

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

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IN THE MATTER OF THE APPLICATION OF
TRANSCANADA KEYSTONE PIPELINE, LP FOR A HP07-001
PERMIT UNDER THE SOUTH DAKOTA ENERGY
CONVERSION AND TRANSMISSION FACILITY ACT
TO CONSTRUCT THE KEYSTONE PIPELINE PROJECT
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Transcript of Proceedings
December 5, 2007
Volume III, Pages 476-764
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BEFORE THE PUBLIC UTILITIES COMMISSION,
DUSTY JOHNSON, CHAIRMAN
GARY HANSON, VICE CHAIRMAN
STEVE KOLBECK, COMMISSIONER

COMMISSION STAFF
John J. Smith, Commission Counsel
Kara Semmler, Staff Attorney
Karen Cremer, Staff Attorney

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appearing on behalf of the Applicant;

Reported By Cheri McComsey Wittler, RPR, CRR

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12 =====
13 TRANSCRIPT OF PROCEEDINGS, held in the above-entitled
14 matter, at the South Dakota State Capitol, Room 412, Pierre,
15 South Dakota, on the 5th day of December 2007, commencing at
16 8:30 a.m.
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1 MR. SMITH: Good morning, everyone. It's 8:30 on

2 Wednesday, December 5, and we are reconvening the hearing in

3 HP07-001, Application of TransCanada Keystone Pipeline, LP to

4 construct a crude oil pipeline in South Dakota.

5 We're continuing with the Applicant's direct case. We

6 had originally scheduled that to be completed yesterday, and

7 that didn't occur. So this morning we're going to attempt to

8 finish up the Applicant's case in chief here.

9 Mr. Koenecke, please proceed.

10 MR. KOENECKE: Thank you, Mr. Smith. We'll call

11 Brian Thomas to the stand. While he's advancing I'll tell you

12 because he's our final witness, he's had some questions which

13 have been addressed to him during the course of the prior

14 testimony. We'll take him through those. He's got one addition

15 to his rebuttal testimony, and we should be right along shortly.

16 Thank you.

17 (The witness is sworn by the court reporter)

18 DIRECT EXAMINATION

19 BY MR. KOENECKE:

20 **Q.** Good morning, Mr. Thomas. Would you state your name and

21 business address for the record, please.

22 **A.** My name is Brian Thomas, and business address is

23 450 First Street Southwest, Calgary, Alberta, Canada.

24 **Q.** Are you employed in some capacity by the Keystone Project?

25 **A.** Yes, I am. I'm Keystone's coordinator of oil movements.

1 Q. Can you tell us briefly what that entails?
 2 A. That would entail development of the pipeline control
 3 center along with the scheduling and oil accounting functions,
 4 and as well I have responsibility for development of Keystone's
 5 emergency response or oil spill response plan.
 6 Q. Did you provide written testimony in this case?
 7 A. Yes, I did.
 8 Q. Do you find copies up there at the desk, perhaps at your
 9 right?
 10 A. I have.
 11 Q. I'll direct your attention first to what's been marked as
 12 TC 8D. Is that your direct testimony?
 13 A. Yes, it is.
 14 Q. Do you have any additions or corrections to that?
 15 A. I do not.
 16 Q. And I'll direct your attention to 8R. Is that your
 17 rebuttal testimony?
 18 A. Yes, it is.
 19 Q. Do you have any additions or corrections to that?
 20 A. I have one addition.
 21 Q. I'll advance and show you what I've marked as Exhibit
 22 TC 20. I passed out copies of that this morning to those seated
 23 at the counsel table and some in the gallery as well.
 24 Can you tell me what TC 20 is?
 25 A. TC 20 is a chart that provides additional information with

1 respect to calculated spill volumes associated with a potential
 2 leak and provides additional information to that provided on
 3 page 5 of my rebuttal testimony.
 4 Q. I note that there is a similar graph depicted on the top of
 5 page 5. Is this in addition to that?
 6 A. Yes, it is in that it -- the TC 20 provides calculated
 7 spill volumes for small and medium-sized leaks in addition to
 8 the large leak that was initially provided in my rebuttal
 9 testimony.
 10 The large leak volumes are identical on the two charts. So
 11 it's additional information with respect to the small and
 12 medium-sized leaks.
 13 Q. And TC 20 was prepared under your direction?
 14 A. Yes, it was.
 15 MR. KOENECKE: I'll move admission of TC 20 at this
 16 time.
 17 MR. RASMUSSEN: No objection.
 18 MR. SMITH: Staff?
 19 MS. SEMMLER: No objection.
 20 MR. SMITH: Other Interveners? Objection?
 21 TC 20 is admitted.
 22 Q. Mr. Thomas, I note at the bottom that the mile posts on the
 23 chart that's on page 5 that seem to start at page 4 and continue
 24 to 218, it just says, Mile post. And then I note on TC 20 it
 25 says -- do you see where it says South Dakota miles?

1 A. Yes, I do.
 2 Q. Can you discuss what the mileage tables represent at the
 3 bottom of each of those?
 4 A. Yes. The X axis along the bottom of the chart describes
 5 the miles along the State of South Dakota. So mile post 0
 6 corresponds to the North Dakota/South Dakota state line and then
 7 provides the spill volumes throughout the State of South Dakota.
 8 Q. Mr. Thomas, why do you calculate expected spill volumes
 9 like this?
 10 A. Spill volumes are calculated to -- they're calculated such
 11 that your oil spill plan is based upon the volumes calculated as
 12 a result of this analysis. The code requirements basically
 13 require a calculation of what's referred to as a worst case
 14 volume. So that would be the maximum volume that a pipeline
 15 could spill at any point along the right of way.
 16 And then you develop your emergency response plan with
 17 respect to the amount of equipment, resources, manpower that
 18 would be required to deal with such a spill.
 19 Q. Are you going to make any response plans or placement of
 20 equipment or people based on the medium or small spill volumes?
 21 A. No. Those are simply provided as additional information.
 22 They were provided with the DNV report that was referred to at
 23 these proceedings yesterday and are only provided from that
 24 perspective. They're not used in any manner when it comes to
 25 planning and -- planning and developing your emergency response

1 plan.
 2 Q. Mr. Thomas, you've been here over the last couple of days,
 3 have you not?
 4 A. Yes, I have.
 5 Q. And have you -- I presume you've heard several questions
 6 that have been directed to your attention, and I'd like to take
 7 you through those.
 8 The first one that I recall is what protection does the
 9 SCADA system have from internet hackers or other computer
 10 wrongdoers?
 11 A. Keystone's SCADA system will be designed such that it's
 12 independent of other corporate and business-related systems. It
 13 will also utilize what I'll call industrial protocols such that
 14 it -- they're encrypted, and it is very difficult for anybody to
 15 hack into a system such as this.
 16 Q. Take me through what might happen to the SCADA system in
 17 the event of a power outage at any point along the line.
 18 A. In the event of a power outage the -- if it's a single
 19 station, the local equipment at that station will automatically
 20 drive the station to what we call safe levels such that the
 21 maximum allowable operating pressure cannot be exceeded.
 22 It's as well important to note that Keystone is a batched
 23 pipeline. So it's very important for us to keep the pipeline
 24 operating in what we call turbulent flow. And what turbulent
 25 flow basically means is that the pipeline operates at a flow

1 rate with a high enough Reynold's number such that the batches
2 do not mix with one another. And in the event Keystone were to
3 lose power to two pump stations consecutively, we're not able to
4 achieve a rate high enough that would keep us in turbulent flow.

5 So the pipeline is shut down by the operator as a result of
6 that. And it would not operate if there are two consecutive
7 pump stations without power.

8 Q. Mr. Thomas, are you familiar with techniques which would be
9 required to shut down the pipeline for repair?

10 A. I am.

11 Q. Would the pipeline have to be drained completely in order
12 to, say, cut in a valve?

13 A. No. There are various techniques to replace sections of
14 pipe, install valves, and perform those sorts of maintenance
15 activities, one of which, of course, would be to drain down the
16 entire line segment.

17 That is very rarely done because, you know, typically those
18 drain up volumes are so large they're difficult to deal with.

19 So what is more typically done is a product called a stopple
20 tee. And one of the manufacturers of those is T.D. Williamson.

21 Those stopple tees can be installed at any point along the
22 pipeline and actually used very similar to a valve. So they can
23 be installed, again, at any point along the pipeline, used as a
24 valve, and then basically you install these kind of on either
25 side of a section of pipe that you may want to remove or a valve

1 you may want to install. And then you only actually have to
2 drain up then what's in between these two stopple fittings.

3 Q. Mr. Thomas, would there be a reason to put check valves at
4 all 14 valve sites in South Dakota?

5 A. Well, check valves are -- again, as was discussed
6 yesterday, they are suitable for preventing this backflow that
7 was referred to yesterday. So they prevent flow in the
8 direction reverse to the normal pipeline flow.

9 So in many instances, dependant upon the elevation profile,
10 they don't provide, you know, a suitable form of shutoff.

11 Because they would allow -- if a check valve, for example, was
12 placed in a valley, the part of the liquid column that's on the
13 upstream side of that valley would flow directly through the
14 check valve. Because, again, they're only designed to prevent
15 flow in the reverse direction.

16 So in many instances they don't provide the protection
17 that -- well, they're only suitable for locations where you want
18 to prevent this backflow. And the remotely controlled gate
19 valves that Keystone's proposing in the other locations permits,
20 of course, flow in both directions.

21 Q. I believe there was a question about remote sensing of
22 leaks from aerial surveillance. Did you hear a question like
23 that?

24 A. Yes, I did.

25 Q. Are you familiar with that kind of technology?

1 A. I'm familiar with a few of the forms of that technology
2 that are what I would consider at this point more or less in
3 their infancy. And there's more work being done every day with
4 respect to these systems.

5 But at this point to my knowledge there hasn't been a
6 system developed that would be useful from an aerial patrol
7 perspective in an application such as the Keystone Pipeline.

8 Q. Would you consider using one should they be developed to
9 the point where they are --

10 A. Absolutely.

11 Q. Thank you. Finally, my recollection is that there were
12 questions on oil spill remediation.

13 Mr. Thomas, are you an oil spill remediation expert?

14 A. No. I'm not an expert. I have been involved in some
15 activities that included remediation work, but I certainly
16 wouldn't consider myself an expert.

17 Q. Would you say you're generally familiar with the
18 remediation techniques?

19 A. Yes. I have been involved in a few of these activities so
20 I have seen some of these techniques.

21 Q. Could you discuss generally for us what kind of remediation
22 techniques would be available in the event of an oil spill in
23 South Dakota?

24 A. Yes. There are a number of techniques that are available
25 and are utilized dependant upon the -- the particular situation.

1 In the event there were a spill and cleanup and remediation
2 necessary, these activities are all done in conjunction with
3 federal, state authorities, as well as the landowner involved.

4 Some of the more typical techniques would be to excavate
5 the contaminated soil, dispose of that soil in a approved
6 landfill or actually incinerate the soil on site and then, of
7 course, replace what has been removed.

8 There are also techniques that I'll call bioremediation or
9 land farming of a particular site. What that involves is
10 tillage and adding fertilizer and actually allowing the
11 microorganisms that are there to actually deteriorate or eat the
12 hydrocarbon.

13 There are also what I'll call natural recovery techniques,
14 which are sometimes applied in areas such as wetlands where it
15 would really -- any sort of additional activity in that area
16 might be worse for the environment than just leaving things as
17 they are. So that is sometimes applied in certain specific
18 areas.

19 And then finally there are also the use of dispersants and
20 other chemicals that assist with degradation of the oil are
21 sometimes used.

22 MR. KOENECKE: The witness is available for
23 cross-examination.

24 MR. SMITH: Mr. Rasmussen, please proceed.

25 MR. RASMUSSEN: Thank you.

CROSS-EXAMINATION

2 BY MR. RASMUSSEN:

3 Q. Mr. Thomas, a lot of the witnesses referred to you in their
4 questions so you must be the man with all the answers; is that
5 right?

6 A. I guess time will tell.

7 Q. All right.

8 MR. SMITH: Ask his wife.

9 Q. Looking at your direct testimony starting with paragraph 7
10 on page 2, you indicate that you're responsible for the
11 information provided in Section 2.3.2 of the Application on
12 "abnormal operations."

13 How do we define the term "abnormal operations," or how do
14 you define that term, I guess?

15 A. Abnormal operations I guess very simply defined is
16 something that wouldn't be normal. It would involve an upset
17 pipeline condition, conditions where -- such as a loss of
18 communications, an instantaneous loss of a pumping unit or
19 pumping station, something along those lines that would take you
20 away from steady state flow conditions.

21 Q. And I think in the next paragraph, paragraph 8, you
22 actually list some of those things that you've just mentioned,
23 including unintended closure of valves or shutdowns, decrease in
24 pressure, et cetera; correct?

25 A. That's correct.

1 Q. And those are all things as a person in your position you
2 recognize that are things that can possibly occur and can cause
3 problems with a pipeline such as this; correct?

4 A. That's correct.

5 Q. Turn to page 7 of your testimony. I'm looking at
6 paragraph 11. You refer to the operations control center. That
7 is located in Canada; is that right?

8 A. It's located in Calgary, Alberta, Canada, yes.

9 Q. And that's manned 24-seven; correct?

10 A. Correct.

11 Q. Is there going to be any place in South Dakota where there
12 will be a manned facility 24 hours a day seven days a week?

13 A. Not 24 by seven in South Dakota.

14 Q. I think I --

15 A. I might just add that we'll certainly have people that are
16 on call 24 by seven, but there won't be a, per se, manned
17 facility.

18 Q. Uh-huh. My understanding from what I've seen is that at
19 this point in time the intention is to have some sort of
20 facility in Yankton manned by three people; is that right?

21 A. We've identified Yankton as a location for a maintenance
22 facility. The exact numbers of people have not yet been
23 determined.

24 Q. And I assume then there will be maintenance facilities
25 similar to that up and down the line?

1 A. There will.

2 Q. Where would the next one to the north be of the Yankton
3 facility?

4 A. That hasn't been determined as of yet.

5 Q. Somewhere in North Dakota or maybe not even that --

6 A. At this stage I really couldn't say accurately.

7 Q. How about to the south? What's the nearest manned facility
8 to the south of Yankton?

9 A. That again has not been developed to this point.

10 Q. Turn to page 8. And the first bullet point there on the
11 top of the page. You mention that -- well, you're going through
12 the various means of leak detection, and the first one you
13 mention is remote monitoring by the SCADA system; is that right?

14 A. Well, remote monitoring performed by the OCC operator.

15 Q. All right. Are all the bullet point related -- or that
16 talk about -- well, let's do this. Why don't you explain to me,
17 what exactly is the SCADA system, and how does it operate?

18 A. I would describe the SCADA system as basically being
19 comprised of three components. We basically have the field
20 devices that are installed at the pump stations, valve sites
21 along the pipeline right of way. We have a communication system
22 that basically takes information from that equipment and then
23 provides it to what I'll call a central or host computer that's
24 located in Calgary. And then that information is displayed on
25 an HMI, or human machine interface, that allows the operator to

1 view that information and also execute commands.

2 Q. And so the operator portion of it would be what you're
3 talking about in the first bullet point then?

4 A. That's correct.

5 Q. And that remote monitoring is typically able to detect
6 leaks down to approximately 25 to 30 percent. So that would
7 still allow for a significant leak if you've got 25 or
8 30 percent leaking; correct? Without it being detected?

9 A. Well, that system on its own would.

10 Q. I realize you have further systems, but with that one on
11 its own; correct? I mean, is that what it means is it would
12 allow for a leak of up to 25 percent without it being detected
13 by the OCC operator?

14 A. Well, I guess, not necessarily. It's just it would take a
15 longer period of time likely.

16 Q. Well, why don't you explain to me what -- maybe I'm
17 misinterpreting. What is the statement, "Remote monitoring is
18 typically able to detect leaks down to approximately 25 or
19 30 percent of pipeline flow rate"? What does that mean?

20 A. Well, that is intended to mean more or less instantaneous
21 detection of a leak so that the -- in this case what we're
22 seeing is that on more or less an instantaneous basis that an
23 operator could detect a leak down to that threshold.

24 Q. Then the next bullet point says, Next are software-based
25 volume balance systems that monitor injection and delivery

1 volumes, and those systems are typically able to detect leaks
 2 down to approximately 5 percent of pipeline flow rate.
 3 Tell me what you're referring to there, please.
 4 **A.** Well, that again is on a more or less, I'll say,
 5 instantaneous basis. These volume balance systems look at
 6 volumes that are injected into the system and those volumes that
 7 are delivered out of the system and do a -- basically an over
 8 short comparison.
 9 **Q.** And the next are the computational pipeline monitoring,
 10 which you state could detect leaks down to a level of
 11 approximately 1.5 to 2 percent of pipeline flow rate.
 12 What is that?
 13 **A.** That is what I would refer to as a complex sophisticated
 14 transient model of the pipeline system. And it -- again,
 15 dependant upon the size of the leak, can detect leaks down to
 16 this threshold of as we've indicated 1 and a half to 2 percent.
 17 **Q.** So a leak below 1 and a half to 2 percent potentially is
 18 not detected by this SCADA system; is that right?
 19 **A.** Well, I could refer you as well to my rebuttal testimony.
 20 And under item number 4 I've described another system that will
 21 allow Keystone to detect leaks below that 1 and a half to
 22 2 percent threshold.
 23 **Q.** Well, we'll get to that, but as far as your initial direct
 24 testimony was concerned, that was the threshold level? It was
 25 1.5 to 2 percent; correct? With the SCADA system.

1 **A.** Yes.
 2 **Q.** The rebuttal testimony that you've just referenced, is that
 3 part of the SCADA system also, or is that some other type of
 4 system?
 5 **A.** No. That's all part of the SCADA system as well.
 6 **Q.** If we were to use the 2 percent level, that would --
 7 correct me if I'm wrong, but I believe -- and if we look at -- I
 8 think right now there's contracts for 495,000 barrels per day.
 9 Using that number, I think that would equate to a little over
 10 20,700,000 gallons.
 11 Does that sound about right?
 12 If you want to use a calculator, I can sure --
 13 **A.** If I could just ask over what period of time?
 14 **Q.** A day. If we're looking at 495,000 barrels per day, that
 15 would equate to -- 42 gallons per barrel; correct?
 16 **A.** Correct.
 17 **Q.** So you just multiply 42 by 495,000 and you come up with the
 18 20,790,000 gallons, do you not?
 19 **Q.** So that's the --
 20 **Q.** Yeah. Per day. Would you agree with that?
 21 **A.** Yes.
 22 **Q.** Okay. So if we're looking at 2 percent of that number,
 23 you'd be looking at up to 415,800 gallons per day that would be
 24 2 percent of the pipeline flow rate.
 25 Would you agree with that?

1 **A.** Well, subject to actually checking those numbers, yes.
 2 **Q.** Mr. Hohn just calculated it too. He came up with the same
 3 number. So if you believe both of us, that that would sound
 4 reasonable, wouldn't it, that that would be 2 percent of that
 5 number?
 6 **A.** Yeah.
 7 **Q.** Okay. Now in the -- if the leak, a 2 percent leak, was
 8 undetected, that amount of product could escape from the
 9 pipeline until the leak was detected; correct?
 10 **A.** If the leak went undetected, that amount of pipeline (sic)
 11 would escape from the pipeline.
 12 **Q.** That amount of product. I think you said that amount of
 13 pipeline.
 14 **A.** I'm sorry.
 15 **Q.** Yeah. The DNV study, you're familiar with that, are you
 16 not?
 17 **A.** Yes, I am.
 18 **Q.** And, in fact, I think I've got in the big notebook there it
 19 says Exhibit C, March '07 to your left there. That one right
 20 there. I've tabbed the most recent DNV study. It's after the
 21 big maps. There should be a tab there at least unless somebody
 22 removed it.
 23 **A.** I'm sorry. I don't see a tab.
 24 **Q.** Okay.
 25 **MR. RASMUSSEN:** Did you take it out? No. Here it is.

1 **MR. KOENECKE:** No. I didn't take it out.
 2 **Q.** That's I believe the most recent DNV study dated March 28
 3 of '07; is that right?
 4 **A.** Yes, it is.
 5 **Q.** That study on page 20 has a table labeled 5-2, does it not?
 6 **A.** Yes, it does.
 7 **Q.** And in the DNV study they were assuming that the threshold
 8 level -- you've referred to 1.5 to 2 percent. They just use the
 9 number 1.5, do they not?
 10 **A.** They have.
 11 **Q.** And in their study in table 20 they indicate that a leak of
 12 that magnitude of less than 1.5 percent could go undetected up
 13 to 90 days; correct?
 14 **A.** That's what's indicated in the chart, yes.
 15 **Q.** And if we take the 415,800 gallons times 90 days, we're
 16 looking at potentially over of 37 million gallons leaking if you
 17 use those numbers on that DNV study; correct?
 18 **A.** Yes.
 19 **Q.** In paragraph 15 of your direct testimony you state that
 20 leak detection time thresholds for leaks below the 1.5 to 2
 21 percent threshold cannot be definitely estimated; is that right?
 22 **A.** That's correct. And that is due to the fact that
 23 site-specific circumstances associated with leaks of that size
 24 make providing a definitive number impossible.
 25 **Q.** And you would agree that any sort of computer system like

1 the SCADA system is subject to malfunctions at times?

2 **A.** With the redundancy that Keystone has designed into its

3 SCADA system, I would find it highly unlikely for that to occur.

4 **Q.** Unlikely but certainly possible?

5 **A.** Well, if you're asking is the probability zero, I can't say

6 the probability is zero.

7 **Q.** Paragraph 18 on page 11 of your direct testimony you

8 reference the emergency response plan. And that is certainly an

9 important part of this project, to get that plan completed.

10 Would you agree with that?

11 **A.** Yes, it is.

12 **Q.** And you say it can't be finalized at this point. What

13 needs to be done before that plan can be finalized?

14 **A.** Well, a number of things. The route has to be finalized.

15 The final designs have to be completed. And once all of that

16 information is known, then we will perform a worst case

17 discharge analysis, again, as required by federal codes.

18 It will be very similar to the work that was done in the

19 exhibit provided earlier. We'll look at a fate and transport

20 analysis of where, in fact, any of those spill volumes may

21 migrate and then base our plans from that work.

22 **Q.** What sort of time frame would we be looking at then for

23 that to be completed?

24 **A.** We intend to have the emergency response plan completed in

25 the first quarter of 2009. That will allow us approximately

1 nine months to go through the training process with Keystone

2 employees, contract employees, other potential responders and

3 have all of that in place ahead of actually line filling the

4 Keystone Pipeline.

5 **Q.** Take a look at page 18 of that DNV study that you have

6 there.

7 As I read that section, it looks to me like there's three

8 time periods involved in dealing with the leak. First is the

9 detection time, then the verification time, and then isolation.

10 Would you agree with that? Is that the way you would look

11 at dealing with a pipeline leak situation?

12 **A.** Yes. I believe that's reasonable.

13 **Q.** According to your report, paragraph 15 --

14 MR. KOENECKE: Your report, paragraph --

15 MR. RASMUSSEN: Sorry. The direct testimony.

16 MR. KOENECKE: Thank you.

17 **Q.** Would that reference the -- what's referred to in the DNV

18 study as the detection time?

19 **A.** Yes, it would.

20 **Q.** So a leak at the threshold level, which would be anywhere

21 at or above 1.5 to 2 percent, would be expected to be detected

22 in 140 minutes or less; correct?

23 **A.** That's correct. The larger the leak the quicker the

24 detection time.

25 **Q.** Sure. And then you go on to again state that the leaks

1 below that level could remain undetected for time periods longer

2 than 140 minutes, but you don't know exactly how long that would

3 be.

4 Would that be a fair statement?

5 **A.** Dependant again on site specific circumstances. It's not

6 feasible to estimate a definitive time for leaks in that very

7 small size range.

8 **Q.** Then after the detection time -- or the detection occurs

9 then there's what's called verification time. What is

10 verification time?

11 **A.** Well, that -- verification time, I believe if you refer

12 back to the DNV report, that's all part of the detection

13 verification. So in the case here at item 15 of my direct

14 testimony there's really no additional time beyond the

15 140 minutes that would be included in that step.

16 Once the leak detection system detects a leak, the control

17 center procedures will be such that the pipeline will be

18 immediately shut down.

19 **Q.** Okay. So paragraph 15 would be both detection and

20 verification then?

21 **A.** That's correct.

22 **Q.** Verification would be the time required for the operator to

23 confirm that a leak is occurring and for that operator to decide

24 to take whatever action is appropriate; is that right?

25 **A.** Sorry. Could you restate that?

1 **Q.** Verification time would be the time necessary for the

2 operator to confirm that a leak is actually occurring and for

3 him to take the steps necessary to deal with that situation.

4 **A.** In the case of the 25 to 30 percent limit that -- by direct

5 observation that I described earlier, your statement is correct.

6 **Q.** Okay.

7 **A.** In a case of a leak alarm generated from the leak detection

8 system, once that alarm is received, the operator doesn't take

9 any additional steps. They would immediately by procedure shut

10 the pipeline down.

11 **Q.** Does that require some human to do that, though, or does it

12 automatically occur?

13 **A.** No. It doesn't automatically occur.

14 **Q.** So somebody has to make the decision to shut the pipe down

15 when the alarm comes in or take the steps to do that?

16 **A.** That's correct.

17 **Q.** All right. Does that operator sitting up there in Canada

18 have to consult with anyone before shutting the pipeline down?

19 **A.** No. They certainly do not.

20 **Q.** Is there any chance of a false positive on this system

21 where the alarms would go off when there was actually not a

22 leak?

23 **A.** There are occasions where that is -- there is some

24 possibility, yes.

25 **Q.** So does the operator do anything to attempt to verify

1 whether there really is a leak if the alarms go off?
 2 **A.** Yes, they do.
 3 **Q.** What do they do?
 4 **A.** They would review various other informational screens to
 5 see whether the data associated is consistent with that that
 6 would be indicative of a leak.
 7 **Q.** So it would be possible for the alarms to go off, the
 8 operator to check other data, and conclude that it doesn't
 9 appear that there is a leak, and then in that situation the
 10 system would not be shut down?
 11 **A.** That's possible, yes. I might just add to that, though.
 12 Keystone will employ a very specific time limit for those
 13 activities to occur. And at the conclusion of this time period
 14 a line shutdown would be mandatory.
 15 **Q.** Okay. You don't want to be shutting down the line if there
 16 isn't a leak because that certainly is not a good thing to do
 17 economically or otherwise, is it?
 18 **A.** Well, it's not a good thing to do economically certainly,
 19 but I would kind of characterize Keystone's procedures as being
 20 conservative in that sense and that a line shutdown would be
 21 undertaken if there is that suspicion of a leak.
 22 **Q.** Then the DNV report talks about isolation time. And that's
 23 the time that's -- that it takes to isolate the section of the
 24 pipeline where the leak is occurring.
 25 Would that be a fair summary?

1 **A.** Yes.
 2 **Q.** And that's done by shutting valves and -- well, essentially
 3 that's the main thing is shutting valves, isn't it, and turning
 4 off the pipeline?
 5 **A.** After -- yes. After the pumping units are stopped, then
 6 you would close the isolation valves.
 7 **Q.** How long does it take to actually close one of the valves?
 8 **A.** The valves themselves will have I think for the most part
 9 electric actuators that will take three minutes to physically
 10 close.
 11 **Q.** And I think somewhere we've got where it takes nine minutes
 12 to shut the pumps down?
 13 **A.** That's correct.
 14 **Q.** Look at paragraph 24 of your direct testimony, please. In
 15 that paragraph, which goes on for several pages, you talk about
 16 the various steps that are taken to deal with a potential spill;
 17 is that right?
 18 **A.** That's correct.
 19 **Q.** Okay. At the bottom of page 12 you note, "Upon
 20 notification of a potential spill the Keystone operations
 21 control center will perform an emergency pipeline shutdown and
 22 close remotely operable isolation valves."
 23 That's again after the operator has verified that there is
 24 actually a leak occurring; correct?
 25 **A.** That's correct.

1 **Q.** All right. And then you've got the time periods we've
 2 already talked about that it takes to shut the pumps and the
 3 valves down.
 4 Then at the bottom of page 13 you reference the oil spill
 5 response plan. And I guess that's the same thing as the
 6 emergency response plan that we referenced earlier?
 7 **A.** That's correct.
 8 **Q.** And you note that it's activated by contacting the first
 9 responder. Who is the first responder to a potential leak
 10 situation?
 11 And let's say it's occurring somewhere in South Dakota.
 12 Who would the first responder be?
 13 **A.** The first responders will be personnel that we have
 14 stationed along the pipeline right of way that are on call seven
 15 by 24 to respond in the case of a suspected leak.
 16 **Q.** Okay. As far as South Dakota is concerned, would that be
 17 the people in Yankton that would be the first responders?
 18 **A.** For that particular area, yes.
 19 **Q.** And so they -- they would have to travel to the location
 20 then where the leak is suspected to be occurring?
 21 **A.** Yes, they would.
 22 **Q.** All right. How many people would we be talking about that
 23 would make up the first responder group?
 24 **A.** That, you know, again, is part of the development of our
 25 emergency response plan. We haven't as yet finalized that to be

1 able to give you the exact numbers.
 2 Our intent is to have people positioned along the pipeline
 3 right of way such that we can respond to any location along the
 4 right of way within four hours.
 5 **Q.** Okay. Would somebody in Yankton be able to respond to the
 6 entire pipeline area in South Dakota within four hours? Do you
 7 know?
 8 **A.** I would expect not.
 9 **Q.** So you would expect there would be somebody else along the
 10 route in Yankton that would respond to a leak that might occur
 11 in northern South Dakota?
 12 **A.** I would expect so, yes.
 13 **Q.** What sort of person -- would that be a Keystone employee or
 14 a contract employee?
 15 **A.** It could be either.
 16 **Q.** So it's possible there's going to be other Keystone
 17 employees stationed somewhere along the line in South Dakota
 18 other than just at Yankton?
 19 **A.** Yes, it is.
 20 **Q.** Do you think that's likely, or is that just something that
 21 hasn't been determined yet?
 22 **A.** Sorry. Could you just restate that?
 23 **Q.** Is it likely there will be other Keystone employees
 24 stationed somewhere along the line in South Dakota?
 25 **A.** It's likely that there will be other Keystone either

1 employees or contract people, yes.

2 **Q.** Under the subheading first responder then, moving over to

3 page 14, it mentions, "Notification of the regional EOC manager

4 and qualified individual."

5 Just so I'm clear on this, Canada would -- the person in

6 Canada would notify the first responder in South Dakota. That

7 would be the first person that would be notified or first group

8 of people that would be notified?

9 **A.** That's correct.

10 **Q.** All right. And then who notifies -- well, is the regional

11 EOC manager and qualified individual, are those two different

12 people?

13 **A.** No. The regional EOC manager is the qualified individual.

14 **Q.** Okay. All right. So who notified -- where is the original

15 EOC manager located?

16 **A.** He would be located at the regional office.

17 **Q.** Which is where?

18 **A.** Well, that as well hasn't been determined specifically.

19 **Q.** All right. How big of a -- typically how big of a region

20 are we talking about? Does it cover several states, or is there

21 going to be one in each state?

22 **A.** I guess it's -- I don't -- I don't have that information at

23 this point in that, you know, we haven't planned at that level

24 of detail.

25 **Q.** Who notifies the regional EOC manager?

1 **A.** Typically that notification would come from the operations

2 control center in Calgary as well.

3 **Q.** I see. If I would have read the next line, I would have

4 seen that. Okay. Then what does the -- what does the regional

5 EOC manager do?

6 **A.** The regional EOC manager basically activates what we call

7 the regional emergency command center. So he would activate

8 this what I'll call remote command center while the -- excuse

9 me -- a similar command center is activated at the leak site.

10 So we would have a command center located at the leak site,

11 and then we would also have a similar command center activated

12 off site at the regional office.

13 **Q.** And just so I guess we're clear, EOC refers to emergency

14 operations center?

15 **A.** Yes, it does.

16 **Q.** Then it goes on to state that the emergency site manager,

17 who's also a qualified individual, is notified. Who is that

18 person?

19 **A.** That person begins with the first responder and as

20 additional manpower arrives at site typically a more senior

21 individual would take over as the emergency site manager.

22 **Q.** But the first responder would be a qualified individual

23 also?

24 **A.** They are initially, yes.

25 **Q.** I assume that just refers to some level of training; is

1 that right?

2 **A.** Well, it refers to the level of training, but it also

3 refers to having the financial authority to -- necessary to deal

4 with a leak scenario.

5 **Q.** Then there's a reference to the corporate EOC manager being

6 contacted. Who is that?

7 **A.** Yes. The corporate EOC is also activated. That center is

8 actually in Calgary, Alberta.

9 **Q.** Is the corporate EOC manager above the regional EOC manager

10 as far as the hierarchy is concerned, or is it different

11 positions?

12 **A.** It's entirely different positions. Like the intent of the

13 structure is really designed to ensure that the emergency site

14 manager, the personnel that are actually on the site, have the

15 full authority to execute whatever is necessary to deal with the

16 situation.

17 The regional EOC is there to support the site, provide

18 whatever resources are requested from the site, and the

19 corporate EOC in Calgary actually performs a very similar role.

20 **Q.** Well, how is their role different? I mean, the regional

21 guy would be on site. What is the corporate EOC manager doing?

22 I mean, he or she doesn't go on site?

23 **A.** No, they do not.

24 **Q.** What do they do?

25 **A.** They're there to support the -- they're the regional EOC as

1 well as the emergency site.

2 **Q.** And then the next bullet says, "Agency contacts including

3 national response center and other state and local agencies are

4 contacted."

5 So the regional EOC manager and the corporate EOC manager

6 are contacted before state and local agencies are contacted?

7 **A.** Well, the regional EOC, once the command center is set up

8 there, that individual is responsible then for the agency

9 notifications.

10 **Q.** The emergency site manager then goes to the site, and you

11 indicate first responder's relieved. So emergency site manager

12 then at that point I think as you indicated previously takes

13 over the on-site cleanup or whatever has to be done?

14 **A.** That's correct. Yep.

15 **Q.** Will the location of the EOC manager, the regional EOC

16 manager, that sort of thing, will that all be part of the

17 finalization of the emergency response plan?

18 **A.** Yes, it will.

19 **Q.** Let's look at paragraph 25 on page 16. And this talks

20 about the expected response time for a spill at the farthest

21 point in South Dakota. And let's turn to page 17.

22 Well, I think -- you told me previously that the -- your

23 goal is to have a maximum response time anywhere on the pipeline

24 of four hours; right?

25 **A.** For the first responders.

1 Q. Yeah. Okay. And then you've got a table on page 17.

2 Explain what that -- I mean, that's talking about a six-hour or

3 12-hour time response. Six hours for high volume area, 12 hours

4 for all other areas for tier 1 resources.

5 First of all, what are tier 1 resources?

6 A. Tier 1 resources are, I think, well, described in various

7 areas, either further on in my testimony or elsewhere. But

8 basically the tier 1 resources are those resources that would

9 arrive at site and basically commence cleanup and repair

10 activities.

11 Q. Would that be the first responders that we --

12 A. No. The first responders arrive within the four hours.

13 Q. All right. They would be there first, and then the tier 1

14 resources would arrive later?

15 A. Would follow, yes.

16 Q. Okay. And if there was a leak, would the first responders

17 be capable of stopping that leak, or would that -- the leak

18 potentially continue until the tier 1 resource people got there?

19 A. It depends on the site-specific circumstances. The first

20 responders, you know, certainly don't arrive with any, you know,

21 heavy equipment and so on. But they are capable of, you know,

22 performing some containment activities.

23 Q. Okay. But the actual people that would commence to -- if

24 necessary, to dig up the pipeline and repair a leak would be

25 included in the tier 1 resources?

1 A. That's correct.

2 Q. All right. So the response time for them in a high volume

3 area, which you've defined as a major river crossing or -- I

4 guess that's primarily what you're defining there is the

5 high-volume area; is that right?

6 A. Well, it's actually not me defining it.

7 Q. I'm sorry.

8 A. That's basically a clause directly out of 49 CFR 194.15.

9 Q. Okay. But, in any event, would there be anywhere in

10 South Dakota other than the Yankton area which would be

11 considered a high-volume area?

12 A. Not to my knowledge.

13 Q. All right. So anywhere else -- anywhere other than the

14 Yankton area, the Code of Federal Regulations requires that the

15 tier 1 resources must be there within 12 hours?

16 A. That's correct.

17 Q. And Keystone would intend to -- well, as you say, would

18 meet or exceed those requirements?

19 A. That's correct.

20 Q. All right.

21 A. That again, you know, when we're developing our emergency

22 response plan, you know, we will ensure we meet those

23 requirements. You know, those are at the bounds of travel, so

24 to speak. So depending on the location of the leak, tier 1

25 resources could arrive certainly sooner than the 12 but no

1 later.

2 Q. Sure. And that will be a factor as to where you have your

3 various resources which will all be part of the emergency

4 response plan that's being developed?

5 A. That's correct.

6 Q. And the tier 2 and tier 3 resources are just additional

7 people or equipment that's needed to complete whatever needs to

8 be completed to deal with the situation; is that right?

9 A. That's correct.

10 Q. All right. Look at page 23 on your question 30. In the

11 second paragraph under that question you note, "In the unlikely

12 event of a fire associated with a pipeline rupture."

13 Again, although unlikely, fires do occur in connection with

14 crude oil pipeline ruptures, do they not?

15 A. I'm sorry?

16 Q. Fires do occur in connection with crude oil pipeline

17 ruptures at times?

18 A. Well, I guess they have occurred, yes.

19 Q. Okay. Let's move on to your rebuttal testimony then.

20 Paragraph 6 at the bottom of the page, on page 3 and then going

21 on to page 4 you note that in your opinion the DNV assumptions

22 were overly conservative? Is that your opinion?

23 A. Yes.

24 Q. Now DNV is a well-known risk management company that deals

25 with pipelines; is that right?

1 A. That's my understanding.

2 Q. And are you familiar with DNV?

3 A. In what sense?

4 Q. Well, have you seen their work before? Are they well

5 recognized in the industry?

6 A. I assume so. I guess I can't --

7 Q. Well, have you worked on pipelines like this previously?

8 A. Yes.

9 Q. Have you been familiar with DNV being used by --

10 A. I can't say that I've been associated with DNV prior to

11 this one.

12 Q. Did you have any direct involvement with the preparation of

13 the DNV report?

14 A. To some extent, yes.

15 Q. Okay. If you want to turn to the second page -- it's not

16 page 2. It's the page after the cover page -- that indicates

17 that -- I believe it says the client references is Ms. Kothari;

18 is that right?

19 A. I see that.

20 Q. And DNV was hired by Keystone to perform this analysis?

21 A. Yes.

22 Q. So I assume Keystone wouldn't hire a company that was not

23 reputable, would they?

24 A. It would be my assumption as well.

25 Q. Okay. That report indicates that it was prepared by

1 someone named Bjorn Nilberg, who's a principal consultant, was
 2 verified by another principal consultant named Cheryl Stahl and
 3 a senior administrative assistant named Susan Norman and then
 4 was approved by David Weimer, the upstream market sector leader.
 5 Are you familiar with any of these people?
 6 A. I'm familiar with Bjorn Nilberg.
 7 Q. And that's the individual who put together the report
 8 itself or primarily was responsible; is that right?
 9 A. I see he's listed as having prepared by.
 10 Q. Okay. Did you -- there's been at least one other draft of
 11 the report that we talked about yesterday. Is there reports --
 12 and I don't know if there were other ones. There may have been.
 13 But did you review the drafts as they were being prepared before
 14 this version we're looking at, which I believe was the most
 15 recent version, was signed by everyone?
 16 A. Yes. I've reviewed -- I wouldn't say thoroughly, but I've
 17 certainly seen and reviewed certain areas of them, yes.
 18 Q. Did you ask that any drafts be changed because you felt
 19 that they were overly conservative?
 20 A. No.
 21 Q. Paragraph 9 of your rebuttal testimony responds to -- I'll
 22 let you find that. Do you have that?
 23 A. Yes, I do.
 24 Q. It responds to a comment or some prefiled testimony by a
 25 Mr. Hannan who was one of the staff's experts in this case who

1 indicated that he believes the study should be revised to better
 2 account for the likelihood of damage to the pipeline caused by
 3 excavation activities.
 4 And your response to that is that Keystone did not include
 5 any sort of risk associated with agricultural resources such as
 6 plowing and tilling; is that right?
 7 A. Due to the depth of burial of 48 inches, as I indicate.
 8 Q. Okay. How about was there any analysis with regard to
 9 heavy equipment going over the top of the pipeline? Any
 10 potential that could be caused by that? Potential damage that
 11 could be caused by that?
 12 A. I'm sorry. Could you --
 13 Q. Was there any analysis of the risk of heavy equipment being
 14 driven over the top of the pipeline?
 15 A. I guess I'm not intimately familiar with the exact details
 16 of the analysis. It would certainly be my assumption that there
 17 was an analysis done.
 18 Q. That there was?
 19 A. Yes.
 20 MR. RASMUSSEN: Thank you, Mr. Thomas. That's all I
 21 have.
 22 MR. SMITH: Do you want to jump right in, Mr. Hohn, or
 23 would the Commissioners like to have a short break?
 24 (A short recess is taken)
 25 MR. SMITH: We're back in session following a short

1 break. Brian Thomas is still on the witness stand. And,
 2 Mr. Hohn, you may begin your cross-examination.
 3 CROSS-EXAMINATION
 4 BY MR. HOHN:
 5 Q. Good morning, Mr. Thomas.
 6 A. Good morning.
 7 Q. On page 1 of your direct testimony you -- second item you
 8 state that you're the president of BRIWEST Energy, Ltd., and
 9 you're consulting with TransCanada; is that correct?
 10 A. Well, Keystone, yes.
 11 Q. I'm sorry.
 12 A. That's correct.
 13 Q. Item 3 then refers to your position with Keystone as
 14 coordinator of oil movement. Are you performing that task as a
 15 contracted party or a direct employee?
 16 A. Well, this too indicates that I'm providing consulting
 17 services so I am a contract employee.
 18 Q. But with the title you said your position with Keystone is
 19 coordinator of oil movement. Do you have full authority for
 20 that task, or do you report to someone?
 21 A. Well, certainly I report to someone.
 22 Q. And who would that be?
 23 A. Mr. Jones.
 24 Q. Robert Jones. And do you work out of the operations
 25 control center?

1 A. I work out of the Calgary office.
 2 Q. Okay. And you -- I assume you will be -- based on this
 3 testimony in item 3, you'll be coordinating or in charge of the
 4 emergency response plan development?
 5 A. Yes. I will be overseeing the development of the emergency
 6 response plan.
 7 Q. You have mentioned this just briefly in response to
 8 Mr. Rasmussen, but could you summarize your -- and I know it's
 9 attached, but could you summarize for the hearing your
 10 background in oil pipeline operations and oil movement, your
 11 experience.
 12 A. Well, I have approximately 27 years in the pipeline
 13 business. 25 of that was with another pipeline company or it
 14 was involved in similar types of activities, involvement within
 15 the operations control center and various field positions at
 16 operating facilities and terminals.
 17 Q. And could you list a couple of examples of companies you've
 18 worked for in that capacity?
 19 A. There was just a single one.
 20 Q. And that was?
 21 A. That was Enbridge.
 22 Q. Enbridge?
 23 A. Enbridge. Correct.
 24 Q. Okay. Thank you. And what pipelines -- when you worked
 25 with Enbridge, what pipelines did you manage in that capacity or

- 1 oil flow did you manage? Which directions, what lines, if you
 2 could summarize?
 3 **A.** Well, I -- when I was involved with the control center it
 4 was the lines from Edmonton to Superior, Wisconsin, one of the
 5 lines from Superior, Wisconsin to Sarnia, Ontario and an
 6 additional line that ran from Norman Wells Northwest Territories
 7 down to Zama Lake, Alberta.
 8 **Q.** On the bottom of page 2, item 8 --
 9 **A.** Sorry?
 10 **Q.** On the bottom of page 2 of your direct testimony it's
 11 question 8, and then I think your response number 1-I, Sub I,
 12 unintended closure of valves and shutdowns.
 13 What would be the nature of an unintended closure? What is
 14 an example of an unintended closure?
 15 **A.** An unintended closure would be some sort of equipment
 16 malfunction or breakdown that would close a valve without it
 17 being commanded to close from the operations control center.
 18 **Q.** And that's listed as an abnormal operation under the
 19 federal code apparently because it happens from time to time?
 20 **A.** It's been known to happen, yes.
 21 **Q.** The top of the next page, 3, the next item -- I guess it
 22 would be 1-2, increase or decrease in pressure or flow. Explain
 23 what would cause an increase and then what would cause a
 24 decrease in pressure and flow.
 25 **A.** I guess one example of that may be a leak where the flow

- 1 rate may increase as a result of the leak. And so the flow rate
 2 on the upstream side of the leak may increase while the flow
 3 rate on the downstream side of the leak may decrease.
 4 **Q.** Would a pump malfunction cause an increase?
 5 **A.** An increase in --
 6 **Q.** Could a pump malfunction cause an increase in pressure or
 7 flow?
 8 **A.** Could you rephrase that, please.
 9 **Q.** Could the malfunction of a pump station or a pump in a pump
 10 station result in an increase in pressure and flow, an abnormal
 11 increase?
 12 **A.** I guess it's possible. It's more likely it would result in
 13 a decrease, but --
 14 **Q.** On the suction side there would be a decrease, but would
 15 there be an increase on the discharge side?
 16 **A.** In what circumstances?
 17 **Q.** If a pump malfunctioned and went beyond the control
 18 parameters of how you normally operate.
 19 **A.** Well, there would have to be, you know, a number of
 20 failures of control systems for that to occur because there are
 21 redundant levels of protection to prevent that.
 22 **Q.** I understand. But could -- if those things all lined up,
 23 the stars lined up, a pump -- could a pump cause an increase in
 24 pressure and flow?
 25 **A.** Well, if you were to consider double and triple jeopardy, I

- 1 guess at some point you could get there.
 2 **Q.** Okay. The next item in there, it's a III note, loss of
 3 communication. When we say communication are we talking SCADA
 4 communication?
 5 **A.** That would be my understanding, yes.
 6 **Q.** And how would loss of SCADA communication occur in your
 7 experience?
 8 **A.** Well, I'm not quite sure of your question, how would it
 9 occur.
 10 **Q.** This says one of the things that the federal code requires
 11 or assumes could happen is loss of SCADA communication. And so
 12 there must be -- you must have examples or know of examples of
 13 where SCADA communication hasn't been continuous.
 14 **A.** Dependant upon your communication system, you know, if
 15 you're using a telephone, for example, you could lose that
 16 telephone connection to a given pump facility.
 17 **Q.** That won't happen in our state. We have an excellent PUC.
 18 No, seriously, what is your communication system?
 19 Could you describe how the SCADA communicates with a point
 20 from Alberta to South Dakota?
 21 **A.** I guess we haven't finalized that design, but we expect at
 22 this point that it will be actually a satellite system. So we
 23 will have a satellite dish located at each of the facilities
 24 that will in turn communicate to the Calgary control center.
 25 **Q.** Have you used satellite communication in other projects?

- 1 **A.** Yes, I have.
 2 **Q.** And is there a reliability factor on that kind of
 3 communication?
 4 **A.** Well, certainly.
 5 **Q.** What is the success -- connection success rate on
 6 satellite?
 7 **A.** Well, I think most of the satellite providers will tell you
 8 it's 99.9 something. We will have a redundant form of
 9 communication as well, such that if a satellite communication is
 10 lost to a single pump station, we would have some kind of a
 11 backup system.
 12 **Q.** Based on your knowledge of this project design so far, what
 13 do you believe or what do you think the redundant system might
 14 be, the backup?
 15 **A.** I would expect it would be a telephone service provider.
 16 **Q.** Okay. The very bottom of that section, just before item 2,
 17 Or personnel error, which could cause a hazard to persons or
 18 property.
 19 In your experience what are some of the likely or possible
 20 personnel errors that might occur?
 21 **A.** I'm sorry. Could you just point out that section?
 22 **Q.** It's the one, two, three, fourth section from the top of
 23 page 3. Any other malfunction of a component deviation from
 24 normal operation or personnel error.
 25 What kinds of personnel error -- I assume it's an operator

1 error. Is that what that's saying?

2 **A.** Well, I guess whether it's an operator -- you know, within

3 the OCC or located at a field facility, it would apply.

4 **Q.** What kind of error might that be from your experience?

5 What are some examples, I guess?

6 **A.** An example might be a closed valve.

7 **Q.** Okay. Would it be somebody shutting something off to do

8 maintenance and then forgetting to turn it back on?

9 **A.** No. Because the way Keystone would operate is that the

10 shutdown of any equipment when we're talking pumping facilities

11 will be done from the control center. Personnel locally would

12 not be turning off or stopping any equipment without that,

13 controlled from the control center.

14 **Q.** Let me ask it another way. If you had -- I believe

15 Mr. Jones testified there would be three personnel stationed at

16 Yankton, and, as I recall, two were electrical technicians and

17 one was a pipe operator. Those would be TransCanada employees

18 from what he said.

19 If the electrician went to a pump station at Raymond, for

20 example, and was going to do work on the pump station to check

21 it or maintain, he may need to turn things off before he worked

22 on it and then turn it back on? Would you say that's correct?

23 **A.** Could you define "things"?

24 **Q.** Equipment at the pump station, control equipment,

25 electrical equipment. Before he worked on it, he might have to

1 shut something off?

2 **A.** Well, I don't want to leave you with the impression that

3 the technicians turn things off without the -- without that

4 being done from the control center. So the control center if

5 there was a need to stop pumping facilities at a given pump

6 station to allow a technician to do work, that would be

7 performed by the operator in Calgary.

8 **Q.** And so the -- let me just see if I understand how that

9 might work. Would the electrician then that arrives at the site

10 to do maintenance radio the control center and say I need to

11 work on this pump, could you shut it off? Is that how it would

12 work?

13 **A.** That's how it would work, although they wouldn't likely

14 radio them.

15 **Q.** Okay. You mentioned that you'd have personnel working

16 seven-24. I assume that's seven days a week 24 hours a day?

17 **A.** Could you refer me to a clause?

18 **Q.** Well, no. You were referring to your control center, and

19 you said the system would be monitored, and there would be

20 people watching the system 24 hours a day seven days a week? Is

21 that --

22 **A.** That's correct. The control center, the operations control

23 center in Calgary, will be manned seven hours a day -- pardon

24 me. Seven days a week, 24 hours a day.

25 **Q.** The way you were saying it is a little different than we

1 say it here and I misunderstood.

2 **A.** Okay.

3 **Q.** The operations personnel that will be full-time employees

4 at Yankton, for example, the three personnel that Mr. Jones

5 mentioned, are they on call 24 hours a day seven days a week, or

6 do they have shifts where they're on call?

7 **A.** Like Keystone will have a complement of people and

8 basically maintain an on-call what I would term a roster of

9 people that are on call seven by 24.

10 **Q.** So they would take turns?

11 **A.** That would be reasonable, yes.

12 **Q.** On page 7, item 10, it's the third bullet of your answer,

13 response. Additional automated features installed at the local

14 pump station level will also be utilize to provide pipeline

15 pressure protection in the event of communication with the SCADA

16 system are lost or are interrupted.

17 What are the additional features?

18 **A.** Well, I guess, one would certainly be a -- like a pressure

19 reduction or line pressures in the event communications are lost

20 at a given pump station would be automatically driven down at

21 that particular location such that there would be no potential

22 to over pressure the pipeline at any point downstream of the

23 pump station.

24 **Q.** So what would be performing that function? Is there a

25 control on-site, or is it the control computer at Alberta?

1 **A.** Well, no. It's driven down locally because you're without

2 communication with the host system in Calgary. So the local

3 system will know that it's not in communication with the central

4 host in Calgary and as a result of that will drive down to the

5 safe limits that I described.

6 **Q.** So it's set -- there's a small computer at the pump station

7 that if it couldn't communicate with the control center, would

8 then go to an operational mode that might diminish pressure and

9 flow?

10 **A.** That's correct. There are a number of what I'll call PLCs

11 or programmable logic controllers at the pump station

12 facilities.

13 **Q.** Would that be referred to as an RTU?

14 **A.** No. An RTU is commonly known as a remote terminal unit.

15 And typically utilized to speak directly with the host computer.

16 So you would -- in an architectural arrangement that involves an

17 RTU you would have several of these PLCs that in turn speak to

18 the RTU which in turn speaks to the host.

19 **Q.** But the PLC on site could operate all by itself if it

20 couldn't communicate with central for some reason?

21 **A.** I'm sorry. Could operate?

22 **Q.** The automated feature is then located in a PLC, local

23 computer that can operate by itself without communicating to

24 central?

25 **A.** That's correct. It senses a loss of communication with the

1 host and then executes its function.

2 **Q.** On the top of page 10, the bottom of the first paragraph of

3 your testimony, referring to small leaks, report to the OCC by

4 direct observation methods.

5 Who does that function? Who performs that task?

6 **A.** Well, I think I've listed them there, including aerial

7 patrol, employee contractor, or other third-party observation.

8 **Q.** In your previous testimony to Mr. Rasmussen you mentioned

9 that in addition to the three people stationed at Yankton there

10 could be others up and down the pipeline in South Dakota.

11 Would those be contract employees?

12 **A.** They could be either.

13 **Q.** So would that -- is it possible it could be a part-time

14 contract employee who might drive the route for you above and

15 beyond the aerial flights?

16 **A.** It's possible, yes.

17 **Q.** Particularly if you're looking for a leak?

18 **A.** Well, particularly if we're looking for the leak, yes.

19 **Q.** The third-party observation would be adjacent landowners?

20 **A.** That would be one example, yes.

21 **Q.** Somebody driving by maybe?

22 **A.** Yes.

23 **Q.** The top of page 12 -- excuse me -- you're referring to

24 tier 1, tier 2, and tier 3 personnel or crews, and you list

25 training. I assume any part-time employee would have to have

1 that training to perform tasks for -- we're talking about for

2 leak detection?

3 **A.** Yes. Whether it's employee, contractor, or otherwise, all

4 are provided with the same level of training.

5 **Q.** And is that required under the federal regulation?

6 **A.** It is.

7 **Q.** Is that -- what's the purpose of that training? If they're

8 not cleaning the leak up, what is the purpose of the training

9 let's say of an observer, somebody driving the line looking for

10 leaks? Why would that person need the training?

11 **A.** Sorry. Could you rephrase that?

12 **Q.** Sure. Let's say you've contracted with somebody local, a

13 retired farmer in the Andover area, to serve as one of your

14 spotters in the event of you think you might have a leak. That

15 retired farmer who's a part-time employee gets a call and is

16 asked to drive a certain route of the pipe to look for a leak.

17 Does he or she need tier 1, 8 HAZWOP (sic) training?

18 **A.** Well, no. Actually the training is more fully described

19 elsewhere. So basically the training that's provided is

20 consistent with the responsibilities that one might have.

21 **Q.** So could you summarize then the difference between the

22 training you'd have at tier 1, tier 2, and tier 3? I assume

23 some of these people are doing direct handling of the material

24 and some are not?

25 **A.** No. Those resources, tier 1, 2, and 3, are involved in

1 cleanup and repair activities.

2 **Q.** Okay. Thank you. On page 14 you refer to the various

3 levels of response. It starts on 13 and goes to 14, the first

4 response and then regional and emergency site management.

5 From the start of the first responder to a crew being on

6 site to start the cleanup, in your experience what is the total

7 time needed from first response -- first notification to having

8 boots on the ground doing the cleanup work.

9 I realize it's based on a distance, but I'll give you an

10 example.

11 **MR. KOENECKE:** If you'd let him answer, I'd appreciate

12 it. He was prepared to answer your question.

13 **A.** I guess it's certainly been my experience that, as I

14 testified to earlier, the four hours to have a first responder

15 on site and an additional 12 to have our tier 1 resources. In

16 many instances one is able to do a lot better than that.

17 **Q.** Let me give you an example. Let's first -- let just assume

18 there's a leak or a suspected leak near Britton, Britton,

19 South Dakota. And your team -- you have a group of three people

20 in Yankton.

21 Can you meet the four-hour response time from Yankton to

22 Britton?

23 **A.** I guess depending on the conditions. In many instances

24 maybe not.

25 **Q.** Conditions being driving conditions?

1 **A.** Driving conditions and such.

2 **Q.** They would respond with a vehicle? They'd take a vehicle,

3 not a plane?

4 **A.** Well, I guess it depends -- it would depend certainly upon

5 the circumstances.

6 The plan, the emergency response or oil spill response plan

7 once it's fully developed will ensure that those capabilities

8 that I quoted in terms of response times are I guess completed,

9 able, that we're able to meet that measure.

10 **Q.** So if in developing the emergency response plan -- you're

11 going to do that after the pipeline is built or under

12 construction; is that correct?

13 **A.** Well, it will be done as -- well, I guess it will be done

14 during -- well, some parts of the pipeline are being

15 constructed. It will be completed, though, a year in advance of

16 commencing line fill activities.

17 **Q.** If you in developing that plan you found that you couldn't

18 respond in four hours to the furthest distance away from your

19 center, what action would you take to modify the plan?

20 **A.** I guess there would be a number of different things that

21 you would do. Potentially look at additional people, look at

22 additional modes of transportation, and consider what might be

23 best.

24 **Q.** Okay. On the bottom of page 14, the second line from the

25 bottom, you're talking about -- well, it says, This is typically

1 accomplished primarily with containment booms and berms.
 2 Could you describe what a boom and a berm is and how it's
 3 used in emergency response?
 4 **A.** Well, that particular section is talking about containment
 5 within a waterway. And basically describing the -- I guess the
 6 primary forms of containment and recovery, that being
 7 containment booms that allow you to contain an oil spill that
 8 may be on water and recover the associated spilled volume.
 9 **Q.** Then going to the next page in that same section, second
 10 paragraph, second line, I guess, with the approval of
 11 authorities having jurisdiction activities such as ditch digging
 12 and building berms would be undertaken on the down slope of the
 13 spill.
 14 Is the intent of that to block the oil from reaching
 15 drainage?
 16 **A.** Drainage or water body. To, in fact, contain volume such
 17 that they're easier to deal with.
 18 **Q.** Would TransCanada have an easement on that property, or if
 19 you didn't have an easement on that property, what activity
 20 would be taken if you needed to get on property to build a berm
 21 to block the flow and it was off your right of way, what would
 22 you do?
 23 **A.** You'd make arrangement with the landowner. This as well
 24 would be done in conjunction with the particular authorities
 25 having jurisdiction as well.

1 **Q.** So, for example, if the oil reached a county or state road
 2 ditch, you'd talk to those officials before you'd put a berm in?
 3 **A.** We'd be in conversation with them, and I'm sure they'd give
 4 us a blanket approval to allow us to do something like that.
 5 **Q.** By that point in time they'd be out in the field with you?
 6 **A.** I would suspect in many cases they would.
 7 **Q.** The next paragraph then it says, To contain the spilled
 8 product once it has reached the waterway, efforts are typically
 9 directed toward the deployment of containment booms as close as
 10 practical and safe downstream of the spill location.
 11 I'm assuming that it's a case-by-case basis. Would that be
 12 fair to say?
 13 **A.** It would be. We will have as part of our response plan pre
 14 identified what I'll refer to as control points that would be on
 15 waterways located downstream of the pipeline such that based on
 16 the flow speed or flow of the river at a particular time we
 17 would be able to determine whether a control point located
 18 5 miles, 10 miles, or 15 miles downstream would be the most
 19 appropriate place to deploy boom.
 20 **Q.** And along that line what mapping resources would your field
 21 people have and your command center have in terms of knowing
 22 where you are in relation to the pipeline and how you might
 23 respond?
 24 You'd be looking at maps and data to try to organize your
 25 team; correct?

1 **A.** No. We wouldn't be trying to organize the team because
 2 that was all done, pre-done, ahead of time. The maps, drawings,
 3 et cetera, control points are all identified beforehand such
 4 that we're aware of roads to provide access and such to get to a
 5 specific control point.
 6 **Q.** Could I ask you if you could find there on the table TC 16?
 7 I believe it was available there yesterday. It looks something
 8 like this.
 9 (Discussion off the record)
 10 **Q.** Mr. Thomas, do you have TC 16 there with you?
 11 **A.** I have.
 12 **Q.** Thank you. I'd like to just for a minute look at another
 13 document you gave us here this morning, I assume. TC 20 is the
 14 graph that was --
 15 **A.** Okay. I have that.
 16 **Q.** Okay. If you -- looking at the bottom of that graph, there
 17 are the numbers 4, 16, 29, 40. I assume those are miles.
 18 **A.** That's correct.
 19 **Q.** From the North Dakota border coming south?
 20 **A.** Correct.
 21 **Q.** Okay. And so to correspond with where we are on the map
 22 page we would have to add 218 to that number, I assume, because
 23 that's the number right at the state line.
 24 Would that be correct?
 25 **A.** That's correct.

1 **Q.** Okay. I'm going to refer to your numbers on this graph,
 2 and I may mention also what I think the map page number is
 3 because it relates to this map we're looking at, TC 16.
 4 **A.** Okay.
 5 **Q.** As I understand this graph, it shows on the left side there
 6 are calculated spill volumes in barrels. And the first point or
 7 peak at the top part of that graph starts at 15,000 barrels and
 8 then climbs somewhere up between 15 and 20; correct?
 9 **A.** That's correct.
 10 **Q.** So that would be because of the location -- that given
 11 location -- I assume that's a -- is that a high point of spill,
 12 risk or spill risk?
 13 **A.** Well, risk is not really associated with this. This is
 14 specifically volume so that that -- the reason for the higher
 15 volume at that point would be a combination of valve location
 16 and elevation profile.
 17 **Q.** Would it also have something to do with proximity to the
 18 nearest pump station?
 19 **A.** Very little to do with proximity to the nearest pump
 20 station.
 21 **Q.** Thank you for clarifying that. If we could look then to
 22 the graph, it's 16. I believe on TC 16 it's map point 234.
 23 And do you see that on T 16?
 24 **A.** Mile post 234 I see, yes.
 25 **Q.** Yes. And that would be two miles east and about a mile and

1 a half south of the town of Amherst, wouldn't it, according to
 2 TC 16? The line running diagonal, the railroad line crosses
 3 right through Amherst, small town of Amherst on TC 16?
 4 **A.** Yes. I see it.
 5 **Q.** Okay. So on the graph, 16 is mile post or -- is that what
 6 you refer to it is mile post?
 7 **A.** Yes. That's right.
 8 **Q.** Okay. Mile post 234. That is a point of a potential high
 9 spill volume if there were a failure there?
 10 **A.** Yeah. Assuming you've corrected it with respect to the
 11 scales, yes.
 12 **Q.** Okay. If you look then to the next -- again, we're looking
 13 at TC 20, and it would be mile 128. And there's a point there
 14 of spill volume, a large spill volume potential, the top part of
 15 the graph. And that, if I'm doing this correctly, and if I'm
 16 not, correct me, but that would appear to be mile post 344. And
 17 that would be on map page 6 of TC 16.
 18 Do you see that? Mile post 344.
 19 **A.** Yes, I do.
 20 **Q.** And that would be based on the map, TC 16, about 3 miles
 21 west and a mile south of Carthage; correct?
 22 **A.** Yes. Correct.
 23 **Q.** Okay. I'm going to come back with questions on each but
 24 I'd like to point the other two out and then we'll come back
 25 with a follow-up question.

1 If you go to then mile 177, we're at mile post 395, which
 2 is page 8 of TC 16. And that appears to be about 6 miles south
 3 of the Hutchinson County line, along Wolf Creek according to
 4 TC 16.
 5 And then the last one I'd like to draw your attention to --
 6 and we'll talk about all four of them because they're all
 7 related. The last item I'd like to ask you about or refer you
 8 to is 204, which is mile 204 on the graph. And on the map it is
 9 mile post 422 on page 10 of TC 16, which is about 13 miles north
 10 of Yankton, South Dakota.
 11 Do you see that?
 12 **A.** Yes, I do.
 13 **Q.** Let's start with -- we'll go backwards on TC 16. But mile
 14 post 22 where the pipe is at that location, immediately to the
 15 west of that point, mile post 422, there's the James River;
 16 correct?
 17 **A.** Yes.
 18 **Q.** Okay. So at that point, mile post 422, which is about --
 19 looks like maybe about a mile or half a mile from the River,
 20 that's one of the high points -- a high point in your graph for
 21 showing spill volume.
 22 **A.** Yes.
 23 **Q.** Okay. Let's go back then to page -- or map (sic) post 395,
 24 which is map page 8 on TC 16. And there are tributaries and
 25 streams near that location, and it appears based on TC 16,

1 page 8, that's a creek, Wolf Creek, which appears to be a
 2 tributary of the James River; is that correct?
 3 **A.** Well, I see Wolf Creek. I'm not entirely familiar that
 4 it's a tributary of the James River.
 5 **Q.** I think the next map, page 9, shows it connecting.
 6 Let's go to page 344 then. Again, on TC 16 it would be --
 7 MR. KOENECKE: Page or mile post?
 8 MR. HOHN: Mile post 344.
 9 **Q.** And it's page 6 of TC 16, near Carthage. And that mile
 10 post, that point is close to a creek. It appears to be from
 11 this map, your exhibit -- I don't know if the creek is labeled
 12 or identified.
 13 MR. KOENECKE: Is there a question coming?
 14 **Q.** The question is this: When you develop your plan for
 15 emergency response -- and you stated earlier you wouldn't be
 16 doing it in the field.
 17 You'd have a plan in advance; is that correct? An
 18 emergency response plan?
 19 **A.** I'm sorry. We wouldn't be doing it in the field?
 20 **Q.** Well, I asked you when you do your plan, and you said that
 21 you do these plans. You have a plan put together for emergency
 22 response and spill containment all along the pipeline route
 23 depending upon what you're crossing.
 24 That's what I guess I heard. That's correct?
 25 **A.** Yes. That's pre-done done.

1 **Q.** Pre-done. Prior to operation of the pipeline?
 2 **A.** Correct.
 3 **Q.** So on these four sites, if you were looking at the one, for
 4 example, on map page 6, TC 16, you would develop -- would you
 5 develop a plan in the event that there was a spill at that
 6 location to contain the oil from going where?
 7 **A.** Well, what we'll do as part of the development of the oil
 8 spill response plan is now take this data that we've provided
 9 here under TC 20 and do what we call a transport and fate
 10 analysis and base -- that analysis then looks at each, again,
 11 mile post along the pipeline right of way, what the transport
 12 and fate of these volumes will be. And based upon that analysis
 13 we'll develop your plan for resources, equipment, et cetera.
 14 **Q.** And what would that analysis, the fate analysis, take into
 15 account? What factors?
 16 **A.** Well, it takes into account the over land or over water
 17 transfer of spilled oil.
 18 **Q.** Okay. Following along then on page 15 of your direct
 19 testimony, it's the second paragraph from the bottom, second
 20 line, you refer to a mechanical skimming, vacuum recovery, and
 21 sorbent materials.
 22 Could you explain what those items are and how they're
 23 used?
 24 **A.** Well, mechanical skimming is done as part of a boom
 25 typically where the oil spill containment boom channels oil that

- 1 may be on the surface of the water into a skimmer that in turn
 2 basically separates the water and oil and allows you to transfer
 3 that oil to other facilities.
 4 Vacuum recovery is typically employed with something that's
 5 called a vacuum truck. So it actually provides or has a suction
 6 capability that allows one to suck liquid, including oil.
 7 The last was sorbent, and that's typically a material that
 8 would be similar to a sponge that's able to absorb and contain
 9 spilled oil in this case.
 10 Q. The skimmer then is a device that will pull the oil out of
 11 the water and then let the water go back into the waterway? Is
 12 that what it does?
 13 A. Really what the skimmer does is it takes the water -- or
 14 excuse me, the oil off of the surface of the oil, puts it into a
 15 small, little holding facility that then is transferred to other
 16 facilities.
 17 Q. And the vacor truck, is that a large truck or small truck?
 18 Is it a large piece of equipment?
 19 A. There are a combination of different-sized vacuum trucks.
 20 It's typically a tandem axle truck.
 21 Q. The next paragraph, the second line, The methods include
 22 wiping, hot water, low pressure, or high pressure wash, and the
 23 use of surfactants and emulsifiers or other agents.
 24 Could you explain what those last two items are?
 25 A. They're very much the same, but they allow easier cleaning

- 1 of oil by breaking down its constituents.
 2 Q. And that I assume is a product that's environmentally safe
 3 in terms of using it -- in doing a cleanup and not damaging the
 4 environment?
 5 A. That's correct. There are certain types.
 6 Q. Okay. The next page then, 16, second paragraph, The
 7 product-laden soils are typically either removed or treated with
 8 bioremediation in the event such intrusion cleanup techniques
 9 are not appropriate.
 10 By product you mean the crude oil?
 11 A. That's correct.
 12 Q. And removed or treated with bioremediation. Could you
 13 describe bioremediation?
 14 A. Well, I think I had earlier, but bioremediation in this
 15 case means typically tillage, cultivation of soils, the addition
 16 of fertilizers, and those fertilizers supplemented with oxygen,
 17 as I understand it, allow microorganisms to grow and basically
 18 degrade the hydrocarbons.
 19 Q. So would that be done on site? In the event there was a
 20 spill in let's say a farm field, would that work all be done at
 21 that site?
 22 A. Yes, it would.
 23 Q. Would the soil ever be hauled away and treated?
 24 A. In certain cases I guess it could be. Again, in the event
 25 of a spill such as that, the cleanup plan is done in conjunction

- 1 with federal, state, and the landowner so that the methodology
 2 that's chosen reflects the concerns of all of those involved.
 3 Q. On the very next line of that paragraph there's reference
 4 to burning. Is burning an option for removal of oil, and where
 5 is that done?
 6 A. Excuse me. Could you just point me to the reference?
 7 Q. It's the fifth line down. It's in that second paragraph.
 8 The sentence starts out, Up including natural recovery,
 9 burning, on page 16.
 10 Am I on the wrong page?
 11 MR. GERDES: Second sentence.
 12 A. I see it here. Yes. Like burning, again, based upon, you
 13 know, federal, state, and others is something that is considered
 14 in the event of an oil spill. It certainly requires the
 15 necessary permits but is often used as quite an effective means
 16 for the very little amount of residual oil that is potentially
 17 covering the surface.
 18 Once all the freestanding oil has been picked up by vacuum
 19 trucks and other means, there still remains, you know, a slight
 20 amount of oil that can't be picked up on those methodologies and
 21 burning can be considered as a means to clean that portion.
 22 Q. So what you're saying in your testimony is it wouldn't be
 23 the primary method of removal. You would try to remove as much
 24 as you could?
 25 A. That's correct. It's only done after you've removed as

- 1 much as can be removed that's what I'll call kind of
 2 freestanding, so to speak. And it's, you know, certainly done
 3 in a controlled fashion with all the appropriate permits in
 4 place.
 5 Q. Does that have any negative effect on the soil if you burn
 6 the oil off, the residual?
 7 A. Well, I'm not an expert in that area.
 8 Q. Okay. On the bottom of page 16, the very last bullet talks
 9 about dispatch first responders. How does your team or this
 10 emergency group that's going to respond to this, how do they
 11 communicate in the field given -- how do they communicate? What
 12 systems do they use?
 13 A. Well, a combination of cellular phones, backed up with
 14 satellite phones, and to some extent two-way radios.
 15 Q. Let's take the two-way radio first. I guess the two-way
 16 radio would be from truck to truck?
 17 A. Well, that's more site, yeah, person to person, that sort
 18 of thing.
 19 Q. Would you have radio towers in South Dakota that --
 20 A. No. I don't expect we will.
 21 Q. Okay. And then the satellite phone, does every person
 22 involved in the team have one of those?
 23 A. Yes. All personnel on the response team have satellite
 24 phones.
 25 Q. And that would allow them to get a phone line from

1 anywhere?

2 **A.** That's my understanding.

3 **Q.** And the cell phone would be a backup?

4 **A.** Well, I guess the -- the other way around, cell phone first

5 backed up by satellite. But, in any event, they have both

6 forms.

7 **Q.** And so in an area where we didn't have cell phone coverage

8 along this pipeline route, the satellite would be the assured

9 connection? It gives you sure connection?

10 **A.** Yes.

11 **Q.** Okay. On page 17, the graph required by 49 CFR Part 194,

12 the response, the tier 1, 2, and 3, does that take into account

13 travel conditions such as icy roads and winter travel and so

14 forth?

15 **A.** It does.

16 **Q.** And if you were not -- I guess let me ask the question. If

17 the roads were so icy that you couldn't travel 60 miles an hour,

18 you were traveling less than that, 30 miles an hour, are you

19 given an exception because of weather if you have difficulty

20 getting there in terms of time limit?

21 **A.** No. These tables as required by code, are inclusive of

22 conditions such as inclement weather.

23 **Q.** So just so I understand it correctly, the tier 3 resources

24 would have -- in our area, this project in South Dakota, would

25 they have 54 hours or 60 hours to get there?

1 **A.** Well, other than the high-volume areas, they would have

2 60 hours. The tier 3 resources, you know, would only as well be

3 called in if that were necessary. This system is one that I

4 would call escalating in nature such that the emergency site

5 manager has access again through the regional EOC to call in the

6 resources as necessary.

7 They would start first with tier 1. If it was determined

8 additional resources were needed, they'd move to tier 2 and to

9 tier 3. Beyond that, if it were necessary.

10 **Q.** In the chart there's an asterisk next to high-volume area

11 and then below the chart it refers to having a nominal outside

12 diameter of 20 inches. This pipe is 30 inches; correct?

13 **A.** Yes.

14 **Q.** So what does that mean in terms of the response time for

15 this pipeline in South Dakota? Are we looking at tier 3 at

16 54 hours or 60? It's not clear to me.

17 **A.** Well, the -- basically what this chart indicates is that

18 within a high-volume area such as those described, you have to

19 meet the high-volume area requirement of 54 hours. If it's not

20 considered a high-volume area as defined, then you meet the

21 60 hours.

22 **Q.** And would this pipeline through South Dakota meet the high

23 volume?

24 **A.** Other than the Missouri River, I do not believe it would.

25 **Q.** The tier 3 resources, would those normally be located in

1 South Dakota, or are they brought in as a contract equipment

2 provider?

3 **A.** Well, I guess that -- as I mentioned earlier, we have not

4 defined as yet as to whether they'll be contract. Where they'll

5 be located has yet to be determined.

6 **Q.** Okay. Thank you. On the next page, 18 of your direct

7 testimony, the second paragraph, third line, do you see that

8 there?

9 **A.** Yes, I do.

10 **Q.** The sentence starts out, Ecological historical

11 archaeological resources and drinking water locations.

12 In the context of that paragraph the task of tier 1

13 response is to minimize a spread of product. And there's

14 reference to drinking water locations.

15 As a person who operates the pipe and will be in charge of

16 developing the emergency response plan, what does drinking water

17 location mean to you?

18 **A.** Drinking water locations here was used in the context of

19 the federal codes that have been discussed at length here at

20 these proceedings.

21 **Q.** The sentence just above that refers to protecting the

22 public in unusually sensitive areas. And then the next line it

23 refers to drinking water location.

24 How does your crew in the field, your emergency team,

25 identify a drinking water location they're going to need to

1 protect?

2 **A.** They're identified as part of the emergency response plan.

3 **Q.** I guess would you be referencing public records as to

4 knowing which well or which water source or which facility to

5 protect and which you wouldn't have a responsibility to protect?

6 **A.** I'm sorry? Could you rephrase that?

7 **Q.** Could you -- what information would you resource, what

8 listing would you reference to know which water -- drinking

9 water locations you would protect as part of your emergency

10 plan?

11 **A.** Well, I guess we would -- I'm not familiar with like the

12 specific names. We would, you know, utilize the best data we

13 were able to discover with respect to those items.

14 **Q.** You were here yesterday, were you, and observed

15 Ms. Tillquist's testimony?

16 **A.** Yes, I was here.

17 **Q.** Were you here when she discussed highly consequential

18 areas?

19 **A.** Yes, I was.

20 **Q.** I guess I'm trying to understand the connection between

21 this paragraph and her testimony as to whether a water system,

22 what kinds of water systems might be included in your protection

23 plan.

24 Her statement -- she referred to highly consequential areas

25 and said rural water systems weren't referenced. I guess I'm

1 wondering does this plan provide protection for drinking water
 2 locations?
 3 MR. KOENECKE: Are you representing WEB Water now or
 4 Curt Hohn, the Intervener?
 5 MR. HOHN: I'm asking a question as a citizen of the
 6 state. Our drinking water system's protected.
 7 MR. KOENECKE: Commissioner, we've heard from WEB
 8 Water's counsel on this. He's had ample opportunity to
 9 cross-examine the witness.
 10 MR. SMITH: Well, I think the other thing it's a
 11 misstatement of the record in my view, you know, but if you're
 12 talking about water, drinking -- rural water source areas?
 13 MR. HOHN: Yes.
 14 MR. SMITH: That's not what she testified to.
 15 MR. HOHN: Well, I guess what I'm trying to determine,
 16 Mr. Smith, from this witness is on his testimony, page 18, where
 17 he references drinking water locations and this emergency
 18 response plan will provide protection, I'm wondering what
 19 protection, how they would go about that and knowing which ones
 20 to protect.
 21 MR. SMITH: May I -- you mentioned transport and fate
 22 analysis. Might that be the direction you want to go with this?
 23 A. Well, yes. Certainly that -- I guess that analysis will --
 24 transport and fate analysis will tell us where a potential spill
 25 may migrate, and it's basically then a case where you look at

1 what facilities may be impacted as a result of where this oil,
 2 potential spilled oil, may migrate.
 3 Q. Page 19, item 27. The bottom of -- the last sentence in
 4 the first paragraph there under 27. Consequentially, emergency
 5 responders will be based in close proximity to the following
 6 areas.
 7 Do you see that?
 8 A. Correct. Yes, I do.
 9 Q. And then if you look at the third bullet, where it starts
 10 out, Unusually sensitive areas, including drinking water
 11 locations are referenced.
 12 My question there I guess is -- and you mentioned -- you
 13 alluded to this a bit earlier. Would you locate your resources
 14 and develop a plan based on the proximity of drinking water
 15 locations among other things?
 16 A. Among other things, yes. That's the intent here is that,
 17 you know, typically your responders would be located in closer
 18 proximity, as I have indicated, to those items.
 19 Q. Okay. Thank you. Page 22, if you want to turn to page 22
 20 of your direct testimony.
 21 The second bullet from the bottom refers to personal
 22 protective equipment, rubber gloves, waders. Do you see that
 23 there?
 24 A. Yes. I see that.
 25 Q. And the second line, And H2S, O2, LEL, and benzene

1 detection equipment, do you see that?
 2 A. I do.
 3 Q. Could you explain to us what is meant there, what that
 4 equipment is and how it's used in a cleanup?
 5 A. Well, that equipment is utilized by response personnel that
 6 are in -- I won't say direct contact but are, you know, engaged
 7 in cleanup activities. And in order to ensure their personal
 8 protection, this equipment is available to them.
 9 Q. What is the H2S equipment?
 10 A. Hydrogen sulfite. So it's basically an instrument that is
 11 capable of detecting levels of hydrogen sulfite.
 12 Q. Okay. And the O2?
 13 A. That's oxygen.
 14 Q. It's bottles of oxygen? That what you're referring --
 15 A. No. That would detect a deficiency of oxygen.
 16 Q. So it's a detector then?
 17 A. Yes. Basically it's a three-head detector that is capable
 18 of detecting levels of H2S, deficiencies of oxygen, and lower
 19 explosive limit.
 20 Q. Okay. And then the LEL?
 21 A. That's the lower explosive limit.
 22 Q. Lower explosive limit. Okay.
 23 The last bullet there, a windsock, is there a reason you
 24 have a windsock on a job like this? What's the reason, I guess?
 25 A. Well, you have a windsock so you can determine the

1 direction of the wind and typically work on the upwind side.
 2 Q. I see.
 3 MR. HOHN: I believe that's all the questions I have.
 4 Thank you.
 5 MR. SMITH: Do other Interveners have questions that
 6 haven't already been addressed?
 7 MR. MILLER: Yes. I do have a few brief questions.
 8 MR. SMITH: Mr. Miller, please. Thank you.
 9 I realize too for the benefit of people in the
 10 audience, Interveners who had times scheduled, if anyone has an
 11 urgency to -- we scheduled you so if you have an urgency to go
 12 right then; otherwise, it was maybe our thought we would proceed
 13 with Mr. Thomas and try to get him done.
 14 So you'll have to let us know if you have to get
 15 going, and we'll put you up at any time. Is that okay?
 16 I know, John, you're one of them. And Ms. Anderson.
 17 What do you think, Ms. Anderson? Should we plow ahead and get
 18 him done and then -- okay. Thank you.
 19 Go ahead, Mr. Miller.
 20 CROSS-EXAMINATION
 21 BY MR. MILLER:
 22 Q. Mr. Thomas, you worked for Enbridge for 20 or 25 years; is
 23 that correct?
 24 A. Yes, I did.
 25 Q. And one of your primary responsibilities was to transport

1 crude between Alberta and Superior, Wisconsin; is that correct?

2 **A.** Yes. I worked in association with those pipelines.

3 **Q.** Can you tell me how many multimillion-gallon spills

4 Enbridge had while you were an employee there?

5 **A.** No. I can't. I've not added things up, so to speak.

6 **Q.** Are you aware of any?

7 **A.** Any spills?

8 **Q.** Any multimillion-gallon spills.

9 **A.** Well, I guess that's not a terminology that I'm accustomed

10 in working in gallons.

11 **Q.** Okay.

12 **A.** I am aware of some large spills that Enbridge had.

13 **Q.** Are you aware of any that were -- that were 25,000 barrels

14 or more?

15 **A.** Yes. I believe so.

16 **Q.** Okay. Could you give me an example?

17 **A.** I believe the -- what I'll refer to as the Grand Rapids

18 spill was greater than that.

19 **Q.** Okay. And are you familiar with any of those spills of

20 that size that would have been in the United States?

21 **A.** Yes. That was in the United States.

22 **Q.** Oh, excuse me. Excuse me. Any of that size that were in

23 Canada?

24 **A.** I'm familiar with some others.

25 **Q.** Could you give me an example of one of those?

1 **A.** I'm familiar with one that occurred in close proximity to

2 Regina, Saskatchewan.

3 **Q.** All right. Thank you. Another question is referring to

4 the frequency volume study from DNV. In Section 5.5 there were

5 various source control measures that were assumed to be put in

6 place. That would be on page 22, if you --

7 **MR. KOENECKE:** Mr. Miller, to which version are you

8 referring?

9 **MR. MILLER:** That would be the May '06 version is the

10 page number I have.

11 **A.** I'm sorry. Could you give me that reference again?

12 **Q.** It would be page 22, section --

13 **MR. RASMUSSEN:** I think you've got a different version

14 there.

15 **MR. MILLER:** I don't know if we need to refer to it

16 specifically.

17 **Q.** I had a question. There was an assumption in there that

18 you would be able to control all small and medium leaks anywhere

19 within the pipeline within four hours, including location,

20 excavation, clamping, or gel block.

21 **MR. MILLER:** Would you say that's a reasonable assumption?

22 **MR. SMITH:** Mr. Miller, what are you looking at?

23 **MR. MILLER:** We're trying to find what you're looking at.

24 **MR. MILLER:** That was in the May 6 version, the May

25 2006 version of the frequency volume study. It was Section 5.5

1 which was on page 22 of that version.

2 **MR. SMITH:** Thank you.

3 **A.** Well, and I guess with respect to that question, that is

4 the very reason that we early this morning provided TC 20. The

5 DNV study as per your reference included only a four-hour

6 response time.

7 **MR. SMITH:** As I mentioned, we have revised that to reflect a four-hour

8 response time followed by an additional 12 hours in the case of

9 the medium and small leak volume. And Exhibit TC 20 provides

10 those revised numbers.

11 **Q.** Okay. So it would -- it would be increased from the four

12 hours that were included in that original study; is that

13 correct? Is that correct to assume to say that?

14 **A.** That's correct.

15 **Q.** Okay. Thank you. One more question I would have.

16 Regarding the nominal capacity of the pipeline, it's stated at

17 591,000 barrels a day.

18 **MR. SMITH:** In your experience how often does the pipeline run above

19 the nominal operating capacity?

20 **A.** Like I guess in my experience on an annual basis, that is

21 over the course of 365 days of the year, that is likely to be

22 the annual capacity so that we will be able to achieve that

23 volume, again, over 365 days of the year.

24 **MR. SMITH:** There will be times, small periods of time, maybe two- to

25 four-hour periods of time, something in that range, typically in

1 the warmer summer months, where we may be able to get to the

2 design capacity of the pipeline. But, again, typically that is

3 for brief periods where you may be able to exceed your annual

4 capacity.

5 **Q.** Okay. And that design capacity is how much?

6 **A.** It would be -- well, I believe the number is 657.

7 **Q.** 657. So there are days in the summertime when you would be

8 running --

9 **A.** Well, not an entire day. It would be certain hours of a

10 given day that you could.

11 **Q.** You would be running as many as approximately 650,000

12 barrels at that rate?

13 **A.** At that rate for a short period of time.

14 **MR. MILLER:** Great. That's all I needed. Thank you

15 very much. Thanks, Mr. Smith.

16 **MR. SMITH:** Thank you. Any other Interveners have

17 questions?

18 **MR. SMITH:** Staff, do you have any questions of --

19 **MS. SEMMLER:** I do. But I just need a moment to ask a

20 question of Mr. Koenecke before I proceed, if that's acceptable.

21 **MR. SMITH:** Okay. Should we just -- I think we're

22 going to take a five-minute break, everybody, give Cheri a

23 little break.

24 **MR. SMITH:** (A short recess is taken)

25 **MR. SMITH:** Let's reconvene. Let's go back on the

1 record. Let's go back on the record, Cheri. Mr. Thomas, you're
 2 still on the stand and under oath.
 3 And, staff, following your conference with
 4 Mr. Koenecke, do you intend to proceed with questions?
 5 MS. SEMMLER: Not at this time. Thank you.
 6 MR. SMITH: Let's go to Commissioner questions.
 7 Mr. Kolbeck.
 8 COMMISSIONER KOLBECK: Yes, Mr. Thomas. Just so I'm
 9 clear, your SCADA system does not use any -- excuse me. Any
 10 internet, any IP protocol? They don't meet at any point; is
 11 that correct?
 12 THE WITNESS: Well, the SCADA system itself is
 13 isolated from all of the other business-related systems.
 14 COMMISSIONER KOLBECK: Okay. Is it anywhere close to
 15 the public domain?
 16 THE WITNESS: No.
 17 COMMISSIONER KOLBECK: Okay. Is it realistic to
 18 believe that a 2 percent or a 1.5 percent leak can go
 19 undetected? Is that a realistic assumption?
 20 THE WITNESS: Well, not for the 90-day period that's
 21 been indicated. That really was intended to sort of book end
 22 things. A 1.5 leak based upon my experience would never go for
 23 a period of 90 days.
 24 What was intended in the report was to really describe
 25 a leak that would be, you know, far less than the 1 and a half

1 that could go for something like 90 days. But leaks of that
 2 size would more typically be something that would be measured in
 3 drips per hour or something along that line, something very
 4 small.
 5 A leak of 1 and a half percent to go on for 90 days
 6 is -- well, again, I can't say the probability is zero, but is
 7 just extremely, extremely unlikely. Like it's -- in my opinion
 8 it could not happen.
 9 COMMISSIONER KOLBECK: Okay. We talked about your
 10 pump stations and that it takes two pump stations out of power
 11 to actually shut down the line. How many layers of power
 12 protection are there in your -- at the control center actually
 13 where your technicians would be stationed? And I should say
 14 your SCADA technicians would be stationed.
 15 THE WITNESS: Okay. Within the control center in
 16 Calgary we actually have a main and a standby or backup control
 17 center. The main control center is backed up with an emergency
 18 generator, and then we have as well the option to go to the
 19 backup site and it as well has a backup generator.
 20 The pump stations themselves are fed by the utilities.
 21 And because they're large 4 and 5,000 horsepower motors, there
 22 is no backup power for those pumping units.
 23 COMMISSIONER KOLBECK: Okay. If there was -- where
 24 your technicians were stationed in Calgary, if there was say
 25 some sort of natural disaster or something, is there a default

1 where the pipeline just automatically shuts down?
 2 THE WITNESS: Yes. There is like a -- it's an
 3 operator driven command, though, that would be necessary to
 4 drive to those sorts of limits. But, again, in the event of an
 5 entire loss of communication, as I described with the one
 6 station that would drive to the safe limits, all of the
 7 stations, you know, again if it was a total communication
 8 failure, all of the pump stations drive to those safe limits as
 9 well.
 10 And I might just add to that that if that were to
 11 occur, you know, we'll have this redundant form of
 12 communications that hopefully would -- we'd be able to resume
 13 communications. In the event we weren't, though, we would
 14 actually shut the pipeline down. If it were necessary, we would
 15 call out our people who were on call and basically shut the
 16 pipeline down in a case like that.
 17 COMMISSIONER KOLBECK: Okay. Now I know in some
 18 industries they're still dealing with 30 year old technology.
 19 They don't upgrade. Is the SCADA system a 30 year old
 20 technology, or is that upgraded just like Windows 98, NT? Does
 21 that follow the same pattern?
 22 THE WITNESS: Yes. It very much does.
 23 COMMISSIONER KOLBECK: So it's not a stagnant sort of
 24 technology? It's actually an ever revolving technology?
 25 THE WITNESS: Yes. Like one of the companies that

1 we're dealing with now is -- their name is Telavent. They built
 2 control systems for many pipelines in North America and
 3 worldwide. And they would typically have a new release about
 4 every two years.
 5 COMMISSIONER KOLBECK: Okay. After an abnormal
 6 operation, what records are formed, and who receives them?
 7 THE WITNESS: In the case of an abnormal operation?
 8 COMMISSIONER KOLBECK: Any abnormal operation due to
 9 high pressure, whatever. Is there a form or a procedure? Is
 10 that outlined in federal law then, or is that a TransCanada
 11 procedure or --
 12 THE WITNESS: Yes. Other than reporting over pressure
 13 issues when you exceed MOP, reports to PHMSA are necessary in
 14 that case. Within the SCADA system, every event is logged so
 15 that basically every signal received from a field device, every
 16 command sent by an operator, everything is logged.
 17 We will also have local -- at each pump station
 18 pressure recording equipment so that we'll be continuously
 19 recording suction case and discharge pressures. And that is
 20 maintained permanently as well.
 21 COMMISSIONER KOLBECK: Okay. And that's kept on site
 22 at your TransCanada headquarters?
 23 THE WITNESS: That's correct. Yes.
 24 COMMISSIONER KOLBECK: I was just wondering about
 25 the -- the satellite communications, I was wondering if it ran

1 on fiber frame or IP technology, but you're telling me it's
 2 probably going to run on satellite.
 3 THE WITNESS: That's currently our expectation, yes.
 4 COMMISSIONER KOLBECK: Okay. And I don't know if this
 5 is your forte but maybe Mr. Koenecke can give me -- I was
 6 wondering if I could get a job requirement or qualification for
 7 the regional emergency site manager and the first responders.
 8 If like you were to post a job application somewhere,
 9 could I see one of those sometime as to the requirements of what
 10 it takes to get a job like that?
 11 MR. KOENECKE: Yeah. We can make that possible.
 12 THE WITNESS: Sure.
 13 COMMISSIONER KOLBECK: And also for your -- if you
 14 were to hire someone in your SCADA center, could I see one of
 15 those too?
 16 THE WITNESS: An operator?
 17 COMMISSIONER KOLBECK: Yeah. What the job
 18 requirements are.
 19 THE WITNESS: Sure.
 20 COMMISSIONER KOLBECK: I'm sure it's not an eighth
 21 grader, but I'd just like to know what the qualifications are.
 22 That's it. Thank you, Mr. Smith.
 23 MR. SMITH: Commissioner Hanson, any questions?
 24 Commissioner Johnson.
 25 CHAIRMAN JOHNSON: Thanks, Mr. Smith.

1 Mr. Thomas, let's talk a little bit about the local
 2 responders. On page 6 of your direct, and I'm looking at sub
 3 item 12 here, establishing and maintaining liaison with fire,
 4 police, and other appropriate public officials.
 5 And I won't read that whole section, but can you give
 6 us a little better idea of what information you'll be providing
 7 to locals and what information you'll need to get from them?
 8 THE WITNESS: Yes, I can. That is done as part of
 9 TransCanada's public awareness program where we conduct sessions
 10 with all of those groups to I guess make them aware of what our
 11 emergency response processes and procedures are. And then they
 12 likewise make us aware of what theirs are such that we can work
 13 together in the event there's a need to involve one another, so
 14 to speak.
 15 CHAIRMAN JOHNSON: And will every single fire
 16 department and police department along the route be met with and
 17 given the appropriate information?
 18 THE WITNESS: Yes. They certainly will, as well as,
 19 you know, the landowners are normally provided with information
 20 that relates to the pipeline and the products shipped and so on.
 21 That's included as part of the public awareness program in
 22 addition to these endeavors that work with the local emergency
 23 response folks as well.
 24 CHAIRMAN JOHNSON: And is this an ongoing process?
 25 THE WITNESS: It's an ongoing process. Yes, it is.

1 CHAIRMAN JOHNSON: And I didn't establish your
 2 expertise in this area, but do you happen to know how often
 3 contact would be made?
 4 THE WITNESS: I know that contact with like local
 5 emergency responders is offered annually so it's basically at
 6 their discretion. It's offered annually.
 7 CHAIRMAN JOHNSON: You note in your direct that local
 8 responders although not expected to respond to an oil incident,
 9 might be required to help battle secondary fires; is that
 10 correct?
 11 THE WITNESS: That's correct. Yes.
 12 CHAIRMAN JOHNSON: In your experience having worked on
 13 other pipelines, is any additional equipment ever required for
 14 those local responders that they wouldn't normally have?
 15 THE WITNESS: No. I haven't in my experience come
 16 across a condition where that was necessary. They -- no. Not
 17 to my knowledge.
 18 CHAIRMAN JOHNSON: The operations control center, is
 19 there redundancy there as well? Is there an alternate site?
 20 THE WITNESS: Yes, there is. We have a site that is
 21 located I'll say in reasonably close proximity to Calgary that
 22 is a fully redundant backup control center.
 23 CHAIRMAN JOHNSON: Some Interveners have noted -- and
 24 I could probably find a specific example if you want one, but
 25 some Interveners have noted they believe it's impossible to

1 fully remediate an area that has been touched by a failure or an
 2 incident or a spill.
 3 Has that been your experience in the industry?
 4 THE WITNESS: Well, again, I'm not an expert in that
 5 area, but, you know, I think Mr. Gray's kind of used the analogy
 6 that, you know, after the pipeline goes through, you know, you
 7 attempt to restore the land to basically as good of condition as
 8 you can. You know, you can't make it 100 percent back to
 9 normal. And I guess the same to some degree would be true in a
 10 leak situation.
 11 There would certainly, though -- you know, I guess if
 12 there was crop loss, et cetera, you know, certainly those issues
 13 would be worked out financially with the landowner.
 14 CHAIRMAN JOHNSON: And do you have a familiarity with
 15 generally how that process works?
 16 THE WITNESS: The --
 17 CHAIRMAN JOHNSON: The assessment of crop damage if
 18 the land isn't 100 percent back to normal.
 19 THE WITNESS: That -- like I haven't been involved in
 20 those activities directly.
 21 CHAIRMAN JOHNSON: You described the process by which
 22 information comes in to the operation center, the operator
 23 analyzes the alarm, and then evaluates other information to try
 24 to determine whether or not that's a false positive.
 25 You mentioned some mandatory time line. What would

1 that time frame be typically?

2 THE WITNESS: That would be in the range of like 10 to
3 15 minutes so that at the expiry of those 10 to 15 minutes a
4 line shutdown would be mandatory.

5 CHAIRMAN JOHNSON: Are there any federal regulations
6 or rules regarding that mandatory time frame?

7 THE WITNESS: No, there are not.

8 CHAIRMAN JOHNSON: Okay. Have you had an opportunity
9 to review Mr. Miller's direct testimony, Ed Miller's?

10 THE WITNESS: Yeah. I believe I have.

11 CHAIRMAN JOHNSON: And rather than make you dig for
12 it, I'll just mention in general terms Mr. Miller indicates that
13 there have been some reports that have indicated in the past
14 SCADA systems have actually made accidents worse or they have
15 contributed to the severity of an accident.

16 Do you have a response to that?

17 THE WITNESS: Well, I guess I can't speak specifically
18 to that. There are such a variety of SCADA systems, you know,
19 utilized by pipeline operators that it in some respects is
20 difficult to address that.

21 CHAIRMAN JOHNSON: Have you had an opportunity to
22 review the 2005 National Transportation Safety Board report on
23 this topic?

24 THE WITNESS: No, I haven't.

25 CHAIRMAN JOHNSON: Mr. Smith, that's all I've got

1 right now. Thanks.

2 MR. SMITH: Okay. I'm going to bring up again before
3 we go to redirect --

4 COMMISSIONER HANSON: I have some.

5 MR. SMITH: Oh, pardon me, Mr. Hanson. I'm sorry.

6 COMMISSIONER HANSON: Thank you, Mr. Smith. I had
7 just deferred to Chairman Johnson.

8 Good morning, Mr. Thomas.

9 THE WITNESS: Good morning.

10 COMMISSIONER HANSON: Fortunately, a lot of questions
11 I have have already been asked and answered, and I also
12 appreciate your anticipation of some of those questions that
13 were asked and discussed yesterday, especially regarding the
14 check valves and your explanation of that in your opening
15 remarks.

16 I do have a few questions, though. And the first one
17 pertains to your direct testimony. I don't know that you have
18 to turn to it. It's on page 8 at paragraph 11.

19 I get a little concerned with semantics on occasion.
20 Perhaps I get too concerned with it. But at the top of the page
21 on page 8 you talk about the first leak detection method and in
22 the second paragraph refer to remote monitoring is typically
23 able to detect leaks down to approximately 25 -- I get a little
24 concerned there when you say typically is able to detect leaks.

25 Is it not always able to -- "down to" sounds like

1 perhaps you're minimizing 25 or 30 percent. Maybe it's just the
2 semantics that I'm overly concerned with. That's a rupture,
3 isn't it? That's a huge --

4 THE WITNESS: It is. And that is probably -- I guess
5 the intent there wasn't to say typically. Certainly, you know,
6 it's been my experience and having worked in and with control
7 center operators for a considerable period of time that leaks of
8 that size are detected virtually immediately by the operator.
9 There is, you know, a large drop in pressure, a large change in
10 flow rate that is basically noticed immediately.

11 COMMISSIONER HANSON: So all the bells and the
12 whistles are going off at that juncture, it's not something that
13 you occasionally discover when it goes off it's --

14 THE WITNESS: Absolutely. Like there's no missing
15 something like that.

16 COMMISSIONER HANSON: All right. At the bottom of
17 those four items you talk about four different areas in which
18 redundancy to backup to -- to find leaks. And one of them you
19 use the word "finally" and refer to aerial patrols, et cetera,
20 public awareness.

21 But in your rebuttal on number 4, I believe it's
22 paragraph number 4, you state that -- you elaborate quite a bit
23 about Keystone will also incorporate computer-based,
24 non-realtime, accumulated, gain, loss, et cetera.

25 Is this something that is typical, the item number 4?

1 The reason I ask is because I looked at my -- I reviewed my
2 notes from the four meetings that we had as we went from town to
3 town, and you spoke of the SCADA system, of course, and you
4 spoke of the other system in which you could ascertain within
5 8 seconds.

6 There were a variety of different techniques, but you
7 never addressed this particular one at least in my notes. And
8 I'm not the best note taker so I may have missed it. But out of
9 four times I would hope that I had caught it.

10 Is that a typical exercise?

11 THE WITNESS: Well, a system such as this I'll say
12 from my understanding it isn't typical. I, though, would also
13 add to that that I tried to do my best to describe this system
14 at our public sessions, but I was trying to describe it kind of
15 under bullet 2, again, of my direct, you know, being part of the
16 volume balance system so that to try to maybe explain it in a
17 little bit more detail.

18 What I've described in my direct testimony and those
19 four bullets are systems that would be used to the extent you
20 can instantaneously detect leaks. Whereas, you know, again,
21 this accumulated loss gain system is one that isn't really
22 working at realtime.

23 So it's accumulating losses and gains within pipeline
24 segments and then taking and summing those, you know, over the
25 course of hours, days, months, and so on, and it's that system

1 that would allow you to detect leaks, again, under this 1 and a
 2 half to 2 percent threshold.
 3 COMMISSIONER HANSON: So this is a system you use
 4 elsewhere? This is not a new system?
 5 THE WITNESS: It's not a new system. It's really
 6 utilizing the same system as described in the volume balance
 7 area of my testimony.
 8 COMMISSIONER HANSON: Thank you. On page 10,
 9 paragraph 15, at the top you speak of there are other systems
 10 and methods in place that will serve to identify leaks of this
 11 size. And you gave one example. Perhaps that relates somewhat
 12 to what we were just discussing.
 13 However, when you use the word other "systems" plural,
 14 are there other methods that will be in place that have not yet
 15 been explained in any of your testimony?
 16 THE WITNESS: Yeah. The other there was intended to
 17 mean the system that we just spoke of along with the external or
 18 direct observation methodologies.
 19 COMMISSIONER HANSON: So there aren't any additional
 20 ones besides what has been presented either here or in your
 21 direct testimony?
 22 THE WITNESS: That's correct.
 23 COMMISSIONER HANSON: Okay. Are you aware of any
 24 problems with -- well, I'll skip that. I think it's been
 25 covered enough on the SCADA systems. I was concerned a little

1 bit with false positives and challenges in other systems, but I
 2 think that's been directed enough.
 3 I'm familiar with having practiced drills in what we
 4 call table tops and emergency operation centers. Will you be
 5 conducting or will those type of operations be conducted?
 6 THE WITNESS: Yes. They certainly will. We have
 7 actually a schedule that -- well, and again it is a code
 8 requirement to have a certain frequency in terms of drills.
 9 Table tops are conducted, field deployment exercises are
 10 conducted, and major deployment exercises with others are also
 11 conducted.
 12 COMMISSIONER HANSON: Excellent. Thank you. In your
 13 direct testimony on page 23, paragraph 29, you speak of an oil
 14 spill response plan. Will that be -- is there a requirement
 15 that that be approved prior to operation?
 16 THE WITNESS: Yes. Keystone will submit that plan the
 17 first quarter of 2009 for PHMSA's review and approval.
 18 COMMISSIONER HANSON: Did you say or is there in any
 19 of your testimony did you say -- it seemed like you did -- that
 20 there would be Keystone emergency personnel in North Dakota?
 21 Will there be --
 22 THE WITNESS: Excuse me?
 23 COMMISSIONER HANSON: Will there be Keystone,
 24 TransCanada Keystone, personnel in North Dakota who could
 25 respond to an emergency situation?

1 THE WITNESS: Yes.
 2 COMMISSIONER HANSON: And because we seem to be
 3 confining ourselves in some of the previous discussion to
 4 Yankton as if you've got folks in Yankton and perhaps up in
 5 Canada.
 6 I assume that you have folks in North Dakota as well
 7 and that there's not an imaginary line that they are prohibited
 8 from crossing on the border. How close are they to
 9 South Dakota?
 10 THE WITNESS: Well, no. That's absolutely true. Like
 11 we will have people positioned, again, so that we can respond to
 12 any location along the pipeline within that four-hour time
 13 period. So we will have, you know, people positioned at various
 14 points along the pipeline right of way to be able to accomplish
 15 that.
 16 COMMISSIONER HANSON: Do you have a location specific
 17 at this time for North Dakota?
 18 THE WITNESS: No. That I don't have.
 19 COMMISSIONER HANSON: In response to a question
 20 regarding remediation, this is just for -- I assume you
 21 misspoke, but it was just interesting in the mechanics of the
 22 skimming process.
 23 You had said that the skimmer would skim oil from on
 24 top of the oil. Did you mean on top of the water?
 25 THE WITNESS: Yes, I did.

1 COMMISSIONER HANSON: Because we recognize it flows
 2 but we also recognize there's degradation and it filters into
 3 the water. I didn't know whether it was just a system will that
 4 confine itself to a portion of that oil or however that was.
 5 Thank you very much. Appreciate your testimony.
 6 Thank you, Mr. Smith.
 7 MR. SMITH: Other Commissioner questions?
 8 I maybe have just maybe a couple of questions. Would
 9 your characterization of the SCADA and other monitoring and
 10 response systems that you're intending to implement here, would
 11 you characterize those as state-of-the-art systems?
 12 THE WITNESS: Yes. I would. I guess in my experience
 13 I've had the opportunity to visit a number of control centers
 14 and some of the very large control centers here in the
 15 United States that control significant pipelines, and certainly
 16 what we are planning with Keystone will be consistent with those
 17 facilities.
 18 MR. SMITH: And consistent with the best there are?
 19 THE WITNESS: Absolutely, yes.
 20 MR. SMITH: And so basically, you know, from at least
 21 your point of view if the Commission were to deny the pipeline
 22 permit on the basis of inadequate monitoring and safety systems,
 23 would it be your opinion that no pipeline could be permitted in
 24 this state, period, crude oil pipeline or other petroleum
 25 product pipeline?

1 THE WITNESS: That would be my opinion, yes.
 2 MR. SMITH: Thank you. Right now I'm going to ask
 3 again of Interveners that have been scheduled time and
 4 apologize -- if there's anyone that needs to get out of here
 5 that doesn't plan to stay for a while, if you want to go now so
 6 you can get going, we can try to do that and accommodate before
 7 redirect and additional examination by parties of Mr. Thomas.
 8 Is there anybody that either wants to or feels an
 9 urgency to get it over with and go?
 10 CHAIRMAN JOHNSON: From the standpoint if you don't do
 11 it now, you're going to get bumped after lunch?
 12 MR. SMITH: That's probably the case. Because the
 13 Commissioners have a commitment over the noon hour so we're
 14 going to have to take a break at noon. That's why I'm asking.
 15 I don't know if there's people who have to get to another
 16 meeting or home to feed cattle or what, what your needs might
 17 be.
 18 So let me know if you want to get going and leave.
 19 I'm not hearing anybody. I haven't seen any hands
 20 raised so let's move along and see if we can't conclude
 21 Mr. Thomas before noon.
 22 Do you want to be able to get going, Lillian?
 23 MS. ANDERSON: No. Just let it go.
 24 MR. SIEH: When you said "get bumped" does that mean
 25 just over the noon hour or --

1 MR. SMITH: Yeah. We're going to hear everybody right
 2 away. Right after lunch. I didn't know, John. There's some
 3 people who have cattle and they need to get back and I don't
 4 know what people need and we'll accommodate you if you have the
 5 need to get going.
 6 COMMISSIONER KOLBECK: We're not trying to force you
 7 to spend money in Pierre for lunch.
 8 MR. SIEH: I can get by without it.
 9 MR. SMITH: With that, I think we'll move along and
 10 see if you can conclude Mr. Thomas before lunch.
 11 REDIRECT EXAMINATION
 12 BY MR. KOENECKE:
 13 Q. Do you recall whether there are conditions contained in the
 14 special permit relative to the SCADA system?
 15 A. Yes, there are.
 16 Q. Can you generally describe them?
 17 A. Yes, I can. In discussing the SCADA system with PHMSA
 18 personnel, one of their concerns was in relation to the scan
 19 cycle. And by that what I mean is the scan cycle is typically
 20 referred to the amount of time it takes you to scan a complete
 21 network of pump stations. So you start at station A, so to
 22 speak. It talks to the host. You go to B, all the way through,
 23 so to speak.
 24 And Keystone's scan cycle, we expect to be able to meet a
 25 3- to 5-second cycle so that we will have scanned and brought

1 back information from each of the Keystone stations every 3 to 5
 2 seconds.
 3 Q. Mr. Thomas, that's not the only SCADA requirement within
 4 the special permit, is it?
 5 A. No. There are a number of other SCADA-related conditions
 6 with respect to operator training, alarm-related issues. There
 7 have recently been situations that I would describe as like
 8 alarm overload. And there are certain recommendations that are
 9 on the record with respect to how one manages those alarms such
 10 that an operator is not in a position of alarm overload and can
 11 deal with the alarms received and such.
 12 And so there are a number of other SCADA operator-related
 13 conditions that are a part of the PHMSA waiver.
 14 Another that comes to mind is the -- a fatigue-related
 15 issue. There are concerns with operator fatigue as well.
 16 Q. And is one of those requirements that you meet any
 17 regulations developed as a result of the 2005 NTSB SCADA study?
 18 A. Yes, it is.
 19 Q. Can you explain briefly what that means?
 20 A. The NTSB study put forward a number of recommendations,
 21 again, related to SCADA and operator, things such as fatigue and
 22 so on, and basically we will be required to implement those
 23 associated recommendations.
 24 Q. Do you have your direct testimony in front of you,
 25 Mr. Thomas?

1 A. Yes, I do.
 2 Q. I'd like to direct you to question 17, 18, and 19 just
 3 briefly. I'm not asking you to read them.
 4 Given that context, can you explain the process for
 5 finalization of the emergency response plan? From this point
 6 where you're at right now can you just briefly explain the
 7 process going forward to finalize?
 8 A. To finalize? Yes, I can. We have provided -- and again it
 9 was part of the Application this preliminary oil spill response
 10 plan. Once the designs have been completed and the route
 11 finalized, we will finalize the oil spill response plan. This
 12 is something that is a large undertaking. It will take
 13 thousands of man hours because of the very specific details you
 14 have to get into in preparing these plans.
 15 So that work will be undertaken. We're going to begin in
 16 January of next year, and as I mentioned, we'll have it complete
 17 in the first quarter of 2009. It will be submitted to PHMSA at
 18 that point for their review and approval, and the actual line
 19 fill of Keystone is scheduled to commence about November of '09.
 20 So we'll have approximately nine months there to train
 21 employees, familiarize employees with the plan prior to the
 22 actual line -- pipeline line fill commencing.
 23 Q. Mr. Thomas, can you open, please, Exhibit C, July 1, 2006?
 24 Have you got that handy? It's the DNV report, the first one.
 25 A. Yes, I have.

1 Q. If you would flip, please, to page 1.
 2 A. I have it.
 3 Q. And go down to the fifth paragraph. Do you see the
 4 discussion of 657,000 barrels per day?
 5 A. Yes.
 6 Q. Are you familiar with that paragraph, and can you tell me
 7 what that means?
 8 A. I can. The 657,000 barrel a day is, again, the pipeline
 9 design rate. That, as I explained earlier, is the rate that we
 10 might expect to exceed -- pardon me, achieve for a
 11 couple-of-hour period, you know, sometime during a 24-hour
 12 period.
 13 Again, the annual rate is 591,000. That is the rate that
 14 we would expect to be able to achieve 565 days a year.
 15 MR. KOENECKE: Thank you. I have nothing further.
 16 MR. SMITH: Is there any follow-up cross-examination,
 17 Mr. Rasmussen?
 18 MR. RASMUSSEN: I have nothing further.
 19 MR. SMITH: Any follow-on cross, recross? Mr. Hohn,
 20 do you have any?
 21 MR. HOHN: Yeah.
 22 RE-CROSS-EXAMINATION
 23 BY MR. HOHN:
 24 Q. Mr. Thomas, there was testimony presented by a State
 25 expert, Mr. Walsh, that you questioned -- I believe he listed

1 25,000 barrels in one of his equations, and you on page 6 of
 2 your rebuttal --
 3 MR. KOENECKE: I'll object. This is new cross and
 4 didn't come up on either redirect or direct testimony.
 5 MR. SMITH: I'm going to let it go. We'd just as soon
 6 know the answer if there's an issue.
 7 Q. It's a clarification. On page 6 you disputed his number,
 8 and I want to make sure I understand what the difference was. I
 9 believe on page 6 you're listing 21,384 barrels; is that
 10 correct?
 11 At the top of page 6 there's a reference on the right to
 12 21,384 barrels.
 13 A. Yes. I see that.
 14 Q. And how does that relate to Mr. Walsh's 25,000 barrels? I
 15 believe it's on the previous page.
 16 A. I'm not sure how to relate that to Mr. Walsh. I can
 17 explain in detail how --
 18 Q. Please. Please do.
 19 A. -- we've calculated these numbers.
 20 Q. I guess my question is were you disputing his 25,000-barrel
 21 estimate? It appeared that you were disputing his 25,000 barrel
 22 and were listing 21,000 on page 6.
 23 A. I guess we weren't disputing the volumes. What we were
 24 doing is explaining the basis of how our spill volume
 25 calculations are done.

1 So to do that -- and I might mention to begin with that
 2 these calculations that we've provided here in my rebuttal
 3 testimony are the manner in which pipeline companies calculate
 4 worst-case spill volumes that are used in development of the
 5 emergency response plans.
 6 So what we've done here is basically calculated, again,
 7 along each point, mile post I'll say, of the pipeline what the
 8 worst-case spill volume would be. And we've provided it for the
 9 two cases, the 435 and the 591,000 barrel-per-day case.
 10 What is done in these calculations is you basically look at
 11 two parts in terms of calculating volumes when you're
 12 calculating a worst case discharge. The first part as I've
 13 referred to here is called the dynamic phase, or that is the
 14 amount of oil that might leak while the pipeline is still
 15 operating.
 16 Then once the appropriate amount of time, you know, based
 17 upon the very procedure we were talking about in the control
 18 center and so on have elapsed and the valves are closed, then
 19 you go about calculating how much oil will actually leak out at
 20 a given leak site, assuming no repair, containment activities
 21 are done whatsoever. So you assume the entire volume between
 22 those two valves that are used to isolate the segment actually
 23 spills.
 24 Q. And on page 6 then at the top would your sort of worst-case
 25 estimate at that location be 21,384 barrels?

1 A. At that example point, that's correct.
 2 Q. Okay. Could you go back to page 3 then of your rebuttal, a
 3 couple pages back? And it's question 6.
 4 A. Yes.
 5 Q. And question 6 is referring to Mr. Walsh indicating the
 6 emergency response team would have to evacuate and clamp a large
 7 leak within 45 minutes to limit the large leak to 25,000
 8 barrels; correct?
 9 That's what the question is.
 10 A. That's what it states.
 11 Q. And you were responding to that; right, in the following,
 12 page 6? That was part of your response to that question? Was
 13 page 6 responding to question 6?
 14 A. Was page 6 --
 15 Q. Was your response on the top of page 6 responding to
 16 question 6?
 17 A. I guess what the response described was the -- again, the
 18 worst-case spill analysis for the two rate cases of 435 and
 19 591,000 barrels a day.
 20 Q. So the difference is approximately a 3,000-barrel
 21 difference between what he estimated and what you estimate?
 22 A. I believe Mr. Walsh's comments were more directed to a
 23 small or medium-sized leak as opposed to a large leak.
 24 I think it's important to note that in the event of a large
 25 leak, which, again, is a worst-case discharge analysis, there

1 is -- like the calculation does not include a time to actually
 2 repair the leak because you're assuming the full contents of the
 3 pipeline between isolated valves are lost.
 4 Q. Okay. Thank you. One other question. Regarding the
 5 operator stationed at the control center monitoring the SCADA
 6 system for this pipeline, would that operator also have
 7 monitoring responsibilities for other pipelines that TransCanada
 8 owns?
 9 A. He may in the future to some extent, although I wouldn't
 10 expect that to be the case. This operator will be located in
 11 Calgary initially with the other operators that operate various
 12 TransCanada pipelines.
 13 It would be my view that the Keystone system would occupy
 14 an operator and that from a facility perspective and a patching
 15 perspective that a full-time operator would need to be
 16 dedicated to Keystone on a full-time basis.
 17 Q. And would the control center that that person or persons is
 18 working in, would that be dedicated as well to this pipeline?
 19 A. Sorry. The --
 20 Q. The computer monitoring equipment and the control center,
 21 would that particular center be dedicated to the pipeline?
 22 A. The center would not, but the computer system, the SCADA
 23 system, all would be dedicated to Keystone.
 24 MR. HOHN: Thank you.
 25 MR. SMITH: Any follow-up from staff? Questions?

1 MS. SEMMLER: No.
 2 MR. SMITH: Commissioners, any last questions?
 3 CHAIRMAN JOHNSON: No, sir.
 4 MR. SMITH: Any redirect? Re-redirect?
 5 MR. KOENECKE: I'd like to ask two questions if I
 6 might, Mr. Smith.
 7 REDIRECT EXAMINATION
 8 BY MR. KOENECKE:
 9 Q. Mr. Thomas, are the calculated worst-case and other case
 10 spill volumes we've discussed here today, are they done for
 11 planning purposes?
 12 A. Yes. These calculations that we've presented within the
 13 DNV report and the later exhibits are not the complete and final
 14 calculations that will be done.
 15 As I mentioned, as part of our transport and fate analysis,
 16 we will basically recalculate these worst-case discharge,
 17 including a transport and fate analysis, and that is the
 18 information that our ERP will be based upon.
 19 Q. So if I'm understanding correctly, the numbers and spill
 20 volumes you've discussed calculated worst-case and other case
 21 spill volumes? They're not predictions of what will happen
 22 along the pipeline?
 23 A. That's correct.
 24 MR. KOENECKE: Thank you.
 25 MR. SMITH: Mr. Thomas, I think you're excused.

1 THE WITNESS: Thank you.
 2 MR. SMITH: We're now at 10 to 12. We, the
 3 Commissioners, have a commitment over lunch on another matter.
 4 So I think we're going to be in recess until 1 o'clock? Is that
 5 sufficient?
 6 CHAIRMAN JOHNSON: How about 5 after 1? That gives
 7 everybody an hour and 15 minutes.
 8 (A lunch recess is taken)
 9 MR. SMITH: We're reconvening the hearing following
 10 our lunch break. Again, the case is HP07-001, Application of
 11 TransCanada Keystone Pipeline, LP for a permit to build a crude
 12 oil pipeline in the State of South Dakota.
 13 We're now going to begin for a while taking testimony
 14 of persons who have intervened in the case. And we have tried
 15 to accommodate people's various scheduling needs so we have
 16 scheduled those in an order so people wouldn't have to be here
 17 for days.
 18 And the first person we have scheduled to testify
 19 is -- do you have something to say?
 20 CHAIRMAN JOHNSON: I was just going to add because we
 21 have had some people join us here today that weren't here at the
 22 beginning of the process, probably good to reiterate that this
 23 process will be very similar to what we've done with the
 24 Applicant, which we have all the direct testimony before us.
 25 I think a short summary of that testimony is perfectly

1 appropriate. We won't necessarily want a recitation of what
 2 everybody's got because that's on the internet, and certainly
 3 staff and Commissioners and the parties have reviewed that prior
 4 to now.
 5 MR. SMITH: Right. I concur with that.
 6 Ms. Anderson, are you ready to go now?
 7 (The witness is sworn by the court reporter)
 8 MR. SMITH: The one thing I would encourage too,
 9 Ms. Anderson, is that mic there that's in front of you, maybe
 10 you might want to grab that and pull it down a little lower.
 11 Yeah. And as close as you can be comfortable with. Because
 12 that one sometimes we have trouble picking up on that.
 13 Okay. Whenever you're ready to go, you feel free to
 14 start.
 15 MS. ANDERSON: Okay. My name is Lillian Anderson.
 16 I'm with my husband, Raymond. We farm at 12189 415th Avenue,
 17 Langford, South Dakota. We own and operate a grain and
 18 livestock operation with our son, Scott. Our resumes are not
 19 going to be as extensive as TransCanada's as you can expect
 20 because for the fact is that we have only lived in this area for
 21 our whole lives. And the only other thing we have going for us
 22 is a little common sense.
 23 We were one of the first nine that were served
 24 condemnation papers. We are opposed to this pipeline because we
 25 feel it is a threat to our environment and economic condition.

1 It crosses our land on the northeast one-fourth of Section 14,
 2 Tract 125 North, Range 59 West.
 3 We feel this would be a large detriment to our farming
 4 operation. We also cannot understand why TransCanada would
 5 choose the most fragile and protective area to be found in
 6 South Dakota for their pipeline.
 7 We feel this will be a decrease in value for our
 8 property. We've talked to others crossed by the pipeline from
 9 Canada and other states. Everyone has confirmed the value for
 10 their land is less than after they've had a pipeline placed on
 11 it. The soil on this land will not compact after it's been dug
 12 up and disturbed. It's erodible. There's wind erosion.
 13 My first exhibit that I handed out is a picture of a
 14 quarter of land that will be crossed in approximation. This was
 15 a picture that was taken in 2003 after the water floods had gone
 16 down.
 17 MR. KOENECKE: I hate to interrupt, but I'm not sure I
 18 understand. Is it Anderson Exhibit 1 that's the picture?
 19 THE WITNESS: No. 13.
 20 MR. KOENECKE: Thank you.
 21 THE WITNESS: I'm sorry. I don't know how to explain
 22 this picture to you except I don't know if it's appropriate for
 23 me to hold it up?
 24 CHAIRMAN JOHNSON: If you can also hold it up and
 25 while you're holding it up a verbal description would be nice so

1 we can get it in the record and over the internet.
 2 THE WITNESS: Okay. I'm trying to explain to you and
 3 I will explain it further, up in this corner is where Hickman
 4 Dam comes down. And I'll explain that later. From this corner
 5 is what's called The Langford is coming. So we are hit by two
 6 different directions here where this water's going to come.
 7 That's what this picture shows.
 8 The next four pictures are 13A, B, C, and D, are
 9 pictures of the slough west of our house. It goes up -- that
 10 piece of water has a potential of going for 12 miles in
 11 connection when the water is full.
 12 In 2002 -- or 2003, excuse me, the Hutterites,
 13 pictures probably 13B, C, and D, had their crop planted. They
 14 got a rain on the break of the hills, and we have had 5 foot of
 15 water in there ever since. Every time there's a huge rain the
 16 drain system comes that way.
 17 On that -- on this piece of ground also in the center
 18 there's 23 acres of prairie. Raymond has protected that prairie
 19 since he bought it in 1963. Obviously it was protected before
 20 that. There's not much virgin prairie left in our area in
 21 South Dakota. That's the one thing you can't make anymore of is
 22 virgin prairie.
 23 Some day that piece of ground may have more value for
 24 the wild plants that are on it for the organic farming than the
 25 rest of any of our ground may have. TransCanada reduces the

1 economic development options on that.
 2 Again, my exhibits are not going to be as extensive as
 3 theirs, but I have to go with what I have. On Exhibit 13 is a
 4 letter from Ron Schaeffer, and he's a gentleman who had his land
 5 disturbed through a pipeline. And he says what we've been
 6 saying all along. You can't put the land back. You can't get
 7 the contour back.
 8 We've been told all along this is going to be one
 9 pipeline. Mr. Jones agreed the other day that there's space for
 10 three pipelines.
 11 So then when you go to Exhibit 1 and 2, those are
 12 exhibits that a lady from Canada sent to me. Her name is
 13 Marge Vance. When you say there's no damage to the cropland and
 14 you look at those, where the pipelines are, you can see there is
 15 damage to the land.
 16 When a spill occurs the ground will absorb the
 17 contaminants. The contaminants will go into the livestock feed.
 18 The feed goes -- the meat goes to the consumers and the
 19 consumers' health can be affected.
 20 Can you please see WEB Exhibit No. 18. I did not hand
 21 that out. Mr. Ellis admitted I believe yesterday that there
 22 will be more pests on our pipeline.
 23 They're going to love this pipeline because it gives
 24 them a little more warmth. We want to know who's going to pay
 25 for the extra chemicals and the applications and the time year

1 in and year out when the Canadian thistles grow there better
 2 than anything else.
 3 The warmth in the pipeline will provide great lodging
 4 for the varmints in the wintertime. Stripy gophers are known to
 5 love to dig where the land has been disturbed. After the Stripy
 6 comes the badger and so on. The ground will then become
 7 undermined where the tractors will fall in.
 8 You're going to go to your soil temperatures between
 9 70 and 100 degrees. It doesn't matter how the line is heated,
 10 but the heat is there. There will not be any subsoil moisture
 11 in South Dakota when you have that kind of heat running through
 12 the pipe. If you've ever been out in South Dakota in July, it's
 13 usually hot, dry, and windy.
 14 Exhibit 13F is from the University of North Dakota.
 15 It talks about corn taproots at 4 foot or more. Soybeans have
 16 roots around 4 feet. That leaves the taproots on top of the
 17 pipeline. There they'll dry out, and they'll produce less, if
 18 anything.
 19 Corn at this time at 150 bushels per acre at \$3 is --
 20 corn at this time, 150 bushels per acre at \$3 equals \$450 an
 21 acre. Soybeans at 40 bushels an acre at \$8 an acre is \$320.
 22 Cash rent goes up on a yearly basis. Again, how do we know what
 23 the future holds?
 24 TransCanada's offer of \$36 an acre forever doesn't
 25 seem like much. The point is, again, a one-time payment is way

1 too low.

2 We also own land, 320 acres 20 miles north. That will

3 be close to a mile of pipeline. It's in the north half of

4 Section 13, Tract 128 North, Range 59 West. I believe in my

5 testimony I wrote that wrong. I had it in the south half.

6 This also increases our chances of being affected by a

7 spill by many times. The aquifer runs through from North Dakota

8 through Raymond, South Dakota. So this will affect both farms.

9 We have -- takes out both of our options.

10 There should be no liability for machinery damage and

11 every day use. That takes you to Exhibit 14, which is Betty

12 Oliver who spoke in Clark. She submitted three pictures showing

13 the machinery dropped in. Norman Townsend of Britton was there,

14 Exhibit 14D, made the same statement.

15 This happens, unfortunately, every year and we know it

16 doesn't always have to be just your place but our concern is

17 when the animals move in next to this, we have flooding and if

18 we drop in, who's going to pay? Who's going to pay for my

19 machinery? Machinery's not cheap these days.

20 Every year it seems like the Terragators for some

21 reason have a reason to fall in, and they do damage it.

22 The map that Kent is handing out shows the elevation

23 change from Ft. Sisseton in the coteau hills. There's a place

24 up there called Cattail Lake.

25 From Ft. Sisseton farm up there it's 1,800 feet above

1 sea level. To Section 14 where you plan on crossing the line

2 it's 1,309, and west of our farm is 1,220 feet. That's a

3 580-foot drop. That water gathers further to the east, if I can

4 remember this correctly without my husband telling me. It goes

5 from Cattail to Roy Lake to Clear Lake to Red Iron Lake to

6 Buffalo Lake and, I don't know, up to Wet Stone Lake.

7 All of those lakes accumulate and come down through

8 this area. And then they come to Hickman Dam, which is a WPA

9 dam that follows.

10 And then that very first picture when I told you

11 that's where Hickman is coming, that's what that picture shows.

12 The water table at our farm is between 4 and 10 feet.

13 They hit water sand at 5 feet, and you can pump water from

14 8 feet. When they're laying in pipes they're going to have

15 water in the trenches.

16 We have eight wells on our farm that are between 20

17 and 23 feet. The reason we go down better is we get a little

18 better water, a little more water. An oil spill on that quarter

19 of land would destroy our water system for our livestock and

20 farm. We have cattle in more than one place. All places would

21 be affected by our water supply.

22 The spill could also take away our BDM supply. We

23 have no other resource for our livestock, our household, or

24 spraying. 6,000 acres at 20 gallons per acre is 120,000 gallons

25 of water just for spraying in a year's time. Our livestock

1 business would be gone without a water supply. It would

2 probably be gone forever.

3 I use the word "high consequence area." Actually I

4 got that out of a farm magazine. But I do realize that federal

5 regulations are to protect our aquifers. By the PUC's witness

6 there have not been enough studies done. Again, the land where

7 it crosses is flat but it's not flat coming from the east and so

8 TransCanada has not looked at the whole picture and they have

9 not looked at the way the water moves.

10 Never mentioned any runoff. They've never mentioned

11 any floods in the spring. When the spring floods come it goes

12 over the road in several places for up wide as a half a mile

13 deep, and the roads are washed out in some places. An oil spill

14 will move without water. This aquifer must be protected. If it

15 is not, it is a violation of burden of proof number one.

16 I spoke of a half section of land further north. That

17 land when you talk of that is extremely sandy. There are

18 blowouts up there from the '30s that have never recovered. That

19 land does not compact in any way, size, shape, or form.

20 Where the pipeline would be built could cause severe

21 erosion. Again, if you want to drive 2 miles west and check the

22 blowouts, you can see what could happen. This land also drains

23 into the Crow Creek Watershed, which is connected to the

24 watershed that our land is connected to. Takes it to the

25 Jim River and takes it to Yankton.

1 Again, my exhibits are not great, but I put in there

2 where Fargo seems to understand the value of water and how it

3 could be destroyed by TransCanada. The comment was made about

4 where our pipe is going to come from. I remember Mr. Gray

5 speaking at a Britton hearing. It was about -- excuse me. It

6 was not a hearing but at a meeting in Britton at Sunset Colony

7 where he said part of it was coming from china. We've been led

8 to believe here that it's not. I don't know who's right or

9 who's wrong.

10 We feel that TransCanada will impair the health,

11 safety, and well-being of the people of our area, which is --

12 excuse me -- a violation of burden of proof number 2. The

13 benzene, toluene, and other lightweight chemical compounds found

14 in the tar oil sands, they will ruin our water and ruin the

15 water of our communities.

16 This pipeline would also bring into our community a

17 risk that we do not now have. The chemicals can get into the

18 Crow Creek Watershed, travel down the Jim River into the Yankton

19 and into all the towns in between.

20 The chemicals in the tar sands can cause health

21 problems. Those were Exhibits 17 through 17C. Cause health

22 problems for humans, livestock, including cancer and mutations.

23 Exhibit 18 was a water test that we took of one of the

24 wells on our farm. We have good, clean water at about 15 to 30

25 gallons per minute. Again, the aquifer starts between 4 and 10

1 feet. We have springs that push up in our yard every year. At
2 the Britton formal hearing Franklin Olson, a former BDM board
3 member, asked what they would do if BDM was taken out. That's
4 Exhibit No. 19. He did not receive an answer that he felt was
5 appropriate.

6 Mr. Gray at that time promised to haul water to anyone
7 who would be affected by a spill. That's also Exhibit 19, page
8 76, line 3. I don't know if he understands how many livestock
9 operations there are in Marshall County. I don't think he could
10 haul enough water to my place on a summer day to take care of
11 cattle, let alone several of them.

12 If they take out our water, we would have to buy
13 water, water right now that we get for free. And the big "if"
14 is if we could ever get water. We're not sure that BDM could
15 take us on. I don't know if they have the facilities to come
16 in. I know we have neighbors that's been waiting for two to
17 three years and still do not have it after they have applied for
18 it.

19 This aquifer isn't just about our operation. It
20 covers about 48 sections of land. So that's about 30,000 acres
21 that are involved in the ag industry that are setting above this
22 aquifer.

23 It goes back to the question if your meat was
24 contaminated with benzene or toluene or any other chemical,
25 would you want to feed it to your children or your family? We

1 feel that the potential for a spill is great. It still is a
2 risk that we haven't had up until this time. Unfortunately, it
3 happened in Minnesota, and the consequences were severe for
4 those people up there. What Ms. Tillquist said couldn't happen
5 did happen, and two young men lost their lives.

6 TransCanada in meetings in June before the informal
7 PUC hearings said this was the first one that they would
8 operate. They have never operated a crude oil line. They had
9 no plans in place for remedying spills. They said they'd figure
10 it out later. They want to figure it out after they have the
11 permit and after they start digging.

12 I don't think you'd let me set up a farm unit with
13 fuel tanks without something in place before I set it up and
14 before I filled them. They don't have a track record because
15 they've never run this type of a line.

16 Other companies have been in business for years admit
17 that there will be spills, and, again, there have been spills.
18 That will take care of Exhibit 21 through 21D. These tar sands
19 cause three times more greenhouse gases than sweet crude. That
20 will be Exhibit 22 through 22E.

21 We understand there's something called the Kyoto
22 Treaty. Canada has signed that. I have in here a -- I don't
23 know. They are to be reducing their emissions by 2012. This
24 sour crude causes huge piles of toxic byproducts to dispose of.
25 Pollution will be increased, especially if there's a spill or

1 fire from these tar oil stands with toxic chemicals that will be
2 released.

3 In Exhibit 23 and 23A I believe it's 2 billion cubic
4 feet gas will be needed each day by 2012 just to produce this --
5 refine this down. Is that what we want for our country, more
6 pollution, more greenhouse gases?

7 TransCanada in my opinion has shown only contempt for
8 landowners who didn't agree with them. They filed condemnation
9 papers before the PUC hearing. They're a private company from a
10 foreign country that wants to take land from U.S. and
11 South Dakota taxpayers. If this is allowed, our property rights
12 are no longer safe in the United States.

13 I have included in here 29 letters, newspaper
14 clippings, and other clippings from landowners who felt abused
15 and that there was no negotiation. I'm not handing this out
16 because of numbers. On the second page it's a letter from
17 TransCanada, and it shows the first paragraph, Our offer remains
18 in effect until August 31. I got it on August 24.

19 There is a letter in here I added also that wasn't in
20 my other one, and I took out 24I because it was a duplicate from
21 Mr. Jim Bush who's here today. When they talk about
22 negotiation, there is no negotiation. Jim was in the field
23 working his cattle when they came. He wasn't rude to them. He
24 just asked them, you know, could you come back later.

25 When he was in Britton he actually walked up to these

1 gentlemen and told them, you know, you've bought easements here
2 and you've got easements here and if I remember his words
3 correctly, he said, What, do you plan on building a bridge over
4 my land? Nobody's contacted me.

5 The only time they contacted him was when they sent
6 him condemnation papers. That's not negotiation.

7 I was rather surprised on Monday when Mr. Jones said
8 that we had never filed a formal complaint. I had met with
9 Mr. Gray on the 10th of May. I talked to him different -- I
10 would venture to say I can almost count four times I talked to
11 him alone. I talked to Mr. Rauh and Mr. Trescott (phonetic) and
12 I guess we're rather naive because we assumed that in speaking
13 to someone of his stature in the community or in the company
14 that it was a formal complaint.

15 I know other people felt it was a formal complaint,
16 that when we were talking that we weren't just talking to the
17 wind. Now we're told they weren't formal complaints because we
18 didn't put them in writing. I spoke to Sandra Roth in Yankton.
19 She was in charge of handling that. Apparently that wasn't a
20 formal complaint either.

21 TransCanada is running adds in the papers telling
22 about the school taxes that they will be paying. I submitted a
23 statement from the Langford superintendent of schools, and
24 that's 24R. And he put it out because he feels that people are
25 being misled about the taxes. If and when some of these schools

1 have to opt out in a few years and they think that their taxes
 2 have been doubled in the school systems, they're going to be
 3 very angry. And so he put it out -- it's 24R.
 4 He explains it as best as can be explained without
 5 being very -- it's a very hard thing to explain, but he did a
 6 very good job. I think most of us can understand it.
 7 We feel this pipeline causes a huge decrease in the
 8 value of our land. The corridor on the other hand is a huge
 9 increase of value to TransCanada. By their own admission it
 10 gives them space for two more lines for their use or space to be
 11 sold to another company or leased to another company.
 12 Exhibit 25, page 2, talks of expansion to Hyperion.
 13 Exhibit 25A is the Gulf of Mexico, and Exhibit 25, page 1,
 14 ConocoPhillips talks of expanding by 2020 to 3.5 million
 15 barrels.
 16 Along with a decrease in value, bankers do not like
 17 these lines. Some advised their clients please do not sign
 18 these easements. They feel it's a decrease in the value of the
 19 land also. Also they're concerned of the liability as much as
 20 we are. They all know that the land is going to be harder to
 21 sell.
 22 If we were to sell our farm, we would sell it as one
 23 unit as that makes it more valuable. This pipeline decreases
 24 the value of the whole unit of our farm, not just one quarter.
 25 When a spill happens the value for that quarter will be zero and

1 probably most of our farm because the water will be affected,
 2 which is the most valuable resource we have at this time.
 3 Our future development is being denied which is
 4 violation of proof number 4. 40 years ago soybeans were not
 5 planted in our area. They didn't grow and didn't produce well.
 6 These days 40 bushel per acre is not unheard of. Quite common.
 7 Who knows what other crops or things will be developed or needed
 8 in years to come? How do you put a value on something unseen
 9 whether it's dry land rice, a fish farm, organic farming, or
 10 virgin prairie.
 11 Wind towers were being put up everywhere. Who knew
 12 about them 15, 20 years ago? They pay by the year. They don't
 13 contaminate the water. This pipeline could stop them from being
 14 put on any piece of land. Why should South Dakota landowners
 15 assume any liability for something they didn't want to begin
 16 with?
 17 If a spill should affect any of our neighbors, they
 18 have to sue us first. With 12 miles of water, that could
 19 connect several of our neighbors to this slough. If it would go
 20 over the land to the slough, it would connect us. Excuse me.
 21 MR. KOENECKE: I hesitate to interrupt you, but would
 22 you say that again? I didn't quite catch your last couple of
 23 sentences there about your neighbors.
 24 THE WITNESS: Third-party suing. It is my
 25 understanding that if there is a spill from my land, that if it

1 goes to a third party, they have to sue me. Then I get to sue
 2 TransCanada. Third-party suing; is that correct? Is that
 3 correct?
 4 MR. KOENECKE: Is what correct?
 5 THE WITNESS: Third-party suing.
 6 MR. KOENECKE: I'm not on the stand, Ms. Anderson.
 7 It's your moment in the spotlight.
 8 THE WITNESS: I don't want it. As I said there's 12
 9 miles of water in that slough. We would like to know where
 10 Game, Fish & Parks and the Federal Wildlife are. They should be
 11 protecting that area. There are millions of geese and ducks
 12 there every spring and every fall.
 13 I put in an exhibit from the Exxon Valdez spill. That
 14 was 26A and B. Not because I think that you had anything to do
 15 with it, but it was 18 years ago. Not been paid yet. Still
 16 going to court. And many of the original people have died.
 17 What most people do not understand is that the Exxon
 18 did not pay for the repairs up there. The American taxpayers
 19 did. Is this what we want for our South Dakota?
 20 TransCanada has admitted in Yankton that they have no
 21 plan for emergency responses yet. Our roads will not hold heavy
 22 equipment in the spring. To compare a farmer driving over that
 23 road is not correct because most farmers don't drive on those
 24 roads until they know they're capable of handling their machine.
 25 An emergency does not give you that option.

1 Snow is not cleared in the wintertime for many of
 2 these roads. Who pays to get them to a place that isn't plowed?
 3 Is it more of our tax dollars working for TransCanada?
 4 TransCanada has already been on the tar county roads and dug a
 5 hole in them and left them unsealed. By next spring these holes
 6 are going to be many times bigger. That's just the start of
 7 expenses that we're going to be able to pay for TransCanada.
 8 On top of this they want the landowners to help them
 9 find their leaks. First they want to take our land for nominal
 10 price. Then they expect us to be their employees watching their
 11 lines. There are a lot of areas not seen from November through
 12 March or April depending on the winter. Our local fire
 13 departments are not equipped for these spills or fires. Fumes
 14 can cause cancer, damage their lungs and vital organs. Hydrogen
 15 sulfite is deadly and kills instantly as in Exhibit 17 and 17A.
 16 TransCanada says there's no lasting damage to our
 17 land. Then there should be no reason for mitigation so Federal
 18 Wildlife and Game, Fish & Parks should not need to take anymore
 19 productive land out of use. The ducks and geese are better
 20 protected than the landowners of South Dakota.
 21 In summary I feel, we feel, there is no use or need
 22 for this pipeline. Instead of investing in this old technology
 23 of tar sands oils, companies should be investing in ethanol,
 24 wind generation, hydrogen, further development of other
 25 synthetic fuels, and other renewable fuels.

1 We do not want this line because we do not think it's
2 necessary. But if you do agree to put this line in, we think
3 there should be things put on this permit to make them -- to
4 hold them responsible.

5 We think that TransCanada should rewrite all
6 easements. Not the ones that are left, but every easement
7 should be rewritten stating clearly that all liability will be
8 theirs.

9 There should be no third-party suing. If there's any
10 damage, regardless of whose land it is, it should go directly to
11 TransCanada. There should not be some poor schmuck in the
12 middle that has to fight with TransCanada and the insurance
13 company.

14 They should continue to pay for any crop damage
15 regardless of the number of years without a big hassle. It
16 shouldn't be a big issue for us to collect crop damage. They've
17 admitted that they can't get their crops back to 100 percent.

18 They should sign the easement. That way then we know
19 there's no doubt, there's no doubt in anybody's mind of their
20 intentions when they sign that easement.

21 They keep saying they're only the truckers. And they
22 may be only the truckers, but truckers get paid by every load or
23 every barrel of whatever they're hauling. They will be paid
24 every day of every week of every year, and they should be making
25 an annual payment to every landowner.

1 The corridor space alone is very valuable to
2 TransCanada. Each line brings them more income, and they should
3 have to pay according to the number of lines. There should
4 never be any abandoning in place of any lines. There should be
5 bonds in place so things like the Exxon Valdez does not happen
6 or as an expense to the landowners or the citizens of
7 South Dakota or the United States.

8 We feel it should be deeper in the ground. We
9 appreciate the fact they've already gone down deeper, but we
10 know machinery's not going to get any smaller. And once you've
11 ruined either their pipe or a piece of machinery, someone has to
12 pay, and there should be a bond in place to pay for those
13 things.

14 Once more, we do not inherent the land from our
15 ancestors. We borrow it from our children.

16 Thank you.

17 MR. SMITH: Thank you, Ms. Anderson.

18 Mr. Koenecke, do you have cross-examination of
19 Ms. Anderson?

20 MR. KOENECKE: Just briefly. Thank you, Mr. Smith.

21 CROSS-EXAMINATION

22 BY MR. KOENECKE :

23 Q. Thank you, Mrs. Anderson. Appreciate your patience. When
24 you referred to your exhibits you've done a better job of
25 getting enough copies than I have over the last couple of days.

1 A. I don't have a very good office staff. It's me, myself,
2 and I, and I have to fire I and me because myself has to do it
3 all.

4 Q. I'll tip my hat. You've done just fine with printing your
5 exhibits and providing them, and I appreciate that.

6 I'm interested -- if I recall correctly, you made a
7 statement about blowouts from the '30s, and I'm not exactly sure
8 I know what you're talking about.

9 A. The land that crosses by the North Dakota line, the land up
10 there is very erodible. Actually I have a map.

11 Q. Very good. Can you just tell me what a blowout is?

12 A. A blowout is -- okay. During the '30s -- it's called Hecla
13 soil, and it's up in this corner up here. Outside to say that
14 if you sneeze, the ground moves -- they have to be very careful
15 when the cattle are grazed up there that if they make -- keep
16 walking in one spot too long, it will blow out huge blowouts.

17 My husband used to fly an airplane. You can bury -- I
18 mean, the airplanes can be put in the pits back there. You
19 can't see them. You can put a bus in the back of them, and the
20 ground will move constantly. It's that sandy.

21 Q. And as I'm looking at the map which you've handed out which
22 appears to be a map of Britton and Amherst, and I see Hickman
23 Lake. I don't know if that was formed by the Hickman Dam that
24 you've discussed in the lower --

25 A. Yeah.

1 Q. -- left?

2 A. Yes, that is.

3 Q. Is Hickman Lake formed by Hickman Dam?

4 A. Yes.

5 Q. And that's where your farm is?

6 A. No. My farm is over -- do you see where that number 4 is?

7 Q. Lower to the left? I do.

8 A. It's over that way.

9 Q. And the blowouts are where?

10 A. They're up by the land that we own up further north up in
11 this area (indicating).

12 Q. Would you describe for the record where you're pointing to,
13 if you can.

14 A. It's in the northwest corner of Marshall County.

15 Q. Is there a 1 or a 2 perhaps up in that corner of the map?

16 A. The Dayton Crow Creek, where it starts practically.

17 Q. I see.

18 A. That's the land we own. And you're going to go west of
19 there a few miles. You're a little over a mile west of there.
20 But the land is extremely sandy.

21 Q. The proposed pipeline route is west of --

22 A. Where that says Crow Creek --

23 Q. -- the blowouts on your land approximately?

24 A. No. The blowout's not on my land. I said west of -- what
25 I meant to say if I did not is the blowouts are west of where

- 1 the line will be. But it's the same kind of soil.
- 2 Q. I understand.
- 3 A. It made a difference in the '30s on how the land was
- 4 handled how badly it blew.
- 5 Q. I understand. Thank you. Is it your position that there
- 6 would be no way that any spill of any size could be remediated?
- 7 A. Of any size?
- 8 Q. Yes. Of any size.
- 9 A. Well, I'm sure that if it was small enough, anything can be
- 10 fixed.
- 11 Q. Very good. I'm interested. Do you remember testifying
- 12 that TransCanada offered \$36 an acre?
- 13 A. If you figure out what they offered in the contract and you
- 14 divide it by 50 years, it comes to \$36 an acre.
- 15 Q. I see. Very good. Thank you.
- 16 A. They plan on using my land for 50 years at the minimum as
- 17 their -- you know, that's been their statements.
- 18 Q. You testified that bankers don't like the easements?
- 19 A. I've had -- unfortunately, I didn't write down every name
- 20 of everybody I talked to, but I have had people that told me
- 21 their bankers advised them not to sign the easement because they
- 22 did not think it was going to -- if people owed money against
- 23 their land, they didn't like it.
- 24 Q. Can you tell me the name of any banker that told you that?
- 25 A. I didn't ask a banker.

- 1 Q. Okay. Thank you. Have you yourself allowed anybody from
- 2 TransCanada access to view your land?
- 3 A. Yes, I have.
- 4 Q. They have viewed it?
- 5 A. Yes.
- 6 Q. Do you know who has been there?
- 7 A. It was surveyed.
- 8 Q. It was surveyed. Has it been surveyed for the virgin
- 9 prairie you've discussed?
- 10 A. I don't know what they did.
- 11 Q. Do you know when that was?
- 12 A. Probably a year ago. Didn't they come through in the fall?
- 13 I'm sorry. I don't remember. I wasn't there when they were
- 14 doing it. I wasn't home.
- 15 Q. Was it only one time?
- 16 A. I don't know.
- 17 Q. I see.
- 18 A. Raymond gave them permission to go out and survey, and, I'm
- 19 sorry, I don't know when it was.
- 20 Q. Has that since been revoked, the permission to survey and
- 21 go on your property?
- 22 A. After Mr. Van Rork was at our house and was so rude, I have
- 23 sent a letter and asked that they not come back.
- 24 Q. I'm interested in the pictures of the farm implement, which
- 25 I think you've marked as 14A, B, and C. Can you get those out?

- 1 A. Uh-huh.
- 2 Q. Did you take these pictures yourself?
- 3 A. No, I did not. Betty Oliver whose statement is in here is
- 4 the lady who made the statement. They are her pictures from
- 5 Clark.
- 6 Q. Were the pictures taken near Clark to the best of your
- 7 knowledge?
- 8 A. I'm assuming that it was someone that was crossed by the
- 9 pipeline beings she was in Clark at the formal hearing.
- 10 Q. I'm looking at 14A, and I'm seeing a large implement buried
- 11 in the mud. You'd agree with that?
- 12 A. That's what I'm looking at.
- 13 Q. Does this appear like normal farming practices?
- 14 A. It can -- you know, what happens -- I can almost guarantee
- 15 that what happened is they got sucked into that thing. They
- 16 didn't start in that close, but if one wheel gets over and gets
- 17 sucked and you just keep pulling it off and you can't straighten
- 18 it out and they sometimes make a mistake and keep going.
- 19 Q. Have you calculated how many gallons of water are in the --
- 20 let me back up. I understood you to say you have eight wells on
- 21 your farm?
- 22 A. Yes.
- 23 Q. Is that the farm where you reside or the one that's --
- 24 A. No. Where we live.
- 25 Q. Do you have wells on the farm that's to the north 20 miles?

- 1 A. Yes.
- 2 Q. The pipeline goes through your north farm?
- 3 A. No. It's within -- close to a mile.
- 4 Q. And it goes through the farm where you reside?
- 5 A. It's within a mile.
- 6 Q. Where does it go through your land at? Near your farm
- 7 where you reside or does it go through your land 20 miles north
- 8 or both?
- 9 A. No. The farm where I reside.
- 10 Q. And at that farm place you've got eight wells?
- 11 A. Where I live, yes.
- 12 Q. Where you live.
- 13 A. Yes.
- 14 Q. Where you reside there's eight wells. I'm sorry. I'm
- 15 trying to understand. And do I understand you also use BDM
- 16 Rural Water?
- 17 A. No, we do not. We do not have access to it.
- 18 Q. Are you within their service territory, if you know?
- 19 A. I don't know.
- 20 Q. My recollection of your testimony is that you're afraid
- 21 that somehow a spill by TransCanada will take out the entire
- 22 aquifer -- and please correct me. I don't want to put words in
- 23 your mouth -- from your north farm all the way south to Raymond,
- 24 South Dakota.
- 25 Is that what I understood?

1 A. I believe it's all the same.

2 Q. Have you calculated how much water is existent in the

3 ground between your north farm and Raymond, South Dakota?

4 A. No.

5 Q. Do you know what size a spill it would take to contaminate

6 that aquifer?

7 A. No, I don't.

8 Q. Do you know how long it would take for that to be

9 completely contaminated if it was even possible?

10 A. No, I don't.

11 Q. Okay.

12 Q. I've pulled out here what you've marked as Anderson

13 Exhibit 13. Is the 23 acres of virgin prairie on here?

14 A. It's right exactly where it says, Located, approximate

15 location of the pipeline. That's virgin prairie.

16 Q. It appears that it's bounded by a roadway on the left-hand

17 side.

18 A. That's the approximate location of the pipeline, that black

19 line.

20 Q. That goes across the page?

21 A. Yes.

22 Q. And then is this a -- and you can see what I'm pointing at.

23 This appears to be a road running perpendicular to that along

24 the left. The virgin prairie is laying underneath that black

25 line?

1 A. No. It's the green just where it says, Approximate

2 location of pipeline, the green.

3 Q. That long green strip?

4 A. Is virgin prairie. And along the end. On the end.

5 Q. Okay. So I'm asking you just to make sure, the two longer

6 strips -- there's a very long strip of virgin prairie, a shorter

7 strip, and is that connected by virgin prairie on the right-hand

8 side?

9 A. Yes.

10 Q. Can you tell me the approximate width of your virgin

11 prairie that the black pipeline indication goes across? Any

12 idea?

13 A. No. I'm sorry. I don't.

14 Q. Okay. Thank you.

15 MR. KOENECKE: I have nothing more. Thank you for

16 patiently answering my questions. I appreciate it.

17 MR. SMITH: Mr. Rasmussen?

18 MR. RASMUSSEN: I guess I don't have any questions,

19 but I would ask did you want to offer all of these exhibits into

20 evidence?

21 THE WITNESS: Yes, I do.

22 MR. RASMUSSEN: Okay.

23 MR. SMITH: Is there objection?

24 MR. KOENECKE: Mr. Smith, a number of these exhibits

25 lack foundation and appear to be hearsay, but, no, we'll not

1 object to their introduction into the record.

2 MR. SMITH: Okay. I'll do that. I would agree with

3 you. I mean, some of this is -- I'll check with staff. Do you

4 have an objection, staff?

5 MS. SEMMLER: Same thing. We don't know the source,

6 the location of any of the maps, the creator, where the pictures

7 came from. So same concerns, but I won't formally object.

8 THE WITNESS: This map came from this (indicating).

9 MR. SMITH: Yeah. The official maps I don't think

10 there's any problem with those. I think those are sound

11 evidence.

12 Obviously, ordinarily in a legal case things like

13 newspaper articles, that kind of stuff, are not generally

14 speaking admissible in evidence to prove what's in the story

15 because we have no idea, first of all, whether the reporter that

16 reported it knew what he was talking about, first of all. And,

17 secondly, a lot of publications frankly have biases and the

18 like.

19 But it comes under a category called hearsay. And I

20 think since we haven't had objection, I mean, what I'm going to

21 say is the Commission -- I'm going to recommend that we admit

22 your exhibits, but some of them we do what -- I mean, the

23 Commissioners are allowed to give those exhibits the credibility

24 that they deem they merit based upon what we know about their

25 foundation, et cetera.

1 Some of these are very solid, good. I'd say the vast

2 majority of them are. But if you -- like newspaper articles and

3 just statements from people that we can't cross-examine here are

4 not as reliable, and we may give those less weight, if that's a

5 fair statement of what the Commissioners may do.

6 CHAIRMAN JOHNSON: And I would just note that it

7 sounds as though, Mr. Smith, you've taken into account that, you

8 know, we're dealing with nonattorneys here who are doing their

9 best to provide the facts as they know them to be, and we

10 certainly appreciate those efforts. And I would just echo I

11 think your ruling is fine.

12 MR. SMITH: Okay. Thank you. With that, I'm going to

13 proceed then to Mr. Hohn and ask him if he has

14 cross-examination.

15 MR. KOENECKE: Mr. Smith, before we do that, I'm apt

16 to forget. The general soil map of Marshall County deserves a

17 name and number on it before we get ahead of ourselves.

18 MR. SMITH: Why don't we -- do you recall, Lillian,

19 what your last number was?

20 THE WITNESS: 3,000.

21 CHAIRMAN JOHNSON: As long as we're at it, Mr. Smith,

22 it occurs to me this map that's labeled with the yellow box

23 Anderson Exhibit but there's no number, that should also be --

24 MR. SMITH: His doesn't, but there is one that's

25 Exhibit 15.

1 CHAIRMAN JOHNSON: I think it looks like the same one
 2 Mr. Jones has. So I'll just write down at the bottom 15 on
 3 mine.
 4 MS. SEMMLER: Staff's count for exhibits is at 24G so
 5 I wonder if this -- 25.
 6 THE WITNESS: I've got 26B.
 7 MR. SMITH: 26B is you think the last one? Why don't
 8 we just call it -- would 27 be high enough? I'll tell you what
 9 I'm going to do, Cheri, because we want to move along and get to
 10 the meat of the matter, I'll introduce them. Can you give it
 11 the next sequential exhibit number, please, and it will be
 12 whatever that is?
 13 Okay. Thank you. With that, we'll move to Mr. Hohn.
 14 Your cross-examination, please.
 15 MR. HOHN: Thank you.
 16 CROSS-EXAMINATION
 17 BY MR. HOHN:
 18 Q. Lillian, I have a few questions for you just to follow up
 19 on what you've said. With regard to third -- you used the term
 20 "third-party suing." I'm not clear as to what you mean by that.
 21 Are you -- can you elaborate? Are you talking about
 22 liability that you will incur as a landowner if a pipe crosses
 23 you?
 24 A. It was my understanding from conversations and things I've
 25 heard at other meetings that if there were to be a spill and it

1 traveled to my neighbor, my neighbor would have to sue me, and
 2 then I would have to sue TransCanada. Obviously, my insurance
 3 company would have to pay, and then I would have to deal with
 4 TransCanada.
 5 Q. Was there anything in the easement or some document you
 6 were given by TransCanada that caused you to think that or
 7 believe that, that they would not be held liable if something
 8 happened on your land with the pipeline?
 9 A. When they plain and simply refuse to sign a document, I
 10 become very suspicious. In our area or part of the country when
 11 we do business we all sign the contract. And even when you're
 12 doing business with family, relatives, or neighbors, everyone
 13 signs a contract. That's the way we've always done business in
 14 this country, and everybody's held liable that way. I guess
 15 that was one of my first red flags.
 16 Q. So let me see if I understand it correctly, and if I'm
 17 misstating it, correct me please. But there's an easement that
 18 TransCanada asked you to sign. There's clauses in -- language
 19 in the easement that concerns you that if you signed it and
 20 there was an incident or an accident, that you would be liable
 21 if a neighbor was damaged, and that TransCanada would not be
 22 liable? Is that what you're saying?
 23 A. They may agree to liability, but the thing of it is, the
 24 very first red flag is when their land agent comes to my home
 25 and tells me you take what we're offering or you'll get nothing

1 because TransCanada has deep pockets. So if there's a spill on
 2 my land, my neighbor sues me, I feel he's going to get his money
 3 from the insurance company.
 4 I, in turn, am going to have to fight with a big oil
 5 company with deep pockets, according to their own land agent's
 6 words.
 7 Q. Lillian, let me ask you, you speak of a land agent. You
 8 mentioned a name in your testimony, the person who visited your
 9 site, and after that visit you asked that they not go on your
 10 property.
 11 What was that name again?
 12 A. After -- he didn't give us his name that day. He called
 13 one other day. Jeff Rauh finally told me what his name was.
 14 Buster Gray told me he couldn't find out his name when I first
 15 told him about it. His name was Van Rork.
 16 Q. Van Rork?
 17 A. Yes.
 18 Q. And is this the land agent, Mr. Van Rork, who was at your
 19 farm and met with your husband and you on the easement request?
 20 A. Yes.
 21 Q. And at that meeting what transpired to change your opinion
 22 to the point where -- your husband had allowed them to survey
 23 the land; correct?
 24 A. Yes, he had.
 25 Q. And after that meeting you decided you didn't want them on

1 your property anymore. What happened during that meeting that
 2 would cause you to react that way?
 3 A. As I said when I told the story before, Raymond's very
 4 mild, very calm. I looked out my window, and he's just pacing.
 5 I can tell he's very angry. So I go outside. And there's
 6 Van Rork, and he's like, you know, you sign this. Raymond's
 7 asking him very viable questions about soil, the work, where
 8 they're going to drive. And he kept -- his answers were I don't
 9 know but I can find out but sign this paper.
 10 And then Raymond asked him about when we're talking about
 11 this water coming -- when I showed you those maps where that
 12 water -- it comes with a terrific force. And he's trying to
 13 explain to Van Rork that when they disturb this soil it's going
 14 to wash. I don't know what they're going to do to stop it. If
 15 they trench cut that road, it's going to wash down the field,
 16 wash out that road. He's trying to talk to him about this.
 17 He showed him some pictures that looked like put backhoes
 18 in the ground, which still isn't going to help the top of the
 19 ground. It will help the bottom. And at that point Raymond
 20 tried to say I don't understand how this is going to stop the
 21 top of the soil from washing. At this point Van Rork says --
 22 that's when he said, you know, you might as well sign this and
 23 take the money or you're going to get nothing. And I felt that
 24 was a threat to my family, and it's like a red flag to me.
 25 Q. Did this land agent or other land agents make visits to

1 your home or call your home after that meeting?

2 **A.** Yeah. He called. We had a meeting on the 10th. He was

3 there on the 9th. We met in the afternoon with Buster Gray. We

4 met that night with Buster Gray. He called him that next Sunday

5 morning and wanted to know if we had changed our mind.

6 **Q.** Who called?

7 **A.** I believe it was Van Rork. He did not leave his name.

8 **Q.** He called on a Sunday?

9 **A.** Sunday morning before church, yes.

10 **Q.** Was there ever a time when Mr. Van Rork came to your farm

11 to try to secure signature and your husband wasn't there?

12 **A.** No, he didn't. There was a -- John Baker came last fall,

13 and Raymond was 20 miles from home working in a field.

14 **Q.** And what conversation did you have with him then about the

15 easement?

16 **A.** Well, he asked if Raymond was there, and I said no. I said

17 he was up at the Fort. I said you can leave the easement with

18 me. And he said, no, he can only give it to Raymond. And I

19 said my name was on the land and he said he didn't care and he

20 left.

21 **Q.** Your husband and you, the land is in both your names;

22 correct?

23 **A.** Yes, it is.

24 **Q.** Do you think he said that to you because you're a woman or

25 did he say that to you because he didn't want to deal with you

1 or what was the reason?

2 **MR. KOENECKE:** I'll object. That calls for

3 speculation.

4 **MR. SMITH:** Pardon me. I'm sorry. I missed the

5 question. Would you read the question back, Cheri.

6 (Reporter reads back the last question)

7 **MR. SMITH:** I'm going to sustain the objection.

8 **MR. HOHN:** Okay.

9 **Q.** I want to talk about the exhibit that you have that shows

10 the tractor being stuck, and I don't know which number that is.

11 **A.** 14.

12 **Q.** 14. If I understood you correctly, was that -- were these

13 photographs submitted at one of the public forums that the

14 Public Utilities Commission held?

15 **A.** Yes. I actually took them off the PUC site.

16 **Q.** So these are off the information on the website?

17 **A.** Yes, it is.

18 **Q.** And which meeting was this at?

19 **A.** At the Clark meeting.

20 **Q.** Clark meeting in June?

21 **A.** Yes.

22 **Q.** In the -- he also submitted part of that transcript from

23 that meeting. Is that what the previous exhibit then would be?

24 **A.** Yes, it is.

25 **Q.** And in the transcript did the farm family or the man or the

1 woman presenting that exhibit, those photos, did they say how

2 they got the tractor out?

3 **A.** Yes. She said it took three tractors and one backhoe to

4 dig that tractor out.

5 **Q.** And do you recall from being at the meeting or looking at

6 the transcript whether she explained whether they felt it was

7 normal farming practice they were trying to accomplish when this

8 happened?

9 **MR. KOENECKE:** Well, I'll object to that. The

10 transcript speaks for itself. I mean, we're plowing ground here

11 for stuff that's been put into the record.

12 **MR. SMITH:** Well, we're way into hearsay.

13 **MR. HOHN:** Well, it was your transcript from your

14 public --

15 **MR. SMITH:** And none of that was under oath. I'll

16 just tell you -- and I'm not going to testify here -- I have

17 seen these tractor pictures long before that Clark meeting from

18 an e-mail that was sent around here to people to the State, and

19 what the information that accompanied these pictures said is

20 that this was taken near a slough just near the town of

21 Humboldt, South Dakota.

22 **Q.** Let me ask you, Ms. Anderson, showing the photos were you

23 representing that this was stuck in land that was crossed by the

24 pipeline, or you were attempting to show what with your exhibit?

25 **A.** No. I never -- I did not know -- she never said it was

1 there. I'm just making a statement as does the next one from

2 Norman Townsend. Every year machinery drops in to the frame,

3 and it's not always along a slough. It just happens.

4 But my concern is if it happens along the pipeline and

5 because the pipeline is there, and there's damage -- say a

6 combine falls in and it ruins the platform. Who pays for the

7 platform?

8 Dirt gives. This thing isn't going to give. The

9 pipeline's not going to give. Who's going to pay to dig it out?

10 **Q.** Mrs. Anderson, regarding your water supply for your farm

11 and your feedlot and your livestock, the question that was asked

12 by Mr. Koenecke is whether you were in the BDM Rural Water

13 service area, and you're not sure if you are.

14 Is your son served by the BDM system?

15 **A.** Yes, he is.

16 **Q.** And is that at a home nearby?

17 **A.** He's on the other side of the slough. Like a mile away.

18 **Q.** Okay. Is that water supply used for livestock, household,

19 either, or both?

20 **A.** He gets enough water -- they had to put in a supply tank

21 because the water -- they have two horses. They couldn't use

22 water in the house at the same time the horses were drinking so

23 they had to put in a supply tank.

24 **Q.** Is it your understanding that if you had to get water from

25 BDM, would they have enough water available for you to make up

1 the loss of your ground water wells?

2 **A.** I don't -- I don't think they could, but I don't know that

3 as a fact. I don't think they could.

4 **Q.** Okay. You had mentioned on the third page of your

5 testimony that you felt the value being offered to you was

6 figured out to \$36 an acre if you figured 50 years; is that

7 correct?

8 **A.** Yes.

9 **Q.** What is cash rent in your area for farm ground going right

10 now if you could rent your land out for cash rent?

11 **A.** I was told that it will be \$125 in our area next year. And

12 there are areas where it's a lot higher not too far away.

13 **Q.** And if I understand what you said earlier, the payment by

14 TransCanada was a one-time payment, and you took that number and

15 calculated it -- divided it out over 50 years. That's how you

16 got the \$36; is that right?

17 **A.** Yes.

18 **Q.** Okay. I think this is on the sixth page of your testimony.

19 You refer to cultural resources and the survey that is done or

20 discussed as part of this project review.

21 Has your property, the property that would be crossed as

22 you show it in this map and in Section 14 with the native

23 grasses on it that Mr. Koenecke spoke of, has that property been

24 walked for a cultural resource survey?

25 **A.** No, it has not. We have requested that it be.

1 **Q.** You've asked -- who have you requested?

2 **A.** We sent a letter to the U.S. State Department.

3 **Q.** Okay. We're dealing with -- on your testimony it's not

4 numbered so I'm thinking -- I'm going to have to go back and

5 look here. Page 8 of your testimony at the top of the page,

6 Thinner Pipe Wall is the paragraph title.

7 You're aware that a special permit was requested and

8 granted to TransCanada to change the wall thickness if they

9 agreed to 50 or so additional conditions for operation; is that

10 right?

11 **A.** That's what I heard them testify today, yes. Or yesterday.

12 **Q.** Does the changing of the pipe wall thickness -- and I

13 realize you're not an engineer, but does the changing of the

14 pipe wall thickness cause you concern?

15 **A.** Yes, it does. I was at a meeting in Yankton with the

16 U.S. State Department, and this was brought up. And they

17 continually use the word "rural." As long as it was a rural

18 area, they could use thinner pipe.

19 And when I raised objection to that, you know, afterwards a

20 young gentleman came up to me and said that the reason in towns

21 is because they are constantly digging up their ground. And I

22 thought it was rather ludicrous because I don't know who digs up

23 their ground more than farmers do. But that was their

24 reasoning.

25 **Q.** Does the BDM Rural Water system repair lines in your area

1 that you know of? Do they go out and dig pipe up and fix them?

2 **A.** Yes, they do.

3 **Q.** So you could have a pipe repair somewhere in your community

4 in your aquifer as well?

5 **A.** Yes. Yes.

6 **Q.** Okay. On the bottom of page 8 you refer to emergency

7 response. And you make reference to the local fire departments

8 that fight fires in the Britton Langford area?

9 **A.** Yes.

10 **Q.** You say they're not equipped or trained to deal with this

11 kind of fire?

12 **A.** No. Our fire department there's times when there's only

13 three guys that are there in town to go out for a fire. They're

14 just volunteers. If they're gone, they're gone. I mean, they

15 can't be there.

16 **Q.** Have there been in the last -- well, the years that you've

17 farmed, the last 20, 30 years have there been grassland fires in

18 your area?

19 **A.** Yes. My son started one.

20 **Q.** Oh, good. Well, we won't turn him in. My question

21 regarding grassland fires: What happens in your rural community

22 if there is a fire? Is it the volunteer fire department, or are

23 there more people that volunteer and come forward?

24 **A.** Any time there's a fire that gets out of control, every

25 farmer with a disk, any amount of water tanks, anything that can

1 be used to help pulls in and tries to help. Because even some

2 of the ones that Aberdeen has come out for they couldn't

3 control, and they never would have gotten it out if it hadn't

4 been for some tractors and disks.

5 **Q.** I've got a question here, and this is where it goes is one

6 of the things -- one of the items that was mentioned in

7 Mr. Thomas's testimony is there are times when to clear the

8 residual of the oil cleanup a fire is started to burn off the

9 residual oil.

10 Did you hear that testimony?

11 **A.** Yes, I did. And I wondered about that testimony myself

12 because if you've ever burnt leaves in a spot in your yard, the

13 next year and the year after and the year after you know you

14 shouldn't have done that because nothing grows there.

15 **Q.** So what you're referring to, I guess, in page 8 of your

16 testimony, you're making reference to concerns about fire

17 fighting capability in that community beyond what?

18 **A.** There is no fire fighting community -- or department up in

19 our area that has the ability or the equipment to handle any

20 kind of a fire from a crude oil pipeline. From the things that

21 I have read, the chemicals that are in it would be very

22 detrimental to their health.

23 **Q.** This is my last question. When a fire occurs in your

24 community, the neighbors, your family, your son, your husband,

25 do they get involved in fighting the fires the community sees

1 now?

2 **A.** Yes, they do.

3 **Q.** Would you have concerns if your son or your husband were
4 involved in trying to fight a fire that involved the burning of
5 crude oil?

6 **A.** I wouldn't let them go.

7 MR. HOHN: That's all the questions I have.

8 MR. SMITH: Do any other Interveners have questions of
9 Ms. Anderson?

10 Staff, do you have any questions of Ms. Anderson?

11 MS. SEMMLER: None. Thank you.

12 MR. SMITH: Commissioners?

13 COMMISSIONER KOLBECK: Other than to say you did a
14 great job, Lillian. I completely understand your testimony, and
15 I'll work through the rest of it.

16 MS. ANDERSON: Thank you.

17 MR. SMITH: Commissioner Hanson.

18 COMMISSIONER HANSON: Good afternoon. I had to look
19 at the clock for a second. Assuming it's still afternoon.

20 THE WITNESS: 2 only seems like --

21 COMMISSIONER HANSON: Seems like Thursday too. Just a
22 couple real quick questions, if I may. We can all do math and
23 figure out how much per acre that was offered.

24 If that were invested and at even a 5 percent return
25 you'd have \$90 a year so one would take that into consideration,

1 wouldn't they, in looking at the value when you say \$36 an acre?

2 THE WITNESS: No. Because the other income I have is
3 disposable income. I don't have to invest it over a period of
4 time to collect interest on it.

5 COMMISSIONER HANSON: But as opposed to the -- well --
6 all right. Additionally, as I understand this, you are selling
7 an easement to the property. And you still would have the
8 availability of raising crops on that property.

9 Are you disagreeing with that?

10 THE WITNESS: It depends on what you want to call a
11 crop. Is it a good crop, medium crop, or a minimum crop? If
12 the rest of my field is producing 150 bushel corn and I get
13 15 bushels from their area, then, no, I'm losing that much money
14 off the top of my crop.

15 COMMISSIONER HANSON: Sure. I understand that. Thank
16 you. And you certainly know a lot more about farming than I
17 ever will so I appreciate your testimony.

18 Did you have an attorney review the Offer to Purchase
19 easement on your property?

20 THE WITNESS: I'm trying to -- yeah. Wait a minute.
21 Can I call semi attorney? Half and half maybe. Not a
22 practicing attorney.

23 COMMISSIONER HANSON: All right. I was just curious
24 where you -- whether she or he advised you that there would be a
25 liability created by signing that right to the easement and

1 selling that easement.

2 So did that party advise you that you would create a
3 liability where you could be sued?

4 THE WITNESS: That was the way we read it and
5 understood it, yes.

6 COMMISSIONER HANSON: Is that party here today?

7 THE WITNESS: No.

8 COMMISSIONER HANSON: Okay. Thank you very much.
9 Appreciate you coming all the way here to testify.

10 MR. SMITH: Commissioner Johnson, do you have
11 questions of Ms. Anderson?

12 CHAIRMAN JOHNSON: Hi, Ms. Anderson. On page 5 of
13 your testimony you ask, What's the track record for this kind of
14 pipeline? Others that have been in the business for years have
15 spills all the time. And then you note that, The pipeline
16 industry is trying to expunge those records from public records.

17 THE WITNESS: Meant to take that out of there.

18 CHAIRMAN JOHNSON: I didn't know what you meant by
19 that.

20 THE WITNESS: I thought I had taken that out of there.
21 I'm sorry. It was an article that I had read, Wikipedia, that
22 they -- I truly wish it wasn't in there. I didn't mean it to be
23 in there. It was an article I read where they're trying to get
24 some of the records taken out of public record, I guess.

25 CHAIRMAN JOHNSON: And you don't know specifically

1 what records or --

2 THE WITNESS: It was just -- and I don't know if it
3 was -- when I first read it -- this thing's been written several
4 times, as you can understand.

5 When I read that and I was writing this what it was --
6 it was something about taking information out of the Wikipedia,
7 which you know what it is, and I don't know if it was an effort
8 to -- as they were talking about yesterday, they change how they
9 collect information on spills, if it's trying to correct that or
10 what not -- I don't understand. But that's why I took it out of
11 my extra testimony. I didn't know it was still in there. I'm
12 sorry.

13 CHAIRMAN JOHNSON: No. That's fine. Thanks for
14 clarifying.

15 That's all, Mr. Smith. Thanks.

16 MR. SMITH: Thank you. I just have a couple with your
17 Exhibit 1, which is this picture here. Who was the person
18 who --

19 THE WITNESS: Marj Vance (phonetic), London, Ontario.

20 MR. SMITH: And do you happen to know the details of
21 this at all? I guess it's not clear to me looking at it, for
22 example, what that is. You know, is that grassland?

23 THE WITNESS: I didn't get into that with her. I had
24 asked for a picture that showed what it looked like.

25 MR. SMITH: And she didn't give you -- did she give

1 you any -- how many years following --
 2 THE WITNESS: She did not tell me. I lost -- what
 3 happened is I got those pictures from her with some other
 4 information, but I then lost contact with her.
 5 MR. SMITH: Okay. Let me see. I think that's
 6 probably -- oh, I was going to just ask you, if you know on the
 7 wells that you have on your farm, whether they be -- north, you
 8 said the pipeline doesn't go right through your land up north?
 9 THE WITNESS: No.
 10 MR. SMITH: It's about a mile away?
 11 THE WITNESS: Yeah.
 12 MR. SMITH: Do you have wells up there as well?
 13 THE WITNESS: Yes. My nephew lives on that farm.
 14 MR. SMITH: Okay. With respect to -- do you happen to
 15 know personally what the depth of your wells is? Are they in
 16 different depths, or do you know what the depths --
 17 THE WITNESS: 20 to 23 feet.
 18 MR. SMITH: That all eight of the wells on your
 19 farmstead?
 20 THE WITNESS: Yes.
 21 MR. SMITH: Same way of the north wells? Are they
 22 that similar kind of very shallow depth?
 23 THE WITNESS: Yes. You hit water sand at 5 feet. And
 24 you can have water in a well at 8 feet if you want that.
 25 MR. SMITH: Thank you very much. And do you -- you

1 probably don't know this and I know you're not an expert in
 2 aquifers and that but in one of the things I think we are
 3 interested in is trying to determine -- you know, the expert
 4 witnesses have stated that the pipeline will cross an area of
 5 shallow aquifer material.
 6 And yet I've had trouble from the testimony I've seen
 7 so far figuring out exactly where that is. And that's why I
 8 wanted to kind of ask you to get an idea if you're in that area
 9 and if we're kind of looking at that area as being the area
 10 where the occurrence of shallow ground water is.
 11 THE WITNESS: The reason I think that we probably are
 12 is in the dry years in the '70s our well changed in flavor, and
 13 in these later years when we've had a lot more rain more water
 14 to the west of us our wells have increased. They're far better.
 15 MR. SMITH: Yeah. I think that would probably make
 16 logical sense. Well, that's all I have.
 17 CHAIRMAN JOHNSON: Since you brought up Exhibit 1,
 18 Ms. Anderson, the person that sent this picture to you, did they
 19 give you a lot more information like if this is pasture ground
 20 or row crops?
 21 THE WITNESS: No. I'm sure it's grass from the looks
 22 of it. Like I said, she sent me those pictures, and I lost
 23 contact with her so I was not able to -- all I had was her name
 24 and she told me there was, you know, pipelines underneath of her
 25 land and that was the best I had from her.

1 CHAIRMAN JOHNSON: Well, and the reason I ask is there
 2 are other areas that appear to have this brown scrub grass as
 3 opposed to the greener prairie grass. I was just curious if she
 4 gave you any other information about what might be going on in
 5 the picture.
 6 THE WITNESS: I'm thinking the pipelines follow that
 7 little light area going straight back. Not just that in the
 8 front. Following straight back.
 9 CHAIRMAN JOHNSON: Okay. Thanks.
 10 COMMISSIONER KOLBECK: I had intended to do this from
 11 the beginning, but could you look at TC 16 for me. It's the --
 12 it's this one. It's up here.
 13 THE WITNESS: I have one back here.
 14 COMMISSIONER KOLBECK: And could you tell me what mile
 15 posts on the land -- that's this one right here. I just want to
 16 know what mile posts affect you.
 17 THE WITNESS: You want both of them? I mean, you want
 18 the one that's by my farmstead?
 19 COMMISSIONER KOLBECK: Yeah.
 20 THE WITNESS: Just give me a minute.
 21 (Witness examines document)
 22 THE WITNESS: It would be like 239, between 238 and
 23 239.
 24 COMMISSIONER KOLBECK: Right from page 1 to page 2.
 25 Okay. That's all I wanted. I forgot to ask you that the first

1 time.
 2 Thank you.
 3 MR. SMITH: Is there any -- do you have any further
 4 questions, Applicant?
 5 MR. KOENECKE: I do have a couple. I'm still
 6 Mr. Koenecke as well.
 7 MR. SMITH: I'm sorry. It's not that I need a
 8 cigarette or anything.
 9 You may proceed, Mr. Koenecke.
 10 RE-CROSS-EXAMINATION
 11 BY MR. KOENECKE:
 12 **Q.** I did have a question before I didn't ask. If I recall
 13 correctly, you said TransCanada dug a hole in a road someplace
 14 and didn't fix it?
 15 **A.** Yes. I live on a county tar road. Every -- I'm sure what
 16 they're digging -- I don't know if you understand but years ago
 17 when the country was set up they put markers out. And I'm
 18 assuming that's what they're digging for.
 19 It looks like they've dug a hole about this big, a square
 20 hole, and then just put the piece of tar back. They didn't seal
 21 it or nothing.
 22 **Q.** Who's they?
 23 **A.** It must be your surveyors.
 24 **Q.** Have you seen them?
 25 **A.** Yes.

- 1 Q. And have you asked them whether they're working for
2 TransCanada?
- 3 A. No. I am assuming -- I don't know who else would be out
4 there doing that. Because I talked with a gentleman from Larkin
5 (phonetic), North Dakota, and he told me they were doing the
6 same thing up there.
- 7 Q. Who's they that were doing the same thing up there? I'm
8 confused.
- 9 A. Whoever's digging in this hole in the road, this gentleman
10 from Larkin, North Dakota, but I don't remember where I saw him.
- 11 Q. So if I'm understanding correctly, you talked to a
12 gentleman in North Dakota who says that the people digging in
13 the road by your place must be from TransCanada?
- 14 A. No. I'm saying they were digging the same kind of hole
15 across North Dakota and our area also. Not necessarily the same
16 people. And the only reason that you would be digging that hole
17 out would be to be surveying something. They use those markers
18 for survey purposes.
- 19 Q. And do you know whether the people digging these holes
20 might have permits or permission to do so?
- 21 A. Well, I'm sure they probably did have. But I'm saying that
22 there's damage to the road that hasn't been fixed. Now that the
23 water comes in come springtime there's going to be further
24 damage to the road.
- 25 Q. How many holes are you aware of?

- 1 A. They're like on the section lines, every mile.
- 2 Q. How many are you aware of? How many have you seen
3 yourself?
- 4 A. That I've gotten out and checked?
- 5 Q. Yes.
- 6 A. Two.
- 7 Q. That's an answer. Thank you. My last line of questioning
8 relates to the Department of State survey. If I recall
9 correctly, your testimony is that you've is it written the
10 Department of State asking for a cultural survey on your
11 property?
- 12 A. Yes.
- 13 Q. When was that?
- 14 A. When did I write?
- 15 Q. Yes.
- 16 A. Maybe in October.
- 17 Q. Do you have copies of the letters for us?
- 18 A. Do I have a copy of that letter?
- 19 Q. Yes.
- 20 A. I could get you a copy. I do not have it with me. I'm
21 sorry.
- 22 Q. Do you remember who you sent it to?
- 23 A. Betsy Orlando.
- 24 Q. Did you, if you remember, state in the letter that you give
25 permission to have a survey done on your property?

- 1 A. To them?
- 2 Q. To anyone.
- 3 A. Say that again, please.
- 4 Q. I apologize. In the course of requesting a cultural
5 survey, did you give anyone at all permission to cross your land
6 for that?
- 7 A. What the statement said was we were asking a pedestrian
8 survey of our land.
- 9 Q. And you'll provide me a copy of that letter?
- 10 A. I think I can find it, yes.
- 11 Q. I appreciate that. Thank you.
- 12 A. I'm not going to until I get home.
- 13 MR. KOENECKE: Very well. I have nothing more. Thank
14 you.
- 15 MR. SMITH: I think we're done, aren't we?
- 16 MR. HOHN: I have one follow-up.
- 17 MR. SMITH: Okay.
- 18 RE-CROSS-EXAMINATION
- 19 BY MR. HOHN:
- 20 Q. Mrs. Anderson, just looking at the map, Exhibit 15 that you
21 handed out, at the upper right-hand corner of that map it shows
22 the approximate route of the TransCanada Pipeline. The
23 left-hand corner. I'm sorry. Left, right.
- 24 It shows the approximate route of the TransCanada Pipeline,
25 and then it shows a blue line labeled Crow Creek Ditch. Judging

- 1 from the scale of that, it looks like they're quite close.
- 2 Based on your knowledge of the area; is that correct?
- 3 Is the ditch -- is the Crow Creek drain and the pipeline
4 closely in the same proximity?
- 5 A. Yes. Yes.
- 6 Q. Where does -- and you've lived in the area for how many
7 years?
- 8 A. Almost 39.
- 9 Q. Where does the Crow Creek drain then go after it leaves
10 this map and goes off the map and goes into the drainage? Where
11 does that end up?
- 12 A. The Crow Creek Watershed goes up by close to number 10 and
13 then it goes to Renzienhausen Slough and Putney Slough and it
14 goes to the Jim River.
- 15 Q. And the Jim River is in which county?
- 16 A. It's in Brown County.
- 17 Q. Okay. And then one quick question about your map, just a
18 clarification. I'm not sure what this was labeled, the yellow,
19 green, and blue map.
- 20 It's a Government map; is that correct?
- 21 A. Yes. I took it out of the Soil Conservation Office map
22 book.
- 23 Q. And what's the date of that report, the Soil Conservation
24 Report? Is there a date on it?
- 25 A. June, 1975.

1 **Q.** June of 1975. Is it your understanding the upper left-hand
 2 side is a legend that describes what the color coding means?
 3 **A.** That's exactly what it is.
 4 MR. RASMUSSEN: That's the right side.
 5 MR. HOHN: That's why I bring the lawyer along.
 6 **Q.** Excuse me. On the right side of the map the soils labeled
 7 1, 2, 3, and 4 in yellow, it appears that they're all identified
 8 as sandy soils?
 9 **A.** Yes. Yes, they are.
 10 MR. HOHN: Okay. Thank you very much.
 11 MR. SMITH: Thank you. Did you want to clarify
 12 something? I apologize.
 13 RE-CROSS-EXAMINATION
 14 BY MR. KOENECKE:
 15 **Q.** The date on my unmarked soil map of Marshall County is
 16 1973. Did you say 1975 on yours?
 17 **A.** It's this page. My book says 1975. I don't know. But
 18 it's out of this book.
 19 **Q.** Very good. Thank you.
 20 MR. SMITH: Thank you. You're excused.
 21 (The witness is excused)
 22 MR. SMITH: And thanks a lot. Mr. Sahr, did you want
 23 to proceed right now?
 24 MR. SAHR: If the Commission is ready, we are ready.
 25 MR. SMITH: I think we are. I mean, it appeared as

1 though the testimony would be relatively brief based on the
 2 prefile.
 3 (Discussion off the record)
 4 MR. SMITH: Mr. Sahr, please proceed to call your
 5 witness.
 6 MR. SAHR: Thank you, Mr. Smith. And good afternoon,
 7 Mr. Hearing Officer, Mr. Chairman, and members of the
 8 Commission.
 9 My name is Bob Sahr, and I'm the attorney and general
 10 counsel for East River Electric Power Cooperative based in
 11 Madison, South Dakota.
 12 East River supports TransCanada's Application to build
 13 the Keystone Pipeline. And as Mr. Edwards, our witness, will
 14 testify, four East River systems, Lake Region, Dakota Energy,
 15 Central Electric, and Southeastern Electric will provide the
 16 electrical service to the four pumping stations located in
 17 South Dakota.
 18 With that, I would call Mr. Edwards as our witness.
 19 (The witness is sworn by the court reporter)
 20 DIRECT EXAMINATION
 21 BY MR. SAHR:
 22 **Q.** Would you please state your name for the record.
 23 **A.** James O. Edwards.
 24 **Q.** And, Mr. Edwards, what is your title?
 25 **A.** I'm assistant general manager of operations.

1 **Q.** And where do you work?
 2 **A.** I work at East River Electric Power Cooperative,
 3 121 Southeast Main, Madison -- Southeast First, Madison,
 4 South Dakota.
 5 **Q.** And we have a little bit on your background in your
 6 prefiled testimony, but would you just briefly highlight your
 7 educational and work background.
 8 **A.** I've got a bachelor's of electrical engineering from
 9 South Dakota State University and a master's of engineering from
 10 the University of Colorado. I have 24 years of engineering
 11 experience in electric utilities, and I'm a professional
 12 engineer in five states, including South Dakota.
 13 **Q.** And what are your job duties in your current position?
 14 **A.** As the assistant general manager of operations, I oversee
 15 the operations division of East River, which includes all the
 16 engineering, transmission construction, substation construction,
 17 dispatch center, and telecommunications.
 18 **Q.** And just very briefly would you describe what East River
 19 is.
 20 **A.** East River is a wholesale and transmission power supply
 21 cooperative serving eastern South Dakota and western Minnesota.
 22 We have 20 rural electric distribution cooperatives and one
 23 municipal. Serve about 36,000 square miles. 21-member system,
 24 serve about 86,000 customer accounts that total about 250,000
 25 people. We operate about 2,600 miles of transmission and about

1 215 substations.
 2 **Q.** And what is East River's relationship to this proceeding?
 3 **A.** Four of East River's members, Lake Region Electric
 4 Association, Dakota Energy Cooperative, Central Electric
 5 Cooperative, and Southeastern Electric Cooperative will be
 6 serving the four pump stations in South Dakota.
 7 **Q.** And what sort of infrastructure will be built to serve
 8 those four sites?
 9 **A.** To serve the four sites we're going to have to build four
 10 on-site distribution electric substations. For all four
 11 together approximately 57 miles of transmission line and one
 12 230 to 69 kv high-voltage delivery along with working with
 13 Western Area Power on other points of delivery to serve those
 14 new lines.
 15 **Q.** Mr. Edwards, would you please summarize your testimony.
 16 **A.** East River supports TransCanada and the Keystone Pipeline.
 17 We believe that the project will be a benefit to South Dakota
 18 and the school districts, communities, counties that it's going
 19 to cross. We believe that the project is an important piece of
 20 the nation's infrastructure and that it will provide some
 21 significant economic value during construction and after
 22 construction.
 23 The project will benefit East River Electric and its member
 24 systems like other recent large loads we've been serving like
 25 ethanol plants. The large electric load of the four pump

1 stations will diversify and enhance the electric service to
 2 those four customers. In turn, that benefit's passed on to
 3 East River and other members us being --
 4 The project will benefit the four member systems that will
 5 serve the pump station. It will also benefit East River and/or
 6 other member systems, including those four, and being
 7 member-owned cooperatives, that benefit's passed on to our end
 8 customers as well.

9 I want to say in testimony when East River Electric -- we
 10 build transmission lines. We design, build, and construct them.
 11 And when East River builds, designs, constructs, operates
 12 electric transmission facilities we look at four key priorities
 13 we look at when we're doing that.

14 One is safety, and that's the safety of our employees and
 15 the general public. It's looking at the environment to make
 16 sure that we're mitigating any environmental concerns and
 17 following all applicable environmental rules and regulations.

18 The other one is the social impact that we deal with. The
 19 other one is the social impact that we have is -- that's dealing
 20 with the landowners, dealing with the local communities, and
 21 minimizing the impact for transmission line.

22 And then the other one is when we design them, build and
 23 operate them, that we maintain them according to industry
 24 standard prudent utility practices. Judging for myself from
 25 what I've read about TransCanada and the people that have dealt

1 with TransCanada over the last year or so, the people I have
 2 dealt with, I feel they have the same type of priorities that
 3 they're looking at, at safety, looking at the environmental
 4 aspect, looking at the social impact and also operating and
 5 maintaining their facilities according to the applicable rules
 6 and regulations.

7 I would say with respect to landowners, I know there's some
 8 concerns. East River over the years has gotten, you know,
 9 thousands of miles of right of way. We deal with a multitude of
 10 landowners. We work very hard to maintain good relationships
 11 with the landowner, minimizing the impact we have. And I guess
 12 when working with TransCanada we hope they have the same type of
 13 respect for landowners and work well with them and establish a
 14 good working relationship.

15 Q. Thank you, Mr. Edwards. Have you had an opportunity to
 16 review your prefiled testimony?

17 A. I have.

18 Q. And do you have any changes to that testimony?

19 A. I do not.

20 MR. SAHR: Mr. Smith, would you like us to offer that
 21 at the time, or are you going to wait until after cross?

22 MR. SMITH: No. Why don't you go ahead and offer it
 23 now.

24 MR. SAHR: I would offer John Smith's prefiled
 25 testimony.

1 MR. SMITH: You mean Jim Edwards?

2 MR. SAHR: I'm sorry. You're John Smith.

3 MR. SMITH: That's the problem with being the generic
 4 person.

5 Is there any objection?

6 MR. KOENECKE: No objection.

7 MR. RASMUSSEN: No objection.

8 MR. HOHN: No.

9 MS. SEMMLER: No objection.

10 MR. SMITH: Hearing none, Mr. Edwards' testimony is
 11 admitted.

12 MR. SAHR: Thank you. And with that, I would offer
 13 Mr. Edwards for cross-examination.

14 MR. SMITH: Thank you. Mr. Koenecke, please proceed.

15 MR. KOENECKE: I have no cross-examination for this
 16 witness.

17 MR. SMITH: No cross. Mr. Rasmussen?

18 MR. RASMUSSEN: No questions.

19 MR. SMITH: Mr. Hohn.

20 MR. HOHN: No questions.

21 MR. SMITH: Staff.

22 MS. SEMMLER: No questions.

23 MR. SMITH: Commissioner Kolbeck.

24 COMMISSIONER KOLBECK: How big is the load?

25 THE WITNESS: The load initially I know they've been

1 talking about two different sizes of the capacity looking at
 2 somewhere initially around 6 to 9 megawatts up to 15 megawatts
 3 per pump station.

4 COMMISSIONER KOLBECK: Does existing generation carry
 5 that? Would your existing generation actually carry that?

6 THE WITNESS: We're looking at with the generation
 7 there might be additional, but through the cooperatives we are
 8 presently looking at additional generation for all other load as
 9 well.

10 COMMISSIONER KOLBECK: Thank you.

11 COMMISSIONER HANSON: Afternoon, Mr. Edwards. You
 12 shared with us where you obtained your engineering degrees.

13 Can you share with us where you got your auctioneering
 14 degree?

15 THE WITNESS: I've come from a family of -- I should
 16 say used to own a livestock auction in Brookings so I do have a
 17 background in that.

18 COMMISSIONER HANSON: It's inbred then.

19 CHAIRMAN JOHNSON: I have nothing, Mr. Smith. Thanks.

20 MR. SIEH: Mr. Smith, I have some questions.

21 MR. SMITH: Mr. Rasmussen, can you yield your chair
 22 for Mr. Sieh? They can't hear you on the internet, John, unless
 23 you're at a microphone.

24 And then would you please then identify yourself into
 25 the mic for both the transcript and for the folks that can't see

1 us here.
 2 MR. SIEH: My name is John Sieh. My residence is
 3 11 East Avenue, Groton, South Dakota. And I am representing the
 4 Granary Rural Cultural Center at Groton, South Dakota, which is
 5 a nonprofit cultural organization.

6 MR. SMITH: Thank you. And you are an Intervener in
 7 the case.

8 MR. SIEH: Yes. Well, thank you for the opportunity
 9 to ask some questions, Mr. Edwards.

10 CROSS-EXAMINATION

11 BY MR. SIEH:

12 Q. I have to preface my first question in saying that
 13 East River Electric has a pretty big power line that runs
 14 through my property. And East River has been an excellent
 15 neighbor. I have no complaints.

16 I also would just like to preface this, that your
 17 organization has been a contributor financially to our nonprofit
 18 group, which is appreciated. And we have a close relationship
 19 with the electric -- the cooperative electric industry.

20 In our cultural center we have a large sculpture that was
 21 funded by the South Dakota Rural Electrics. Personally I think
 22 one of the greatest things that Roosevelt did was set up rural
 23 electrics.

24 Now having said all of those nice things, I want to discuss
 25 some of your testimony. In your filed testimony you have a

1 wonderful background in electrical engineering. And I think
 2 East River has a good record for safety. I think you're
 3 wonderfully qualified to testify about that sort of thing as
 4 regards to the electrical industry.

5 Now when it comes to pipelines, I'd like to ask you a few
 6 questions.

7 You say that you've done a lot of research. Now who did
 8 the research in East River? Is that research conducted by
 9 yourself? Do you have a committee? How -- when you did
 10 research on the effects of this pipeline in regards to its
 11 impacts who did it? Is that your -- did you do it?

12 A. I did a lot of reading on it, and also there's people
 13 inside East River that did some research.

14 Q. Okay. Did you intend meetings so you were informed? I
 15 mean, you seem to be quite well informed about what is going to
 16 happen according to your written testimony. Where were these
 17 meetings held? Were they held in your office?

18 A. Yes. I did the research and talked to people in my office
 19 as well as attending some of the meetings, and one meeting in
 20 Clark I attended as well the TransCanada PUC meeting.

21 Q. Did you go to Canada and look at the tar sand area or any
 22 of the pipelines in that area?

23 A. No, I did not.

24 Q. Did anyone else in East River?

25 A. No, they did not.

1 Q. Would you say your testimony -- well, let me ask you this:
 2 Would your testimony as it's filed, was that approved by the
 3 board of directors?

4 A. The testimony -- what East River supports, including the
 5 boards --

6 Q. My question is was it presented to the board of directors
 7 and did they vote to -- that it represents -- because you're
 8 stating that you represent the members, which is four of your
 9 rural electrics are members and all the rest of us are members
 10 too.

11 A. Correct.

12 Q. So I want to know if the board reviewed it, and did they
 13 vote to approve your written testimony?

14 A. They did not review this specific testimony and vote. They
 15 support TransCanada but did not specifically review my
 16 testimony.

17 Q. I see. Did they pass a resolution of support for
 18 TransCanada?

19 A. I guess I can't answer that. I'd have to take a look.

20 Q. If they did, I'd appreciate a copy of that, if you would.

21 A. Okay.

22 Q. Now in regards to this burden of proof, you're stating in
 23 general thoughts and you're stating as such East River and its
 24 member systems believe this is precisely the type of project
 25 that our state and nation should support.

1 Do you stand by that statement, that this is precisely?

2 A. That's what I wrote.

3 Q. Does that fly in the face of your support for wind energy?
 4 East River has been a pioneer --

5 A. Uh-huh.

6 Q. -- in wind energy, and yet nothing is said about that.
 7 It's like this is the only energy program of merit, or what did
 8 you mean?

9 A. No. East River supports wind energy, has been very much in
 10 the forefront of wind energy, building one of the first wind
 11 projects in South Dakota, have actually been very active in the
 12 formulation of the American Coalition For Ethanol, support
 13 ethanol plants.

14 We support a lot of different things, different parts of
 15 energy and different parts of things that benefit South Dakota.

16 Q. Did you in your research that you talk about in your
 17 written testimony, did you or any of your staff call any of the
 18 rural water systems and ask them their feelings about the
 19 pipeline and how that pipeline might affect their rural water
 20 system?

21 A. I did not visit with any of the rural water systems.

22 Q. Well, isn't it true that you state this in your written
 23 testimony, that rural water systems is one of your major
 24 consumers of electricity? Consequently, aren't they an
 25 important member of East River Cooperative?

1 A. I guess I would say all of our members are important.
 2 Q. TransCanada isn't a member, are they?
 3 A. Not at this time.
 4 Q. Right. But you've been consulting with them. And you're
 5 believing a lot of the information -- a lot of the information
 6 you're getting is coming from them; right?
 7 A. The technical engineering information we're getting is
 8 coming from them.
 9 Q. Okay. Based on -- is East River basing their support on
 10 the information that they've been given by TransCanada, or has
 11 there been any independent agencies like, for example, have you
 12 looked at how Game & Fish technicians may -- what their opinion
 13 is of the proposal?
 14 A. We're working directly with Western Area Power
 15 Administration, who's a -- I'm trying to think of the name of it
 16 who's party to the environmental impact study being developed by
 17 TransCanada and the State Department. We're working on that
 18 with them so I guess involvement with the environmental stuff we
 19 are involved through that.
 20 Q. Well, don't you think it's a little different that we are
 21 here talking about giving them a permit to build something --
 22 and I remember the Oahe Irrigation Environmental Statement. You
 23 may be too young to remember that. But it was about this thick.
 24 The one in North Dakota was about the same.
 25 We had that laying on the table when we examined that

1 project. Because that told us exactly how it was going to be
 2 built. And the requirement was that the Bureau of Reclamation
 3 provide all the information of whatever impacts they thought
 4 would happen.
 5 So that was done prior to that being built. Now why are we
 6 doing this -- I mean, where is the Environmental Impact
 7 Statement? This looks like probably would be the size of it,
 8 but where is it? You've never seen it, have you?
 9 A. I've actually -- the environmental -- the draft EIS?
 10 Q. No. The one that's been approved, the one that's going to
 11 be presented that the Federal Government --
 12 A. It's on the internet. I've read it. I've read through it.
 13 Q. You've read through it?
 14 A. Uh-huh.
 15 Q. Is it complete?
 16 A. I guess I'm not an environmental expert, but I've read
 17 through it enough --
 18 Q. Well, as you were reading through it did you find any
 19 mention of how many rural water systems the pipeline went over?
 20 A. I don't know if it specified exactly how many.
 21 Q. Well, do you remember anything in that statement that you
 22 read that talked about the aquifers from one end of
 23 South Dakota? Was that mentioned in there?
 24 A. It talked about aquifers, talked about the full
 25 environmental coverage, all of that. It talked about the

1 streams, aquifers.
 2 Q. What did that report say that they crossed?
 3 A. I guess I can't remember off the top of my memory.
 4 Q. Now isn't that a little strange that the access to that
 5 is -- in other words, can I get a copy? I'd like to have a copy
 6 of that.
 7 MR. SAHR: Mr. Smith, as much as I can appreciate
 8 the -- our gentleman's interest in this line of testimony, I'm
 9 not sure that Mr. Edwards is the right one to be posing these
 10 questions about where is it and wouldn't you like to see?
 11 If you would be a little more direct to ask a question
 12 specifically that would relate to Mr. Edward and his prefiled
 13 testimony, I think it would be a little bit easier to answer.
 14 MR. SMITH: John, I think we're getting awfully far
 15 afield from East River showing up here and just testifying that
 16 they support the project. And, you know, Jim Edwards isn't an
 17 Environmental Impact Statement expert, and that's a State
 18 Department issue.
 19 We've got a ton of other witnesses here who are
 20 testifying regarding environmental matters.
 21 MR. SIEH: Okay. Is it in order to ask him whether he
 22 said -- he said he had read the Environmental Impact Statement.
 23 Is it in order to ask him whether he discussed that statement
 24 with anybody in our local environmental agencies?
 25 MR. SMITH: Yeah. You can ask him.

1 MR. SAHR: And I have no objection to that question.
 2 A. Could you restate that again?
 3 Q. I guess the question is whether -- could you name the
 4 groups that especially have expertise in environmental matters
 5 that you asked for advice or questioned about -- asked for
 6 information about the project? I think in general that's what I
 7 was trying to ask.
 8 MR. SAHR: And if I may, Mr. Hearing Officer, I mean,
 9 just to clarify, I don't know that Mr. Edwards and his testimony
 10 had discussed consulting particular environmental groups. I
 11 mean, if you want to ask him if -- he said he read the draft
 12 EIS.
 13 Certainly you can ask him about certain considerations
 14 that go into the form of his testimony. But I think that
 15 question is getting pretty far afield from the testimony that
 16 he's put into the record here on direct.
 17 Q. Well, could I ask you this question: "Our research
 18 indicates TransCanada has an excellent environmental and safety
 19 track record." Now here you're saying that "our research."
 20 MR. SAHR: I believe he earlier asked -- I mean,
 21 that's been asked and answered. He answered the question. He
 22 indicated that he had talked to the company, that he's read
 23 information, that he's talked to other people on the staff, and
 24 he's seen the draft EIS.
 25 So if you want to ask specifically about additional

1 information, if you could perhaps guide him towards where you're
2 going with this.

3 MR. SIEH: Okay. I'll try to guide you where I'm
4 going. And I don't want to belabor any of this.

5 Q. I guess what I'm suggesting, Mr. Sahr, is that East
6 River -- we're all members of East River. Everybody up and down
7 that pipeline is a member and deserves some consideration. And
8 all I'm saying is the written testimony indicates to me that no
9 consideration has been given to the concerns people have about
10 aquifers, that the people have concerned about land values, what
11 the conduct of this land acquisition program is going to be.

12 We expect better than that. Now it looks to me -- and this
13 is where it's going, and this could be my final statement as far
14 as I'm concerned. I'm wondering is this really a statement that
15 you want in the record or is this a -- some kind of political
16 cover for TransCanada?

17 A. No. When we look at it, the co-ops over the years have
18 served a lot of different customers, different needs, different
19 requirements from local farmers to residents, ethanol plants,
20 railroads.

21 When we were developed years ago we were designated to
22 deserve areas others wouldn't serve and to serve different loads
23 people wanted to serve -- wanted to serve, didn't want to serve.
24 We served the granary. We served motels, hotels, businesses,
25 telephone cooperatives, everything.

1 And part of the philosophy I think of co-ops is we're there
2 to serve. And so can we say we don't like these people, we're
3 not going to serve them? It's kind of like saying we don't like
4 certain other members, we're not going to serve them.

5 So we feel like TransCanada, like a lot of other things,
6 like ethanol plants, local farmers, value-added, is good for
7 South Dakota. And through our members we have a requirement to
8 serve.

9 And so some members will disagree. And I take it with
10 respect you're disagreeing with us. Because I know, like I
11 said, the granary I appreciate very greatly and we support it,
12 but we're not going to be able to have everyone say, yes, we
13 agree with you or don't agree with you or what we get down to is
14 should we be able to pick and choose who has a cooperative we're
15 going to serve as an electrical company.

16 Q. I appreciate that. I'm troubled, though, why you didn't
17 think it's necessary to discuss this with some of your other
18 members. That puzzles me. It really does because of
19 East River's record of being a very good neighbor.

20 A. And I hope we're still appreciated as good neighbors.

21 Q. Well, I'm not so sure if I can't get some answers to this
22 of just how this decision process came about that you would come
23 out flat-footed for a project that an awful lot of landowners
24 have concerns, other systems have concerns, and there's a ton of
25 environmental concerns.

1 MR. SMITH: Mr. Sieh, you're going to get a chance to
2 testify here in a minute.

3 MR. SIEH: Okay. Thank you very much. I apologize.

4 MR. SMITH: This is for questioning. And, you know,
5 again, the hearing's about TransCanada, not East River. So
6 thank you. I'm sorry to be rude.

7 MR. SIEH: Thank you for the opportunity.

8 MR. SMITH: Are there any other -- are there any other
9 cross-examination of Mr. Edwards?

10 Otherwise, Commissioner Kolbeck, do you have a
11 question?

12 COMMISSIONER KOLBECK: Your testimony and East River
13 being here, would you say that it was a majority of the board
14 members that wanted you to be here? They voted on this in the
15 majority to give you the go-ahead; correct?

16 THE WITNESS: I guess when I look at it, yes, our
17 board has voted to serve the load and support the load.

18 COMMISSIONER KOLBECK: Exactly. And -- yeah. That's
19 all I -- this is a board-approved statement that you're giving
20 to support this load that's going to potentially come down the
21 road.

22 THE WITNESS: (Witness nods head)

23 MR. KOENECKE: The witness needs to answer out loud
24 for the record. He was just nodding his head there.

25 THE WITNESS: Yes. The board supports, and I'm here

1 because of that.

2 MR. SMITH: Mr. Sahr, do you have any follow-ups?

3 MR. SAHR: Just to clarify perhaps the last question
4 asked by Commissioner Kolbeck and also some of the earlier
5 questions.

6 REDIRECT EXAMINATION

7 BY MR. SAHR:

8 Q. The East River board voted to offer service, to negotiate
9 and to accept TransCanada as a market-based load, as what we
10 call them, of East River; is that correct?

11 A. That is correct.

12 Q. So the board took action to support TransCanada becoming --
13 or receiving service from East River and its members under those
14 provisions?

15 A. That is correct.

16 Q. And each of the four systems that are serving the
17 electricity needs of the pipeline, each of those systems knows
18 that you're here today testifying in favor of the project.

19 A. That is correct.

20 Q. And the board members at East River all know that you're
21 here testifying in favor of this project?

22 A. That is correct.

23 Q. And this is discussed if not at every board meeting, at
24 practically every board meeting that we've had for the past
25 year?

1 A. Yes. It has been discussed at the board meetings.
 2 Q. They didn't review verbatim your testimony; correct?
 3 A. That is correct.
 4 Q. But your testimony is within the spirit and the expectation
 5 of the board --
 6 A. That is correct.
 7 Q. -- of East River? Thank you.
 8 MR. SMITH: You're excused, Mr. Edwards. Thank you
 9 very much.
 10 THE WITNESS: Thank you, Commissioners, and I will not
 11 bring my auctioneer voice back again.
 12 (The witness is excused)
 13 MR. SMITH: It's time for a break, and I think it's
 14 time for a 15-minute break. So we will be in recess until 25
 15 after.
 16 (A short recess is taken)
 17 MR. SMITH: We're back on the record following a
 18 recess. And for those of you -- a lot of the people that are
 19 going to be testifying I don't know you so please when you begin
 20 let us know who you are. Right now -- you're Mr. Hastings?
 21 MR. RICHARD HASTINGS: Yeah. Richard Hastings.
 22 (The witness is sworn by the court reporter)
 23 MR. RICHARD HASTINGS: I'm not quite as prepared as
 24 most people here. I don't have copies for everybody. Do I just
 25 read like the statement that I sent earlier?

1 MR. SMITH: Well, you don't actually have to do that.
 2 What I would do is this: We have that, and it's been out in the
 3 public. Everybody including all media and everybody's gotten
 4 that.
 5 What I think we'd like you to do is if you could just
 6 give us a brief summary of what it is -- I mean, I've read your
 7 testimony, and I know exactly what you said in there. And you
 8 said it well. As far as having to just reread the whole thing
 9 now, I wouldn't do that.
 10 What I would do is just summarize for us and then
 11 basically we'll admit it into evidence and then the real purpose
 12 here is so that other people then can ask you questions related
 13 to what you've submitted. Because we've got the bulk of your
 14 testimony.
 15 MR. RICHARD HASTINGS: Okay. This is the rest of it.
 16 This is soil samples and descriptions of the soils on the ground
 17 that the pipeline goes across.
 18 MR. SMITH: That sounds great.
 19 MR. RICHARD HASTINGS: This you can have because I
 20 have a copy.
 21 MR. SMITH: We'll have to kind of share it. While
 22 you're giving your brief summary here, I'm wondering if maybe
 23 our person over there, Demaris, could run downstairs quick and
 24 make a copy of that so the attorneys and other parties might
 25 have it so in case they have any questions for you.

1 Is that okay?
 2 MR. RICHARD HASTINGS: Yeah.
 3 MR. SMITH: With that, why don't you just give us a
 4 brief summary of what your testimony says and what its point is
 5 and then we'll admit it into evidence and we'll allow people to
 6 begin asking you some questions and that will probably get
 7 things fleshed out.
 8 MR. RICHARD HASTINGS: I don't want to duplicate a lot
 9 of other people's stuff. I'm going to start out saying that I'm
 10 not in favor of the pipeline.
 11 MR. SMITH: One other thing, move that ball over
 12 closer to your mouth.
 13 MR. RICHARD HASTINGS: How's that?
 14 MR. SMITH: Now we can hear you.
 15 MR. RICHARD HASTINGS: The half section that the
 16 pipeline crosses I own, and all of the other ground that I rent
 17 is within a half a mile of the pipeline route. And I guess my
 18 biggest concern is leaks and spills.
 19 If a large area is contaminated from a spill in my
 20 area, it will have an enormous effect on the crop growing part
 21 of my farm. And it will also have an effect on the cattle part
 22 because that's where a majority of the feed is grown.
 23 The land that the pipeline crosses is considered
 24 highly erodible by the soil conservation and Farm Service
 25 Agency. It is a light sandy soil which allows liquids and other

1 things to easily run through it. It also has high water table
 2 in many areas.
 3 If this soil is contaminated to the point that not
 4 much will grow in this highly erodible soil, how will I stay in
 5 compliance with Soil Conservation Farm Service Agencies?
 6 They say the land will be back to near full production
 7 after three years. I do not believe this. There's water lines
 8 put in and other things. I mean, if it's dry, you can see them.
 9 I think -- you know, it might not be every year, but on most of
 10 the years I think you will be able to see a difference in the
 11 crop growing in that area.
 12 If the average yield goes down because of the pipeline
 13 area, then my crop insurance premiums will go up because it
 14 shows I'm not as efficient. The better crop you grow shows
 15 you're more efficient and then the premiums aren't quite as high
 16 and that would be more of a risk.
 17 Farm Service Agency programs are based on production,
 18 and a loss of production means a loss of benefits and a lot of
 19 grain sales.
 20 One request I'd like as far as -- you know, as far as
 21 damages, I don't relish the thought of just having money thrown
 22 at me for what the plant is worth. Myself and my family, we
 23 farm this ground for a reason. It's because we want to be
 24 there. And we're not -- you know, we're not wanting to sell it,
 25 and basically that would be like a forced sale.

1 And I guess the other concern would be is abandoning
2 in place. Because what I found out is sometimes when an
3 easement is abandoned the land goes back to the adjoining
4 landowner. Does that mean the landowner now owns the pipe and
5 is responsible for any leftover products as far as, you know, if
6 it rusts away you've got to fill it in or if there's any product
7 that leaks out after, you know, it rusts.

8 And as far as the easement contract, I have tried to
9 have some changes made into it. I have never asked for more
10 compensation. I just wanted wording changes, and that I never
11 got, other than the fact that they did change it to include one
12 pipeline.

13 But then I got to be thinking, well, that's just
14 words. They could go right back and do the whole thing over
15 again and have eminent domain or whatever and just -- and put
16 another pipeline in.

17 And I guess some of the things in here that I wanted
18 in the contract I had listed.

19 And I would like to have -- have them sign the
20 contract as well. And I guess another reason why I wanted these
21 things in the contract, that way I had it in my hand that at any
22 moment I could take it out of my safe or whatever, you know, and
23 read it. I wouldn't have to come to you and have you go back
24 and through and find everything to see what anybody's liable
25 for.

1 Well, that's pretty much it for that part of it. The
2 rest would be I had the changes of the easements. And then on
3 the soil maps you probably haven't got those yet.

4 I was going to ask you have you ever been across
5 western Nebraska down 83?

6 MR. KOENECKE: I'm not the one testifying,
7 Mr. Hastings.

8 THE WITNESS: I'm just asking -- you asked about
9 blowouts.

10 MR. KOENECKE: I'd be glad to talk with you about it
11 later.

12 THE WITNESS: That's basically what our soil is. In
13 the soil surveys there are several different types. On the
14 Ebdon fine sandy loam I guess would be what the majority of what
15 it crosses. And on most of the soils it does say that it's
16 highly erodible, very sandy, and very highly permeable.

17 I have a list on the soil base what the soil could be
18 used for, and I guess it's kind of self-explanatory if you read
19 through it.

20 And it's permeable both ways. Water comes down, and
21 water comes up. There's a lot of places where water's within
22 3 feet of the ground. You go to dig a 4-foot posthole don't
23 plan on using the dirt you took out to tamp the post back with.
24 Better use gravel or rock because it's not going to stay. There
25 are a lot of places in here it says moderately rapid

1 permeability to the soils.

2 And they're basically all fine sandy loamy. The Hecla
3 fine sandy soils.

4 The other one is Hamar series, Hamar fine sandy loam.

5 And there it says severe to high water table.

6 And then on the other part of this came from a
7 geological survey. And it more or less talks about the aquifer
8 that's underneath, and you'll probably be hearing more testimony
9 on that I guess on that part of it from what I understand. But
10 all that area and that type of soils are where I live. And I
11 think that's all I have to say.

12 MR. SMITH: Okay. With that, do you wish then to
13 offer those things into evidence at this point in time?

14 THE WITNESS: Yes, I do.

15 MR. SMITH: Okay. Thank you. Are there any
16 objections from -- again, we haven't seen everything but it
17 sounds to me like everything you've got there is an official
18 document; right?

19 THE WITNESS: Yes. It's out of a soil survey book. I
20 think it's the same one Lillian had.

21 MR. KOENECKE: I'd love to be able to tell you yes,
22 Mr. Smith, but not having seen them, I can't tell you that.

23 MR. SMITH: Can you go take a look at it right now.
24 Just looking at it, it looked like it was all official
25 government stuff. It appeared to be.

1 (Mr. Koenecke examines documents)

2 MR. SMITH: Having reviewed the offer, Mr. Koenecke,
3 do you have an objection?

4 MR. KOENECKE: No objection.

5 MR. SMITH: Mr. Rasmussen?

6 MR. RASMUSSEN: No objection.

7 MR. SMITH: Mr. Hohn?

8 MR. HOHN: No objection.

9 MR. SMITH: Any other Intervener wish to object?

10 Staff?

11 MS. SEMMLER: No objection.

12 MR. SMITH: Your exhibits then are admitted. And,
13 Cheri, I think how we'll mark those -- and I don't know that you
14 need to do it right now. Why don't we do it by identifying each
15 person's set of exhibits with their name and then you can create
16 whatever numbering system you want that will get them marked.
17 First and last names. Because we do have some people with the
18 same last name.

19 With that then, Mr. Hastings, I'm going to tender you
20 for cross-examination by the Applicant and other parties here.

21 Mr. Koenecke. I'm not sure whether it's Mr. Koenecke
22 or Mr. White. Who's going to be doing it?

23 MR. KOENECKE: Thank you, Mr. Smith, and thank you,
24 Mr. Hastings as well.

25

CROSS-EXAMINATION

- 1 **BY MR. KOENECKE:**
- 2 **Q.** I've got one question. I would like to know whether you've
- 3 compared your soils exhibit to the other documents which have
- 4 been put on file in this case.
- 5 **A.** I've compared them. I got it out of a book from the Soil
- 6 Conservation.
- 7 **Q.** Do you know whether your soil documents that you've put
- 8 into evidence agree or disagree with any of the evidence that's
- 9 on file or on record in this case already?
- 10 **A.** I don't know. I guess I haven't read it.
- 11 **Q.** Have you presented your easement language changes to a
- 12 Keystone agent?
- 13 **A.** Yes, I did.
- 14 **Q.** Can you tell me what his name is?
- 15 **A.** Well, we had two. I can't remember the first.
- 16 Cathy Metcalf was the last one. I don't know if I had submitted
- 17 that to her or if -- she was pregnant at the time and
- 18 couldn't -- so she was taking time off, Cathy Metcalf was. So I
- 19 can't remember if it was the first one or the second one that I
- 20 submitted it to.
- 21 **Q.** I'm trying to remember. Can you -- when we talk about your
- 22 easement changes, is that what's attached to your evidence here?
- 23 **A.** That's what I wanted included in the easement, yes.
- 24 **Q.** Eight different items?

- 1 **A.** Yes.
- 2 **MR. KOENECKE:** Very good. Thank you. That's all I
- 3 have.
- 4 **THE WITNESS:** Could I make one more -- on the half
- 5 section where the pipeline goes there is a building site in that
- 6 corner, and there is a surface water well there. And it's less
- 7 than -- it's less than a quarter of a mile away.
- 8 **MR. SMITH:** Do you happen to know the depth of that
- 9 well? If you don't know --
- 10 **THE WITNESS:** It's going to be 100, 120 feet deep in
- 11 order to get to the better water. You don't have to go that
- 12 deep, but to get to the better water you probably should.
- 13 **MR. SMITH:** Okay. Thank you. Mr. Rasmussen?
- 14 **MR. RASMUSSEN:** No questions.
- 15 **MR. SMITH:** Mr. Hohn?
- 16 **MR. HOHN:** Yes. I have a couple questions.
- 17 CROSS-EXAMINATION
- 18 **BY MR. HOHN:**
- 19 **Q.** Good afternoon, Mr. Hastings. Just a little background.
- 20 How long have you farmed in this area, lived or farmed?
- 21 **A.** Well, I'm 48 years old, and I've been there all my life.
- 22 **Q.** And your family before you, your parents, did they farm
- 23 this area?
- 24 **A.** My grandparents started it and then my parents.
- 25 **Q.** So it's three generation?

- 1 **A.** Yeah.
- 2 **Q.** And you raise livestock, did you say?
- 3 **A.** Cattle.
- 4 **Q.** And you raise small grains, crops?
- 5 **A.** Yeah. Small grains. Corn, beans, wheat.
- 6 **Q.** I'm looking at your written testimony that you submitted
- 7 prefiled and I'm not going to go through all of it but I've got
- 8 a couple of questions for clarification.
- 9 You mentioned on page 1 that there's high water table in
- 10 much of the area where you live and farm. Is that the farm
- 11 ground where the home is as well, or how much of your property?
- 12 **A.** Well, at the present we have what we call Lake
- 13 Want-To-Be-Gone that stretches 3 miles long.
- 14 **Q.** I see. I think I get the picture.
- 15 **A.** But there are a lot of smaller areas. We have water fowl
- 16 wetland easements on everything.
- 17 **Q.** Specifically you said a half section of land was crossed by
- 18 the proposed pipeline?
- 19 **A.** Yes.
- 20 **Q.** Is the water table on that property shallow as far as you
- 21 know?
- 22 **A.** It varies to where you're at on the half section.
- 23 **Q.** Is that half section one of those places where you could
- 24 dig a fence posthole and get water?
- 25 **A.** Oh, very easily because the northeast quarter we had less

- 1 than 60 acres planted on it this year because of high water.
- 2 **Q.** I guess the question for nonfarmers -- and there's many
- 3 here that are nonfarmers, including me, how do you farm that
- 4 land and not get stuck, get in and out?
- 5 **A.** Memory.
- 6 **Q.** Okay.
- 7 **A.** You know, after you do it long enough you know where to go
- 8 and where to stay out of.
- 9 **Q.** But it's conceivable you can get stuck even if you're using
- 10 good judgment and know the land? The conditions from year to
- 11 year change, and you could get stuck with equipment?
- 12 **A.** Oh, yes. It's not that hard to do.
- 13 **Q.** You've raised some questions on page 2 about your concern
- 14 about your liability if the pipe were installed and something
- 15 happened on the property, the removal of the pipe once the
- 16 project is no longer used, I think you called it abandonment in
- 17 place?
- 18 **A.** Yes.
- 19 **Q.** Do you have a wish or a desire or a condition you'd like to
- 20 see imposed if a permit were granted regarding that?
- 21 **A.** I don't want it left in there when they're done with it.
- 22 **Q.** So you'd like them to be required to remove it?
- 23 **A.** Right.
- 24 **Q.** Okay. That same page you reference something regarding --
- 25 a section of the contract or the easements you apparently were

1 asked to sign had the statement one or more pipe is what you
 2 referred to in your testimony.
 3 Was that a phrase in the easement, that they had the right
 4 to install one or more pipes?
 5 A. I believe it was changed to read just one.
 6 Q. But the original easement had one or more?
 7 A. Right. But then the next one that came back it read one
 8 pipeline at the top but then went back to refer to pipelines in
 9 the bottom. Well, the statement in between basically tells you
 10 that anything superseding voids what's on top.
 11 Q. Did you have -- you heard an earlier question from the
 12 Commission about whether a landowner had it reviewed by an
 13 attorney.
 14 Did you have the easement reviewed by an attorney on your
 15 behalf?
 16 A. Yes, I did.
 17 Q. And did they offer you any thoughts or opinion?
 18 A. I just was more or less about the wording. I went in to
 19 see -- I needed to have it put in layman's terms is what I
 20 needed to have done.
 21 Q. I see.
 22 A. So I could understand it better.
 23 Q. Okay. I've just got a couple more here. You submitted
 24 with your original testimony -- I'll just hold it up so -- you
 25 may not have it with you, but in your original testimony you

1 submitted what looks like a Government map and you've marked it.
 2 And the blue Xs and the yellow line across it, that is filed
 3 with the Commission?
 4 A. Uh-huh.
 5 Q. Do you recall that?
 6 A. Yes.
 7 Q. The yellow line that's crossing that government parcel map,
 8 is that what you think the proposed pipeline route is?
 9 A. That's the general area, yes. It's not to scale or
 10 anything.
 11 Q. How does -- I assume you've got the map marked the number
 12 of acres for soybeans, corn, and so forth, the way you farm the
 13 property.
 14 Does that pipe crossing at an angle like that cause any
 15 particular issues or problems for you in terms of farming the
 16 land?
 17 A. Well, it would be more or less when they're putting it in.
 18 I guess some years depending on how wet it is, is the direction
 19 we plant fields might change.
 20 Q. If the pipeline is routed like that, does it change how
 21 you'd plant in any way or have to plant?
 22 A. Well, only when the trench is open at the time we do it.
 23 I'd prefer it to be straight along the side instead of kitty
 24 corner, yes.
 25 Q. How would that make it easier for you? What change -- what

1 effect would that have?
 2 A. Well, the biggest thing I thought was -- and I still
 3 believe this -- that the crop will not be the same. I guess
 4 what I could do is plant it to grass and hay it instead of
 5 wasting fertilizer and fuel and everything trying -- you know --
 6 Q. Why would you think that the crop planted over this
 7 pipeline might yield differently after the pipe is in?
 8 A. I think when the soil is disturbed and with compaction and
 9 stuff it will have to change.
 10 Q. An earlier witness raised a question about the temperature
 11 of the oil that went through the pipe, whether that might affect
 12 subsoil and crops that were planted over the pipe.
 13 Do you have any opinion on that?
 14 A. I think it will have an effect on it. From a lot of things
 15 that I have read, you know, a lot of seed growers, you know,
 16 they do a lot of research. And they've done a lot of research
 17 on roots. And it seems to me that most of the time they're
 18 doing research on the roots they're using backhoes in order to
 19 get down deep enough to get to where the roots are. And I think
 20 a lot of them are going to be down there at pipe level, if not
 21 below.
 22 Q. The root base for the crop?
 23 A. Right. Our roots have to go deep because the water --
 24 someplaces it's high and -- you know, it has to rain a fair
 25 amount in order for the higher ground -- you know, so the roots

1 are going to go down.
 2 Q. And the last thing looking again at your testimony you
 3 submitted, you listed about eight items -- at the top of your
 4 testimony of this page you say there were items that -- these
 5 are changes and additions we are requesting.
 6 Do you have your testimony there with you?
 7 A. Yeah. I've just got to find it.
 8 Q. Okay. I'm not going to read through all of it, and you
 9 don't need to either. But I just want to touch base a little
 10 bit.
 11 Number one was only one pipe; correct?
 12 A. Yes.
 13 Q. And then number two was that it not be abandoned. And we
 14 discussed that a minute ago.
 15 MR. SMITH: Mr. Hohn, we've got his testimony, and
 16 we've read that. We don't need to grind through it again. We
 17 know what it says. It's available to everybody publicly.
 18 MR. HOHN: It's just not available to the people on
 19 the internet, the people that are listening.
 20 MR. SMITH: Yes, it is. They've got it right there.
 21 It's prefiled. It's all in there. I read it ages ago.
 22 MR. HOHN: Thank you very much.
 23 MR. SMITH: Questions by any other Interveners?
 24 Staff?
 25 MS. SEMMLER: No. Thank you.

1 MR. SMITH: Commissioner questions?
 2 COMMISSIONER KOLBECK: Thank you for coming in and
 3 coming to Pierre today.
 4 THE WITNESS: You're welcome.
 5 MR. SMITH: Commissioner Hanson.
 6 COMMISSIONER HANSON: I heard you when you said that
 7 your friends call you Rick. So may I have permission to call
 8 you Rick?
 9 THE WITNESS: You can do that.
 10 COMMISSIONER HANSON: Thank you. I was trying to
 11 find, and I believe I found your property on the maps that were
 12 issued by Keystone provided to us.
 13 What I'm having a little bit of a challenge is finding
 14 if there's any homestead or anything like that on this property
 15 on the east half that you're referring to? We've been calling
 16 it mile markers, and this one would be at 219.
 17 THE WITNESS: I just have to find it.
 18 COMMISSIONER HANSON: You can give me an idea. North,
 19 south, east, west.
 20 THE WITNESS: It's in the northeast corner of the
 21 northeast quarter.
 22 COMMISSIONER HANSON: Okay. It looked like you have
 23 it marked grassland there. And your photo makes it -- I
 24 appreciate the information that you provided to us. Having a
 25 little bit of a challenge -- I see grass graze.

1 THE WITNESS: Okay. That would be right in the
 2 corner. That would be right in the farmstead. The farmstead's
 3 right in that corner.
 4 COMMISSIONER HANSON: And I'm hoping -- it may have
 5 been me more than Lillian when she was explaining blowouts but I
 6 have a brother who ranches out by the Newell-Nisland area and
 7 they have a soil out there when it's wet it's grease, when it's
 8 dry it's concrete. You're explaining a sand and blowouts.
 9 Could you somehow explain to me a little bit better?
 10 I'm just not understanding blowouts.
 11 THE WITNESS: Well, in our sandy soil we could get an
 12 inch of rain one day. It would be in the field the next.
 13 That's how fast the water goes down.
 14 Okay. Now in the sandier soil if there's not a root
 15 base, especially in our pastures, you know, to hold that sod
 16 together, it will just blow away.
 17 COMMISSIONER HANSON: Oh, I see.
 18 THE WITNESS: Our ground is so light that one day this
 19 dirt will be here, and the next day it could be over here. It
 20 could be a half a mile down the road. So for our farm ground we
 21 have to have a highly erodible plan with the Farm Service
 22 Agency, and we have to follow that.
 23 We either have to leave a certain amount of residue on
 24 top of the ground of some sort or other -- as far as most of
 25 ours, we just leave the total from the year before on there.

1 COMMISSIONER HANSON: Thank you very much. That's
 2 much better -- the previous discussion came on the heels of the
 3 pictures of the big tractors and such bogged --
 4 THE WITNESS: As far as the blowouts, it will be an
 5 open area where there's no sod and the wind just keeps
 6 shifting -- it's like the sand dunes in a desert. So you kind
 7 of have to kind of keep a root base and sod base there to keep
 8 that down.
 9 COMMISSIONER HANSON: Thank you very much. I
 10 appreciate your testimony and your concerns about the forced
 11 sale and such. Appreciate it very much. Thank you.
 12 CHAIRMAN JOHNSON: I don't have a question. I would
 13 just note I want to commend you. You stayed focused. You
 14 stayed on topic. I thought you raised some very good points in
 15 your testimony, and I think this is the kind of stuff that's
 16 helpful. If you were ever looking for a second career, I think
 17 maybe environmental consulting --
 18 THE WITNESS: Well, no. I like the one I'm doing
 19 right now.
 20 MR. SMITH: Thank you. And I think you can step down.
 21 THE WITNESS: Thank you very much.
 22 MR. SMITH: Thanks a lot, Mr. Hastings.
 23 (The witness is excused)
 24 MR. SMITH: Is there anybody traveling with you that
 25 would want to get out of here that's an Intervener?

1 MR. RICHARD HASTINGS: My son.
 2 MR. SMITH: Chris? Is that it?
 3 MR. CHRIS HASTINGS: Yeah.
 4 MR. SMITH: Do you want to take the stand, Chris, and
 5 then you guys will be free to go if you choose or you can stay
 6 too.
 7 (The witness is sworn by the court reporter)
 8 MR. SMITH: If you would pull up to the mic so the
 9 people out there on the internet can hear you.
 10 MR. CHRIS HASTINGS: Like my dad said too, I'm not
 11 going to go through what I've already submitted because you can
 12 see it. You know what it is. I am going to go through a few
 13 key points of it that I think are topics that I have not heard
 14 anybody else touch today. I mean, they may have been touched in
 15 the past, but I have no knowledge of that.
 16 As he stated, you know, up in our country up there
 17 it's very sandy, erodible soil. We do have a very large noxious
 18 weed problem that I spend many, many hours every year trying to
 19 control. I have neighbors who don't. I wish I had thought to
 20 take pictures of what that prairie looks like this summer, but I
 21 don't.
 22 It's a weed in which has absolutely no value. There
 23 is nothing I found will eat it, including sheep. You can use
 24 bugs. You can use spray, what have you, to get rid of it. The
 25 note of this is, it is a problem. If you go through a prairie

1 and you bust up that sod and that grass that is already growing
2 there, it will take an adequate, very adequate amount of
3 rainfall to get that to come back again.

4 Noxious weeds do not necessarily need all of that
5 rainfall to start. If I had some sand here, I'd prove it to
6 you, but I don't. So that is a very big key point for me.

7 Another key point for me, if I was a rodent in the
8 wintertime, I'm going to go where I can find the absolutely
9 warmest spot. If the temperature of that oil is warm enough to
10 keep the soil from freezing in the wintertime, that's where I'm
11 going to be, and that's where I'm going to stay all summer.
12 That is going to account for a lot of crop damage, including
13 what will be just from the disruption of soil, overturning the
14 soil to put the pipe in.

15 Those are my biggest areas of concerns off of what you
16 have in front of you to read. I do have some additional
17 responses to some testimony that has been submitted that I think
18 is important.

19 I would like to respond to comments and testimony
20 provided by John, forgive me if I butcher his last name here,
21 Muehlhausen. He stated in an article that did appear in the
22 Aberdeen American News -- I know it's hearsay, but it is in his
23 testimony that the pipeline would affect about 2,169 acres of
24 cropland total in Marshall, Day, Clark, Beadle, Kingsbury,
25 Miner, Hanson, McCook, Hutchinson, Yankton Counties and a direct

1 quote he stated that, "Compared to the 2.7 million acres of
2 cropland in the counties crossed by the pipeline, the acres of
3 cropland taken out of production would be insignificant."

4 Now the Merriam-Webster Dictionary defines the word
5 insignificant as lacking meaning or important or not worth
6 considering. I don't know a farmer in South Dakota or in the
7 entire United States who thinks his land is not worth
8 considering, especially those who are raising families on very
9 few acres. Land is a very precious commodity, and unlike oil,
10 we are unable to produce anymore of it.

11 Next I would like to comment on Mr. Muehlhausen's
12 supplemental testimony of Buster Gray. He was asked if he
13 agreed with Mr. Gray's testimony which states, The best party to
14 monitor and assess crop's productivity after a two-year period
15 is the landowner and should there be a productivity loss issue,
16 the landowner will advise Keystone.

17 In Mr. Muehlhausen's sub rebuttal testimony on page 1,
18 lines 14 through 20, he states that, I do not necessarily agree
19 that the best party to monitor and assess crops' productivity is
20 the landowner. Proper monitoring requires time, money,
21 expertise, and other resources. A landowner may or may not have
22 time, money, expertise, or other resources at their disposal to
23 effectively assess crop productivity.

24 I must ask who knows more about the productivity of a
25 set tract of land than the landowner? Anybody who has any

1 knowledge of modern farming practices can determine if something
2 such as a pipeline is causing crop failure. I can guarantee you
3 that if there is a productivity loss due to the pipeline, we
4 will make the time to bring this issue to TransCanada.

5 This is our livelihood we are dealing with. I will
6 not comment on the issue of expertise as I am appalled that
7 someone would think we do not have the knowledge to monitor and
8 assess our own crops.

9 I would also like to comment on Mr. Muehlhausen's sub
10 rebuttal testimony to Curt Hohn regarding the impact on
11 prairies. In this testimony on page 2, lines 10 to 20, he
12 states that, Pipeline impacts on prairie are probably long-term.
13 Reestablishing species, diversity, and rebuilding prairie sod
14 likely would take several years. However, it is illogical to
15 suggest that removal of the sod layer over the pipeline trench
16 results in total and irreversible loss of prairie. Once
17 construction is complete, TransCanada would restore native
18 prairie using native seed mixtures specified by applicable state
19 and federal agencies such that no net loss to prairie habitat
20 would occur. Prairie grasses would begin to grow during the
21 first season after construction and would start establishing
22 habitat suitable for livestock.

23 As I stated in my earlier testimony, I live in a
24 highly erodible area, and noxious weeds are a problem. Unless
25 they intend on hiring someone to watch over these areas on at

1 least a weekly basis, there will be a net loss of prairie
2 grasses. Replanting is not enough. All of those seeds will
3 blow away in the wind without adequate precipitation. Even with
4 the precipitation, the noxious weeds will move in, ultimately
5 resulting in a prairie loss.

6 In closing, I address these key issues to the members
7 of the Public Utilities Commission. I do not wish for the
8 TransCanada Pipeline corridor to cross my family's land or
9 anywhere in South Dakota. If you do force us to accept this,
10 these are the conditions that I hope you will put in place:

11 I would like to see the use of a heavier-walled pipe.
12 A thicker-stepped pipe is less likely to leak. Put the pipe in
13 the ground deeper than 4 feet. Rippers are becoming a more
14 common farming practice all the time, most of them going into
15 the ground at least 36 inches. That leaves 12 inches between
16 you and the pipe. What happens when you hit a wet area and sink
17 into 49 inches?

18 I also would like them not to put in a pumping station
19 within a 5-mile radius of an occupied residency. From what I
20 have seen, they are unsightly and noisy. Do not allow them to
21 place more than one pipe in the pipeline corridor. One's bad
22 enough. We do not need multiples.

23 If at all possible, move the the TransCanada Pipeline
24 away from the Middle James Aquifer. This is a very important
25 water source to those of us who live in northeastern

1 South Dakota. There has been much testimony that the aquifer is
2 not in danger, but why jeopardize it.

3 As stated by Enbridge Vice President Richard Bird
4 concerning the recent oil pipeline explosion in Clear Brook,
5 Minnesota, this would not normally have been a dangerous
6 operation. I think that statement also applies to the Middle
7 James Aquifer in the sense that just because it would not
8 normally happen does not mean it cannot.

9 Finally and most importantly, make sure that there is
10 money in place in case of any leaks or explosions caused by the
11 pipeline. I stated earlier in my testimony that the sum of
12 \$1 million per tract of land required by TransCanada be put up
13 for bond, this money being used for any and all damages caused
14 by the pipeline.

15 I consider this to be a fair agreement as none of us
16 know exactly how much it will cost to clean up an oil spill or
17 explosion in 10, 20, or 50 years from now.

18 And I thank you. That is all I have.

19 MR. SMITH: Thank you. And do you wish at this time
20 then to offer your prefilled testimony into evidence?

21 MR. CHRIS HASTINGS: Yes, I do.

22 MR. SMITH: Is there objection?

23 MR. KOENECKE: No objection.

24 MR. RASMUSSEN: No objection.

25 MR. HOHN: No objection.

1 MS. SEMMLER: No objection.

2 MR. SMITH: Okay. Chris Hastings prefilled is
3 admitted. The testimony you gave orally will be on the
4 transcript, of course, so we have that on the record.

5 With that, I am going to tender you then for
6 cross-examination by TransCanada.

7 Mr. Koenecke or Mr. White?

8 CROSS-EXAMINATION

9 BY MR. KOENECKE:

10 Q. Thank you, Mr. Smith, and thank you, Mr. Hastings. Just
11 briefly, what I understood from your father's testimony is that
12 the pipeline's going to cross what I understand to be
13 Section 10.

14 Do you agree with that?

15 A. Yes, it will.

16 Q. Do you have a tract of land yourself that the pipeline's
17 going to cross?

18 A. No, I do not. I farm the land with my father, and I just
19 am concerned about it.

20 Q. So that's the tract that you've been concerned about today?

21 A. Yes. That is the tract that I am concerned about.

22 Q. And is your name on Section 10 or not?

23 A. No, it's not.

24 MR. KOENECKE: Okay. Very good. I have nothing else.

25 Thank you.

1 MR. SMITH: Mr. Rasmussen.

2 MR. RASMUSSEN: No questions.

3 MR. SMITH: Mr. Hohn.

4 CROSS-EXAMINATION

5 BY MR. HOHN:

6 Q. You mentioned in your testimony and today BDM Rural Water.
7 Is your family one of the customers of BDM?

8 A. At this time we are not. Although, we are currently on
9 file to have that water system come to our place.

10 Q. Is the fact that you haven't been connected an issue of
11 capacity, or is it an issue of the project not getting there?

12 A. We have always had our own wells, and we still operate our
13 own wells. We are having BDM come to us as a service in case we
14 need it. You know, if our wells quit or there's an oil leak or
15 what have you.

16 Q. So based on your testimony, the shallow water in the area
17 provides adequate water supply now for your farm operation?

18 A. Yes, it does. And I will also state that where we live is
19 the aquifer in which BDM pulls their water source on in
20 Township 158, Range 59.

21 MR. HOHN: No other questions. Thank you.

22 MR. SMITH: Thank you, Mr. Hohn.

23 Staff?

24 MS. SEMMLER: We have no questions. Thanks.

25 MR. SMITH: I forgot to ask if there are any other

1 Intervenors who have cross-examination.

2 Commissioners, do you have questions of Mr. Hastings?
3 Commissioner Kolbeck.

4 COMMISSIONER KOLBECK: Yeah. You have wells in
5 service? How deep are they?

6 THE WITNESS: They've got to be around 100 feet
7 probably. Like he said before, for the good water, I mean,
8 that's how deep we dig.

9 COMMISSIONER KOLBECK: Okay. How close is one of
10 those compared to the pipeline route?

11 THE WITNESS: The ones where I live will be
12 approximately a mile and a quarter away, but that farm site on
13 Section 10 is going to be within 700 feet.

14 COMMISSIONER KOLBECK: Perfect. Thank you.

15 MR. SMITH: Commissioner Hanson or Commissioner
16 Johnson?

17 I think you may step down. And thank you very much.
18 (The witness is excused)

19 MR. SMITH: Okay. Now I'm going to ask again if
20 there's anybody else -- sir, you appear to want to go now.

21 (Discussion off the record)

22 (The witness is sworn by the court reporter)

23 MR. SMITH: You can just proceed at your own --

24 MR. WADE: My own pace?

25 MR. SMITH: Your own pace, yeah.

1 MR. WADE: My name is David Wade. I'm the general
2 manager of BDM. That stands for Brown Day Marshall Rural Water
3 System in Britton, South Dakota. My two-page written testimony
4 that I had sent in, I'll just recap that. I have some
5 additional things that I'd like to go over also.

6 So we're a rural water system -- BDM is a rural water
7 system that's member-owned in northeast South Dakota that serves
8 around 2,000 members, 15 bulk users, and several large animal
9 units. We cover about 4,500 square miles and serve a population
10 total of about 7,000 people who drink the water on a daily
11 basis.

12 I have a couple of maps here. It's kind of hard to
13 show the entire system on a map, but this is a pretty good job
14 of it. So I will just hold them up when I talk, I guess. This
15 is the one that I'll hold.

16 Our system serves customers from the Minnesota border,
17 Lake Traverse, and Big Stone all the way west to about the
18 Jim River, Columbia being on the west side of the map here, in
19 that area. This is the 4,500-square-mile area that we serve,
20 about 1,800 miles of pipeline.

21 The main concern that we have, of course, is, number
22 one, the proposed crossing of the Middle James Aquifer. This is
23 our only source of drinking water in the area. It's the -- it's
24 the one that we've been in since 1983. We have six wells
25 located in Section 3 of Pleasant Valley Township.

1 Where the proposed TransCanada Pipeline goes through
2 our county happens to be one of the closest to the surface areas
3 of the ground water that there is. And the recharge of the
4 aquifer is through percolation of precipitation in ranges of 58,
5 and 59 of Township 128. And that's where the pipeline goes.
6 Okay. So that's directly through the most important part of our
7 system.

8 There's been previous testimony that said the flow of
9 the water that goes through where the pipeline is proposed does
10 not flow towards our BDM wells. Apparently, someone doesn't
11 know where our BDM wells are. Because I have a map that was
12 referenced in the Department of Natural Resources South Dakota
13 Geological Survey 1975 -- I have a map that I would like to
14 enter into the record that shows arrows and I drew in the
15 proposed route of the TransCanada Pipeline and I drew in where
16 our wells are.

17 And I believe that all of you would be able to plainly
18 see that the arrows flow toward our wells. And I will pass that
19 out right now.

20 MR. SMITH: Thank you.

21 MR. WADE: All right. The map is basic, and I believe
22 the testimony was yesterday. But TC, the blue line there, the
23 colored map actually shows the water versus surface and the
24 direction of the ground water movement in the James Aquifer,
25 1971. And as you can see TC stands for the TransCanada proposed

1 pipeline route which is pretty rough. I just drew that. And
2 where we are in Section 3, Pleasant Valley Township, it's says
3 BDM and it's in blue and circled by number 274.

4 Okay. I believe we'd all be in agreement that there's
5 an arrow pointing down and over, and the water movement is that
6 way.

7 MR. SMITH: Cheri, what did you call this?

8 THE COURT REPORTER: Wade 1.

9 MR. WADE: So I just wanted to clarify that.

10 Back to my question number one, we have a proposal for
11 that question because it's not right to say something that you'd
12 like to have and not give a couple of options or answers that
13 could be thrown out there.

14 The first proposal would be to move the pipeline out
15 of the aquifer. And if that's not possible, then we'd like to
16 see them use a special fabric through that 6-mile part of the
17 aquifer to prevent any leakage into the aquifer.

18 And we also believe and insist that a precaution needs
19 to be taken before any permit would be granted to double the
20 line thickness for that 6 miles through the aquifer or make
21 it -- it is not in my testimony -- or make it comparable to
22 other highly consequential areas in that size. We don't believe
23 that the thinner-walled pipe should go through our aquifer.
24 That's the bottom line.

25 And that basically covers that area.

1 The next concern we have are for the crossings of our
2 pipelines. We have current easements with our landowners of 30
3 and 60-foot easements. What we would like to do at all the
4 crossings would be to -- and it's not going to be exactly how it
5 is on here. But what we'd like to do is before anything was
6 done and all the surveying was done and we knew exactly where
7 the pipeline route was going to be, if that's the case, we want
8 to go and put in below where TransCanada would ever be, we want
9 to be at least, you know, 5, 6 feet away from them, below them.

10 We'd go through and we'd put a casing of steel pipe or
11 ductile iron, preferably steel pipe, and then we'd put what's
12 called yellowmine pipe through that pipe and that would be where
13 our water flows. The steel casing would be the protection that
14 we would have of any crude or any dilutant that would be with it
15 to touch PVC. We would rather have it touch the steel and not,
16 you know, go through our gaskets and get into the water source.
17 Okay? And do that for 250 feet on each side of the crossing.

18 Therefore, when TransCanada is ready to come through
19 they don't have to start making adjustments. Because when you
20 start making adjustments in put -- they know this too. When you
21 put in pipe and start making adjustments, that's when the
22 problems will happen. Usually the problem will never happen in
23 a straight piece of pipe. It's a connection, a bend, a turn, a
24 90, a 22 and a half, whatever you want. That's where the
25 problems usually occur.

1 If we were to be lower than them and done it in
2 advance, then they could go right now and not have to make any
3 changes for the first pipeline, second, third, whatever it would
4 be.

5 Okay. So that's a proposal. And I think if you think
6 about it, it's a very good way to do it. And it may not be the
7 case with other rural water systems, but that's how we see it.

8 We have about 12 crossings, and we're going to have at
9 least one more. Mr. Hastings was talking about a future
10 connection. We do have funding for a project that we're doing
11 over in the Hecla, South Dakota area next summer, and we would
12 put another pipeline, either an 8-inch or 6-inch through there
13 so there's going to be another crossing. So there's going to be
14 12 or so crossings.

15 And that basically covers that. And that, the
16 crossing issue, the first time they come through and any
17 subsequent times that we would have to do the casing -- and I
18 feel it would be in good faith for TransCanada to pay for that.
19 It's a very small fee to do that. I would imagine it's a
20 per-foot basis. Each one of them would be set. And it's a good
21 way to do it, and that's where we're coming from on that issue.
22 TransCanada would actually pay for that.

23 MR. SMITH: Okay. Do you have more testimony?

24 MR. WADE: Yes, I do. We also want to hammer out
25 something for future crossings. We feel that some agreed-upon

1 spec, we can come to terms on that, and they cross each other in
2 the future at no charge. Because we don't necessarily want it
3 to turn into some of the railroad crossing issues that we see in
4 this state where it costs you an arm and a leg here and not so
5 much here and a lot here. It's kind of a general throughout the
6 state for rural water systems, come to a crossing agreement that
7 we could do that at no cost to each other in the future.

8 And then the last thing that I had was the cash bond
9 issue. We feel that it's important to not muddy the waters in
10 the future. In the event that a spill does occur, we feel that
11 it would be much easier to have a growing fund set aside so that
12 if -- and the State could manage it or someone decided upon at a
13 future date could be -- handle the funding. But it should be in
14 place.

15 And if something happens to a rural water system based
16 on a spill that's 92 percent cleaned up, the other 8 percent is
17 a problem with the rural water system, they have to change
18 1,000 feet of pipe or change how we treat the water some day or
19 do something in the future, that money's there, you go to that
20 entity, present your stuff, and the money's there instead of
21 battling with attorneys on, you know, things that --
22 technicalities, things like that. We believe that this cash
23 bond could be set up. And it's been done for other things. And
24 that's about it on that.

25 And I have one final thing. It seems like maybe I can

1 help you better explain these blowouts. I haven't gone to
2 blowouts before, but I have a map maybe everybody's looking for
3 or maybe somebody has it. This is a geological map of
4 Marshall County and the yellow over here is actually called dune
5 sand.

6 So dune sand is what you think it is. When you drive
7 up in that area on the road that goes from Kidder to Hecla, if
8 you're familiar with those towns, it looks like sand dunes down
9 there.

10 And it is. There's machinery covered up. There's
11 fence lines covered up. There's sand dunes out there. And the
12 land the pipeline's going on is just east of there and it almost
13 drops off like that, the sand dunes, but the sand is in the soil
14 and has blown there for years. And there's more dirt and sand
15 in the soils around there, possibly like the Hastings are
16 talking about. But the blowouts are just what you can imagine,
17 the sand dune blowout. That's what it is.

18 And I don't know if you want to enter this on the
19 record. I don't have another copy, but you could sure make a
20 copy if you need a soils map.

21 MR. SMITH: I mean, it appears to be a map that's a
22 matter of public record now.

23 THE WITNESS: Yes, it is.

24 MR. SMITH: So I don't know. What do you think,
25 Mr. Koenecke? Do you --

1 MR. KOENECKE: What's the question, Mr. Smith?

2 MR. SMITH: Well, he's kind of asking if we think it
3 should be entered into the record. And it probably wouldn't
4 hurt.

5 MR. WADE: It's a soils map.

6 MR. SMITH: We can take judicial notice of that.
7 That's an official government document.

8 COMMISSIONER KOLBECK: Scan it in?

9 MR. SMITH: Yeah. We will do that. Do you want us to
10 return it to you after we've done that?

11 MR. WADE: That's fine.

12 MR. SMITH: Do you care if we put a mark done it --

13 MS. SEMMLER: Mr. Smith, staff has a legal-sized paper
14 of that same map.

15 MR. SMITH: You've already got it then. Okay. Does
16 that conclude your testimony then, your direct?

17 MR. WADE: Yes, it does.

18 MR. SMITH: Would you like -- I'm assuming you'd want
19 us then to -- you'd like your prefiled testimony then offered
20 into the record at this time as well.

21 MR. WADE: Yes.

22 MR. SMITH: Okay. Is there objection to Mr. Wade's
23 prefiled testimony?

24 MR. KOENECKE: Certainly not.

25 MR. SMITH: From anyone else?

1 MR. RASMUSSEN: No objection.
 2 MR. HOHN: No objection.
 3 MS. SEMMLER: No objection.
 4 MR. SMITH: Mr. Wade's prefiled testimony is admitted
 5 as evidence. At this point then I think we will turn to -- with
 6 all the business about blowouts I think Mr. Hastings -- I'm a
 7 former Winner resident from my youth, and I think Highway 83
 8 probably provides a good example.

9 What I'm envisioning is -- I'm a golfer too and
 10 something awfully similar to a bunker. Am I getting there?

11 All righty. Let's move on. Mr. Koenecke,
 12 cross-examination?

13 MR. KOENECKE: Thank you, Mr. Smith.

14 CROSS-EXAMINATION

15 BY MR. KOENECKE:

16 Q. Good afternoon, Mr. Wade.

17 A. Good afternoon.

18 Q. I think I'll ask you first about your wells. Do I
 19 understand correctly that your sole source of water for BDM is
 20 found on the map I'm holding up?

21 A. Yes. We are in Section 3, Pleasant Valley Township, and
 22 that's what that would indicate right there.

23 Q. And so if I read this map correctly, the lines on it are
 24 townships?

25 A. Yes.

1 Q. 6 miles by 6 miles?

2 A. Most of them.

3 Q. So your well would be what, 10 miles from the --

4 A. Approximately.

5 Q. -- proposed route?

6 A. Yes.

7 Q. Is it more than that?

8 A. Actually it is 11.

9 Q. And if I'm reading this map correctly, is it telling me
 10 that -- it isn't. How deep is your well?

11 A. Our wells are 300 feet deep.

12 Q. 300 feet below grade?

13 A. 300 feet below the ground.

14 Q. And so do you know what type of soils overlay that strata?

15 A. Not off the top of my head, but on your well driller's log
 16 we would sure have that.

17 Q. And do you know at the point where you're taking water out
 18 if there's glacial till or clays?

19 A. There are some.

20 Q. Any idea how deep that would be?

21 A. No.

22 Q. I don't want to mischaracterize your testimony, but if I
 23 understand right, you had to punch through clays or glacial till
 24 to get to the water source that you're taking out in Section 3?

25 A. Yes.

1 Q. Very good. Is your water line system a PVC pipe?

2 A. Yes.

3 Q. Do you have any P.E. or polyethylene?

4 A. No, we don't. Just at the service connections at most
 5 homes it switches down to P.E.

6 Q. If I'm understanding like from a meter pit into a house
 7 might be P.E.?

8 A. And just before the meter pit we switch down to P.E. too.

9 Q. Very good. Thank you. Are you aware of any places where
 10 rural water companies have asked for or obtained a casing or
 11 lowering of their water line in relation to a crude oil
 12 crossing?

13 A. No.

14 Q. Just to back up, I did forget to ask you a question. I'm
 15 wondering if you know how fast the ground water moves through
 16 from the recharge area towards your wells?

17 A. I believe it's in this book.

18 MR. SMITH: Mr. Wade, you may have done this, but
 19 could you recite the precise geological survey report that that
 20 is so we've got a clear identification of where this came from.

21 A. Okay. This is called Bulletin 23, Geological and Water
 22 Resources of Marshall County, South Dakota. It's prepared in
 23 cooperation with South Dakota Geological Survey, Marshall
 24 County, and the Oahe Conservancy Subdistrict, Department of
 25 Natural Resources Development, South Dakota Geological Survey

1 1975.

2 MR. SMITH: Thank you very much.

3 A. I believe, Mr. Koenecke, the movement of our water in our
 4 aquifer is a few hundred feet per year.

5 Q. Is that what the book says?

6 A. Well, I didn't find it.

7 Q. I've got time to look for it.

8 A. Okay. Hold on a second.

9 Q. I'd rather do that than have it be wrong.

10 (Witness examines document)

11 A. Well, I know it says an exact number in here, but it's
 12 sometimes hard to find when you need to find it because I've
 13 read it before several times.

14 Q. I don't mean to put you on the spot this long, Mr. Wade.

15 That's fine. You're confident it's in there, though, is what I
 16 understand.

17 A. Oh, yeah. It's in here.

18 Q. Very well. Thank you. Let's just continue on.

19 A. Okay.

20 Q. Has TransCanada requested crossing information from you?

21 A. Yes, they have.

22 Q. And have you responded?

23 A. We have had Mr. Mark Wattier up there two times, and he was
 24 in fact there, I believe, yesterday looking at our map talking
 25 about crossing information. I was not there when he was there

1 yesterday. It was later in the afternoon that he called that he
 2 was going to be there, and I was out. But he had a map and had
 3 some preliminary drawings of potential crossings, and we drew it
 4 on our map.
 5 Q. And so if I'm understanding right, and don't let me put
 6 words in your mouth, apparently discussions are ongoing about
 7 crossing agreements with TransCanada, or is that saying too
 8 much?
 9 A. No. At this point, yes, they're ongoing.
 10 Q. Thank you. You've requested or proposed that TransCanada
 11 install ductile iron pipe or case PVC pipe with steel. One or
 12 the other.
 13 A. Actually ductile iron would be a cased pipe also.
 14 Q. Would be?
 15 A. And the reason -- we wouldn't want to run our water through
 16 that. We would actually go in there with yellowmine inside of
 17 it.
 18 Q. And I just want to be sure on the reason for that. Is that
 19 because you think that crude oil contamination would alter your
 20 pipe's integrity, PVC?
 21 A. I believe it could or the dilutants that are with it could.
 22 Q. When you say the dilutants that are with it, tell me what
 23 you mean, I guess.
 24 A. They're maybe adding something to it to move the crude.
 25 That would be a dilutant, I would think.

1 Q. I see. And so your concern is that a leak of that in the
 2 area over crossings might somehow damage the integrity of the
 3 PVC pipe?
 4 A. Yes.
 5 Q. And if you were convinced that -- or if the evidence would
 6 show that that was not the case, that PVC pipe did not degrade
 7 in the presence of hydrocarbon compounds, would you change your
 8 mind?
 9 A. No. Then I would want to know about the gaskets.
 10 Q. What kind of gaskets do you use?
 11 A. We use what's called a rieber rubber gasket. It's a gasket
 12 the way you put a pipe together, and it's tough to get them
 13 apart. And the name of it is a rieber rubber gasket.
 14 Q. So there's no clamp? It's the gasket itself holding it
 15 together?
 16 A. That's correct.
 17 MR. SMITH: For the reporter, would you please spell
 18 rieber, if you know.
 19 THE WITNESS: I think it's R-I-E-B-E-R.
 20 MR. SMITH: Thank you.
 21 Q. How often are gaskets encountered? How long are your
 22 sticks of your --
 23 A. Either 20 or 40 feet.
 24 Q. Depending on the size? Am I right?
 25 A. It just depend on what was put in in that area or what was

1 being put in in that area.
 2 Q. I understand. Thank you. You've proposed that TransCanada
 3 and all of the rural water systems come to one agreement on
 4 crossings; is that correct?
 5 A. Yes.
 6 Q. Why do you think there needs to be one agreement?
 7 A. Because it's much simpler with one agreement. If you had
 8 28 agreements or eight in this case if they cross eight systems,
 9 then you have eight different agreements. And it could become
 10 confusing. It's just much easier with one as we've learned with
 11 the railroads.
 12 Q. You're saying it would be simpler for TransCanada to have
 13 one agreement?
 14 A. I would think for both parties.
 15 Q. Are you aware of any place or any jurisdiction, state or
 16 otherwise, that's had a cash bond requirement such as you
 17 propose in paragraph 4?
 18 A. No, I have not.
 19 Q. If I heard your testimony right, you said cash bond has
 20 been done for other things?
 21 A. Such as mining operations in the Black Hills.
 22 Q. Very well. I wondered what you were speaking of there.
 23 Thank you.
 24 MR. KOENECKE: I don't think I have anything further
 25 at this time.

1 MR. SMITH: Mr. Rasmussen.
 2 CROSS-EXAMINATION
 3 BY MR. RASMUSSEN:
 4 Q. Mr. Wade, there's some prefiled testimony from an
 5 individual named Perry Rahn who proposes moving the pipeline
 6 further to the east I think about 8 miles, which would obviously
 7 bring it closer to your wells.
 8 Are you aware of that?
 9 A. Yes, I am.
 10 Q. Does that concern you at all?
 11 A. Yes, it does.
 12 Q. And why is that?
 13 A. Well, yeah, it would bring it closer to our intakes of our
 14 wells. Therefore, if there were an incident, it would be less
 15 time to react to a problem. When you're sitting at 10 miles
 16 away and the water's moving underground slowly, you can make
 17 adjustments.
 18 And at that point where there could be an incident, you
 19 know, it's further out in your system, possibly smaller lines,
 20 better response, when you come right to our wells within a
 21 couple of miles that would make it worse.
 22 Q. Do you know if the soils are different in the area being
 23 proposed by Mr. Rahn as opposed to the current proposed route?
 24 A. I am not a soils expert, but they are different just by
 25 looking at them.

1 Q. Would there be less likely -- would transportation of any
 2 oil that would leak be less likely in the area proposed by
 3 Mr. Rahn as opposed to the current route, if you know?
 4 A. Our aquifer by my handout is still in that area 8 miles
 5 east. I mean, it would still go through our aquifer.
 6 Q. Are you a member of the South Dakota Association of Rural
 7 Water Systems?
 8 A. Yes.
 9 Q. And has the South Dakota Association of Rural Water Systems
 10 done anything to address the pipeline or any resolutions, that
 11 sort of thing?
 12 A. Yes. They are working on a proposal that will be talked
 13 about at a quarterly board meeting tomorrow. So, yes, they are
 14 working on something similar to what I have talked about in some
 15 cases. So, yes, the answer is yes, they are working on that.
 16 Q. And how many rural water systems are involved in that
 17 organization?
 18 A. I believe there's 28.
 19 Q. Are they all --
 20 A. 28 members.
 21 Q. So you say there's a meeting tomorrow, and a resolution
 22 will be discussed at that time?
 23 A. I believe it will be discussed and voted on.
 24 Q. And, again, that would have some of the same -- or you
 25 anticipate that may have some of the same stipulations that

1 you've discussed here today?
 2 A. Similar, yes.
 3 MR. RASMUSSEN: Thank you. I have no further
 4 questions.
 5 MR. SMITH: Mr. Hohn, questions of Mr. Wade?
 6 MR. HOHN: Yes. Thank you.
 7 CROSS-EXAMINATION
 8 BY MR. HOHN:
 9 Q. Mr. Wade, I have a copy of the geological survey you're
 10 referring to. And for the record we provided a copy to
 11 Mr. Koenecke following the deposition.
 12 I want to draw your attention to -- and this is a State
 13 Government report. I'd like to draw your attention to page 33
 14 of that report, if you'd like to open it. I have one question.
 15 A. Okay.
 16 Q. Page 33, if you look to the second paragraph on the left
 17 side where it starts out, "The James River"?
 18 A. Yes.
 19 Q. "Contained about 1 and a half million acre feet of water
 20 and storage."
 21 That's a lot of water, isn't it, Mr. Wade?
 22 A. That's a lot of water.
 23 Q. Do you have any idea how much your rural water system might
 24 use in acre feet in a year? And Mr. Smith has a conversion card
 25 in case we get -- do you know how many acre feet your system

1 might use in a year?
 2 A. I cannot convert to acre feet right now. We have about --
 3 we use about 350 million gallons a year.
 4 Q. So using the magic card that converts, which I don't know
 5 how to convert acre feet, suffice it to say that 1,500,000 acre
 6 feet, that's a huge amount of water, isn't it, Mr. Wade?
 7 A. Yes, it is.
 8 Q. Probably enough to serve your system and hundreds like it?
 9 Is that a fair statement?
 10 A. Hundreds like it, I don't know. Yes. It could serve a
 11 lot.
 12 Q. Okay. I just have one question from your testimony. You
 13 have pipelines installed in the western portion of Marshall
 14 County as shown in your map; is that right?
 15 A. Yes, I do.
 16 Q. And you have plastic water lines installed in the area
 17 where TransCanada will be crossing with their pipeline; is that
 18 right?
 19 A. Yes, we do.
 20 Q. Is it difficult to find a water leak in that sandy soil?
 21 A. Yes, it is.
 22 Q. Based on your -- how many years have you been the manager
 23 of BDM, Mr. Wade?
 24 A. 14.
 25 Q. 14 years. Have there been a few water leaks in that area

1 during the 14 years?
 2 A. Oh, yes.
 3 Q. Would you -- based on that experience, would you think it
 4 might be difficult to find an oil leak as well in that sandy
 5 soil?
 6 A. Well, yeah. We have water leaks in that area, and we have
 7 a SCADA system at several different locations that we can use
 8 from a central location. And it's hard to tell. Sometimes when
 9 there's a water leak of 10, 15, 20 gallons a minute you wouldn't
 10 be able to notice it on the SCADA system.
 11 And water leaks can leak for months. In sandy soil it will
 12 follow a trench. It will follow anything that's been disturbed.
 13 And it's somewhat hard to find. When they do surface you still
 14 have to find exactly where they're leaking at because the water
 15 could be down there 150 feet and your leak could be, you know,
 16 uphill here and the water could be coming out down there. So
 17 it's hard to figure it out sometimes, but, nonetheless, we've
 18 gotten through several of them.
 19 Q. One other question. On your testimony you don't -- you
 20 list the number -- you say there's 15 bulk use customers you
 21 serve. I assume some of those are towns?
 22 A. Yes.
 23 Q. Could you state for the record the names of the towns that
 24 you serve in that area?
 25 A. Yes. In fact, they're all on here, but I'll go from

1 memory. We serve Britton, Amherst, Claremont, Langford,
 2 Pierpont, Lake City, Veblen, Claire City, New Effington. We
 3 serve five outlying Native American small towns, and we serve
 4 Agency Village, which is a town of several hundred people. I
 5 don't know who I'm forgetting, if any. I think that's pretty
 6 close to all of them.
 7 Q. Okay. Thank you. And just one last question. Have you
 8 been monitoring the hearing by internet or any other means since
 9 the hearings began?
 10 A. By internet.
 11 Q. Are you familiar with the term HCA, highly consequential
 12 area?
 13 A. Yes.
 14 Q. Did you -- were you able to listen in on the testimony
 15 through the internet and hear a TransCanada witness,
 16 environmental witness, state that they do not consider rural
 17 water systems HCA?
 18 A. I believe I read that.
 19 Q. You read that. Okay. Do you have a reaction to that or a
 20 comment?
 21 A. Well, I guess I would consider what we drink an area of
 22 high consequence that should be looked at. I mean, everybody
 23 drinks water from somewhere. So it's disturbing to say that
 24 rural water systems aren't highly consequential because it's our
 25 livelihood out there.

1 I mean, there's a lot of farmers. You know, we're hooking
 2 up the Hastings and about everyone has rural water and many have
 3 abandoned their own wells. Some still have their own wells and
 4 use for livestock or what have you. But we serve the whole
 5 area.
 6 So that's huge. That's something you can't just brush
 7 aside and say, well, no big deal really. It's huge. It's
 8 probably one of the biggest things that we have left, you know,
 9 in rural South Dakota.
 10 Q. And to your knowledge, Mr. Wade, are there eight rural
 11 water systems, seven in addition to yours that would be crossed
 12 by this pipeline?
 13 A. I believe so. Eight.
 14 MR. HOHN: Thank you very much.
 15 MR. SMITH: Staff? Is there other Interveners?
 16 MR. SIEH: I have two questions.
 17 MR. SMITH: Can you please take the mic again, John,
 18 where Mr. Hohn is?
 19 CROSS-EXAMINATION
 20 BY MR. SIEH:
 21 Q. Good afternoon.
 22 MR. SMITH: John, you've got to get close enough to
 23 the mic so the internet folks can hear you.
 24 Q. Thank you very much. Mr. Wade, I have just a couple of
 25 questions. One, just a clarification. I had heard that

1 TransAmerica (sic) had started condemnation proceedings on BDM.
 2 Is that right, or is that just one of these rumors?
 3 A. No. That is not a rumor. The condemnation procedure was
 4 on a person --
 5 MR. KOENECKE: I think this is subject to the Motion
 6 in Limine, Mr. Smith.
 7 MR. SMITH: Yeah. We've ruled that condemnation is
 8 not within our purview here. We're not going to -- that's the
 9 court -- unfortunately, John, that's just not something we
 10 can -- we can't decide that the legislature made the wrong --
 11 passed the wrong law is the bottom line, you know.
 12 Go ahead if you have another question.
 13 MR. SIEH: Well, my second question was sort of
 14 related. I'm hesitant to ask it now because I want to be
 15 cooperative.
 16 MR. SMITH: Well, you can ask it, but we're going to
 17 try to stay away from condemnation because we can't do anything
 18 about that. So go ahead.
 19 Q. Well, if there's a clarification on whether or not there's
 20 negotiation. I think that question was in his testimony. And I
 21 think you said there was negotiation at the present time?
 22 A. Yes.
 23 Q. Even though --
 24 MR. SIEH: Well, I can't -- want to get into that.
 25 Q. I guess my last question would be as one of the major rural

1 water systems in the state did any of the staff or Mr. Sahr or
 2 Mr. Edwards or the general manager of East River Electric
 3 contact you for your opinion about any possible impact on your
 4 water system?
 5 A. No. I was not contacted by any of those folks but my local
 6 cooperative. I talked to them.
 7 Q. I see. And that is -- your local cooperative is Lake
 8 Region?
 9 A. Well, we have several local cooperatives in our system, but
 10 Lake Region is the one that I talked to.
 11 MR. SIEH: I thank you very much.
 12 MR. SMITH: Thank you, Mr. Sieh.
 13 Staff, do you have any questions of Mr. Wade?
 14 MS. SEMMLER: No. Thank you.
 15 MR. SMITH: Commissioners?
 16 CHAIRMAN JOHNSON: I'll take the first shot if that's
 17 okay with my colleagues. Hi, Mr. Wade.
 18 THE WITNESS: Hi.
 19 CHAIRMAN JOHNSON: You note in your direct testimony
 20 you would like to see the pipeline wrapped with a special
 21 fabric.
 22 Did you have any particular fabric in mind?
 23 THE WITNESS: No. I am not a fabrics expert. But I
 24 do know and I have seen so, therefore, it's hearsay but you see
 25 in the lining -- and maybe they do it in the mines in the

1 Black Hills so that certain chemicals can't get in the water
2 supplies there. They line ditches or trenches that the lines
3 will go in and they lower the line into it, and then they may
4 coat the line. But the fabric is there so that the leak can't
5 go down.

6 So I don't know what the name would be, or I have not
7 done research on that. But there are fabrics available for
8 that, I'm sure.

9 CHAIRMAN JOHNSON: When you were listening in on the
10 internet also under number one you would like to see a sleeve,
11 TransCanada sleeve their pipeline.

12 Did you have an opportunity when you were listening on
13 the internet to hear any of the Applicant's witnesses talk about
14 their opinion that that would actually make it more likely --
15 make external corrosion more likely?

16 THE WITNESS: I understand that.

17 CHAIRMAN JOHNSON: You mentioned cash bonds for mining
18 operations, the mining industry.

19 Do you happen to know whether or not those cash bond
20 were imposed by an adjudicative proceeding or by state law?

21 THE WITNESS: I do not know.

22 CHAIRMAN JOHNSON: Okay. That's all I'd have right
23 now, Mr. Smith. Thanks.

24 MR. SMITH: Other Commissioner questions? I happen to
25 know that those were imposed by the Board of Minerals and

1 Environment in adjudicatory proceedings because I was there when
2 it was done.

3 COMMISSIONER KOLBECK: I just have a couple of
4 questions. And I remembered speaking to you, but I can't
5 remember if it was Clark or Britton.

6 THE WITNESS: Yeah.

7 COMMISSIONER KOLBECK: You said that your wells are
8 300 feet deep. And I would imagine that's your intake; correct?

9 THE WITNESS: Yeah. We're in the aquifer 300 feet
10 deep.

11 COMMISSIONER KOLBECK: So what's the ceiling of that
12 aquifer? Do you know that?

13 THE WITNESS: About 120 feet down is where the water
14 starts so we have 180 feet of water in our column pipe. So when
15 we turn on the pumps there's a drawdown. It draws down the pipe
16 a certain number of feet, and there's a cone where it's taking
17 water in from the aquifer.

18 COMMISSIONER KOLBECK: Okay. What's a meter pit?

19 THE WITNESS: A meter pit?

20 COMMISSIONER KOLBECK: Yeah. You said that you switch
21 from one pipe to a different pipe at a meter pit?

22 THE WITNESS: It's a simple metering device, and
23 that's where our cash registers are at is at the meters of the
24 water system. It's a 7-foot cylindrical tube specially made to
25 have a meter and a regulator in it so we can regulate the

1 pressure and count the gallons that they use at each home.

2 So we come down to poly pipe just before it, and then
3 they usually go out of it to their house with poly pipe. We end
4 at the meter pit.

5 COMMISSIONER KOLBECK: Is that something that's close
6 to the pipeline? Is any of that equipment going to be close to
7 the pipeline?

8 THE WITNESS: Not necessarily, no. It's mostly in the
9 yards or the homes.

10 COMMISSIONER KOLBECK: Okay. Got you. All right.
11 And then the -- you talked about gaskets and things like that.
12 And you said you listened on the internet about that? Did you
13 hear that part of the testimony? There was some testimony
14 yesterday about PVC and gaskets and such.

15 THE WITNESS: Okay.

16 COMMISSIONER KOLBECK: And if you wouldn't be
17 convinced -- and I'm not a water man so why would that not
18 convince you?

19 THE WITNESS: I didn't listen to the one yesterday on
20 the internet.

21 COMMISSIONER KOLBECK: Well, you said -- I think
22 Mr. Koenecke's question was to you if you could be convinced
23 that crude oil wouldn't affect your PVC pipe, would you change
24 your mind, and you said no. And since I'm not a water man, I'd
25 like to know why that wouldn't change your mind.

1 THE WITNESS: Well, it appears to me anything that
2 we've ever done with problems in a yard with a diesel fuel spill
3 or a gas spill or any type of petroleum products spill it always
4 leaches into the water through the PVC pipe or gaskets.

5 If you you take PVC pipe and put it in gasoline, which
6 is not crude oil but if you put it in gasoline, you can just
7 bend it just like this (indicating).

8 COMMISSIONER KOLBECK: Okay. And it's just your
9 experience --

10 THE WITNESS: Yes.

11 COMMISSIONER KOLBECK: -- as a water man that it's
12 probably going to lead to trouble?

13 THE WITNESS: Yeah. I would think so.

14 COMMISSIONER KOLBECK: Thank you.

15 THE WITNESS: Thanks.

16 MR. SMITH: Other Commissioner questions?

17 COMMISSIONER HANSON: Thank you, Mr. Smith.

18 Good afternoon, Mr. Wade.

19 THE WITNESS: Good afternoon.

20 COMMISSIONER HANSON: Appreciate your testimony,
21 especially along the line of the statements that you made early
22 on that you don't want to be critical without providing an
23 opportunity for a suggestion on where a fix might be. So
24 constructive criticisms, similar to the Hastings when they were
25 presenting their information, information we received from them,

1 we appreciate very much that type of testimony.
 2 And I also understand the challenges with railroad
 3 crossings. And apparently you don't want to be in the same type
 4 of situation as having dealt with them myself on some crossings
 5 and the challenges that exist there. I very much appreciate the
 6 challenge of that, not wanting to attempt to negotiate with
 7 someone doesn't have to negotiate with you is what it amounts to
 8 them. I think this is certain a different situation, but I can
 9 understand your concern there.

10 I had a couple of questions that I -- I think I'll --
 11 now you are not going to be available for -- I assume you're
 12 heading back to --

13 MR. WADE: I'll be leaving tonight, yes.

14 COMMISSIONER HANSON: Okay. Well, I'd just ask you
 15 one question now then that relates to something else I might
 16 like to ask you later but that might not afford itself to me.

17 You said you were listening in on the internet.
 18 Obviously you can't listen to -- you probably don't want to
 19 listen to the entire presentation, but there was a great deal of
 20 discussion about an epoxy, FBE, that TransCanada Keystone would
 21 be using on the exterior of the pipe, would be part of the
 22 construction process.

23 Did you happen to hear that testimony?

24 THE WITNESS: No.

25 COMMISSIONER HANSON: Okay. Well, it would benefit

1 you to -- I wanted some comment from you if that in fact were --
 2 if there was a problem with that. But it sounds like it's the
 3 type of thing you're looking for. I'd encourage you to look at
 4 that. I would like your opinion on it but --

5 MR. WADE: Okay. I can --

6 COMMISSIONER HANSON: You can't call me up, though,
 7 and give me your opinion. That's the problem.

8 MR. WADE: What I could do is, is that record on the
 9 internet now?

10 MS. SEMMLER: Yes.

11 MR. WADE: I could sure read it tomorrow and e-mail
 12 you.

13 COMMISSIONER HANSON: Why don't you contact our
 14 office. They will give you the logistics of when it took place
 15 so you can find it a little more easily. And then you still
 16 can't call me, but some way I'd like to get that information.

17 CHAIRMAN JOHNSON: And you can feel free to e-mail
 18 Commissioner Hanson, and he'll make sure it gets into the record
 19 so all parties can see that ex parte communication.

20 Does that make sense to you?

21 COMMISSIONER HANSON: It does.

22 CHAIRMAN JOHNSON: Lots of people have been e-mailing
 23 us. Even though it's not appropriate, we've tried to use
 24 disclosure to make it less inappropriate.

25 COMMISSIONER HANSON: That's a good way to phrase it,

1 less inappropriate. Thank you, Mr. Wade, for making the trip
 2 here to testify.

3 COMMISSIONER KOLBECK: I think the testimony you were
 4 referring to is -- I want to call her Myra (sic) but -- Kothari.
 5 That's probably what you're looking for.

6 Another thing is you spoke of a resolution by the WEB
 7 Water people.

8 MR. SMITH: I think it was by the South Dakota
 9 Association of Rural Water Systems.

10 COMMISSIONER KOLBECK: How would that -- or could that
 11 even come into our record if they were to -- you know, because
 12 the hearing subsequently could be over and it would be after the
 13 hearing. That's my question. How would we -- would that
 14 even -- I guess if they want it to be evidence, is it even
 15 possible?

16 CHAIRMAN JOHNSON: I think they're voting on it
 17 tomorrow. And since we've got newspaper articles and letters
 18 written on the back of barroom napkins, we've got everything on
 19 the website so I certainly think we can take notice of it and
 20 the --

21 MR. RASMUSSEN: Mr. Hohn will be prepared to address
 22 that. He'll be aware of what happens, and when he testifies
 23 he'll be able to tell you what they did.

24 COMMISSIONER KOLBECK: Okay. That's what I need to
 25 know.

1 CHAIRMAN JOHNSON: I don't want to misstate the record
 2 at all, but I think maybe earlier there was a question that was
 3 asked that maybe misstated the record. And, I don't know, I
 4 just want to make sure.

5 To my understanding, source water protection areas for
 6 community water systems are considered an unusually sensitive
 7 area and so are considered an HCA. That may not mean that every
 8 pipe is, but I think source water protection areas, we've taken
 9 judicial notice of some of the federal rules so I just would
 10 want to make that clarification.

11 MR. WADE: I don't know how many source water areas
 12 there are in South Dakota for rural water systems. I don't
 13 know.

14 MR. SMITH: I think by definition under the federal
 15 rule if it meets those criteria, it is one. The problem is then
 16 it gets down to a question of adjudication of whether it is or
 17 not. And although we don't necessarily have the ability here to
 18 make that decision, you know, it's important to us if there
 19 are -- if there are areas that should be HCAs and haven't been
 20 so designated, that's an issue we're keenly concerned with.

21 Is that a fair statement, Commissioners?

22 COMMISSIONER KOLBECK: Very fair.

23 MR. SMITH: Any other questions, Commissioner Johnson?

24 I wanted to make one clarifying comment. I want to

25 make sure I didn't mislead with my comment about the setting of

1 bond and mining proceedings being adjudicatory. They are
 2 adjudicatory, but there is explicit statutory authority in the
 3 mining statutes that actually requires the Board of Minerals and
 4 Environment to establish a bond amount sufficient to cover
 5 reclamation. And that's not related really to you, but -- okay.

6 Mr. Koenecke, do you have --
 7 MR. KOENECKE: I just have one line of questioning.
 8 Thank you, Mr. Smith.

9 RECROSS-EXAMINATION

10 BY MR. KOENECKE:

11 Q. Mr. Wade, if you'll recall, you testified about difficulty
 12 in finding water leaks?

13 A. Sometimes they are difficult.

14 Q. And I can appreciate that. Have you ever looked for a
 15 crude oil leak?

16 A. Never.

17 Q. It occurs to me, and correct me if I'm wrong, that there
 18 would be difficulty in finding a water leak because there's
 19 water around and water is water. If you find -- let me rephrase
 20 that.

21 If you find water on the ground or elsewhere, you don't
 22 know whether that water came from the leak in your pipe or
 23 elsewhere. Am I correct?

24 A. Right. When there's water around, that's correct.

25 Q. Do you have oil wells in Marshall County?

1 A. Not that I know of.

2 Q. Follow my line here. If we found crude oil in Marshall
 3 County, we'd pretty well know where it was coming from?

4 A. I hope so.

5 MR. KOENECKE: Thank you. Appreciate it.

6 MR. SMITH: Thank you, Mr. Wade, and I think you may
 7 step down.

8 MR. WADE: Thank you.

9 MR. SMITH: Commissioners, do you feel it's time for a
 10 brief break, or do you want to forge ahead?

11 CHAIRMAN JOHNSON: Do you mean a break for the evening
 12 or --

13 MR. SMITH: No. No. I think we should keep going.

14 CHAIRMAN JOHNSON: If the parties are open to it, I
 15 sure would like to get at least one more witness in today.

16 MR. SMITH: Personally I wouldn't mind sticking and
 17 getting the whole list done.

18 CHAIRMAN JOHNSON: It would be nice to get us back on
 19 schedule because we've got a lot of information we want to get
 20 into the record.

21 MR. SMITH: It's now been two hours since the break
 22 and Cheri's had a long day and I'm just thinking a 10-minute
 23 break or so.

24 It's always your fault, but you're actually working
 25 over there. People get fatigued, and I think it's useful to

1 have a break. 5:15 we'll reconvene.

2 (A short recess is taken)

3 MR. SMITH: Thank you. We're reconvening after a
 4 break. It's about 20 after. The next -- I guess again I've
 5 asked and I don't know if there are other persons who are
 6 planning to leave town tonight and would like to -- that are on
 7 the witness list for today and would like to testify.

8 Is there anybody out there they're going to leave
 9 today?

10 I don't see anybody.

11 CHAIRMAN JOHNSON: Can we just see who we've got here?
 12 Ben Grote?

13 MR. HOHN: He's here. He just stepped out.

14 CHAIRMAN JOHNSON: Gene Cassels?

15 MR. CASSELS: I'm not here. I got tomorrow morning.

16 CHAIRMAN JOHNSON: We know John Sieh is here. I just
 17 wanted to get a feel for who we have in the audience.

18 MR. SMITH: Next on the list then is John Sieh. Let
 19 me ask you, Mr. Miller, are you here for the duration or at
 20 least tomorrow?

21 MR. MILLER: I'll be here tomorrow.

22 MR. SMITH: So I think what the Commissioners are
 23 thinking of is going until about 6:30 or so tonight, about
 24 another hour and 10 minutes. So we'll get as far as we can. I
 25 thought because Ms. Winkler has a conflict, that we would take

1 her first thing in the morning, and if we have to push you over
 2 until tomorrow, Mr. Miller, we'll try to get you on immediately
 3 thereafter.

4 MR. MILLER: That's fine.

5 (The witness is sworn by the court reporter)

6 MR. SIEH: I have a few maps that I'd like to pass
 7 out, if I may.

8 MR. SMITH: For the record, we'll enter that one, and
 9 we'll call his prefiled Sieh 2.

10 MR. SMITH: Go ahead, John.

11 MR. SIEH: Thank you very much. My name is John Sieh.

12 I live at 11 East Fourth Avenue, Groton, South Dakota. And I am
 13 chairman of the board of the Granary Rural Cultural Center.

14 You have a copy of my filed testimony, and I am not
 15 going to take time just repeating some of this material. I
 16 would just summarize and say that some of the items that have
 17 been mentioned here that happened in my youth was a long time
 18 ago. I'm not there to try to compete with the learned degrees
 19 that many of you have in this room but just to show a life
 20 experience here in South Dakota, which has been very fulfilling
 21 for me.

22 I would like to comment on basically the testimony of
 23 the folks at Marshall County pretty consistently. I haven't
 24 really heard any of them testify to anything that I wouldn't --
 25 after a lifetime of working in that area wouldn't say that was

1 accurate.

2 I think there's one clarification that needs to be

3 made. And this map --

4 MR. SMITH: Do you need a copy back for yourself,

5 John?

6 MR. SIEH: Yeah. Okay. What I'd like to clarify a

7 little bit, if you'll see where Tacoma Park is, Tacoma Park is a

8 famous historical place on the James River just a -- 3 miles

9 from there is the Granary Rural Cultural Center.

10 Our tree claim homestead is across the road from the

11 granary, and it had been in our family for many, many years.

12 What I want to clarify is the testimony was very

13 interesting but for you that aren't familiar with the soils and

14 the way that country lays, there's a tremendous slope off of the

15 hills area, the coteau area. And lots of things change.

16 Where Lillian's testimony was right on the mark, and

17 I'm sure was accurate for their farm, as you move towards the

18 River you run into a different situation. And I want to bring

19 that to your attention.

20 The closer you get to the James River, which was the

21 old -- pretty much the old channel of the River that was formed

22 after the glacier left us many thousands of years ago, the sands

23 became clogged with fine silt. And the only water source pretty

24 much in general -- I think I'd have to talk in general terms,

25 which I discussed in my testimony, is that we can't get shallow

1 water. That's why we're so dependant on BDM. We just can't get

2 it.

3 We can get it. I have to be careful here because I

4 know you folks are all very learned, and I don't want to talk in

5 generalities and make some errors. You can go down 20 feet in

6 our area and hit water. But it's in quick sand. And you dig a

7 well 10 feet in diameter, and it isn't going to last because the

8 quick sand moves in.

9 Just 3 or 4 miles away at Putney, South Dakota, which

10 you've probably never heard of, it's a ghost town now, we can

11 put a tubular well down, say, 80 feet or something like that,

12 and they get an abundance of water, just an abundance. It's

13 cold but it's hard and it's -- it's got so much mineral content

14 that it's really not a satisfactory -- people that have got it

15 love to have the water.

16 We tried to drill wells at our location, tubular

17 wells, and we couldn't find any. We're too close to the

18 Jim River. You can't find them there. Those sands way below

19 are filled with whatever material it is that keeps the water

20 from coming into the well.

21 Our only alternative -- and this was a Godsend on the

22 early years because the shallow wells in this particular area

23 that I'm talking about didn't -- weren't working. The artesian,

24 the old Dakota sandstone artesian, came into focus. And I speak

25 about that here in my testimony.

1 My dad drilled one in 1902 on our farm, and it lasted

2 for years. And the water -- there's plenty of water there. It

3 just corrodes. The pipes last so long. If it had been copper,

4 it would have lasted longer. It wasn't. It was iron pipe. We

5 drilled a second one because we tried to find some other source.

6 There just isn't any other source there. I mean, we spent a lot

7 of time and effort, my neighbors did.

8 So we had artesian water. And this was great. I have

9 a very good friend, friends down at Ideal, South Dakota and

10 Tripp County, they've got artesian water, and it's actually

11 worse than ours, if that's possible. But our water was salty.

12 It was the kind of water if you -- people come to visit you and

13 it was a hot day, you didn't dare give them ice water or all

14 kind of bad things were going to happen.

15 So in this area that I'm talking about, this area

16 that's covered by this map, everybody had some kind of a water

17 problem. And BDM came along and provided good, clean drinking

18 water.

19 I don't want to go into the medical things. I mean,

20 they're just things that we experienced. But we ended up

21 distilling drinking water, bought an electric distiller. And

22 that was our -- a lot of people in Spink County did. A lot of

23 those were purchased. And if you ever wanted to have a

24 headache, you wanted a home distiller. You're going to have to

25 buy lots of vinegar, and you're going to have to clean it every

1 time. And the stuff that comes out of that is yellow. You

2 wouldn't believe what comes out of that water once you distill

3 it. It's unbelievable.

4 In 1974 -- and I want to get into this just a little

5 bit, but I was elected as a rural representative of the Oahe

6 Conservancy Subdistrict Board. And in general the district's

7 mission was to deal with water resources and conservation

8 issues, as well as the district had the contract with the

9 Bureau of Reclamation as a local governing body to plan and

10 operate a vast irrigation scheme known as the Oahe Irrigation

11 Project.

12 And I need to paraphrase some of this. But I'm kind

13 of reminded of the ordeal you gentlemen are going through in the

14 PUC here, listening to all the testimony from all the different

15 people with all the different interests. And I think you've had

16 a remarkable patience and fortitude in doing it, and you've

17 given everybody that needs to testify and wants to testify an

18 opportunity to be heard and put on the record. That's

19 wonderful.

20 I also have experienced and gone through what you're

21 going through. We held seven -- we held I think it was seven or

22 nine public hearings on the Oahe Irrigation Project. And I

23 mean, we had to hold them sin auditoriums. We didn't need the

24 State Police out there. We just had so many people there that

25 nothing much could happen.

1 But I'll never forget the land acquisition hearing at
2 Blunt, South Dakota. It's an experience that I think is worth
3 telling here.

4 The gymnasium was packed with people. The whole issue
5 was how were people treated in land acquisition. And without
6 going into any of the details of how they were treated, we
7 called and put -- there was a big controversy whether we had the
8 authority to put anybody under oath. Finally the lawyers all
9 agreed, or I guess we did -- or at least we could put them under
10 the oath. That was a big thing. Could we put -- thank God you
11 have the authority to put people under oath so things go on the
12 record, the official record.

13 Well, everything went on the record, but as we were
14 arguing about whether this oath -- we were asking the head of
15 the Bureau of Reclamation to take an oath to tell the truth. He
16 gets up in front of a gymnasium packed full of landowners, and
17 he said, I don't need to take the oath because we always tell
18 the truth.

19 And what bothered me and almost brought -- got an
20 emotional response from me was that the people laughed. And I
21 thought what a horrible thing for a high government official to
22 be laughed at. Because that was how they felt, I guess. But
23 the legislature picked up on a number of the themes. And then
24 later by statute they formed an investigative body. And each
25 house of the legislature appointed certain people to be on it.

1 And we went through the same thing again. This time we had
2 legislators helping us review this project.

3 And when that was completed we had all come to the
4 conclusion -- and, as a matter of fact, pretty much I would say
5 the legislature was unanimous in their conclusion, but enough
6 support that the contract didn't get taken away from us. And
7 that was what was -- they said, well, this board is a runaway
8 board, and they're holding all of these hearings trying to get
9 this information. And we don't like their conclusions that
10 they're going to come to.

11 But in the end the legislature backed us up. And
12 because of the myriad of issued, drainage, all kinds of
13 different issues, costs, the scheme was dropped. It was decided
14 it was a bad project.

15 Now what you guys are going to eventually come up
16 with, I don't know. It's going to be interesting to see how
17 this all works out.

18 One of our first priorities when we were elected on
19 that board -- and this is interesting because today you had
20 testimony from some of the witnesses and they used maps, soil
21 maps. Well, we thought the first thing you needed was a lot of
22 information. It's kind of what you guys are trying to do here.

23 And so we contracted with the federal and state
24 geological survey agencies and partially funded -- the district
25 partially funded -- we didn't have enough money to fund it

1 totally, but we got some federal grants along with it. And we
2 had underground water surveys done in Brown, Day, Marshall,
3 Spink, and Clark Counties. We started some of this work in
4 1974.

5 And you don't know how it made me feel good to see
6 some of these maps come out because you need some real
7 information. You guys needed to know about this aquifer and
8 these soils up in Marshall County. You really can't just take
9 my word for it because I say it's such and so. But you needed
10 some expertise that had some real substance.

11 We hired a domestic water coordinator because at the
12 end of our hearings we had come to the conclusion that after
13 listening to all the testimony that we heard over 15 and a half
14 counties -- this wasn't the whole state -- that what the people
15 needed and wanted and desired was good, clean drinking water.

16 And then we hired a domestic water coordinator. And
17 this young man was very capable, eventually became the general
18 manager of the Clark Rural Water System, very successful water
19 system. And he helped the people at Clark. He helped the
20 farmers in Marshall and Brown County that were trying to get BDM
21 started. He assisted the WEB committee in the preliminary work
22 to get that thing organized.

23 And so we ended up with some major changes. Up to
24 that time our -- it seemed like the state agencies and the press
25 and a lot of the good folks over in our chamber of commerces

1 thought that irrigation was the answer. And if you weren't for
2 irrigation, you were somehow against water development.

3 At that point things kind of changed. Because it was
4 evident to just about everybody that we needed a change in
5 direction. The Congressional delegation and all of those guys,
6 a lot of them aren't in office anymore. They were all involved.
7 And they got a lot of these projects funded all over the state.

8 You look at the map -- and I don't have it here. I
9 really should have it. But I'm sure some of the people in the
10 water systems will show you maps of all the different water
11 systems and how they covered this state and how important they
12 are.

13 So why am I so concerned? Why am I so upset that I
14 would drive down here and give you guys this testimony? Well,
15 I'm concerned because I am concerned that unless this plan is
16 changed, I am concerned that if TransCanada is allowed and gets
17 a permit to build this system according to the location they've
18 got now, that we could have very, very, very serious
19 repercussions.

20 I would guess that I'm not the best witness on this,
21 but I think that I heard one of the -- well, I think it's a
22 question that maybe we need to ask these rural water systems,
23 how much would it cost -- because I've heard it lately said,
24 well, WEB could furnish the water for this BDM system. And the
25 estimates that I've heard is, yeah, for \$20 million and they

1 couldn't do it tomorrow.

2 I mean, people drink everyday. You get feedlots. You
3 get a lot of our economy tied up in need for good water. We've
4 got two -- I guess it's three plants that are talking about
5 making bio diesel up in that area. Webster, a little one at
6 Aberdeen, and some others. They need water.

7 We've got five ethanol plants that WEB is serving.
8 This is development, guys. This is creating a lot of economic
9 activity. So if something would happen to those systems, I
10 don't know how we could ask TransCanada and they could say,
11 well, we'll deal with it.

12 Well, I really don't know how they'll deal with it.
13 If there was a major spill in this aquifer we've been talking
14 about this afternoon, if there was a major spill that affected
15 some of the WEB lines and some of the other lines along some of
16 these other counties, how do you deal with that? And then who
17 pays for it?

18 I don't want you to think that I'm picking on
19 East River. I am sorely disappointed that they didn't be the
20 good neighbors they've always been on everything else on this
21 one because they're good businessmen. They're well managed.
22 They've got an excellent safety record. They've got good people
23 running the place.

24 But as good businessmen when -- and they have a
25 duty -- let's kid ourselves. If the line is built, if this is

1 built, gentlemen, I'm not going to tell East River they
2 shouldn't service your electricity. That's their business. So
3 we're not arguing about that.

4 What we're concerned about is financial
5 responsibility. Now let me try to explain it this way. East
6 River is a good business outfit. When they buy electricity or
7 sell electricity to Lake Region or to Northern Electric or any
8 of the REAs in the state, they know where to send the bill.
9 Believe me, they know who to send the bill. They know who's
10 general manager of that cooperative. They know that that
11 cooperative is financially responsible. And they know that
12 they're going to be able to collect it.

13 And as a member, I guess, of East River and of these
14 cooperatives, I guess I'd have to agree. They should be able to
15 collect it.

16 CHAIRMAN JOHNSON: Mr. Sieh, I hate to interrupt you,
17 and please continue to talk about whatever you want. I just
18 might mention I think we've learned a lot more about East River
19 and the Oahe Project and some other things in the last
20 20 minutes.

21 From your direct testimony I saw you had some very
22 interesting and insightful thoughts on this project. And I
23 think it might be of great help for the Commissioners for us to
24 focus on the proposed pipeline.

25 MR. SIEH: Okay. I would agree. And I apologize if I

1 wandered and spent too much time on some of those peripheral
2 things. I would just like to conclude my point is that the
3 farmers, the rural water systems, anybody that would be affected
4 by a problem of a leak in this pipeline should be able to know
5 where they can go and get compensation. It shouldn't be
6 somebody's word. That isn't business. You don't do business
7 that way.

8 I mean, when you sell something to somebody, you
9 expect to be paid. And I'm concerned that unless we have some
10 kind of a bonding or some kind of a checkoff of per barrel
11 arrangement that will provide a fund -- and maybe it's going to
12 take the legislature to do that. So be it. If we've got to go
13 to the legislature, I thought perhaps you gentlemen might have
14 the legal power to impose some sort of financial responsibility.

15 I'm not a lawyer so I don't know what the answer to
16 that is. You're the ones that are going to have to figure that
17 out. But if it isn't able to be done here, I don't think we've
18 got any choice but to go to the legislature and impose some sort
19 of a fund that isn't controlled by TransCanada or any oil
20 company but controlled by our own people or our own taxpayers,
21 our own townships, our own fire departments, our own cities, our
22 own highway department or State Department can go to this fund
23 and get compensation to take care of any damage that comes
24 along.

25 Now we're talking turkey. Before that we're just kind

1 of talking in a lot of suppositions. And I don't think it's the
2 real talk that hard-nosed South Dakotans understand. I think
3 you've been very patient. And I think I've talked probably too
4 long but thank you and if there's any questions I'd be happy to
5 try to answer them.

6 MR. SMITH: Thank you, Mr. Sieh. At this point in
7 time would you like to offer your prefiled testimony as
8 evidence?

9 MR. SIEH: Yes, please. And the map.

10 MR. SMITH: The map, both of those. Any objection?

11 MR. KOENECKE: No objection.

12 MR. RASMUSSEN: No objection.

13 MR. HOHN: No objection.

14 MR. SMITH: Sieh Exhibits 1 and 2 are admitted. And
15 with that, we'll tender Mr. Sieh for cross-examination.

16 MR. KOENECKE: I have no cross-examination of
17 Mr. Sieh. Thank you.

18 MR. RASMUSSEN: No questions.

19 MR. SMITH: Mr. Hohn.

20 MR. HOHN: I have a couple of questions.

21 CROSS-EXAMINATION

22 BY MR. HOHN:

23 Q. Mr. Sieh, you were here and present I believe when
24 Lillian Anderson testified?

25 A. Yes, I was.

1 Q. Did you hear her testimony regarding the Crow Creek
2 drainage?
3 A. Yes, I did.
4 Q. And are you familiar with the Crow Creek drainage?
5 A. Well, yes, I am. Our farm is a half a mile -- well, it's
6 about a mile from the confluence of the drain and then into the
7 River. And I -- as a farmer many years ago I was chairman of
8 the -- what they call the Crow Creek Improvement Association.
9 And that was the forlorned hope that we had at that time that
10 somehow we could reclaim some of those old lands and farm it.
11 Now maybe that wasn't environmentally sound or prudent, but
12 that was our intention. And then mother nature came along with
13 these wet years, and we abandoned that effort.
14 Q. Well, Mr. Sieh, your farm looks to be based on the map you
15 submitted 40 miles or more from the Britton area?
16 A. Yes, sir. Actually about 40 miles from where our farm home
17 was. I do not live there now. My daughter lives there now.
18 Q. The granary and the farm site. The Crow Creek drain that
19 Mrs. Anderson was referring to, and I think I see a copy of that
20 map sitting on the table, is that a formal drainage district, a
21 legal drainage district?
22 A. Well, it is, and it isn't. I don't know else how to answer
23 it.
24 Q. Let me rephrase the question. Is that straight line you
25 see on the map that's marked Crow Creek Drain, that's a manmade

1 ditch; is that correct?
2 A. The Crow Creek Drain is a manmade ditch, and it was ordered
3 by a judge -- I can't remember the year but back in 1918 or in
4 that era and it was dug with a floating dredge, if you can
5 believe that, and it goes up to the -- within a mile of the
6 county line of Brown County and Marshall County and stops
7 because big controversy.
8 Then Marshall County developed their own and extended that
9 drain.
10 Q. And that drainage that Mrs. Anderson was referring to, that
11 Crow Creek Drainage District, manmade district, actually dumps
12 water into the James River; is that correct?
13 A. Yes, sir. And let me add one thing. Last summer in that
14 area, the area around Aberdeen and Columbia and into
15 North Dakota, got really dry for a period of time before you had
16 the flood, Mr. Rasmussen, over in Aberdeen. It got really dry.
17 The Fish & Wildlife that operates Sand Lake drained the lower
18 part of Sand Lake because it was an opportunity for them to do
19 some studying of wildlife. They had the water dammed up on the
20 other side.
21 So what we had was no water, zero water coming down the
22 James River from North Dakota. Guess what? The river flowed
23 probably -- my best estimate would be from 200 to as high as
24 400 CFS all summer long, all fall, and it's still flowing. And
25 it all comes from this area you're talking about in Marshall

1 County.
2 Q. So just for clarification, the waters that Mrs. Anderson
3 was saying come out of the coteau hills, drop 400 feet or so and
4 go through her property and reach this manmade drainage district
5 eventually will flow through Brown County and reach the James
6 River; is that correct?
7 A. Well, that's correct. But I don't want to mislead anybody.
8 When it hits the western end of Marshall County and it starts to
9 get into Brown County, yeah, the ditch, you can see the water
10 just ripping down the ditch. But also you'll see it spreading
11 out all over, just over thousands of acres.
12 Q. And I just have one last question for you then on this
13 issue. You were in a official position as a farmer on the
14 James River and Brown County working with farmers in Marshall
15 County that ran this drainage district that drained toward you.
16 So you were associated with it for years.
17 In your opinion as a layman and a landowner and person
18 involved in that drainage district, in your opinion if there
19 were a major oil spill in the area where Mrs. Anderson was
20 referring, between Britton and Amherst, eventually do you think
21 that oil would reach the James River?
22 A. If there was -- you said a major oil spill. If it was a
23 major oil spill, it would come down there like a chute.
24 MR. HOHN: No further questions.
25 MR. SMITH: Questions by any other Interveners? Not

1 seeing any hands.
2 Staff, do you have any questions?
3 MS. SEMMLER: None. Thank you.
4 MR. SMITH: Commissioners, do you have any questions
5 of Mr. Sieh?
6 You may step down then, Mr. Sieh. And thank you very
7 much.
8 THE WITNESS: Thank you very much.
9 (The witness is excused)
10 COMMISSIONER KOLBECK: Thank you, John.
11 MR. SMITH: I think the next person on the list who
12 hasn't yet testified is Ben Grote. And is he in attendance?
13 (The witness is sworn by the court reporter)
14 MR. GROTE: My name is Ben Grote.
15 MR. SMITH: Pull the mic up toward you.
16 MR. GROTE: My name is Ben Grote. I'm from Aberdeen,
17 South Dakota. Do you need to know anything else?
18 MR. SMITH: I don't think so. You filed prefiled
19 testimony; right?
20 MR. GROTE: I did.
21 MR. SMITH: I'm assuming we have your personal
22 information in there. Thank you. That's good enough.
23 MR. GROTE: All right. I guess, first of all, I'd
24 like to be clear that I'm not an expert on most of the subjects
25 that I have testified or talked about in my prefiled testimony.

1 I am testifying because I'm an extremely concerned
2 citizen, and I'm concerned because I, who am not an expert,
3 recognize much of the content of the EIS and the information
4 TransCanada is providing us as trivial, incomplete, and
5 unscientific, and I think this is a threat to South Dakota.

6 I'll kind of flip through my prefiled testimony and
7 just touch on some of the subjects that I've spoken about.

8 First I brought up mutations. And, of course, I'm not
9 an expert on genetics or genetic mutations. But I know that
10 they do happen. And I have seen nothing, nothing -- no
11 information from TransCanada. I think that it needs to be
12 mentioned.

13 Of course, it would be the chemical composition of the
14 oil which would pose a threat of mutations, and that information
15 has not been provided. I'm not sure why. I really, really
16 think it needs to be. I think it's funny that we're sitting
17 here and we're trying -- you know, we're trying to bring up all
18 of these environmental issues when all of the environmental
19 issues that we're talking about, most of them at least, most of
20 them come back to the chemical contents of the crude oil. Not
21 just mutations, all sorts of health issues.

22 You know, we can -- we can look at studies, you know,
23 provided from other people other than TransCanada, other than
24 the oil industry, and get a general idea of what is contained in
25 crude oil and the health effects, but not from them themselves.

1 And I think it needs -- it just -- it should be provided.

2 I'll tell you a quick story, personal story, personal
3 experience of mine, which I think relates. And that is a few
4 months ago my hair suddenly fell out. I was very concerned, of
5 course, and, I mean, like suddenly like within two weeks every
6 hair -- every hair I had was gone, and the doctors had a hard
7 time diagnosing this. I was tested for many things.

8 I had recalled an art professor of mine who had warned
9 me of the effect of some of the -- or not so much the effects
10 but just the dangers in general of some of the pigments that I
11 had been using in my art supplies. I'm an artist.

12 And so I went in right away into the doctor again to
13 be tested for these chemicals, five of them, by the way, which,
14 okay, first of all, to make my point first before I went to the
15 doctor like right away I grabbed the material safety data sheets
16 for my paints, which were available by the company.

17 I went to them, and I discovered through those
18 material safety data sheets that five of the chemicals in my
19 paints that I was using could potentially be the cause of my
20 hair loss. So I was tested, and luckily it was none of these,
21 but -- and I say luckily because the side effects of them were
22 pretty bad. And it turns out that my hair loss is no big deal.
23 So --

24 But the fact is is that it could have been these and
25 that that data was there. I would have been able to get that

1 data. I was able to get that data from the company, and it was
2 useful. It was useful. And it could have been even more
3 useful. It could have been life saving.

4 There are harmful chemicals in crude oil. We know
5 that. And there is the potential of a leak.

6 On organic farming, I'm an organic gardener. In the
7 summer of 2005 I lived on an organic farm sitting next to three
8 other organic farms in southern Minnesota so I have some
9 experience here.

10 People who eat organic foods are -- most people eat
11 organic food for health reasons. They're very environmentally
12 conscious people. They want to know where their food comes
13 from. Of course, if there's an oil pipeline underneath an
14 organic farm, that food will be devalued. I wouldn't want to
15 buy food from an organic farm who's growing over a pipeline
16 personally, and I think many organic consumers would share that
17 view with me. So that land's devalued.

18 Of course, potentially any one of these farmers could
19 at some time decide that they want to farm organically, and they
20 could do that. You know, there's a three-year period where you
21 cannot treat your soil with whatever and whatever and so on. I
22 don't need to get into that. But they can all do it if they
23 want to. And that -- that's -- that right's being taken away
24 from them.

25 I haven't heard the mention of organic farming

1 anywhere from TransCanada or in the EIS.

2 No drought-prone soils next I talked about here.
3 Let's see. I'll just say in the EIS it's been stated that no
4 drought-prone soils have been identified along the proposed
5 route. And I don't know exactly what this means, but, of
6 course, farmers deal with drought in South Dakota all of the
7 time. And the effects of the heat from this pipeline, which
8 there's admitted there will be heat, will have more impact on
9 the dryer soils than on the wetter soils.

10 I said that, but not necessarily I shouldn't say more
11 impact. Maybe more impact to farmers. Of course, water is a
12 better thermal mask than soil. I really wonder what this heat
13 will do to ecosystems of wetter soil, small ponds, sloughs,
14 whatever you want to call them, that this pipeline passes
15 through. There's a lot of life there that we can't see.

16 I've heard it said -- and I have nothing to back this
17 up, but I'm going to say it anyways. I've heard it said that
18 1 gram of soil you can -- a biologist can count up to 6,000
19 species of bacteria. Those bacteria play a role in the
20 composition of soil.

21 I've also heard it said that biologists -- some
22 biologists or a biologist, I'm not sure, estimates that in a
23 single ton of soil there might be up to 4 million species of
24 bacteria. That's just bacteria. These little things that we
25 can't see play a role in the composition of soil.

1 And I imagine that this will have an effect on
2 farmers. I'm not a farmer myself. In the EIS looking at, let's
3 see, the analysis of the effects of the pipeline operation on
4 winter and summer soil temperatures, I haven't found any
5 information outside of the EIS provided by TransCanada on this
6 subject.

7 Looking at this analysis, it absolutely has no
8 meaning. I'll just read one little piece of it here. "For the
9 lower operating volume -- for the lower operating volume soil
10 temperatures at 6 inches depth within 3 feet of the pipeline
11 center would be elevated by less than 5 degrees Fahrenheit in
12 early March."

13 And you know what? I think that is supposed to be
14 Celsius. You can check me on that. But I have Fahrenheit here.

15 That means nothing to me because this EIS is a
16 statement which is looking at the entire United States. Of
17 course, southern United States' soils temperatures in March are
18 normally going to be warmer than northern. And depending on
19 what year and when the study was done, I mean, it means nothing
20 to me. Because it could be -- the soils could be at --
21 whatever. You understand.

22 I think farmers should have this data in front of them
23 and be able to discern for themselves the effects and look at
24 this and then go to professionals outside. Because, of course,
25 we should be skeptical of the data provided by TransCanada, by

1 the oil industry. We just -- it's just -- you should be
2 skeptical of any one study. Not just down on the oil industry.
3 You should be skeptical of any one study. You should be able
4 to -- science looks at study and compares it to study and study
5 and study and study. It's the accumulation of knowledge. It's
6 not one person's opinion.

7 I'd like to say one thing about BDM mentioned -- I
8 forget his name, the man speaking for BDM. He mentioned these
9 rubber gaskets. I know from experience -- I was a -- my dad
10 owns a commercial roofing company. I've worked with him for
11 10 years. I know from experience that rubber -- we call it
12 balkanizing on the roof. I don't know technically if it's
13 balkanization, but when we spill gas -- we use gas we use oil on
14 these rubber roofs.

15 When you spill gas or motor oil on these rubber roofs
16 and let it sit there for a couple of seconds -- I mean, if you
17 notice you spilled something, you have to wipe it off right
18 away. Otherwise, we're going to have to replace that section of
19 roof because within, yeah, less than a minute -- I would say
20 seconds. Within seconds that rubber will bubble up.

21 Of course, this is only like, you know, 60 millimeters
22 or so. And the quality of rubber makes a difference, but it's
23 rubber. And I don't -- I'm sure crude oil would do something
24 very similar. I think that needs to be looked into.

25 So if the oil pipeline is built, I really want to see

1 it built safer. But I have to admit the real reason I'm here is
2 because I want to see an end to oil all together. And I want us
3 all to stand up and adopt new technologies and really work on
4 this. And actually I think that this is -- it's going to happen
5 soon. Things -- you know, look over the last 100 years what has
6 happened. And I think we're really ready for this. I think the
7 people of the United States are ready for this. The people of
8 Canada are ready for this. And it's going to happen. And I
9 really wonder in 50 years if this pipeline will at all be
10 needed. And what will happen with it then?

11 And, of course, if that happens and it is in the
12 ground, we want it removed safely. And I'll end there. Thank
13 you.

14 MR. SMITH: Thank you, Mr. Grote. And at this point
15 would you want to offer your prefiled testimony formally into
16 evidence?

17 MR. GROTE: Yes.

18 MR. SMITH: Thank you. And Cheri will just label that
19 Grote 1. I have a copy I can make available.

20 Mr. Koenecke, please proceed.

21 MR. KOENECKE: I have no questions. Thank you,
22 Mr. Smith.

23 MR. RASMUSSEN: No questions. Did you want to admit
24 that?

25 MR. SMITH: Yes. I will admit that into evidence.

1 I'm getting tired. Thank you.

2 Reed.

3 Mr. Hohn, do you have questions?

4 MR. HOHN: I have one question.

5 CROSS-EXAMINATION

6 BY MR. HOHN:

7 Q. Based on your information and your study as an organic
8 consumer, would native grasses that had nothing but buffalo
9 grass, no cultivation, no fertilizers, no chemicals, would that
10 have more value in terms of the organic community consumer?

11 A. Yes. Yes. I would actually say yes and no. Because it
12 most definitely would in that if someone wanted to purchase a
13 piece of land like that or owned a piece of land on that, he
14 could immediately -- immediately begin to farm that and make it
15 profitable.

16 The reason I would say no is that because many organic --
17 most organic consumers consume organically because they have a
18 respect for the land, and they want to see it preserved. And so
19 as an organic consumer, I'm just going to speak for myself. I
20 would rather see that grassland preserved being that we don't
21 have that much of it left.

22 MR. HOHN: Thank you.

23 MR. SMITH: Any other questions for Mr. Grote? Is
24 that how you pronounce the name, by the way?

25 MR. GROTE: Grote. Yes.

1 COMMISSIONER KOLBECK: I would like to remind Mr. Hohn
2 whoever's cell phone rings brings donuts.
3 MR. SMITH: We'll remind you too that it rang twice.
4 CHAIRMAN JOHNSON: Mr. Grote, thanks very much.
5 MR. SMITH: Thank you very much.
6 (The witness is excused)
7 MR SMITH: The next person on the list is Mr. Gene
8 Cassels.
9 (The witness is sworn by the court reporter)
10 MR. CASSELS: This is going to be short and sweet. I
11 own land on the line going to Farmington Township in -- and I
12 think the line is coming down along the east of that. And it's
13 a whole slough that runs down there. And it goes completely
14 down.
15 One of the problems is that it -- it goes south with
16 the water. It's plumb full. And it runs south. And it goes
17 over east of Groton, South Dakota and down south into what they
18 call Mud Creek and then into the Jim River. And they're going
19 to have some problems with that because of the -- of all the
20 stuff that's there.
21 For instance, I don't know where the Game & Fish has
22 been, but this place is just full of deer and ducks and geese
23 and every other thing. No pheasants. I don't know. They must
24 have went west. I don't know if this is going to work out or
25 not, but it looks to me like there's a problem here on this

1 because if they come in and go down the road next to it and you
2 get an oil spill or whatever, I don't know if you're ever going
3 to get back.
4 And the other thing is you've got a letter here that
5 says South Dakota Public Utilities, December 4, 2007. And I
6 don't know where this come from, but it says, Whereas
7 Canadian -- Canada Keystone oil pipeline is currently planned to
8 run through Marshall County South Dakota;
9 Whereas, Marshall County is concerned with the
10 possibility of pipeline spills and their subsequent cleanup and
11 costs;
12 Whereas, Marshall County is concerned with damage done
13 to private and county property during construction of the
14 pipeline and the restoration of private and county property back
15 to their original state after construction of the pipeline;
16 Whereas, Marshall County is concerned with the
17 continued liability in the event of any subsequent sale of the
18 pipeline -- and it goes on.
19 Marshall County is concerned with the continued
20 maintenance of the pipeline including removal plans, if any,
21 after the pipeline is turned off;
22 Whereas, Marshall County has received no assurances
23 relating to the above concern.
24 And, therefore, it be resolved by the Marshall County
25 Board of County Commissioners, unless the above-stated concerns

1 are resolved, the Commissioners will oppose the construction of
2 the TransCanada Keystone Pipeline through Marshall County.
3 And you guys have had this. And it's South Dakota
4 Public Utilities Commission.
5 Now I don't know if this is all going to come about
6 now since -- it's just a hard thing to know where it comes down
7 the road. The road is just, I'd say, about 2 miles under water,
8 which is a long ways to go that far. And on the east side of
9 Marshall County there's going to be a big pile of mud and water.
10 And I really don't see -- I haven't driven down there
11 for I don't know how long, especially this last year when we got
12 10 inches of rain. And so I really don't know what the deal is
13 going to be in the end of this. And I think that -- I don't
14 know that this -- this thing is -- I'd say they could do better
15 if they went someplace else, but I don't know. It doesn't look
16 like it's going to be that way to me.
17 I'd appreciate it if it did, but if it isn't, we'll
18 have to go by that. And I don't know if they're going down --
19 it goes down clear over a section of water, and then it
20 continues on. And the stuff goes across the road, and that's
21 when it goes into Groton and down Mud Creek. And it could be a
22 lot of pollution there.
23 I guess that's about all I've got to say. It's
24 getting late, and we'll go from there.
25 MR. SMITH: Thank you, Mr. Cassels. At this point

1 would you want to offer your prefiled into evidence?
2 MR. CASSELS: Yeah.
3 MR. SMITH: We'll have the reporter mark that. Also
4 would you like for that resolution that you read to be an
5 exhibit to your testimony?
6 MR. CASSELS: Yep.
7 MR. SMITH: Do you want to just give that to the
8 reporter then and she can mark it and it will be an exhibit in
9 the case.
10 Well, wait a minute. If you're offering it, first
11 I'll ask whether we have objections.
12 MR. KOENECKE: I'd like to see the resolution. And
13 I'd like to --
14 COMMISSIONER KOLBECK: The resolution's on the
15 website.
16 MR. CASSELS: They've got it. I'll show you this.
17 MR. SMITH: It's been filed with us by the County
18 Commission. But you can go ahead and look at it. It just came
19 in yesterday.
20 MR. KOENECKE: Yeah. I would like to look at it.
21 Thank you.
22 (Mr. Koenecke examines document)
23 MR. KOENECKE: Very well. No objection.
24 MR. SMITH: Objections from anywhere else?
25 MR. RASMUSSEN: No objection.

1 MR. SMITH: Hearing none, Mr. -- gosh, I'm tired.
 2 Mr. Cassels' Exhibits 1 and 2 are admitted.
 3 I'm going to say we've had enough for one day.
 4 MR. KOENECKE: I haven't had enough. I'd like to ask
 5 Mr. Cassels a few questions.
 6 MR. SMITH: I'm sorry. I forgot all about that. I
 7 need to tender you for cross-examination now by the parties.
 8 That's how tired I am. I apologize.
 9 CHAIRMAN JOHNSON: Perhaps we need a substitute
 10 Hearing Examiner. If we're subbing out, get a substitute
 11 Commissioner.
 12 MR. SMITH: We've been here a long time. I do
 13 apologize, Mr. Koenecke. Please proceed with your
 14 cross-examination.
 15 MR. KOENECKE: It's not necessary. Thank you,
 16 Mr. Smith.
 17 Mr. Cassels, thanks for staying here tonight. I've
 18 got just a couple of questions.
 19 CROSS-EXAMINATION
 20 BY MR. KOENECKE:
 21 Q. If you could look at your written testimony, third
 22 paragraph, second sentence, second word, would you tell me what
 23 that is, please? I just cannot figure that out.
 24 Third paragraph of your handwritten testimony --
 25 A. Whereas, Marshall County --

1 Q. No, sir. Your handwritten testimony that you offered in
 2 this matter. Have you got a copy of that? I'm sorry. I
 3 thought you had that up there.
 4 The third paragraph, second sentence, second word.
 5 A. "They say that their pipeline will not leak oil into the
 6 ground"? Is that the one you want?
 7 Q. That's the first sentence. Keep going. If you'd read that
 8 whole paragraph for me, I'd appreciate it.
 9 A. I can't even read my own writing.
 10 Q. Well, I feel better now because I couldn't either.
 11 A. "Will go into the land and then ruin the land for many
 12 years if they apply eminent domain condemnation" --
 13 Q. You don't need to finish reading. I just wondered -- you
 14 said the what will go into the land and ruin the land for many
 15 years.
 16 A. It's lead something or other.
 17 Q. I see.
 18 MR. SMITH: Is it lead or leak? Leakage?
 19 THE WITNESS: Take your pick.
 20 MR. SMITH: Okay. Thank you.
 21 MR. KOENECKE: Thank you.
 22 A. Leakage it is. Leakage.
 23 Q. My second question is do I understand you're a landowner
 24 along the line?
 25 A. Yeah.

1 Q. Could you tell me where that is?
 2 A. Yeah. It's -- let me see here.
 3 Q. Do you have a mile post reference or a section and
 4 township?
 5 A. Well, I'll show you.
 6 Q. Okay. Thank you.
 7 (Discussion off the record)
 8 THE WITNESS: I have one more thing. While they're
 9 looking can I do that?
 10 MR. SMITH: Please.
 11 THE WITNESS: This from the Argus Leader. The
 12 Marshall County Commissioners have told the Public Utilities
 13 Commission they want no part of the proposed Keystone Pipeline
 14 unless the PUC has a plan in place dealing with cleaning up
 15 spills, restoring private property disturbed during pipeline
 16 construction, maintaining a clear chain of liability if the
 17 pipeline is sold, and ensuring the line is properly maintained
 18 during its lifetime and removed at its conclusion.
 19 The Commissioners wrote the stipulation and a
 20 resolution passed November 27. It was received by the PUC and
 21 filed on its website. The PUC this week is holding hearings in
 22 Pierre, and TransCanada plans to convert a natural gas pipeline
 23 across Canada into crude oil pipeline and extending it to other
 24 south -- into the U.S. to serve oil refineries in Illinois,
 25 Missouri, and Oklahoma.

1 MR. SMITH: Okay. Thank you. That one's probably
 2 subject to the best evidence rule, which I think we have, which
 3 is the resolution itself.
 4 Mr. Koenecke.
 5 Q. Mr. Cassels, have you granted TransCanada an easement to
 6 cross your land?
 7 A. No.
 8 Q. Have you been approached about giving an easement?
 9 A. No. Yeah. I've been approached about seven times. And
 10 the first one was the lady came to our house.
 11 MR. SMITH: Can you talk into the microphone, please.
 12 A. First the lady came to our house about seven times. I
 13 counted them. And but in there someplace she came in and tried
 14 to get us to sign up.
 15 And later on one thing I seen about TransCanada was that
 16 they said if you had any -- if you had any things that you
 17 wanted to ask, they had two 800 numbers. And so I decided I was
 18 going to call up to Canada. And I called up there and nothing
 19 rang in their 800 number and then nothing rang in the second 800
 20 number.
 21 And then I stopped, and I tried to get them again.
 22 Nothing. I don't know why they said they wanted people to go to
 23 this and not even answer the phone, not even let it ring. I
 24 thought that was not very well.
 25 Q. Mr. Cassels, if I understand correctly, you own land in

1 Section 6 and Section 7.
 2 A. Yeah.
 3 Q. Of 124 North, 59 West.
 4 A. That's correct. And on the east side that -- that is all
 5 under water next to the --
 6 MR. SMITH: You'll have to talk into the mic there
 7 kind of.
 8 Q. I'm looking at a map of the corner of Marshall, Day, and
 9 Brown County.
 10 Can you see where I'm pointing at with my pen?
 11 A. Yeah.
 12 Q. It's map 2, a soil map found in Exhibit 1 -- or Exhibit A,
 13 I believe, excuse me.
 14 A. Yes. It's where three counties meet. Right there. Now if
 15 this is the thing it goes down like this --
 16 MR. SMITH: Again, you guys have got to talk into the
 17 mic because the reporter can't hear otherwise.
 18 Q. You'd agree with me, Mr. Cassels, that this I'm pointing to
 19 in the corner of Day, Brown, and Marshall County is Section 6;
 20 right?
 21 A. Yeah.
 22 Q. And 7 would be right below that to the south?
 23 A. Yeah. Go ahead.
 24 Q. Can you point on this map and draw an X where your property
 25 is?

1 A. Well, it's right here (indicating).
 2 Q. Right there in the corner of Brown, Day, and Marshall
 3 County?
 4 A. Yeah.
 5 Q. And if I told you that the pipeline is proposed to cross
 6 about 3 miles east as drawn on this map, would you agree that it
 7 doesn't cross your property?
 8 A. That's right.
 9 Q. Okay. Very good. Thank you. I'll let you have these maps
 10 back.
 11 THE WITNESS: So I guess that's all I've got to say.
 12 MR. SMITH: One second. I've got to allow the other
 13 people here to ask you questions too, if that's okay, sir.
 14 Mr. Rasmussen.
 15 MR. RASMUSSEN: I have no questions.
 16 MR. SMITH: Mr. Hohn.
 17 CROSS-EXAMINATION
 18 BY MR. HOHN:
 19 Q. Mr. Cassels, you said the land agent came to see you seven
 20 times?
 21 A. Yeah. Called seven times.
 22 Q. Attempting to secure an easement?
 23 A. Yeah.
 24 Q. Do you remember what you told her that resulted in them
 25 deciding to move the line away from you? Because if you

1 remember, you should sell that.
 2 MR. HOHN: Thank you very much.
 3 MR. SMITH: Any other questions of Mr. Cassels?
 4 MS. SEMMLER: None. Thank you.
 5 MR. SMITH: Commissioners?
 6 CHAIRMAN JOHNSON: I don't have any. Thanks.
 7 COMMISSIONER HANSON: Thank you very much.
 8 MR. SMITH: You're excused, Mr. Cassels. Thank you
 9 very much, sir.
 10 (The witness is excused)
 11 MR. SMITH: Okay. We're at the point where we said
 12 we were going to conclude for the night. And, you know, the
 13 Chairman here, Chairman Johnson, wondered if there are any
 14 other -- I don't know how to say this gracefully but just
 15 ordinary citizens out there who prefiled who are parties and who
 16 want to get it over with tonight -- I think, Mr. Miller, yours
 17 is a little too technical --
 18 CHAIRMAN JOHNSON: Let me just put it this way.
 19 Having reviewed Mr. Moeckly and Mr. Miller's testimony, I think
 20 that could be subject to cross-examination. I think there are
 21 some issues in there that we may want to dive into that may take
 22 more time than we have available.
 23 Now is there anybody else here that has filed
 24 testimony who may want to go? Sir --
 25 UNIDENTIFIED SPEAKER: Just a bystander listening.

1 CHAIRMAN JOHNSON: Is anybody else in the audience
 2 planning to testify tomorrow or the next day? Because if so, we
 3 might as well take you now.
 4 Sir, did you -- no? Okay.
 5 MR. SMITH: I think we're done for the night. I don't
 6 know what you think, Mr. Miller, but I'm suspecting yours is
 7 going to be -- yours is pretty technical and is going to
 8 involve -- I think we'd be better off with all of us being fresh
 9 when you testify.
 10 Do you guys agree with that?
 11 MR. KOENECKE: Yes, we do. Thank you.
 12 MR. SMITH: Okay. Reed, do you think that's
 13 reasonable?
 14 MR. RASMUSSEN: Yes. That's fine.
 15 MR. SMITH: Okay. I think we're going to stand in
 16 recess then. We're going to recess for the night, and we will
 17 reconvene at 8:30 in the morning. So we'll see you all then and
 18 thank you very much for your patience today.
 19 (The proceedings are in recess at 6:35 p.m.)
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 22
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 25

1 STATE OF SOUTH DAKOTA)

2 :SS CERTIFICATE

3 COUNTY OF HUGHES)

4

5 I, CHERI MCCOMSEY WITTLER, a Registered Professional
6 Reporter, Certified Realtime Reporter, and Notary Public in and
7 for the State of South Dakota:

8 DO HEREBY CERTIFY that as the duly-appointed shorthand
9 reporter, I took in shorthand the proceedings had in the
10 above-entitled matter on the 5th day of December 2007, and that
11 the attached is a true and correct transcription of the
12 proceedings so taken.

13 Dated at Pierre, South Dakota this 2nd day of January
14 2008.

15

16

17

18 _____
Cheri McComsey Wittler,
19 Notary Public
Registered Professional Reporter
20 Certified Realtime Reporter

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