT: Thank you.

Mr. Tracy?

1 CROSS-EXAMINATION

2 BY MR. TRACY:

3 Q Mr. Galbraith, one of the last things that you said
4 puzzled me a little bit. Did you say that the Big
5 Chamokane flows the year 'round?

6 A Yes.

7 Q And there isn't any periods when the Big Chamokane
8 goes dry?

9 A There is this area above Ford, a stretch in there,
10 where it goes dry.

11 Q And it goes dry for a period of about six and a-half
12 months?

13 A Well, it varies from year to year, depending upon the
14 ground water, certain years. There will be a stretch of
15 land where it goes dry, but it will rise again in
16 springs above the Ford bridge, and then it is in turn
17 fed by the two major springs.

18 Q But it's not a free-flowing stream the year 'round, is
19 that correct?

20 A Well, this portion of it certainly is, and the upper
21 portion. There could be a dry section.

22 Q I mean the whole stream?

23 THE COURT: Counsel, I think this was pretty
24 thoroughly explored by several of the other counsel.

25 MR. TRACY: Okay.

1 Q (By Mr. Tracy) Mr. Galbraith, one of the things I had
2 been a little interested in is the claimed judgment
3 award. How big an area was that that the Tribe gave
4 up?

5 MR. DELLWO: This is outside the scope and is a
6 highly technical question.

7 MR. TRACY: He can answer it.

8 MR. DELLWO: There is no relevancy here.

9 THE COURT: I don't think this witness testified
10 to that question, as I recall; I think this witness
11 testified solely to what the existing Reservation, he
12 said it was some 154,000 acres, I think; you have now
13 asked about the ancient tribal grounds. I don't think
14 this witness went into that.

15 MR. TRACY: All right.

16 Q (By Mr. Tracy) Well, now, you did speak a little bit
17 about irrigation, the Bull Pasture, and Little Falls
18 Flat, correct?

19 A Yes.

20 Q And these are pilot projects?

21 A Yes.

22 Q I think Mr. McCoy testified that it would, the amount
23 of money that was going to be needed to get the water
24 onto the land was about \$3,000,000, is this it?

25 A Yes.

1 Q How many acres of land is that, altogether, in those
2 two?
3 A As I recall, it's 2,000 acres.
4 Q 2,000 acres; and that \$3,000,000 is just allocated to
5 get the water to the land?
6 A No, this includes the digging of the ditch line,
7 placing the pipe, and installing the sprinkler system.
8 Q Does it include the fertilizer and seed?
9 A No.
10 Q Do you know what 2,000 acres, \$3,000,000, how many
11 dollars an acre that works out to?
12 A As I recall, I believe somebody said about \$17 an
13 acre.
14 Q \$17?
15 A I'm not positive.
16 Q Isn't it more like 1500?
17 A Oh, wait a minute, for the, for the total project?
18 Q Yes.
19 A Yeah, I understand what you mean. This could be, but
20 again, this involves the total irrigation project
21 itself. As I said, dig the ditch line, and laying the
22 pipe, and putting in the total system.
23 Q But it's just as to the Bull Pasture and Little Falls
24 Flat?
25 A Yes.

1 Q And this is the most feasible, right now, of the
2 irrigation, cost-wise?

3 A This is what all our studies have shown, yes.

4 Q What kind of crops can you grow there, on that land?

5 A There have been various tests made by the Washington
6 State Extension Service, and the Bureau of Indian
7 Affairs, and there are some plots in this area where
8 they're growing alfalfa and doing quite well with it.
9 This is, this will probably be the first crop grown,
10 alfalfa, and there will be some experimenting and
11 testing with other crops as we move along.

12 Q Do you have any idea whether or not alfalfa might be
13 the highest agricultural use to which that land could
14 be put into crop?

15 A We feel at this time it is.

16 Q Is there any other-- And you would have two cuttings
17 of alfalfa, would you?

18 A If things go right, we'd have three.

19 Q How many tons to the acre do you anticipate--

20 MR. DELLWO: If the Court please, I fail to see
21 any relevance of alfalfa crops and the Bull Pasture to
22 Chamokane Creek.

23 THE COURT: Well, this is beyond the scope of the
24 Direct of this witness.

25 MR. TRACY: All right.

1 Q (By Mr. Tracy) In speaking about Galbraith Springs,
2 I may not have understood a statement of yours; did
3 you state that this is a major spring and the flow is
4 from within the boundary of the Reservation?
5 A Yes, it is.
6 Q And therefore is it your understanding that that would
7 not be down, the Galbraith Springs, the flow into it
8 would not be from out of the Chamokane Basin, but would
9 be back over on the Reservation?
10 A I think Mr. Woodward showed in his report they come
11 from the Chamokane Basin.
12 Q I asked for your opinion.
13 MR. CERUTTI: Your Honor, I object to this ques-
14 tion. This witness hasn't any expertise in this area.
15 THE COURT: Sustained. He hasn't qualified in
16 that area.
17 Q (By Mr. Tracy) Now, what-- Do you-- You apparently
18 know how many tribal-- You said a large number of
19 tribal members fished on the Chamokane?
20 A Yes, they do.
21 Q What would you think the percentage of those that fish
22 would be?
23 A I believe that every male member we have fish, or have
24 fished, or will fish.
25 Q How many male members are there in the Tribe?

1 A I don't believe I have ever broken that down. As of
2 November 1st, 1973, we had a total of 1735 members.
3 We have about 700 reside on the Reservation, the
4 largest next portion is here in the City of Spokane,
5 and the environment area around us, and they return
6 home and fish quite often.

7 Q Out of 1700 total members, would you expect about half
8 of them would be male?

9 A I would expect this.

10 Q And do you fish more than others, would you feel?

11 A I feel that I probably hunt and fish and prospect
12 around the area of the Reservation probably more than
13 any member my age.

14 Q So these other members fish less than a dozen times a
15 year, these other--

16 A No, I said this was Chamokane Creek.

17 Q This just includes Chamokane Creek?

18 A I mentioned I fish Chamokane Creek probably 12 times
19 a year. I didn't say how much I fish in other places.

20 Q Well, I'll change the subject anyway. Now, you stated
21 earlier-- Have you been a State Game Commissioner?

22 A I am a State Game Commissioner.

23 Q How long have you been a State Game Commissioner?

24 A Appointed in January, 1971.

25 Q What are your duties under this act?

1 A I mentioned these, but the Game Commission is
2 responsible for the propagation, protection and
3 management of the fresh water fish and the game and
4 steelheads in the State of Washington.

5 Q Well, does your-- As your position on the State Game,
6 do you get involved in notice-type proceedings for
7 various permits?

8 A Not necessarily so.

9 Q Doesn't the State Game Commission at times file
10 objections?

11 A If there is a necessity, but, again, this is a matter
12 of personnel, not necessarily the Game Department
13 themselves.

14 Q An act by one of the members of the Game Commission
15 wouldn't be an act of the Game Commission?

16 MR. GERMERAAD: Your Honor, I--

17 A I don't understand--

18 MR. GERMERAAD: --object.

19 THE COURT: Sustain the objection.

20 Q (By Mr. Tracy) Well, in any event, the State Game
21 Commission does take an interest in what permits are
22 published--

23 A Yes, they do.

24 Q --and whether or not objections are filed, do they not?

25 A (No response.)

1 MR. TRACY: I have no further questions.

2 THE COURT: Mr. Cerutti?

3 MR. CERUTTI: No questions, Your Honor.

4 THE COURT: Mr. Rekofke?

5

6

CROSS-EXAMINATION

7

BY MR. REKOFKE:

8

Q I'll be brief, Mr. Galbraith. I think you testified
9 that the fishing in Chamokane was closed to the public
10 in 1972, is that correct?

11

A Yes, that is correct.

12

Q And until that time, the time you closed it to the
13 public, did the Tribe issue permits to the public?

14

A No, we didn't issue permits. We left the creek open
15 and hoped that people would use judgment in fishing it.

16

Q I see. Apparently took all the fish out?

17

A Something happened.

18

Q One thing I'm curious about, I don't know the answer,
19 why the State discontinued stocking the Chamokane in
20 1966?

21

A I have checked with the Ford Hatchery superintendent,
22 and it was their feeling that the stream could carry a
23 reproduction naturally by the fish who were remaining
24 there. I think one of the problems is, as I pointed
25 out, is that the--

1 Q I can't hear you very well.

2 A --that the German Brown Trout are in there, and have
3 taken over the stream, the lower portion of the stream.

4 Q They didn't feel it was necessary to restock it, is
5 that the idea?

6 A They felt that it replenished the field, that it
7 replenished itself naturally, and with what fish escape
8 from the hatchery.

9 Q This irrigation project, the approximate figure of
10 \$3,000,000, I don't know, the pilot project you have
11 referred to on the Bull Pasture, where would those
12 funds come from; tribal funds?

13 A No, I believe it was mentioned in here, we will, some
14 of us will appear before the Bureau on the budget in
15 Washington, D.C., and try to get these funds appro-
16 priated for us.

17 Q I see. Some of these allotment lands you have referred
18 to, and I have in mind the lands that were allotted to
19 the members of the Tribe and then they were required
20 to remain in trust for a number of years, were they
21 not?

22 A Yes, I believe that's right.

23 Q Are some of those lands still passing from Indian
24 ownership to non-Indian ownership?

25 A Not any more than we can help. There are a few.

1 Q But some of those--

2 A This has happened, yes, but we have a land-purchase
3 program where we attempt to purchase from any member
4 that is desiring to sell.

5 MR. REKOFKE: I think that's all.

6 THE COURT: Further Cross-examination? Any
7 Redirect?

8

9

REDIRECT EXAMINATION

10 BY MR. DELLWO:

11 Q Handing the witness what has been marked for
12 identification, as Plaintiff's Exhibit 85, I wonder if
13 you will tell the Court what that is?

14 (Whereupon, Plaintiff's Exhibit 85 was marked for
15 identification.)

16 A This is the easement agreement between the Spokane
17 Tribe and the State of Washington Department of Game
18 for additional water for the Ford Fish Hatchery area.

19 Q (By Mr. Dellwo) And what are the papers attached to
20 it; is it a file from your office?

21 A Yes, this is the file from the office concerning
22 largely negotiations or discussions with the Ford
23 Hatchery, or regarding plottings of lakes on the
24 Reservation.

25 Q What does this correspondence-- What triggered this

1 correspondence that is attached to the easement?

2 A The main correspondence involves going back to two
3 years ago, I believe it is, could be longer than that--
4 1969, really, when the Spokane Tribe decided to close
5 Turtle Lake, Benjamin Lake, McCoy Lake, to the general
6 public.

7 Turtle Lake was always closed; Benjamin Lake
8 and McCoy Lake were open, and due to the number of
9 people fishing, and our own members coming back, and
10 the number of people from the general public fishing,
11 and problems of controlling people involving our Law
12 & Order program, some problems of littering and failure
13 to comply with either our laws or State laws, we
14 decided to close these lakes.

15 Q That correspondence has to do with the change of
16 information with--

17 A With the Tribe and the State Game--

18 Q --and the State Game Commission--

19 A --members.

20 Q --regarding this closing and their policy on stocking
21 and restocking?

22 A Yes.

23 MR. DELLWO: I offer into evidence Plaintiff's
24 Exhibit 85.

25 MR. RUDOLPH: Your Honor, I was wondering if we

1 could cancel 85, it's already marked as 42.

2 MR. DELLWO: I didn't know that.

3 MR. RUDOLPH: It's been already marked,,and 42
4 has been on file since March 1.

5 MR. DELLWO: Then, I offer 42.

6 THE COURT: And 85 is withdrawn?

7 MR. DELLWO: And 85 is withdrawn.

8 Q (By Mr. Dellwo) While they're looking at that exhibit,
9 there was some talk, some questions on Cross regarding
10 the possible irrigation from Chamokane.

11 A Yes.

12 Q In your opinion, understanding the policy of the Tribe,
13 participating in it, is there any set of circumstances
14 where Chamokane water might be used by the Tribe for
15 irrigation?

16 A I think I was asked my personal opinion on this, and
17 I feel it is certainly the opinion of the Council and
18 the tribal members, the largest majority of them, that
19 were this Chamokane Creek to be pumped to below the
20 maximum set by the State, or the water depleted, then
21 I'm positive that the Tribe or Tribal Council would
22 make a special effort to irrigate from the springs,
23 and could develop some holding ponds, to make dams,
24 and could and conceivably would irrigate the lands
25 that have just been purchased by the Tribe, in one

1 block of 520 acres, more or less, the former
2 Tashero (phonetic) property, the immediate bench above
3 Galbraith Springs. This could be pumped right from
4 this area, and would be the cheapest route to go.

5 Q What would be your opinion as to cheapness and economic
6 feasibility, as compared to pumping out of the Spokane
7 River?

8 A If we were going to pump--

9 MR. TORVE: Your Honor, I object to that as, first
10 of all, that was not any part of Cross-examination, so
11 it's improper Redirect.

12 THE COURT: Sustained.

13 Q (By Mr. Dellwo) So the use by the Tribe of Chamokane
14 would be more or less conditional upon its inability
15 or failure to protect it as a natural stream?

16 A Yes, this would be the ultimate decision of the Council.

17 Q You're familiar with the timber stand on the Chamokane
18 Bench and on the Chamokane Flats?

19 A Yes.

20 Q What would your opinion be as to the importance of this
21 timber with regard to the overall Reservation sustained-
22 yield program?

23 MR. REKOFKE: I object, Your Honor. This witness
24 doesn't know anything about the sustained-yield program,
25 and I object.

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MR. TORVE: I feel like I'm caught in the zipper a little bit here, because, first of all, he is not an expert and couldn't answer my question.

THE COURT: Very well. The objection is going into that on Redirect, and I'll sustain the objection.

Any objection on the exhibit?
(No response.)

THE COURT: Well, it's almost 12:30, it may be a good time to break for lunch. We will recess this case until 2:00 o'clock.

Now, gentlemen, I have got a criminal calendar at 1:30. I don't think there will be anything wrong with your papers, but you might kind of pile them up and leave them on the counsel table.

MR. DELLWO: I'm finished with him, it depends on--

THE COURT: We will be in recess until 1:30, and this case until 2:00 o'clock.

1 Hon. Marshall A. Neill, Judge
2 Spokane, Washington
3 Monday,
4 March 18, 1974
5 1:30 P.M.

6 THE COURT: All right, we have something to take
7 up out of order, I guess.

8 MR. McNICHOLS: Yes, your Honor. First of all,
9 I appreciate the indulgence of the Court and counsel
10 to do this. I will, hopefully, be brief and get out of
11 your way.

12 First of all, I would like to offer, your Honor,
13 Defendant's Exhibits D-E-11 through D-E-22, inclusive,
14 which are listed on the exhibit list heretofore filed,
15 which relate to the title of the defendant Dawn Mining
16 Company, to its land, which includes the source of what
17 water rights Dawn claims. And there are two drawings
18 which are merely primarily demonstrative, to show the
19 location of the various facilities that Dawn operates
20 on its property.

21 THE COURT: Have I got this correct now, that
22 D-E-11 through 22, inclusive?

23 MR. McNICHOLS: Yes, sir.

24 THE COURT: All right. Counsel have all examined
25 those exhibits; is there any objection to their intro-
duction?

MR. CERUTTI: No objection.

1 THE COURT: Defendant's 11 through 22 are admitted.
2 (Thereupon, Defendant's Exhibits D-E-11 through
3 D-E-22, inclusive, were received in evidence.)

4 MR. McNICHOLS: In view of the exhibits on file,
5 your Honor, would you like me to identify the exhibits
6 for the record?

7 MR. CERUTTI: I don't think that will be necessary,
8 your Honor.

9 MR. McNICHOLS: I will call Mr. Earl Craig.
10

11 EARL CRAIG,
12 being first duly sworn, testified on behalf of the defendant
13 as follows:

14 THE CLERK OF THE COURT: Would you please state
15 your full name for the Court, spelling your last name?

16 A My name is Earl Craig, E-a-r-l C-r-a-i-g.
17

18 DIRECT EXAMINATION

19 BY MR. McNICHOLS:

20 Q Mr. Craig, you are the resident general manager of
21 Dawn Mining Corporation, is that correct?

22 A That is correct.

23 Q I wonder if-- First of all, the exhibits here establish
24 that Dawn owns certain property in Stevens County, which
25 are in the vicinity of Chamokane Creek area. I wonder

1 if you would just briefly describe to the Court the
2 approximate acreage the company owns in that area and
3 the use to which you devote that property?

4 A We have property in two sections, Section 19 and Section
5 25. Our processing plant for uranium is located on the
6 Section 25-- part of Section 25. We have a total of,
7 possibly, 640 acres in the total area of Sections 19
8 and 25.

9 Q Then Section 19-- The portion of the land which you
10 own, Dawn owns, in Section 19, is land which was
11 formerly in the boundaries of the Spokane Indian Tribe?

12 A This is true. It's on the north shore of Chamokane
13 Creek in that area.

14 Q And approximately how much of Dawn's property, in
15 lineal distance, abuts the Chamokane Creek?

16 A Well, the Section 25 has somewhere in the neighborhood
17 of, probably, 1700 feet-- 15 to 1700 feet.

18 Q Along the--

19 A Along the south shore of the creek, and we have,
20 possibly, probably, 200 feet on the Section 19 on the
21 north shore.

22 Q All right. And in the operation of your plant facili-
23 ties-- First of all, let me digress just a moment.
24 The mill is a processing mill for uranium ore, is that
25 right?

1 A That's true.

2 Q And the ore is converted into a product commonly called
3 "yellow cake", or what is the actual designation of
4 that, uranium oxide?

5 A We extract uranium from ores which we mine up on the
6 Spokane Indian Reservation and we process them with a
7 chemical processing to extract the uranium from the ores
8 and ultimately, we precipitate the uranium as a yellow
9 cake or ammonium diuranate (phonetic), ammonium salt.
10 And this, in turn, is shipped out to further refining
11 and ends up as a fuel for power plants.

12 Q I believe you indicated-- But the primary source of
13 your ore is from the land of the Spokane Indian
14 Reservation?

15 A At the present time, that is all the source.

16 Q You operate pursuant to leases with the Tribe, is that
17 correct?

18 A Right.

19 Q I wonder if perhaps it might be helpful, Mr. Craig, to
20 just take a moment and come over and show on Exhibit 10,
21 Plaintiff's Exhibit 10, and come over and demonstrate
22 to the Court on Plaintiff's Exhibit 10 where your plant
23 facilities are located and where the source of your
24 water is, in general?

25 A Our plant is located in this area right in here

1 (indicating), where the plant is located, and our
2 source of water is located on the north bank of the
3 Chamokane, right in here (indicating). In fact, these
4 springs that feed our water supply are the same springs
5 or area of springs that feed the Hatchery Springs.

6 Q You may resume the stand.

7 Now, your references, Mr. Craig, to the Sections
8 19 and 24-- Perhaps for the record, we should indicate--
9 Well, the township and range, your Honor, are established
10 by the exhibits, and I see no point in going into that.

11 Would you describe briefly, Mr. Craig, the nature
12 of the water source from which Dawn acquires its water
13 to operate the plant?

14 A Well, these are outcropping or artesian-type springs
15 that flow from the alluvial gravel along that north
16 bank of the Chamokane there in which we have approxi-
17 mately 80 acres in the area there, and an area whereby
18 we actually dammed up the flow of the springs and
19 transferred it through our pumping station to a pump,
20 approximately 400 gallons a minute of water to our
21 plant. These are free-flowing springs and are more of
22 an artesian nature.

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NOTE: At this point, there is approximately 1-1/2 hours
of testimony not transcribed, unable to use tape
recording tape due to faulty take, and practically
impossible to transcribe from Stenotype notes only.

1 A As you draw down, it tends to fill it up-- The
2 depression made by any drawdown tends to fill it up
3 and equalize clear across the , clear across
4 the basin. The water tends to equalize.

5 Q So, then, it's the aquifer itself, by spreading it out,
6 spreads out the effect?

7 A Right.

8 Q Does this same effect of spreading out through the
9 ground water system affect all the other ground water
10 withdrawal in the basin; does the same principle
11 apply?

12 A Not the same principle; not quite the same effect.

13 Q What did you mean by "not quite the same effect"?

14 A Modified in its distance from where the spillway is.

15 Q The springs?

16 A Yes, the springs.

17 Q Okay. So, if you were close to the springs, how would
18 you compare that to a--

19 A Slightly more immediate, farther up the basin.

20 Q More remote. To establish the precipitation at various
21 levels in the Chamokane Creek Drainage Basin, did you
22 look to a number of different weather stations at
23 various elevations?

24 A Yes, we did.

25 Q And would you please name a few, other than Wellpinit,

1 Togo and Stranger Mountain, whose figures are already
2 in evidence?

3 A We tried to simulate those same areas by elevation.
4 For example, Grand Coulee, Mt. Spokane, Davenport,
5 different areas where they had long-term records.

6 Q Was the 21 percent relationship between Weir 1 at Fish
7 Hatchery Springs and the base flow of the Springs
8 established while eliminating the effect of the
9 Smithpeter's diversion?

10 A State it again.

11 Q Was the 21 percent relationship between Weir 1 at Fish
12 Hatchery Springs and the base flow or the-- all the
13 flow of the Springs, established at a time when you were
14 disregarding the Smithpeter diversion? In other words--

15 A Yes, sir.

16 Q Would you please explain that, since we were going back
17 and forth a little bit?

18 A It was prior to that.

19 Q Okay. Is Mr. Smithpeter's diversion of that a surface
20 diversion from the Lower Chamokane, is that correct?

21 A Correct.

22 Q And this is effective immediately?

23 A Effective immediately.

24 Q When he is not diverting, if you made and established a
25 measurement, his diversion would not affect it, then?

1 A That's correct.

2 Q Directing your attention to the Hill Well and the
3 Newhouse Well, and directing your attention to the
4 summer period of time, the summer season, what happens
5 to the water level in these wells, in the absence of
6 any pumping during summer?

7 A In the absence of any immediate pumping of Newhouse,
8 the water tables would recede about 15 thousandths per
9 day.

10 Q And if Mr. Newhouse was pumping, what happens to the
11 ground water table?

12 A Although this does vary slightly with the amount he is
13 pumping, it's about 50 thousandths, or about three times.

14 Q Did the State require Mr. Newhouse to install a flow
15 meter at his well?

16 A Yes.

17 Q Did Mr. Newhouse install such a meter?

18 A No.

19 MR. GERMERAAD: Your Honor, so that the Court can
20 better understand the whole history of the controversy,
21 the United States would like to offer in evidence the
22 James R. Newhouse File, and the A. L. and Frances L.
23 Smithpeter File, which the State prefled with the Court.

24 THE COURT: What are their numbers?

25 MR. GERMERAAD: I don't believe they have yet been

1 assigned any particular number.

2 (Thereupon, Plaintiff's Exhibits 86 and 87 were
3 marked for identification.)

4 THE CLERK OF THE COURT: That's 86 and 87.

5 THE COURT: Plaintiff's Exhibit 86 is which one?

6 THE CLERK OF THE COURT: Newhouse.

7 THE COURT: Plaintiff's Exhibits 86 and 87 have
8 been offered. Has counsel examined those?

9 MR. TRACY: For Defendant Newhouse, we have no
10 objection.

11 MR. CAMPBELL: I have examined the Smithpeter one,
12 but I would appreciate the opportunity to look at it
13 again, please.

14 MR. DUFFORD: Your Honor, with respect to these
15 files, we, in some cases, have gotten them out of the
16 archives, but I wonder if we could, whatever has been
17 admitted, reproduce that and take the original file back?

18 THE COURT: Any objection to substituting copies
19 for the originals?

20 MR. GERMERAAD: No objection, your Honor.

21 MR. RUDOLPH: No objection.

22 THE COURT: Plaintiff's 86 will be admitted, with
23 copies of the original to be substituted later.

24 (Thereupon, Plaintiff's Exhibit 86 was received in
25 evidence.)

1 THE COURT: Mr. Campbell still wishes to examine
2 Plaintiff's Exhibit 87.

3 Q (By Mr. Germeraad) I am going to ask the bailiff to
4 hand you Plaintiff's Exhibit 86, the Newhouse File,
5 and there are various slips of paper in there. If you
6 will examine them, there are only two that are numbered.
7 On Slip 1 and Slip 2, near the front, there are two
8 letters, and if you would first turn to the lettered
9 No. 1-- Do you see it on the paper in front of you?

10 A Yes.

11 Q Could you first tell us who the letter is addressed to,
12 who the writer of the letter is, and the date?

13 A Mr. James, dated July 20, 1971, and signed by Kris
14 Kauffman, Regional Authorization Section.

15 Q That would be from the Department of Ecology?

16 A Yes, and a copy directly to me.

17 Q In that letter of-- What was it, April? What was the
18 date?

19 A July 20.

20 Q Oh. July 20, 1970, or '71?

21 A '71.

22 Q Does this request Mr. Newhouse to install such a meter?
23 If you would go to the letter and--

24 A Do you want it read?

25 Q First, does that letter ask Mr. Newhouse to establish

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meter?

A That's a qualified request; I think I should read it.

Q Would you read the pertinent parts of that letter, please?

A "In our letter dated 22 March, 1971, you were advised of the requirement incorporated in your filing of water right permit for installation of proper flow meter. It was our understanding at that time you were considering the installation of a meter within the near future. It was also understood that during that interim you would provide Mr. Walt Woodward, Consulting Engineer with information on your continuing operation. While we appreciate your cooperation, Mr. Woodward, as a result, regards to the installation of an on/off metering device, we understand that he still requires the information on the number of heads at the time you change your operation."

MR. GERMERAAD: Could I approach the witness, your Honor, to check the letter?

THE COURT: Yes.

Q (By Mr. Germeraad) Is there also a sentence in there which states that, "Forward this information to Mr. Newhouse of various persons and businesses that are qualified to install meters"?

A Yes.

1 Q Okay. Would you now turn to the second letter, please,
2 and could you tell us who the addressee is, who sent
3 the letter, and the date of that letter?
4 A March 22, 1971.
5 Q And does that letter also talk about the requirements
6 in his application for installing a meter?
7 A It was further understood that a meter will be installed
8 on the existing system prior to the start of this sea-
9 son.
10 Q Thank you. That's all the questions I have for you on
11 that right now.
12 Mr. Woodward, I am now going to direct your atten-
13 tion to the Griggs map which is Plaintiff's Exhibit No.
14 7, it's also designated as Plate No. 6, I believe this
15 is a 1966 map by Mr. Griggs. How does the upper strata
16 of the younger glacial deposit, shown on his map,
17 Plaintiff's Exhibit 7, relate to the Walker's Prairie
18 ground water system?
19 A Its boundaries very closely compare to the boundaries
20 of the-- what we term the "Walker's Prairie".
21 Q Directing your attention to Plaintiff's Exhibit 7, is
22 Walker's Prairie written on a dark, or a blue portion
23 of that map?
24 A Yes.
25 Q And is there a darker blue line, which is the route, or

1 path, of Chamokane Creek?

2 A Yes.

3 Q To change the subject: Does the runoff from the sides
4 of the canyon area by the Lower Chamokane contribute to
5 the flow of the stream?

6 A Practically none in the summer portion, in the irriga-
7 tion portion.

8 Q Keeping in mind the respective positions of that canyon
9 area, does the runoff during any period of time, summer
10 or winter, contribute to the springs' flow?

11 A No.

12 Q Why not?

13 A It's below the springs.

14 Q Thank you.

15 MR. RUDOLPH: Pardon? I didn't get that answer.

16 A Because it's below the springs.

17 Q (By Mr. Germeraad) What is flow through a subsurface
18 area based upon; what are your principles governing
19 flow through from a subsurface basin?

20 A It's velocity in its slope.

21 Q Have you done watershed yield studies previous to this
22 one?

23 A Yes.

24 Q Now, I am going to direct your attention to Exhibit
25 3-6-74-29, which is, I believe, your November, 1973,

1 report. And I am going to ask you to first turn to
2 the page covered in your Cross-examination, entitled,
3 "Irrigable Lands Between Elevation 2200 and 2500".
4 A This is going over the 2200, now let's see if I can
5 find--
6 Q It's just past half-way through the volume.
7 A Yes.
8 Q Okay. Directing your attention to the bottom part of
9 that page, which is actually along the right-hand side,
10 there is an area designated "Chamokane Creek"--
11 "Chamokane Bend", is there not?
12 A "K" is Chamokane.
13 Q I am looking at this page, here (indicating).
14 A I will see if I can find that.
15 Q Now, there is a portion entitled, "Chamokane Bend" at
16 the bottom of that page, correct?
17 A Yes.
18 Q In that, in different columns you cover the elevation,
19 the number of acres, and certain costs, and the last
20 column, No. 14, I believe, is the total annual cost per
21 acre.
22 Mr. Rekofke questioned you concerning this, did
23 he not?
24 A Yes.
25 Q And the cost of \$112.34 as a total annual cost per

1 acre on the Chamokane Bench, I believe you mentioned.
2 Now, this cost is based upon irrigation from what
3 source?
4 A Direct pumpings from the Spokane River.
5 Q This is not the cost, then, of any irrigation from any
6 possible irrigation from Chamokane Creek?
7 A That's correct.
8 Q In fact, do you not cover at various portions in here,
9 most of the time, costs of irrigation from Spokane and,
10 in certain instances only, the cost of irrigation from
11 Chamokane Creek?
12 A Would you repeat the question again?
13 MR. GERMERAAD: The Reporter can read it back.
14 (Question read back by Court Reporter.)
15 Q (By Mr. Germeraad) Do you understand the question?
16 A I still don't understand the question, and I wish it
17 to be restated.
18 Q This one particular instance we have talked about,
19 these were costs for irrigation from river, or F.D.R.
20 rights. In fact, since most of the planning was done
21 concerning irrigation from that source, most of the
22 costs contained in that volume do deal with the costs
23 of irrigation from that source, the Spokane River?
24 A Correct.
25 Q There are, however, certain particular instances that

1 do cover cost of irrigation from Chamokane Creek?

2 A Yes.

3 Q Now, turning to a page earlier in that volume that deals--

4 that has covered irrigation costs for Enterprise Valley,

5 Walker's Prairie, Sand Creek, Little Chamokane and

6 Chamokane. Do you have that page?

7 A Yes.

8 Q I am directing your attention to Section "K" only,

9 which I believe is Chamokane. The costs of \$13.89

10 annual cost per acre for irrigating "K", that comes from

11 what source?

12 A That would be from Chamokane Creek.

13 Q That comes from Chamokane Creek. Now, "H", above that,

14 Walker's Prairie, that \$70.44, that cost, does it not,

15 come from irrigation in the Spokane River?

16 A Correct.

17 Q And in your narrative in the earlier portion of the

18 book-- I will just direct your Honor's attention,

19 there is a page six that talks about Chamokane which

20 is designated "K", and that is irrigation from wells,

21 and two pages earlier, we have Lower Walker's Prairie,

22 or "H", which I have been talking about, and it fills

23 out that page which is designated "4". This part of

24 this should be supplied from the Spokane River.

25 Economically speaking, irrigation of the lands,

1 let's say on the Chamokane Bench and the Lower
2 Chamokane area, shown on Plaintiff's Exhibit 34, you
3 were to irrigate those two portions from Chamokane
4 Creek. Economically, how would that compare it to
5 irrigating the same areas from the Spokane River?

6 A Much cheaper.

7 Q I believe on Cross-examination you were asked about
8 various weir measurements which you have made.
9 Directing your attention to both your 1971 report, which
10 I believe is Plaintiff's Exhibit 29, and to your
11 November, '73, report, which is Exhibit 3-6-74-29, you
12 have stated in both those reports the different weir
13 measurements that you have made--

14 A Yes, we do.

15 Q --from 1971 to 1973.

16 If you could turn to,-- I believe you have the
17 larger volume there now, does the page on which these
18 measurements begin, entitled, "Spokane Indian
19 Reservation - Rectangular Weir Records - CFS - 1971",
20 Sheet No. 1-- Have you found that page yet?

21 A I haven't found that page, but I will. Yes. Weirs,
22 wells, Chamokane Creek.

23 Q Now, I believe there are ten different locations listed
24 on that page, am I correct?

25 A Wait until I find the exact page.

1 MR. TORVE: Maybe counsel could tell us how many
2 pages to count down from what he has.

3 MR. GERMERAAD: I will in a second.

4 THE COURT: Somebody better spend a recess number-
5 ing those pages.

6 A The explanation on this, if I may insert this, this
7 1973 was accepted very recently and has not been found
8 in its-- in official form, in numbers, when it will be
9 numbered.

10 Q (By Mr. Germeraad) Now, directing your attention to
11 the left-hand of the chart on that page, there are, I
12 believe, 10 different weir readings?

13 A Yes.

14 Q Which of this relates to the Chamokane Creek Basin?

15 A The Chamokane Creek, at the north line road crossing,
16 the Chamokane Creek at the North Crossing, the Chamokane
17 Creek at the Hill Road or Newhouse Lane crossing,
18 Galbraith Springs, the Fish Hatchery Springs, and those
19 I had lying in the three Fish Hatchery Springs, minor
20 ones, two minor ones.

21 Q Do the measurements of these that relate to the
22 Chamokane Creek Drainage Basin continue for another
23 eight pages, for a total of eight pages on there, giving
24 readings at various times?

25 A Yes; over several years.

1 Q In your 1971 report, which is Plaintiff's Exhibit 29,
2 did you also list some rectangular weir records, except
3 these would be earlier in time and not quite as
4 extensive?

5 A Yes. These were just elaborating on the earlier
6 records.

7 MR. GERMERAAD: Mr. Campbell, do you have any
8 objection?

9 MR. CAMPBELL: I have no objection to admission
10 of 87.

11 THE COURT: Plaintiff's 87 will be admitted.

12 (Thereupon, Plaintiff's Exhibit 87 was received in
13 evidence.)

14 Q (By Mr. Germeraad) Mr. Woodward, the bailiff has just
15 handed you the Smithpeter File, State File, which is
16 Plaintiff's Exhibit 87. I call your attention to an
17 April 24, 1970, memorandum down in that file. Could
18 you tell us who wrote the memorandum and who it was
19 directed to?

20 A It was directed to Eugene Wallace, Kris Kauffman, from
21 Glen Fiedler, the Department of Water Management.
22 Subject: Surface Water Permit No. 15894, Chamokane
23 Creek.

24 Q I direct your attention to the third paragraph of
25 that memorandum, and in that third paragraph of the

1 memorandum-- First, just tell me whether you find
2 the subject of interpolating a reading right below
3 the Smithpeter diversion from the U.S.G.S. Gaging
4 Station.

5 Have you found it? Yes, it's covered.
6 Would you read the pertinent part into the record,
7 please?

8 A "It is obvious to the tribes in Washington State that
9 we regulate Smithpeter according to the 20 CFS flow
10 provision. Please check with the Spokane office of
11 the U.S.G.S. to determine if they plan to conduct
12 miscellaneous measurements on this stream this summer
13 on behalf of the Spokane Tribe, and if so, we should
14 attempt to establish a rating curve for the stream
15 below Smithpeter's diversion. If the U.S.G.S. has
16 no plans for this measurement, the Chamokane Creek,
17 discuss with the Spokane office of the possibility of
18 initiating such a program."

19 Q Thank you.

20 There were certain questions on your Cross-
21 examination and your Direct Examination dealing with
22 evapotranspiration losses. Am I correct, evapo-
23 transpiration losses would be in the area where the
24 creek is running aboveground?

25 A Right.

1 Q Now, directing your attention to the Lower Chamokane
2 portion, that from the springs to the mouth, where
3 does the greatest amount of evapotranspiration loss
4 occur, and keeping in mind the Smithpeter diversion,
5 how much of the transpiration loss occurs above that,
6 and how much occurs between the Smithpeter diversion
7 and the U.S.G.S. Gaging Station below the falls?
8 A In our consultations, it would be 95.4 percent
9 evapotranspiration loss above the Smithpeter diversion,
10 and 4.6 below.
11 Q The Smithpeter diversion, I think I have asked you this
12 before, but that is right out of the summer flow in the
13 Lower Chamokane area?
14 A Right.
15 Q On Cross-examination, you were asked about irrigation
16 from Roosevelt Lake, but for the record, where is
17 Roosevelt Lake, in regards to the Reservation as a
18 whole?
19 A Roosevelt Lake is on the far west side of the
20 Reservation, the Spokane arm would be that arm reaching
21 along the southern boundary to the base of Little Falls.
22 Q And Chamokane Creek is the eastern boundary, is it not?
23 A Right.
24 Q Now, directing your attention to irrigable lands
25 below elevation 2200, Plaintiff's Exhibit 30, is there

1 a map in that volume which shows Areas H to J and K,
2 those irrigable zones, and how they would be irrigated
3 from the Spokane River?

4 A Yes.

5 MR. GERMERAAD: Your Honor, some of these
6 questions are merely to show, through a whole line of
7 questioning by Mr. Rekofke, as to where you will find
8 all of the material that this witness testified about,
9 and the questions have been simply to show where they
10 are exactly tied down.

11 Q (By Mr. Germeraad) Now, making reference to the
12 November, '73, reports, Exhibit 3-6-74-29, I'm going
13 to be directing your attention to the first few pages,
14 and I will pass it to counsel to make it easier for
15 you to find them. After the first two pages of index,
16 the third page is the purpose, and the fourth page is
17 the conclusion?

18 A Yes.

19 Q Directing your attention to the second paragraph from
20 the bottom, does that deal with irrigation of Indian
21 lands from Chamokane Creek?

22 A Yes.

23 Q To make it easier to follow the record, would you
24 simply read that two-sentence paragraph?

25 A "Irrigation of Indian land from ground waters of

1 Walker's Prairie would be as logical as any existing
2 withdrawals, with use rights at least equal if not
3 superior. Again, any use of the ground water is at
4 the expense of the spring and the Lower Chamokane."
5 Q Turning to the very next page, the third sentence from
6 the top of that page, does that deal with the number
7 of irrigable lands between 2200 and 2500, and, also,
8 in general, does that-- Is that in part what it relates
9 to?
10 A Yes. About 15,000-- Would you want it read?
11 Q Please.
12 A "About 15,000--"
13 Q Not that sentence, the sentence before that, too,
14 please.
15 A "Extension to the elevation 2500, some 40,000 acres of
16 irrigation potential would receive water from the
17 Spokane River or F.D.R. Lake."
18 Q Would you turn four more pages, please, to the second
19 page of the section called Chamokane Creek. I direct
20 your attention to approximately the middle of the page--
21 A Yes.
22 Q --the sentence that begins, "Being a confined aquifer,"
23 Would you read that whole sentence, please?
24 A "Being a confined aquifer, the input must equal the
25 output and the recharge of the ground water must bound

1 control of the springs to avoid depletion."

2 Q The bailiff has just handed you Plaintiff's Exhibits

3 18 and 19. I believe Plaintiff's Exhibit 18 deals

4 with recorded water levels in the Hill Well, is that

5 correct?

6 A That is correct.

7 Q Directing your attention to the water level in 1974--

8 A Yes.

9 Q --I am posing this question: During your Direct

10 Examination and during your Cross-examination, you

11 talked about the spreading out of the water from the

12 high times of, let's say, flood. Looking at the level

13 of 2-1-74-- I think that's indicated on Exhibit 18--

14 Is that the designation, please?

15 A Yes.

16 Q Would you expect a leveling out or a dropping of that

17 level from that point in time, prior to any additional

18 floods taking place?

19 A Yes.

20 Q Would you explain the principle again once more for us?

21 A The reason we didn't draw a direct line between the two

22 is we felt that would be a false reading, and it would

23 be immediately affected by flows immediately adjacent

24 in the spring collection area. Now, in addition to

25 that, it would spread out and moderate. This was at

1 its peak flow.

2 Q During the time that flood is occurring, would you get
3 a higher elevation at the creek than at the sides of
4 the ground water of the basin in Walker's Prairie?

5 A In earlier testimony, I did indicate it would be a
6 generally flowing-out during the higher waters, and
7 generally flowing in from the lower waters higher out
8 in the site.

9 Q So at the time of the flood, which you have indicated
10 that is up--

11 A Yes.

12 Q --the ground water basin has not had a chance to level
13 out, is that correct?

14 A Plus that other immediate runoff in the collection
15 basin.

16 Q Now, would you turn to Exhibit No. 19, please. I believe
17 Exhibit 19 is the flow at Fish Hatchery Springs, is it
18 not?

19 A Yes.

20 Q After a flood has passed, would you expect the-- I
21 believe it's designated 2-1-74 swell readings to drop
22 a slight amount?

23 A Yes, it did drop; it dropped some more, a little.

24 Q Directing your attention to Exhibit 19 again, you were
25 asked several questions on the use of the 1961 figures,

1 why those were used. How often were the 1961 readings
2 taken at Weir No. 1?

3 A Possibly weekly.

4 Q And did any other period of time during the '60s were
5 readings taken that frequently?

6 A No, not that frequently.

7 Q Do you then consider the most frequent readings more
8 reliable to study than the infrequent readings?

9 A We did, yes.

10 MR. GERMERAAD: Would you hand me Plaintiff's
11 Exhibit 3-6?

12 Q (By Mr. Germeraad) Plaintiff's Exhibit 31 is this
13 worksheet with various figures. Am I correct that the
14 Upper Chamokane, the 8000-acre feet, this is the flow
15 out of Camas Valley that during the flood periods--
16 that eventually empties into the Walker's Prairie ground?

17 A It would contribute to the water, yes.

18 Q And the 700-acre feet is that portion which was
19 measured at your gaging station at the North Bureau
20 of Rights-- North Progress Station?

21 A Yes.

22 Q And this is the period-- This is the amount that has
23 generally been measured during the summer period, is
24 that correct?

25 A Continuous summer flow.

1 Q To some extent, then, am I correct that the 8000-acre
2 feet and the 700-acre feet, both of which go into the
3 Walker's Prairie ground water system come from,
4 basically, the same area?

5 A If--

6 Q That would be the Upper Camas Valley.

7 A If we include the Swamp Creek a little bit, we get
8 some--

9 Q In other words, a portion--

10 A That portion--

11 Q The upper portion of the Chamokane?

12 A Middle Chamokane.

13 Q On Cross-examination, you were asked questions on the
14 worksheet and how you established the runoffs that you
15 put on Plaintiff's Exhibit 31.

16 And at that time, during Cross-examination,
17 Your Honor, a sheet from this blue book was referred
18 to by counsel, we have since made a copy of that
19 worksheet, and would like it marked as an exhibit.

20 (Thereupon, Plaintiff's Exhibit 88 was marked
21 for identification.)

22 Q (By Mr. Germeraad) Could you read for the record what
23 that numbered exhibit-- What is the number of that
24 exhibit, first?

25 A Eighty-eight.

1 Q And is Plaintiff's Exhibit 88 the worksheet that you
2 referred to--
3 A Yes.
4 Q --in Cross-examination questions? And on that, the
5 formula which you used to compute precipitation times
6 area, or whatever, to come up with these various
7 figures found written on that map, is it not?
8 A Yes.
9 MR. GERMERAAD: I move the admission of Plaintiff's
10 Exhibit 88.
11 THE COURT: Any objection?
12 MR. DUFFORD: May I ask a couple of questions?
13 THE COURT: Yes.
14
15 VOIR DIRE EXAMINATION
16 BY MR. DUFFORD:
17 Q Mr. Woodward, first of all, is the exhibit in two
18 parts?
19 A I stapled it altogether, yes.
20 Q Is it-- In terms of what the exhibit shows, did you
21 just say that the formula is found at the bottom of
22 the map?
23 A Yes.
24 Q And what does this formula tell us; does it tell us
25 what is going into ground water or what is running off

1 the surface?

2 A There would be 80 feet of runoff.

3 Q So this formula is, is telling what runs off, not what
4 goes into ground water?

5 A Yes.

6 Q I notice you have a figure "P" in that formula, I
7 wonder if you could tell us what that is about; what
8 does that mean?

9 A I have to trace it down.

10 Q Could that, Mr. Woodward, be precipitation in rainfall?

11 A It would have to be precipitation, but I wanted to read
12 the brochure before I said it.

13 Q What's the relationship of the "P" to the "K" that you
14 have over on your other computation?

15 A Generally speaking, going clear back to 1908, to the
16 ASCE, we have a general runoff as compared to a rule
17 of thumb as compared to precipitation. We have a
18 20-inch rainfall, it would be 20 percent runoff. A
19 15-inch rainfall, 15 percent runoff. It's worked pretty
20 good throughout the years since 1908 and generally I
21 think I would approve it, what you are talking about
22 here.

23 Q You are talking about a rule of thumb, and I was talking,
24 asking you what is "K" and "P" on your previous--

25 MR. GERMERAAD: Your Honor, I'm wondering if this

1 is proper Voir Dire or whether this is more proper
2 Cross-examination.

3 THE COURT: It's really Cross-examination, but
4 we have got to establish it sometime--

5 MR. DUFFORD: I merely want to know what this
6 means.

7 THE WITNESS: I am going to have to plead with
8 my brother, who has also gone through this here, and
9 establish those numbers, and he has worked on many,
10 many watershed runoff deals, and--

11 MR. DUFFORD: Mr. Woodward, could you check over
12 our noon hour and have the answer?

13 THE WITNESS: I shall do that. I am surprised
14 I can't pull the figure out of space, but I don't
15 believe I computed those figures.

16 MR. GERMERAAD: I only have one more question, I
17 believe, after this, and you can supply it, and you
18 can,-- We will take this up after lunch if that would
19 be all right.

20 THE COURT: All right.

21 THE WITNESS: I am sure I will have it.

22 (Direct Examination, Continuing)

23 Q (By Mr. Germeraad) Mr. Woodward, how wide is Chamokane
24 Creek?

25 A I have lived with Chamokane Creek for four years, and

1 Chamokane Creek is 20 feet at the falls, where I find
2 it all in one mass. It's probably 30 to 40 feet when
3 I find it in a surface stream--

4 Q This would be in the lower portion?

5 A In the lower portion, or even when it's flowing in
6 the upper portion, and I find it subsurface in two
7 miles, two miles wide.

8 Q One more question, Mr. Woodward. If we are to decide
9 from year to year whether we are going to have an excess
10 of flow over, let's say, a 30 CFS base flow, how are
11 we to know whether there will be more water available
12 for irrigation the following year? In other words,
13 I am asking you to get a little ahead of time, to go
14 a little beyond the questions we have had so far, and
15 tell the Court what predictive tools are available
16 to predict how much water is available for the coming
17 year, two years, whatever, for, you might say, our
18 purposes, other than, let's say, a minimum of stream
19 flow of 30 CFS to the Tribe?

20 A Not matter what the outcome of this particular case,
21 it would be my hope the State or the federal or the
22 Indians, or who, would use these flows we have meti-
23 culously kept for three or four years, and that we
24 would have a prerun of our storage in the bank, water
25 in the bank, if you please, in this basin, and relate

1 it to a snowfall of-- which we have been able to
2 trace down through, and I believe it would be possible
3 to reasonably control, so that we could be certain of
4 having a 30-second-foot runoff.

5 Q Following that up a little bit, is there a time in
6 the year that you could look at the water elevation
7 in Walker's Prairie, and also snow on the ground, to
8 be able to predict a little bit better-- I am asking
9 you to be a little bit more specific on your predicted
10 tools for the following year's availability of water.

11 A I believe that the monitoring wells must be run
12 continuously throughout the year. I believe the
13 snowfall, which is being measured right now and
14 recorded by the
15 And examining those with the state of the ground water
16 at this particular moment, of which we have to say
17 high, I believe we have a fairly good possibility of
18 predicting quite closely what we might anticipate from
19 the normally dry periods-- the dry months.

20 MR. GERMERAAD: That's all the questions for the
21 United States, Your Honor.

22 THE COURT: I believe the Tribe has a question.

23 MR. GERMERAAD: Oh, I am sorry, Your Honor, I
24 have one exhibit, Exhibit No. 41, that has never been
25 admitted, and I would like to ask questions, a few

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questions, about that.

Q (By Mr. Germeraad) Mr. Woodward, Exhibit 41 is what?

A It's a memorandum from Kris Kauffman to the Chamokane Creek files, dated January 18, 1971.

Q Okay. I would like to direct your attention to paragraph Roman Numeral I-F, Ground Water Boundaries. Could you please tell us--

MR. DUFFORD: Your Honor, I would like to interpose an objection, as this is one of the prefilled exhibits.

MR. GERMERAAD: It is a prefilled exhibit, yes, and it is also a part of either filed Exhibit 86 or 87, the Newhouse or Smithpeter File. I can find it in this if you want, and I think that might be a good idea, to tie it in with the Court.

MR. RUDOLPH: I might state it's No. F-31-74-6 in the prefilled material.

Q (By Mr. Germeraad) Directing your attention again to paragraph F on the bottom of the first page, Ground Water Boundaries, could you just read that paragraph for the record, please?

A "Ground Water Boundaries. The easterly and westerly ground water boundaries appear well defined with the remote possibility of some vertical leakage through the basalts or the contact zone, and on the easterly

1 side of the surface drainage area, near Springdale, the
2 ground water divide is not defined. However, a large
3 degree of the water movement in or out of the basin in
4 the particular region appears unprofitable. There is a
5 possible leak from this basin into the Little Chamokane
6 Creek drainage. Generally, the Little Chamokane basin
7 appears to be a relatively tight unit."

8 Q Could you re-read the last sentence, I just want to make
9 sure it's correct in the record.

10 A "Generally, the Chamokane Creek Basin appears to be a
11 relatively tight unit."

12 Q Thank you.

13 Also directing your attention to page 6,
14 paragraph H, this, I believe this, then, is a-- is
15 relating the position of the entire memorandum, Your
16 Honor, of Kris Kauffman, and in that context, would you
17 read paragraph H?

18 A "The position of Mr. Woodward is that the physical question
19 should be kept separate from the legal question. I concur."

20 MR. GERMERAAD: I would move the admission of
21 Plaintiff's Exhibit 41, Your Honor.

22 MR. TORVE: Your Honor, if it is contained in one
23 of the Smithpeter or Newhouse Files, I will waive any
24 objection to it, but if it's not, I would object on the
25 basis that Mr. Kauffman, as far as expressing any opinion,

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it not be admitted for that purpose.

THE COURT: Do I understand it's part of the Newhouse File?

MR. GERMERAAD: It's one or the other, I believe, Your Honor, but it's also one of our prefiled documents, and it has been on file for some period of time. Mr. Torve, I believe, was supposed to have made any objection to the authenticity, or anything else, at March-- or the Friday before, anyway, this case opened, which is March 8th.

MR. CAMPBELL: If Your Honor please, that area was not part of the Smithpeter File.

MR. TORVE: And I am not real sure that-- and the Court can correct me-- but I thought the cutoff date was February 15th and then you were supposed to object by March 1st.

MR. GERMERAAD: It was March, I believe--

THE COURT: Well, counsel, let's, during the noon recess, run that down and find out about the date and whether it's part of the previous exhibit.

MR. GERMERAAD: It is part of the prefiled data.

THE WITNESS: 3-1-74 Is the date--

THE COURT: We will be in recess until 2:00 p.m.

(Afternoon recess taken at this time.)

1 NOTE: At this point, there is approximately one hour of
2 testimony not transcribed, unable to use tape
3 recording tape due to faulty take, and practically
4 impossible to transcribe from Stenotype notes only.
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1 Q (By Mr. Tracy) Mr. Woodward, I have just one question
2 about this geophysical traverse that's been talked
3 about. This Shannon & Wilson study, that study
4 doesn't show the permeability of the bedrock, does it,
5 it just shows the density?
6 A Density is all.
7 Q Density--
8 A And it shows that--
9 Q Thank you. Now, there is two or three other areas
10 that I want to touch on for just a minute, and the first
11 one is: This one-year time lag that's been testified
12 to by yourself regarding areas up around Newhouse and
13 Seagle. Now, that's just a judgment, isn't it?
14 A That's a judgment.
15 Q It's not based specifically on mathematical calculations,
16 is it?
17 A It's based on judgment, and we have checked it out by
18 mathematical, yes, reasonably close, with our permea-
19 bility tests.
20 Q But it's primarily based on judgment?
21 A Primarily judgment and experience.
22 Q That one-year time lag could be a year and a week--
23 A Yes.
24 Q --or less?
25 A Or eight months.

1 Q It could be down to eight months. Now, you testified
2 that the Newhouse State File indicated that there was
3 a request to install a flow meter. You don't know,
4 of your own knowledge, why that wasn't installed, do
5 you?

6 A Yes, I do.

7 Q You do know, of your own knowledge?

8 A Cost too much.

9 Q Thank you. You mean, it cost too much in line with
10 the pending case, the pending lawsuit, didn't you?

11 A That was his statement to the State, that it cost too
12 much, and I could get the effect of that one year,
13 using a time clock which I happen to have, and hooked
14 onto it.

15 Q So, actually, Mr. Newhouse was completely cooperative
16 with you on this study of the flow, wasn't he?

17 A Yes.

18 Q And you did get what you feel were accurate measurements
19 by other means?

20 A I think I got even more accurate by the cooperation of
21 Mr. Newhouse afterwards.

22 Q I have only one other question, one other area, that
23 I would like to touch on. Now, it's run throughout
24 this case that 30 CFS is the real parameter down at the
25 lower portion of Chamokane Creek. I understand that is

1 your position in this matter?

2 A That is my position.

3 Q Well, I just wanted to ask you, isn't the real parameter
4 68 degrees; in other words, this is all based on the
5 fishery, isn't it? And, therefore, as long as you keep-

6 MR. GERMERAAD: Your Honor, I think he is mixing
7 up what witness he is cross-examining now, and if he
8 going to talk about the fisheries, and 68 degrees, he
9 should have asked the question when our Fisheries
10 Biologist was on the stand.

11 THE COURT: Sustained.

12 MR. TRACY: Your Honor, if I may make a comment
13 about this. I think-- Well, I guess it can be argued.

14 THE COURT: Mr. Cerutti?

15 MR. CERUTTI: Thank you.

16

17 RECROSS-EXAMINATION

18 BY MR. CERUTTI:

19 Q Mr. Woodward, I would like to get back into that
20 discussion of geology that you had with Mr. Campbell
21 just a minute ago. In the course of that conversation,
22 the discussion that you had with Mr. Campbell, I picked
23 up a couple of phrases from you. At one point, you
24 said-- if I remember correctly-- that his question
25 exceeded your expertise and you had to accept other

1 opinions in this area of geology. Another time, you
2 said that one of his questions exceeded your geological
3 expertise.

4 I wonder, sir, from those phrases, are we
5 to understand that you do not consider yourself to be
6 an expert in the field of geology?

7 MR. RUDOLPH: He already answered that, Your
8 Honor, on Mr. Rekofke's questions.

9 THE COURT: I think he has, but it won't hurt to
10 let him answer it again.

11 THE WITNESS: I think I know my geology where it's
12 connected with water-- and let's look at the case we
13 are talking about. We keep our cases on that--

14 Q (By Mr. Cerutti) You are not answering my question.
15 I asked if you consider yourself an expert in the field
16 of geology; I didn't limit it to water or in this case.
17 Are you an expert in that general field?

18 A In geology, no; in water, yes.

19 Q Thank you, sir.

20 Sir, I would like to direct your attention
21 now to Exhibit 7, this map. Who was it that prepared
22 that, again?

23 A I believe that is the Griggs one.

24 Q The Griggs report?

25 A Yes.

1 Q What do you know about Mr. Griggs, in terms of his
2 background?

3 A I never met the man.

4 Q Do you know where he went to school?

5 A No.

6 MR. GERMERAAD: Your Honor, I now think we are
7 also going beyond the scope of Redirect Examination.

8 MR. TRACY: Your Honor, they put the map on the
9 board during their Redirect.

10 THE COURT: They did, but that was gone into on
11 the previous examination of this witness.

12 MR. TRACY: Well, I don't believe in the detail
13 I intend to, Your Honor. And I do think they
14 interjected-- In fact, in the case, they put that map
15 up on the board.

16 THE COURT: The map was used for illustrative
17 purposes on Redirect, and I think it's purely
18 repetitive. As I recall his testimony, he said before
19 he didn't know the man and didn't know anything about
20 his background.

21 MR. TRACY: I will withdraw that question, Your
22 Honor.

23 Q (By Mr. Tracy) Mr. Woodward, now with reference to
24 your contention that the Chamokane drainage is a
25 closed system. If I direct your attention to this map,

1 of unknown paternity, can you tell me what it tells
2 you specifically as to the condition of the purported
3 dike directly east of the Seagle property?
4 A To the paternity or to the dike?
5 Q The dike. Directly east of the Seagle property, what,
6 if anything, can you tell about that, using this
7 Exhibit 7?
8 A I don't believe I care to say anything further on that.
9 I limit that, beyond the boundaries of the Walker's
10 Prairie area, study area.
11 Q I am sorry, I don't understand your answer.
12 A Perhaps I didn't understand your question.
13 Q What, if anything, can you draw by way of a conclusion
14 as to the location and condition of the dike directly
15 east of the Seagle property, by examination of Exhibit
16 7?
17 A May I go over there and look at it closer to see?
18 Q Certainly. Perhaps you could stand to one side and
19 use this pointer, so the Court could see.
20 A I am trying to find the word "dike" written across here.
21 Q I don't--
22 A I am saying that this here AG-- KQ is quartz, AG is
23 granodiorite-- I don't see that in here, which one
24 are we talking about?
25 Q Well, are you now--

1 A Are you talking about this one? Are we talking of
2 landslide area between the two?
3 Q Perhaps I can rephrase my question.
4 A If we're talking about landslides here and here,
5 where's the dike?
6 Q That's my question to you: Where's the dike?
7 A I am not saying there is a dike; you're telling me
8 there is a dike.
9 THE COURT: Mr. Woodward, he's asked you a
10 question; can you tell from that map where the dike,
11 that you previously testified to, is located?
12 A Oh. I'd say the dike, which is in evidence, crosses
13 through here, through the Little Chamokane and the
14 Falls, where the granite shows on the surface.
15 Q (By Mr. Tracy) Is there a dike off the--
16 A And then to the Little Chamoken.
17 Q Thank you. I'd like to move up here directly east of
18 the Seagle property.
19 A I am not aware of that dike in that vicinity, no.
20 Q What is it that would prevent the ground water from
21 underneath the Seagle property from flowing in an
22 easterly direction out of this drainage?
23 A Out of it, or into it?
24 Q Out of it. What prevents the water from going here,
25 easterly, clear out of the drainage?

1 A The wells that are drilled, I think you will find in
2 the State book, are all about-- The water, about 300
3 feet higher, so they settled for the three or four
4 gallons a minute higher than the Walker's Prairie.

5 Q Where are these that you are talking about?

6 A Back over in the granite area.

7 Q Can you show me, specifically, where one is located?

8 A I think if I had the book, the State book, that--

9 Q Well, if you get this book, does it say where these
10 wells, that you apparently rely on for your opinion,
11 are located?

12 A Any point in it--

13 THE COURT: Well, just answer the question.

14 MR. TRACY: Perhaps he could use the exhibits on
15 the board to show where the wells are located, sir.

16 THE WITNESS: We'd have to be--

17 Q (By Mr. Tracy) I'd like to continue using No. 7, if
18 you can avoid covering it there.

19 MR. GERMERAAD: Your Honor, I think the witness
20 should be able to answer one question before he goes
21 on to another question. Mr. Cerutti asked him--

22 THE COURT: To locate the wells.

23 MR. GERMERAAD: --what wells he was talking about,
24 he referred to an exhibit, and he should at least be
25 entitled to finish his answer.

1 MR. CERUTTI: I wasn't aware of the fact I
2 interrupted the gentleman, I simply asked to have the
3 exhibit

4 If the Court wants to take a break, it's
5 going to take me a little longer than just now.

6 THE COURT: We've got about another hour.

7 Q (By Mr. Cerutti) This all shows the pink area which
8 lies just to the edge of about there.

9 A The Walker's Prairie area is not shown on this map.
10 Now, then, we take that same area--

11 Q Excuse me. For the record, I don't think that is an
12 exhibit; maybe you can identify what it is that you
13 were just discussing. What is that document?

14 A That's Exhibit No. 23. It shows the granite, the pink
15 here,--

16 Q You say that does not show Walker's Prairie at all?

17 THE COURT: We had better back up here, 23 has
18 not yet been offered.

19 MR. GERMERAAD: I am wondering why we should
20 mark it as defendant's or plaintiff's exhibits--

21 MR. CERUTTI: I didn't intend to offer it, Your
22 Honor; I just wanted it identified for the record,
23 what it was.

24 THE COURT: Well, just a minute, Mr. Woodward,
25 let's back up here. Somebody apparently thought they

1 were going to offer this, and it's been marked as 23.
2 Is nobody offering it?

3 (Inaudible discussion at counsel table.)

4 THE COURT: Well, strike it.

5 What's the other one? What has been marked
6 as Plaintiff's, or somebody's-- Defendant's Exhibit
7 24?

8 THE WITNESS: That shows also as a defendant's
9 exhibit on the-- 24.

10 THE COURT: Is Defendant's 24 being offered as
11 an exhibit?

12 THE WITNESS: Who's offering it?

13 THE COURT: Strike it.

14 MR. CERUTTI: I am not asking to offer it, Your
15 Honor, I am asking that it be identified as to what it
16 is, since the gentleman apparently intends to use it
17 in order to answer my previous question.

18 THE WITNESS: These are matched statements on the
19 ground water resources and related geology of the
20 North Central Spokane from the southeastern Sevens
21 County, in Washington. This one here is the Washington
22 State Department of Water Resources, prepared in
23 connection with U.S. Geological Survey, Water Resources
24 Division. This is the same--

25 THE COURT: Now, can you identify the wells he

1 has asked you about?

2 THE WITNESS: I'd have to go through and study
3 them.

4 MR. CERUTTI: Perhaps, to save time, I can ask
5 you to resume the stand, if you will, sir.

6 Q (By Mr. Cerutti) The wells you refer to, sir, these
7 are considerably east of the Seagle property, are they?

8 A Yes; 'way up on top of the hill.

9 Q And you have some knowledge as to the condition of
10 those wells, is that my understanding?

11 A In four years-- And I am not sure how far back--
12 I have looked up and find wells up on that bench, as
13 much as 300 feet higher than we are talking about,
14 in that prairie. And they are low yielding, also,
15 maybe three- or four-gallon a minute wells.

16 Q They can't get water 'way up there, then, am I right?

17 A Pardon?

18 Q They can't get water up there with a well, then, say
19 some minimal amount, is that true?

20 A As you can in almost any granite-- Well, a little bit.

21 Q Did you ever personally make any measurements as to the
22 flow of the wells up there?

23 A No.

24 Q Do you at this time, and without the need to look
25 through your map there, do you have any specific

1 knowledge as to whether or not any of those wells
2 might be more or less due east of the Seagle property?

3 A I will say no.

4 Q Is it fair to say it's entirely possible that there
5 are breaks in the "dike", if I may use that word--
6 east of the Seagle property?

7 A I think there could possibly be minor fractures in any
8 granite bedrock.

9 Q I think you can see from your chair well enough for
10 this question, sir, and save you having to come back
11 over.

12 With reference to Exhibit 10, I see that
13 this darker-colored portion juts out to the southeast.

14 MR. GERMERAAD: Excuse me; that's not 10, I know
15 that.

16 MR. CERUTTI: Excuse me; 7.

17 Q (By Mr. Cerutti) On Exhibit 7, I see this dark portion
18 juts out to the east, right due east of the Seagle
19 property. Is this darker portion permeable; is that
20 correct?

21 A It probably would be permeable, yes, similar to the
22 other one.

23 Q And the ground water would then flow freely out that
24 direction through that?

25 A It would be approaching the landfall area, the landslide

1 area, it might be less permeable on the interior part.

2 Q Is it possible that that landslide area is permeable?

3 A Not as permeable as the valley floor.

4 Q It's considerably more permeable than granite, isn't

5 it?

6 A Yes.

7 Q Well, let me go back to Exhibit 7, then. If I under-

8 stand you, sir, it's possible for the ground water to

9 flow freely out in this dark jut; is there anything

10 to prevent the water from going down in a southerly

11 direction to this, what you call the "landslide area"?

12 A In minor quantities, it could.

13 Q One other thing, one other area: I think this is

14 Exhibit 18, which you may have there in your desk, the

15 one that shows the relative water table for each of

16 the years. Am I accurate to summarize your opinion

17 as saying that the water table in the Chamokane Basin

18 nowadays is slightly, just slightly below what it was

19 when you first started your studies in '71?

20 A I believe, if you are at the Seagle Well, I think it

21 would probably be higher than it was when we--

22 Q My question was really directed to the Basin in its

23 entirety as a unit.

24 A We are still at a point where she is still spreading

25 out near the Basin.

1 Q Slightly below what it was when you started, isn't that
2 true, as far as the amount of water in the Basin?
3 A As of February 1st, when my data was stopped by this
4 Court to collect, and collected, it was slightly lower.
5 Q And your anticipation is that it will reach or exceed
6 that level by this April?
7 A I think we should reach it, our eventual anticipation.
8 Q I understand. I guess-- Maybe you will tell me if I
9 am right-- When we talk about this water table and
10 the total quantity of water in this Basin, if we could
11 put that in terms of your earlier testimony, we're
12 recharging the bank, isn't that what we are really
13 doing?
14 A We are recharging the bank.
15 Q Is there some limit to what the bank will hold?
16 A In a former Redirect, I did say, in response to a
17 question, the April, or the snowfall in there, we have
18 a bank almost full. We may anticipate quite a heavier
19 flood in April than we did previously. Our bank is
20 pretty well back up to normal.
21 Q Then is it your anticipation that by this April, the
22 bank's going to be as full as, full to capacity, full
23 as it will ever get?
24 A I'm saying it will be as full, probably, as '71.
25 Q Well, that wasn't my question.

1 A I don't know how you would fill this thing to capacity.
2 Q Well, that is my question; can that be done?
3 A I don't know how you would.
4 Q Well,--
5 A It has slope, and it will run off.
6 Q Do you expect a heavier runoff this spring, is that
7 what you're saying?
8 A I'm anticipating a heavy runoff.
9 MR. CERUTTI: Thank you, sir.
10 THE COURT: Mr. Rekofke?
11
12 RECROSS-EXAMINATION
13 BY MR. REKOFKE:
14 Q Mr. Woodward, this morning, I think in response to
15 some questions on Redirect, you referred to your
16 rectangular weir records, which is part of an exhibit,
17 and you may even have a piece of paper in that exhibit
18 there indicating the place.
19 A You mean, the location, or what?
20 Q The chunk that you have, its rectangular weir records,
21 CFS, and I have in mind the weir records pertaining to
22 the one that, the weir situated on the north boundary.
23 A Yes.
24 Q Okay. Are you with me?
25 A I'm with you.

1 Q Now, what specific weir are we talking about; I mean,
2 you have a number of them listed here, what specific
3 weir in that chart designates the one at the north
4 boundary?

5 A The one that I have designated as North Road Crossing.
6 It lies about 100 feet north of that, the North Road.

7 Q All right. Now, if we might put Exhibit 14 on the
8 board. Perhaps it would be advisable, Mr. Woodward,
9 just to complete Exhibit 14 as you did 31 for Mr.
10 Rudolph, could you mark on Exhibit 14 where that, the
11 location of that weir?

12 MR. GERMERAAD: May I inquire if Mr. Rekofke is
13 going to connect it in some definite way with my
14 Redirect Examination?

15 MR. REKOFKE: If the Court please, I take excep-
16 tion to counsel's remarks. I didn't interrupt his
17 Redirect Examination, and I don't think I'm required
18 to advise counsel the line of questioning, and I would
19 appreciate it if counsel would refrain from making any
20 additional remarks and permit me to examine the way I
21 wish to.

22 THE COURT: Proceed.

23 Q (By Mr. Rekofke) Will you please indicate?

24 A The North Road goes about a half a mile south of here,
25 so it would be at about--

1 Q Put a little box there, you know, just someplace,
2 mark it "weir".
3 A Road--
4 Q Okay.
5 A --Weir.
6 Q You put a little-- All right, you might put a "W" just
7 alongside of it, and then we know it's "weir".
8 A (Does so.)
9 Q All right. Are you with me?
10 A Yes.
11 Q Okay. All right. Now, those measurements, and you
12 might-- Those measurements that you have on that weir,
13 which you, some of which you testified to today, are
14 all measured in CFS, right?
15 A Yes.
16 Q And I'm just curious how you struck an average, how
17 you converted those, you know, to acre feet, and how
18 you arrived at the average which you have testified to.
19 A Well, that weir running so long, those weirs were
20 measured weekly and added up, and going so many second
21 feet over so long, had so many acre feet.
22 Q Now, what, something I haven't figured out, and maybe,
23 I'm sure there's someone here who has, one second foot
24 is how many feet; what is that, do you know offhand?
25 A Oh, we have a rule of thumb.

1 Q Just tell me approximately.

2 MR. RUDOLPH: Well, Your Honor, that can't be
3 answered. You have to know how long.

4 THE COURT: Well, if he can't--

5 MR. REKOFKE: If he can't answer it, he can say
6 so. I don't know--

7 A All right, I won't answer it.

8 Q (By Mr. Rekofke) What?

9 A I can't answer that right quick--

10 Q Okay.

11 A --without further information.

12 Q Pardon?

13 A Without further--

14 Q Okay.

15 A --definition and specification.

16 Q You say you can or can't?

17 THE COURT: Cannot.

18 Q (By Mr. Rekofke) Oh, cannot, all right, I misunder-
19 stood you. Let me ask you this, then, and I don't want
20 to be repetitious, but how did you convert the second
21 feet that you have here at that weir to 700 acre feet
22 that you show on Exhibit 31 as the continual flow?

23 A Just by time and how much time and quantity give me
24 volume.

25 Q That represents, does it not, the 700 acre feet, the

1 flow through that weir on a continual basis, isn't that
2 right?
3 A Right.
4 Q And--
5 A Through the irrigation months.
6 Q Through the irrigation months?
7 A Yes, sir.
8 Q So, from what, what are the irrigation months?
9 A Would you like to have me read the months that was
10 taken?
11 Q Yes, all right. Are those the ones shown on the little
12 chart?
13 A Yes, they're on the exhibit.
14 Q Seems like they go all the way through from July to
15 December, all the way through.
16 A There are quite a bunch of them, forget them.
17 Q Well,--
18 A There are points now, as soon as this starts going,
19 gets beyond a certain stage, then the geological survey
20 big gauge takes over, we get it for the higher flood
21 flows, which we're also interested in, because they're
22 going into the Basin. Their gauge will not reach down
23 and pick up minor flows, which we are also interested
24 in.
25 Q All right. In any event, it is a continuous flow

1 throughout the irrigation months, is that right?

2 A That weir is a continuous flow.

3 Q All right. And that's just through the irrigation

4 months?

5 A That one is continuous.

6 Q Now, let me ask you this-- If you could come over here

7 to Exhibit 14 once more-- I'll give you one pointer,

8 and I'll take the other. Now, I have in mind, you said

9 your weir, you know about that--

10 A Right.

11 Q Now, I notice, Mr. Woodward, you testified this is a

12 continuous, this measures a continuous flow, is that

13 right, from the water up here in the Chamokane Creek

14 drainage; is that right?

15 A If you will notice, where we meet, a continuous--

16 intermittent is indicated with the dots.

17 Q That is the next question. You have a number of areas

18 where you have a straight line, and you have several

19 dots, intermittent?

20 A Right.

21 Q So I assume that during the summer months, you would

22 expect no flow from those areas?

23 A From those, yes.

24 Q So, really, what you're measuring, then, is the

25 continuous flow through this weir, is that right?

1 A When it gets down to here.

2 Q So you didn't consider, I assume, in your computation--

3 A I did.

4 Q Oh, you did; the intermittent flows?

5 A I considered all these flows because I caught those

6 flows in the capacity of the U.S.G.S. gauges. You see,

7 when they got beyond the measurement of my weir here,

8 some of these were flowing, then they could be recorded

9 on my weir.

10 Q I understand. Like, in the summertime, when you say

11 these are intermittent, you know, these are intermit-

12 tent streams, right?

13 A Well, yes. Whatever they might be, creeks, or

14 something.

15 Q You normally wouldn't expect them to flow through the

16 summertime?

17 A That's right.

18 Q Pardon?

19 A That's right.

20 Q So you didn't consider the fact that they were flowing

21 through the summer when you made your computation of

22 700 acre feet, did you?

23 A Individually, no.

24 Q You would, however, because of the fact that those are

25 as indicated on Exhibit 14, intermittent; obviously,

1 they do, those intermittent streams, especially, I
2 imagine, during the summertime, don't make too much
3 contribution to the 700 acre feet that you measured
4 down at the weir?

5 A No.

6 Q And consequently any diversion from those intermittent
7 streams would be somewhat negligible, would it not, in-
8 sofar as any effect it might have on that weir down
9 there?

10 A I think I stated right at the first, I felt any water
11 that entered that drainage, whether it be intermittent,
12 or no matter what, ultimately had an effect down
13 through that closed Basin.

14 Q I appreciate that. Appreciate, I'm not quibbling with
15 that, but you have in mind when the so-called
16 "intermittent" stream is actually flowing, I mean,
17 that's what we mean by "intermittent", "intermittent
18 stream", it flows part of the time, and part of the
19 time it doesn't, isn't that right?

20 A Ultimately, it ends up down at that-- Anything that
21 falls in there ends up going down through that Basin.

22 Q Well,--

23 A --allowed by transporation.

24 Q You could have springs in this area where you have
25 these intermittent--

1 A I'm sure there would appear springs.
2 Q And you could have an area of some springs and then an
3 area in between-- In other words, you could have an
4 area where there would not be, where there would be
5 no water flowing into the, flowing down this channel
6 into the weir?
7 A If you want to continue the stick right on down, we
8 have the major condition that we're talking about.
9 Q Oh, you mean, you said where it went underground here,
10 is that what you're--
11 A Where we're intermittent there, yes.
12 Q I think you testified to that.

13 I think that's all.

14 THE COURT: Any further examination of the
15 witness?
16

17 REDIRECT EXAMINATION

18 BY MR. GERMERAAD:

19 Q If we were to know how much water is going to be
20 available during the coming year, or coming two years,
21 if we were to know that fact, a water master, or a
22 government agency, could set up a system of regulation,
23 could they not?

24 MR. TORVE: I'm going to object. It seems to me
25 that it's improper Re-redirect.

1 THE COURT: I'll sustain the objection.

2 MR. GERMERAAD: Mr. Torve asked that specific
3 question on his Recross, and I want to clarify exactly
4 what Mr. Woodward meant. I think I'm keeping myself
5 solely within the scope of the Recross-Examination in
6 asking that question, Your Honor. He asked questions
7 about whether he made a projection, and the witness
8 said, yes, he made that projection, and I'm asking,
9 with that projection, could not an agent or any
10 individual set up a system of regulation. I think
11 that's a question that follows logically.

12 THE COURT: Well, sometimes we have Direct and
13 Cross and Redirect, and the only reason for asking
14 additional questions, if there was some area that the
15 witness' answer was ambiguous, or anything like that,
16 and we would like to clear it up, but I don't want to
17 get off into something new here; I have been down this
18 road a couple of times.

19 MR. GERMERAAD: Well, I will withdraw the question.
20 I don't think we're opening up anything new, but I will
21 withdraw the question.

22 Q (By Mr. Germeraad) There were certain questions on
23 Recross-Examination, Mr. Woodward, dealing with faults.
24 In your examining and experience in walking that area
25 for the past four years, did you find, yourself, any

1 evidence of any of these faults which you were asked
2 about as possibilities in the-- First of all, you
3 have walked this area continuously over the past three
4 and four years, is that right?

5 A Yes.

6 Q During your trips to that area, have you found any
7 evidence of faults on the east border of the Basin?

8 A No.

9 Q Have you found any evidence of faults at the dike, or
10 in the dike area, by the falls?

11 A No.

12 Q If we have a fault that does exist, does that mean
13 that any liquid can get through that fault?

14 A Faults usually-- Related to water, again-- Small
15 slippages will tend to seal themselves with a much
16 finer clay portion, and we seldom find any leakage of
17 any consequence through a fault, no matter how-- Minor
18 faults, as you're talking.

19 Q On the same line, is this the same principle that is
20 behind the idea in oil and gas exploration for geology,
21 that faults generally seal the passage of all water,
22 oil and gas?

23 MR. : I object--

24 MR. CAMPBELL: I'm going to object to that
25 question.

1 THE COURT: Sustain the objection.

2 Q (By Mr. Germeraad) Okay, but as to water that has
3 been--

4 A As to water, that would be.

5 MR. REKOFKE: I'm going to object, Your Honor.

6 THE COURT: Sustain the objection.

7 MR. REKOFKE: I thought the Court sustained the
8 objection.

9 THE COURT: He's describing the question now.

10 MR. REKOFKE: All right.

11 MR. GERMERAAD: I was referring back to his
12 previous answer.

13 THE COURT: There's a previous-- a subsequent
14 question now.

15 Q (By Mr. Germeraad) Mr. Campbell asked you to make a
16 comparison of 407 acre feet to the runoff, total
17 runoff of the entire Basin during the year. With such,
18 would such a comparison have any relevance to your
19 study?

20 A Yes, it would.

21 Q In what way?

22 A During that portion of the year that the water was
23 being used, that four hundred and, what is it, 408
24 acres, acre feet that we're talking about?

25 Q 407, I think.

1 A 407 acre feet that we're talking would be a direct
2 drainage if it were, say, the case of Smithpeter
3 draining out of that particular storage area.

4 Q Now, I believe Mr. Smithpeter is Mr. Campbell's client,
5 is that correct?

6 MR. CAMPBELL: That's correct.

7 Q (By Mr. Germeraad) Now, is Mr. Smithpeter's diversion
8 a direct diversion from the Lower Chamokane?

9 A It is a direct diversion.

10 Q And what, in CFS, is that diversion; how many CFS is
11 that diversion?

12 A Roughly two.

13 Q Is it listed on Plaintiff's Exhibit 14 as two and a-half?

14 A Two and a-half; all right.

15 Q If the summer flow of Lower Chamokane were taken to
16 be 30 CFS, and we were to remove 2.5 CFS, we would be
17 taking out one-twelfth, would we not?

18 A That would be correct.

19 Q That would be approximately eight percent of the total
20 summer flow?

21 A That would be correct.

22 Q And, of course, if it were a flow of 25 CFS, he would
23 be taking 10 percent of the summer flow?

24 A That is correct.

25 Q Mr. Cerutti asked you questions about whether water

1 could flow to the east from Mr. Seagle's well. I'm
2 going to ask you, in the past four years, have you
3 found the water traveling in that direction, or have
4 you found, in fact, the water to travel in another
5 direction?
6 A In our, all of our wells, we have found a general trend,
7 by slope, south and southwesterly to where they break
8 at the Massive Springs area.
9 MR. GERMERAAD: I have no further questions, Your
10 Honor.
11 THE COURT: You may step down.
12 MR. RUDOLPH: I had just one, Your Honor.
13
14 REDIRECT EXAMINATION
15 BY MR. RUDOLPH:
16 Q Relating to Mr. Rekofke's concern over the computation
17 of the 700, I think maybe we ought to have the record
18 reflect the formula. Does second feet, CFS, times two
19 equal acre feet per day?
20 A That's another rule of thumb. Very close to it.
21 MR. RUDOLPH: All right.
22 MR. CERUTTI: Your Honor, I don't want to prolong
23 these proceedings--
24 THE COURT: Well, counsel, I don't think there
25 has been a thing come in on the last Re-redirect that

1 wasn't already in the record, or it was purely
2 argumentative after the record's made. Now, if you
3 have a question that you think needs to be cleared up,
4 I will let you proceed, but the Court observed that
5 there has been nothing new added in the last round
6 here.

7 MR. CERUTTI: It is just one question.

8
9 RECROSS-EXAMINATION

10 BY MR. CERUTTI:

11 Q Mr. Woodward, I didn't, I wasn't sure I understood
12 your answer to the question as to the direction the
13 water flows under the Seagle property. I believe you
14 told me earlier that you didn't know. Have you changed
15 that opinion now?

16 A You're talking over behind that one hill there? I
17 don't know. If you're talking now if there's three or
18 four wells generally east, pretty much in line with
19 the way they flow, they're along the highway, south
20 and southwesterly.

21 MR. CERUTTI: Thank you, Your Honor.

22 THE COURT: You may step down.

1 JAMES H. STEVENS, recalled as a witness on
2 behalf of the defendant, having
3 been previously sworn, testified
4 as follows:
5

6 THE COURT: You were previously sworn, Mr. Stevens,
7 and you are still under oath.
8

9 DIRECT EXAMINATION

10 BY MR. DELLWO:

11 Q Mr. Stevens, as superintendent and chief administrative
12 officer of the B.I.A. at the Spokane Agency, do you
13 know whether there was any difference in the management,
14 administration and the crediting of revenues from the
15 property that had been opened for homestead but had not
16 been homesteaded prior to 1958 as compared with general
17 tribal lands that have not been opened to homesteads?

18 A The lands that were declared excess--

19 MR. TORVE: I believe the question was, "does he
20 know", and I think he can answer that yes or no.

21 A Yes.

22 Q (By Mr. Dellwo) Would you answer what difference, if
23 any, there was, as compared to, comparing it to other
24 tribal lands?

25 A There was no difference.

1 MR. TORVE: Your Honor, I would impose my
2 objection that it would be hearsay and I don't believe
3 there was any foundation as to what records he inspected
4 or how he got his information. As far as this witness
5 is concerned, he's been there since 1972, and therefore
6 anything that he has of his own knowledge is merely
7 from 1972 on.

8 THE COURT: Counsel, didn't this man previously
9 testify he was the one in charge of the agency and
10 he's in charge of all of the records of the agency?
11 If he doesn't know what they said, that's up to the
12 witness, but I think if he knows, he can testify.
13 He's the custodian of all of the records, he testified
14 yesterday.

15 MR. TORVE: It's not clear to me that he's
16 testifying from any records he's personally observed.

17 THE COURT: We'll find out. I'll overrule the
18 objection for now.

19 Q (By Mr. Dellwo) Would you answer the question?

20 A Would you repeat the question, please.

21 Q Whether there was any difference. I think the question
22 specifically would be this, how was that land adminis-
23 tered, and managed, and income from it collected and
24 credited, as compared to tribal, other tribal lands?

25 A It was administered in exactly the same manner, and

1 the income derived from this land was credited to the
2 Tribe's account, just as though it was tribal land.

3 Q And in answering that question, are you utilizing not
4 only knowledge as to the Spokane Reservation, but as
5 to other reservations for beneficiaries of this or
6 similar land-restoration acts?

7 A I'm aware it was done the same way on other reservations,
8 but I did specifically check this out on the Spokane
9 Reservation.

10 MR. DELLWO: That's all.

11 THE COURT: Anybody desire to cross-examine the
12 witness?

13 MR. : I do have some questions,
14 Your Honor, but I--

15 THE COURT: Well,-- Mr. Dufford?

16 MR. DUFFORD: None.

17

18 CROSS-EXAMINATION

19 BY MR. :

20 Q Mr. Stevens, what records did you examine to determine
21 this, do you know?

22 A I did exactly as I have done on many other occasions,
23 sir. I asked one of my staff to examine the records,
24 to inform me completely and in detail if this were so,
25 and this was done by conference, and I did not personally

1 pick up any particular piece of paper and look at it
2 and read it to see if it was done; I have to rely on
3 the opinion and the information I receive from people
4 who are experts in their field.

5 Q Do you know what records were available to make this
6 determination?

7 A No, sir, I do not.

8 MR. TORVE: Your Honor, I would move to strike
9 his testimony as being hearsay.

10 THE COURT: Denied. Anything further?

11 MR. DELLWO: That's all.

12 THE COURT: Mr. Campbell?

13 MR. CAMPBELL: No, Your Honor.

14 THE COURT: Mr. Cerutti?

15 MR. CERUTTI: No, Your Honor.

16 THE COURT: Mr. Rekofke?

17 MR. REKOFKE: No.

18 THE COURT: You may step down, Mr. Stevens.

19 MR. GERMERAAD: Your Honor, except for the
20 documents which we have referred to several places in
21 this trial that will later supplement the record in
22 some way, the plaintiff rests.

23 MR. RUDOLPH: As does Plaintiff Tribe.

24 THE COURT: Does the defense have any idea how
25 long the defense testimony will take? I'm trying to

1 gauge what we do tomorrow here.

2 MR. DUFFORD: Your Honor, the Department of Ecology
3 will have one witness. I don't anticipate the Direct
4 Examination from that witness will take more than an
5 hour, from us.

6 THE COURT: Department of Natural Resources, are
7 you--

8 MR. TORVE: Yes, we have one witness. Depending
9 upon the amount of records we might be able to stipu-
10 late to, it shouldn't take very long; not more than
11 a half hour-- Not even that.

12 THE COURT: Mr. Campbell?

13 MR. CAMPBELL: As I indicated earlier, Your
14 Honor, Defendant Smithpeter will not take the stand.

15 THE COURT: Mr. Rekofke?

16 MR. REKOFKE: We will have one witness.

17 THE COURT: Mr. Cerutti?

18 MR. CERUTTI: Mr. Seagle will testify, Your Honor.
19 I wouldn't anticipate it will take over a half an hour.

20 THE COURT: I'm just trying to test how early to
21 start in the morning. There is no use starting the
22 defense testimony this late today, so we will, so I
23 think we will recess until 9:30 tomorrow morning.

24 THE BAILIFF: All rise. Court stands adjourned.

25

1 Hon. Marshall A. Neill, Judge
2 Spokane, Washington
3 Wednesday
4 March 20, 1974
5 11:15 A.M.

6 (Approximately one hour of tape
7 time not recorded and unable
8 to transcribe, including
9 Attorneys Tracy, Torve and
10 Rekofke's oral motion to
11 dismiss under Rule 41B, argued
12 and ordered reserved ruling at
13 this time, followed by
14 defendant's witness sworn,
15 George Edward Maddox, with
16 testimony under way:)

17 . . .

18 Q (By Mr.) All right, Dr. Maddox, could you
19 briefly explain to us the difference between the
20 application, permit and certificate under State procedure?

21 A An application is a document submitted by any person
22 wishing to appropriate waters of the State of
23 Washington. It's a form provided by the State. When
24 the Department receives the application, it's given a
25 number.

1 Q What significance does that have with respect to
2 priority dates?

3 A As required by law, when the Department receives the
4 application, the time of receipt of that application
5 is noted down to the minute, and this establishes the
6 date of priority of that right, should that right be
7 perfected.

8 Q And what kind of information is included in the
9 application?

10 A The name and address of the applicant, the source of
11 the water he wishes to obtain, that is, the stream,
12 in case of surface water; if it's granted in terms of
13 ground water, it just says, ground water, unless it's
14 within a defined ground water sub-area, it will describe
15 the point of diversion, and it will describe the land
16 on which the water is to be used, and the purpose for
17 which the water is to be used. Generally, this is--
18 And it will also describe the rate of withdrawal,
19 proposed rate of withdrawal and the volume of with-
20 drawal and the time which such withdrawal will be in
21 effect.

22 Q And what about the permit?

23 A And after the application is received by the State, it
24 is processed, and eventually a permit issues to the
25 person, with the same information contained on it, that

1 is, in the application. Now, there may be some change
2 in the, both the rate of withdrawal and the volume of
3 withdrawal between the time of the application and the
4 permit, when these changes are made in the best
5 judgment of the Department.

6 Q Would those figures ever be more than what the
7 applicant asked for?

8 A They could be, but generally they're less than asked
9 for by the applicant.

10 Q And what does the permit entitle the permittee to do?

11 A It allows the permittee to withdraw a certain volume of
12 water at a certain rate, and to put that water in use.
13 In other words, that is a document which enables him
14 to begin his actual withdrawal. The application does
15 not entitle him to anything until it goes to a permit
16 state.

17 Q Well, let's move on to the certificate; what is that?

18 A The certificate is the final document which confirms
19 the right as being a property right; that is, he has
20 fulfilled the requirements of the permit and has
21 indeed placed the water in beneficial use and has
22 perfected, what we say, a "right" to this water.

23 Q As against the State, then, is it your understanding
24 that the permit is not, in fact, the conferral of a
25 water right?

1 A That is correct.

2 Q With respect to permits, or certificates, are there any,
3 within those documents, are there any limitations
4 normally placed on what the permittee or certificate
5 holder can do?

6 A Yes, there are.

7 Q Is it common to limit the use of water to a specific
8 season?

9 A That's correct.

10 Q What would that season be?

11 A It depends on the irrigation season and the type of
12 crops that the permittee wishes to grow.

13 Q What about if we're talking about a permit to use water
14 for the growing of crops; is there normally a limita-
15 tion to the irrigation season?

16 A That's correct.

17 Q And what about the withdrawal rate; is that referred
18 to in those documents?

19 A Yes, it is. There is a maximum rate of withdrawal
20 noted on the document.

21 Q How is that expressed?

22 A It's generally expressed with the words, "maximum of",
23 and then a number is given of cubic feet per second,
24 or gallons per minute, in the case of a ground water
25 withdrawal.

1 Q Okay. And is there an additional limitation, above and
2 beyond the rate of withdrawal, placed on the volume of
3 water?

4 A Yes, there is.

5 Q How is that expressed?

6 A That is expressed in acre feet per year, and again is
7 expressed as a maximum of, and a number of whatever it
8 might be, and acre feet per year.

9 Q In the case of a particular, or any permit, does the
10 rate of withdrawal, if multiplied out over the entire
11 season where it uses permits, would that normally give
12 you a larger figure than if you converted it to acre
13 feet than the acre footage limitation?

14 A Yes, it would.

15 Q What is a report of examination?

16 A In the processing of an application, the sequence of
17 processing is that the application received in the
18 Department, as I testified earlier, the date of
19 priority is noted, and then we prepare a notice by
20 publication, and this is sent to the applicant with
21 instructions to publish it once a week for two
22 consecutive weeks, and in a newspaper of general
23 circulation in the county or counties in which he
24 intends to divert and use that water.

25 Q What kind of information does that contain?

1 A It contains essentially the same information that is
2 in the application, that is, rates, maximum rates,
3 maximum volume of the withdrawal, the source of the
4 water, the lands upon which the water will be used,
5 and the purpose to which the water will be used.
6 Q And that information is taken from an application?
7 A Yes, it is.
8 Q And is any permit ever issued until the publication
9 requirements are fulfilled?
10 A No, it is not.
11 Q Okay. Getting back, again, to the report of examina-
12 tion, what exactly is that document?
13 A After the notice is prepared and sent to the applicant,
14 we also prepare what is called a "field package"; we
15 duplicate all documents relative to the application,
16 and in addition, we prepare copies of a map and send
17 this to a water master, who is our field representative.
18 This water master then goes out to the applicant's
19 place that he intends to use the water, and he looks
20 to see what waters are available, and the intended use,
21 to see if it's at all reasonable, and he comes back and
22 prepares a report of examination, which becomes our
23 file.
24 Q And then what kind of information does he deal with in
25 the report of examination?

1 A Generally speaks to, say, that the use is practical,
2 and any information, so far as flows, in the case of
3 surface streams, or other diversions of ground water
4 in the near vicinity, if he has any information he's
5 developed on tests of ground water bodies, this is
6 usually included in the report of examination. Any
7 indication that the irrigation season might be
8 different from that required by the applicant would
9 be included in the report of examination. If there
10 has been a protest to the application received by the
11 Department after the publication, he usually speaks to
12 this protest and the validity of this protest, and
13 this is all included in his report of examination.

14 Q Perhaps you could expand a little bit on this matter
15 of protest?

16 A After the application is published for two consecutive
17 weeks, we have a 30-day waiting period in which any
18 interested party can file a protest with the Department
19 of Ecology upon payment of a fee. This protest could
20 be very simple, just saying, I protest the proposed,
21 or the application submitted by, and the applicant's
22 name, or it can be quite elaborate, where they will
23 go into a great deal of information on why they think
24 that. And then, when we receive the protest, we treat
25 the application in a different manner than we might

1 ordinarily, in that we do a much more extensive field
2 examination on the application to attempt to determine
3 the validity of the protests.

4 MR. : Could Dr. Maddox be provided
5 with Plaintiff's Exhibits 86 and 87? I think those
6 are the Smithpeter and Newhouse Files.

7 Q (By Mr.) Looking first at Mr. Newhouse's
8 file, I believe that's 86, is that correct?

9 A That's correct.

10 Q Could you locate the report of examination there?

11 A (Does so.) Yes, I've found the report of examination.

12 Q Okay, looking over that document, does it reflect that
13 any protest was filed by the Spokane Tribe?

14 A None filed as being from the Spokane Tribe. Several
15 individuals have filed protests.

16 Q Okay, would you now please locate the same document
17 in Mr. Smithpeter's file?

18 A That's Plaintiff's Exhibit 87. Yes, I've found the
19 report of examination.

20 Q And, again, is there any mention of a protest by the
21 Spokane Tribe?

22 A No, I see none.

23 Q Okay. Now, looking at both of those files, again,
24 could you check and see if there is an affidavit of
25 publication of notice in each of them?

1 A On the Smithpeter File, that's 87, there is an affi-
2 davit of publication in the Statesman Examiner, dated
3 May 3, 1969.

4 Q Okay; would you do the same thing for the Newhouse
5 File?

6 A Yes, I've found a report of examination in the Newhouse
7 File.

8 Q I'm talking about the affidavit of publication.

9 A Affidavit of publication, I'm sorry, published in the
10 Statesman Examiner, and dated 9 November 1968.

11 MR. : Could I have Exhibit 14, I think
12 it's the one that shows the affirmance of certificates
13 issued by the State.

14 THE CLERK OF THE COURT: Plaintiff's?

15 MR. : It's plaintiff's. Would you
16 give that to the witness?

17 (Bailiff does so.)

18 Q (By Mr.) Dr. Maddox, have you had an
19 opportunity to review the permits and certificates
20 issued by the State in the Chamokane drainage?

21 A Yes.

22 Q And can you tell me, since this lawsuit was initiated,
23 have any permits or certificates been issued?

24 A No, they have not.

25 Q What is the most recent permit issued by the State in

1 the Chamokane drainage?

2 A May I refer to my notes?

3 Q Yes.

4 A The last permit was issued March 28th, 1969, but I

5 don't have the number of that permit.

6 Q Would you refer to Mr. Smithpeter's File and see what

7 is his priority date?

8 A March 28th, 1969.

9 Q Thank you.

10 MR. : Could I please have Exhibit,

11 that's Defendant's 43, Edward A. Franks?

12 Q (By Mr.) Referring you to Exhibit 43, of

13 the defendant, does that file bear a certificate num-

14 ber; does the file itself tell you, give you a

15 certificate number?

16 A (No response.)

17 Q Looking at the brown paper in which it's bound, is

18 there a certificate number?

19 A There are several numbers on here. One is the

20 certificate, and the other is the permit, and the

21 other is the application.

22 Q Does the number 4872 appear?

23 A Yes, it does.

24 Q Now, referring you to Plaintiff's Exhibit 14, would you

25 see if that number is reflected on that exhibit?

1 A 4872, yes, it is.

2 Q And what is the rate of withdrawal expressed there?

3 A On Exhibit 14?

4 Q Yes.

5 A Twenty-nine-hundredths of a CFS.

6 Q Would you then now look in Mr. Frank's file and tell

7 us, with respect to his permit, what rate of with-

8 drawal he was allowed?

9 A Twenty-hundredths of a CFS.

10 Q Thank you. Now, generally, can you tell me how many

11 certificates have been issued by the State in the

12 Chamokane drainage?

13 A Fourteen certificates.

14 Q How many of those relate to surface water?

15 A Twelve.

16 Q And how many, then, to ground water?

17 A Two.

18 Q And how many permits have been issued?

19 A Three.

20 Q That is, permits that have not gone to certificates?

21 A That is correct.

22 Q And how many of those were for ground water?

23 A Two for ground water.

24 Q And how many for surface water?

25 A One.

1 Q Then, the total of permits and certificates for surface
2 water is how many in the Chamokane Basin?
3 A The total of-- Would you repeat the question?
4 Q Yes. Surface water certificates and permits?
5 A It would be 12 certificates and one permit, so that
6 will be 13.
7 Q And how many ground water permits or certificates?
8 A It would be four.
9 Q Okay. What is the total of withdrawal rates under the
10 certificates?
11 A The total of withdrawal rates on certificates? On
12 Exhibit No. 14?
13 Q No, I'm just asking you from your knowledge?
14 A From my notes, 18.71 cubic feet per second.
15 Q And what is the figure when you subtract; well, let
16 me correct there, is there a certificate issued for
17 10 cubic feet per second?
18 A Yes, there is.
19 Q And is it your understanding that represents the
20 Hatchery's permit?
21 A That is correct.
22 Q Would you denominate that as a non-consumptive use?
23 A Yes, I would.
24 Q In terms of consumptive use, what is the total
25 withdrawal rate for all the certificates, the date of

1 issue?

2 A 8.71 Cubic feet per second.

3 Q And what about the total consumptive use under the

4 permits?

5 A From my notes, 5.94 cubic feet per second.

6 Q Do you have a figure for what the total consumptive

7 use has been allowed under either permits or certifi-

8 cates in the Chamokane Basin, would be?

9 A It would be the addition of 8.71 plus 5.94. I total

10 that to be 14.65.

11 Q And in your experience in this field, both as a referee

12 and now as manager of the permit and certificate pro-

13 gram, Eastern Washington, can you make a comparison

14 between the level of appropriation on Chamokane Creek

15 and other comparable streams in Eastern Washington?

16 A It's much smaller on Chamokane Creek than other,

17 comparable streams.

18 Q Are you aware of any diversions or withdrawals being

19 carried out in the Chamokane Basin which are not

20 reflected on current certificates issued by the State?

21 A No, I'm not.

22 Q Referring you now to Mr. Smithpeter's permit entitle-

23 ment, are you aware of any limitations placed on his

24 use of water which are above and beyond those general

25 limitations that you testified to earlier that are

1 placed on most of them?

2 A May I refer to his file?

3 Q Yes.

4 A It's Plaintiff's Exhibit No. 87. There is what we

5 refer to as a "low-flow proviso" in his permit, which

6 requires all diversions must cease when the flow of

7 the Chamokane falls to 20.0 feet per second as

8 measured immediately below the point of diversion.

9 Q Thank you. Have you had an opportunity to read and

10 review the report of Mr. Woodward filed in this court,

11 Exhibit 3-6-74-29-- That's his final report.

12 A Yes.

13 Q Have you been present in the court during Mr. Woodward's

14 testimony?

15 A During most of it, yes.

16 Q Have you had any communications with Mr. Woodward prior

17 to coming to court about the nature of his study?

18 A Yes, we met at least twice in his office.

19 Q And has he made data available to you to look at,

20 perhaps not reflected in his report?

21 A No, I think everything he showed me was the original

22 data, and it was combined in his report. There were,

23 we did look at some hydrographs, which Mr. Woodward

24 referred to in his testimony, that I don't believe are

25 shown, as such, in his report, but the data, I believe,

1 from the hydrographs are reflected in the report.

2 Q Have you ever personally visited the Chamokane drainage
3 area?

4 A Yes, I have.

5 Q And, frequently, or once, or how often?

6 A I believe a total of five times.

7 Q And in the course of those visits, have you ever
8 personally conducted or been part of any study of the
9 ground water aquifer in the Chamokane drainage?

10 A Only to the extent that I spent the better part of one
11 day checking the drainage basin boundary near Springdale
12 and to the south and west to see if Sands Creek
13 contributed to the surface water flow in the Chamokane
14 drainage.

15 Q Why did you do that?

16 A These areas are extremely difficult to discern on a
17 topographical map, to discern which way the drainage
18 boundary was lying, and I felt that some field work
19 might be helpful in making this determination.

20 Q What you did, was that information supplied to Mr.
21 Woodward; did you communicate with him in any way about
22 that?

23 A Not directly to Mr. Woodward. I made available to Mr.
24 Rudolph and to Rege (phonetic) Touley (phonetic) from
25 the Spokane Tribe. I believe Mr. Woodward did have

1 access from them.

2 Q Have you had an opportunity to evaluate the data and
3 information which was presented by Mr. Woodward in
4 his report on the drainage?

5 A I have.

6 Q On the basis of Mr. Woodward's data, bearing on the
7 question of direction of flow of the ground water in
8 Chamokane, have you analyzed the ground water flow
9 direction?

10 A I have.

11 Q Can you describe briefly, from the information you
12 used, or can you describe the information you used
13 from his report and the kind of analysis you made?

14 MR. GERMERAAD: Your Honor, before the witness
15 is allowed to answer that question, I would make my
16 objection on the basis that any analysis or studies
17 that were to be made and presented at this trial were
18 directed, under last fall's pretrial conference, and
19 January 15th's pretrial conference, to be filed with
20 the Court no later than February 15 by any parties that
21 were involved, and we just had testimony that he did
22 make such an analysis, or something, and I don't
23 believe anything has been filed, Your Honor.

24 MR. : Your Honor, with respect
25 to what Mr. Germeraad has said, it was the understanding

1 of all parties, I think, that no one else was going to
2 do a detailed study of the Chamokane drainage. How-
3 ever, I don't think at any time we ever said that that
4 would preclude us, or should preclude us from having
5 someone who had expertise in the field look at the work
6 Mr. Woodward had done and comment on the conclusions
7 he'd drawn.

8 THE COURT: I will overrule the objection. Just
9 as well get this in.

10 Q (By Mr.) Can you describe briefly the
11 information you used in making your analysis of the
12 direction of ground water flow?

13 A First I used one of Mr. Woodward's maps as a basis for
14 my analysis. Second, I used some tabulations he has
15 of both the altitude of the surface ground water table,
16 and the altitude of the surface water at various points
17 along Chamokane Creek in making my analysis, and
18 lastly, I used a table he has in his report which shows
19 the depth of wells within the Spokane Indian
20 Reservation, and the type of material in which the well
21 is drilled, and any testing that he had pertaining to
22 any particular well.

23 Q And you confined your analysis strictly to the informa-
24 tion, then, that Mr. Woodward had derived?

25 A That is correct.

1 Q And what kind of an analysis did you make?

2 A I constructed a ground water contour map, which is a
3 map that shows the altitude of the top of the water
4 table within the Chamokane drainage basin, and at such
5 other points as I had control for.

6 Q And how does this relate to the direction of flow of
7 the ground water?

8 A If I can refer to my notes-- My analysis indicates
9 that the ground water flowing towards the springs, so
10 far as the information will allow me to determine, flows
11 from the northwest towards the southeast before turning--

12 MR. RUDOLPH: Aren't we in an area now, excuse me,
13 aren't we in an area now in which the State is fore-
14 closed from proceeding with this examination?

15 THE COURT: I don't think it's limited on the
16 direction of ground flow. You talked about it in your
17 limitation of the character of the--

18 A It's east.

19 MR. RUDOLPH: We do have, relating to the direc-
20 tion towards the springs or not towards the springs,
21 which I thought related to the effect on the admission
22 that there was no, the admission in the Answers that
23 they conceded that the ground water withdrawals did
24 affect the surface water flows. Now, I realize that
25 becomes a little difficult at this point to--

1 THE COURT: I will let him inquire.

2 Q (By Mr.) Do you remember where you were?

3 A Let's start over again.

4 The ground water flowing towards the springs,
5 and according to my analysis, flows, as far as the data
6 allows me to determine, from the northwest toward the
7 southeast before turning, before turning due north-
8 south and discharging at the springs, or at least
9 flowing towards the springs, where we know there is
10 some surface water discharged. Farther to the east,
11 the ground water tends to flow from the northwest toward
12 the southeast with no change in the direction of flow
13 towards the north-south direction as would be indicated
14 by the springs.

15 MR. : Could I have that re-read,
16 please, Your Honor, the answer?

17 THE COURT: Perhaps it would be clear to everybody
18 if you would identify the flow in Exhibit 10.

19 Q (By Mr.) Could you do that?

20 THE COURT: I take it from your testimony that
21 you feel there is a change of direction?

22 A That's what I thought.

23 THE COURT: Could you identify on Exhibit 10?

24 A This is the exhibit that is now on the board.

25 My analysis would indicate that the ground

1 water flow would be in this direction, in this
2 particular area, out to about here, and from here on,
3 would tend to flow in this direction, would again,
4 convector, turn north-and-south in the Upper Chamokane.

5 Q Thank you.

6 MR. DELLWO: He said convector north-south, I
7 don't understand what he means.

8 THE COURT: North-to-south?

9 A North-to-south.

10 Q (By Mr.) Is there a term for the kind of
11 analysis you performed?

12 A For the kind of analysis I performed, yes, a flow-^{net}~~knit~~
13 (~~phonetic~~) analysis.

14 Q And in hydrology, is this an accepted method of
15 analysis?

16 A Yes, it is.

17 Q All right, now, coming to some specifics, can you
18 relate the analysis you made specifically to the
19 Newhouse Well?

20 A Yes. My analysis would indicate that pumping at the
21 Newhouse Well--

22 MR. GERMERAD: Excuse me, I'm not going to make
23 frequent objections, but if he's testifying on the
24 basis of flow-net, which was not an exhibit, which
25 was not entered in evidence, I would like a standing

1 objection to any testimony coming from that, too,
2 Your Honor. He's constructing an exhibit, he's talk-
3 ing about what this exhibit shows, and I don't believe
4 this exhibit has ever been filed, and so I want a
5 standing objection to it.

6 THE COURT: Is there a proposed exhibit, counsel?

7 MR. : Your Honor, I thought the
8 witness could describe what he did and what he found,
9 and we do have a pictorial representation which we
10 would be happy to put in the record.

11 THE COURT: You may proceed.

12 A My analysis indicates that pumping from Mr. Newhouse's
13 well, would probably not affect the springs. It would,
14 however, show up in Mr. Woodward's Well No. 112, which
15 I believe he refers to as the "Hill Well". The point
16 at which Mr. Newhouse's well is located, according to
17 my analysis, the ground water would be leaving the
18 Spokane Indian Reservation and would be moving to the
19 south and east, although Mr. Newhouse, by pumping his
20 well, a cone of depression would be created that would
21 move across the boundary onto the Indian Reservation.
22 This is a natural consequence of pumping any well.

23 I did an additional analysis based on some
24 assumptions which I derived from Mr. Woodward's report.

25 Q (By Mr.) Now, excuse me, are you talking

1 about something different than your flow-net analysis
2 now?

3 A Yes.

4 Q All right, explain what that is about?

5 A Using the information in Mr. Woodward's report as to
6 the type of rocks penetrated by these various wells
7 there, I concluded that, primarily, most of the water
8 was used by sand and gravel, and I made an assumption
9 that sand and gravel was known as a coefficient of
10 transmissivity of 100,000 gallons per day per foot;
11 coefficient of transmissivity is related to the
12 ability of the rock body to the transmission of water.

13 This assumption is one that is often used
14 by hydrologists, ground water hydrologists in parti-
15 cular, in analyzing any system, and I felt it was
16 valid in light of no information to the contrary.

17 When I used this assumption of coefficient
18 of transmissivity of 100,000 gallons per day per foot,
19 and I made a--

20 MR. RUDOLPH: Your Honor, I think I would have to
21 object to him testifying on this assumption. We have
22 facts here, and I think his testimony is related to
23 what he studied, and for him to bring in assumptions,
24 that leads us noplacement.

25 THE COURT: Well, I understood his testimony to

1 be, and I'll stand corrected, that this is the assump-
2 tion that the experts in the field commonly use.

3 Am I correct in that?

4 A That is correct, Your Honor.

5 THE COURT: You may continue.

6 A I made an additional assumption that the coefficient
7 of storage was 12 percent; coefficient of storage
8 relates to the ability of water, of rock to hold and
9 store water until it finally drains out under the
10 influence of gravity. This, again, is a common
11 assumption, although I couldn't say 12 percent was a
12 unique one for sand and gravel, it would range from
13 as low as eight, to as high as 20, and so I tried to
14 pick some middle ground that would seem to be
15 reasonable, and using these assumptions, and a basic
16 ground water equation known as the "Thiess", T-H-I-E-S-S,
17 which equation is set forth in a book entitled, Ground
18 Water and Wells, published by the Johnson, uh, Edward
19 E. Johnson, Incorporated, St. Paul, Minnesota.

20 Q Is the Thiess Equation one that is commonly used?

21 A Yes, it is.

22 Q All right.

23 A I determined that the influence of Mr. Newhouse's
24 pumping his well at a rate of 1500 gallons per minute
25 for a period of 180 days, would create a draw-down of

1 0.01 feet at a distance of 1,130 feet from the center
2 of Mr. Newhouse's well. The reason I made the assump-
3 tion of a draw-down of 0.01 feet is that in my
4 experience, that's about the smallest draw-down you
5 can accurately measure in the field.

6 To check my assumption on the transmissivity
7 of 100,000, I decreased transmissivity to 50,000, or
8 by one-half, and repeated the calculations, and found
9 that the draw-down, a draw-down of 0.01 feet would
10 occur at a distance of 1,128 feet from the center of
11 Mr. Newhouse's well; essentially the same difference.

12 Q What is all that?

13 A This would indicate, and in accordance with the maps,
14 that Mr. Newhouse's well is approximately a mile and
15 a-half to two miles from the springs, and a distance
16 of 1100 feet would be somewhere near a fifth of a
17 mile that the cone of depression caused by pumping
18 Mr. Newhouse's well would never influence the springs.

19 Q Okay. What about the, uh, getting back to your flow-
20 net analysis and the wells of Mr. Seagle; on the basis
21 of that analysis, do you have an opinion on the effect
22 of Mr. Seagle's pumping on the water in the springs?

23 A Yes. Although I didn't go into the computation of Mr.
24 Seagle's well as I did with Mr. Newhouse's well, based
25 on the same assumptions, Mr. Seagle's well would have

1 little, if any, influence on the springs, although Mr.
2 Seagle's well is approximately a mile away from the
3 springs, and under certain flow conditions, after a
4 period of extremely dry years, Mr. Seagle's well might
5 have some influence on the springs.

6 Q And in your view, what is the direction of ground water
7 flow in the neighborhood of the Seagle Well?

8 A Generally from the northwest to the southeast, although
9 Mr. Seagle's well is located in an area of transition
10 from where the ground water flows change from northwest
11 to southeast to north-south to discharge at the springs
12 to where they discontinue to flow from northwest to
13 southeast, but I felt, generally, where his well is
14 located, that the general flow pattern would be from
15 northwest to southeast.

16 Q Well, on the basis of your analysis of the direction
17 of flow, does the water picked up by those two pumping
18 projects, Seagle and Newhouse, were they not pumping,
19 end up in the springs?

20 A I feel it would not, to this extent, that undoubtedly
21 there is some water moving along the subsurface in the
22 channel of Chamokane Creek which will eventually
23 percolate down to the water table, which is some
24 distance below the bed of Chamokane Creek; however, the
25 amount of water that this might be would be extremely

1 small and would be impossible, with the information at
2 hand, it may be impossible, as a practical matter, to
3 determine how much of that water would be influenced;
4 otherwise, the pumping of Mr. Seagle's and Mr.
5 Newhouse's wells would not bother either the flow in
6 Chamokane Creek or the flow at the springs, for all
7 practical purposes.

8 Q Okay. Referring you now to your recollection of the
9 U.S.G.S. gauge reading station at the station below
10 the waterfall in Mr. Woodward's report, there has been
11 testimony to the effect that the fluctuation during a
12 given day, attributable to evapotranspiration, might
13 be as much as three CFS, and with that in mind, and on
14 the basis of your expertise, can you render an opinion
15 with respect to the effect of Mr. Smithpeter's
16 withdrawal on the reading at that gauge?

17 A Well, it would depend upon how Mr. Smithpeter withdrew
18 the water. If he withdrew the water as the hydrograph
19 arises, er, the stream flow arising, due to the change
20 of the stream flow as a result of diurnal temperature
21 values, in other words, there was less evapotranspora-
22 tion because the stream flow was coming up, then his
23 pumping, so long as he didn't exceed the minimum level
24 of the stream flow, as a result of the evapotranspora-
25 tion loss, would have essentially no effect on the

1 gauge, it would be lost in the accuracy of the gauge
2 reading.

3 Q This is if he was pumping within the evapotranspiration
4 area, a fluctuation, essentially, pumping off the
5 peaks, not pumping during the valley?

6 A That is correct.

7 MR. : I have no further questions
8 of the witness.

9 THE COURT: Mr. Torve?

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DIRECT EXAMINATION

12

BY MR. TORVE:

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Q I believe on the board, and I don't see it now, but
there were a number of figures of 8,000 effective
ground water rate from the Camas Prairie; 700 CFS
from the surface flow down Chamokane Creek; and so
much effective ground water from other areas. Is
there any known formula in which you could, from the
runoff data, determine, under the circumstances here,
how much might be going into ground water, as opposed
to surface stream runoff; do you know of any scientific
formula in that?

A No scientific formula; there are some empirical
equations for each given watershed, that after you have
made compilations for a long period of time, you can

1 make some broad predictions about how much would go
2 into ground water, but there is no pat scientific
3 formula that would indicate this.

4 Q Let me ask you this, is the, would the use of lands
5 within the watershed for stock-raising and domestic
6 utilization have any measurable effect on the stream
7 flow of the Chamokane Creek?

8 A In my opinion, it would not.

9 Q In some of the exhibits, it indicates, by the Newhouse
10 Well, that the bed of the stream lies considerably at
11 a higher elevation than the water level, the ground
12 water, static ground water level. Is that correct,
13 from your analysis of the document?

14 A That is correct, from my analysis of Mr. Woodward's
15 data.

16 Q Assuming that water from the Camas Prairie is related
17 solely to the surface stream runoff, could you explain
18 how that stream runoff gets, then, down into the ground
19 water aquifer, within the Walker's Prairie area?

20 A In my opinion, and the flow-down analysis would probably
21 indicate that the surface water that would come down
22 Chamokane Creek, and I would have to limit this to Mr.
23 Woodward's collection data, which indicated, I believe,
24 700 acre feet per year, came past a weir that he had
25 at the upper end of the Indian Reservation someplace.

1 This amount of water, when it got down to the area of
2 the Chamokane Creek, which was perched above the water
3 table, would percolate into the underflow of Chamokane
4 Creek and gradually percolate down until it intercepted
5 the water table, at which time it would serve as a
6 recharge. There is some indication that there is
7 recharge in this area, although the data is insufficient
8 to lead to any hard conclusions about this.

9 Q Let me ask you this, is there enough data shown by
10 the testimony and the reports of Mr. Woodward to make
11 any assumptions as to ability to regulate ground water
12 withdrawals and effectively regulate the flow of the
13 stream?

14 A I don't believe there is a sufficient volume of data.
15 You could make many assumptions, but there isn't enough
16 data with the information at hand to make any hard-and-
17 fast conclusion to this effect.

18 Q Let me ask you this, there's been several extrapolations
19 or interpretations of possible flows of Chamokane Creek
20 during the 1930's to the present date. Are you
21 acquainted with the testimony on that point?

22 A Broadly so.

23 Q From the data that is presently available that you
24 know about, both from the testimony and the study,
25 could you, with any accuracy, predict, or have predicted

1 what the flow of Chamokane Creek in the lower regions
2 might have been in the period of the 1930's to the
3 present?

4 A Using the period of records that Mr. Woodward has, I
5 believe that is 1971, '72 and '73, I would have to
6 conclude that for any period of time, the flow in
7 Chamokane Creek during the non-runoff time of year,
8 runoff being a result of snow melting, or precipitation,
9 would be in the vicinity of 20 to 25 CFS.

10 Q By the way, would the accumulation of water from the
11 Massive Springs area into ponds at Galbraith Springs
12 and the fish hatchery ponds, have a tendency to raise
13 the temperature of those waters before they're released
14 into Chamokane Creek above, over and above the amount
15 of temperature as they come out from the actual springs
16 themselves?

17 A In my opinion, it would raise the temperature.

18 MR. GERMERAAD: Would you read that question,
19 please?

20 THE COURT: Would you read the question?
21 (Question read back by the Court Reporter.)

22 MR. TORVE: That question sounded awkward, Your
23 Honor, and I move to strike it and merely ask him
24 the question--

25 Q (By Mr. Torve) Would the ponding of water from the

1 springs at Galbraith and the Fish Hatchery raise the,
2 have a tendency to raise the water temperature?
3 A In my opinion, it would.
4 MR. TORVE: If I may, approach Exhibit 10.
5 Q (By Mr. Torve) There are a number of springs which
6 appear to enter into the Chamokane stream easterly
7 from the east watersheds of Chamokane Basin, directly
8 on a level with the Massive Springs area; would you
9 have an opinion one way or other whether or not the
10 flow of those streams are related to the outflow of
11 the Massive Springs area?
12 A My analysis, although the information is incomplete,
13 my analysis indicated only one of those streams that
14 flowed from the east to the west, toward Chamokane
15 Creek, would have some contribution to the flow in
16 Chamokane Creek. I don't know if it affects the flow
17 in the springs, but I believe it does affect the flow
18 in Chamokane Creek, and that would be the drainage
19 which passes through Sections 20 and 21 and 22, of
20 Township 28 North, Range 40 E.W.M.
21 Q Now, that section was, that's 20, 21 and 22?
22 A Yes, 20, 21 and 22.
23 Q Okay.
24 A It's the one just south of Mr., Ground Water Certificate
25 No. 4891A, I have forgotten the name of the person who

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owns it.

THE COURT: Counsel, let's take our luncheon recess at this time.

We will be in recess until 1:30.

(The noon recess taken at this time.)

1 Hon. Marshall A. Neill, Judge
2 Spokane, Washington
3 Wednesday
4 March 20, 1974
5 1:30 P.M.

6 DIRECT EXAMINATION, Continuing:

7 BY MR. TORVE:

8 Q Have you conducted studies on the capture rate of
9 irrigation waters to ground water supplies?

10 A Yes, I have, but not in this state.

11 Q Have you made studies with regard to reel and sprinkler
12 irrigation?

13 A Yes, I have.

14 Q Is there a recapture of waters used in reel irrigation?

15 A Yes, there is.

16 Q Is there a recapture of waters to ground water supply
17 in sprinkler irrigation?

18 A Yes, there is.

19 Q Can you tell us, in your opinion, or experience, what
20 the ranges might be in both of those categories?

21 A First let me say that my experimental work was done
22 on the Yuma-Mesa in Arizona, which has a light, sandy
23 soil. Return flow from reel irrigation, on the
24 experimental work that I did there, varies between 15
25 and 25 percent. On the same soil, sprinkler application
varied between five and 12 percent.

1 Q In making those studies, what kind of assumptions did
2 you make about the, or what kind of activities were
3 made on the utilization of the equipment itself; was
4 it a use under expert conditions, or non-expert
5 conditions?

6 MR. RUDOLPH: Your Honor, aren't we interested in
7 what went on, what goes on out at the Chamokane, and
8 not in Mexico?

9 THE COURT: Well, yes.

10 Q (By Mr. Torve) Let me ask you this question, Dr.
11 Maddox, is that study relevant to the recapture of
12 both reel and irrigation waters in the Chamokane Basin?

13 MR. RUDOLPH: Well, Your Honor, that is a legal
14 conclusion. He can hardly ask the witness that.

15 THE COURT: Well, that's not a legal conclusion.

16 MR. TORVE: That's not a legal conclusion.

17 THE COURT: If he is an expert, he can answer, if
18 he can, if he will.

19 Q (By Mr. Torve) From a factual standpoint, would the
20 study be relevant?

21 A I believe it would, yes.

22 MR. TORVE: I think that's all the questions I
23 have.

24 THE COURT: Mr. Campbell?

25

1

DIRECT EXAMINATION

2 BY MR. CAMPBELL:

3 Q Dr. Maddox, you heard most of the testimony presented
4 by Mr. Woodward, did you not?

5 A I did.

6 Q And you looked at the exhibits concerning water flow and
7 precip. analysis, have you not?

8 A I have.

9 Q In viewing his testimony, and the exhibits, what do
10 you feel has the most effect on the ebb and flow of the
11 springs, in the Massive Springs area?

12 A Changes in precipitation, I think, are directly related
13 to the increase or decrease of the discharge of the
14 springs.

15 Q Do you have before you Plaintiff's Exhibits 19, 24 and
16 25?

17 MR. CAMPBELL: 19, I believe, Your Honor, is the
18 one showing the flow from the springs area.

19 Q (By Mr. Campbell) If you don't we'll get them for you,
20 Dr. Maddox.

21 A I don't have them, no.

22 Q 24 and 25 are precipitation record charts. You have
23 previously, at my request, examined these exhibits,
24 have you not?

25 A Yes, I have.

1 Q What analysis do you make of precipitation records,
2 which I believe started in 1931, and come pretty close
3 to date?

4 A Looking at Plaintiff's Exhibit No. 24, the exhibit
5 indicates that between the years 1931 and 1960, the
6 average precipitation was 20.17 inches.

7 Q This is at Wellpinit, Washington, station?

8 A Yes, that is correct.

9 Q What was that average again?

10 A 20.17 inches. Then I presume that the next year, the
11 next column would be 1961. The precipitation is 20.64,
12 and 1962, it decreases to 17.32, and in '63, it
13 increases again to 17.66, and so on, to 1970; then the
14 tabulation gives an average for the period of 1961
15 through 1970, which is 17.82, and is less than the
16 1931-60 average of 21.7 inches. Then the table again
17 gives the average, 1931 to 1970, as being 19.61 inches,
18 which again is less than the average 1931 through 1960,
19 which is 20.17 inches.

20 Q But your conclusion, or the charts show, that the
21 decade of the '60's had two to three inches less preci-
22 pitation each year than the average, is that correct?

23 A Than the average of the 1931 to 1960, that is correct.

24 Q And in the few years we've had in the '70's, it's back
25 up again as an average?

1 A The year 1971, the average precipitation for 1971 is
2 20.01. 1972 is 15.94, 1973 is 10.97. Therefore, I
3 would conclude that the average precipitation during
4 the years 1972 and 1973 is less than the average of
5 the 1931 through 1970.

6 Q Especially '73 is considerably lower, now that you read
7 it?

8 A That is correct.

9 Q I want to go back just a little bit into the geology
10 again. Would you tell me again what an aquifer is?

11 A "Aquifer" is broadly defined as a body of rock which
12 contains water.

13 Q All right, and then you heard Mr. Woodward's analysis
14 of the Chamokane drainage area, as shown on Exhibit
15 10, that it's underlain by a Loon Lake batholith, and
16 bordered on the south by a granitic upsurge, or dike;
17 is that a correct analysis?

18 A I have no field experience by which to evaluate this
19 analysis, going to Mr. Woodward's testimony.

20 Q It sounds all right to you, though, doesn't it?

21 A Sounds reasonable for the area.

22 MR. CAMPBELL: May I approach--

23 Q (By Mr. Campbell) We have up here Defendant's Exhibit
24 No. 10. Do you recall Mr. Woodward's testimony of
25 yesterday when he talked about the granitic upsurge,

1 I kept referring to it as a "dike", he stated that it
2 passed through the falls of the Little Chamokane, and
3 up to the northwest, went to the falls of the
4 Chamokane, and reappeared at Nine Mile, is that
5 correct?

6 A As I remember the testimony.

7 Q And that would give a general trend of that upsurge
8 from northwest to southeast, would it not?

9 A That is correct.

10 Q Referring to the area in the southeast part of the
11 Chamokane drainage area, what is that composed of?

12 A I have no direct knowledge, other than Mr. Woodward's
13 testimony that there are some glacial morainal deposits
14 in the general area. I don't know if that is what is
15 there or not.

16 Q Well, to refresh your recollection, you said you made
17 about five field trips?

18 A That's right.

19 Q Did you go from Reardon through, on the road that
20 goes past Nine Mile, to Ford?

21 A Yes, that is correct.

22 Q What did the area north of the river appear to be to
23 you?

24 A My impression, driving through, there was some sort of
25 a morainal-type deposit.

1 Q What is glacial till?

2 A Glacial till is the rock material found down by the
3 root of the glacier as it moves along its path of travel.

4 Q And what is a glacial moraine composed of?

5 A Glacial moraine is the rock material that's deposited
6 to either side or in front of a glacier. It's the
7 rock that is pushed out to the side, or left, or it
8 can be a trail of rock left upon the melting of a
9 glacier.

10 Q So if this area in the southeast part of the Chamokane
11 drainage basin north of the Spokane River and east of
12 Chamokane Creek is composed of glacial till, or-- It
13 is composed of glacial till and moraine, is it not?

14 A I would presume so, from Mr. Woodward's testimony.

15 Q Now, is glacial till, or glacial moraine, are they
16 permeable to water?

17 A Yes, they will transmit water.

18 Q Do you have any studies, or do you know how much, how
19 much water will they pass? You talked in feet,
20 hundred thousand, or something, to a foot. Do you
21 have any statement as to permeability for the Court?

22 A For glacial material?

23 Q Yes.

24 A Again, it would depend on the glacial material and the
25 amount of rock flour that is intermixed with it, gravel

1 boulders, and sand that is within the moraine material,
2 or glacial outwash. Of course, the more rock flour
3 there is, the more sealing, and this would determine
4 the amount of water that could be transmitted. In
5 general, the opinion of most hydrologists working in
6 the field is that glacial material will not transmit
7 large volumes of water, and by comparison, I use a
8 transmissivity of 100,000 for sands and gravel.
9 Glacial material could have a transmissivity of down
10 around two to 5,000 gallons per day per foot. Now,
11 I'm just throwing some general figures out, by
12 comparison.

13 Q That's what I asked for. Now, then, there would be an
14 outlet for water in the southeast part of that Chamokane
15 drainage area, wouldn't there?

16 A If that was glacial material, I would conclude that
17 there could be water move through it, yes.

18 MR. CAMPBELL: I have no further questions, Your
19 Honor.

20 THE COURT: Mr. Tracy?

21 MR. TRACY: Your Honor, I first would like to
22 mention, if for any reason Mr. Maddox, I don't want to
23 prolong this, but if for any reason Mr. Maddox's
24 testimony as to, previously as to the Newhouse Well
25 and the flow, the direction of flow, is stricken because

1 it was brought up by the Department of Ecology, I would
2 have tried to, I would have elicited the same testimony
3 in my Direct case; therefore, I would just like to
4 adopt his previous, that previous testimony, in case
5 any question arises.

6

7

DIRECT EXAMINATION

8

BY MR. TRACY:

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Q Dr. Maddox, I'd like to direct your attention

10

specifically to the Newhouse, the area where the

11

Newhouse Well is located presently. Is there a definite

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separate, separation of ground and surface water in

13

that area?

14

A Yes, I believe there is.

15

Q And Newhouse is definitely pumping from the ground

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water, isn't that correct?

17

A According to my analysis, I would say he is pumping

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from the ground water, yes.

19

Q Now, you stated that you had a period that you measured

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of 180 days; that was the minimum period in which you

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could get a reading on this cone of depression, isn't

22

that correct?

23

A No, that is not quite correct. I accepted 180 days

24

because that is the normal irrigation season of six

25

months, so that was just an arbitrary selection on my

1 part.

2 Q Well, if the pumping season were less, then the amount
3 of reduction would be less, wouldn't it?

4 A The amount of reduction at 1,100, and 30 feet from the
5 transmissivity of 100,000 storage of 12 percent did not
6 decrease the water table at 1100 feet from Mr.
7 Newhouse's well, it would be less, yes, if the pumping
8 time were less.

9 Q Thank you.

10 MR. TRACY: Could I have Exhibit 32, please, for
11 a moment?

12 THE CLERK: Plaintiff's?

13 MR. TRACY: Yes.

14 Q (By Mr. Tracy) Dr. Maddox, directing your attention
15 to Exhibit 32, do you find that exhibit to be of any
16 help to the Court in determining the reduction in the
17 water that flows through the gaging station?

18 A I couldn't directly answer that question, as it's put.

19 Q Well, doesn't the reduction of that, unless I have the
20 wrong exhibit, doesn't the reduction there show up,
21 in total figures, for example, it's based upon Newhouse
22 pumping 648 acre feet per year?

23 MR. RUDOLPH: Your Honor,--

24 Q (By Mr. Tracy) --isn't that correct?

25 MR. RUDOLPH: Could I object? Just a minute. It

1 sounds like you're cross-examining the witness, and I
2 don't think you're entitled to.

3 THE COURT: You're still on Direct; all defendants
4 are on Direct, so if there is further information you
5 want to elicit on behalf of Mr. Newhouse, that's the
6 purpose here.

7 MR. TRACY: All right, I will withdraw the
8 question.

9 Q (By Mr. Tracy) Well, I would shift gears, again, then,
10 and go back to your flow net. Your flow net would
11 indicate that the water Newhouse is pumping would be
12 lost to the Reservation, isn't that correct?

13 A According to my analysis, that would be correct.

14 MR. RUDOLPH: Same objection, Your Honor.

15 MR. GERMERAAD: First of all, the flow net
16 isn't even in evidence, and now he's talking about it
17 again.

18 THE COURT: He testified concerning what he
19 terms "flow net". There is no such exhibit.

20 Now, what was your question, again?

21 MR. TRACY: Well, whether or not the flow net,
22 the figures he's discerned from the flow net would be
23 lost, the water, his flow net indicates the water would
24 be lost from the Reservation.

25 THE COURT: Well, if he can answer that. I'm not

1 sure it's specific enough, but I'll let him judge that.
2 A My analysis would indicate that the water pumped by Mr.
3 Newhouse has already left the Reservation.

4 Q (By Mr. Tracy) Well, now, that's enough for that.

5 One more question I have is flooding, the
6 effect of flooding. Now, Newhouse pumps from the
7 ground water, correct?

8 A Correct, as I analyze it.

9 Q And any water he takes out, it would be likely that it
10 would be, there would be a recharge during the flooding
11 season?

12 A I would presume this would be the case, yes.

13 Q And, therefore, the net effect of his pumping would
14 really only be to reduce the flooding, would it not?

15 MR. RUDOLPH: Your Honor, this is continual leading
16 and I ask he not do it.

17 THE COURT: Yes, that's a leading question.
18 Rephrase it, counsel.

19 Q (By Mr. Tracy) Well, what would the effect be of Mr.
20 Newhouse's withdrawal; what would the flooding effect
21 be?

22 A Mr. Newhouse, by withdrawing ground water for some
23 period of time, and from my analysis of the information,
24 I assume 180 days, or some lesser period of time, would
25 be to remove a block of water from the ground water body

1 that lies outside of the Indian Reservation, and in
2 the event of flood water runoff, as would occur in the
3 winter and spring of the year, this would provide more
4 room for the flood water to percolate into, so,
5 therefore, the water that he would remove would be
6 replaced by the water that otherwise would flow down
7 the creek during the periods of high runoff.

8 Q And that would be water that would be lost also, would
9 it not?

10 A It would flow down outside the watershed into the
11 Spokane River.

12 MR. TRACY: Thank you. That's all I have.

13 THE COURT: Mr. Cerutti?

14 MR. CERUTTI: Thank you, Your Honor. I wonder if
15 the bailiff could hand this to the witness for me?

16 Thank you, sir.

17

18 DIRECT EXAMINATION

19 BY MR. CERUTTI:

20 Q Dr. Maddox, could you identify this document that has
21 just been handed to you?

22 A This is a Xerox copy of my notes which form a flow net
23 that I drew in my notes.

24 Q Is that the document that has previously been referred
25 to as a "flow net" in your testimony?

1 A Yes, it is.

2 Q Is that an accurate copy of the flow net you prepared,
3 sir?

4 A Yes, sir, it is.

5 Q If you could return that to me, I'd ask that be marked
6 as an exhibit.

7 (Whereupon, Defendant's Exhibit 63 was marked for
8 identification.)

9 MR. GERMERAAD: Could I ask some Voir Dire on
10 this, please?

11 THE COURT: Yes.

12

13 VOIR DIRE EXAMINATION

14 BY MR. GERMERAAD:

15 Q Mr. Maddox, do you have another copy of this which
16 has additional figures on?

17 A Yes, that I'm testifying from here, I do.

18 Q So what we have marked here, in some way, as
19 Defendant's Exhibit 63, does not have some of the
20 information on it that you're testifying from on the
21 stand, is that correct?

22 A That is correct.

23 Q Could I ask another thing: Was this exhibit, either in
24 this form or the additional annotations that you have
25 with you on the stand, prefiled with this court at any

1 time?

2 MR. CERUTTI: I object to the question. The
3 witness has no way of knowing what was prefiled. I
4 will, as a matter of fact, concede that it was not.
5 It wasn't brought to my attention until yesterday,
6 day-before-yesterday, and counsel were supplied with
7 copies at that time.

8 MR. GERMERAAD: Your Honor, for the record, I
9 would object to this as a scientific exhibit on which
10 a study was made that was not prefiled in any way,
11 subject to your pretrial order, which this should have
12 been filed by February 15th.

13 I have an additional objection that, since
14 he's testifying from a document that is not synonymous
15 with the document now being introduced, it has no
16 relevance, and can only be misleading to the Court to
17 have the witness testify from a document with certain
18 figures on it, and have another document introduced
19 which varies from that.

20 THE COURT: Well, we can only anticipate the
21 second part of your objection; we don't know that that's
22 going to happen; it's the first part, this is correct,
23 it was not prefiled, and if you wish to have it
24 rejected on that ground, the Court will sustain you,
25 but I might point out, it's the only thing in evidence

1 that gives the Court any real understanding of what his
2 testimony means, as far as that flow net is concerned.

3 MR. CERUTTI: Your Honor, I might further indicate
4 that this flow net was not brought to my attention until
5 the day-before-yesterday, and I assume that, I have no
6 knowledge as to when it was prepared, I had no way to
7 prefile it. The gentleman is not my witness, and I
8 was not aware of the fact that it was being prepared.

9 MR. DUFFORD: Your Honor, I think what that flow
10 net is, is the superimposition of some lines derived
11 from some figures in Mr. Woodward's report on a copy
12 of Exhibit 10. Now, it is true that it was not prefilled;
13 however, it's just a representation of this man's analy-
14 sis of information that was within Mr. Woodward's
15 report.

16 Furthermore, I would like to point out that
17 exhibits in plaintiff's case which were not prefilled,
18 which are voluminous in nature, and also purport to be
19 technical reports, have been admitted into evidence,
20 and I refer specifically to the larger report of
21 Barrett & Follevaag, I think that's the name, having
22 to do with the real estate on the Reservation. It
23 would seem to me that in the interest of consistency,
24 it should be admissible.

25 MR. RUDOLPH: Your Honor, we have no objection--

1 THE COURT: Frankly, counsel--

2 MR. RUDOLPH: He's done it--

3 THE COURT: --he's testified about--

4 MR. RUDOLPH: He's done it, and he's testified
5 about it, and let's look at it.

6 THE COURT: I think it would be helpful to the
7 Court in identifying what he said to me on Plaintiff's
8 10, so I will admit Defendant's 63.

9 (Whereupon, Defendant's Exhibit 63 was admitted
10 into evidence.)

11 MR. CERUTTI: Your Honor, I might indicate, for
12 the record, that at the first available opportunity,
13 I will have a Xerox copy made of whatever annotations
14 that exist on the other copy of the same diagram, and
15 I will ask the Court's indulgence to reopen long enough
16 to offer it as a separate exhibit, after the copy is
17 made.

18 THE COURT: Of course, I don't know yet what
19 these additional figures, whether he's going to testify
20 from, so a copy of that should be put in.

21 MR. CERUTTI: Yes, I will ask the Court's indul-
22 gence to do that after a Xerox copy has been prepared,
23 and assuming they're relevant.

24 THE COURT: Proceed.

25 MR. CERUTTI: I would then offer Defendant's

1 Exhibit 63 in evidence, Your Honor.

2 THE COURT: It's admitted.

3

4 DIRECT EXAMINATION, Continuing:

5 BY MR. CERUTTI:

6 Q Dr. Woodward, could you step over to the board with me
7 for a moment, please, and perhaps I could bother you
8 for-- I'm sorry, Dr. Maddox, excuse me-- a red mark-
9 ing pen--

10 Dr. Maddox, first directing your attention to
11 Exhibit 10, I wonder if you could summarize your prior
12 testimony at this time with the aid of this exhibit
13 as to the flow of the ground water in the Chamokane.
14 area.

15 A We had the flow net here, indicates by way of
16 familiarization, this curve in the stream, in the flow
17 net, is this curve here, near Ford. The ground water
18 flow on the flow net indicates that the ground water
19 movement began somewhere around in Section 11, Township
20 28 North, Range 29 E.W.M., and moved in a southwesterly
21 --southeasterly, direction, to a point in the northwest
22 quarter of Section 13 of Township 28 North, Range 39,
23 E.W.M., at which time it turns and moves in a nearly
24 north-south direction towards the springs. On Exhibit
25 10, the movement would be in this fashion, towards the

1 springs. Again, the flow net would indicate that this
2 general trend of movement would continue out to the
3 point that would be, again, in the west half of
4 Section 6 of Township 28 North, Range 40 E.W.M., at
5 which time it's indicated a flow, a split in the
6 direction of flow would begin here, on Exhibit 10, and
7 the flow begins to move to, directly to the south and
8 the east, without the north-south flow. This split is
9 indicated, again, to the north, and our data are pretty
10 sparse in this area, in the north, up towards the
11 monitor wells, as indicated on Exhibit 10; in this
12 particular area, the flow again assumes a north-south
13 component, and this would be between Section 33 of
14 Township 39 North, Range 40 E.W.M., indicating a
15 north-south component of the flow, and this would be
16 at the opposite extreme from the point where it
17 discharges in the springs.

18 Q I see from your flow net that the ground water is
19 flowing underneath the Chamokane Creek in the vicinity
20 of the Seagle property, and almost at a right angle to
21 it, and I wonder, does that have any effect on
22 Chamokane Creek as it passes underneath of it?

23 A According to Mr. Woodward's data, not at that particu-
24 lar point, but to the north, where he indicates
25 Chamokane Creek to be dry and I indicate the ground

1 water movement to be transverse to Chamokane Creek,
2 there is anywhere from 18, well, five to 18 feet
3 difference in the altitude of the water table for, say,
4 in the wells, and the water table, say, in the wells
5 and the surface of the creek.

6 Q If you would take a red marking pencil and indicate
7 to the Court the approximate location of the four
8 Seagle wells on the flow net, that's Exhibit 63, maybe
9 just with an "X", for the approximate location of each
10 well?

11 A This is not to scale, but it would be in this general
12 vicinity.

13 Q Thank you, Doctor; would you write, "Seagle Wells",
14 maybe, out in the corner there; denote that?

15 A (Does so.)

16 Q Would you draw an arrow through each of the Seagle
17 wells, indicating to the best of your knowledge and
18 belief the flow of the ground water in those precise
19 points?

20 A In accordance with the flow net?

21 Q Yes, an arrow right through each well.

22 MR. RUDOLPH: Could I ask a question, just a
23 moment? Are you extending the flow net, now, east of
24 the Chamokane Creek?

25 A Well, I would have to extend east of Chamokane Creek.

1 MR. RUDOLPH: Well, Your Honor, he stopped at
2 Chamokane Creek, and his studies stopped at the end
3 of Chamokane Creek, and I think he's now extending
4 something he hasn't even done.

5 MR. CERUTTI: Your Honor, if the witness is unable
6 to answer the question, I'm sure he can so respond, and
7 I asked him to do that if he could, on the basis of
8 his information and professional judgment.

9 THE COURT: You may proceed.

10 A I'll indicate the area of uncertainty with a dash-line,
11 and the area of reasonable certainty, based upon the
12 flow net, with a solid line.

13 Q (By Mr. Cerutti) Thank you.

14 A (Writing on exhibit.)

15 Q Dr. Maddox, with respect to what you have called the
16 "area of less certainty", and recognizing that the
17 data available to you may be less complete than you
18 would like, are you nevertheless able to form any
19 opinion as to whether it is more likely than not that
20 the ground water flows in a certain direction after the
21 Seagle wells? In other words, can you, with any degree
22 of reliability, extend those lines further than you
23 already have?

24 A Beyond the Seagle wells, I'd hate to extend them a
25 great deal farther, but if we're guided by the contour

1 of the seventeen-forty contour, which lies below the
2 Seagle well, I can reasonably conclude that the ground
3 water would change directions to the north, into the
4 north-south component, so it might be expected to flow
5 into the northwest quarter of Section 21, Township 28
6 North, Range 40 E.W.M.

7 Q If I understand you, Dr. Maddox, that is your opinion--

8 A It is.

9 Q --on the basis of available information?

10 A That is my opinion.

11 Q Would you go ahead and extend those lines in the
12 length you indicated, then?

13 A (Does so.)

14 Q Go ahead; you may resume the stand, Doctor.

15 THE COURT: Proceed.

16 Q (By Mr. Cerutti) Dr. Maddox, I would like to direct
17 your attention now to Mr. Woodward's conclusion that
18 this is a completely closed system and that the water
19 that enters the system can leave only past the south
20 gaging station and only through the springs. I would
21 like to ask you, in consideration of the information
22 you have from a reading of Mr. Woodward's reports,
23 from an examination of the exhibits in this trial, and
24 from Mr. Woodward's testimony, have you a professional
25 judgment as to whether or not Mr. Woodward's conclusion

1 is supported by those items that are referred to.

2 A With regard to Mr. Woodward's conclusion, as I under-
3 stood it, that all the ground water discharge in the
4 Chamokane Basin would be discharged from the springs,
5 I do not concur with that. I was unable, there is
6 insufficient data to determine if there is any other
7 ports of escape for the ground water other than down
8 Chamokane Creek. The flow net would seem to indicate
9 the ground water was moving to the south and east in
10 one area, but what happens to it beyond there, my
11 extension on the exhibit, your exhibit which we have
12 there on the board, I really couldn't say; I don't know.

13 Q Dr. Maddox, again, let me add one more piece of data
14 by way of a hypothetical question--

15 MR. CERUTTI: And I might say, Your Honor, it
16 will be supported by Mr. Seagle's testimony.

17 Q (By Mr. Cerutti) Assume, if you will, Doctor, that
18 there is a draw, or valley, located on the Seagle
19 property that runs generally east to west, or I'll
20 say somewhat southwesterly, and assume further, if you
21 will, that one wall of that valley is composed of
22 granite, and the opposite wall of basalt. First, does
23 that tell you anything about the geography of that
24 particular location?

25 A I would conclude from your description that the valley

1 was formed as a result of erosion along the contact
2 between the basalt and the granite.

3 Q And have you an opinion as to what effect might be
4 reasonably anticipated from that set of facts as it
5 might relate to the flow of ground water?

6 A I would anticipate that I could expect some degree of
7 permeability along the contact between the basalt and
8 the granite. This permeability being the result of
9 the basalt cooking, or frittering, or baking the
10 granite when it was deposited against the granitoid
11 surface. This would cause the granite to break down
12 into a sandy matrix which would transmit water to some
13 degree.

14 Q I think we used the phraseology yesterday in the
15 proceedings, a "dike", and that we were talking about
16 something called a "break in the dike"; is that what
17 this is, is a break in the dike, then?

18 A I think the word "dike" yesterday was used in the
19 geological sense, which would mean a wall. This, in
20 a practical sense, would form a wall, or a dike, if the
21 basalt were lapped upon the granite and if the basalt
22 did indeed trigger the granite, or bake the granite,
23 it would form a break in the wall at that, as far as
24 the movement of the ground water goes.

25 MR. GERMERAAD : Before this entire line

1 continues much farther, I would interpose an objection
2 to this line of questioning, although Mr. Cerutti says
3 he's going to connect it up. Unless he can have Mr.
4 Seagle testify as a geologist as to what rocks lap on
5 what rocks, I don't think he can establish the
6 assumption that he has asked Mr. Maddox to draw
7 conclusions from, so, therefore, I would move to strike
8 that testimony.

9 MR. CERUTTI: Perhaps I can make an offer of
10 proof, Your Honor. Mr. Seagle will testify that he
11 recognizes granite and basalt, and I don't think that
12 takes a geologist, and he will testify that such a
13 valley exists on his property.

14 THE COURT: It will be admitted, subject to your
15 proving the hypothetical.

16 MR. CERUITTI: Thank you, Your Honor.

17 Q (By Mr. Cerutti) Dr. Maddox, I guess what it comes
18 down to is, assuming that such a geological condition
19 existed, would it, would you be able to draw a conclu-
20 sion as to whether or not water leaks out of the
21 system, if I can convert it to layman's terms that
22 way?

23 A If such a geologic condition existed, I would say that
24 it would be an excellent possibility, of water leaking
25 through that point.

1 Q I'd like to direct your attention, if I may, Doctor,
2 to the Shannon & Wilson report. Are you familiar with
3 that?

4 A From Mr. Woodward's report, yes.

5 Q Does the Shannon & Wilson report contain any informa-
6 tion which in your opinion would support any kind of
7 a reasonable conclusion as to the geology directly
8 east of the Seagle property, and as to whether or not
9 it's watertight or leaks out there?

10 A No, I don't believe it would. The traverse line ends
11 about the Seagle property. Anything beyond that would
12 be unknown in the Shannon & Wilson report.

13 Q I would like to direct your attention to the, and I
14 don't remember the exhibit number, the Griggs report,
15 we call it, a map of the geology and what the glaciers
16 have done in this vicinity?

17 A Yes.

18 Q I wonder, does this Griggs report, assuming it's
19 accurate, tell you anything in that regard?

20 A The Griggs report shows the surface expression of the
21 geologic units in the area. It doesn't purport, nor
22 do I believe it could be relied upon, to convey what
23 happens at depth without Mr. Griggs' having drawn some
24 cross-sections on the basis of his experience. I
25 couldn't, for example, look at his report and be

1 absolutely sure, on the basis of his map, surface map
2 information, of what happens in depth.

3 Q Do I understand, then, that this map just doesn't
4 purport to show that at all?

5 A No, it doesn't.

6 Q It's just silent as to what's underneath the ground?

7 A That's right.

8 Q Dr. Maddox, I would like you to make another assumption,
9 just for a moment, speaking hypothetically: Let us
10 assume that some portion of the water flowing underneath
11 the Seagle wells breaks to the south somewhere out here
12 in an easterly direction, rather than continuing
13 southeast, it swings back, in other words; have you an
14 opinion as to the probability that that water would
15 somehow get back to the Massive Springs and contribute
16 to the outflow from them?

17 A Yes, in my opinion, it would never come back to the
18 Massive Springs.

19 Q I would like you to make another assumption. Assume
20 there are no contributions to the Chamokane Creek below
21 the Massive Springs; can you make any conclusion as to
22 the probable effect that Mr. Seagle's well and his
23 pumping has upon the flow of the Chamokane Creek at
24 the south gauge?

25 A My analysis would indicate that if the ground water

1 which passes outside the Indian Reservation does not
2 indeed turn and swing parallel with the creek and
3 rejoin the creek, that Mr. Seagle's pumping would have
4 little or no effect on the flow of Chamokane Creek at
5 the U.S.G.S. gauge.

6 Q Assuming that the flow does turn to the south, is there
7 any evidence to believe it would not, nevertheless,
8 still remain east of the Chamokane Creek, perhaps down
9 in this vicinity, that it never gets back to the creek?

10 A There is no evidence to either support that or contest
11 that.

12 Q Is there any way in which it's possible, scientifically
13 to measure the time lag involved between a diversion of
14 ground water and the subsequent effect of that diver-
15 sion elsewhere?

16 A The only way that I know of, and I believe it's the
17 most commonly used way is, without a model to work
18 with, this, of course, is the ultimate thing that
19 hydrologists have now, but in the absence of a model,
20 is the analysis that I made of the rate of withdrawal,
21 and for a period of time, I used 180 days, I assumed
22 coefficients of transmissivity. A better thing would
23 be to actually have measurements of transmissivity and
24 storage, the analysis using the Thiess equation, is
25 what I'm saying, is the best one that is available.

1 Q I understood, and perhaps you're conversant in this
2 terminology, maybe you can correct me on this, I
3 understood Mr. Woodward's conclusion to be that the
4 pumping in the vicinity of Seagle and Newhouse wells
5 created some time lag of less than a year, maybe eight
6 months, and then thereafter was felt down the Chamokane
7 Creek. Would the kind of calculation formula that
8 you're describing be utilized to determine the accuracy
9 of that opinion?

10 A With proper information on Chamokane Creek, you might
11 be able to make that determination, yes.

12 Q Did you try to work such a calculation as to the Seagle
13 and Newhouse wells?

14 A I worked with the Newhouse well, and assumed the same
15 conditions applied to the Seagle well.

16 Q What was the result of that calculation?

17 A The result of the calculation indicated that, after
18 180 days of pumping, the draw-down in a distance of
19 1130 feet, assuming transmissivity of 100,000 and a
20 storage of 12 percent, would be 0.01 feet, and of
21 course, after, say, the 181st day, if you shut down
22 pumping at the end of the 180th days, the 181st day,
23 the water would begin to fill in this cone of
24 depression.

25 THE COURT: Counsel, isn't this the same

1 information that was testified to before?

2 MR. CERUTTI: I think we have become repetitive,
3 and that was my last question. Thank you, Your Honor.

4 THE COURT: Mr. Rekofke?

5

6 DIRECT EXAMINATION

7 BY MR. REKOFKE:

8 Q Dr. Maddox, you testified, I don't want to rehash it,
9 but precipitation, in effect, accounts for the water
10 down there on that underground storage, is that right?

11 A That's correct.

12 Q And, in other words, if we have precipitation, for
13 example, a lot of rain, throughout a winter or spring,
14 will there be some effect on that underground storage
15 area within the, well, how long would it take before
16 there would be any effect in the underground storage?

17 A From the information Mr. Woodward has, it would
18 indicate that it would be fairly immediate, within a
19 matter of months.

20 Q And likewise, as far as the, the source of that
21 underground storage water, you testified to, is the
22 source of that particular water the runoff, is that
23 where, primarily, it comes from?

24 A The runoff, of course, results from precipitation,
25 and the runoff is the greater recharge mechanism.

1 Precipitation on the soil accounts for some small
2 amount, but generally, I think it's recognized by
3 hydrologists that runoff is the major recharging
4 mechanism.

5 Q And any flow after the runoff would apparently not
6 have too much bearing on this particular underground
7 storage?

8 A Well, any-- I would have to qualify my answer. Any
9 runoff other than from the springs would continue to
10 recharge the aquifer.

11 Q I see.

12 A But Mr. Woodward has indicated that some reaches of the
13 Chamokane are dry, that is, they don't carry water, at
14 least on the surface, and therefore, I concluded there
15 would be very little, if any, recharge there, the
16 recharge being due to underflow within the creek beds,
17 you know, but under the surface.

18 Now, the discharge of the springs and any
19 gain in the Chamokane Creek down in the area just due
20 south of the springs, where Chamokane Creek is
21 perennial, I'd say this has little or no effect on the
22 ground water. This is getting rid of ground water.

23 Q What about, there is a figure here of a discharge of
24 18,700 acre feet, I believe, at the area of the Massive
25 Springs; is that as I recall the testimony?

1 A As I recall Mr. Woodward's testimony, it was that, yes.
2 Q Do you agree with that figure?
3 A In making some assumptions, I can agree with nearly
4 that figure. My assumptions are that if we assume a
5 mean low flow, that is not the overland flow, the flow
6 due to the discharge of springs, and such other ground
7 water gain as in the Lower Chamokane, as measured at
8 the U.S.G.S. gauge and as shown by Mr. Woodward's
9 report, and assuming the flow to be 25 cubic feet per
10 second, that would be approximately 50 acre feet per
11 day, that's 365, we come up with some number that is
12 close to 18,000. If you want, I can run it out here
13 on the slide rule.
14 Q Well, is that figure dependent to some extent on what
15 happens between the Massive Springs and the gauge?
16 A In my opinion it does, yes.
17 Q And that would affect the validity of it?
18 A That is correct.
19 MR. REKOFKE: I think that's all, Your Honor.
20 THE COURT: Does that complete Direct?
21 MR. MCGREGOR: I would like to question this
22 witness.
23 THE COURT: All right, Mr. McGregor.
24 MR. MCGREGOR: My name is Ted McGregor, and I
25 represent the Schaffners in this action.

1 Would you please hand to Dr. Maddox Exhibit
2 No. 61.

3
4 DIRECT EXAMINATION

5 BY MR. MCGREGOR:

6 Q Dr. Maddox, would you state what that exhibit purports
7 to be?

8 A Exhibit No. 61 is the State record for Urban, U-R-B-A-N
9 S. Schaffner, S-C-H-A-F-F-N-E-R, it's for ground water,
10 or Ground Water Certificate No. 8826, and there's a
11 surface water, er, uh,-- That is correct, Surface
12 Water Certificate No. 8826. There is a surface water
13 permit also prepared which supports, there's a surface
14 water permit, No. 11053, and Application No. 14710.
15 That's all of the necessary documents for a right to
16 surface waters in the State of Washington.

17 Q That is the official file of the State of Washington?

18 A I believe it is. It is one similar to ones we have.

19 MR. MCGREGOR: I would like to offer that into
20 evidence, Your Honor.

21 MR. GERMERAAD: I believe, Your Honor, that is
22 already in.

23 MR. MCGREGOR: I think that was in the exhibits
24 that was filed, prefiled with the court.

25 THE CLERK OF THE COURT: That wasn't admitted.

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THE COURT: Our records don't show it.

THE CLERK OF THE COURT: It wasn't one that Mr.
Dufford marked.

THE COURT: He stopped at 60.

MR. GERMERAAD: No objection, Your Honor.

THE COURT: Defendant's Exhibit 61 is admitted.

(Whereupon, Defendant's Exhibit 61 was admitted
into evidence.)

Q (By Mr. McGregor) Dr. Maddox, would you take that
Exhibit 61 and state whether or not there is a
certificate of surface water right therein?

A Yes, there is.

Q Is there a notice of publication relative to--

MR. RUDOLPH: Your Honor, we stipulate that that's
all in there.

THE COURT: Fine; if the exhibit's in, it will be
in the record.

MR. MCGREGOR: I would assume that the stipula-
tion includes the fact of the matter that there is no
protest to that publication?

THE COURT: Well, I don't know, in examining,
perhaps you can, uh--

A There is a report of examination. It does not indicate
there was any protest to the publication of the notice.

Q (By Mr. McGregor) Does that exhibit, does the

1 application for the water right that's in that file
2 indicate how the water is to be taken?
3 A The application indicates during this season, during
4 the irrigation season, and it indicates the point of
5 diversion to be 700 feet north of the northeast corner
6 of the southeast quarter of the northwest quarter,
7 Section 7, Township 28 North, Range 40 E.W.M., and the
8 water is to be pumped through a screened pipe, and is
9 to be diverted from Thomas Creek, for irrigation, this
10 says, for irrigation, and the amount is 0.50 cubic feet
11 per second, and I don't note an acre-foot limitation.
12 It says, the water to be pumped from a pond constructed
13 off channel, and then through 1,000 water feet of
14 aluminum mainline pipe, and then through laterals.
15 Q The permit granted by the State of Washington, and the
16 certificate, indicates a different figure than was
17 petitioned for, does it not?

18 MR. RUDOLPH: Is your question aimed at the permit
19 or the certificate? Shouldn't we go into the ultimate--

20 A He has asked if the permit is the same volume of water
21 as he applied for.

22 MR. RUDOLPH: I would ask that he wouldn't refer
23 to the certificate, because that's the--

24 MR. MCGREGOR: Your Honor, my question was directed
25 to both the permit and the certificate, which are the

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same.

A The permit is for the use of 0.50 cubic feet per second, 160 acre feet per year, during the irrigation season, for the irrigation of 40 acres. The certificate is for the use of 0.24 cubic feet per second, 80 acre feet per year, for irrigation of 20 acres. There is some difference between the permit and certificate, as far as rate, and volume of the right.

MR. MCGREGOR: Now, could you hand the witness Exhibit No. 14.

Q (By Mr. McGregor) Is the certificate of water right indicated on that exhibit, of Mr. Schaffner?

A Yes, it is.

Q Is it located on a stream known as Thomas Creek?

A It's located on an unnamed stream, which the certificate, permit and application indicate to be Thomas Creek.

Q Is there any other surface water certificate or permit located on what purports to be Thomas Creek, or that stream unnamed?

A There is none.

Q Dr. Maddox, in light of your previous testimony as to the general drainage in the Chamokane Basin and the general flow pattern set forth in Exhibit 62, and your general expertise as knowledgeable in this particular

1 field, would you be able to state whether or not the
2 use of 0.24 CFS water from an earth dam such as, uh,
3 or from Thomas Creek, would have any appreciable effect
4 on the flow of water in Chamokane Creek?

5 A I will have to refer to my flow net, generally, on
6 this. In my opinion, that if the diversion were made
7 from an earthen dam, so that flood water or water in
8 the unnamed creek, or Thomas Creek, could flow into
9 the dam and stand for a while, probably the diversion
10 would have, at the rate indicated by the certificate,
11 would have little or no effect on the flow of the
12 springs; however, if the diversion were made directly
13 from the stream channel, it could, in some long-term
14 period, have some minor effect on the flow of the
15 springs. That is, any water taken out of the watershed
16 that could possibly get to the springs would somehow
17 affect the springs, although the amount of effect might
18 be immeasurable-- small.

19 Q Then let me redirect your attention to Exhibit No. 61,
20 to see if the application contained therein by Mr.
21 Schaffner does not provide for an earthen-filled dam
22 as a storage area where the water is taken from Thomas
23 Creek prior to their use in his irrigation.

24 A It reads, water to be pumped from a pond constructed
25 off channel. It doesn't, as far as I know, specify an

1 earthen-filled dam. It doesn't say if there is a dam
2 or not, that I see. I imagine, if it's a pond, it
3 would have to be a hole scooped in the ground, or a
4 dam built above it, but I don't, it doesn't, the
5 application doesn't specify that.

6 Q In looking at Exhibit No. 14, is there any surface or
7 ground water certificate or permit located in such a
8 position that would appreciably affect the flow of
9 Thomas Creek?

10 A No, there is not.

11 Q The date of priority of a water right, how does the
12 State arrive at that particular date?

13 A That is the date, down to the minute, that the water
14 right is marked into our office; date of receipt of
15 the application.

16 Q Would you consider the storage of water in an earth-
17 filled dam as a consumptive use of water?

18 A No, not the storage itself.

19 MR. MCGREGOR: Thank you.

20 THE COURT: All right; Cross-examination, Mr.
21 Germeraad?

22 MR. GERMERAAD: Yes.

23 MR. RUDOLPH: Excuse me, I'll commence, if Your
24 Honor please.
25

1 CROSS-EXAMINATION

2 BY MR. RUDOLPH:

3 Q Dr. Maddox, I noted your testimony that you'd never
4 had a report not accepted when you were referee. I
5 find myself in a slightly difficult position of examin-
6 ing you now when I still have pending before you a
7 report that I'm disputing before the court, is that
8 correct?

9 A It's correct that you're disputing a report, but my
10 testimony, I believe, is that I have never had one
11 thrown out yet.

12 Q That's something we're still working on. Well, as a
13 matter of fact, I'm attempting to have you change a
14 couple of parts in it; would that be more accurate?

15 A That is correct.

16 Q All right.

17 MR. RUDOLPH: I guess the easiest way here is to
18 work backwards, Your Honor. It's a little difficult
19 to cross-examine 10 different examinations, all of
20 which were somewhat different.

21 Q (By Mr. Rudolph) If I understood your last answer, it
22 was that storage of water in an earth-filled dam would
23 not be a consumptive use?

24 A That is correct. Generally, the Department of Ecology
25 considers that to be a non-consumptive use.

1 Q When the water being stored is taken from a stream
2 flow, it's certainly, and not going back, it certainly
3 has become consumptive, has it not?
4 A Consumptive, to the effect that, to the amount that is
5 lost by evapotranspiration, but it's not being consumed
6 in some active use, for appropriation.
7 Q Well, is it your understanding, from the questions by
8 Mr. McGregor, and from that file, Defendant's Exhibit
9 61, that he is making some use of that water?
10 A Yes, it is my understanding.
11 MR. RUDOLPH: May I have 61.
12 THE CLERK OF THE COURT: Yes.
13 Q (By Mr. Rudolph) And that is an irrigation use?
14 A Yes, it is.
15 Q Which would be a consumptive use?
16 A Yes, it would be.
17 Q And so that the water which he is storing has to be
18 continually replenished?
19 A I would presume so.
20 Q I notice that the certificate given Mr. Schaffner is
21 somewhat in excess, in the withdrawal rate, or, excuse
22 me, the volume, than what is commonly used. Now, 80
23 acre feet were allowed for the irrigation of 20 acres.
24 Isn't that high?
25 A That is higher than we generally allow at the present

1 time, although in many of the past, many, the certifi-
2 cates and permits issued in the past, they used just
3 a standard, I believe, of four acre feet per acre.
4 That is high.

5 Q In this file, I notice, Dr. Maddox, is a, and you were
6 being asked, were there any protests filed, and I
7 believe your answer was the file showed none. Is there
8 anything in the file to show that notice of any kind
9 was given to either the Bureau of Indian Affairs, or
10 to the Spokane Tribe of Indians?

11 A Only the general notice by publication.

12 Q And it would be a fair assumption that there was no
13 special notice given to either the B.I.A. or the Spokane
14 Tribe?

15 A I believe that would be a fair assumption.

16 Q Did you happen to notice both a map which shows that
17 the source of water is on tribal land, springs which
18 arise on tribal land, and then flow onto the Schaffner
19 land, and then secondly, the examination report by Mr.
20 Fiedler states, "It should be noted that the stream in
21 question in this application is located on the Spokane
22 Indian Reservation and that the springs that feed the
23 stream rise on tribal land and allotment land. However,
24 the stream flows for only approximately one and a-half
25 miles before it sinks on the applicant's property."

1 "Although the waters of this stream are not
2 presently used on any of the Indian land located above
3 the applicant's property, this office wishes to advise
4 that in the event a future use should be initiated by
5 Indian owners, there is some question as to the
6 authority, if any, of this office, to regulate such
7 use."

8 Notwithstanding that, I take it, there was
9 no notice given to the Spokane Tribe, as far as you
10 know, then?

11 A As far as the file shows, there was none.

12 Q And the same thing is true as to the questions Mr.
13 Dufford was asking you about all the other applications
14 and specifically the Newhouse application and the
15 Smithpeter application, which show no protest prior to
16 the issuance of the permit. In fact, no notice was
17 given to the Spokane Tribe other than the general
18 publication?

19 A I would have to review the permit to be absolutely
20 certain. My impression is that the only notice was
21 the general notice by publication.

22 Q And did you read, in those two files, expressions from
23 Mr. Dellwo, on behalf of the Tribe, expressing the
24 objections of the Tribe to what the State was doing;
25 did you notice those?

1 A No, I didn't notice those. They were not in the
2 report of examination over there.

3 Q Has it always been the position of the Department, as
4 far as you know, Dr. Maddox, the Department of Ecology,
5 and its predecessors, that Spokane, er, Winters rights
6 held by Indian tribes are recognized?

7 A It's my understanding that the Department, and the
8 State of Washington, in general, have recognized the
9 Winters Doctrine in dealing with water rights.

10 MR. GERMERAAD: Your Honor, I'm going to object
11 to that and ask it be stricken, because that's, we're
12 talking about, again, a legal conclusion, and that's
13 the whole issue in this lawsuit.

14 THE COURT: I don't think he asked him in that
15 form, counsel, at least I didn't take it that way.

16 MR. GERMERAAD: All right.

17 THE COURT: He wanted to know if the Department
18 recognized that problem. I don't think he's answered
19 to a legal conclusion.

20 MR. RUDOLPH: No.

21 THE COURT: The objection will be denied.

22 Q (By Mr. Rudolph) And notwithstanding that policy, the
23 Department, as far as you know, has never bothered
24 giving, at least the Spokane Indian Tribe, any notice
25 of any of the applications in the Chamokane trough?

1 A Not so far as I know, at any rate.

2 Q Does the file; may I hand this back to you; on the
3 Schaffner application, Exhibit 61, does not that
4 indicate that those lands had never been irrigated at
5 any prior date?

6 A Although the file is unclear, I would presume, since
7 there is no notation of prior irrigation here, that
8 they had never been irrigated prior to the time of Mr.
9 Schaffner's applying for a right to water from the
10 State of Washington.

11 Q Now, his diversion is from Thomas, Thomas Creek, is it
12 not?

13 A As the file indicates, yes.

14 Q Can you mark, please, on Defendant's Exhibit 63,
15 Thomas Creek, and the location, approximately, of the
16 Schaffner diversion?

17 A (Indicates on map.)

18 THE COURT: Just a minute. I think he wants it
19 on 63.

20 Q (By Mr. Rudolph) That's in Section 6-- uh,--
21 MR. RUDOLPH: Is that file over there?
22 (File handed to counsel by the bailiff.)

23 Q (By Mr. Rudolph) Yes, isn't it in the northeast
24 quarter of Section 7, rather than in 6?

25 A Right on the border.

1 Q All right, you have marked Schaffner with that square.
2 I can't give you the, well, Township 28, and Range 40.

3 Now, is Thomas Creek an intermittent creek?

4 A It's my understanding, as indicated on Mr. Woodward's
5 map, it's an intermittent stream, yes.

6 Q And during the time it flows, then, it flows directly
7 into the Chamokane; do you have any idea as to what
8 times of the year it flows, and when it goes under-
9 ground?

10 A I have no idea, no.

11 Q Would you not have to have some idea in order to
12 express the opinion which you gave Mr. McGregor that
13 that diversion did not have any appreciable effect on
14 the flow of Chamokane Creek?

15 A I think not. The diversion is relatively small, and
16 the distance from Chamokane Creek is approximately two
17 miles, and the combination of the great distance and
18 the small diversion would indicate that any effect of
19 the diversion would be extremely small. However, I
20 believe I did testify there would be some effect;
21 however, I don't think the effect would be measureable.

22 Q Now, when it goes underground, then, the waters that
23 have been flowing there are then part of the under-
24 ground basin?

25 A I would think so, yes.

1 Q And they're within the, clearly within the southerly
2 flow and trend of what you show on your flow net,
3 Exhibit 63?
4 A That is correct.
5 Q Dr. Maddox, do you remember a conversation that you
6 and Mr. Germeraad and I had with you when you happened
7 to come into the United States Clerk's office the day
8 before this trial started?
9 A Yes.
10 Q And we were examining exhibits and you came in to
11 examine some?
12 A Yes, I remember.
13 Q And you were still at that time, I take it, still giving
14 analysis to Mr. Woodward's studies and what your
15 testimony was going to be in this trial?
16 A Yes, I believe that is correct.
17 Q Do you remember, did we specifically discuss with you
18 Thomas Creek?
19 A I don't remember we specifically discussed Thomas Creek.
20 I was not at that time really familiar with where Thomas
21 Creek was. We discussed most of the water right
22 applications and certificates and permits that were in,
23 so I would presume that Thomas Creek was discussed, in
24 that context, anyway.
25 Q Would you agree or disagree with me that on that

1 occasion, that you told Mr. Germeraad and myself that
2 the Schaffner diversion, in any taking of water from
3 Thomas Creek, would have a very definite effect on the
4 flow out of the springs?

5 A Yes, I remember saying that.

6 Q And you did tell us that?

7 A That is correct.

8 Q And you also said to us the same thing concerning the
9 Seagle wells, didn't you?

10 A At that time, I believed that the, any withdrawal of
11 water from the Seagle well would effect the flow of the
12 springs, and, yes, I remember saying that.

13 Q Now, you have changed your opinion between that date
14 and today?

15 A I wouldn't say I have changed my opinion, I would say
16 I may have, perhaps, refined it. I yet believe that
17 Mr. Schaffner's withdrawal of water, being upflow from
18 the springs, will have a, some effect upon the springs.
19 I believe I can relate his withdrawal to effect on the
20 springs more easily than I could relate the withdrawal
21 of ground water by Mr. Newhouse and its effect on the
22 springs. The effect of withdrawal of ground water by
23 Mr. Seagle on the springs, I believe, has a greater
24 potential effect than, say, the withdrawal of Newhouse,
25 but not as great a potential as the effect of withdrawal

1 by Schaffner. It's all a relative thing.

2 As I recall our conversation, that I said
3 at that time that Mr. Seagle, by withdrawing water from
4 his well, and where they were located, these three or
5 four wells, could cause a deflection in the flow line
6 so that the ground water flow was diverted away from
7 the springs, towards his well. I still believe there
8 is some possibility for that. However, we'll take the
9 right climatic conditions, for this to be at all measure-
10 able at the springs, I think it would be extremely
11 small, but I believe it could happen.

12 Q Well, certainly the expression that you gave to Mr.
13 Germeraad and myself was not a possibility but that it
14 was an absolute fact that the Seagle withdrawal, with-
15 out question, affected the springs, as shown by your
16 flow net.

17 A I don't recall if I made that statement. I can't deny
18 that I did or did not make that statement. I remember
19 saying very definitely that Mr. Seagle's withdrawal
20 would deflect the flow lines, because there would be
21 a greater potential on the springs, and I do believe
22 this is the case. Now, I don't know if I made a
23 definite statement on that. It may have been-- If
24 there was a definite statement, it may have been made
25 in the context of, speaking of Mr. Newhouse and then

1 talking of Mr. Seagle, where Mr. Seagle would have
2 more potential for effect on the springs, and may
3 possibly have some effect on the springs.

4 Q Would you agree that that was the very thing we were
5 talking about as the possibility difference between
6 Newhouse and Seagle?

7 A No, I felt we were talking about-- As I recall it, I
8 thought we were talking about the effect on the springs.

9 Q Do you recall, within the course of that conversation,
10 we discussed the depth of the Seagle wells?

11 A I recall we talked about depth of different wells. I
12 imagine Mr. Seagle's well was among those.

13 Q And the number of Mr. Seagle's wells?

14 A I remember we discussed that, yes.

15 Q And your conclusion that the combination of his pumping
16 at that shallow level from four wells, would have a
17 very marked and definite effect on the flow of the
18 springs, considering, in addition, the difference in
19 distance to the springs?

20 A I, again, I can't recall the details of the conversa-
21 tion. I believe at that time, there was some mention
22 made of the Shannon & Wilson study, and the possibility
23 of bedrock, and I thought we were talking about the
24 thickness of the aquifer, and it related to Mr.
25 Woodward's analysis of the sponge and the blotter, the

1 sponge being the upper part and the blotter being the
2 lower, the water-yielding part, and as best I recall,
3 we were talking at that time that if the lower part
4 did not yield much water and the ground water was
5 coming to the surface, there would be an effect on,
6 as a result of coalescence of the cone of depression,
7 from Mr. Seagle's four wells, there would be an effect
8 on the springs, I still think that under those
9 conditions, it would be; however, I don't think those
10 conditions prevail at the present time.

11 Q Do you mean in any given year?

12 A No, I don't think those physical conditions prevail.
13 I don't really believe that the analogy there of the
14 sponge and the blotter holds particularly true, in
15 that the blotter would represent something called
16 "bedrock", so that it becomes much less permeable, if
17 this is true, and I don't believe this is the case.

18 Q Is it your understanding from Mr. Woodward's report
19 that the blotter is the bedrock?

20 A That is my, what I assumed he was talking about in his
21 report, yes.

22 Q And is that what you understood from his testimony?

23 A Yes, I would have to assume that from his testimony,
24 having read his report and having heard his testimony.

25 Q Wouldn't you agree that his testimony was that at

1 bedrock, he considered no water-holding capacity?

2 A No, my understanding of Mr. Woodward's testimony was

3 quite different than that.

4 Q Well, tell me your understanding of Mr. Woodward's

5 testimony, then; what is the--

6 A My understanding--

7 Q --what is the underground basin that Mr. Woodward was

8 referring to?

9 A As bedrock?

10 Q No, the whole underground basin, as he described it?

11 A The whole underground basin, I couldn't speak to, but

12 what he referred to as "bedrock" was from the Shannon

13 & Wilson geophysical study, and, of course, what this

14 represents is the change in velocity rates and the

15 movement of sound through the ground, and they refer

16 to this as "bedrock". At the time you and I had the

17 conversation, I considered the bedrock to be granite

18 or something of a very low permeability, and as I would

19 understand from Mr. Woodward's testimony, and from the

20 Shannon & Wilson study, that bedrock might indeed

21 represent a very well compacted sand bed.

22 Q And at what depth did the Shannon & Wilson study find

23 the bedrock to be?

24 A I believe you have one of the exhibits hanging on the

25 board that shows the depth of the bedrock. I can't see

1 the various depths from here. They are two or 300
2 feet, at least, or possibly more, at the deepest place.
3 Q And what, between bedrock and ground surface, did Mr.
4 Woodward find to exist in the Chamokane Basin?
5 A Sand, gravel and other materials.
6 Q Did Mr. Woodward find any difference in the type of
7 material between the ground surface and bedrock?
8 A According to Mr. Woodward's testimony, there was a
9 zone of fairly high porosity, or high permeability,
10 which we may liken to this sponge concept, between
11 land surface and bedrock in one case, and land surface
12 and some underlying material which he may liken to
13 a blotter, in another case.
14 Q And how did he describe the top layer?
15 A He said it was like a sponge.
16 Q Well, describe-- That was by analogy. Describe it
17 geologically.
18 A Oh, I believe he said it was sand and gravel, that the
19 fine material had been leached out by the movement of
20 ground water.
21 Q But that's the top layer?
22 A If I remember right, that is the top, the sponge-type
23 layer.
24 Q Did Mr. Woodward's report and testimony show any
25 difference between the water-holding and the water-

1 yielding capacities of the layer in that ground basin?

2 A His testimony indicated that there were some wells

3 drilled by the Public Health Department, which he

4 thought came from the deeper, blotter-type material,

5 which had lower water-yielding ability than wells that

6 were developed in more shallow, sponge-type material,

7 he likened to sponge.

8 Q You say he thought they came from there. In fact, they

9 did come from there, didn't they?

10 A I don't know this as a fact.

11 Q Did you assume the facts in Mr. Woodward's report as

12 true?

13 A I assumed the facts in Mr. Woodward's report as true,

14 yes.

15 Q All right, assume that fact is true, and in his

16 testimony that the lower layer only yields from three

17 to 15 gallons per minute, now, do you assume that is

18 true?

19 A I just stated it would seem to indicate that that was

20 the case.

21 Q Now, he's talking about that in the entire lower layer,

22 isn't he?

23 A I would presume that is his contention, yes.

24 Q And do you recall the distinction that he draws between

25 that layer and the top layer of 30, 40, 50 feet of

1 loose material?

2 A Yes, right.

3 Q And he found at, what, in the top layer of these loose

4 materials, what did he find to be their capacity?

5 A It was quite high; I don't recall a number. I believe

6 there was a test on Mr. Newhouse's well which indicated

7 quite a substantial yield with a low draw-down of the

8 water level.

9 Q Mr. Newhouse's well could go higher than 1500, couldn't

10 it?

11 A I don't recall from the information.

12 Q Do you know how deep Mr. Newhouse's well is?

13 A According to Mr. Woodward's report, at least one of Mr.

14 Newhouse's wells hits granite at about 50 feet.

15 Q Do you remember what you told, when we were discussing

16 with you on March 7, Mr. Germeraad and myself, when we

17 were discussing the opinion you expressed as to the

18 Newhouse Well, do you recall what you told us on that

19 day--

20 A No, I don't remember.

21 Q --as to how deep the Newhouse Well was?

22 A No, I don't recall that I stated that. I don't believe

23 I knew at that time.

24 Q Didn't you tell us it was 150 feet deep?

25 A No, I would never have said such a thing. The first

1 information I had was from Mr. Woodward's report.

2 Q And what do you say now, how deep it is?

3 A The information I have in my notes here is that Mr.
4 Newhouse's well, I understand he has more than one
5 well, but one well, at least, hits granite at 50 feet,
6 and that's the only one I have in my notes, and that's
7 from Mr. Woodward's report.

8 MR. RUDOLPH: Could I have Exhibit 86, please.

9 Could I have 35 also.

10 Q (By Mr. Rudolph) Did I understand you just then to
11 say that he struck granite at 50 feet?

12 A So my notes would indicate, from Mr. Woodward's report,
13 I believe these notes are from.

14 Q What kind of granite?

15 A It didn't say; just granite.

16 Q Well, I mean, how did you construe that?

17 A That granite is a silicious rock, certain silica and
18 feldspar composition, and it's a rock genesis.

19 Q Would that be bedrock at that point?

20 A I don't know what "bedrock" means. Granite would mean
21 an impermeable rock.

22 Q Did you take it, when you said the well struck granite
23 at 50 feet, is that one of the facts you took into
24 account in the opinions you have expressed here today?

25 A In the opinion with regard to the validity of the

1 Shannon & Wilson report, yes, that was part of a number
2 of data I took into account.

3 Q Did you take into account Mr. Woodward's testimony that
4 below the Newhouse land surface is a deep layer of fine
5 material below the loose, heavy, water-holding layer?

6 A No, I didn't.

7 Q Well, exactly what facts did you use in reaching your
8 opinion?

9 A The facts in Mr. Woodward's report.

10 Q Well, that is not in Mr. Woodward's report?

11 A I would have to see Mr. Woodward's report.

12 Q Well, would you look at the Newhouse log and tell us
13 at what level he's pumping water from, where he's
14 screened it to?

15 A It indicates that the perforations are from 60 feet--
16 40 feet-- 35 to 40 feet, 40 feet to 50 feet, 60 feet
17 to 65 feet, so, therefore, I would assume that he has
18 casing at least to 65 feet. His well is indicated on
19 this log to be 83 feet deep.

20 Q And he screened it to where; perforated it to where?

21 A Perforated it to a depth of 55 feet in three reaches
22 where the mills are.

23 Q Yeah, and that means he's only pumping, he's not tapping
24 any water below 55 feet?

25 A I don't know. It could come from the shoe at the bottom

1 of 55; in other words, if he had casing down to the 83-
2 foot depth, it was only perforated in the upper part of
3 the casing, and the water could come under the shoe.
4 Q Now, if you were assuming that 1500 gallons a minute
5 was being pumped by Mr. Newhouse from 150 feet deep,
6 and that fact is wrong, it would have a substantial
7 variance on your opinion, wouldn't it?
8 A If I made that assumption, yes.
9 Q I would like to ask you again, tell us your best
10 recollection as to whether you told Mr. Germeraad and
11 myself that the Newhouse Well was 150 feet deep?
12 A I'm certain I didn't say the Newhouse Well was 150 feet
13 deep. I didn't know how deep it was.
14 Q Had you already, let's see, on March 7th, you didn't
15 know how deep the Newhouse Well was?
16 A No, I didn't.
17 Q But you'd already formed an opinion that the, that
18 his pumping had certain effects?
19 A From the basis of my flow-net analysis, and I had formed
20 that opinion, yes.
21 Q You formed an opinion based on the analysis of these
22 facts, some of which you didn't know?
23 A No, I based my opinion on facts I knew at that time.
24 I learned facts subsequent to that time which have
25 substantiated my first opinion.

1 Q Hadn't you already done the flow net on March 7?
2 A I was working on it but I hadn't completed the analysis
3 of it.
4 Q Didn't you tell us you were taking it to Olympia the
5 following day?
6 A That's correct, and I was taking it over to have it
7 Xeroxed, and I had some additional analysis to make on
8 it.
9 Q And you completed the flow net, then, without having
10 any particulars as to the Newhouse Well?
11 A I don't need any particulars other than the depth of
12 the water in the wells indicated in Mr. Woodward's
13 report. I didn't use the Newhouse, the depth of water
14 in the Newhouse, in the Newhouse Well, in constructing
15 my flow net.
16 Q How many-- You mentioned you had been out to the
17 Chamokane five times; when was the first time?
18 A I believe that was in July of 1969.
19 Q And how long was that; was that just a casual trip out
20 there?
21 A I was on my way to a meeting at Daisy, and Mr. Kauffman
22 asked me to drive through and get a quick impression of
23 what the watershed was like.
24 Q Was that at about the time that Mr. Kauffman had written
25 his report on the Chamokane?

1 A That would be about the same time, yes.

2 Q Did he discuss that with you?

3 A He asked what my opinion was.

4 Q And had he written his report or not at that time?

5 A I couldn't comment on that.

6 Q You don't know whether he had or hadn't?

7 A I don't know if he did or not.

8 Q You have seen his report?

9 A Here in the courtroom, yes.

10 Q And so that was a passing-through?

11 A Yes.

12 Q When was the next time?

13 A I don't recall the exact date, but it was in the, I

14 believe it was August of 1972. I went with another

15 member of the Department, and we were looking at the

16 watershed boundaries, trying to determine if surface

17 water from Sam Creek came inside the Chamokane drainage

18 and also what happens up around Springdale at the

19 watershed boundary.

20 Q Okay. The next time?

21 A The next time, again, I couldn't fix the date, I

22 believe it was a month or so after my earlier trip,

23 so it must have been about October of '52.

24 Q Uh--

25 A '60-- '72, I'm sorry, and I went through the watershed

1 to check our boundaries, to just generally look at the
2 lower part, down near the U.S.G.S. gauge, I had never
3 really seen the gauge before, I didn't find it, I
4 found a bridge across the creek, which I understand
5 now is the Gorton Bridge, and I went down across the
6 Spokane River and, on the mouth to the south, and took
7 some photographs of Chamokane Creek as it came into the
8 Spokane River.

9 Q How much time was this, expended on that?

10 A Oh, a couple of hours.

11 Q You took no measurements, or anything else like that?

12 A No, I didn't.

13 Q Primarily some pictures?

14 A Yes.

15 Q And the next time?

16 A The third time, again, was a photographic expedition,
17 last May, May of 1973, I was with another member of the
18 Department, I repeated my photographs of the discharge
19 of the Chamokane Creek into the Spokane River, I
20 returned to the area which I now know as the Gorton
21 Bridge, we went farther up the watershed to a point
22 where there is a highway borrow pit just south of
23 Ford, and we walked out and tried to find some bluff
24 overlooking Chamokane Creek. We couldn't find it, so
25 we went on farther north, just north of Ford, and