1 THE PUBLIC UTILITIES COMMISSION 2 OF THE STATE OF SOUTH DAKOTA 3 \_ \_ \_ \_ 4 IN THE MATTER OF THE APPLICATION HP14-002 OF DAKOTA ACCESS, LLC FOR AN 5 ENERGY FACILITY PERMIT TO CONSTRUCT THE DAKOTA ACCESS PIPELINE 6 7 Transcript of Hearing 8 September 29, 2015 through October 9, 2015 9 September 30, 2015 Volume II 10 Pages 162-499 11 \_ \_ \_ \_ \_ \_ 12 BEFORE THE PUBLIC UTILITIES COMMISSION 13 CHRIS NELSON, CHAIRMAN GARY HANSON, COMMISSIONER 14 RICHARD SATTGAST, ACTING COMMISSIONER 15 COMMISSION STAFF 16 Rolayne Ailts Wiest Kristen Edwards 17 Karen Cremer Brian Rounds 18 Greg Rislov Darren Kearney 19 Tina Douglas Katlyn Gustafson 20 21 22 23 24 Reported By Cheri McComsey Wittler, RPR, CRR 25

1 APPEARANCES 2 Brett Koenecke and Kara Semmler, Dakota Access 3 Glenn Boomsma, Intervenors 4 Kimberly Craven, Indigenous Environmental Network and 5 Dakota Rural Action 6 Thomasina Real Bird and Jennifer Baker, Yankton Sioux Tribe 7 Matt Rappold, Rosebud Sioux Tribe 8 Diane Best, City of Sioux Falls 9 Margo Northrup, SD Association of Rural Water Systems 10 Kristen Edwards and Karen Cremer, PUC Staff 11 12 = = = = = = = = = = = = \_ \_ \_ = 13 TRANSCRIPT OF PROCEEDINGS, held in the 14 above-entitled matter, at the South Dakota State Capitol 15 Building, Room 414, 500 East Capitol Avenue, Pierre, 16 South Dakota, on the 30th day of September, 2015. 17 18 19 20 21 22 23 24 25

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1 CHAIRMAN NELSON: We will call the hearing back 2 to order. Just a couple of procedural issues. We were 3 asked this morning kind of what the schedule might be, 4 and my anticipation is that each day we will go until 5 5:30, 6 o'clock, kind of whatever we find a natural 6 break, around then. 7 Unless Cheri tells us we need to quit earlier. 8 We always abide by that. So that's kind of what we're 9 looking for. 10 So far as a noon break, we plan on taking an 11 hour and 15 minutes, and then we'll kind of find a 12 natural breaking point between 11:45 and 12:15 and take 13 an hour and 15 minutes from that point. So that's what 14 we anticipate. 15 With that, Ms. Wiest. 16 MS. WIEST: Dakota Access, you may recall your 17 witness. 18 MR. KOENECKE: Thank you. 19 Mr. Mahmoud, will you take the stand again, 20 please. 21 I believe, Ms. Wiest, we were at Staff's 22 questioning; is that correct? 23 MS. WIEST: Yes. That is correct. You may 24 proceed, Ms. Edwards. 25 MS. EDWARDS: Thank you.

1	<u>CROSS-EXAMINATION</u>	
2	BY MS. EDWARDS:	
3	Q. Mr. Mahmoud, in your prefiled testimony, you discuss	
4	the details of the project specifically on page 176.	
5	Do you recall the questions by Commissioner Hanson	
6	yesterday before the hearing started as to the original	
7	routing of the pipeline and its proximity to Sioux Falls?	
8	Vaguely?	
9	A. Vaguely.	
10	Q. Okay. Do you at this time have responses to why the	
11	project originally came so close to the population center	
12	of the state?	
13	A. I'm sorry. One more time.	
14	Q. Do you have a response at this time as to why the	
15	project originally came so close to Sioux Falls?	
16	A. The original route the current route or the	
17	original route?	
18	Q. The original route.	
19	A. Why it went that close to the City of Sioux Falls?	
20	Q. Yes.	
21	A. Okay. The reason it did was when we were routing	
22	was just the shortest distance between the beginning and	
23	the end. We did our original routing studies, it did not	
24	indicate some of the development potential or the extent	
25	of the developable area, the future growth of the City of	

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1 Sioux Falls, Tea, Harrisburg, Hartford. And so when we 2 got into the details and following our -- following our 3 public meeting that we had down in Sioux Falls, we went back, we met with the cities, hired a local engineer that 4 5 helped us with the routing around the City of Sioux Falls 6 and those surrounding smaller communities to move outside 7 of the future development areas as they have indicated on 8 the growth maps. 9 And that's what led to the reroute. But it was part 10 of the normal routing that we go through as we gather 11 different sets of data. 12 Q. And with this reroute, do you feel the company has 13 adequately mitigated the concerns regarding development 14 in the area? 15 I believe we have. Yes. We've met with each of the Α. 16 cities in the area. We've talked to them. And without 17 putting words in their mouth, they've all accepted our 18 route as it stands today. They've all concurred with it 19 and have given us the thumbs up or green light that 20 they're -- I don't think they'll ever say support, but 21 are in concurrence that we have routed the pipeline such that we're avoiding their future development areas. 22 23 Q. Okay. Thank you. 24 You also testified that Dakota Access has no 25 experience with spills as this is a new company. Will

1 those people dealing directly with landowners who are 2 responsible for reclamation also be new in terms of 3 experience, or do you anticipate having experienced 4 people dealing with the landowners? 5 Well, one, thanks for that. Because I think the Α. 6 answer that I gave was a very literal answer to the 7 question that was asked, do we, Dakota Access, as a new 8 entity, which we've been very clear about, have any 9 experience. Well, it's a brand new company that we 10 formed for the purposes of this project as a joint 11 venture company between two parties. 12 We have an operator, who is DAPL-ETCO operating 13 management company. And under that we have an operating 14 agreement with Sunoco Logistics. Sunoco Logistics is 15 Energy Transfer's operating arm for its crude assets. 16 As I mentioned yesterday, Sunoco Logistics has 17 100 years of operating experience, and those individuals 18 will be the ones that will operate this pipeline on a 19 daily basis. 20 And so we certainly have a lot of experience, one of 21 the largest operators of pipelines in North America. But 22 certainly I think we're number three or somewhere around there. Maybe a little bit -- maybe five for operating of 23 24 crude pipelines. So we have a lot of experience 25 operating crude pipelines.

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1 As a company the specific operator has some of the 2 greatest experience in this country of operating crude 3 pipelines, and those will be the people on the ground. 4 Ο. Okay. But dealing with reclamation you feel that 5 you have the adequate experience and expertise to engage 6 in reclamation with the landowners? 7 Absolutely. We as a company certainly -- you know, Α. 8 I know it's -- we never tried to hide the ball that -- we 9 would never say that we're never going to have a spill. 10 So we certainly have had to deal with spills before. Our 11 operating team certainly does know how to and is very 12 well trained in responding to a spill or a leak. 13 And then we hire the expertise to actually do the 14 reclamation. So as a company we may not be the physical 15 people doing the reclamation itself, but we would be the 16 people that would be, one, responsible for in its 17 entirety, and, two, would be the management of the 18 cleaning up or remediation in the event of a spill. 19 Q. Okay. And on that same topic, yesterday you 20 mentioned that your company was hiring the same 21 contractor as the Phase 1 of the Keystone Pipeline. Will 22 that be the same contractor that's responsible for 2.3 reclamation? 2.4 So reclamation and the terms, I believe, we're Α. 25 talking about now are for construction reclamation, not

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1	for spill reclamation. I assume that's what we're	
2	talking about in this question?	
3	Q. I'm referring to construction.	
4	A. Okay. Construction. So they have Michels	
5	Corporation will be responsible for the reclamation of	
6	the right of way after construction. Yes, ma'am.	
7	Q. Thank you. And beginning on line 227 of your	
8	prefiled testimony, you discussed potential route	
9	modifications subsequent to the Permit being granted, if	
10	it was.	
11	Would you inform the PUC of these modifications, if	
12	they happened?	
13	A. Yes, ma'am.	
14	Q. Okay. And what is the maximum distance you could	
15	foresee for a deviation from the route? I mean, are you	
16	talking quarter sections? Miles?	
17	A. We're talking, you know, less than 100 feet.	
18	Typically at this stage when we're in construction and	
19	when we're planning to go to construction, the route	
20	the route's final as we see it today, by the way. I	
21	mean, it's not a route that we're still contemplating	
22	shifting, you know, a half a mile or a couple of miles.	
23	It's fixed for all practical purposes.	
24	However, there's always the inevitable, we did not	
25	see something or something underground that it may make	

1 more sense instead of impacting whatever that feature is underground that we would move the pipeline or shift it 2 3 outside of that immediate impact area. 4 So these are very small, minor tweaks of reroutes to 5 avoid a very specific constraint on the ground. If we 6 can avoid and minimize impacts to the landowner or to 7 that feature, we certainly will. 8 Q. Are you familiar with PHMSA's definition of high 9 consequence areas? 10 In general terms, yes. Α. 11 Are you familiar that the definition of high Q. 12 consequence areas contains unusually sensitive areas? 13 Yes. Α. 14 Are you aware that unusually sensitive areas are Q. 15 areas containing depleted marine animal species or an 16 imperiled ecological community where the species or 17 community is aquatic, dependent, or terrestrial with a 18 limited range? 19 Α. I've read that, yes. 20 You'd agree with that? Ο. 21 Α. I've read it. Yes. So is it your testimony that the pipeline will not 22 Ο. 23 cross any unusually sensitive areas and, therefore, there 24 are no high consequence areas in South Dakota? 25 In the State of South Dakota, based upon the way Α.

1 that the rules are written and all the experts that we've 2 hired, and we certainly have hired plenty of experts to 3 help us through this, we have no HCAs in the State of South Dakota. 4 5 Would that include streams that are crossed by the Ο. 6 pipeline but also include the Topeka Shiner? That's correct. 7 Α. 8 Why would that be that those wouldn't be USAs? Q. 9 Well, one, they're not designated critical habitat. Α. 10 They may contain a threatened or endangered species. 11 There is a biological opinion out there with the U.S. 12 Fish & Wildlife that has predetermined methodologies on 13 how to cross and how to manage those streams in 14 conjunction with the pipeline. 15 So in consultation with the fish and wildlife as 16 well as with our experts, we did not consider those to be 17 HCAs. 18 If they were determined to be HCAs, would that Ο. 19 change the design or route of your pipeline at all? 20 Α. No. 21 Okay. And the Revised Application states that there Ο. 22 were 31 mainline valves that will be installed, but your 2.3 testimony at line 140 says there are 40 mainline valves. 24 Which number would be correct? 25 As it stands today, it's 40. So we have finished Α.

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1	our spill modeling that we've been working on for some	
2	time. And based upon the spill model and the	
3	recommendations of our experts, and Mr. Frey can	
4	certainly testify to this with a lot more authority than	
5	I can, but with the spill model and the preventative	
6	measures that we believe were prudent, we've added	
7	additional valves into the project to have closer	
8	intervals of isolation of the pipeline. So we've ended	
9	up at 40.	
10	MS. EDWARDS: Thank you. No further questions.	
11	THE WITNESS: You bet.	
12	MS. WIEST: Are there any questions from	
13	Commissioners? Commissioner Nelson.	
14	CHAIRMAN NELSON: Just a few questions. You	
15	were asked yesterday about liability or responsibility	
16	for a spill, and you indicated that that ultimate	
17	responsibility would flow up to the three owners of the	
18	company.	
19	Is there any documentation on file with the	
20	Commission at this point that lays out that liability	
21	path or responsibility?	
22	THE WITNESS: I do not believe so. However,	
23	under federal laws, it's prescriptive, and it specifies	
24	in various court proceedings and precedents out there	
25	and I don't want to quote chapter and verse of OPA and	

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1 some of the other regulations that govern the spills, but 2 that the environmental liability resides with the highest 3 level of the responsible party. 4 In this case it would be with our parents. So 5 there's three parents involved at this point. There's 6 two officially, and one that will be. So the liability 7 would travel up to those parents from a responsibility 8 standpoint. 9 And we can provide, if necessary, provide a 10 corporate chart that would indicate how that would flow 11 upward. 12 CHAIRMAN NELSON: I think that would be helpful 13 for me if that could be provided. 14 THE WITNESS: Yes, sir. 15 The next question I've got, on CHAIRMAN NELSON: 16 March 19 Ms. Semmler filed a letter with us dealing with 17 some routing issues, and it references the meetings that 18 you had with some of the city officials in the Sioux Falls area. 19 20 I've got questions about that. Are you the best 21 person to address those? THE WITNESS: I'll try. Yes, sir. 22 23 CHAIRMAN NELSON: The question I've got deals 24 specifically with Harrisburg. And we've got maps that I 25 think are conflicting in relation to whether or not the

1 current pipeline route goes through the proposed growth 2 area of Harrisburg. The map, Exhibit A1 was filed with that letter, 3 4 shows that the route goes through what's designated as a 5 neighboring growth area for the City of Harrisburg. 6 On September 23 the City of Sioux Falls filed a 7 map with us that shows the pipeline not going through 8 that growth area but going along the southern boundary of 9 that. 10 And so my question for you is: Is the pipeline 11 going through the neighboring growth area of Harrisburg 12 or not? 13 THE WITNESS: Good question. We are on the very 14 edge of the growth area. We clip a very small corner of 15 the Harrisburg growth area. 16 When we met with the city, they agree that it 17 was better for where the current pipeline route was 18 routed to clip that small corner and move to the southern 19 edge, as indicated in the Sioux Falls map, that that --20 that's the current route, by the way. It was better to 21 be on the southern side and barrel clip that one area to 22 stay out of their growth potential area as they define --23 they do it in blocks. I think everybody realizes how 24 they define their growth areas, along section lines. And 25 they believed it was better to barrel clip that one edge,

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1 and then follow the southern boundary. 2 CHAIRMAN NELSON: So the map that was filed in 3 May -- or I should say that was filed in March, is that incorrect? 4 5 THE WITNESS: Can I look? Yes, sir. 6 So the current -- for everybody's benefit, 7 there's a map. I'm looking at Exhibit A1. There's kind 8 of a maroon route. And it has -- and there's some, I 9 don't know, yellowish gold routes. 10 And so it's a combination of the 12-23 and the 11 2-17 routes that we're following today. 12 This map that I'm holding, that you gave to me, 13 this was indicating all the different routes that we 14 worked with the various cities on. And when we met with 15 them we said, okay, here's how we can get around your 16 development areas, as well as other constraints along the 17 way, either people's homes, farming operations, water 18 lines, future intersection growth areas, whatever it may 19 be. 20 So when we met with them, the city of Tea, we've stayed out of their area. We clipped their corner. And 21 22 then the City of Harrisburg felt it was better for us to 2.3 be right on the southern edge of their growth area to 24 minimize the future development of what they believe to 25 be their developable area beyond our pipeline.

1 So the corridor that they selected was the, for 2 lack of better words, the maroon dotted one. 3 CHAIRMAN NELSON: But on that map, the maroon 4 dotted one goes through the middle of their growth area. 5 THE WITNESS: Right. That's another good point. 6 CHAIRMAN NELSON: So that's what I'm confused 7 about. 8 THE WITNESS: It is. And Jack can certainly 9 help explain some of this. But when we met with them, 10 their planning area -- actually they have -- they have 11 much more detailed maps. So when you look at it on the 12 ground or on their more detailed maps, we're actually on 13 the southern area. 14 How it plots against their city maps is actually 15 not 100 percent correct. So this is geographic 16 information system data, but it's plotted correctly 17 geographically, but mapping wise it does indicate we're 18 not on the southern edge. So I understand the confusion. 19 CHAIRMAN NELSON: And so what you're telling me 20 is the map that was filed by the City of Sioux Falls on 21 September 23 is a more accurate depiction than what your 22 map is; correct? 23 THE WITNESS: Yes, sir. That's correct. 24 CHAIRMAN NELSON: So just so I'm clear, in that 25 March 19 letter it was indicated that the City of

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1 Harrisburg is comfortable with the route you have chosen on the southern end of their city; is that correct? 2 3 THE WITNESS: Yes, sir. And I was personally at 4 that meeting with them, and Jack and I met with them to 5 put a rubber stamp on that of this is where we're going 6 to put the pipeline. 7 CHAIRMAN NELSON: Thank you. 8 THE WITNESS: Yes, sir. 9 CHAIRMAN NELSON: The last question I've got, 10 and, again, I don't know if you're the right person to 11 answer this, you may have recalled in one of our public 12 meetings last winter -- I think it was the one at 13 Iroquois -- there was some consternation about how close 14 the pipeline would come to houses or farmsteads. And so 15 that's the genesis of my question. 16 Along the current pipeline route, how many 17 houses are located within 200 yards of the pipeline? 18 And, secondly, how many farmsteads would be within 200 19 yards of the pipeline? 20 THE WITNESS: I cannot answer that. But I think 21 Jack Edwards, when he's up here, would be the appropriate 22 person. 23 CHAIRMAN NELSON: That would be great. And if 24 Jack Edwards at this point doesn't know the answer to 25 that question, he's got some study time between now and

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1 then. 2 That's all the questions I've got. Thank you. Any other questions, Commissioners? 3 MS. WIEST: 4 COMMISSIONER HANSON: Thank you. Good morning, Mr. Mahmoud. 5 6 THE WITNESS: Good morning. 7 COMMISSIONER HANSON: Ms. Edwards asked -- I had 8 about six -- I'll say four pertinent questions, and two 9 impertinent questions, and I swear she went into my room 10 last night and looked through my notes and asked every 11 one of my questions except for the impertinent ones, 12 which reinforces my faith in her abilities. 13 I do want to echo my concern on the location of 14 the pipeline. I was absolutely amazed at the first 15 routing, how it snaked through all of those communities. 16 And I'm still very concerned why the route of the 17 pipeline was played so close to the highly populated 18 areas and the highest economic growth areas of our state. 19 I'm still very concerned with that. 20 I note that it's -- when we talk about --21 Harrisburg is one of the fastest growing communities in 22 this state, and it skirts Tea and the Sioux Falls 23 Regional Landfill and Wall Lake and Hartford. I'm still 2.4 real concerned about its location there. 25 Who did you meet with in Harrisburg?

1 THE WITNESS: I could find their names. We met 2 with their engineers. Those were the primary people we 3 wanted to meet with. I just don't recall their names. Ι 4 believe one of them was the city manager. And I'm 5 looking at Jack. 6 I know we have record of their names. I just 7 can't remember offhand, but the primary purpose was to 8 meet with their planning department and the 9 representatives in their planning department. And we met 10 with their engineers who helped us through the routing to 11 avoid their growth areas. And that's what we've done. COMMISSIONER HANSON: Did you meet with their 12 13 policymakers? 14 THE WITNESS: You know, I can't answer that 15 exactly, sir. No, sir. 16 COMMISSIONER HANSON: Jack would be able to 17 answer that, you think? 18 THE WITNESS: We will find their names, and when 19 Jack gets up here, we'll definitely try to have those for 20 you. 21 COMMISSIONER HANSON: Thank you. How long do 22 you anticipate the life of the pipeline? 23 THE WITNESS: That's a tough question. We're 24 investing roughly \$3.8 billion into an asset from start 25 to finish along Dakota Access. That level of investment

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1 is not made for the short-term. It's an enormous 2 investment, enormous energy infrastructure project that's 3 intended to provide service out of the Bakken for as long 4 as the Bakken is producing. 5 So my expectation, our company's expectation, is 6 that that pipeline will service the Bakken as long as it 7 will produce. Current projections, that could be 100 8 plus years. So our expectation is that pipeline will 9 service that area with 100 plus years. 10 With modern technology and our ability to 11 maintain cathodic protection and the quality of materials 12 and the craftsmanship put into it, we fully expect it to 13 last that long. And we don't believe that's an 14 unreasonable expectation at all. 15 COMMISSIONER HANSON: You still have that map in 16 front of you that shows the pipeline skirting the 17 southern edge of Harrisburg? 18 THE WITNESS: No, sir. I do not. 19 COMMISSIONER HANSON: Well, I'll ask you to take 20 a look at that sometime. It's Sioux Falls Exhibit A that 21 I've been looking at. It hasn't been introduced yet, I 22 don't believe. 23 I have it again. THE WITNESS: 2.4 COMMISSIONER HANSON: You have it again? 25 THE WITNESS: Yes, sir.

1 COMMISSIONER HANSON: If you see the simple 229 2 on the lower portion of the -- well, it's in the Sioux Falls area. It's about the -- it's in the southern 3 4 portion of Sioux Falls. It's showing the interstate 229. 5 Do you find that? It's a red and blue interstate symbol. 6 THE WITNESS: I do. Yes, sir. 7 COMMISSIONER HANSON: If you follow that line up 8 to where it takes a bend at 41st and Cliff, and follow 9 that north to 33rd Street, do you see where that is? It 10 looks like it's almost the middle of Sioux Falls at this 11 time. 12 THE WITNESS: Okay. Yes. 13 COMMISSIONER HANSON: I just want you to know 14 that when I was in middle school, just south of there, 15 that was the outer limits basically of Sioux Falls. And 16 Harrisburg was just a tiny little town at that time. My 17 kids let me know that I'm older, but I don't think of 18 myself as real old. And you talk about 100 plus years of 19 a pipeline. 20 That pipeline that you're showing presently I 21 would anticipate would be completely covered, within my 22 kids' lifetime, it will be passed. And that's my concern 23 for it. 24 I recognize that the growth area -- I recognize 25 the population of that area, and I know that we have a

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1 lot of pipelines and natural gas pipelines even running 2 down our streets and that, but I have a strong concern 3 for its present location. 4 Ms. Edwards asked you questions also about high 5 consequence areas. One of the challenges of building a 6 pipeline in eastern South Dakota is it's in the Glacial 7 Lakes area, and there's lots of, I won't call them high 8 consequence areas, but waterways, lakes, sloughs, et 9 cetera. 10 The pipeline, the proposed route, is not close 11 necessarily to Sand Lake. However, it is close to 12 national waterfowl production area and quite a few lakes. 13 Why would the PUC not need an Environmental 14 Impact Statement recognizing how important all of those 15 waterways are and the national waterfowl production areas 16 and such? 17 THE WITNESS: Well, one, I've actually 18 personally put together EISs in in my career. I've 19 worked on many projects that have required EISs. And in 20 my experience, an EIS does not provide that much -- and 21 I'm not going to say no advantage. But it really doesn't 22 provide any more than what your current process or the 23 State of South Dakota's process provides today. 24 We document the conditions of the route. We 25 document the conditions of the surrounding landscapes.

1 We document the threatened endangered species, the wetlands, cultural resources, historic structures, the 2 demographic considerations, socio-economic. 3 4 We go through all the same motions in an EIS as 5 part of the South Dakota PUC's process. All of the 6 essential elements are squarely being contemplated as a 7 part of this process. 8 The form of an EIS, outside of a federal 9 action -- because there is no requirement for an EIS on 10 this project. On a state level the only thing we would 11 be doing at this point would be repackaging the information that we've already submitted. I truly 12 13 believe that. 14 So the repackaging in my opinion is not going to 15 provide any more analysis, any more information, or any 16 more details that have not already been previously posed. 17 And with the questions and answers and the 18 Interrogatories as well as the opportunity for this 19 hearing, we've been able to provide and have been given 20 or afforded the opportunity to respond to all the 21 questions that the general public, as well as the 22 Intervenors, would have, the same opportunities they 23 would in an EIS format. 24 So in my opinion, the EIS, although valuable 25 from a certain scale, from a national perspective, on a

regional basis I think at this point in the process it doesn't really provide any additional benefit to the process, other than packaging it in a different format than what's already been submitted.

5 COMMISSIONER HANSON: Thank you. Ms. Baker 6 asked a number of questions about employees activities 7 and American-Indian casinos and what would take place.

8 I felt from your answers -- I won't testify for 9 I'll ask you the question. Well, does the company vou. 10 keep a close aye on the activities of employees when they 11 are off site? And close is a relative term, I guess, but 12 the misadventures of employees that take place, whether 13 it's an assault and battery or DUI or whatever it might 14 be. You know, whether it's at an American-Indian casino 15 or whether it's in a small municipality, or whether it's 16 on a farmstead, I assume you have some type of standard 17 operating procedure dealing with those folks?

18 THE WITNESS: We do. And as a company, just 19 like all of us as -- I don't live in South Dakota, but as 20 Americans, we all have certain rights.

As a company I cannot infringe my rights or limit their rights when they're not specifically employed and under my direct control. So I have some boundaries I have to work within.

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However, that doesn't mean that we don't set

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1 expectations for our employees and our contractors. We 2 do.

The other things, these are all professionals. These are highly trained individuals that move and rove around this country and build projects, and in this case energy infrastructure projects. Highly trained. All family type people. They all respect the laws of this country. They all abide by the laws of this country and the states.

If there are certain laws that are broken during the project, I mean, I would hope that that wouldn't happen. I can't stop it. We try to hire the best and highest quality individuals that we can. We do have company policies that limit what their behaviors could be when they're under our employment.

But simply at the end of the workday when they go off to do what they're going to do, I can't control their behavior.

Now if they do embark on something that's unethical or immoral or whatever the case may be, I certainly have a right -- it is an at-will situation for a contract basis in the business world. So I have the right to either terminate that contract, or require the contractor to terminate that employee. Or if they're a direct employee of mine, I have the right to get rid of

1 them. 2 So in the cases of impropriety or whatever it may be, I certainly would take those actions. 3 I can't control it. 4 5 Now I can ask our contractors and put in our 6 contract thou shall not go out on to the casino in any 7 uncertain terms, but that's an unenforceable condition. 8 So what I would rather focus on is hiring the best and 9 the brightest in the business to make sure we have 10 quality individuals working in this community for the 11 four to eight month time period. 12 I believe that's the way it's going to occur. 13 There's certainly situations I can't control, nor would I 14 have the authority to control. But we will do our best 15 to manage those expectations. 16 COMMISSIONER HANSON: Thank you. That's all the 17 questions I have. COMMISSIONER SATTGAST: Good morning. 18 19 THE WITNESS: Good morning. 20 COMMISSIONER SATTGAST: Yesterday there were 21 several questions concerning conferring and consulting 22 with government entities. My two colleagues this morning 23 also visited about consulting and conferring with 24 government entities. I'm assuming that there are 25 government entities that are not in the direct line of

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1	the pipeline that you did confer and consult with.
2	So what is your policy concerning how to
3	determine which government entities you will sit down and
4	visit with and determining if they do have an impact on
5	the pipeline itself? What type of policy? Is it a
6	proximity or are there other factors that you take into
7	place?
8	THE WITNESS: It's really a multi-stepped
9	process. One, it could very well be we cross a piece of
10	property that's under a certain control either by
11	government organization or maybe nongovernment
12	organization but has some type of government funding
13	associated with it. That's one trigger mechanism that
14	could be Fish & Wildlife Service that we would
15	necessitate review.
16	On a state level in South Dakota we're
17	traversing through lands that are prescriptively managed
18	and/or reviewed by the State of South Dakota, either
19	regulatorily or by state statute or just by general
20	policy.
21	The Game & Fish division, we would consult with
22	them to get information on state level threatened
23	endangered species or even federally listed. So that's
24	more of a species concern.
25	The State Historic Preservation Office, we're

1 required to consult with them. Or actually that's a 2 little bit of a tough one because under the Clean Water 3 Act, which we're required under Nationwide Permit 12 to 4 consider threatened and endangered species and cultural 5 resources, if we hit certain triggers, then 6 prescriptively we're required to initiate some form of 7 communication through the Corps of Engineers to those 8 agencies. 9 So it's not even directly us. It's through that 10 federal agency, to those state agencies, or to the U.S. 11 Fish & Wildlife Service. 12 As an Applicant, actually we don't have that requirement because it's a federal requirement. And with 13 14 NEPA rules and regulations that requires us to -- that 15 requires the lead federal agency to have that 16 coordination. 17 Other examples could be the city of Tea. You know, when we get close we may -- because we're close, it 18 19 may make sense, because we're going to be adjacent to 20 that community, immediately adjacent I should add, that 21 it makes sense for us to communicate with their emergency 22 responders, city officials, to articulate our plans to 2.3 make sure we're accommodating those level of concerns or 2.4 stakeholder involvement. 25 So it's really a combination of a lot of

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1 factors. But it all starts with does the pipeline touch or does it influence a neighboring resource that could be 2 3 managed by some type of government entity. 4 Not to say that we always will. Because 5 sometimes even if we're adjacent to, we're not required 6 to. But we try to consult with everybody that we would 7 potentially impact along the immediate route. 8 COMMISSIONER SATTGAST: Second question, and 9 Commissioner Hanson kind of touched on this a little bit. 10 Talking about the lifespan of the pipeline. And we're talking that, you know, it could be 100 years or so 11 12 depending upon the Bakken. 13 Just, you know, hypothetically in a situation 14 where, you know, the Bakken is not producing or the value 15 is not there for the Bakken to produce, can this pipeline 16 be used for other purposes beyond the Bakken then during 17 its lifespan, such as Canadian oil or another source? 18 THE WITNESS: In theory Canadian oil is probably 19 not very realistic because you would have to connect it 20 to Canada. The project originates in northwestern North 21 Dakota and doesn't connect to any other upstream pipelines or connectivity other than the producing region 22 23 of the Bakken and Three Forks area. 24 In theory, sure. Any pipeline in North America 25 could be converted to a different use. Our intent and

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1 design of this pipeline is to transport Bakken crude oil. We have no plans for its use in any other service. 2 3 If we did, we would probably have to file 4 certain things with different regulatory agencies, let 5 alone the landowners that we get easements from. Because 6 we're typically pretty specific on the type of product 7 we're transporting. In theory we could, but practically 8 I don't think that's going to happen. 9 COMMISSIONER SATTGAST: Thank you. 10 THE WITNESS: Yes, sir. 11 CHAIRMAN NELSON: These questions have prompted 12 more questions. Let me go back to Commissioner 13 Sattgast's question about other products. 14 Does this pipeline as designed have the pumping 15 capability to transport Canadian tar sand oil? 16 THE WITNESS: No, it does not. We would have to 17 modify the pumps. The steel could handle it, the pipe 18 itself, but the pumps would have to be redesigned and 19 configured. 20 CHAIRMAN NELSON: And I'm assuming additional 21 pumping stations added, perhaps? 22 THE WITNESS: Yes, sir. 23 CHAIRMAN NELSON: The other question I've got --24 and you know that we don't have any jurisdiction over 25 your easement language or your land acquisition. But as

1 we've been talking about the end of life of a pipeline, my question is what language is there in your easements 2 3 regarding that? 4 Is there language that talks about if the 5 pipeline is not used for X number of years the easement 6 reverts? What kind of language is there in there for end 7 of pipeline time span? 8 THE WITNESS: It varies. We don't typically 9 have standard language. If we say anything, we say we'll 10 comply with the laws and regulations at the time. 11 I will tell you from a practical standpoint we 12 always have where we negotiate with the landowners and in 13 some cases agencies that have control over where the 14 abandonment occurs. 15 For example, if it was under a river that's a 16 navigable waterway under the Section 10 of the Rivers and 17 Harbors Act, the Corps of Engineers has rules in place 18 that require removal. In those instances we would remove 19 the pipe. But that's only true in certain circumstances. 20 Other circumstances is such that it's silent. 21 So we're compelled to abandon it with prudent procedures. 22 We remove the constituents, pack it with inherit 23 substance, and that could be nitrogen, for example, for 2.4 an inert substance. So we would abandon it in place. 25 And that would be in accordance with the rules and

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1 regulations.

2	Some landowners are okay with it. It's just as
3	impacting to remove the pipe as it is to install the
4	pipe. So most landowners in our experience actually
5	don't want you to remove the pipe. So we'd leave that up
6	to on a very individual basis.
7	And they have the option, depending on what we
8	negotiate, to leave the pipe in place. In some cases
9	they take ownership of it. In some cases we maintain
10	ownership of it and keep it buried.
11	So it's very individualistic. I don't really
12	have a standard protocol for how we operate in that
13	regard.
14	CHAIRMAN NELSON: I want to push just a little
15	bit harder on this. Not so much dealing with what
16	actually happens with the pipe. I'm more concerned about
17	what happens to the easement.
18	Is there language in any of your easement
19	agreements that allow the easement to be dissolved and
20	the landowner to go back to using the land as they wish?
21	THE WITNESS: There can be, and there are
22	certain easements that I've been a part of. We just
23	negotiated one that I was a part of last week that
24	actually when the line no longer is in operation and it's
25	officially abandoned, the land does revert back to that

1 landowner. The easement terminates. 2 CHAIRMAN NELSON: So what I'm understanding is that particular feature is something that can be 3 4 negotiated depending on the wishes of the landowner 5 you're negotiating with? 6 THE WITNESS: Yes, sir. 7 CHAIRMAN NELSON: I have no further questions. 8 Thank you. 9 MS. WIEST: Any other questions from 10 Commissioners? 11 Generally we would go to redirect, but usually it's our practice that if any of the Intervenors have any 12 13 questions that were based on Commissioner questions that 14 they could ask those questions. 15 Did any Intervenors have any questions that were 16 specifically based on a Commissioner question? 17 MS. CRAVEN: I have a question about NEPA, 18 following up on Commissioner Hanson's question about the 19 EIS. 20 MR. RAPPOLD: Excuse me. I didn't mean to 21 interrupt, but at the last hearing we had with the 22 Keystone, the practice was redirect, all the parties got 23 to ask questions that were related to any other parties' 24 questions on cross-examination. From what it sounds like 25 you just said that now we're limited to questions from

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1 the Commissioners. Is it limited to the Commissioners questions 2 3 or --4 MS. WIEST: At this additional cross is. Ιf 5 there's redirect, of course, then you have recross. 6 MR. RAPPOLD: So we're limited to just the 7 Commissioners' questions? 8 MS. WIEST: On this additional cross. Yes. 9 MR. RAPPOLD: Thank you. 10 MS. CRAVEN: Thank you very much. 11 RECROSS-EXAMINATION 12 BY MS. CRAVEN: 13 So Commissioner Hanson asked you about -- I think Ο. 14 his question was why would the PUC not need an EIS 15 recognizing all the various waterways, and your answer 16 was that an EIS doesn't provide any more information than 17 what is being provided in this Application. 18 And I just wanted to ask one question about that --19 or I have several questions actually, but initially do 20 you see a difference in having an evaluation done by an 21 independent party that doesn't have a vested economic 22 interest in a project as opposed to an evaluation done by 23 a party that has a large, vested economic interest? 24 I don't. In my opinion you're questioning the Α. 25 professionalism of the individual. So I do not.

1 Ο. And there are differences. You say you're very 2 familiar with NEPA. You testified an EIS doesn't provide 3 any more than current process. Did you conduct an 4 analysis under the Executive Environmental Justice Act as 5 required under NEPA? Was that part of your analysis? 6 We absolutely considered environmental justice Α. 7 concerns when we're doing our routing analysis. 8 Explain that a little bit more in detail, please. Q. 9 Well, an environmental justice analysis, and we've Α. 10 articulated this inside our testimony, my direct 11 testimony, when we're routing the pipeline we do not arbitrarily relocate the line into a demographic area 12 13 that has a different socioeconomic standing. So one area 14 that has money doesn't get the pipeline just because the 15 poor neighborhood can't fight us as well. 16 We don't consider those level of demographics as 17 part of our routing considerations. We do from a density 18 standpoint, but not socio-economic standpoint. 19 So we do follow through and we do consider 20 environmental justice considerations as part of our 21 routing analysis. 22 And where in the Application can we find that data Q. 2.3 or information? 24 Well, it's -- it's as part of our routing analysis, Α. 25 and the statements that are made. I can't remember the

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1 exact line in my testimony, but we did mention that. 2 But you can't point to the section? Could you Ο. 3 provide that? 4 Α. I don't have the whole document memorized. I do 5 not. 6 Q. Okay. Did you conduct an ecosystem wide analysis of 7 impacts as required under NEPA? 8 Well, an ecosystem wide analysis is not required Α. 9 under NEPA, number one. There's an alternative analysis 10 and a cumulative impact analysis. And we did do an 11 alternative analysis, actually a very detailed one, and 12 we did do a cumulative impact analysis for what was 13 applicable. And we didn't find any cumulative impacts 14 that were required to be disclosed. 15 The CEQ quidelines do require an ecosystem analysis. Ο. 16 And I'm curious, if you've done these analyses, are they 17 available for us to look at? Because I don't recall 18 seeing any of this information. 19 Α. All the dockets and all the data has been submitted 20 through the PUC. Now that's the point I made is that the 21 packaging in an EIS is strictly a packaging of the same 22 information. I can't help you sift through the data to 23 point you to that. That's not what my obligation is, to 24 help you get to those exact points. 25 We have provided the data as prescribed by the PUC,

1 and we're not -- all the data's publicly available. 2 We've conducted the studies, except for the cultural 3 resources that are protected. But the SHPO office has those studies. 4 Oh, the SHPO's office has those studies? 5 Q. 6 Α. They do. 7 So when you say the SHPO's office has those studies, Ο. 8 you're talking about the studies regarding cultural 9 resources? 10 That's correct. Α. So you're not actually talking about alternatives to 11 Ο. 12 the pipeline or other kinds of alternative analysis, 13 which is actually -- you know, sometimes you get an 14 alternative routing, you know, we should do it this way 15 as opposed to doing it that way. 16 So you're just saying that your analysis is 17 regarding cultural resources? 18 No. No. That's not what I said at all. Α. 19 Q. So why does the SHPO's office have that? 20 Okay. The SHPO's office is responsible for the Α. 21 review of cultural resource data. 22 Yes. Ο. 2.3 Okay. So we submit our cultural resource data to Α. 2.4 them for review. Which we have done. 25 The docket we submit our alternative analysis,

different dockets, different documentation. That has
been provided. It's two different things that I believe
you're joining together in what my statements were.
Q. I think your last statement about that can be found
in the SHPO's office is what confused me.
A. For the cultural resources, that's correct.
Q. Just the cultural. Did you release the Revised
Application and exhibits for public comment prior to
submittal to the PUC?
A. No.
Q. Okay. That would be part of the robust public
participation that an EIS would provide.
Did you submit the Revised Application to EPA for
review and comment as required under NEPA?
A. Well, again, this is a state level project, so the
EPA and the State of South Dakota may or may not be
contributor to the NEPA document. I don't know. But,
no, we did not. And, again, as I've mentioned, it's a
repackaging of the data. So under the rules for the PUC
we've provided it, which is public information at the
time. It's just not packaged in the same format of an
EIS.
Q. Did you prepare a range of alternatives to the DAPL
route and analyze I'll stop there.
Did you prepare a range of alternatives to the DAPL

1	route?
2	A. We did.
3	Q. And did you analyze the relevant impacts and
4	comparative methodology as required by NEPA?
5	A. We did.
6	Q. Where? And where can we find that? I know you said
7	it's not up to you to point, but what would that document
8	be called?
9	A. The alternative analysis.
10	Q. Did you evaluate potential impacts of DAPL on the
11	Sioux Nation treaty rights as required by NEPA?
12	A. I don't believe that's required by NEPA for me to
13	evaluate those rights. That would be up to the lead
14	federal agency.
15	Q. Did you invite federal or state or tribal agencies
16	to assist with preparation of the Revised Application as
17	cooperating agencies as required under NEPA?
18	A. Again, this is not a federalized project, so the
19	answer is, no, we're not required to.
20	Q. And those would be some of the things that the EIS
21	would provide.
22	NEPA requires that a Draft EIS is published, the
23	agency must receive public comment, and respond in
24	writing.
25	Did DAPL publish the Revised Application, receive

1 public comment, and respond to those comments in writing 2 in the Revised Application? 3 We did not. And your analysis is trying to compare Α. 4 a state level Application to a federalized NEPA process. 5 As I have said, this is not a federalized project. 6 That's been clear from the federal agencies. There's not 7 a lead federal agency to handle the things that you're 8 talking about. 9 A NEPA document discloses those things that you're 10 talking about, but it's up to the lead federal agency to 11 reach out and do those consultations. It's not incumbent 12 upon the Applicant to do that. It's the government's 13 responsibility under NEPA that governs their actions. 14 Well, Mr. Mahmoud, may I remind you that you Q. 15 testified to Commissioner Hanson that an EIS doesn't 16 provide any more information than what you've provided, 17 and it seems that it would provide quite a bit more. That's not what I -- I said the document itself 18 No. Α. 19 does not disclose any additional data that we haven't 20 already provided. The process of a federal NEPA 21 document, the NEPA document generation, the NEPA process 22 executed by a Federal Government, is a lot different than 23 what the state PUC is doing. Those are two independent 24 things. 25 You can't confuse the NEPA process with the EIS

1 document. They're independent actions and thoughts. 2 One's the product of the NEPA document. The other one's the actual coordination of. 3 4 So I don't want you to misconstrue or misstate the 5 facts of what an EIS is and what the NEPA process is 6 under a federal action, because those are independent of 7 each other, and they're certainly not what I said to 8 Commissioner Hanson earlier. 9 I know that -- never mind. Ο. 10 Okay. Regarding safe drinking water and safety to 11 people, the route -- the pipeline actually crosses the 12 Missouri River twice; is that correct? Yes. 13 Α. 14 Okay. And that's a source of drinking water for Q. 15 many South Dakotan people. Is there a reason it crosses 16 the Missouri River twice? 17 It has to cross the Missouri to get from point A to Α. 18 point B. There's no choice. 19 Ο. There's no choice? You couldn't go east out of 20 Williston and then down around the Missouri River? You 21 had to go out across it not once, but, twice? 22 The way where the production area is located to pick Α. 2.3 up the crude oil in the gathering zones of the project 24 there's no other way but to cross the Missouri River. 25 We inquired about that and DAPL refused to answer Ο.

1	our Interrogatories regarding a potential release of oil
2	at the Missouri River crossings. And you have said
3	you're familiar with the Clean Water Act. You responded
4	that to one of the Commissioners' questions. The act
5	specifically authorized extra territorial enforcement.
6	Why did you all refuse to answer those questions about
7	the potential water pollution at the Missouri River
8	crossings?
9	A. I don't remember the questions you're talking about.
10	If you provide them, I can read it and try to give you an
11	answer.
12	Q. And I just have a question for clarification. Oh,
13	one other Clean Water Act.
14	You testified that you were familiar with the clean
15	water are you familiar with the extraterritorial
16	conditions of the act in which the jurisdiction may
17	enforce its water quality standards on its upstream
18	source of discharge?
19	A. Somewhat I'm familiar with that.
20	Q. Okay. Just a point of clarification because I know
21	Mr. Edwards is going to or another person is it
22	Frey or Edwards? But they say that they're the vice
23	president of engineering, but you're also the vice
24	president of engineering.
25	Are you both vice presidents of engineering?

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1 Α. We are. I'm not an engineer. He is a professional 2 engineer. Our titles are the same when it comes to certain aspects of our job responsibilities. I oversee 3 4 -- my responsibilities and experience is the execution 5 and movement and development of these energy 6 infrastructure projects. So I have a broad sweep of 7 skills and understanding and knowledge and whatever else 8 it takes to do my job. 9 Chuck's responsibility is he's vice president of 10 engineering. He's a degreed professional engineer, and 11 his role in our company, he heads up our liquids 12 engineering group for our entire company. 13 Do you know how many pages are in the Application Q. 14 about the alternatives to the DAPL route? 15 I don't. But I clearly just heard that it's two Α. 16 pages from your colleague. MR. CAPOSSELA: Good ears. 17 18 THE WITNESS: I just heard it. But thank you. 19 MS. CRAVEN: That's all. Thanks. 20 MS. WIEST: Are there any other questions based 21 on Commission questions? 22 MR. RAPPOLD: Yes. 23 MS. WIEST: Mr. Rappold. 2.4 25

1	RECROSS-EXAMINATION
2	BY MR. RAPPOLD:
3	Q. Chairman Nelson asked you some questions about your
4	corporate structure, particularly as it relates to
5	liability. And you indicated that you would provide that
6	documentation at some point.
7	When are you going to provide that documentation?
8	A. It actually has already been provided. And one of
9	the data request questions we provided a response that
10	listed the it wasn't a corporate org. chart, but it
11	was a statement of our organization as well as the
12	ownership of the project.
13	Q. I understand that some of that information was
14	provided in your discovery responses, but Commissioner
15	Chairman Nelson didn't ask you about what information you
16	provided in discovery. He asked you when you were going
17	to submit he asked you if you could submit that
18	documentation to the Commission, and you said yes;
19	correct?
20	A. Yes, I did.
21	Q. And I asked you when are you going to submit that
22	documentation to the Commission?
23	A. Oh, sorry. I misunderstood your question.
24	Q. Do you understand it now?
25	A. I do.

1 Q. When are you going to submit the documentation to the Commission? 2 When I get back to Houston. 3 Α. 4 Ο. When will we receive that information? 5 When I submit it to the Commission and they provide Α. 6 it. I can't speak for them. 7 You can't submit that directly to us? Ο. 8 I would have to ask my attorney what the process is. Α. 9 So I don't know. 10 Will we have an opportunity to review that Ο. 11 information as part of these proceedings? A. I would assume it's public. I don't know that I can 12 13 answer these questions directly. 14 MR. RAPPOLD: I see Commissioner Nelson nodding 15 his head. 16 MS. WIEST: My assumption would be that the 17 document would be filed within the docket. 18 MR. RAPPOLD: Thank you. 19 Q. Also regarding the corporate structure, I want to 20 clear this up a little bit. How many companies are there 21 that are your parents, so to speak? Three? 22 For Dakota Access Holdings --Α. 2.3 Q. Okay. 24 Well, Dakota Access, LLC, there are three ultimate Α. 25 partners inside of the ownership of the project.

1 Q. Okay. And they are? 2 Sunoco Logistics, Energy Transfer Partners, and Α. 3 Phillips 66. 4 Ο. Okay. Yesterday you testified that Sunoco Logistics 5 was just going to be operating the pipeline. 6 No. They are going to be operating under an Α. operating agreement with our operating company. 7 8 Q. Okay. And they haven't entered into that agreement 9 yet; correct? 10 We're working on it right now. Α. 11 And that means they haven't entered into that Q. 12 agreement; correct? 13 That means we have entered into it verbally. I've Α. 14 had conversations with Todd Stamm back here, and we've 15 entered into a verbal agreement. Now we're working on 16 papering that agreement. So we have entered into an 17 agreement. 18 Do you have a paper agreement signed that could be Ο. 19 submitted to the Commission today? 20 We will not submit our paper agreement in any form. Α. 21 It's a -- we may confidentially, but not publicly. 22 If Administrative Rules regarding confidential Ο. 2.3 documents were asked to be followed today and applied and 24 you received confidential treatment for the document that 25 you would request confidential treatment for, would you

1 be able to file that today? 2 I would have to consult with my attorneys. I don't Α. 3 think I would. We would try to protect that document. 4 Ο. It's not -- your answer's just not responsive to my 5 question. 6 Α. Then it's not responsive. 7 Regarding Sioux Falls, can you tell me what the Ο. 8 depth of the pipeline will be in the area near the landfill? 9 10 I believe we've agreed to 48 inches as our minimum Α. 11 depth through that area. 12 Q. Is there also a gas line crossing within the City of 13 Sioux Falls? 14 The City of Sioux Falls landfill has a natural gas Α. 15 or -- a gas line that comes out of the landfill. 16 Are there any other lines that are like closer to Ο. 17 within the city districts that you're aware of? 18 We'd have to ask Jack. I'm not 100 percent sure. Α. Ι 19 know we cross other pipelines. 20 And who gets to make the final determination Ο. 21 regarding high consequence areas, including unusually 22 sensitive areas? 2.3 Chuck Frey. Α. 24 He gets to make that final determination? Q. 25 From a corporate perspective. He's our person Α.

1 that's responsible for it. 2 I'm talking about from like a permitting Q. 3 perspective. 4 Α. Oh, that's left up to the -- how the rules are. The 5 DOT provides the guidance, and then it's up to the 6 Applicant to interpret those to meet the intent of the 7 law. 8 But you don't have the final say so; correct? Ο. 9 Well, I don't know who has the final say so. I know Α. 10 in our organization Chuck Frey has the responsibility. 11 Right. But I'm talking about when it gets outside Ο. 12 of your organization to a permitting body. 13 Well, I'll have to ask Chuck. Α. 14 Ask Chuck? Ο. 15 Uh-huh. Α. 16 Okay. And you indicated that you would not change Ο. 17 the route if there's any high consequence areas that are identified? 18 19 Α. I indicated we would not change the route for the 20 question that was asked earlier for that crossing. 21 Are there any other maps that have been submitted by Ο. 22 any party that are more accurate than your maps? 23 I could not answer that. Α. 24 Would you have to look at all the maps to find out? Q. 25 Α. I would.

1 Ο. Okay. Have you received any notification from the 2 Army Corps of Engineers that your proposed project will have no effect on any listed endangered or threatened 3 4 species? 5 Α. No. 6 No. Have you received any written notification that Q. 7 your project will have no potential to cause effects on 8 historic properties? 9 No. Α. 10 Is it possible that you could receive notification Ο. 11 that an -- from the Army Corps of Engineers that an individual Permit is required because you don't meet the 12 requirements for the nationwide Permit? 13 14 I guess in theory. Α. 15 Does the law, to your knowledge, provide the Corps Ο. 16 of Engineers an opportunity to tell you that you don't 17 meet the requirements for a nationwide Permit? 18 It does. Α. 19 Ο. So in actuality you could be told by the Army Corps 20 of Engineers that your project does not qualify for a 21 nationwide Permit; correct? 22 They could. And we would know that by now. Α. 23 But you haven't received that information, have you? Ο. 24 We've received communications from the corps that Α. 25 would qualify for Nationwide Permit 12.

1 Q. Would you agree that one of the benefits to a state 2 Environmental Impact Statement would be that it would 3 require any adverse environmental effects that cannot be 4 avoided if the proposal is implemented to be included in 5 the analysis? 6 I don't -- maybe you can ask that question in a Α. different format. 7 8 Q. Do you know specifically what the requirements are 9 for a South Dakota Environmental Impact Statement? 10 I have not read those. Α. No. 11 Do you know what law governs it? Q. 12 I mean, I read it in your brief. Α. 13 So you don't know what the actual requirements are Q. 14 for a South Dakota EIS? 15 I somewhat do because it references back to the Α. 16 requirements under the federal program. 17 You somewhat do. So you really can't say what the Q. 18 benefits would be because you're not that familiar with 19 it, are you? 20 Well, no. In my opinion I absolutely can say that I Α. 21 don't think it's going to provide any additional benefit 22 than what the dockets already show in the data that's 23 been provided. 2.4 Q. Did you provide any information in your Application 25 regarding any adverse environmental effects that you

1 can't avoid?

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2	A. We disclosed what our impact analysis was.
3	Absolutely.
4	Q. Name an adverse environmental effect that cannot be
5	avoided.
6	A. Well, the term's adverse. I guess we would have to
7	look up that definition.
8	I'll say in areas where we cannot avoid wetland
9	because of whatever routing concern or constraint that we
10	have, that would be an unavoidable impact, as an example.
11	And we disclosed where those locations are.
12	Q. What about the long-term effects?
13	A. Of what?
14	Q. Of the pipeline.
15	A. In what regard?
16	Q. The long-term effects of the pipeline regarding
17	environmental impacts?
18	A. In my opinion there are none.
19	Q. There are none?
20	A. No.
21	Q. So would it be an environmental impact, do you
22	think, if in 10 years from now the growth that's taking
23	place in the Sioux Falls area expanded over where the
24	pipeline would be built? You wouldn't consider that an
25	environmental impact?

1 Α. No. 2 Or a long-term effect? Ο. 3 No. Α. 4 Q. No. What would you consider it then? I would consider it growth of that community around 5 Α. 6 the pipeline. 7 And you wouldn't think that there's any possibility Ο. 8 that there could be some sort of impact or effect on that 9 community and the people that live there? 10 I live in a world where there's literally hundreds Α. 11 of thousands and millions of miles of pipes that run through communities across people's front and backyards, 12 on ranches and farms, and for some -- some reason we've 13 14 coexisted. 15 So, no, I do not think that a pipeline is going to 16 detrimentally affect that community. 17 If you worked for a different -- strike that. Q. 18 Have you secured the contract with Michels Construction? 19 20 A. As I indicated yesterday, we are in the final 21 process of doing that. 22 And they built the Keystone I, didn't they? Ο. 2.3 They built some of the pipe for Keystone or Α. 24 TransCanada. I don't know all the extent. That was one 25 of their references.

1 Ο. I believe yesterday you testified they built the 2 whole thing? I testified that they built parts of Keystone. 3 Α. 4 Ο. So would they be responsible for the 98 percent corrosion rate? 5 6 Α. The 98 percent what? 7 Corrosion rate that was discovered down in Missouri. Ο. 8 I have no idea what you're talking about. Α. 9 You don't know anything about that? Ο. 10 No. Α. 11 Really? Q. 12 It's not part of my company. I have no idea what Α. 13 you're talking about. 14 You don't keep up with, like, other things that are Q. 15 happening in the industry that you work in? 16 Well, of course I do. Α. 17 So you don't know anything about 98 percent Q. 18 corrosion rate on the Keystone I Pipeline? 19 Α. I do not. It's not my business. 20 Would you agree that the Keystone I Pipeline is a Ο. 21 business that's in the same industry as you? 22 MR. KOENECKE: I'm going to object. This is far outside the scope of cross or the Commissioners' 23 24 questions and is not relevant to this proceeding at all. 25 MS. WIEST: Sustained.

1 MR. RAPPOLD: Could I have an opportunity to 2 respond? MS. WIEST: Go ahead. 3 4 MR. RAPPOLD: Thank you. I think it is relevant 5 because the same company that built the first pipeline, 6 Keystone, which travels through eastern South Dakota that 7 had 14 leaks in the first year of operation is in the 8 process -- we don't know how far along in the process, 9 but in the process, nonetheless, of entering into an 10 agreement to build this pipeline. 11 And I think their record and some of the things 12 that have happened on the Keystone I are certainly 13 relevant to the -- to the question that's before the 14 Commission today; can they satisfy the burden of proof 15 under the law. 16 MR. KOENECKE: Counsel's testifying as to facts 17 that are not in evidence. He's produced absolutely no 18 witnesses whatsoever and certainly not one to testify to 19 any of the things that he's talking about over there. 20 This is far outside the proprieties, Ms. Wiest. 21 Thank you. 22 MR. RAPPOLD: How am I supposed to respond to an 23 objection without talking and saying things? I'm not 24 testifying. I'm responding to an objection. 25 Yes. And the objection is over --MS. WIEST:

1 the objection is sustained on the basis that I believe it 2 is outside of the scope of the Commissioner questions. 3 Did you have any other questions Mr. Rappold? 4 Ο. You didn't actually meet with anyone in Harrisburg 5 that has the decision-making capacity regarding how 6 Harrisburg feels about the location of the pipeline, did 7 vou? 8 No. We did. Α. 9 I thought you said you didn't. Ο. 10 That's not what I said. I said I couldn't remember Α. 11 their names. 12 Q. Okay? 13 MR. RAPPOLD: No further questions. 14 MS. WIEST: Did any other Intervenors have any 15 questions based on the Commissioner questions? 16 MS. BAKER: Yes. Thank you. Jennifer Baker for 17 the Yankton Sioux Tribe. 18 RECROSS-EXAMINATION 19 BY MS. BAKER: 20 There was a question, I believe, from Commissioner Ο. 21 Nelson, Chairman Nelson, about routing, and you discuss 22 briefly that you might vary the route a little bit here, 23 I think you said 100 feet or so depending on the 24 circumstances and what you come across. 25 How do you decide whether to avoid unanticipated

1	discoveries when it comes to historic properties,
2	cultural properties, things of that nature?
3	A. It would very much depend on what it was. So if we
4	came across an unanticipated discovery, we would follow
5	our unanticipated discoveries plan. And that plan spells
6	out we would stop work. We would bring in an
7	archeologist, or the appropriate person to help us
8	understand what that resource was, and then consult with
9	the appropriate agency, either the Corps, the SHPO
10	directly, the coroner if it's bones just depending on
11	what that was. And if it was a property like a
12	structure, again, it would be determined upon what that
13	structure was.
14	Q. Okay. So what would justify a shift in the route
15	when it comes to unanticipated discoveries?
16	A. It could be if we unearthed a body we certainly
17	would reroute, depending on what that body there's
18	different classifications. If it was a burial site, we
19	would certainly reroute, stop what we were doing.
20	Unfortunately we've run across bodies that are not
21	associated with a burial site but could be somebody that
22	was murdered and buried which is unfortunate, but that's
23	happened to us.
24	In that circumstance we would work with the
25	sheriff's office and coroner's office, and they would

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1 remove the body, and we would continue on. That would be 2 an example. Is there anything besides a burial that would be 3 Q. 4 grounds to shift the pipeline? 5 Α. Yes. 6 Ο. Can you give some examples of that? 7 It could be a culturally significant site that Α. 8 has -- the archeologist determined has some level of 9 importance. I'm not going to define what the importance 10 is other than somebody else would define what that level 11 of importance was. But we would work with the proper 12 authorities. And if it was determined to be of 13 importance at some level, then we would consider and/or 14 move the pipeline. 15 There was questioning about an EIS, and you liken an Ο. 16 EIS to the State of South Dakota's process. 17 Who conducted the environmental studies that were 18 done that you compared to the EIS? 19 The studies that were done for this docket? Α. 20 Yes. Ο. 21 Α. We had multiple consultants do those. 22 Okay. You say we had. Who retained those Ο. 2.3 consultants? 2.4 My company. Α. 25 Okay. So is it fair to say -- strike that. Ο.

1 They're not impartial, neutral third parties then, 2 are they? Well, they are. They're professionals that conduct 3 Α. 4 themselves in a professional manner. Somebody's got to 5 pay the bill under a third-party scenario for an EIS, 6 which I have done many, many times, by the way. I'm 7 still paying for the third party to be done. 8 Just because it's under the guise of an agency means 9 nothing more in that scenario to that professional 10 writing that document compared to working directly for the company. I think that's a pretty bad assumption on 11 12 your part. 13 Thank you for that. Q. 14 You bet. Α. 15 What geographically does the Fish & Wildlife Service Ο. 16 environmental assessment cover? 17 What was the first part? Α. 18 What geographically does the Fish & Wildlife Service Ο. EA cover? 19 20 The EA that's currently being evaluated? Α. 21 Ο. Yes. 22 So there's the one that's being evaluated now. Α. 2.3 There's actually two. One is for the crossings of the 24 easement areas by the Fish & Wildlife in North and South 25 Dakota. So that encompasses the easement areas

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1 themselves.

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2	Then we're also working on an environmental
3	assessment with the U.S. Army Corps of Engineers for what
4	they call the Section 408 process. And their process
5	encompasses just those crossings, and that's the limit of
6	the U.S. Fish & Wildlife review area.
7	Q. Is it safe to say that an EIS would cover more
8	geographically than the Fish & Wildlife Service's EA
9	covers?
10	A. Depending on the scale, sure. If it's a national
11	EIS, it would cover all the components. If it's a state
12	level EIS, it certainly could depending upon what the
13	breadth of the scope may be.
14	Q. Do you conduct background investigations of your
15	employees?
16	A. For our direct hires we do.
17	Q. Do you hire felons?
18	A. I'm not I don't think so, but I can't say yes or
19	no.
20	Q. You don't know if it's your policy to refrain from
21	hiring felons?
22	A. I'm not in our human resources department. I can't
23	answer that. I don't know.
24	Q. Okay. What about sex offenders? Do you hire sex
25	offenders?

1 Α. I don't think so. Is that against your policy? 2 Ο. I don't think it specifically says that, no. 3 Α. 4 Okay. So why would you think that you don't hire Q. sex offenders? 5 6 I just don't think that we do, but I can't say that Α. 7 for sure. 8 You said that you have the right to terminate Q. 9 contracts or have contractors terminate contracts for 10 misconduct. How is that discretion exercised? 11 It's -- well, one, it's squarely in my discretion. Α. 12 So if I believe that a contractor's acted inappropriately 13 or an employee of a contractor's acted inappropriately, I 14 have the discretion contractually to terminate that 15 person from our project. Okay. Are there set standards that you follow? 16 Ο. 17 Sorry? Α. 18 Are there set standards that you follow? Ο. 19 Α. I don't have a written policy. I have what my 20 opinion is in the authority and delegation of my company 21 to inflict my opinion. 22 Getting back to the EIS just for a second. Ο. Ιn 2.3 explaining why you believe the state process covers as 24 much as an EIS, you said it's up to the lead federal 25 agency to be responsible for analyzing the impact on

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1 treaty rights when it comes to a federal EIS. 2 So who's responsible, since there's no lead agency 3 in this particular proceeding, for assessing treaty 4 rights? 5 Α. There is none. 6 MS. BAKER: Thank you. I have nothing further. 7 MS. WIEST: Were there any other cross questions 8 based on the Commissioners' questions? Ms. Northrup? 9 MS. NORTHRUP: Yes. 10 RECROSS-EXAMINATION 11 BY MS. NORTHRUP: 12 Good morning. Ο. 13 Morning. Α. 14 Just following up on a question that Commissioner Q. 15 Nelson had asked in reference to the liability. 16 My understanding is that your testimony is that the 17 buck kind of stops at the parent company for liability if there was a spill; is that correct? 18 Yes, ma'am. 19 Α. 20 And do each of those three companies have a fund set Ο. 21 aside in excess of what would be required under federal 22 or state law for spill protection or spill clean up? 23 We don't have a fund, per se, but what we do is we Α. 24 have corporate insurance programs and we have corporate 25 cash reserves that could be relied upon in the event of a

1 spill. 2 So I assume that each of the companies would have an Ο. insurance policy that would cover that? 3 4 Α. Absolutely. Is the company willing, under confidentiality, to 5 Ο. 6 submit those limits to the Commission for their 7 consideration? 8 No. We're not. Α. 9 Does Dakota Access Pipeline have an insurance policy Ο. 10 directly that would cover spills? 11 Yes, we do. Α. 12 Would you be in a position to submit that? Ο. 13 Α. No. 14 Liability limit? Ο. 15 I would not. Α. 16 There were some questions asked by Commissioner Ο. 17 Hanson in reference to unusually sensitive areas. 18 Would Mr. Frey be in the best position to describe 19 what analysis you went through to determine what may or 20 may not be a USA? 21 I think between him, from an engineering Α. 22 perspective, and Monica, from an environmental analysis, 2.3 depending on the concept of your question, one of those 2.4 two would. 25 MS. NORTHRUP: Thank you. I have no further

1 questions. 2 MS. WIEST: Any other cross? Ms. Best. 3 MS. BEST: I do have a guestion about this 4 insurance thing. 5 RECROSS-EXAMINATION 6 BY MS. BEST: 7 You have already agreed to submit to the PUC under Ο. 8 confidential cover what the insurance limits are for your 9 contractor, Michels, but you are refusing to submit to 10 the PUC under confidential cover what the insurance --11 liability insurance limits are for any -- for either your 12 corporation or your parent corporation; is that correct? 13 That's correct. I consider that to be very Α. 14 proprietary, corporate information. If compelled we 15 would, but voluntarily I would not. 16 MS. BEST: I don't know if this is the 17 appropriate time or not, but I don't want to waive this 18 opportunity. I would move -- make an oral motion to the 19 Commission moving that the -- both the -- to compel 20 Dakota Access to provide the PUC under confidential cover 21 with its -- a copy of its insurance policies, liability 22 insurance policies for both Dakota Access and its parent 23 corporations and affiliates. 2.4 MS. WIEST: Did you have a response, 25 Mr. Koenecke?

1 MR. KOENECKE: I do, Ms. Wiest. I need a break 2 to confer with my client about his thoughts and reasonings, and I would ask for 15 minutes to do that. 3 4 MS. WIEST: Actually is this an issue that needs 5 to be decided right now, or is it something that after 6 you've had a chance to confer we can come back and 7 discuss this? Or you would prefer to determine it now? 8 MR. KOENECKE: It seems like a natural point to do that. 9 10 MS. WIEST: Okay. We'll take our break right 11 now then. 15 minutes. (A short recess is taken) 12 13 MS. WIEST: Ms. Best or Mr. Koenecke, we left 14 when you were talking about the Motion To Compel. 15 MR. KOENECKE: Thank you, Ms. Wiest. I did ask 16 for a break, and I appreciate that indulgence. I was 17 able to confer with my client. We're going to resist 18 vigorously providing the requested insurance policies. 19 They have proprietary and business confidential 20 nature that's very sensitive to my client. We are 21 requesting that the motion not be heard at this time but 22 that we be given a chance to develop our arguments more 23 fully in a more robust fashion so that the Commission can 2.4 have the benefit of some of our thinking on the topic. 25 As you can imagine, we've got a lot of moving

1 parts over here, and to be asked to shift gears as to why 2 insurance requirements shouldn't be provided is more than we can handle at this time. 3 I will tell everybody, I want to preview, that 4 5 that we are going to resist vigorously. We think we've 6 got solid reasons for doing so. We're not just saying 7 no. We're saying no for a reason. We want to develop 8 that fully. 9 So I had asked Ms. Best during a break if that 10 was going to be something that she could understand and 11 agree to. I'll let her speak to that. But I don't want 12 anybody to have the impression that we're in a position 13 to provide those insurance policies. We're not. 14 Those are very sensitive documents. And I do 15 request more time to respond to that oral motion. 16 Did you have a response, Ms. Best? MS. WIEST: 17 MS. BEST: Yes. It's my understanding that the 18 company is likely to provide a written response, and we 19 would like also an opportunity to respond to that. And 20 we certainly understand that it cannot be handled this 21 morning when there's other ongoing hearing involved. 22 MS. WIEST: Did you have any time frame for your 2.3 written response, Mr. Koenecke? 24 MR. KOENECKE: I'd like to handle the matter, 25 you know, no earlier than on -- you know, prior to

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1 rebuttal next week. I need the weekend to put something 2 together in this regard. 3 MS. WIEST: Okay. Did you have something, Mr. 4 Rappold? 5 MR. RAPPOLD: Yeah. It seems like this is a 6 situation that would trigger the requirements of an 7 Administrative Rule addressing confidentiality of 8 information, and I'd like to suggest that that's also 9 something that we should follow. 10 MS. WIEST: Yes. And any motion we would 11 consider it, to the extent that the Commission would 12 grant that, we certainly would look at the 13 confidentiality and filing under that. 14 MR. RAPPOLD: I'll get the rule. 15 MS. WIEST: Okay. Did you have any further 16 questions, Ms. Best? MS. BEST: Yes. If I may. I realize that the 17 18 hearings are ongoing, and the Commission would like to 19 rule on that Motion To Compel. I'd like three days to 20 respond after Mr. Koenecke files his written position. 21 MS. WIEST: Okay. 22 MS. BEST: And then also at this time I would 23 move admission of Sioux Falls Exhibit A, which is the map 24 that the parties have been referring to throughout the 25 morning.

1 MR. KOENECKE: No objection. 2 MS. WIEST: Is there any objection to the 3 admission of Sioux Falls Exhibit A, the map? 4 MR. KOENECKE: No objection. 5 MS. WIEST: If not, it has been offered and 6 admitted. 7 Anything further, Ms. Best? 8 MS. BEST: Thank you. Nothing. 9 MS. WIEST: Any other questions based on 10 Commissioner questions from other Intervenors? 11 If not, any redirect, Mr. Koenecke? 12 MR. KOENECKE: I have a few questions. 13 REDIRECT EXAMINATION 14 BY MR. KOENECKE: 15 Mr. Mahmoud, you were asked questions about how and Q. 16 whether you'd communicate the fact that a spill had occurred to people who were impacted. Do you remember 17 18 that line of questioning? 19 MS. BAKER: Objection. This question does not 20 speak to anything that was asked by the Commissioners. 21 MS. WIEST: No. This --22 MS. BAKER: I'm sorry. 23 MS. WIEST: This is redirect for everyone. 24 MS. BAKER: Thank you. 25 Α. Yes, I do.

1 Ο. It's your testimony that the Applicant will report 2 according to laws that are applicable; correct? 3 Yes, it is. We will respond to or we will Α. 4 communicate with the local emergency responders and any 5 other affected parties that would be impacted. (Counsel hands witness iPad.) 6 7 MR. RAPPOLD: Could we be informed what the 8 witness was just handed. 9 MR. KOENECKE: As soon as I get back to my 10 microphone. 11 MR. RAPPOLD: Thank you. Mr. Mahmoud, I've put in front of you a iPad with a 12 Ο. 13 page up from South Dakota Codified Law. Do you see where 14 it says 34A? 15 I do. Α. 16 Can you start reading at that point? Ο. 17 Sure. 34A-18-9, "Reports regarding spill, each Α. 18 crude oil pipeline operator that experiences a spill 19 shall file a written report with the department within 30 20 days of discovery of the spill. If the spill, one, is a 21 five gallons or more or, two, causes an explosion or fire 22 or, three, causes the injury or death of any person." 23 So if that's state law on the topic of spill Ο. 24 reports, are you going to follow that? 25 And we would -- we would follow that to a Α. We are.

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1 T, of course, and we would certainly respond to and 2 communicate with the emergency responders and any affected party in advance of this requirement of 30 days. 3 4 Ο. Thank you. 5 I believe that yesterday you were asked about 6 emergency response training. Do you remember that? 7 Yes, sir. Α. 8 It's my understanding that you're going to provide Ο. 9 emergency response training for affected units of local 10 response agencies? 11 Our intent is to coordinate with and provide Α. 12 training and coordination with the local emergency 13 responders or first responders as much as we can and as 14 much as they want us to. 15 We have a program in place that we work with those 16 community first responders. We've already initiated 17 that. We've met with every emergency responder 18 organization on a county level across all 13 counties. 19 We've already had those communications not just once, but 20 multiple times. 21 We have a program -- and Todd Stamm can go over what 22 the program is --- with our operations group that we do 23 on an annual basis with emergency responders to ensure 24 that the communities are prepared in the event of an 25 emergency.

1 Q. If an agency wanted to participate would you exclude them for any reason? 2 3 No. It's open to everybody. Α. 4 Do you know whether road use agreements are fairly Ο. 5 common for project construction? 6 They are very common. Α. 7 And you expect to enter into road use agreements Ο. 8 with every affected local unit of government? 9 We do. If we affect anybody's roads, we will Α. 10 certainly enter into a road use agreement with them. 11 So what I understand is if somebody owns a road and Q. 12 you expect to use it for construction, you expect to 13 enter into a written agreement with them as to your use 14 of their road? 15 If they require a written agreement, we absolutely Α. 16 will. 17 Yesterday Mr. Boomsma asked you about whether you'd Q. 18 pay a landowner for crop damages for one to three years. 19 Do you remember that line of questioning? Yes, I do. 20 Α. 21 Is it your understanding that the project is paying Ο. 22 crop damages upfront for one to three years? 23 We're paying crop damages up to three years. So not Α. 24 one to three years, but the full value for that 25 three-year period.

Q. And then the project is responsible for lost yields
or crop damages past that period?
A. We are. We are committing to and are obligated to
paying for any damages that occur as a result of our
pipeline in the form of crop yield reduction and/or other
damage, for that matter.
Q. Would other damage include spill damages?
A. It could. Sure. It could include spill damage. It
could include subsidence of the ditch. Anything that we
cause we are certainly responsible for.
Q. Any damage from construction or operation?
A. That's correct.
Q. Is the responsibility of the pipeline?
A. It's the responsibility of Dakota Access, yes.
Q. Does the easement say that?
A. It does. We specifically indemnify the landowner
from any of our actions that would result in damage to
their property.
Q. You were asked about restoration of people's
property yesterday, I believe both after a spill and
if there should be one, or after construction; is that
correct?
A. Yes.
Q. At what point would you give up on restoration
efforts of someone's property?

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1 Α. In either case we would not give up. It's our It's our practice and our commitment that if we 2 policy. 3 have an impact to someone's property, we know it's 4 intrusive. We know we're coming in to put this pipeline, 5 and our commitment is that we will repair and restore the 6 right of way to its prior disturbance condition in no uncertain terms. 7 8 Have the parent companies, Energy Transfer or Ο. 9 Phillips 66, provided guarantees as to the -- their 10 responsibility for a spill? 11 They have. Each of our parents, and Sunoco Α. 12 Logistics, will in the same manner, have entered into 13 written agreements guaranteeing the performance of Dakota 14 Access, LLC. 15 Would you be -- would you be willing to provide Ο. 16 those under Protective Order? 17 We would. Α. 18 Are you familiar with the rules on high consequence Ο. 19 areas for construction? 20 In general terms. Α. 21 Those rules don't require a route change in order to Ο. 22 conduct through a high consequence area? 23 They do not. They provide a framework for adding Α. additional protective mechanisms, be it valves or some 24 25 other form of protection to protect the environment or

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1	the HCA.
2	Q. I believe it was your testimony that the route
3	doesn't cross any HCAs in South Dakota?
4	A. In South Dakota we do not cross any HCAs.
5	Q. But if you did, you would follow the rules?
6	A. We would. We've gone above and beyond already in
7	the rules as part of our siting criteria and our
8	analysis. We have a certain number of valves that would
9	be safe and prudent to do. We're putting in 40 valves.
10	You know, not to say that each valve is spaced at this
11	quantity, but that averages about a valve every 6 miles.
12	We did that for a reason. We did it because we
13	believed that it was prudent for us to have additional
14	valves in certain places to ensure the protection or the
15	increased segmentation of the pipeline to isolate for
16	sensitive areas.
17	Sioux Falls is a great example. We understand the
18	sensitivity around Sioux Falls. We understand the
19	potential for future growth. We have placed additional
20	valves in that area. We have also enhanced our Emergency
21	Response Plan to add additional emergency response
22	equipment and agreements, to have those in place to
23	protect that community or surrounding communities.
24	So we are taking those steps excuse me. We are
25	taking those steps to ensure protection of the

environment, as well as the communities that we cross 1 2 near. 3 My final question is in the event an alternate use Ο. 4 was developed for the pipeline in the future, would you 5 commit to coming back to this Commission for a Permit 6 proceeding of the amendment, perhaps, in order to use 7 an -- or have an alternate use for the pipe? 8 We would. Α. 9 MR. KOENECKE: I've got nothing more. Thank 10 you. 11 MS. WIEST: Ms. Baker, did you have any recross based on redirect? 12 13 MS. BAKER: No. Thank you. 14 MS. WIEST: Mr. Rappold? 15 MR. RAPPOLD: Just a few. 16 RECROSS-EXAMINATION 17 BY MR. RAPPOLD: 18 In determining what company to work with regarding Ο. 19 the operation agreement, what -- operation agreement for 20 operation of a pipeline, what process did you go through 21 to kind of check out the qualifications and capabilities 22 of different companies to do that service? 23 Well, we own Sunoco Logistics. We did an evaluation Α. 24 of our internal companies, internal affiliates. And we 25 mostly operate all of our companies under two umbrellas,

1 Sunoco Logistics and Grange Acquisitions, which is just 2 another operating company. The Sunoco Logistics operates the crude assets. 3 So, 4 plain and simple, that made the most sense to us. And so 5 we're going to enter into an agreement with them to 6 operate. 7 And how long have you owned Sunoco Logistics? Ο. 8 Going on three years, I believe. Α. 9 Are you familiar with any of their safety records Ο. with PHMSA? 10 11 In general terms, but Todd Stamm certainly is. Α. 12 I'm sorry. You said Todd? Ο. 13 That's correct. Α. 14 Okay. Thank you. Q. 15 Would you have any knowledge of notices received of 16 potential violations from PHMSA? 17 Α. From who? 18 PHMSA. Ο. 19 Α. PHMSA? 20 I'm sorry. I pronounced that improperly. PHMSA, is Ο. 21 that the proper way to pronounce it? 22 It is. PAMSA would have different letters. Α. 2.3 Put that A in the wrong spot so would you be aware. Ο. 24 Back to the question of any notices received from PHMSA? 25 I am aware of some. I can't speak to any detail, Α.

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but again, Mr. Stamm, who's here, certainly can. 1 2 I'll probably ask him too. Ο. Are you aware of notices received regarding failure 3 4 to comply with reporting requirements for accidents? 5 No, I'm not. Α. 6 Q. You're not aware of that? 7 No. Α. 8 Okay. But you think Todd might be? Q. 9 I do. Α. 10 MR. RAPPOLD: Okay. Thank you. I have no 11 further questions. 12 MS. WIEST: Ms. Craven, did you have any? 13 MS. CRAVEN: Thank you. No. 14 MS. WIEST: And Mr. Boomsma is not here. 15 And Ms. Best. 16 MS. BEST: Nothing. Thank you. 17 MS. WIEST: Ms. Northrup. 18 MS. NORTHRUP: I have no questions, Ms. Wiest, 19 but just for the sake of the record, I would request a 20 copy of the guaranteeing agreements that Mr. Koenecke and 21 Mr. Mahmoud referenced in their testimony. They said 22 they'd be willing to provide those. I would just make a 2.3 motion that they would provide those. 24 MS. WIEST: I would assume you were filing them 25 in the docket. Would that be correct, Mr. Koenecke?

1 MR. KOENECKE: We will under protective 2 confidentiality provisions in effect. 3 MS. WIEST: Okay. Thank you. 4 MR. RAPPOLD: Would that fall under existing confidential treatment orders from the Commission? 5 6 MS. WIEST: It should. The confidentiality 7 orders will apply to that. They can file it as 8 confidential, and then it's treated as confidential. Thank you. 9 MR. RAPPOLD: 10 MS. WIEST: Staff, did you have any other 11 questions? 12 MS. EDWARDS: Staff has no recross. Thank you. 13 MS. WIEST: Commissioners? 14 CHAIRMAN NELSON: I have one. 15 Mr. Mahmoud, you've been very forthright in 16 talking about your company's willingness to continue to 17 pay for any documented crop production losses that would 18 extend beyond three years, any other damages that might 19 extend beyond three years that link back to the 20 construction of a pipeline. 21 There's been some allegation that there will be 22 property value loss to landowners that will extend into 23 the future. Is your company willing to compensate for 24 property value loss that would extend beyond three years? 25 When we do our evaluations, we go THE WITNESS:

1 through and we do a property valuation, and we do 2 appraisals for each property or land that we traverse. 3 As part of that process, and it's an independent 4 appraisal, we give it to the landowner or the landowner 5 can have their own conducted and we'll pay for that. 6 When we take the consideration of their appraisal it 7 will -- or it should, and usually does, contemplate a 8 reduction of value in property, diminishment of valuation 9 of that property. 10 As part of our initial compensation, we do 11 compensate for diminishment of value. If it's not 12 disclosed at that time, the answer is typically no. And 13 there's been multiple studies out there that demonstrate 14 that pipelines simply just do not diminish the value of 15 the property. But there are circumstances that they do. 16 And in those simple cases -- not simple, but in those 17 cases, we absolutely will compensate the landowner for 18 that diminishment. 19 CHAIRMAN NELSON: And with your last phrase you 20 say you absolutely will compensate. As part of the 21 initial easement agreement, or if that factor was proved 22 at some later time, you would make additional 2.3 compensation? Which is it? 24 THE WITNESS: The normal practice -- and I 25 apologize for not being crystal clear on this, but the

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1 normal practice is it's done upfront during the initial 2 payment. If for some reason they can prove, the landowner 3 4 could prove a diminishment of value after the fact, then 5 I can tell you we would consider that as part of our 6 operations. 7 I have never experienced that in my career, but 8 I'm not going to say it can't happen. I'm just 9 unfamiliar with it. But our intent is to do it upfront. 10 CHAIRMAN NELSON: Thank you. No further 11 questions. 12 MS. WIEST: Any further redirect? 13 COMMISSIONER HANSON: Ms. Wiest. 14 MS. WIEST: I'm sorry. 15 COMMISSIONER HANSON: You're sorry I'm going to 16 speak? 17 MS. WIEST: Sorry I missed you. 18 COMMISSIONER HANSON: Let's clarify that. 19 Mr. Mahmoud, I really appreciate your testimony. 20 I think it's been very informative and professional, and 21 heard lots and lots of people testify, and yours has been 22 real comprehensive answering questions. Appreciate it 2.3 immensely. 2.4 I am curious about in discussing EIS, which 25 we've discussed at length a number of times here, pretty

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1 much every time you've said that the project is already 2 providing all of the information that an EIS would 3 provide. It's only packaging it in a different format. 4 You made that very clear several times.

5 And yet when Ms. Baker asked you some questions 6 on specifics on different types of EIS, you stated that 7 it would not cover portions of that. Did I misunderstand 8 something somewhere, or would an EIS provide 9 additional -- please explain the -- where the two strains 10 don't meet here.

11 THE WITNESS: Okay. The conversation that we 12 were having, the questioning that they were asking was in 13 reference to a federalized EIS. Under a federalized EIS, 14 there's certain criteria that would be triggered, 15 government-to-government communications, consultation, 16 coordination in certain activities and/or data points, 17 that if I understand the South Dakota rules -- and I'm 18 not claiming to be an expert, so I may get this partially 19 wrong, but they don't require the same level of 20 coordination between intergovernment communications. So 21 there is, in fact, a difference between a federal EIS and 22 a state EIS.

23 On the state EIS, the data that would be 24 produced has already been produced in the context of the 25 PUC process. At least in my opinion. From what I've

1 reviewed. I looked it up. I read it. From what I can see, they appear to be very 2 consistent in the level of detail and data that are 3 4 produced during this process, as compared to a federal 5 process, which is significantly different. That was the 6 difference in the conversation that I had trying to 7 articulate is that the federal EIS process is, in fact, 8 quite a bit different than the state EIS process. And I 9 think there was an attempt to confuse what the two 10 standards would be. 11 COMMISSIONER HANSON: So you're saying that a federal EIS is significantly different than the state 12 13 EIS, that there are a variety of issues that are covered 14 other than the government to government? 15 THE WITNESS: Yes, sir, there are. One is the 16 complexity of the alternative and cumulative impact 17 assessment under a federal EIS, which is quite a bit 18 different than the state rules. 19 So the state EIS is considering requirements 20 under South Dakota Law, is considerably different than 21 the federal EIS standards, in my opinion. 22 COMMISSIONER HANSON: However, the -- if I can 23 paraphrase your statement then. The project already 24 includes everything that would be required by the State 25 of South Dakota.

1 THE WITNESS: In my quick assessment in the past two days, yes, that is my interpretation in review. 2 3 COMMISSIONER HANSON: Thank you. 4 THE WITNESS: Yes, sir. 5 MS. WIEST: Any other Commissioner questions? 6 Any further questions? 7 MR. RAPPOLD: Yes. 8 RECROSS-EXAMINATION 9 BY MR. RAPPOLD: 10 Just a quick follow-up with Commissioner Hanson's Q. 11 question. 12 What alternatives to the proposed action have you provided to the Commission? 13 14 A. We provided our routing analysis and description of 15 that analysis. I can't recall all the different maps, 16 but we showed the various alternatives for the routing as 17 we would cross through South Dakota. 18 On the Harrisburg map or Tea map, it clearly shows different alternative routes that we considered across 19 20 the Sioux Falls area. And there's some additional maps 21 in the Application that show those. 22 That addresses alternatives to the route, but what Ο. 2.3 alternatives have you presented to the proposed action? 2.4 A. And we have not. I say that. 25 Thank you. Ο.

1 A. And Monica probably could answer that better, but I 2 don't believe we have. 3 I'll rest with your answer that you have not Ο. 4 provided alternatives to the proposed action. Thank you. MS. WIEST: Ms. Craven? 5 6 MS. CRAVEN: Yes. Thank you. 7 RECROSS-EXAMINATION 8 BY MS. CRAVEN: 9 Mr. Mahmoud, are you aware that Section 4.1 of the Ο. 10 South Dakota Environmental Policy Act incorporates all of 11 the federal provisions? 12 I would have to read it. I've already said -- I've Α. 13 read it. I'd have to look at it. If you want to provide 14 me a copy, I'll read it and validate or deny. 15 You just testified the exact opposite to the --Ο. 16 If you'll provide it. In my interpretation I Α. believe there's a difference in the standards. So if you 17 18 hand it to me, I'll read it and give me an answer. 19 Q. Well, you just respond to a question acting like you 20 knew, and now you say you have to read it to really 21 understand it. So perhaps you didn't quite know when you 22 answered the question so forthrightly. 23 MR. KOENECKE: I'd object. There's multiple 24 questions in there. It's argumentative and badgering. 25 If she wants him to read the statute, she should provide

1 it to him and do it. 2 MS. WIEST: Sustained. Do you have a question, 3 Ms. Craven? 4 MS. CRAVEN: No, I don't have a question, but he 5 did just say he had read it over the last couple of days. 6 MS. WIEST: Any redirect based --7 MR. KOENECKE: Any response? 8 MS. WIEST: No. Any redirect based on -- okay. 9 Thank you, Mr. Mahmoud. 10 You may call your next witness. 11 MS. CRAVEN: We'd like to hand him the statute. 12 MR. CAPOSSELA: Can we ask one more question? 13 MS. WIEST: I think you already said you were 14 done with your questioning. 15 MS. SEMMLER: The Applicant calls Chuck Frey. 16 (The oath is administered by the court reporter.) 17 DIRECT EXAMINATION 18 BY MS. SEMMLER: 19 Ο. Please state your name for the record. 20 Chuck Frey. Α. 21 Q. What is your business address? 1300 Main Street, Houston, Texas 77002. 22 Α. 23 And who is your employer? Ο. Energy Transfer Partners. 24 Α. 25 What's your position with them? Q.

1	A. I'm the vice president of liquid engineering.
2	Q. Could you please tell us a little bit about your
3	education and professional background?
4	A. Yes. I received a bachelor's of science degree in
5	civil engineering from Texas Tech University. I'm a
6	registered professional engineer in four states and have
7	over sorry. Over 36 years of experience in the
8	industry with roles of increasing responsibility for
9	engineering design, construction, and operation of
10	midstream and downstream facilities and pipelines.
11	I began work for Energy Transfer in 2011 as vice
12	president, liquids engineering, my current position.
13	Prior to Energy Transfer I began working in the
14	industry as a project engineer and moved through a
15	variety of engineering and operations positions before
16	becoming director of southwest operations for TEPCO in
17	2000 where I was responsible for operations in a
18	four-state region.
19	In 2007 through an acquisition I moved to the role
20	of vice president of Texas operations for LDH Energy
21	where I served until moving to Energy Transfer in 2011.
22	In addition to engineering design, construction, and
23	operations, at times my roles and responsibilities have
24	included project development, joint venture formation,
25	and management and asset acquisition, integration and

1 optimizations. 2 Do you see a document in front of you marked Ο. Exhibit 31? 3 4 Α. Yes, I do. What is that document? What is its title? 5 Ο. 6 It's direct testimony for Chuck Frey. Α. 7 Did you prepare that document? Ο. 8 I did. Α. 9 Did you review that document prior to today's Ο. 10 proceeding? 11 Yes. Α. 12 If I were to ask you the questions in that Exhibit Q. 13 31 today, would you answer them the same? 14 I would, except for one typographical error that Α. 15 didn't get corrected. 16 On line 14 it says compressor station. It should 17 say pump station. 18 Q. With that correction made then, do you adopt that 19 written document as your sworn testimony today? 20 A. I do. 21 MS. SEMMLER: The witness is available for 22 cross-examination. 23 MS. WIEST: Were you going to offer the exhibit? 24 MS. SEMMLER: Thank you. I offer Exhibit 31. 25 Is there any objection to Exhibit MS. WIEST:

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31? 1 2 If not, it's been admitted. And we will go to Ms. Baker. 3 MS. BAKER: 4 Thank you. 5 CROSS-EXAMINATION 6 BY MS. BAKER: Jennifer Baker for the Yankton Sioux Tribe. 7 Ο. 8 In the Application Dakota Access describes demand 9 for the facility; is that correct? 10 Yes. Α. 11 Who are the consumers that Dakota Access references Ο. in Section 10 of its Application? 12 13 I would need to see that section to look at it. Α. 14 Did you draft that section of the Application? Q. 15 I may have worked on part of it, but I don't have it Α. 16 memorized, so if you want to ask a specific question to 17 it, I would need to look at it. 18 Okay. I'm asking who are the consumers when you Ο. 19 speak about demand for the facility? 20 The consumers of the services we'll provide are the Α. 21 shippers on our pipeline system. 22 I think I'd like to go ahead and show you the Ο. 23 Application, if I could take a second and find it and 24 have you take a look at that. 25 Okay. I think I'll just go ahead and come back to

1 that. In assessing this pipeline project, was there any 2 consideration given to South Dakota citizens as 3 4 consumers? 5 Direct consideration, no, other than as this Α. 6 pipeline providing a secure means for transportation of 7 reliable crude oil to supply our refineries, and the 8 citizens of South Dakota being consumers of the products 9 of those refineries, the citizens of South Dakota do 10 benefit. 11 Okay. What products are those? Q. 12 Crude oil would be turned into motor gasoline, Α. diesel fuel, kerosine. 13 14 Okay. So this pipeline will ship oil that will be Ο. 15 used for all of those things? 16 It will be used to ship oil that will go to Α. 17 refineries, and the refineries will produce those 18 products. 19 Q. So you don't know those products will actually be 20 used by South Dakota consumers for this particular 21 pipeline? 22 I don't know if these molecules of crude oil will Α. 2.3 come back to South Dakota, but the products will come to 24 South Dakota and be used by people in South Dakota. 25 What are the energy needs of the people of Ο.

1 South Dakota?

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2	MS. SEMMLER: Objection. This is beyond the
3	scope of the written beyond the scope of the written
4	direct testimony.
5	MS. BAKER: Mr. Frey has stated that he can
6	speak to demand for the project.
7	MS. WIEST: Overruled.
8	A. Would you repeat the question.
9	Q. Sure. What are the energy needs of the people of
10	South Dakota?
11	A. As we see, there's a lot of gas stations here.
12	People use it for transportation fuels. I believe it's
13	used for heating fuel. Certainly the agricultural
14	community uses a lot of diesel fuel in the production of
15	agricultural commodities.
16	Q. Can you give me quantities?
17	A. They could be looked up and given to you. No. I
18	don't have them memorized.
19	Q. So how do you know that this pipeline is going to
20	fulfill the energy needs of the people of this state if
21	you don't know what those needs are specifically?
22	A. Again, I do know what those needs are. The needs
23	are for gasoline, kerosine, diesel fuel used by people in
24	all states of the country. Agricultural community in
25	particular uses diesel fuel in the production of crops.

1 Ο. But need implies a certain quantity, and whether or not there is a need depends on quantity available versus 2 3 quantity that can be provided, supply and demand, so 4 without knowing the quantity of need, how can you 5 possibly know whether this pipeline will fit those needs? 6 MS. SEMMLER: Objection. It's been asked and 7 answered. 8 MS. WIEST: Overruled. 9 Again, would you repeat the question? Α. 10 Without knowing what the needs of the people of Q. South Dakota are as far as quantity, how can you possibly 11 12 know how this pipeline will fit those needs? 13 I do know that while the United States' production Α. 14 of crude oil has continued to increase, the United States 15 still imports around 7 million barrels per day of crude 16 oil from foreign sources. 17 So the ability of this pipeline to help for the 18 production of safe and reliable domestic sources of crude 19 oil to supply the needs of consumers nationwide, 20 including South Dakota, is evident in that we are 21 continuing to import crude oil, and this would replace 22 imports. 23 So are you suggesting that the oil that's Ο. 24 transported by this pipeline will be refined, become some 25 product that will be ultimately used in South Dakota?

1 Α. Again, I'm not implying that the specific molecules 2 of this crude oil will come back to South Dakota. Gasoline, diesel fuel, kerosine is fungible products, and 3 4 so the specific molecule is not particularly important. 5 Q. If it's not important, can you help me understand 6 why the South Dakota Law makers included such a specific 7 finding that "by assuming Permit authority that the State 8 must also ensure that these facilities are constructed in 9 an orderly timely manner so that the energy requirements 10 of the people of the State of South Dakota are 11 fulfilled"? 12 MS. SEMMLER: Objection. Calls for a legal 13 conclusion. 14 MS. WIEST: Sustained. 15 Is it correct that South Dakota regulation Ο. 16 22:10:22:10 requires Dakota Access to provide a 17 description of estimated future needs of consumers to be 18 directly served by the facility? 19 MS. SEMMLER: Objection. Calls for a legal 20 conclusion. 21 MS. BAKER: There's no conclusion required. 22 It's whether or not this regulation requires him to 2.3 actually do something he's responsible for. 2.4 MS. WIEST: Overruled. 25 You would need to provide me with the regulation and Α.

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1 let me read it.

1	let me read it.
2	MS. BAKER: Okay. Mr. Rappold, I think, will be
3	pulling that up on the computer.
4	MR. RAPPOLD: Which section?
5	MS. BAKER: It's ARSD 20:10:22:10.
6	MR. RAPPOLD: One more time.
7	MS. BAKER: 20:10:22:10.
8	Q. So my question, Mr. Frey, was whether it's correct
9	that this regulation requires Dakota Access to provide a
10	description of estimated future needs of consumers to be
11	directly served by the proposed facility?
12	MS. SEMMLER: I'm going to object again. The
13	Commission can certainly take judicial notice of what
14	this statute or what this Administrative Rule says, but
15	this witness is not a lawyer and can't testify as to the
16	legal meaning of this Administrative Rule.
17	MS. BAKER: It's not a question as to the legal
18	meaning. It's a question of does this apply, and it's
19	laying foundation for further questions.
20	MS. WIEST: Objection overruled.
21	A. The first sentence reads that the Applicant shall
22	provide a description of present and estimated consumer
23	demand and estimated future needs of those consumers to
24	be directly served by the proposed facility.
25	Q. Okay. So is the answer to my question yes or no?

1 Α. Please repeat the question. 2 Does this regulation require Dakota Access to Q. provide a description of estimated future needs of 3 4 consumers to be directly served by the proposed facility? 5 To me that's a legal opinion that I can't render. Α. MS. BAKER: Your Honor, you've already overruled 6 7 an objection on this. Could you ask the witness to 8 answer? 9 MS. WIEST: I think he's given your answer. 10 MS. BAKER: Okay. 11 Has Dakota Access provided a description of Ο. estimated current needs? 12 13 Current needs for? Α. 14 For energy in the State of South Dakota. Q. 15 I would have to look at the whole filing. Α. I don't 16 recall that, but I'm not sure if it's in the filing or 17 not. 18 Q. Okay. As the demand -- as the individual 19 responsible for demand issues pertaining to this 20 pipeline, is that something you would have been 21 responsible for? For demand issues in regards to the movements in the 22 Α. 2.3 pipeline. But consumer demands, not necessarily. 24 Q. Okay. Who would be responsible for consumer 25 demands?

1	A. I'm not sure. I'll have to consult and respond
2	later.
3	Q. Based on your knowledge of the Application you
4	did say that you worked on the Application; is that
5	correct?
6	A. Yes.
7	Q. Okay. Based on your knowledge of the Application,
8	does the Application address data, data sources,
9	assumptions, forecast methods or models or other
10	reasoning when it comes to future needs of consumers?
11	MS. SEMMLER: I'm going to object. This has
12	been asked and answered. This witness has testified to
13	his awareness regarding future energy needs of citizens
14	of South Dakota.
15	MS. BAKER: The question is with respect to his
16	knowledge of the Application.
17	MS. WIEST: Overruled.
18	A. The specific language in the Application addressing
19	that, no, I don't recall that.
20	Q. Okay. Does the Application contain information on
21	the relative contradiction to any power or energy
22	distribution network or pool that the proposed pipeline
23	is expected to supply?
24	A. Again, I'm not sure I understand the question.
25	The pipeline is moving crude oil to refineries in

the U.S. 1 2 MS. BAKER: Yankton Sioux Tribe has nothing further. 3 4 Thank you. 5 MS. WIEST: Mr. Rappold, did you have any 6 questions? 7 MR. RAPPOLD: Yes. Could I have just a moment. 8 CROSS-EXAMINATION 9 BY MR. RAPPOLD: 10 Do you have any knowledge regarding any permits that Ο. 11 Dakota Access needs to obtain for any of the supporting 12 infrastructure or other aspects related to the project? 13 In South Dakota there will be a Permit for the pump Α. 14 station. 15 And is that separate and apart from this Permit? Ο. 16 Α. Yes. 17 Where do you go to apply for that Permit? Q. We'll be getting an air permit for that facility. 18 Α. 19 Ο. Getting a what? An air Permit. 20 Α. 21 So where do you go to apply for that? Q. 22 I don't know the specific agency name. Α. 2.3 Is the air Permit that you're going to -- well, when Ο. 24 are you going to apply for the air Permit? 25 Again, the timing I'm not -- I'm not certain on the Α.

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1 timing for the Application of the air Permit. Monica Howard may be better able to answer that question. 2 3 Do you know how long the process might take to get Ο. that Permit? 4 5 I do not believe it's a lengthy process. Α. 6 You don't believe or you don't know? Ο. 7 I don't believe it's a lengthy process. Α. 8 But it could be? Q. 9 This is a very small emission source, and the time Α. 10 frame for obtaining those permits is generally timely. 11 I don't recall seeing this air quality Permit listed Q. 12 in the Application. Can you explain that? 13 Okay. I'm going to have to correct myself. Α. There 14 actually is not an air Permit required for the pump 15 station. 16 And how did you all of a sudden learn that? Q. 17 It came to me. Α. 18 O. Osmosis? It was an error on my part. I apologize for the 19 Α. confusion. 20 21 You didn't confuse me. Ο. 22 Do you have any knowledge of any other permits that 2.3 would need to be obtained for any other supporting 24 aspects of the project? 25 The questions on specific permits would be Α. No.

1 better directed to Monica Howard. 2 Okay. Has the pump station -- the pump station's Q. 3 been designed; is that correct? 4 Α. The design is in process. When will that be done? 5 Ο. 6 I don't know the exact time it will be completed. Α. 7 Presumably it would be done before you start Ο. 8 construction if you get permission from the PUC? 9 Again, the -- the timing of the pump station design Α. 10 and the timing of the approval from the PUC are not tied to each other in any manner. 11 12 Yeah. I understand that one is not required legally Ο. 13 for the other, but practically speaking, would you have 14 it designed by then? When is it going to be designed? 15 Again, I don't know the exact date the design will Α. 16 be complete. 17 But you'd have to design it before construction; Q. 18 correct? 19 Α. Absolutely. 20 Okay. Have you ever designed one before? Ο. 21 Α. This company has designed and installed many pump 22 stations. 2.3 Have you? Ο. 24 That's not my responsibility. I oversee those who Α. 25 do the design of the pump stations.

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1 Ο. Okay. So do you know how long that takes to design 2 the pump station? It depends on the pump station. So some take a 3 Α. 4 short period of time. Some take longer periods of time. 5 There's no set standard for design of a pump station. 6 Q. Okay. I'm not talking about general terms. I'm 7 talking about one very specific pump station that's going 8 to be located in South Dakota, near Redfield I believe it 9 is, for the Dakota Access Pipeline. 10 How long is it going to take to design this very 11 specific pump station? 12 A. We do not have a specific or set time frame for the 13 design of the pump station. It is underway, and it will 14 be completed in the time frame needed to support this 15 project. 16 And are you knowledgeable of the proposed Ο. 17 construction schedule? 18 In general, yes. Α. 19 Q. Can you share with us what your general knowledge is 20 of the proposed construction time schedule? 21 Α. Yes. Construction is scheduled to start in the 22 spring of 2016. 23 So that could be -- the spring of 2016, that could Ο. 24 be anywhere between March and June; is that correct? 25 Again, the spring of 2016 is as close as we can Α.

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1 narrow it down right now. 2 Would you agree that the spring season runs from Q. March through June -- March 21 through June 20? 3 Would 4 you agree with that? 5 I agree that that's the definition of spring. Α. We're 6 using it in a more generic sense here. 7 What's the generic sense of the definition of Ο. 8 spring? 9 Generic sense would be when winter ends and before Α. 10 summer begins. 11 Have you ever been to South Dakota before? Q. 12 Α. Yes. 13 In the springtime? Q. 14 Α. Yes. 15 In the general sense of springtime? Ο. 16 I don't know what you mean by that. Α. 17 I'm just using your words, so I would think you know Q. 18 what I mean. They're your words. MS. SEMMLER: I'm going to object. This line of 19 20 questioning is --21 MR. RAPPOLD: I'll strike that. 22 How many times have you been to South Dakota? Ο. 2.3 I don't know the exact number. We were here several Α. 24 times for meetings and for public meetings. 25 What seasons were you here in? Ο.

1 Α. I was here in the summer, fall, and winter -- or 2 late spring, summer, fall, and winter. Have you ever heard the expression, if you don't 3 Ο. like the weather in South Dakota, wait five minutes? 4 5 I've heard that for many states. Α. 6 But have you ever heard it here? Ο. Not until now. 7 Α. 8 And I'll take it you've never experienced that here? Q. 9 I don't know whether I have or not because I don't Α. 10 know what I would have experienced. 11 Your testimony indicates that you will not be Ο. placing any mainline valves on areas of the pipeline that 12 13 are subject to landowner easements; is that correct? 14 I don't really understand the question. We'll be Α. 15 placing the mainline valves on the pipeline. 16 Are you -- in your professional capacity and your Ο. 17 personal capacity too, do you keep up with other aspects 18 of the industry that you work for, other -- what other 19 companies are doing? 20 Just in the general sense of following the news, I Α. 21 see some things that are happening within the industry. 22 Are you familiar with the corrosion rates on the Ο. 2.3 Keystone base pipeline discovered in Missouri? 2.4 No, I'm not. Α. 25 You're not familiar with that? Ο.

1 Α. No. Do you know if anyone that works for Dakota Access 2 Ο. 3 has any knowledge of corrosion rates that were discovered 4 in Missouri along the Keystone base pipeline? 5 I'm not aware of anyone who's following that for Α. 6 Energy Transfer. 7 Are corrosion levels of your pipe something that you Ο. 8 would be concerned about? 9 We have a cathodic protection and integrity Α. 10 management plans on all our pipeline systems. DOT and 11 PHMSA monitor cathodic protection plans. 12 We do inspections twice a year to ensure the -- the 13 performance of our cathodic protection on our pipeline 14 systems. 15 And do you compare what you do with what other Ο. 16 companies do to see if you're doing it better or maybe 17 there's a way to make an improvement? 18 That would be a better question for Todd Stamm in Α. 19 the operations group, but we take -- cathodic protection 20 is something that we spend a lot of time and effort on. 21 In the course of preparing the Application, are you Ο. 22 aware whether or not South Dakota Department of Game, 23 Fish & Parks Wildlife Division perpetuating outdoor 24 heritage of South Dakota was consulted, relied upon? 25 I'm not aware whether they were consulted or not. Α.

1 Q. Are you aware if there's any multi-species 2 assemblage areas along the pipeline route? 3 I believe our investigation did not find any of Α. 4 those. 5 Do you believe that or do you know that? Ο. 6 I know that we did not find any of those along the Α. 7 route. 8 Q. Do you know if there's any areas that contain 9 critically imperiled species or ecological communities? 10 I know that the route avoided all USA and HCA areas. Α. When you say USA and HCA, they're really one in the 11 Q. 12 same, aren't they? 13 No. A USA is an HCA. There are other things that Α. 14 can be HCAs that are not USAs. 15 Q. Okay. Do you know if there's any migratory water 16 bird concentration areas along the water route? 17 A. I believe that would be in the definition of a USA. 18 So no. 19 Q. Do you keep up to date on changing federal 20 regulations as it relates to pipeline safety? 21 Not individually, but as part of the -- my Α. department there are individuals who keep up with that. 22 23 And then what do they do with the information? Q. 24 They provide it -- disseminate it within the Α. 25 company.

1	Q. Do you know when the Pipeline Safety Act expires?
2	A. I do not.
3	Q. If federal regulations change regarding pipeline
4	safety and regulation if those regulations changed,
5	what would that cause would that cause Dakota Access
6	to do anything?
7	A. Dakota Access will maintain compliance with all
8	applicable regulations. So as regulations change, we
9	will ensure that we stay in compliance with the
10	regulations.
11	Q. And some circumstances, would you agree that that
12	could require perhaps reroute, reexamination of HCAs and
13	that sort of thing?
14	A. You're asking me to speculate about something that
15	might occur in the future.
16	Q. So are you objecting?
17	A. I'm saying I don't know how to speculate on a law
18	that doesn't exist.
19	Q. Well, presumably your existing Application is
20	designed to comply with federal regulations; correct?
21	A. That is correct.
22	Q. So if the regulations changed, would you have to
23	reexamine your Application?
24	A. If the regulations change now before the line is
25	built? Is that your question?

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Q. Any time. Again, Dakota Access will stay in full compliance Α. with all applicable regulations. MR. RAPPOLD: I have no further questions. MS. WIEST: Ms. Craven, did you have any questions? MS. CRAVEN: Yes, ma'am. I do. Thank you. CROSS-EXAMINATION BY MS. CRAVEN: Thank you, Mr. Frey, for appearing here today. Ο. How long have you been employed by Dakota Access? Dakota Access was formed approximately a year ago. Α. I'm not certain the exact formation of Dakota Access. And how long have you been employed by Dakota Ο. Access? Α. Since its formation. And were you employed by a parent company or a Q. subsidiary of theirs prior to that? A. Yes, ma'am. So then you just kind of moved over to Dakota Ο. Access? Dakota Access is an additional company of which I'm Α. a vice president of engineering, yes. Q. What was your previous employer? What was the name of the company?

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1 A. Energy Transfer Partners, which is still my 2 employer. Okay. And you say you're licensed to -- as a 3 Ο. 4 professional engineer in four states. That's impressive. That's a lot of test taking. 5 6 On the Texas website of licensed engineers there's a 7 Chuck Frey -- or Charles Frey that's listed on that 8 website. Is that one of the states you're licensed in is 9 Texas? 10 Texas is one of the states where I'm licensed. Α. 11 Is that you? Q. 12 I don't know because I don't know if there's more Α. 13 than one person by that name. 14 Okay. Charles Arthur, Junior, Frey? Ο. 15 That would be me. Α. 16 It says here that you're employed by LDH Energy? Q. 17 The website is not up to date. That was my Α. 18 employer -- LDH Energy was purchased by Energy Transfer 19 Partners. 20 Okay. So you and Mr. Mahmoud are both vice Ο. 21 presidents of engineering projects; is that correct? 22 Actually, Mr. Mahmoud is senior vice president of Α. 23 projects, and I am the vice president of liquids 24 engineering. 25 Q. Is he your boss?

1 Α. He's my immediate supervisor. So -- and you have testified that you have prepared 2 Ο. 3 your own testimony; is that correct? 4 Α. Yes, ma'am. 5 Did anyone provide you with the questions? Q. 6 There was assistance in the testimony, yes. Α. 7 Okay. Did they provide you with the questions? Ο. 8 Some of the questions were provided, yes. Α. 9 Okay. Were all the questions provided? Ο. 10 I don't recall if every question was provided. Α. 11 Could you take a quick look through your testimony Q. 12 and tell me which questions you drafted and which were provided -- or I mean just tell me the ones that you 13 14 drafted. 15 MS. SEMMLER: I'm going to object, 16 Commissioners. This is an irrelevant line of 17 questioning. 18 MS. WIEST: Overruled. I don't recall the discussions that went into the 19 Α. 20 preparation of all of the testimony, so I do not recall 21 the specific question that I created. 22 Okay. In preparing the information regarding the Q. 2.3 demand for the facility, how did you go about doing that? The demand for the facility was a result of the open 24 Α. 25 season process that occurred last year.

1 Q. And were you actively involved in that process? Our commercial group were the ones who conducted 2 Α. 3 that process. 4 Ο. So in actuality, the information in the -- so the 5 information that's in the answer, is that from a report 6 that you read? 7 No. That was from our commercial employees who were Α. 8 involved in the process. 9 Did they send you a memo about it? Ο. 10 Α. No. We had direct discussions about it. 11 So you sat around at a conference room, and you took Q. 12 notes, and then you prepared the answer? 13 Again, they provided me with the information about Α. 14 the demand from customers, yes. 15 So you -- okay. Ο. 16 Okay. You say on line 22 of your testimony, 17 "Transportation services on the Dakota Access Pipeline 18 shall be provided pursuant to the Interstate Commerce Act." 19 What does that act do? I'm not familiar with it. 20 21 The specifics of the act I can't quote them to you. Α. 22 We are a common carrier pipeline, which means we're open 2.3 access. So we have to treat all shippers in a 24 nondiscriminatory manner. That's part of the reason, as 25 was discussed earlier, about the 10 percent walk-up

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1 capacity, to allow any shipper who doesn't have a 2 contract with us to still be able to transport. 3 So what does the Interstate Commerce Act do? Ο. 4 Again, I'm not an expert on that act, and I can't Α. 5 answer that question. 6 Q. Okay. But you put in your testimony that the 7 transportation services on the pipeline shall be provided 8 pursuant to the Interstate Commerce Act, but you don't 9 know what that Act does? 10 MS. SEMMLER: I'm going to object to the extent 11 this calls for a legal conclusion. The witness has testified already regarding his knowledge. 12 13 MS. CRAVEN: It's not a legal conclusion. He 14 said he prepared his answers, and I'm asking him what 15 does that Act mean since he prepared his answers. 16 MS. WIEST: Objection overruled. 17 The company is going to provide the services Α. 18 pursuant to that Act. Others have familiarity with that. I do not. 19 20 So did somebody tell you to put that in there? Ο. 21 Α. I was assisted in preparation of the answers by our 22 legal group. 23 Okay. So you were assisted by your attorneys with Ο. the answers. 24 25 Yes. Α.

1 Q. Continuing on line 23 you say, "and in accordance 2 with the rules and regulations of the Federal Regulatory Commission for common carrier crude oil pipeline 3 4 transportation service thereunder." I appreciate the use of the word "thereunder." 5 6 Would you explain what that sentence means to us for the record? 7 8 The Federal Energy Regulatory Commission, or FERC, Α. 9 establishes the quidelines for the tariffs that we 10 publish for our transportation services. And they also 11 set the rules by which those tariffs can be established. 12 And do you usually use the word thereunder, or is Ο. 13 that the attorneys slipping in a little thereunder? 14 I don't know how often I've used that word. Α. 15 Did you write that word? Ο. 16 MS. SEMMLER: Objection. This line of 17 questioning is irrelevant. 18 MS. CRAVEN: He has testified that he prepared 19 his testimony. It has now become obvious that he has not 20 prepared his testimony. It's been prepared by attorneys. 21 I just think that's important. Actually, he has lied on 22 the stand that he prepared his testimony when he has not, 2.3 in fact, prepared his testimony. 24 He said he answered the questions. He did not 25 say I answered the questions with the attorneys, but it

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1 has now come to light that he has answered the questions 2 with the attorneys. That's in direct opposite to what he 3 initially testified. 4 MS. WIEST: Objection sustained. 5 What are FERC best practices? Q. 6 Α. I'm not familiar with that term or the specifics of 7 what you're referring to. 8 Is DAPL engaged in discussions with the PUC Staff Ο. 9 about FERC? 10 I'm not aware of such discussions. Α. 11 Okay. Thank you. Ο. You testified that the mainline valves are located 12 13 based on high consequence areas in South Dakota. Would 14 you please identify for us where those high consequence 15 areas are. 16 A. Could you tell me what line you're referencing? COMMISSIONER HANSON: It's page 4, line 66 17 18 through 68 of your prefiled testimony. 19 MS. CRAVEN: Thank you. Thank you very much. 20 I can read it for you. Q. 21 Α. Okay. What was the question again? 22 Let me read the sentence and I'll ask my question. Ο. 23 "The spacing intervals between the MLVs along the ROW are 24 based upon location of the high consequence areas, DOT 25 requirements and Permit requirements."

1 Would you please identify for us where those high consequence areas are located that you reference in your 2 3 testimony? 4 Α. There are actually no high consequence areas that 5 the pipeline traverses. There are high consequence areas 6 in proximity to the pipeline route, and the location of 7 some of those high constant areas was a consideration in 8 placement of the mainline valves. 9 And where are those high consequence areas located Ο. 10 that are in proximity? 11 Well, they're noted on maps. I don't have them Α. memorized. 12 13 Okay. You state on line 53, "The design and Q. 14 construction of the pump stations will meet the 15 requirements of the National Electric Code." 16 What are those standards? What are you talking 17 about there? 18 It's -- I'm trying to think of the -- it's --Α. 19 actually the specific name of it slips me. The National 20 Electric Code is a recognized code that's designed to --21 I don't know what else I can tell you. I don't have the 22 code memorized. 2.3 And did you write that sentence? Q. 24 I reviewed or wrote it, yes. I had assistance in Α. 25 preparation, and so I prepared it in consultation with

1 others. How many others? 2 Ο. I don't know the exact number. 3 Α. 4 Q. Five? 5 Again, I don't know the exact number. Α. 6 Q. 10? 7 MS. SEMMLER: Objection. The question was 8 answered. 9 MS. WIEST: Sustained. 10 So as a professional engineer, are you the person Ο. 11 that signs off on the design plans for this pipeline? 12 A. I review them and, yes, I have the final decision on 13 them. 14 So do you sign off on the design plans with your Q. 15 engineering stamp? Does your stamp go on the plans? 16 Α. No. 17 Whose stamp goes on the plans? Q. 18 It depends on what kind of plans they are and who Α. 19 directly prepared those plans. 20 Q. Okay. On line 56 you say, "Dakota Access will 21 purchase electricity from the incumbent provider." 22 What is an incumbent provider? 2.3 It would mean the utility that provides electric Α. 24 service in the area where our pump service is located. 25 Do you know who that incumbent provider is? Q.

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1 Α. T do not. 2 And, finally --Ο. MS. CRAVEN: Well, I think that's all my 3 4 questions. 5 Thank you. 6 MS. WIEST: Ms. Best, do you have any questions? 7 MS. BEST: I have no questions. 8 MS. WIEST: Ms. Northrup. 9 MS. NORTHRUP: I have no questions. 10 MS. WIEST: Commission Staff. 11 MR. CREMER: Commission Staff has no questions. 12 Thank you. 13 MS. WIEST: Commissioners. 14 COMMISSIONER HANSON: Mr. Frey, good morning. 15 Do you have any knowledge of a need for routing 16 the pipeline so close to the highest populated and 17 highest economic growth area of South Dakota, a need for 18 routing it? THE WITNESS: Well, the route was chosen, and 19 20 based on a number of factors, as was discussed in 21 Mr. Mahmoud's testimony, the initial route's laid out 22 just from point A to point B, and then we work to move 23 around high consequence areas, tribal lands, 24 environmentally sensitive areas, you know, a large number 25 of items that are involved in the routing selection.

1 COMMISSIONER HANSON: I believe that 2 Mr. Mahmoud's testimony was that originally it was routed 3 based upon the shortest route. 4 THE WITNESS: Correct. I'm sorry. That's what 5 I meant from point A to point B. 6 COMMISSIONER HANSON: Okay. And then there were 7 some adjustments made to it, as you've testified. 8 Are you aware of any need for it to be -- for 9 the pipeline to be located as close as it is to those 10 highly populated and high growth areas of South Dakota? 11 THE WITNESS: Not specifically. Again, other 12 than that was the route that came out of the 13 investigation process. 14 COMMISSIONER HANSON: Is there -- I'll ask this: 15 Are there plans or discussion or anticipation for a 16 future connection of any nature in this area? 17 THE WITNESS: Are you talking about around Sioux 18 Falls? 19 COMMISSIONER HANSON: I'm asking the question --20 that's correct. I'm asking the question because there 21 are rail lines presently going through the City of Sioux 22 Falls which have tank cars and which deliver ethanol and 2.3 petroleum, and I'm curious whether there's any discussion 24 at all or thoughts of having a connection drop off point, 25 for instance, with --

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1 THE WITNESS: I am not aware of any discussions 2 about any third-party connection in the Sioux Falls area. 3 COMMISSIONER HANSON: Thank you. 4 You gave us a -- just a spelling. I was looking 5 at -- it's minor here. I think it's MLVs, but I believe 6 it was page 4, line 74 you were talking about MLVs, I 7 think, and it says gouges, G-O-U-G-E-S. Is that correct, 8 that you were referring to? 9 THE WITNESS: Yes. 10 COMMISSIONER HANSON: Okay. Would your 11 engineering experience, referring to corrosion, dents, 12 and gouges, does that happen very frequently? 13 THE WITNESS: Well, dents and gouges are 14 generally the result of third-party damage, and that has 15 become better protected against with the advent of the 16 One Call program, which we're big supporters of, and we 17 really think that helps all utilities and the public. 18 They're also something that now we have a much 19 better way of identifying because we run inspection tools 20 in our pipeline on a regular basis. And those have 21 instrumentation that allows us to see dents, gouges, or 22 metal loss from corrosion. 23 COMMISSIONER HANSON: What amount of degradation 24 or anomaly has to take place on a pipe -- well, let me ask it in a different fashion. 25

1 How sensitive are those devices in detecting 2 anomalies? THE WITNESS: They're quite sensitive. 3 Ι 4 couldn't give you the specifics of their performance 5 qualifications, but we have an Integrity Management Plan 6 that addresses that that's filed with PHMSA and approved, 7 reviewed by PHMSA. It also has the specifics of at what 8 level of wall loss we have to investigate and do repairs. 9 COMMISSIONER HANSON: Is there another person 10 who will be testifying to better answer that question? 11 Not that I'm disparaging your answer, by any means. THE WITNESS: No, sir. Todd Stamm would have 12 13 more details into the Integrity Management Plan because 14 the operator executes the Integrity Management Plan. 15 COMMISSIONER HANSON: Thank you very much. 16 MS. WIEST: Any Commissioner questions? Other? 17 Was there any cross based on the questions from 18 Commissioner Hanson? Additional cross? 19 If not, is there any redirect? 20 MS. SEMMLER: Briefly. Thank you. 21 REDIRECT EXAMINATION 22 BY MS. SEMMLER: 23 Ms. Craven asked you a variety of questions about Ο. 2.4 the various acts or laws that are referenced in your 25 testimony.

1	Do you remember that?
2	A. Yes.
3	Q. Is it fair to say that you're familiar with those
4	acts or laws by which you must comply?
5	A. Yes. I'm familiar with what we are required to
6	comply.
7	Q. Is it fair to say that others within your
8	organization study the details of those various acts or
9	laws?
10	A. Correct. There are others with specific expertise
11	in those areas.
12	Q. Can you tell the Commission any reason that
13	pipelines of this nature are not compatible with highly
14	populated areas?
15	A. No. There are thousands of miles of pipelines
16	currently in operation in very highly populated areas.
17	Q. Have you seen, in your experience, where communities
18	can continue to grow despite the location of pipelines of
19	this nature in close proximity?
20	A. Yes. I mean, where I live now in Houston is
21	evidence of that. The city and surrounding communities
22	have continued to grow in proximity to pipelines and
23	other utilities.
24	Q. And there are rules and regulations, right, that
25	address pipeline locations in highly populated areas?

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1 A. Correct.

2	Q. And is there any prohibition from building on a
3	pipeline?
4	A. There are restrictions for building within the
5	easement that the pipeline obtains, but there are no
6	restrictions that the pipeline has for any landowner
7	developing property outside of the easement acquired by
8	the pipeline.
9	Q. So outside that easement, development or growth
10	should not be expected to be stunted; is that accurate?
11	A. There's no restriction by the pipeline on any on
12	any activity of the landowner outside of the easement.
13	MS. SEMMLER: Thank you.
14	MS. WIEST: Is there any recross based on the
15	redirect of anyone?
16	MR. RAPPOLD: Yes.
17	MS. WIEST: Go ahead.
18	RECROSS-EXAMINATION
19	BY MR. RAPPOLD:
20	Q. You're familiar with the Pipeline Safety Act and
21	its and PHMSA's federal pipeline safety programs;
22	correct?
23	A. I'm familiar with PHMSA, yes.
24	Q. And their safety programs?
25	A. Yes.

1 Q. Do you know, is today the end of 2014 fiscal year 2 for the United States Government? Do you know how that works? 3 4 Α. I do not. 5 You don't know? Okay. Do you know that the PHMSA Q. 6 federal pipeline safety programs expire at the end of 7 2014 fiscal year -- or '15 fiscal year? 8 No, I did not. Α. 9 You didn't know that. Ο. 10 And if today was the end of the '15 fiscal year, 11 would you reach the conclusion that it expires today? 12 Again, I would need to review that. I'm unfamiliar Α. 13 with what you're asking. 14 MR. RAPPOLD: No further questions. 15 MS. WIEST: Any other recross based on redirect? 16 Commissioners? 17 Okay. Any further redirect? 18 MS. SEMMLER: Nothing further. 19 MS. WIEST: Thank you. 20 You may call your next witness. 21 MR. KOENECKE: Ms. Craven was kind enough to 22 point out that I hadn't filed Mr. Edwards resume as his 23 testimony indicated. I've got those on their way up 2.4 here. 25 Would the Commission like to start anyways and

1 provide the resume while he's testifying, or would you 2 like to wait a few minutes? MS. WIEST: If there's no objection, I think we 3 4 can proceed. 5 MR. RAPPOLD: I'd object and ask for a little 6 bit of time to review the resume since it was supposed to 7 be filed quite a while ago. And is this also the witness 8 that had the amended testimony filed on Monday? 9 MS. WIEST: I believe so. 10 MR. RAPPOLD: Thank you. MS. WIEST: Okay. We'll wait until you get the 11 12 resume up here. 13 (A short recess is taken) 14 MR. KOENECKE: Ms. Wiest, we'd call John H. 15 "Jack" Edwards to the stand, please. 16 (The oath is administered by the court reporter.) 17 DIRECT EXAMINATION 18 BY MR. KOENECKE: 19 Q. Mr. Edwards, would you state your name and business 20 address for the record, please. 21 My name is Jack Edwards, and my business address is Α. 22 4401 South Technology Drive, South Suite, Sioux Falls, 2.3 South Dakota. 24 Q. And are you currently a contingent employee of 25 Dakota Access Pipeline?

1 Α. I am. 2 What's your function with the pipeline right now? Q. I'm the project manager for the states of Iowa and 3 Α. 4 South Dakota and the overall construction manager for the 5 project. 6 Q. And can you tell the Commissioners briefly what that means? 7 8 Α. It means I'm responsible for the day-to-day 9 activities in both states for coordinating of the -- of 10 the routing, the -- the overall project, budget, how it's spent, and the scheduling be completed. 11 12 Did you provide a written testimony in this matter, Ο. 13 Mr. Edwards? 14 T did. Α. 15 And, in fact, you revised your testimony in written Q. 16 form just this week and provided that to the Commission? 17 Α. Yes. 18 Is that dated September 28, 2015? Ο. I believe so. Yes. 19 Α. 20 Is it in front of you there marked as Exhibit 32? Q. 21 Α. It is. 22 If I asked you all of those questions today, would Ο. 2.3 you answer them the same way as you've answered them in 24 writing? 25 Α. I would.

1 Ο. We made some changes to your testimony that was 2 previously filed in July; correct? 3 Correct. Α. 4 Ο. Can you briefly discuss what those changes were? 5 One of the changes was the typical right-of-way Α. 6 configurations. They were incorrect. The biggest change 7 was the forested areas. We showed a typical right of way 8 of 100 feet, and it was previously changed to 85 feet of 9 construction area in forested areas. 10 That was a major change on the drawings. 11 Also in my testimony, the 18 inches of topsoil was incorrect. It's 12 inches, according to the Ag 12 13 Mitigation Plan we filed with the State of South Dakota. 14 There were some other changes in your testimony, but Q. 15 those were the major ones? 16 Yes. As I remember, those are the major ones. Α. 17 There are other changes, yes. 18 Ο. Thank you. 19 MR. KOENECKE: I'll need to approach the 20 witness, please. 21 (Exhibit DAPL 41 is marked for identification.) Mr. Edwards, I handed you a document marked as 22 Q. 2.3 DAPL 41. Do you see that there? 2.4 Yes, sir. Α. 25 Can you tell us what that document is? Ο.

1 Α. That's my resume. 2 Did you prepare it yourself? Q. I did. 3 Α. 4 Q. You referenced it in your revised testimony; is that 5 correct? 6 Α. I did. 7 And that's a resume that I should have filed on your Ο. 8 behalf; correct? 9 That is correct. Α. 10 It's the same document you gave me, though? Ο. 11 Yes. Α. 12 Does it fairly detail your extensive experience? Q. 13 Pardon me? Α. 14 Does it fairly detail your extensive experience? Ο. 15 Yes. Α. 16 MR. KOENECKE: I'll move DAPL 41 at this time. 17 MS. WIEST: Is there any objection to Dakota 18 Access Exhibit 41? If no objection, it's admitted. 19 20 Q. Mr. Edwards, your revised testimony is marked as 21 DAPL 32; is that correct? 22 Yes, sir. Α. 23 MR. KOENECKE: I'll move DAPL 32 at this time. 24 MS. WIEST: Is there any objection to Dakota 25 Access Exhibit 32?

1 MR. RAPPOLD: Yes. We'd object on the grounds 2 that the revised testimony was not properly submitted within the time frame consistent with Public Utilities 3 4 Commission orders for filing of direct testimony. 5 MS. WIEST: Any response? 6 MR. KOENECKE: Yes. Commission practice has 7 always been in the area of prefiled testimony that 8 witnesses are able to make corrections at the time they 9 take the stand. We always ask about corrections or 10 additions to their testimony. 11 In this case, we corrected Mr. Edwards' 12 testimony previously this week because we didn't want to 13 have it done on the stand right now at this time. We 14 gave more notice, as much notice, as we could have given. 15 So the alternative is for me to put his other 16 testimony on and go through and correct all of that line 17 by line. The end result's the same, and I think this was 18 a better way of going about it. 19 So, you know, I oppose the objection, and I 20 think we should go forward. 21 MS. WIEST: Yes. I will overrule the objection 22 and admit the revised exhibit since it does go to some 23 corrections that he could have made on the stand. 2.4 Go ahead. We'll tender the witness for 25 MR. KOENECKE:

1 cross-examination. Thank you. 2 MS. WIEST: Ms. Baker, do you have any 3 questions? 4 MS. BAKER: I do. Thank you. Jennifer Baker for the Yankton Sioux Tribe. 5 6 CROSS-EXAMINATION 7 BY MS. BAKER: 8 Good morning. Q. 9 Α. Morning. 10 Can you tell me how many workers will be used during Ο. 11 the construction process for the Dakota Access Pipeline? 12 There will be approximately 900 to 1,000 per spread. Α. 13 And how many spreads are there? Q. 14 In South Dakota there will be two partial spreads Α. 15 and one full spread. 16 Okay. So two partial. So how many employees is Ο. 17 that for each partial? 18 Well, the spreads of -- the three spreads we call 4, Α. 19 5, and 6 starts in Iowa. Spread 4 starts in Iowa and 20 runs into South Dakota. It will have approximately 21 1,000 people. 22 And then the spread that starts, spread 5, will 23 start, and it will be entirely in South Dakota, and then 24 spread 6 will start in South Dakota and terminate in 25 North Dakota, and it will have about 1,000 people.

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1	Q. So about 3,000 people in South Dakota?
2	A. Yes.
3	Q. How many of these workers are expected to come from
4	outside South Dakota?
5	A. As Joey testified, 50 percent are company they're
6	company employees for the contractor, and 50 percent come
7	from local union halls.
8	Q. Does that mean 50 percent of the workers will be
9	from South Dakota?
10	A. 50 percent will come from the local union halls.
11	Q. So that doesn't mean 50 percent will come from
12	South Dakota?
13	A. I don't have any way of knowing. They come from the
14	local union halls is the way the collective bargaining
15	agreement works with the unions.
16	Q. Okay. Are these workers permanent or temporary?
17	A. I don't understand. I don't understand your
18	question, temporary, permanent to what?
19	Q. Are the jobs temporary or permanent? Does that
20	clarify it?
21	A. Well, construction jobs by their nature are
22	temporary because construction workers build a project
23	and then move on to the next one. It's typical for
24	construction type.
25	Q. So for the workers that come from outside of

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1 South Dakota, where do you expect those workers to reside while they're working on the construction project? 2 3 They will stay in local hotels, campgrounds. They Α. 4 may stay with family or friends. There's numerous places 5 for them to stay. 6 Q. Okay. Do you have an idea, geographically speaking, 7 of where they'll be? For each spread, will everybody be 8 kind of focused in a particular town or anything like 9 that? 10 A. Not at this time. The contractor's still working 11 out the details of where their main yards will be and 12 where their satellite yards will be. 13 Q. Okay. Is it common practice for these temporary 14 workers to kind of -- kind of congregate and temporarily 15 reside inside of those yards? I'm sorry, I forget the 16 words you just used. 17 Their contractor yards? Α. O. Uh-huh. 18 19 Α. Yes. 20 So it is the practice to kind of reside in that area Ο. 21 temporarily? 22 Sometimes. It depends what their jobs are, what Α. 2.3 jobs they're doing. 24 Q. Do you have any idea how many workers might be 25 located in a particular town at a particular time?

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No, I do not. 1 Α. 2 Have you identified lodging yet for the workers Q. 3 specifically? 4 Α. The contractor has. They've done a study of 5 available lodging in the area. 6 And you don't know where that lodging is? Ο. No. I do not. 7 Α. 8 Your original testimony described the fourth typical Q. 9 configuration as emergent, nonsaturated wetlands and 10 heavily forested lands. 11 What is the difference between that and heavily forested or forested wetlands? 12 13 I will need you to repeat that again while I look at Α. 14 this. Sorry. 15 Q. That's just fine. And if you compare the language, 16 the language is quoted from your two testimonies. 17 Your original testimony described the fourth typical 18 configuration as emergent, nonsaturated wetlands and 19 heavily forested lands. 20 What is the difference between that and heavily 21 forested or forested wetlands? There's not a lot of difference between them. 22 Α. 2.3 Okay. Why was that change made? Ο. 2.4 It was clarification. It matched the right-of-way Α. 25 configurations that we were using.

1 Q. Okay. 2 These being typicals, they weren't quite exactly Α. 3 what we were using. We were using 100 feet in these 4 areas prior to this. 5 So where did these typicals come from? Q. 6 They were developed for the project. Α. 7 Okay. And the ones that were using 100, where did Ο. 8 those come from? 9 They were developed for the project. Α. 10 So was there just a change in the footprint of the Ο. 11 pipeline? 12 A. Yes. Minimized the areas through the forested areas 13 There's not a lot of forested areas in project wide. 14 South Dakota, but project wide we minimized those areas. 15 Q. Okay. And can you tell me why the fifth typical 16 The fifth typical is different between the two changed? 17 versions of your testimony. What's the number on that? 18 Α. 19 Five. Ο. 20 Is there a drawing number in the bottom? Α. 21 You know, I was actually referring to the Q. 22 description in your testimony itself. 2.3 Okay. And what line is it? Α. 24 Line 68 in the revised testimony. And it's line 62 Q. 25 in the original testimony.

1 Α. And what's the question again, please. 2 Why was there a change between the two typicals Ο. described? Was it anything other than the 100 foot 3 4 versus -- actually, yes. Was it anything besides the 5 fact that the minimum actual depth or the 18 inches 6 language is not included in your revised testimony? 7 I'm sorry. I'm not following your question. Α. 8 Okay. What's the difference between the two Q. 9 I mean, as someone who doesn't work in the typicals? 10 industry, I'm not familiar with these terms and how these 11 things work. So if you could just describe the 12 difference between the two. 13 MR. KOENECKE: It might be helpful, which two 14 typicals? That would help me. 15 MS. BAKER: I'm sorry. The fifth in the 16 original testimony, and the fifth in the revised 17 testimony. 18 MR. KOENECKE: Thank you. 19 A. The drawing number on the fifth on the typical is 20 what? 21 Ο. In the revised testimony. Not the exhibit. It's 22 line 62 in the original testimony, line 68 in the 2.3 revised. 24 A. I don't have my original testimony here. I do not 25 have my original testimony up here. I'm sorry.

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1	Q. Okay. Do you recall what the fifth typical was from
2	your original testimony?
3	A. I do not. I don't like to work from memory.
4	Q. Okay. Well, it's in the record, and it does state
5	that there's 85 feet wide of work area, and your new
6	testimony states that it's 100 feet wide of work area.
7	And I thought that you just previously said that the
8	footprint had gotten smaller.
9	Was I incorrect in that understanding?
10	A. Yes. On number 4, the heavy forested areas was
11	smaller.
12	Q. Okay. So in number 5 it's gotten wider?
13	A. Yes.
14	Q. Okay. Can you explain why it's wider?
15	A. It was decided project wide to make it those
16	distances. It was environmental's decision.
17	Q. Is it expected that in that area there might be more
18	impacts to the surroundings than originally anticipated?
19	A. I don't think so. I don't these were plans that
20	we were working through the entire project.
21	Q. Okay. I'm just trying to get a feel for why the
22	extra space might be needed.
23	A. I can't answer that question for you.
24	Q. Okay. Can you explain what ditch line means?
25	A. That's the area where we excavate to bury the pipe.

1 Q. Okay. And ditch spoils? 2 That's the -- what comes out of the ditch line is Α. 3 spoils. 4 Ο. Okay. Your testimony speaks about selection of 5 contractor yards. How do you determine whether an area 6 has ever been previously disturbed by human activity in 7 that process? 8 Well, that would be an area that maybe it's a Α. 9 business that's failed, has a building and an already 10 graveled area for parking for the employees and putting 11 in temporary facilities. 12 So you only consider previous commercial activity? Ο. 13 Well, it could be any activity. If there's an area Α. 14 that's previously disturbed would be our first choices 15 for those kinds of yards, yes. 16 Okay. And what I'm wondering is, how do you Ο. 17 determine whether it's been previously disturbed? 18 I believe you just look at it and you see it. Α. But 19 if it's got a paved area or a graveled area, it was 20 previously disturbed. 21 So you don't look at anything that might predate Ο. 22 paved and graveled areas? 23 I don't understand your question. Α. 24 I'll move on, actually. Q. 25 How do you determine if an area has ongoing land

1 use? In what context? 2 Α. In the context of your testimony, lines 103 to 105. 3 Ο. It's actually on line 104. 4 5 A. Yes. Okay. 6 I would say that would be an area that maybe has 7 been converted to something -- you know, something else 8 other than an area of paved or graveled area that 9 somebody else is using for something else. 10 So you would look for some sort of semipermanent Ο. 11 alteration to the terrain? 12 You're giving some examples, but I'm sure there's just more than these examples. So I'm trying to figure 13 14 out how you make that determination, whether there's an 15 ongoing land use for that particular land. 16 A. Again, I think just looking at it, talking to the 17 residents who we're going to lease it from. Things like 18 that. 19 Ο. How do you define ongoing land use? A. I just don't understand. I don't understand what 20 21 you're asking. 22 Well, you use the term ongoing land use in your Q. 2.3 testimony, and I'm asking how you define that. 24 I'm sorry. I don't understand what you say an Α. 25 ongoing land use. In what context?

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1 Q. In the context of your testimony. 2 I knew that's what she was going to say. Sorry. Α. 3 You talk about efforts being made to select Ο. 4 contractor yards that have been previously disturbed by 5 human activity but do not have an ongoing land use. So 6 you look for land that hasn't been disturbed but doesn't 7 have an ongoing land use? 8 A vacant area. I'm struggling for some words to Α. 9 explain it. A vacant area. Some -- it's not that we're 10 going to put a contractor's yard where somebody already 11 has a -- some kind of business and force it out. I mean, 12 if it's got ongoing land use, we're not going to be using 13 that. 14 Will you take any steps to determine whether an area Q. 15 has sacred or cultural value to local communities? 16 I believe so. The yards we use -- that's why we Α. 17 use -- we try to use previously disturbed yards. 18 Well, if there's -- will you consult with the Ο. 19 Yankton Sioux Tribe before selecting a location? 20 I can't answer that question. That would be a Α. 21 question you'd have to ask Monica. 22 What will you do if, during the process of Q. 2.3 establishing a contractor yard, you discover cultural 24 resources or human remains? 25 Joey answered that question. That would be the same Α.

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1 as his answer.

T	as his answer.
2	Q. Okay. It's the same for construction of the
3	pipeline as for contractor yards?
4	A. Yes.
5	Q. Okay. Lines 113 to 114 of your testimony state that
6	access roads have not been thoroughly defined during this
7	early design phase.
8	At what point will access roads be defined?
9	A. We've engaged with the contractor to identify the
10	roads. That is ongoing today, will be ongoing for the
11	next several weeks as the contractor is on site now and
12	they're trying to identify those roads.
13	Q. Okay. So in about several weeks?
14	A. Yes.
15	Q. Why is it that access roads can't be defined yet?
16	A. Well, the contractor knows that they're best to
17	decide those roads. They know what kind of equipment,
18	what the weight of the equipment going down the roads
19	are. So they're best to define those things.
20	Q. Okay. And that just hasn't been done yet because
21	it's still in the early design phase, the project is?
22	A. Well, the construction portion of that is.
23	Q. Construction is in an early design phase; is that
24	right?
25	A. Yeah. The actual physical construction, yes.

1 Ο. Okay. If there's not enough information yet to 2 define access roads, and if the project is still in an 3 early design phase, do you think, based on your knowledge 4 of the project and its status, that there's enough 5 information yet for the Commission to make a decision on 6 the pipeline Permit? 7 I didn't say the pipeline was in its early design Α. 8 phase. 9 What's in the early design phase? Ο. Okav. 10 The construction process of access roads. Α. Okay. Did you say the construction process of 11 Q. access roads? 12 13 The access roads, yes. Α. 14 Not withstanding, do you believe that the Okay. Q. 15 Commission has enough information to make a decision, 16 based on your knowledge of the project and the things 17 like this information, are still unavailable? 18 I do. Α. How does Dakota Access define affected units of 19 Ο. 20 government for the purposes of road use agreements? 21 Α. Please repeat that. 22 How does Dakota Access define local units of Ο. 2.3 government for the purposes of road use agreements? 24 You mean county township? Α. 25 I'm asking you. Q.

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1 A. The only -- we have township roads. We have county roads, and we have state roads. 2 3 But local units of government -- let me take a look Ο. 4 here. Okay. Line 115 you reference affected units of 5 6 government and private landowner. How do you identify 7 those affected units of government? 8 That would be the townships, the counties, and the Α. 9 state roads. 10 How are they identified as such? How do you say --Q. 11 for instance, you wouldn't say probably that Spearfish is an affected local unit of government because it's way on 12 13 the other side of the state. So how do you make that 14 determination of what is affected? 15 Roads we would use within a county. Α. 16 Will Dakota Access use any roads that traverse the Ο. 17 Yankton Sioux Tribe's reservation? 18 Α. No. O. You're certain? 19 20 If -- yes. If Yankton Sioux Tribe is on the Α. 21 Missouri River, no. It's 75 miles from our project, at a 22 minimum. 2.3 Can you explain what bentonite is? Q. 24 That's the -- well, generally. I'm not a Α. 25 directional drill expert, but that's the product that's

1 put into drilling -- it forms the drilling mud for 2 directional drill. It's an inert substance that helps lubricate the drill stem and keeps the directional drill 3 4 hole -- flushes out the cuttings in the directional drill 5 hole, and it keeps it from collapsing. 6 Q. Okay. So this is something that you'll be using 7 with the process? 8 With the directional drill process, yes. Α. 9 Is it biodegradable? Ο. 10 I don't know. Α. 11 You don't know. Is there anyone that does know? Ο. 12 Α. Yes. 13 Anyone that will be providing testimony? Q. 14 Α. Yes. 15 Okay. Who would that be? Ο. 16 It would be Monica. Α. 17 Okay. Can you tell me if it's safe, this bentonite? Q. 18 I can tell you that we've disposed of bentonite, Α. 19 land farming it in many areas as a beneficial land farming product. 20 21 Okay. What's land farming? Q. Where we take the drilling mud and cuttings and 22 Α. 2.3 spread them out over a farm area and we till them in. 24 Okay. Is that how you intend to dispose of the Ο. 25 bentonite in this project?

1 Α. I don't know. We're still in the process of 2 obtaining permitting for bentonite. Monica can answer 3 those questions. 4 Ο. Okay. Does bentonite have any warnings about 5 exposure or consumption? 6 I'm sure you wouldn't want to eat it. It would be Α. 7 like eating dirt. I don't think you'd want to eat dirt. 8 No. But dirt's not necessarily toxic. Is bentonite Ο. toxic? 9 10 I don't know. Not that I'm aware of. Α. 11 Okay. What source or sources of water will be used Ο. for hydrostatic testing? 12 13 Say that again. Α. 14 What source or sources of water will be used for Ο. 15 hydrostatic testing? 16 There's numerous lakes and other water bodies along Α. 17 the project we're identifying to use for hydrostatic 18 testing. 19 Ο. Okay. You still have not identified those then? 20 We have some preliminary work done on them. Α. Still working with the contractor to figure out what test 21 22 sections, how we test the pipe, in what sections, where 2.3 we would need water. There's numerous water supplies. 24 Okay. How much water is necessary for this? Q. 25 Millions of gallons. I don't have that information Α.

1 with me right now. 2 Okay. Can you tell us some of the sources that will Ο. 3 be used or that you expect to be used? 4 Α. I cannot. 5 Millions of gallons, but we're not sure yet where it Q. 6 comes from? 7 Well, we are. We know different areas where it Α. 8 would come from. This water will not be used. It will 9 be returned back to its water source. It's 10 uncontaminated. There's new pipe, so we're not using 11 this water as water used. It's water that's used and returned back to its source. 12 13 How can you ensure that it's not going to be Q. 14 contaminated in the process? Does it not come into 15 contact with any other substance or chemical? 16 No. It does not. We do not put any chemicals in Α. 17 our test water. We take the water out of the water 18 source, put it in the pipe and then discharge it back into the water source. 19 20 Q. And the water doesn't contact anything except the 21 pipe? 22 Exactly. Α. 2.3 What about bentonite? Q. 24 Α. No. 25 And did you testify that the water that's used for Q.

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1 hydrostatic testing will be returned to the source? 2 We will return it to wherever the Permit requires. Α. 3 Sometimes permits require a water source. Sometimes 4 permits require another area. We'll return it to 5 wherever the Permit requires. 6 Okay. And do you have these permits yet? Ο. 7 No, we do not. Α. 8 The Yankton Sioux Tribe asked about disposal of Ο. 9 discharged water during discovery. And Dakota Access 10 said that only two types of discharges will occur during 11 the project construction, and that those are hydrostatic 12 testing and trench dewatering. 13 But your testimony shows that horizontal directional 14 drilling will also result in water discharge. Why was 15 that not disclosed in discovery? 16 The directional drilling will not be a discharge. Α. 17 Mud will be -- the drilling mud will be captured in mud 18 pits and disposed of. 19 Q. Okay. So will the source of water for the 20 directional drilling be the same as the source of water 21 for the hydrostatic testing? 22 It could be. Α. 23 It could be, but not necessarily? Ο. 24 Not necessarily. Α. 25 How much water is required for the directional Ο.

1 drilling?

2	A. I don't have that information here with me, but we
3	do have estimates of those.
4	Q. Okay. And how exactly will the mud be disposed of?
5	A. According to whatever the state requires in a
6	Permit. Many states allow it to be land farmed as a
7	beneficial use to the farmers. And Monica will answer
8	that question.
9	Q. Okay. So which discharge water gets filtered
10	through straw bales?
11	A. Which discharge water?
12	Q. Yes.
13	A. Oh, the hydrostatic test discharge will be through
14	straw bale structure.
15	Q. Okay. Now why is it going to be filtered through
16	straw bales if it doesn't have anything in it?
17	A. It's just to ensure we filter it. It doesn't
18	have anything in it. Doesn't have any chemicals in it.
19	It may have a little mud, a little things that were
20	inside the pipe. Dirt may have been inside the pipe. It
21	may have some dirt in it. So we filter it so we don't
22	have downstream sediment.
23	Q. So the only purpose of the straw bales is to filter
24	out dirt?
25	A. Yes.

1 Ο. Will the water be tested at all before it's actually 2 discharged? It will be. 3 Α. 4 Q. What do you test for? 5 They test for a number of things, and Monica can Α. 6 explain that. We test before and after. 7 Okay. Your prefiled testimony states that Dakota Ο. 8 Access does not anticipate using deep well injection. 9 What circumstances might arise that could cause deep well 10 injection to become necessary? 11 There wouldn't be any. We have no -- we're not Α. 12 going to generate anything that needs to be deep well 13 injected. 14 Q. Okay. 15 MS. BAKER: The Yankton Sioux Tribe has nothing 16 further. 17 Thank you. 18 Thank you. At this time I think we MS. WIEST: 19 will take our break for lunch. We will take one hour and 20 15 minutes. 21 (A lunch recess is taken) 22 MS. WIEST: I believe where we left off is 2.3 Ms. Baker had just finished her cross; is that correct? 2.4 MS. BAKER: That's correct. 25 And I would have one reminder. MS. WIEST: When

you're not speaking, could you please turn off the 1 2 microphone. Thank you. And we will go to Ms. Northrup. 3 4 CROSS-EXAMINATION 5 BY MS. NORTHRUP: 6 Ο. Good afternoon, Mr. Edwards. Good afternoon. 7 Α. 8 My name is Margo Northrup, and I represent the South Q. 9 Dakota Association of Rural Water Systems. 10 And you are aware that there are seven nonprofit rural water systems that are impacted by this proposed 11 12 project; is that correct? 13 Correct. Α. 14 And I believe from your testimony there's about Ο. 15 approximately 332 miles that are crossed. Does that sound correct? 16 17 Α. Yes. 18 Would you agree with me that maintaining the Ο. 19 integrity of these waterlines is imperative to the safety and welfare of the citizens of South Dakota? 20 21 Α. I would completely agree. 22 And my understanding is that there are six of those Ο. 2.3 rural water systems that are entered into agreements with 24 you; is that correct? 25 Correct. Α.

1 Q. And generally what safety measures are considered by Dakota Access Pipeline in crossing these waterlines? 2 First we would physically locate them and ensure how 3 Α. 4 deep they are and their size. And then we would cross 5 over -- well, in a case of the districts, they're going 6 to bore the lines down deep enough -- the systems that we 7 have agreements with, they're going to bore the lines 8 deep enough we can cross over the top of it. 9 But on the Lewis & Clark line, we would ensure that 10 we're deep enough on our bore that we would never affect 11 that pipeline. 12 Q. So you mentioned the Lewis & Clark line. And my 13 understanding is there's currently one crossing that 14 Lewis & Clark can anticipate; is that correct? 15 There's one also in Iowa. Α. 16 Correct. But for the subject of these proceedings, Ο. there's one crossing? 17 18 Yes. Yes. Α. 19 Ο. And how close to the city of Tea is that waterline, 20 to your knowledge? 21 Α. A couple of miles south. 22 And you understand that that's a 54-inch pipeline; Ο. 2.3 is that correct? 2.4 Yes. Α. 25 And so that puts Lewis & Clark in a different Ο.

1 situation than the other six rural water systems that 2 were able to come to agreements. Would you agree with that? 3 4 Α. Yes. And so specifically for this water crossing, it 5 Q. 6 would require Dakota Access Pipeline to actually bore underneath the line; is that correct? 7 8 Α. That is correct. 9 And are you aware that the City of Sioux Falls gets Ο. 10 over 50 percent of their water from the Lewis & Clark 11 system? 12 I am now, yes. Α. 13 And would you agree with me that maintaining the Q. 14 integrity of that 52 inch waterline is imperative to the 15 safety and welfare of the citizens of Sioux Falls? 16 Α. Completely. 17 Lewis & Clark has a series of conditions that they Ο. 18 believe are imperative to maintain the integrity of the 19 line. Are you generally aware of that? 20 Α. Yes. 21 Ο. Is Dakota Access committed to resolving those 22 concerns? 2.3 Yes, we are. Α. 24 In reference to some of those conditions that might Q. 25 be appropriate for this proceeding, you know, for

1 example, would it be -- how much of separation is between the lines, the waterline and the pipeline? Would that be 2 a safety consideration? 3 4 Α. Yes. 5 In reference to the safety after the lines are in Ο. 6 place, what monitoring does Dakota Access Pipeline 7 undergo to make sure that there isn't a leak, and if 8 there is, that there's early detection? Can you explain 9 that? 10 A. Well, there would be corrosion monitoring in those 11 areas. On the proposal there would be a common test lead there so we could check the cathodic protection on each 12 pipeline and ensure there's no interference with each 13 14 line so there's no opportunity for corrosion. 15 The wall thickness of the pipe we're putting in 16 there is heavier than the normal wall thickness pipe. 17 And it has extra coating on it, external coating. 18 Q. And are you familiar with the Lewis & Clark easement 19 that they currently have registered with the Register of Deeds? 20 21 Α. I am not familiar with that easement. 22 Okay. Would you agree generally, though, that Q. 2.3 either there needs to be an appropriate crossing 24 agreement with conditions or condemnation would be the 25 other alternative?

1 Α. I don't know. 2 Is Dakota Access Pipeline, you know, committed to Q. 3 continuing to work with Lewis & Clark to negotiate and 4 come up with conditions that might be of benefit to both 5 parties? 6 Α. We are. 7 And would that be providing plans and specifications Ο. 8 so that the engineers would have a time to review those 9 in a timely manner? 10 Yes. We can provide whatever plans they believe are Α. 11 appropriate. 12 MS. NORTHRUP: I have no further questions. 13 MS. WIEST: Ms. Best, did you have any 14 questions? 15 MS. BEST: I do not. Thank you. 16 MS. WIEST: Mr. Rappold. 17 MR. RAPPOLD: Yes. Thank you. 18 CROSS-EXAMINATION 19 BY MR. RAPPOLD: 20 Good afternoon, Mr. Edwards. My name is Matt Ο. 21 Rappold. I represent the Rosebud Sioux Tribe. 22 Good afternoon. Α. 23 I want to ask you some questions about your amended Q. 24 testimony to get started. 25 MR. RAPPOLD: Am I picking up on the microphone

1 okay? 2 MS. WIEST: I think so. I talk kind of soft. 3 MR. RAPPOLD: 4 Q. In your direct testimony you indicated that there 5 were two major changes made to your testimony; is that 6 correct? 7 Generally, yes. Α. 8 That's generally correct? Q. 9 Yes. Α. 10 And then you also indicated that there were some Ο. 11 other changes. And then after that we started talking 12 about your resume. And we took a break, and your resume 13 was admitted. 14 But we never really came back to the other changes 15 that wouldn't be generally considered major changes. So 16 I'd like you to tell us specifically what the other 17 changes are to your revised testimony. 18 Well, the exhibits were changed. The amount of work Α. 19 area in forested wetlands was changed, forested areas, 20 forested wetlands was changed. 21 I'm sorry. Can you like refer me to a specific Ο. 22 location in the testimony? 23 I could. I don't have my other testimony up here to Α. 24 go all through this. 25 I've only got one copy of your original testimony. Ο.

1 Α. I don't know. Is your plan to go through page by 2 page, line by line? Well, I don't know that it's necessary to go line by 3 Ο. 4 line, page by page. But I want you to be able to tell 5 us, you know, exactly what was changed. 6 MR. KOENECKE: I'm going to object to this line 7 of questioning. His testimony is what it is, and we can 8 go through it. We don't need to compare the two I think 9 line by line. That's what we tried to avoid. 10 MS. WIEST: Did you have a response? 11 MR. RAPPOLD: No, I don't. MS. WIEST: Objection overruled. 12 13 I'd like to go to page 7 of your new testimony, and Q. 14 I'll point you specifically to line 143. And that's the 15 middle of a sentence, but it says, "trenches will be 16 discharged in strict compliance with DAPL Agricultural 17 Impact Mitigation Plan." 18 Are you able to locate that term strict compliance? Yes. 19 Α. 20 In your original testimony? Ο. 21 Α. Oh. I don't have my original testimony. 22 If I were to give you a copy of your original Ο. 2.3 testimony to look at, do you think that would help you? 2.4 I'm sure it will. Α. 25 Ο. Okay.

1 Α. I can read. 2 MR. RAPPOLD: Can I approach? I'm handing the 3 witness what was previously marked as Dakota Access 4 Exhibit 5. 5 What is your question? Α. 6 Q. Are you able to tell me in your old testimony where 7 the phrase "strict compliance" is? 8 MR. KOENECKE: If I might, I'll give the witness 9 a hand. It's on line 129 on page 6 of your original 10 testimony. 11 THE WITNESS: Okay. I just found it. Q. Thank you. Because I couldn't find it. 12 13 Can you tell me why that phrase strict compliance 14 would only be used in one portion of your testimony? Are 15 you only going to strictly comply with this portion of 16 the Permit if you get it? 17 MR. KOENECKE: I object. He's being 18 argumentative. 19 MS. WIEST: Overruled. 20 CHAIRMAN NELSON: I'd like the Commissioners to 21 rule on that. 22 MS. WIEST: Go ahead. 23 CHAIRMAN NELSON: I'd sustain the objection. 24 COMMISSIONER SATTGAST: I'd concur with the 25 Commissioner on that.

1 COMMISSIONER HANSON: I'll sustain. 2 MR. RAPPOLD: Can I have an opportunity to chime 3 in on response? It's a choice of words that were used by 4 the witness. It only appears to be used one time in the testimony. And I'm just curious as to why it was only 5 6 used one time. 7 MS. WIEST: And the objection has been 8 sustained. 9 Q. Do you recall one of the Commissioners asking you a 10 question about how close to any houses the project will 11 be? 12 Say that again, please. Α. 13 I believe it was Commissioner Hanson asked you the Q. 14 project was going to be within 200 yards of any homes. 15 Do you recall that? 16 I recall the question. It wasn't asked to me, Α. 17 though. 18 Do you recall who the question was asked to? Ο. 19 Α. It was Joey. 20 And you were in the room here when he answered? Ο. 21 Α. Yes. 22 And do you recall his answer being that the pipeline Ο. 2.3 would not be that close to any homes? 2.4 I don't remember his answer. Α. 25 But it's your testimony -- it's your testimony that Q.

1 the project at its nearest point will come within 2 approximately 200 feet of the home? That is correct. 3 Α. 4 Ο. Okay. Do you have any knowledge of other permits 5 that Dakota is currently applying for? 6 Α. Permits for what? 7 For the construction of the Dakota Access Pipeline. Ο. 8 In South Dakota? Α. 9 Ο. Anywhere. 10 Α. I can just speak for South Dakota. 11 Do you know how many other permits in South Dakota Q. 12 Dakota Access Pipeline will be applying for? 13 Numerous road crossing permits that I'm aware of. Α. 14 Is that all you're aware of? Q. 15 Correct. Directly aware of. Α. 16 And would the road Permit applications be something Ο. 17 that you're responsible for doing? 18 The people that work under my direction are. Α. Okay. And, again, is your construction plan still 19 Q. spring of 2016? 20 21 Α. Correct. 22 And when you refer to spring, are you using the same Ο. 2.3 general definition that every other witness has used? 24 Yes. Α. 25 Yes? Ο.

1 Α. Yes. 2 Okay. How long will the construction take in Ο. South Dakota? 3 4 Α. Planned, about six months. Will you be constructing during the wintertime? 5 Q. 6 We have no plans to construct during the wintertime. Α. 7 If you started in June, would you be done before Ο. 8 wintertime? 9 Probably hit the limit. That's about six months. Α. 10 Going back to your general definition of spring, do Ο. 11 you apply the same type of general definition to 12 wintertime? 13 Yes. I think we have to. We don't know what the Α. 14 weather might be. 15 So winter could be from, like, October to March? Ο. 16 I don't know what next year's bringing for weather. Α. 17 Sorry. 18 I don't either. But we do know how spring and fall Ο. 19 and summer and winter are defined on the calendar; right? 20 Α. Sure. 21 Okay. I'll refresh my memory. How long is the Q. 22 route in South Dakota? How many miles? 2.3 270. You know, I have to look. Α. 24 I don't need the exact mile. But is 270 pretty Q. 25 close?

1 Α. Yeah. 274. 275. 2 Fair enough. And the permanent easement following Ο. construction will be 50 feet wide? 3 4 Α. Correct. 5 So then what we're looking at here basically is a Q. 6 50-foot-wide by 270 miles long corridor through 7 South Dakota. Is that accurate? 8 Α. Yes. 9 And do you think that would represent a permanent Ο. 10 change to the landscape? 11 Α. No. 12 You don't? Ο. 13 Α. No. 14 Why not? Q. 15 Because we restore the ground to -- back to its Α. 16 original condition and crops grow on it again. Grassland 17 grows again. There's a number of pipelines that you could go look at and you probably can't tell where they 18 19 are today, within this state. 20 Are you familiar with noxious weeds? Q. 21 Α. Generally. 22 Are you aware of any of the concerns that Fish & Ο. 2.3 Wildlife Service has with the spread of noxious weeds? 2.4 I am not. That would be a question for Monica. Α. 25 What would you describe then as a permanent impact Ο.

to a disturbed area? 1 2 Well, in a place that -- for instance, where we Α. 3 purchased our pump station, that would be a change in 4 land use. Q. Do you know if Dakota Access has purchased any pipe 5 6 that would be used in South Dakota? 7 A. No. I'm not aware if Dakota Access has purchased 8 any pipe. 9 Have you determined where the staging yards will be Ο. 10 vet? 11 Staging yards? Α. 12 Ο. Yeah. 13 Α. Meaning? 14 I think it's a term that came from your testimony, Q. 15 so I assume you know what it means? 16 The construction stage yards? Α. 17 Q. Yes. 18 We have not determined those. No. Α. 19 Ο. What's the time frame for doing that? 20 We're in the process of doing that now with the Α. 21 contractor now that we have a contractor. 22 You have a contractor now? Ο. 2.3 Well, as Joey testified. Α. 24 Okay. And what about the contractor yards? Do you Q. 25 know where they're going to be?

1 Α. No. 2 There could be additional permits that are required Q. 3 for both the staging and contractor yards; is that 4 correct? 5 Α. I'm assuming there could be. I don't know. I'm not 6 aware of that. 7 And if there are, you wouldn't be able to apply for Ο. 8 those permits until after you've identified the staging 9 and contractor yards; right? 10 Α. That would only make sense. 11 And there is the possibility that some of these Q. 12 other Permit applications could be denied; is that 13 correct? 14 For a staging yard? Α. 15 Any other Permit that you need to get. Q. 16 There's always that possibility. Yeah. Α. 17 You haven't applied for your hydrostatic testing Q. 18 Permit yet, have you? 19 Α. No. 20 When do you plan on doing that? Q. 21 Α. Once the areas are identified. 22 When do you plan on doing that? Ο. 2.3 We're in the process of doing that. Α. There are many 24 water sources within South Dakota. 25 It seems like -- strike that. Ο.

1 Is there a reason that your testimony doesn't 2 address any of the Fish & Wildlife Service easements, 3 grassland or wetland easements that you want to cross? 4 Α. It's not my field of expertise. 5 Thank you. Your testimony mentions land use Q. 6 classifications, doesn't it? 7 It mentions it, yes. Α. 8 And it doesn't include Fish & Wildlife Service Ο. 9 easements in land use description, does it? 10 No. It's a general land use, commercial, Α. 11 agricultural type land use. 12 Can you tell us specifically -- more specifically Ο. 13 what the issues are with the Lewis & Clark water system? 14 I don't understand that guestion. Α. 15 Are there any other issues or problems associated Ο. 16 with crossing at the Lewis & Clark water system that you 17 haven't already disclosed? 18 We're in negotiations with Lewis & Clark for that Α. 19 crossing. 20 Would you agree that small oil spills and improperly Ο. 21 handled wastes can degrade soil and water? 22 Not necessarily. Α. 23 Would you agree that improperly handled spills could Ο. 24 degrade vegetation? 25 Probably -- repeat that question, please. Α.

1 Ο. Would you agree that small oil spills that are 2 improperly handled and wastes that are improperly handled can harm vegetation? 3 4 Α. Yes. Would you agree that spills and improperly handled 5 Ο. waste can harm fish? 6 7 Yes. Α. 8 Would you agree that spills and improperly handled Q. 9 waste could harm wildlife? 10 Yes. Α. 11 Would you agree that spills and improperly handled Q. wastes can harm air quality? 12 Yes. 13 Α. 14 Would you agree that air quality can be degraded Q. 15 from dust and engine emissions generated during the 16 course of construction? 17 Α. No. 18 Why not? Ο. 19 Α. I don't think it's any different than every activity 20 that happens today. 21 Okay. So our current emissions from our cars don't Q. 22 harm the environment? Is that what you're saying? 23 That's what I'm saying, yes. As far as I'm Α. 24 concerned. 25 Okay. Would you agree that natural sound is Ο.

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1 interrupted by vehicle, human, and drilling noises? 2 Natural sound? Α. Yeah. 3 Ο. 4 Α. I don't understand that question. Well, natural sound would be something like a bird 5 Q. 6 whistling or the noise you hear when the wind blows 7 through the trees. You know, those sort of natural 8 sounds, things that aren't made by humans. 9 Yes. Α. 10 Do you understand what I'm --Ο. 11 Yeah. Okay. Α. 12 So you would agree that natural sounds can be Ο. 13 interrupted by vehicle, human, and drilling noises? 14 Well, yes. Natural sounds are interrupted by all Α. 15 noises man makes. 16 Would you agree that fish and wildlife may be Yes. Ο. 17 injured by human presence in the area where they live? 18 No. Α. 19 Ο. No? 20 Human presence? Α. 21 Q. Yeah. In an area of fish and wildlife? 22 Α. 2.3 Yeah. Ο. 24 I see it happen all the time. Α. 25 I'm just asking if you agree that people -- the Ο.

1 presence of people in areas where fish and wildlife live 2 can harm them? 3 No. Α. 4 Q. You don't think it could, huh? 5 No. Α. 6 Okay. What about the presence of vehicles? Ο. 7 Α. Vehicles in the area of fish and wildlife? 8 Q. Yeah. 9 No. Α. 10 A vehicle couldn't hurt an animal? Ο. 11 If it's on the highway, yes. Α. Yes. 12 What about if it's on the way to the wetland where Ο. 13 you're going to drill a hole to put a pipeline? 14 No. Α. 15 It couldn't harm them then? Ο. 16 No. Α. 17 Q. How come? 18 They move. They'll move off the right of way. Α. 19 Q. Do you think they --20 MR. KOENECKE: I'm going to object to this line 21 of questioning. It seems simplistic and elementary, and 22 I think it's just badgering my witness. And I don't see 23 the point to this line of questioning at all, Ms. Wiest, 24 and so I object. 25 These are all things that are MR. RAPPOLD:

1 related to the quality of the environment and the 2 protection of our natural resources and are all 3 activities if they take place in those areas that could 4 potentially harm threatened or endangered species and 5 their habitats. 6 MS. WIEST: Yes. It does seem somewhat 7 If you could move on or try to close this repetitive. 8 type of questioning, conclude this line of questioning. 9 CHAIRMAN NELSON: I'm going to move to sustain 10 the objection. 11 MR. RAPPOLD: How many people --12 MS. WIEST: Just a second. We need a vote from 13 the Commissioners. 14 COMMISSIONER SATTGAST: I sustain. 15 COMMISSIONER HANSON: I need to comment. Ι 16 think Ms. Wiest's comments to Mr. Rappold were 17 appropriate, that he needed to move on and be specific 18 about them, but I do agree -- I will sustain it. But I 19 don't want to prohibit him from a line of questioning 20 that will provide that information. 21 Ο. How many people do you anticipate being in a spread 22 at any given time? 23 900 to 1,000. Α. 2.4 And how long is each spread? Q. 25 They're around 125 to 130 miles each. Α.

1 Q. Okay. Would you agree that right of ways can 2 displace wildlife from their habitats? 3 No. Α. 4 Ο. Would you agree that a right of way could act as a 5 barrier to wildlife movement and affect migration routes? 6 Α. No. Do you have any background in natural resources? 7 Ο. 8 No. Α. 9 MR. RAPPOLD: I'll rest. Thank you. No further 10 questions. 11 MS. WIEST: Ms. Craven. 12 MS. CRAVEN: Thank you. 13 CROSS-EXAMINATION 14 BY MS. CRAVEN: 15 Kimberly Craven on behalf of the Dakota Rural Action Q. 16 and Indigenous Environmental Network. 17 How are you today? 18 Fine. Α. 19 Ο. Good. So I read through your resume, and it sounds 20 to me like you go to a lot of meetings and sign a lot of 21 paper; is that right? 22 Not necessarily, no. Α. 23 It says managing coordinator with managers of Ο. 24 survey. That sounds like a meeting status updates 25 meetings. Review and commenting on applications,

1 paperwork, preparing bid documents, evaluating bids, 2 ensuring compliance, responsible for project costs. That 3 sounds like a lot of office paperwork meeting stuff? 4 Α. Ensuring compliance is not office work. 5 Does it take you out in the field? Ο. 6 Α. Yes, it does. 7 Okay. And you moved up to Sioux Falls from Texas? Ο. 8 Yes. Α. 9 Have you been through winter yet here? Ο. 10 Yes. Α. 11 Did you like it? Ο. 12 It's wonderful. Α. 13 It's different, isn't it? Q. 14 It's wonderful. Α. 15 Yeah. Different than Texas. Ο. 16 You testified that the mitigation for wetlands is in 17 the use of mats. And will mats be used for every 18 wetlands crossing? 19 Α. Yes. And how will it be chosen which wetlands will be 20 Ο. 21 crossed and which contractors will use the mats? Who 22 will make that decision? 2.3 Ask that again, please. Α. 24 So when you're out there in the wetlands and you're Ο. 25 planning the crossing about using the mats and the

1 contractors using the mats, who actually makes that 2 decision? Is that you or is it the contractor? 3 Well, the contractor and the environmental Α. 4 inspectors. 5 Q. And you testified that there will be no permanent 6 impact to agriculture. Could a spill affecting 7 groundwater used for irrigation potentially result in a 8 long-term impact on ag production? 9 Depending how it's cleaned up, yes. Α. 10 When you testified that there would be no permanent Ο. 11 impact to the surrounding areas, could a spill in surface 12 water potentially result in long-term impact on 13 surrounding farms and ranches? 14 A spill of surface water? Α. 15 A spill of oil. Would that impact the farms and Ο. 16 ranches? Could a spill in the surface water potentially 17 impact -- result in impacting the surrounding farmers and 18 ranchers? 19 Α. Yes. It could impact if it's not cleaned up 20 properly. 21 You also testified that the discharge of hydrostatic Ο. 22 test water will not significantly impact the waters of 2.3 South Dakota; is that right? 2.4 That's correct. Α. 25 And are you a hydrologist? 0.

No, I'm not. 1 Α. 2 And you also testified that you prepared Section 19 Ο. of the DAPL Revised Application regarding local land use 3 control; is that correct? 4 5 No. I worked on portions of that. Α. 6 Q. Are you a land use planner? 7 No. Α. 8 Have you had training in it? Q. 9 No. Α. 10 Do you have any educational background at all Ο. 11 regarding the land use planning? 12 Α. No. 13 You also testified that you prepared Section 19 of Q. 14 the DAPL Revised Application, 23.5 on the impacts of 15 construction of DAPL on transportation; is that correct? 16 Correct. Α. 17 Are you a transportation planner? Q. 18 No. Α. 19 Ο. Have you had any educational background regarding 20 land use planning? 21 Α. You asked that question about land use. 22 Okay. Do you have any educational background Ο. 23 regarding transportation planning? 24 None. Α. 25 Ο. None.

1 MS. CRAVEN: I would move to strike portions of 2 this witness's testimony based on the fact that he does 3 not have -- he is not an expert witness testifying on 4 hydrology, agricultural and land use. Under Rule 702 he 5 cannot testify to impacts on hydraulic resources, aq 6 mitigation, planning, zoning. He has no expertise in 7 these areas, and his testimony is improper opinion 8 testimony. 9 MS. WIEST: Mr. Koenecke. 10 MR. KOENECKE: Mr. Edwards' testimony -- the objection far overstates the foundation which is thought 11 12 to have been laid for that. Mr. Edwards is an expert in 13 pipelines and has extensive experience in doing those 14 things which have been referenced which a pipeline 15 requires. 16 His testimony is perfectly acceptable and appropriate and should be allowed to stand. 17 18 MS. CRAVEN: He may have a lot of experience 19 with pipelines, but he is not an expert with pipelines. 20 And you did not present him as an expert with pipelines. 21 MS. WIEST: Objection overruled. 22 MS. CRAVEN: So you denied my motion to strike 2.3 his testimony? 2.4 MS. WIEST: Yes. 25 In Joey Mahmoud's prefiled testimony he stated that Q.

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1 DAPL will terminate employees who violate its code of 2 conduct so there will be no impact on local law 3 enforcement, but then he expressed some uncertainty about 4 exactly what kind of conduct results in termination. 5 As a construction foreman, do you have any insight 6 on the issue of how DAPL disciplines laborers who commit a crime? 7 8 I don't understand your whole -- that question. Α. 9 You work with construction crews. Ο. 10 You talked about Joey's testimony at the beginning. Α. 11 Well, he testified about how workers are --Yeah. Ο. 12 if they create -- if they have a crime or they get into 13 trouble how they're treated. But you're right there on 14 the ground with the construction crews. You said you're 15 out in the field with them and working with them closer. 16 So do you have any knowledge about how DAPL 17 disciplines the laborers who commit a crime? 18 Well, and I believe Joey testified to this, that the Α. 19 contractors will have the say about how their employees 20 are disciplined. They work for the contractors. 21 Dakota Access has the overall responsibility about 22 what the final determination is. We can decide that they 23 are not allowed to work on our project anymore. 2.4 So that would be how you would discipline the Ο. 25 workers of subcontractors? You would not have them work

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1 on the project anymore? 2 You know, I don't know what the -- what the crime Α. is. You haven't told me what the crime is. And I don't 3 know if it matters what the crime is, but each individual 4 offense will be looked at. 5 6 There's a portion of your testimony where you talk Q. 7 about getting temporary work stations. How are you going 8 to determine where those are? 9 Are you referring to the contractor yards? Α. 10 They're called temporary work stations I think Ο. No. 11 is what you referred to them as? 12 MR. KOENECKE: Is it temporary workspace, 13 perhaps? 14 MS. CRAVEN: Is that what it is? 15 Temporary workspace. Yeah. Q. 16 Α. Okay. 17 And I think that was one of the changes that was in Ο. 18 the testimony from the new to the old is -- as well that this sentence was added about the temporary workspace. 19 20 MR. CREMER: This is Karen Cremer from Staff. 21 And I just -- I need to clear up confusion on my part, 22 and I apologize for interrupting, but was this witness's 23 first set of testimony -- has that been admitted into the 2.4 record? 25 MR. KOENECKE: No.

1 MR. CREMER: Okay. Thank you. 2 MS. CRAVEN: I'd like to move to admit the first 3 set of his testimony into the record then so we can 4 discuss it. 5 MS. WIEST: Any objection? 6 MR. KOENECKE: I'd object. You need to lay some 7 foundation before you just move that. 8 MS. CRAVEN: Well, the foundation has been laid 9 by the DAPL attorneys who have submitted one set of 10 testimony that we all prepared for and then at the last 11 minute provided a different set of testimony which we 12 find confusing, and we'd like to be able to discuss the 13 changes in the testimony so that we're clear. 14 And it's my -- I'm of the opinion or belief that 15 this is a hearing about -- that's supposed to be 16 transparent about how this project's going to be put 17 together, and I have a question about these temporary 18 workspaces that were added and how they're going to be 19 acquired, how large they are and, you know, just general 20 information about that. 21 MS. WIEST: Well, Mr. Koenecke, would there be a 22 problem in admitting the testimony just for the purposes 23 of noting what the differences are between the two? 2.4 MR. KOENECKE: Thank you for the question. 25 I would say that it's something that the

1 questioner needs to have it marked and put a number on it. We've got to go back and start. I don't think 2 that's been marked as an exhibit even. 3 4 MS. WIEST: Right. And that's my issue. 5 MR. KOENECKE: There's some work that needs to 6 be done, I guess, preparatory to making a motion like 7 that. 8 As far as it goes, the testimony that's already 9 in the record is certainly something he can be questioned 10 about, but --11 MS. WIEST: So my question is since the 12 testimony was filed and then revised testimony was filed 13 later in the proceeding, is there a problem with showing 14 the old testimony only for the purposes of stating what 15 the changes were made from one testimony to the other 16 testimony? 17 MR. KOENECKE: We filed revised testimony in 18 order to avoid confusion and avoid having multiple documents drawn and admitted and having line strikes 19 20 through, and I -- I would, you know, resist based on 21 that. 22 We're trying to move the hearing forward and 23 reduce confusion and have questions about what the actual 24 testimony is. Why would we have questions about what the 25 testimony is not? I guess that's where I'm coming from.

1 COMMISSIONER HANSON: I would move to sustain 2 the objection. I can discuss my motion if you wish, but 3 that's my motion. 4 MS. WIEST: Go ahead. 5 The evidence that has been COMMISSIONER HANSON: 6 presented is the evidence that we have. The party -- the 7 Applicant, anyone, has a right to present testimony, and 8 if they feel it is in error, they have a right to correct 9 it prior to it being presented. 10 There's many times that we've had situations 11 where people prepare information and decide that it needs 12 to be corrected, and it serves as no purpose to have two 13 sets of testimony before us. 14 If there is a question pertaining to any one of 15 the disciplines that this witness has, then they should 16 ask that question. And that question can certainly 17 encompass any type of question they have pertaining to 18 the original information that was submitted. So I just 19 don't see the purpose of having two sets of testimony 20 from a person. 21 MS. WIEST: Other Commissioners. 22 CHAIRMAN NELSON: I would concur with that, and 2.3 will also move to sustain. The comment that I would make is personally the 2.4 25 first set of testimony left me with some confusion. And

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1 when the second set came in, that resolved a lot of the 2 confusion that I was left with with the first set. And 3 so I'm prepared to move on utilizing the second, corrected set for the information that I need to make a 4 decision in this docket. 5 6 COMMISSIONER SATTGAST: I would concur with my 7 colleagues on that and sustain as well. 8 MS. WIEST: Ms. Craven. 9 MS. CRAVEN: I'll withdraw my motion. 10 So would you please tell me about the temporary Ο. 11 workspace or construction right of ways that are required for the construction activities for a spread? 12 13 Yes. And the best way to describe that is to look Α. 14 at the -- the provided typicals. 15 Uh-huh. Ο. 16 Do you want me to go through all of them? Α. 17 Sure. If you'd like to go through all of them. Q. 18 The first one is a -- that's full right of Okav. Α. 19 way topsoil segregation. You'll see the topsoil is not 20 on where the equipment is, where the ditch line is or 21 where the spoil pile is. 22 And typically that's what we would do in 23 agricultural areas. It puts the topsoil off to the side, 24 and then all the subsoils -- the pipe's put in the ditch, 25 all the subsoil's put back, and the topsoil's spread back

1 across the top again.

T	across the top again.
2	And that's a typical 150 feet wide.
3	We call the ATWS that you'll see in there, it's
4	additional temporary workspace, is the spoil area, the
5	additional 25 feet on the right-hand side of the drawing.
6	And the TWS is temporary workspace, and the easement is
7	the 50 feet in the middle.
8	Q. So would you repeat again how large the temporary
9	workspace is going to be then?
10	A. The additional temporary workspace is 25 feet.
11	Q. Uh-huh.
12	A. The easement is 50 feet. So the additional for the
13	150 feet is 75 feet.
14	Q. And the temporary workspace is just on one side of
15	the pipeline?
16	A. No. It's both sides.
17	Q. So is it 25 on each side then?
18	A. Yes.
19	Q. So it's actually another 50 feet on each side, all
20	total the aggregate is 50 feet?
21	A. It's 150 feet total.
22	Q. Total.
23	A. We can get confused with the 50 and 25, but it's 150
24	feet total. And that's in agricultural areas.
25	Q. Okay.

1 Α. Full topsoil segregation. 2 There's four drawings. Ο. 3 Yes. Α. 4 Q. Are you going to go through all of them? 5 If you'd like. Α. 6 Sure. Go through all of them. Yeah. Ο. 7 The second one -- well, it's the same as the first Α. 8 one. I'm sorry. The first one shows a tile line, and I 9 didn't explain that. We've committed to two foot of 10 clearance on the tile lines. So the first one depicts 11 the tile lines in there, the field tile, the farm tile 12 lines. 13 The second one is the same drawing without a tile 14 line in it. 15 Okay. And is this the same 150 feet? Ο. 16 Yes, it is. Α. 17 All total? Q. 18 Yes, it is. Α. The third one? 19 Ο. 20 The third one is upland construction, ditch line Α. 21 only, segregation of the topsoil. And you'll notice in 22 there the back dirt depicts the topsoil. And we'd take 2.3 the topsoil off the ditch line only where the spoil pile 24 is, and we put the topsoil off to the side. Same thing 25 happens. Take the topsoil off, dig the ditch, and then

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1 put the -- reverse it. Put the spoil back in -- put the 2 pipe in, put the spoil in, put the topsoil down. That's 125 feet. 3 So a little bit smaller? 4 Ο. 5 A little bit smaller, yes. We don't have as much Α. 6 topsoil to stockpile, so we can do it in less feet. 7 And is that for the wetlands? That's 125 feet in Ο. 8 the wetlands? 9 This is uplands. Α. 10 Q. Uplands. 11 So then the next one is the heavily forested lands, 12 wetland and uplands? 13 Yes. Α. 14 So that's 125 feet. So if you're going through the Ο. 15 wetlands, it's 125 feet work area? 16 A. On the next one. It's 85 feet on the next one 17 total. 18 Q. Okay. Okay. Because it says -- oh, you have 19 uplands twice. So you have uplands, construction, ditch 20 line. And then you have heavily forested lands, 21 wetlands, and up --22 It's meant to be heavily forested uplands. Α. 2.3 Oh, okay. Heavily forested uplands. The wetlands Q. 24 and the uplands. 25 Α. Yes.

1 Q. Okay. So that's a typo or mistake? 2 It's just a way of wording it. Α. So how large is this one? 3 Ο. 85 feet. 4 Α. 5 85 feet through the wetlands? Q. 6 Α. Yes. 7 And then the next one, the scrub shrub saturated Ο. 8 wetlands? It's tough, isn't it? 9 Α. 10 Don't say that too fast. Yeah. Q. 11 Sir, how large is that? 12 A. That's 100 feet. 13 So that's larger. In the saturated wetlands it's a Q. 14 larger --15 Yes. Α. 16 -- work area? Q. 17 Α. Yes. 18 Q. Okay. 19 Α. Larger than the forested. 20 And so if you have the right of way that you've Q. 21 acquired from the landowners, how do you get the 22 temporary workspace? 23 Well, we purchase it also. Α. 24 So you're not just purchasing the right of way of 50 Q. feet or whatever. You're really purchasing the 125 feet 25

1 so you have this -- so that's the area that you own for 2 the duration of the pipeline? Yes. Construction workspace, yes. And the 3 Α. 4 easement. 5 And so how are those acquired? Ο. 6 What do you -- I need more. Α. 7 Through eminent domain? You take the temporary Ο. 8 workspace through eminent domain? 9 It's all when we purchase the easement, we No. Α. 10 purchase the construction workspace at the same time. 11 But if somebody doesn't want to sell you their Q. 12 property, you take it through eminent domain and the 13 additional workspace too? 14 That would be a last resort. Α. 15 On line 99 -- I hope I'm referring to the right Ο. 16 testimony -- you do talk about a pipe that's already been 17 acquired. I'm not sure it's 99. I was looking at the 18 wrong testimony. 19 Could you talk about the pipe that's already been 20 acquired for the DAPL? 21 Α. Pardon me? Has the pipeline already been acquired? 22 Ο. 23 Yes. Α. 24 Has all the pipeline already been acquired? Q. 25 Α. Yes. Pretty much so.

1	Q.	And where is that pipeline today?
2	A.	The line pipe?
3	Q.	Yeah. Yes.
4	A.	It's in storage yards.
5	Q.	And where are those storage yards located?
6	Α.	Throughout the project.
7	Q.	Do you have any locations for them?
8	Α.	Yes.
9	Q.	Could you tell us?
10	A.	You mean in South Dakota? Aberdeen and Worthing.
11	Q.	Pardon me?
12	Α.	In Aberdeen and Worthing.
13	Q.	And how are those pipelines being stored?
14	A.	In storage yards.
15	Q.	Are they outside or are they inside?
16	A.	Oh, they're outside.
17	Q.	Are they covered or are they uncovered?
18	A.	They're uncovered.
19	Q.	They're uncovered pipes sitting in a storage yard.
20	How	long have they been there?
21	A.	A number of months.
22	Q.	Do you know exactly how many months?
23	A.	No, I do not.
24	Q.	A year?
25	Α.	No. It hasn't been a year.

1 Q. I have just one last question. DAPL has said -will you be requesting any waivers from any of the 2 3 permits or licenses that you will be required to obtain? 4 Α. I don't understand what you mean about a waiver. 5 Like saying we don't want to get that Permit; we'd Q. 6 like to have a waiver from it. 7 Not that I'm aware of. Α. 8 Okay. So the last sentence in your testimony is Ο. 9 interesting. And I'd like you to explain that to me. 10 "DAPL recognizes the existence of South Dakota Codified 11 Law 49-4B-28 regarding local ordinances and their 12 application to the project and reserves the right to 13 request the Commission to invoke its provision during the 14 proceedings and this Application should the need present 15 itself." 16 What does that mean? 17 Exactly what it says. Α. 18 But please explain. Elaborate. Ο. 19 Α. It means exactly what it says. I mean, you just --20 Could you just elaborate? What would be an instance Ο. 21 where you would do that? 22 I'm not aware of one now, but if something did come Α. 23 up, we would do exactly what that said. 24 And what does it say that you're doing? It says --Q. 25 it says regarding local ordinances and their application

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1 to the project.

1	to the project.
2	MR. KOENECKE: I object. Asked and answered.
3	MS. WIEST: Sustained.
4	MS. CRAVEN: No further questions.
5	MS. WIEST: Commission Staff, do you have any
6	questions?
7	MS. EDWARDS: Thank you.
8	CROSS-EXAMINATION
9	BY MS. EDWARDS:
10	Q. Mr. Edwards, you just testified to the pipe that's
11	being stored at various locations in South Dakota. Does
12	Dakota Access own that pipe at this time?
13	A. No.
14	Q. Who owns that pipe?
15	A. It's a purchasing company for Energy Transfer owns
16	that pipe.
17	Q. To the extent that you know, is there some sort of
18	agreement for with that company for maintaining the
19	Condition of that pipe?
20	A. I don't understand your question. I'm sorry.
21	Q. Is it in the contract is there something in the
22	contract with that company dealing with the integrity of
23	that pipe?
24	A. I'm not aware of the contract with them.
25	MS. EDWARDS: Okay. Thank you.

1 MS. WIEST: Commissioners. 2 CHAIRMAN NELSON: There was some brief 3 discussion of the hydrostatic testing, and I'm just 4 curious, how long are the sections that are individually 5 hydrostatic tests? 6 I'm assuming you don't test it one end to the 7 other completely. How long are the sections? 8 THE WITNESS: The sections vary, depending on 9 the construction activity. And then we've got a 10 limitation with elevations. Lower elevations have higher 11 pressures, so we would overpressure the pipe. 12 So those sections are -- they're identified 13 what's the maximum section we can do at this point. But 14 we're working with the contractor to figure out what's 15 the most economic to do at this point. 16 CHAIRMAN NELSON: So in South Dakota, I mean, 17 give me a rough. Are we talking 5 mile, 10 mile, 100 mile? Give me some estimates. 18 19 THE WITNESS: I believe our limitation had 20 limited us to about five sections in South Dakota, total 21 sections. But I would anticipate we would use more than 22 that, more sections than that. 23 CHAIRMAN NELSON: And there was some questioning 24 earlier about what happened to the water after the test 25 had been concluded. What I heard from you is that it's

1 possible that if the water was injected at the top end of 2 the pipe, that it may come back out the top end? 3 THE WITNESS: It possibly could, yes. We can 4 reuse the water for test after test. We can discharge it 5 at the location where we pumped it into the line. 6 Whatever the permits would require. Sometimes there's 7 some watershed limitations different places. 8 CHAIRMAN NELSON: Thank you. 9 Regarding your testimony, on page 9 there's a 10 chart that talks about the approximate miles across for 11 each of the rural water systems. 12 I'm sorry. I'm not understanding what we mean 13 by miles crossed. I mean, you cross a pipe. I don't get 14 where you calculate miles by crossing a pipe. Can you 15 help me out with that? 16 THE WITNESS: Yeah. Those are the miles that we 17 cross inside that water system's district area. That's 18 miles of Dakota Access Pipeline that are crossed with the 19 section within their -- like the WEB, WEB water system. 20 We've got 114.5 miles of our pipe, Dakota Access pipe on 21 their system. 22 Thank you. So it in no way CHAIRMAN NELSON: 23 tells me how many times you're crossing their pipe? It's simply in their territory --24 25 THE WITNESS: Correct.

CHAIRMAN NELSON: Thank you.

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I want to spend some time talking about drainage tile. And in your revised testimony, page 3, under the five typical configurations -- and this is what was very helpful to me with the revised testimony and the newly submitted Ag Mitigation Plan.

7 I'm looking at the drawing for agricultural full 8 topsoil segregation with drain tiles. And you described 9 this on page 3, lines 53 through 57 of your testimony.

As you are laying the pipe, as you're digging the ditch, you're going to traverse where existing drain tiles lie. Am I understanding this drawing correctly that at the conclusion of the process, you will reconnect where the drain tiles have been traversed and that there will be no impact on the elevation of those drain tiles when they are reconnected? Is that correct?

17 THE WITNESS: That is correct. The Agricultural 18 Mitigation Plan has -- in the back of it has some 19 drawings that show temporary and permanent repairs and 20 how they're made.

21 CHAIRMAN NELSON: And we'll get to that in a 22 minute.

THE WITNESS: Okay.

24 CHAIRMAN NELSON: My understanding further from 25 this drawing is that in all cases you will maintain a 2

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1 foot separation between the bottom of the drain tile and 2 the top of your pipeline; correct? THE WITNESS: Correct. We've committed to that. 3 4 CHAIRMAN NELSON: So if today a drain tile is 6 5 feet down, you are committing then that the top of your 6 pipeline will be perhaps 9 feet down; is that correct? 7 That's close to it. Yes, sir. THE WITNESS: 8 CHAIRMAN NELSON: That in every case you will 9 lay your pipe deep enough to maintain the existing 10 elevation of the drain tile plus separation; is that 11 correct? 12 THE WITNESS: That is correct. 13 CHAIRMAN NELSON: And thank you for those 14 responses. That's what I was hoping to hear, and what I 15 needed to hear. 16 Let's go to the Ag Mitigation Plan. And I'm 17 looking at the attachment, the very last sheet of 18 Appendix A, typical drain tile header system. 19 Okay. Given what we've just talked about, the 20 fact that you're going to reconnect the lines, 21 everything's going to stay the same, what is this all 22 about? 23 THE WITNESS: This is a method to -- say a 24 farmer had a patterned field. They had tile every 20 25 feet, every 40 feet, that we would reimburse them to put

1 in a header system along both sides of the 150 feet prior 2 to our construction, and they would tie their tiles 3 together. And this isn't feasible in all drain tile 4 systems, but if it was -- and we've had a few. I don't 5 think we've had any in South Dakota, but in Iowa we've 6 had a number of these -- the farmer could contact all 7 their tiles that work for them and then just put a couple 8 of crossovers in between. 9 So when we go through we have two pipes that 10 cross instead of hundreds based on a pattern type field 11 where they had them every 40 feet or 30 feet. 12 CHAIRMAN NELSON: And so this would be in place 13 of the methodology you and I just talked about; is that 14 correct? 15 THE WITNESS: Well, it could be together with. 16 They both could be concurrent. 17 CHAIRMAN NELSON: So would the farmer then have 18 the option of whether they wanted you to install this 19 header type system or whether they wanted you to, in 20 fact, reconnect every one of theirs pipes at the existing 21 elevation? 22 THE WITNESS: Absolutely. 23 CHAIRMAN NELSON: The landowner would make that 2.4 determination? 25 This is a landowner choice. THE WITNESS:

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1 CHAIRMAN NELSON: Last area I think I want to 2 discuss is the one that got tossed to you this morning 3 by, I think, Mr. Mahmoud dealing with the location of 4 homes and farmsteads. 5 Page 7 of your testimony you begin to address 6 this on lines 149 and 150, mentioning that the project at 7 its nearest point comes within approximately 200 feet of 8 a home. 9 The question I asked this morning, how many 10 homes are within 200 yards and how many farmsteads are 11 within 200 yards. 12 Have you had a chance to review that? 13 THE WITNESS: Yes, we have. And we have an 14 exhibit that shows that number. 15 MR. KOENECKE: Would you like me to introduce 16 the exhibit? 17 CHAIRMAN NELSON: That would be great. 18 MR. KOENECKE: Mr. Edwards, I've handed you 19 what's been marked as DAPL Exhibit 42. Have you got that 20 in front of you? 21 THE WITNESS: Yes, sir. 22 MR. KOENECKE: Can you tell the Commissioners 2.3 what that is? 24 THE WITNESS: It's a list of all the homes or 25 the residents within 600 feet of the pipeline.

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1 MR. KOENECKE: Did you prepare that yourself? 2 THE WITNESS: No, I did not. 3 MR. KOENECKE: Was it prepared by somebody under 4 your direction? 5 THE WITNESS: Yes, it was. 6 MR. KOENECKE: I would move DAPL 42 at this 7 time. 8 MS. WIEST: Is there any objection? If not, it's been admitted. 9 10 MS. CRAVEN: I have a question. Was this on 11 their original list of exhibits? 12 MS. WIEST: No. I don't believe so. 13 MR. KOENECKE: No, it wasn't. It was requested 14 by the Commissioner this morning. 15 CHAIRMAN NELSON: From this, obviously looking 16 at the track number, I can pretty well figure out which 17 counties are affected. What about farmsteads? 18 THE WITNESS: It was residents. 19 20 CHAIRMAN NELSON: Do we have any information on 21 how close we are -- how many farmsteads are within 200 22 yards? 23 THE WITNESS: We did residence where people 24 would live. 25 MR. KOENECKE: We'd have to know what farmstead

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is --1 CHAIRMAN NELSON: 2 And I anticipated that 3 question. It would be the building site, feedlots, that 4 type of thing. 5 MR. KOENECKE: One that's under use? CHAIRMAN NELSON: Yeah. And so at this point 6 7 you don't have that? 8 THE WITNESS: Yeah. This is residence. 9 CHAIRMAN NELSON: I have comments, but I don't 10 have any further questions. 11 I am concluded, yes. 12 COMMISSIONER HANSON: Good afternoon, 13 Mr. Edwards. 14 THE WITNESS: Good afternoon. 15 COMMISSIONER HANSON: Were you involved in the 16 routing of the pipeline, planning and routing of it? 17 THE WITNESS: In a general sense, yes. 18 COMMISSIONER HANSON: I assume they asked your 19 advice since you're familiar with construction and what 20 challenges there might be and whether they could be 21 overcome in different areas? 22 THE WITNESS: Yes. The more difficult ones, 23 there is a construction manager that was day-to-day 24 working on the routing. 25 In your description of the COMMISSIONER HANSON:

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1 five typical right-of-way configurations -- well, in 2 various areas you have a sentence. For instance, it 3 starts on line 60 and continues through the first four, 4 typical ROW, excuse me, right-of-way configurations, and 5 the sentence says, "depth of topsoil segregation is 6 maximum 12 inches or minimum actual depth." 7 To me that says that the most that a landowner's 8 going to have would be -- be assured they're going to 9 have is 12 inches of topsoil, and possibly if they only 10 had a couple of inches from your construction manager's 11 analysis, that they would only have 2 inches of actual topsoil, that that's all they're going to be assured 12 13 they're going to get back. 14 Am I reading that correctly? 15 THE WITNESS: Yeah. If they have 2 inches, then 16 we'd strip off 2 inches. 17 COMMISSIONER HANSON: And if they have 3 feet, 18 they're only going to end up with 12 inches. 19 THE WITNESS: I read it the minimal maximum 20 depth would be the minimum maximum depth of the topsoil. 21 COMMISSIONER HANSON: Well, it says maximum 12 22 inches of topsoil. So it's basically saying that they're 23 going get a maximum of 12 inches. 2.4 THE WITNESS: If there's 12 inches there, yes. 25 COMMISSIONER HANSON: So if there's obviously

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1 10, I understand they're going to get 10. But if they've got 3 feet, they're assured they're going to have at 2 least 12 inches, not 3 feet? 3 4 THE WITNESS: Correct. 5 COMMISSIONER HANSON: Why wouldn't that read at 6 a minimum 12 inches, however, no less than actual depth, 7 or at a minimum actual depth, at a maximum actual depth? 8 Doesn't it take -- let me ask it in a question. Are you 9 aware of how long it takes to create topsoil? 10 THE WITNESS: No, I am not. 11 COMMISSIONER HANSON: It's a very long time. 12 And if someone comes along and takes away a couple of 13 feet of topsoil and leaves 12 inches of topsoil, don't 14 you think that would affect their crop? 15 THE WITNESS: Yes. We're going to have a soil 16 expert measuring topsoil depths for us. We've offered 17 that to the landowners, to measure depths of topsoil. 18 COMMISSIONER HANSON: Right. But even though 19 you measure it, it's only going to assure that they're 20 going to end up with 12 inches. THE WITNESS: Well, they're telling me that the 21 22 most productive soil is the top 12 inches. 23 COMMISSIONER HANSON: That's definitely the most 24 productive, but there's definitely roots that go down 25 below 12 inches. I'm not going to testify to that. I'm

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1 not a farmer or rancher, but I'm well-aware of that. I just want to express that I have a concern 2 3 with that, and I needed to ask that question just so I 4 understood the semantics of it. Commissioner Nelson discussed line 150 and 5 6 properties within 200 feet of the centerline, and you provided a -- or I assume that -- I'm not sure -- who did 7 8 prepare -- I missed who prepared the exhibit that we just 9 received on the residences that were within 500 feet of 10 the centerline. 11 THE WITNESS: The right of way group did in Sioux Falls. 12 13 COMMISSIONER HANSON: All right. 14 THE WITNESS: The aerial photography. 15 COMMISSIONER HANSON: And to your best belief 16 that's accurate? 17 THE WITNESS: Yes, sir. 18 COMMISSIONER HANSON: Okay. It's of concern to 19 me, and shouldn't it be of concern to all of us since 20 it's South Dakota Law, requiring us to look at the future 21 affect of a pipeline? And what would you anticipate the 22 future will look like with growth in the most populated 2.3 area of the State of South Dakota, and how long that list 24 will be in the future for properties, homes, commercial 25 properties that will be within 500 feet of the pipeline?

1 Do you have thoughts on that? 2 THE WITNESS: No, I don't. 3 COMMISSIONER HANSON: Have you looked at the 4 map, exhibit -- I think it's Exhibit A from the City of 5 Sioux Falls. Have you looked at that map? 6 THE WITNESS: Yeah. 7 COMMISSIONER HANSON: That shows the line going 8 south of Harrisburg. 9 THE WITNESS: Correct. Yes. 10 COMMISSIONER HANSON: So you can imagine what 11 Tea and Harrisburg might look like and Hartford and Humboldt and Sioux Falls. 12 13 So would you think from your experience that 14 there would be a very, very long list of properties that 15 would be growing towards that line, surrounding it? 16 THE WITNESS: Yes. 17 COMMISSIONER HANSON: Are you aware if there is 18 a need for routing the pipeline so close to the highest 19 populated and the highest economic growth area of South Dakota? 20 21 THE WITNESS: We did have meetings with those 22 cities, and they expressed, as Joey testified -- they 23 concurred that where we put the line was least impact to 24 their -- any growth plans they knew at the time. 25 COMMISSIONER HANSON: Did you participate in any

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1 of those meetings? 2 THE WITNESS: Yes, sir, I did. 3 COMMISSIONER HANSON: Can you tell me if you met 4 with policy making officials from those communities? 5 THE WITNESS: Yes. 6 COMMISSIONER HANSON: And can you provide me 7 with the names of those communities -- the mayors, 8 council members, the county commissioners, et cetera? 9 THE WITNESS: Yes. We can provide that. 10 COMMISSIONER HANSON: Would you do that for me, 11 please. It doesn't have to be done right now. 12 THE WITNESS: Yes. 13 COMMISSIONER HANSON: But I'd like subsequent to 14 this discussion. 15 THE WITNESS: We can provide you with names of 16 everyone who was at those meetings. 17 COMMISSIONER HANSON: So let me ask you a 18 question again. 19 Are you aware if there is a need for routing the 20 pipeline so close to the highest populated and the 21 highest economic growth area of South Dakota? 22 THE WITNESS: It was a method to get from point 23 A to point B within the shortest distance. We did move 2.4 the line further south from Sioux Falls. We realized our 25 error within trying to get the shortest length of pipe.

1 We realized that after we met with a number of city 2 officials in Sioux Falls and the different other cities 3 around that we needed to move the line further south, 4 which we did. 5 COMMISSIONER HANSON: Is it still -- is your 6 routing still motivated by having the shortest route that 7 vou can? 8 THE WITNESS: Yes. In the pipeline business 9 it's always motivated by the shortest route. 10 COMMISSIONER HANSON: So let me ask you the 11 question again, and I'd like a yes or a no. 12 Are you aware if there is a need for routing the 13 pipeline so close to the highest populated and the 14 highest economic growth area of South Dakota? Is there a 15 need? I'm going to assume your answer's no by the length 16 of time it's taking you to come up with it. 17 THE WITNESS: No. You're correct. Yes. 18 COMMISSIONER HANSON: Thank you. 19 You hydro test after the pipe is covered. Ι 20 assume that's because you cover as you go through the 21 process, and then you want to hydro test the large area, 22 and it would make sense to go back and cover everything 23 later on once the troops have moved out, so to speak. 2.4 So at that juncture, then if you find a location 25 that's leaking, I would think it would be a little more

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1 of a challenge to find if it's been covered. But so you 2 excavate at that point, and then put on a sleeve, or how 3 do you take care of it at that juncture? 4 THE WITNESS: We would cut out -- whatever the 5 defect was, we'd completely cut it out of the pipeline 6 and put in a new cylinder of pipe. 7 COMMISSIONER HANSON: Okay. Thank you very 8 Appreciate your testimony. much. 9 MS. WIEST: Any other questions, Commissioners? 10 COMMISSIONER SATTGAST: Yes. Mr. Edwards, I 11 just have kind of a follow up of Chairman Nelson's 12 question earlier on page 9 concerning the South Dakota 13 Rural Water systems crossed by the project. Just more 14 information for me on that point. 15 We're looking at, you know, 200, what, 72, 274 16 miles of line coming through South Dakota. And when you 17 had these up, it's the other 332 miles. Is that because 18 they're crossing into -- districts are crossing over or 19 could you explain that a little bit more to me on that? 20 I was understanding that the miles crossed. You 21 know, take a look at WEB. There's 114.5 miles. That's 22 how much Dakota Access pipe is going through their 23 district; is that correct? 2.4 THE WITNESS: That's correct. 25 COMMISSIONER SATTGAST: So then when we're

1 looking at -- there's 332.4. When you add all of these 2 up, there's 332.4 miles across if there's 272.4 miles or so? Is that --3 4 Chairman Nelson has pointed out that he thinks 5 Lewis & Clark, the 70.1 miles is the anomaly, why we're 6 having the difference in numbers. 7 They overlap. Yes. Sorry. THE WITNESS: 8 COMMISSIONER SATTGAST: Thank you. 9 CHAIRMAN NELSON: Going back to the very helpful 10 exhibit that you filed regarding residence distance from 11 the centerline. 12 How many of the landowners of these residences 13 have not signed easements to this point? 14 THE WITNESS: I do not know. 15 CHAIRMAN NELSON: Who does know? 16 THE WITNESS: I can get that information. The 17 right of way group would know. 18 CHAIRMAN NELSON: I would like that information. 19 THE WITNESS: Okay. 20 CHAIRMAN NELSON: And obviously what I'm trying 21 to determine is is there some correlation between people 22 saying no and how close their house is to this thing. 23 That would be helpful. 2.4 Thank you. 25 THE WITNESS: Okay.

1 MS. WIEST: Is there any further cross based on 2 Commissioner questions from any Intervenor? 3 Ms. Craven. MR. RAPPOLD: I don't even know if my question's 4 appropriate for the witness. I'm kind of confused about 5 6 the Exhibit No. 42. That you see I thought the --7 RECROSS-EXAMINATION 8 BY MR. RAPPOLD: 9 Mr. Edwards, do you know if the -- Commissioner Ο. 10 Nelson was asking for residences within 200 feet or 200 11 yards of the centerline? 12 I testified to 200 feet. He asked for 200 yards. Α. 13 Okay. And then I quess my next question is, is it Q. 14 necessary to redo this exhibit so it provides the 15 distance in yards rather than feet so we don't have to 16 convert them all? 17 Because 376 feet is not 200 yards; correct? 18 200 yards is 600 feet. Α. 19 Q. Right. 20 So he wanted to know every farmstead within 600 Α. feet. 21 Okay. So this is the most helpful exhibit that 22 Ο. 2.3 you'll be able to put the information into form for this 24 purpose; is that correct? 25 We did it in feet, yes. Α.

1 Q. Okay. So if we want to know exactly how far it is 2 in yards, we'll just have to convert it on our own? 3 MR. KOENECKE: Isn't the measure in feet more 4 exact than measure in yards by its very definition? Ι 5 think it is. 6 MR. RAPPOLD: Well, the witness testified that 7 he was asked a question regarding yards, and the document 8 was produced that put the distance in feet, and I'm just 9 trying to make sure. MR. KOENECKE: Commissioner, I hope this exhibit 10 11 was responsive to your request. 12 CHAIRMAN NELSON: If I could just jump in here 13 and say two things. Yeah. My question was 200 yards, 14 but this is very responsive, and you are correct, it is 15 more accurate than if it had been provided in yards. 16 It's fine. Very responsive. 17 But let me get to your initial question about 18 did I ask for 200 feet? Did I ask for 200 yards? I 19 asked for 200 yards. I had actually written that 20 question prior to getting to his revised testimony. How 21 did I come up with 200 yards? I thought, you know, what 22 would make me really uncomfortable, and 200 yards is what 2.3 I came up with, and, hence, the origin of my question. 24 MR. RAPPOLD: And that's partially why I 25 asked -- that I prefaced my question with I don't know if

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1 this is an appropriate question for this witness. So 2 thank you for clearing that up, sir. 3 I have no further guestions. 4 MS. WIEST: Any other questions? 5 MS. CRAVEN: I have a question. And I 6 appreciate your clarification because that makes a big 7 difference. 200 yards creates uncomfortableness for you, 8 imagine if you are 197 feet from it. 9 RECROSS-EXAMINATION 10 BY MS. CRAVEN: 11 And my question for the witness is so we went Ο. 12 through the exhibits. You talked about the right-of-way 13 configurations of 150 feet. So if the centerline is 197 14 feet from a home, the footprint of it is 150 -- I'm 15 trying to do the math here. 16 So actually 75 feet of that is going towards the 17 house; is that right? 18 It could be. Α. 19 Ο. The foot -- well, because that's what you just went 20 through, that the right-of-way configuration is going to 21 be 150 feet. So half of that is 75. And that's the 22 footprint of half of the -- the centerline going towards 2.3 a home. 24 So if you have a home that's 197 feet from the 25 centerline, actually 75 feet of that is the footprint of

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1 the pipeline right of way; is that correct? 2 It's the footprint of the construction -- it's the Α. 3 construction footprint, yes. 4 Ο. But those were pieces of land that you were going to 5 acquire permanently is my understanding from your 6 testimony. 7 A. No. The 50 feet is the permanent easement area. 8 The rest is a temporary workspace, temporary construction 9 space. 10 Q. So it's not going to be acquired permanently, but 11 that might be that that workspace is very close to someone's house then; is that correct? 12 13 Α. It could be 75 feet closer, yes. 14 You would have a pipeline project 75 feet from your Q. 15 front door. That seems -- that would make me very 16 uncomfortable. 17 I don't agree with your -- it wouldn't be 75 feet. Α. 18 Well, here almost to the bottom, SDLI-027-519-330. Ο. 19 That -- the distance for -- from the centerline for that 20 home is 197 feet. So 50 feet of that would be the 21 footprint of the pipeline. And then you're saying there would be an additional 25 feet of temporary workspace. 22 2.3 So that means you're building that line right up against, 24 you know, 75 minus -- that's 125 feet away from their 25 home basically; is that correct?

1 Α. That would be correct, yes. 2 MS. CRAVEN: Okay. Thank you. 3 MS. WIEST: Any other questions? 4 Any redirect? MS. BAKER: Ms. Wiest, Jennifer Baker for the 5 6 Yankton Sioux Tribe. I have just one question, if I 7 could. 8 MS. WIEST: Go ahead. 9 RECROSS-EXAMINATION 10 BY MS. BAKER: 11 You mentioned reusing water, that it can be used Q. 12 over and over again in the hydrostatic testing. 13 I'm just wondering why it requires millions of 14 gallons if you can reuse the water. 15 To fill a section that, say, is 11 miles is a lot of Α. 16 gallons. I don't remember. I think it's close to 30 17 gallons per foot, and to fill a 30-inch pipe. I don't 18 have that number, so I hate to testify, but it's a lot of 19 water. 20 Okay. Do you reuse all of the water? Q. 21 Α. We possibly could, yes. 22 Do you intend to? Ο. 2.3 I don't know at this time. We're still working out Α. 24 those details. 25 MS. BAKER: Okay. Thank you. Nothing further.

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1 MS. WIEST: Any redirect? 2 MS. EDWARDS: Ms. Wiest, could Staff have a 3 brief moment to recross based on Commissioner questions? 4 MS. WIEST: Yes. 5 MS. EDWARDS: Thank you. Just one question. 6 RECROSS-EXAMINATION 7 BY MS. EDWARDS: 8 Q. Are you aware whether PHMSA has a setback 9 requirement with regard to buildings, structures, and 10 residences? 11 There is a section in 195 that mentions some kind of Α. 12 a distance, but it's as applicable in there. And I can't 13 quote the section. Chuck probably can. It would be a 14 question for him. 15 Thank you. Nothing further. MS. EDWARDS: 16 MS. WIEST: Any redirect? 17 MR. KOENECKE: Yes. Thank you. 18 REDIRECT EXAMINATION 19 BY MR. KOENECKE: 20 Jack, where do the spreads start and stop? Ο. 21 Α. The spreads -- spread 4 would start in Iowa about --22 let's see. I've got that written down here. About 60 2.3 miles into Iowa. I believe it's in Cherokee County. And 2.4 there would be about 68 miles in South Dakota. 25 And spread 5 would be about 124 miles, 125 miles in

1 South Dakota. And spread 6 has about 46 miles in North Dakota, and about 82 miles in South Dakota. 2 3 So not all 3,000 workers will be here at the same Ο. 4 time; correct? 5 That is correct, yes. Α. 6 How long have you worked on pipeline projects? Ο. 7 A long -- about -- about 35 years' experience. Α. 8 During your years of experience, have you seen or Q. 9 observed how spreads or the people involved in the spread 10 locate themselves as far as where they find 11 accommodations, where they stay for the night and take their meals and those sorts of things? 12 13 Yes. Α. 14 Is it typical that spreads and contractors work Q. 15 these things out themselves to their own satisfaction? 16 Α. Yes. 17 In fact -- sorry. Q. 18 Yeah. There's many opportunities for people to Α. 19 stay -- I've seen, you know, RV parks expand. I've seen 20 people put RV spots in their driveway for people to stay 21 in. And it's a business opportunity for them. Hotels. 22 They might stay in hunting lodges. 23 Thank you. Q. 24 Bed and breakfast. Α. 25 What activities are conducted in a contractor yard? Ο.

1 Α. It's a meeting place for everyone every morning. 2 The inspection staff meets there. The contractors meet 3 there in the morning, go through plans, what's going to 4 happen for that day. The contractor stores their 5 materials there. The pipeline materials get stored 6 there. 7 I believe it was your testimony that you're going to Ο. 8 obtain all necessary permits to obtain and discharge the 9 hydro testing water; is that correct? 10 That's correct. Α. 11 You were also asked how much water is used in the Ο. 12 process. Millions of gallons; is that correct? 13 That's correct. Α. 14 Do you know how many gallons of water a mile or some Q. 15 section of the pipe would hold offhand? 16 I don't. I don't have that information here. Α. 17 Okay. Thanks. Q. 18 It's on a spreadsheet I have. Α. 19 Ο. Do you know whether when you returned the hydro 20 water to its, you know, resting place, you put it through 21 straw bales; correct? 22 Α. Correct. 2.3 Is part of that process to reoxygenate that water? Ο. 24 Do you know? 25 There's some baffles within the pipe, Α. Yes.

1 reoxygenate it, and to strain any dirt, sediment that 2 might be in it. How come spreads are 125 or 130 miles long? 3 Ο. Why is 4 that the number? 5 It's what our contractor identified as a optimum Α. 6 number with the number of people to get the project done 7 within schedule. And that was the mileage they picked. 8 We originally had different size spreads. That's 9 why I said different size workforces in different 10 testimony. But now we know where the spread breaks are, 11 and we've identified them, and we know how many people 12 are coming. 13 Q. I want to make sure we're clear on temporary 14 workspace. Do you recall the discussion about temporary 15 workspace? 16 Correct. Α. 17 If I understand correctly, there's no permanent Q. 18 easement in the area that's known as temporary workspace. 19 Α. No. There's no permanent easement in temporary 20 workspace. 21 That's simply landowner property that you used Ο. 22 during construction, and then that goes back to the 2.3 landowner for uses that are not covered under the 2.4 easement? 25 Correct. Α.

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1 Ο. Okay. I also want to make sure I understand the 2 depth of segregation. I understand -- is it correct that 3 the project will segregate topsoil as the landowner 4 requests? 5 Yes. We will work with any request from any of the Α. 6 landowners about topsoil segregation. 7 If the landowner wants more than 12 inches of Ο. 8 topsoil segregated, you'll do that? 9 Yes, sir. Α. At no cost to the landowner? 10 Ο. 11 There's no cost for the construction to the No. Α. 12 landowner ever. 13 If the landowner had 3 feet of topsoil, how would Ο. 14 you handle that? 15 First I would want our soil expert to talk to them Α. 16 to see -- make sure that everybody's understanding they have 3 feet of topsoil. And if it come out that it was 17 18 reasonable he had 3 feet of topsoil, we probably would 19 need additional workspace above the 150 feet to store 20 that topsoil. 21 Would you make two different topsoil piles, maybe Ο. 22 the first 12 inches and then the next 2 feet? 23 Yeah. We may have to what I call triple ditch it, Α. 24 yes. 25 Can you explain triple ditching? Ο.

1 A. That's where you take a segregated -- you take it in 2 lifts, the top, the middle, and the bottom. Typically 3 where you have rock or something like that in a ditch 4 line you would do that. You would have a rock pile. You'd have a middle pile, and then you'd have a topsoil 5 6 pile. 7 Q. But it might take additional right of way to 8 accomplish that? 9 Yes, sir. It might. If it's level, if there's side Α. 10 cuts in there, if it's on a slope. A lot of different 11 situations. 12 If there's 3 feet of topsoil, would you bury the Ο. 13 pipe deeper? 14 No. Not necessarily. Α. 15 So you'd have to use the topsoil to fill the ditch Ο. 16 back in fact; right? 17 Well, yes. It would still be a foot difference, Α. 18 but --But the material used to fill the ditch comes from 19 Ο. 20 what was taken out of it? 21 Α. Yes. 22 And you're talking about segregating that topsoil in Ο. 2.3 different piles and then putting it back in the order it 24 came out. Is that what I understand? 25 Α. Yes.

1 Q. Do you have involvement in the commercial aspects of 2 the project? 3 No. Α. If I understand correctly, the shortest distance of 4 Ο. 5 pipeline built would have least -- it has the least 6 number of miles and, therefore, the least effects on 7 people; is that correct? 8 That's correct. It's one of the -- when we're Α. 9 routing pipes, that's one of our considerations. The 10 shorter the line, the less environmental impacts. The less impacts to people. Less landowners we have to 11 12 cross. 13 And you're not a routing expert? Q. 14 Well --Α. 15 But you've been around enough pipelines? Ο. 16 I've been around a lot of pipelines, a lot of Α. 17 routing. 18 Isn't routing a balancing of a number of different Ο. interests? 19 20 Yes, it is. Absolutely. Α. 21 Ο. What are the interests that you balance out in routing, if you know? 22 2.3 Well, there's stream crossings, wetland crossings, Α. 24 residential areas, highway crossings. Try to minimize 25 those things, minimize the length of the line.

1 Q. Were you in any of the meetings of the reroute around Sioux Falls? 2 I was in all of the meetings. 3 Α. Yes. 4 Were there objections voiced to you that weren't Ο. 5 resolved by any of the representatives of the government 6 agencies? 7 No. Everyone concurred that the route -- we offered Α. 8 a number of different routes, and they concurred a route 9 that we chose was the best one for everyone there. 10 Did you refuse to meet with anybody regarding the Ο. 11 route? 12 No, sir. Did not. Α. 13 And so the original shorter route was modified to Q. 14 have fewer impacts? 15 MS. CRAVEN: Objection. Leading question. 16 MS. WIEST: I think your questions are becoming 17 leading, Mr. Koenecke, if you can -- so objection 18 sustained. 19 Ο. Mr. Edwards, are pipelines compatible uses in an 20 urban setting? 21 In my opinion they are. As most of the other staff Α. 22 from -- on this project were from the Houston area, my 23 experience is there's pipelines all over. I have 24 numerous pipelines near my home, so it's -- they're --25 they -- people live around them. There in Sioux Falls

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1 where our office is. There's two pipelines that go right now -- basically through the parking lot of our office 2 3 building and go right through the parking lot of Empire 4 Mall there right through Sioux Falls. Everybody's lived 5 around those, and there's apartments and condos and day 6 cares and everything else around these pipelines. 7 Everybody works around them. 8 MR. KOENECKE: I have nothing further. Thank 9 you. 10 Are there any additional questions MS. WIEST: 11 based upon redirect? I'll look out to these Intervenors first. 12 13 COMMISSIONER HANSON: I do. 14 MS. WIEST: Go ahead. 15 COMMISSIONER HANSON: Mr. Edwards, on redirect 16 Mr. Koenecke was asking you questions, and you testified 17 that -- as I understood it, that the depth of topsoil 18 would be determined by the landowner, that your testimony 19 is that whatever the landowner requests is what you will 20 provide for topsoil. 21 THE WITNESS: Yes, sir. We try to abide by the 22 landowner request when we're doing our easements, what 23 they have, questionnaires. There's questionnaires asked 24 of them, you know, about their land use. 25 So you specifically say COMMISSIONER HANSON:

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1 and testify today -- I've heard you twice now -- excuse me for repeating it. I want to make sure it's clear --2 3 that whatever the landowner requests for the amount of 4 topsoil, you will provide. 5 THE WITNESS: Yes, sir. 6 COMMISSIONER HANSON: Okay. You were also asked 7 questions about considerations for routing a pipeline and 8 you said that it includes the effect on the fewest 9 landowners. 10 Do you believe that the present routing affects 11 the fewest landowners? THE WITNESS: Well, the original route affected 12 13 the fewest landowners around Sioux Falls. When we added 14 distance, we add landowners. Every time we add distance 15 to the pipeline, we add landowners. So the first route 16 had the fewest amount. This route has more -- more 17 landowners on it. 18 I don't know if that was your question. 19 COMMISSIONER HANSON: That's interesting 20 semantics that we're juggling with. That's all right. 21 Do you believe that a different route could 22 affect fewer people, fewer citizens? 23 THE WITNESS: If there was one large landowner, 24 yes. 25 I'm not talking about COMMISSIONER HANSON:

1 parcels of land. I'm talking about people now. 2 So would a different route affect fewer people? THE WITNESS: I don't know. 3 COMMISSIONER HANSON: One of our considerations 4 5 has to be 49-41B-1, which refers to future. And we have 6 to look into the future and anticipate the future. 7 That's why I asked a question earlier and gave an example 8 of how fast those communities are growing. And that's 9 why I asked the last question. 10 Thank you for your testimony. 11 MS. WIEST: Any other questions based on 12 Commissioner Hanson's questions? 13 Any redirect, Mr. Koenecke? 14 MR. KOENECKE: No. Thank you. 15 MS. WIEST: At this point I think we will take a 16 break. 15 minutes. 17 (A short recess is taken) 18 MS. WIEST: Mr. Koenecke, you can start. 19 MR. KOENECKE: Thank you, Ms. Wiest. There have 20 been two Commissioner questions that we've got people 21 working on. And I just want to make sure that we're 22 working on what the Commissioners want to know so that 23 we're ready when the time comes with what you need to 2.4 find out. 25 The first thing is I'm getting questions about

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1 farmstead, Commissioner Nelson. I think it would be 2 helpful for us to get a picture of what -- are we talking in terms of tracts of land being owned by one person? 3 Ι 4 think you're talking about like a building site. Is it to the closest building within the site or -- help us 5 6 out. 7 CHAIRMAN NELSON: Closest building. Yes, I am 8 talking about building sites, and I think closest 9 building would probably be the -- probably the easiest 10 for you and would answer the question that I've got. 11 Yes. 12 MR. KOENECKE: So let's expand on that a little 13 bit more just so I've got something to tell -- we've got 14 people working on this now. 15 Let's say there's -- my father-in-law had a 16 quarter section that was not contiguous to where he 17 lived. He had a small granary on it that was not used, 18 and he would always tell me, I'm going to burn that down 19 some day, but he never did. He never used it. Is that 20 within your farmstead definition? 21 CHAIRMAN NELSON: I think it has to be because I 22 don't know how you, given your aerial data, could figure out what's used and what's not. So it would have to be. 23 24 Yes. 25 MR. KOENECKE: I agree with that. Let me look

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1 back for some confirmation.

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Okay. We're good with that.

Our second question that we're working on is names of public officials in meetings. So Commissioner Hanson wanted us to talk about who we met with.

We are understanding that request to be -- let me back up. We've had dozen scores -- it's probably not an exaggeration to say hundreds of meetings with public officials in South Dakota up and down the line.

Do we want them from all counties and all meetings, those records? Is somebody able to talk to them? Do you want them from specific counties?

What level of detail would be helpful as far as who we met with and when and the policymakers. I would like to hear just a little bit about Commissioner Hanson's thoughts on that so that we can be responsive. COMMISSIONER HANSON: Thank you, Mr. Koenecke.

My practice and my experience is that in these types of meetings, someone knows ahead of time and writes down the names of the people that are going to be there, and certainly if it is a city council that's going to be meeting with people, they have open meeting laws and so they have it the names of the participants.

24 So I would anticipate that in areas, most areas 25 that people have already done that, and all they have to

1 do is make a request and they'll give you a list of the 2 names of people. Where that's not available, if you don't know, 3 4 then certainly you don't have to go to any great lengths 5 trying to figure that out. But I am curious to know in 6 areas where I would anticipate that the route is close to 7 wetlands areas or close to communities, whether it's 8 Cresbard or Redfield or Harrisburg, Hartford, Humboldt, 9 Tea, Sioux Falls, that you would have the names of the 10 people that were participants in it. 11 County, if you met with county folks, that would 12 be very helpful to me. 13 But the reason I asked is because one of your 14 folks testified that they met with engineers from the 15 City of Sioux Falls. And it didn't sound like there 16 were -- when I asked questions about policymakers, they 17 did not recall meeting with policymakers. 18 Another one testified that they did meet with 19 policymakers. So I just wanted to eliminate that 20 conflict in my mind. 21 Thank you. 22 MR. KOENECKE: Thank you. 23 I just want to make sure that the Commissioners 24 and everybody know that we are working on this. Given 25 the way testimony is developing here, it might not come

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back for some time, but I don't want anybody to think 1 2 we've forgotten about it or blown it off. It's coming 3 back up, and I appreciate the dialogue as to what you 4 want from us. 5 Thank you. 6 MS. WIEST: Okay. You may call your next 7 witness. 8 MS. SEMMLER: The Applicant calls Monica 9 Howard. 10 (The oath is administered by the court reporter.) 11 DIRECT EXAMINATION 12 BY MS. SEMMLER: 13 Hi, Monica. State your full name for the record, Q. 14 please. 15 Monica Howard. Α. 16 And where do you work? What's your business Ο. 17 address? 18 I work for Energy Transfer. Address is 1300 Main Α. 19 Street, Houston, Texas 77002. 20 What's your position there? Ο. 21 Α. I'm the director of environmental sciences within 22 our engineering and construction division. 2.3 Could you tell us a little bit about your education Ο. 24 and background in that field? 25 I have a bachelor's degree in land reclamation with Α.

1 a biological emphasis as well as emphasis in horticulture 2 and earth sciences. And I have 15 years of industry and 3 consulting experience largely dedicated to the energy 4 industry. 5 Do you see an exhibit in front of you marked 33, Q. DAPL 33? 6 7 Yes, I do. Α. 8 What is the title of that document? Q. 9 Monica Howard Direct Testimony. Α. 10 Do you recognize that document? Ο. 11 Yes. Α. Did you draft that document? 12 Ο. 13 Α. Yes. 14 Did you review that document prior to today's Q. 15 proceeding? 16 I did. Α. 17 Do you have any additions to make to that testimony? Q. 18 I do. Based on some of the line of questions that Α. 19 have occurred so far, I wanted to add information about 20 the alternative section, which is one of the sections 21 that I contributed to significantly in the Application, 22 and a process that I heavily participated in for this 23 project. 24 Again, Section 12 of the Application attempts to lay 25 out the process we go through in a routing of a pipeline

and how to evaluate alternatives and what's the best route. It's a simple fundamental starting point as far as a straight line from A to B, where your product is and where you need to get it.

5 From there we use a very complex, geographic 6 information tool that accounts for major constraints in 7 routing a pipeline. It includes -- well, things that you 8 want to avoid in routing a pipeline and things that you 9 would prefer your route be with, such as collocating with 10 other pipelines, other infrastructure, things to avoid, 11 critical habitats. There's a long list.

And all the information is weighted, such as things to avoid, things to exclude, things to get closer to. And that's kind of what we call the baseline of our route. That baseline came out for the whole project wide about 1,028 miles.

17 From there is where you get into the nuts and bolts 18 of routing. So where you're discussing with agencies the 19 concerns they might have, getting information feedback 20 from other government entities, including future 21 developments, developments of individual landowners, 22 other things that you can do to minimize your impact on 23 the environment and the community where your pipeline is 24 going to be.

25

As a result of all of that routing, we've added 140

1 miles to the overall project. The current alignment 2 route comes in at 1,168. So it's 140 miles that we've 3 added due to information gathered over time in developing 4 the project. 5 And that's not a small feat for the company to get 6 to that point. And it's definitely not a cost saving 7 measure. It's something that cost us -- it cost me 3 8 and a half million dollars a mile is what it's going to 9 cost to build this route. So that's approximately 10 \$490 million that we've added to accommodate things that 11 we've learned through the routing process. 12 Q. That information gathering process that you just 13 spoke about, did that happen in the Sioux Falls area? 14 Absolutely. There were a few what we would call Α. 15 major reroutes in South Dakota. Definitely one around 16 the Sioux Falls, Lincoln, Turner, and Minnehaha County 17 area. 18 Q. You said one of the major reroutes. Were there

19 others?
20 A. Well, so it incorporated avoidance of a wellhead
21 protection area. There was a public lands avoidance area
22 up closer to the James River. There were a handful -23 around the area of Redford and siting of the pump
24 station, which is one of the only visual impacts that the
25 pipeline has long-term, we accommodated and worked with

1 those communities in siting that. 2 So to be sure that I understand. It's those major Ο. 3 reroutes that account for that 140 miles that you testified to? 4 Yes. 5 Α. Those are --6 MS. CRAVEN: We object. This is not at all in 7 any of the prefiled testimony. This is outside the 8 scope, and this has gone on quite a while. 9 MS. SEMMLER: If I may respond. 10 MS. WIEST: Go ahead. 11 MS. SEMMLER: This is additional testimony. Ι 12 recognize that it was not in the prefiled testimony. 13 However, I believe the Commission does provide parties 14 the latitude to offer additional testimony which comes up 15 in the course of this proceeding, and there was a variety 16 of questions directly on point to this that we believe 17 this witness can answer, and we'd like the opportunity 18 for her to do so. 19 Thank you. 20 MS. CRAVEN: That would be for rebuttal 21 testimony, not for the direct. 22 MS. WIEST: I'll allow it. Objection overruled. 23 So to get us back on point then, those major Q. 24 reroutes you're talking about, they contributed, right, 25 to that 140 miles?

1 Α. Yes. 2 So in Sioux Falls, specifically what can you tell us Q. 3 about that process of rerouting? 4 Α. I was not present, but I'm aware of a number of 5 local meetings that happened with the county --6 MR. RAPPOLD: Objection. Hearsay. -- as a result of --7 Α. 8 MS. WIEST: No. 9 She is testifying to her awareness MS. SEMMLER: 10 of what occurred. She's not testifying as to what anyone 11 said at that meeting. It's not hearsay. 12 MR. RAPPOLD: She's testifying about a meeting 13 that she wasn't at. That's hearsay. 14 MS. SEMMLER: I didn't ask what was said, just 15 asked about her awareness whether those meetings 16 occurred. And in her capacity and in her role at the 17 company, she would be aware of the occurrence of those 18 meetings. 19 MS. WIEST: Okay. Objection overruled. 20 I was aware of a number of local and county meetings Α. 21 that occurred up in that area. As a result of those 22 discussions, I was presented with a number of different 23 lines to run additional alternative analysis on regarding 24 preferences made by the communities or the engineers and 25 how to accommodate that in our routing analysis.

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1	So I performed additional alternatives analysis
2	throughout those counties.
3	Q. And so that testimony you just offered, does that
4	sufficiently describe what your role was after those
5	meetings occurred?
6	A. Yes. And, in fact, the route selected, which is not
7	often, was actually the longest of the alternatives that
8	was presented for analysis.
9	Q. Based on your experience and your knowledge in the
10	field, are pipelines compatible with urban development?
11	A. Absolutely. I've worked on
12	MS. CRAVEN: Objection. She's not an expert in
13	land use or land zoning or community assessments or
14	anything that you just asked about.
15	MS. SEMMLER: If I may respond. Based on her 15
16	years in the industry, that's the basis for which I am
17	asking this question.
18	MS. WIEST: Okay. Objection overruled.
19	A. Yes. I've not only been a part of constructing
20	pipelines in urban or developed areas, but also going in
21	and repairing or maintaining them as well. It's a normal
22	practice. There's pipelines throughout all of the major
23	cities in the United States. And once a pipeline's
24	installed, it actually becomes part of the development
25	area. Oftentimes pipelines provide a green space in

1 these urban areas.

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2	I've been part of establishing bike trails, hiking
3	trails, soccer parks, things like that over the area
4	where no buildings can be put, but it can certainly be
5	incorporated into the landscape successfully.
6	Q. So you, again, in your 15 years' of experience, have
7	you observed urban communities embrace, for lack of a
8	word, embrace these areas where buildings cannot be
9	directly constructed?
10	A. Absolutely.
11	Q. Do you have any corrections that need to be made to
12	your testimony?
13	A. Based on the fact that the testimony was a few
14	months old, I do have updates to the Permit table that
15	was included in it.
16	Q. Why don't you open up your testimony there. What
17	page does that table begin at?
18	A. Line 16 on page 1. After line 16.
19	Q. And please tell the Commission what portions of that
20	table need updating.
21	A. The very first agency Permit identified, the Army
22	Corps of Engineers. We had an additional preconstruction
23	notification that was submitted in April, and the status
24	of those reviews are still ongoing.
25	And then on the second line regarding the Fish $\&$

1 Wildlife Service. Through our consultation and 2 discussions regarding the PCN locations, there is a 3 programmatic biological opinion that we plan to use which is referenced here. However, the effects determination 4 5 is actually the ability to take rather than a no effect 6 by use of that BO. 7 Any further updates to the table? Ο. 8 Regarding the South Dakota Historical Society, we Α. 9 had submitted the Class III Report. We did receive edits 10 on those through testimony in this proceeding, in 11 addition to edits on an unanticipated discovery plan. Those comments and edits have been addressed, and 12 13 Addendum 1 has also been provided to the State which 14 accounted for mileage that was not available at the time 15 of the original Class III Report. And we've received 16 agency concurrence with our findings on both of those 17 reports.

And a third report, which is Addendum No. 2, was submitted for the last chunk of mileage we received access to, and that was submitted on September 21, and it's under review by the agency.

And then my understanding with regards to the roads, the planning meetings have taken place, informal verbal concurrence with our crossing plans have been verbalized, but they're waiting on other Permit decisions before

1 granting those.

-	3-0
2	Q. And just so the record is clear on that, what agency
3	were you referencing just there where you spoke about
4	waiting for the Permit? Which agency on this table were
5	you referencing?
6	A. Those would be the county road crossing permits.
7	The last line on page 2.
8	Q. Any other updates that need to be made to your
9	testimony?
10	A. The percent of survey complete. And I apologize.
11	That will take me a minute to find what page that's on.
12	I believe it was around 96 percent at this time, and
13	currently it's at 98.6 percent.
14	Q. I'm going to direct you to page 26.
15	A. Thank you.
16	Q. Line 497. Is that what you're referencing?
17	A. Can you say that one more time, please.
18	Q. Line 497.
19	A. There's only one word on that in my testimony or
20	in my copy.
21	I believe it's 490. I'm sorry.
22	Q. There we go. Thank you.
23	A. Excuse me. Yes, where it said 97.7, we're currently
24	at 98.6.
25	Q. How about the wetland and water body HDD location

1 chart located in your testimony? 2 Two additional drills have been added in the state Α. 3 for constructibility purposes. However, those two 4 crossings also happen to be potential presence for the Topeka shiner. So there were two drills that were added. 5 6 Do you know what county those are in? Ο. 7 Do you have the page of what that -- page that's on? Α. 8 389 on page 20. Any additions, updates to that Q. 9 table? 10 Yeah. It's the West Fork Vermillion River, or East Α. 11 Fork. I'm sorry. I wrote them down. I don't have them 12 up here with me. 13 Is it correct Pearl Creek? Q. 14 Α. Yes. 15 How about is there now a --Ο. 16 MS. CRAVEN: Objection. She's answering her own 17 questions. Leading. 18 MS. WIEST: Sustained. 19 Ο. Do you remember how many additional HDD drills there 20 are? 21 Α. There are two more, both of which contained habitat 22 for the shiner. 23 With those additions and corrections made, if I were Ο. 24 to ask you the questions contained in this testimony, 25 would you answer them the same as they're written?

1 Α. Yes. 2 MS. SEMMLER: I'd move to admit Exhibit 33. 3 MS. WIEST: Is there any objection? 4 If not, it's admitted. 5 MS. SEMMLER: The witness is available for 6 cross. 7 MS. WIEST: Ms. Baker, do you have any 8 questions? 9 MS. BAKER: I do. Thank you. 10 CROSS-EXAMINATION 11 BY MS. BAKER: 12 Jennifer Baker for the Yankton Sioux Tribe. Ο. 13 Would you describe the positions you've held over 14 the past 15 years. 15 Sure. I'm currently director of environmental Α. 16 services for engineering construction overseeing from 17 feasibility through construction and service of the 18 environmental components of pipeline projects, including 19 biological and environmental and cultural resources. 20 Prior to that I was a senior project manager within 21 that same group. Prior to that a project manager for a 22 number of years. And originally I started off in the 23 field performing the surveys and drafting the reports. 2.4 Q. What does your job as director of environmental 25 sciences for Energy Transfer entail?

1 A. We have an environmental sciences group that supports all of our capital energy infrastructure 2 3 projects. 4 Q. But what does your job actually entail? 5 Overseeing my projects as well as the projects my Α. 6 group is running -- or participating in. 7 Q. Are there any statutory or regulatory requirements 8 that you're in charge of ensuring that your employer 9 meets? 10 Yes. Anything environmental. Α. 11 Are you also in charge of ensuring compliance with Ο. those laws and regulations for Dakota Access? 12 13 Yes. Α. 14 Are you an attorney? Ο. 15 No. Α. 16 What did Dakota Access consider as the project Ο. 17 vicinity? I think it varies based on different media that's 18 Α. being discussed. If you had a more tight reference, I 19 20 could answer that. 21 For the purposes of the Application or, in fact, of Q. 22 your own testimony. 2.3 A. Can you point to my testimony where I use it in 24 context? 25 Yes. Just one second. Ο.

1 Okay. Line 22. 2 For comparing other major projects in the vicinity Α. 3 that would have incorporated -- well, as the project 4 goes, anything within the counties crossed or adjacent 5 counties for where the project was sited. 6 Okay. So it has to be within the county or an Ο. 7 adjacent county? 8 Yeah. For this because there was so little we went Α. 9 ahead and we searched statewide as well as everything 10 East River. 11 Everything East River? Ο. 12 Uh-huh. Α. 13 Okay. And could you clarify what that means? Q. 14 I'm sorry. East of the Missouri River. Α. 15 Why did Dakota Access restrict its view to the Ο. 16 project vicinity? 17 I don't know how you would get anywhere if you Α. 18 didn't restrict it. 19 Ο. So you could go beyond the vicinity as you defined 20 it, just an adjacent county? 21 Α. I included adjacent counties in my description. 22 Okay. Is there a reason you didn't go beyond that? Ο. 2.3 You need to cut it off somewhere to have a valuable Α. 24 data set. 25 Okay. So it's based on county lines as opposed to, Ο.

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1 say, distance or water or anything like that? 2 No. I didn't say that. Α. 3 Q. Okay. 4 Α. It included everything East River. We looked at all 5 developments. This is in regards to other major 6 projects. We looked at the entire state for major 7 projects. 8 Okay. Who defined the PUC land use categories for Q. 9 the project? 10 I believe the PUC did. Α. 11 Was tribal treaty land considered a category? Q. 12 It was not encountered, so, no. Α. 13 What about Indian Country? Q. 14 I'm unfamiliar with the term you're using. Α. 15 You're unfamiliar with the term Indian Country? Ο. 16 Indian Country? Yes. If you could define that, I Α. 17 would be able to clarify that for you. 18 Well, it's -- that's all right. Ο. 19 Are there other categories of land that Dakota 20 Access has used in the past that it has not used here? 21 Α. Not Dakota Access, no. 22 Your answer to the question, "Did the project Q. 2.3 analyze the effects of the pipeline on land uses, and if 24 so, what are the impacts" did not answer the part of the 25 question what are the impacts.

1 Could you answer that question? 2 Sure. Could you please point me to the testimony? Α. 3 Line 58. Ο. 4 Α. The impacts on those land uses are -- I apologize. 5 I don't see it in my testimony. They are discussed in 6 depth in the Application. It discusses the temporary 7 impacts and the commitment and efforts to restore all 8 land uses back to their prior use, with the exception of 9 the limited acreage of aboveground facilities. 10 Q. So what are those impacts? 11 The temporary impacts from construction including Α. 12 vegetation removal, disturbance to soils, when -- I need 13 to go back to the list of them. 14 So lack of crop production in the year of 15 construction, having to fence out rangeland or keep 16 rangeland out of use during the time of construction. 17 So is it only conceived that there would be lack of Q. 18 agricultural production on the land during the time of 19 construction; otherwise, it's expected to be --20 Active production, yes. Α. 21 Ο. Oh, active production? 22 Active production and cultivation during our Α. 2.3 construction season they would not be able to plant 24 within the right of way. We would be constructing. 25 Okay. And is crop growth expected to resume as Ο.

normal after that? 1 2 On a sliding scale, yes. Α. 3 What does that mean, on a sliding scale? Ο. 4 Α. I believe there's been already testimony identifying 5 we pay damages three years out at a sliding scale. So 6 the first loss, 100 year of crop loss because we're 7 constructing and nothing can be planted. And then as the 8 right of way gets restored, the yields come back up until 9 they're at similar production or same production as 10 adjacent, nondisturbed areas by the pipeline. 11 Okay. And is that about three years? Ο. 12 That's what's been paid in advance. That's a known. Α. 13 Okay. I'm actually not asking about payments. Q. I'm 14 asking about how the land -- the quality of the land and 15 whether agriculture is actually able to exist there in 16 the way that it did prior to the pipeline. 17 Absolutely. Agriculture returns to previous Α. 18 conditions, crop yields, topography, everything. 19 Ο. Okay. Within what time frame? 20 It varies greatly. Α. 21 Q. What's the longest that you've ever heard of? 22 That I've ever heard of? Α. 2.3 Uh-huh. Q. 24 When done properly or ever? Α. 25 When done properly. Ο.

1 MS. SEMMLER: I'm going to object. This calls 2 for speculation. 3 MS. WIEST: Overruled. 4 On a proper restoration, the longest I think I've Α. 5 seen it based on conditions present at the time and lack 6 of topsoil depths and other things, three to five years. 7 Okay. You mentioned karst in your testimony? Ο. 8 Yes. Α. 9 Can you tell us what that is? Ο. 10 It's geological formation under the ground where Α. 11 water interacts with the formation and cause voids. I'm sorry. And did you say creates voids? 12 Ο. 13 Can cause voids. Α. 14 Why is it a concern for personnel to be Okay. Ο. 15 specially trained to identify karst? 16 It can impact how you would install and -- the Α. 17 pipeline. 18 What are the concerns specifically about that? Ο. 19 Α. Avoid presenting something that's -- that wouldn't 20 support the structure of the pipeline. I'm not a 21 geologist. We have retained specialists that go over 22 what those mitigation measures would be and how things 23 would need to be adjusted based on that. My job as the 24 scientist is to help identify those locations. 25 So karst is problematic for laying the pipe? Ο.

1 Α. It can be. 2 Is it common in South Dakota? Ο. Okay. 3 Α. Yes. 4 Ο. Are there any other ways besides desktop studies to 5 identify whether karst exists along the route? 6 Α. Sure. 7 What are those ways? Q. 8 Other geotechnical investigations. Α. 9 Ο. Okay. 10 Including drilling, boring. A lot of it's done by Α. 11 desktop based on where previous drills and wells and 12 things have been, but, sure, there are other ways where 13 you could identify them. 14 Is there a reason that Dakota Access didn't Ο. 15 undertake those processes? 16 I can't answer that. Α. 17 Why can't you answer that? Q. 18 I don't know the answer to that is what I mean. Α. 19 Q. Okay. Do you know who does? 20 I would refer that back to our engineering design Α. 21 manager, Chuck Frey. 22 Which specialized construction techniques might Q. Dakota Access utilize if karst is identified during 2.3 24 excavation? 25 Again, that's outside my area of expertise. We do Α.

1	have retained specialists for addressing that.
2	Q. Okay. Can you take a look at line 180 of your
3	testimony, please.
4	A. Yes.
5	Q. Is that answer complete?
6	A. No. It was more of an introduction to what's coming
7	after it. So
8	Q. Okay. Okay. I see. So all of the subsequent
9	questions are
10	A. Discuss hydrology.
11	Q. And so the impacts are fully discussed through those
12	questions?
13	A. I'd have to read it again. That was the intent, to
14	pull out the highlights from the Application where it is
15	discussed.
16	Q. In your testimony you state that the pipeline will
17	not interrupt drainage patterns within the project area.
18	Is drainage pattern a geological term?
19	A. More of a topographical term.
20	Q. Okay. Can you explain what it means?
21	A. How the water flows on the surface of the land.
22	Q. Okay. And what might affect a drainage pattern?
23	A. Excessive fill or change in topography, be it an
24	addition in topography or a reduction such that sheet
25	flow of water would alter its current direction.

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1 Ο. So it sounds like there are a lot of factors that go into determining a drainage pattern; is that correct? 2 I don't know what you mean by a lot. 3 Α. 4 Okay. What are the factors that go into determining Ο. 5 a drainage pattern? 6 Topography and surface water flow, and that's by and Α. 7 large it. 8 I'm sorry. Q. 9 That's by and large it. The lay of the land and how Α. 10 much water there is. 11 Okay. Are they dependent at all on upstream Q. 12 activity? 13 Α. If there was a change in topography upstream, Sure. it would affect -- could affect downstream drainage. 14 15 So how is it that the proposed project will not Ο. 16 interrupt drainage patterns if a pipeline is a 17 below-ground facility? 18 The fact that it doesn't change the topography of Α. 19 the land, it will not have a direct effect on changing 20 any drainage patterns. 21 Excavation process won't have any impact? Q. 22 I believe that's in returns to long-term. Α. So 2.3 short-term, yes. That's why we use erosion control 24 devices and things of that nature, so during the actual 25 active construction, absolutely trenching in the ground

1 could alter, as well as storing topsoil and spoil piles. 2 The temporary disturbance would alter, four to six months 3 of construction. 4 Ο. Okay. Are you familiar with how much is going to be 5 used for hydrostatic testing? 6 Α. I have a table that's been provided to me. I have 7 not memorized it. 8 Do you have, like, a ballpark figure? Q. 9 No. We break it up a number of different ways. Α. Ι 10 don't know that I could split it up by the State of South 11 Dakota. 12 Q. Okay. Is anything added to the water when 13 conducting hydrostatic testing? 14 No. Α. 15 Not -- colorants not added? Ο. 16 Α. Nothing's added. 17 Okay. Can you tell me how cultural sites were Q. identified? 18 19 Α. We hired professional archeologists and principal 20 investigators, certified or qualified to work in the 21 State of South Dakota. They did literature reviews, 22 pedestrian surveys, in addition to soil plots and 2.3 testing. 24 What is a pedestrian survey? Q. 25 It has to do with traversing the area and looking Α.

for artifacts on the surface. 1 2 Were any Native American Tribes invited to Q. 3 participate in these surveys? 4 Α. No. 5 Why not? Q. 6 As a matter of practice and regulation, that's --Α. 7 it's not a requirement. We don't typically do that. 8 Q. It's fairly commonplace to have tribal members with 9 unique knowledge to an area go along on these studies or 10 participate in studies of their own at the invitation of 11 a company. 12 Is that a question? Α. 13 I was getting there. Is there any reason that was Q. 14 not done? 15 In my 15 years I recall one project where that Α. 16 occurred, and the Tribe approached us as the company to 17 do it and requested to be present, and it was granted. 18 In another state there were tribal members present 19 during survey. At their request. 20 So are you suggesting that had the Tribes requested Ο. 21 this, they would have been allowed to? 22 Very possibly, yes. Α. 23 Okay. How could they have known this was an option? Q. 24 Was there any outreach done to the Tribes? 25 There was general public outreach, absolutely. Α. We

1 held open houses in every county along the project. 2 Did you actually go on to the reservation? Ο. 3 We're nowhere near a reservation. Α. No. 4 Are you familiar with the history, generally Ο. 5 speaking, of the area that the pipeline will cross in 6 post and precolonial times? I've read about it. 7 Α. 8 Are you familiar that it was Ihanktonwan territory? Q. 9 Excuse me? Α. 10 Yankton Sioux Tribe Ihanktonwan territory? Ο. 11 MS. SEMMLER: I'm going to object. This witness 12 is not testifying today as a historian. She explained to 13 the Commission what her expertise is, and this is outside 14 her area of expertise. 15 MS. BAKER: I'm asking to lay foundation for my 16 questions regarding why the Tribe was not reached out to, because the Tribe has a clear interest here. 17 18 MS. WIEST: Objection overruled. I'm sorry. Can you repeat the question, please. 19 Α. 20 Are you familiar that the land that the pipeline Ο. 21 will be crossing was aboriginal territory of the Ihanktonwan or the Yankton --22 23 MS. SEMMLER: I'm going to object again. Ι 24 believe counsel is now testifying. 25 I'm asking if she's aware of this MS. BAKER:

1 fact because it goes to whether or not she has reason to 2 think that there should be contact made with the Tribe. 3 MS. WIEST: Yes. I believe she did preface it 4 are you aware of this fact. Objection overruled. 5 I've seen general maps of historical reaches Α. Yes. 6 of the Tribes. 7 Okay. Why was there no outreach conducted then to Ο. 8 the Yankton Sioux Tribe? 9 Again, for the lack of the requirement and for the Α. 10 fact that they were fulfilling the requirements that were 11 out there. We have satisfied the laws and regulations 12 that we were bound by. 13 So you don't ever go beyond what the law requires at Ο. 14 a bare minimum? 15 I wouldn't say that, no. Α. 16 So why didn't you conduct that outreach? Okav. Ο. 17 Again, based on the fact of lack of any reservation Α. 18 land and lack of any interest in our open houses or any 19 of the other announcements that's been made on the 20 project for outreach that there was a concern or issue 21 from it. We wouldn't follow up on nothing. 22 There have been announcements on the reservation? Ο. 23 Again, we're not anywhere near a reservation. Α. So no. We don't typically go out and discuss or announce to 24 25 unaffected parties.

1 Ο. Did the proposed route project cross directly over any aquifer or formation? 2 3 Absolutely. Α. 4 Ο. Okay. Does it cross over any aquifer used for 5 drinking water? 6 No primary sources that I'm aware of, no. Α. 7 Can you tell me how many aquifers will be crossed? Ο. 8 I believe I've provided that in an Interrogatory Α. 9 response. I do not have that memorized. 10 You don't recall. Okay. Ο. 11 Are any discharge sites protected in such proximity 12 to an aquifer used for drinking water or irrigation that 13 the discharge water could come into contact with the 14 aquifer? 15 Discharge water from what? Α. 16 Either two types of discharge water. I believe they Ο. 17 were hydrostatic testing and -- well, I believe there was 18 some discrepancy in some of the discovery we received, 19 but it was either the horizontal direction drilling or 20 the trenched boring. 21 Α. There's only two types of dewatering which would be 22 hydrostatic and trench. Without knowing where these 23 sources are, what the soil makeup is, where specifically 24 you're talking about, where the screened interval would 25 be for the water well, I could not answer that.

1 Q. Okay. 2 MS. BAKER: The Yankton Sioux Tribe has nothing 3 further. 4 MS. WIEST: Thank you. Ms. Northrup, you didn't 5 want to go next for this witness; right? Okay. Thank 6 you. 7 Mr. Rappold. 8 CROSS-EXAMINATION 9 BY MR. RAPPOLD: 10 Did you participate in answering or responding to Ο. 11 any discovery questions? 12 Quite a bit, yes. Α. 13 Did you participate in answering or responding to Q. 14 any discovery questions from the Rosebud Sioux Tribe? 15 Yes. Α. 16 Did you provide the -- in the answers to Rosebud Ο. 17 Sioux Tribe's second set of Interrogatories, we asked for 18 an update regarding the Permit chart. 19 Did you participate or --20 I would have drafted that, yes. Α. 21 Q. You drafted that? 22 Uh-huh. Α. 2.3 Okay. And we asked you for updates for all the Ο. 24 permits as of I believe it was the date your testimony 25 was filed.

1 Α. Uh-huh. 2 Between that time and the date that you filed your Q. 3 answer, which would have been September 21, does that 4 sound about right? I have no idea. 5 Α. Q. I've taken --6 7 MR. RAPPOLD: Approach the witness. 8 MS. WIEST: Yes. 9 MR. RAPPOLD: And can I ask to have an exhibit 10 marked? 11 MS. SEMMLER: Are there enough copies for 12 counsel? 13 MR. RAPPOLD: They're electronic. Everything's 14 electronic. 15 MS. SEMMLER: I understood the Commission's rule 16 was that for exhibits which were not filed as exhibits, 17 that paper copies must be provided to all parties. 18 MR. RAPPOLD: And these were filed as exhibits. 19 MS. WIEST: Yes. And when were they filed as 20 exhibits? Is that your recent filing? MR. RAPPOLD: I filed them on the due date and 21 22 had a discussion yesterday and earlier today with Joy 2.3 regarding why they didn't get uploaded to the PUC 24 website. And I believe they were uploaded today is my 25 understanding.

1 And also the exhibits were e-mailed directly as 2 well to the parties. 3 MS. WIEST: Does that answer your question, 4 Ms. Semmler? 5 What number? MS. SEMMLER: 6 MR. RAPPOLD: I'm referring to 28, which is all 7 of Dakota Access's responses to discovery requests from 8 all parties. And I was going to ask that the court 9 reporter identify that as 28A. 10 MS. SEMMLER: I'm going to object. I don't 11 think that whole pile of discovery was ever actually 12 filed, was it? I think it was just referencing all 13 discovery generally, and discovery's not filed in the 14 docket. 15 But it's your discovery. MR. RAPPOLD: I know. 16 MS. SEMMLER: That's not filed in the docket. 17 You need to introduce it appropriately as an exhibit, and 18 provide a copy of what you're referencing. 19 MS. WIEST: So this is Exhibit 28? 20 MR. RAPPOLD: It's a document -- it's responses 21 to our Interrogatories, and I'd like to mark it 28A. 22 Because there may be more from the discovery documents. 23 MR. CREMER: Ms. Wiest, in looking on the 24 computer, you know, it shows Rosebud Sioux Tribe Number 25 28 did not file at this time. So I don't have access to

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it. And I don't know if others do or not. There's no 1 2 live link to it, so I don't understand where it is. 3 MR. RAPPOLD: I can't -- I can't speak to how 4 the website operates. 5 MR. CREMER: Well, it operates in that it says 6 that you didn't file it at this time is the way I 7 understand it. But my question, I quess, is did you file 8 something you think? 9 MR. RAPPOLD: I know I filed it. Yeah. 10 MR. CREMER: Okay. 11 MS. WIEST: You filed the actual responses? 12 MR. RAPPOLD: Oh, the actual individual 13 responses? 14 MS. WIEST: Yes. 15 MR. RAPPOLD: No. I did not file those, no. 16 MS. WIEST: Well, then in that case then you 17 need to have copies because we don't have copies of 18 those. 19 Ο. You're currently in contact with the U.S. Fish & 20 Wildlife Service Sand Lake National Wildlife Refuge; is 21 that correct? 22 We are -- no. Α. 23 You're done communicating with Sand Lake? Ο. 2.4 No. We don't have a direct contact with that Α. 25 We're working with the refuge department at the refuge.

1 Fish & Wildlife Service, yes. 2 Well, now I'll draw your attention to your testimony Q. 3 on page 2, the second box down on the left-hand side. 4 Α. Yes. 5 Where it says U.S. Fish & Wildlife Service Sand Lake Q. 6 National Wildlife Refuge complex. And are you saying 7 that you've never been in contact or communication with 8 them regarding this project? We reached out to each district for the location and 9 Α. 10 limits of their easements. Yes, we did. 11 Okay. And is that the only contact that you've had Q. 12 with them? 13 With each individual district, yes. We are working Α. 14 with a point of contact for that part of the agency. 15 Do you know if the Army Corps of Engineers has begun Q. 16 the agency-to-agency consultation with the Fish & 17 Wildlife Service? 18 I'm so sorry. Can you repeat that? Α. 19 Ο. Do you know if the Army Corps of Engineers has begun 20 the agency-to-agency consultation with Fish & Wildlife Services? 21 I know there's been back and forth between the two 22 Α. 2.3 agencies on the project. 24 Q. So do you know if they've officially begun the 25 agency-to-agency consultation?

1 Α. I don't know what triggers that. Again, I know 2 they're talking to each other. Is that official consultation under the law? 3 Ο. 4 MS. SEMMLER: Objection. A legal conclusion was 5 requested as he stated under the law. She's not a 6 lawyer. 7 MS. WIEST: Do you have a response? 8 MR. RAPPOLD: Well, she's indicated that she's 9 had 15 years of experience working in this area, and so I 10 don't think it's a question that asks for a legal 11 conclusion about the Application of a particular law or 12 how it works or what a law means. 13 Through her testimony she's indicated that she's 14 done this for 15 years, so she would know what formal 15 agency-to-agency consultation consists of under the law 16 that requires that. 17 And so I'm just asking her if back and forth 18 communication is considered agency consultation. Ιt doesn't call for a legal conclusion. 19 20 MS. WIEST: Objection overruled. 21 Α. Based on the impacts and preconstruction 22 notifications the project has in South Dakota, there's no 2.3 need for agency-to-agency consultation. 2.4 How do you know that? Q. 25 In discussions with the Army Corps of Engineers, who Α.

1 would be the lead federal agency over those crossings. 2 We can use the coverage under the programatic biological 3 opinion for the Topeka shiner with respect to certain 4 nationwide permits. In your testimony, line 293, you indicate that there 5 Ο. 6 will be a 50-foot pipeline permanent right of way that 7 will be kept clear of trees. That's on line 293. 8 Is that accurate? 9 Yes. By and large, 50 foot maintained of trees is Α. 10 accurate. 11 And that will extend the entire length of the Ο. 12 pipeline route? 13 Generally. Α. 14 Where wouldn't it? Ο. 15 Where we've offered up other mitigation measures. Α. 16 Are you able to say in the areas that will be kept Ο. 17 clear of trees that they are not areas where trees are 18 important for habitat? 19 Α. I don't understand the question. Could you please 20 say that again? 21 Would you agree that certain species rely on trees Q. 22 and other characteristics for -- as a part of their 2.3 habitat? 2.4 Yes. Α. 25 And in the areas of the right of way that will be Ο.

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1 kept clear of trees, are those areas areas that wildlife will depend on for their habitat? 2 3 Is the maintained right of way used by wildlife for Α. 4 habitat? 5 No. I'm just --Ο. 6 I'm sorry. I'm not understanding the question. Α. 7 I'm speaking of your testimony where it says you're Ο. 8 going to keep the right of way clear of trees. And you 9 said that would just only apply to certain areas. 10 And I'm wondering is, are those that are going to be 11 clear cut, are those areas that certain animals like 12 birds would depend on for their habitat? 13 I don't think a bird depends on any one tree for its Α. 14 habitat, no. 15 What about a bat? Do bats depend on trees for their Ο. 16 habitats? 17 A number of trees, yes. Α. 18 All right. And are there any bats in this area of Ο. 19 the pipeline corridor? 20 Yes. Absolutely. Α. 21 Okay. And so what bats are those? Do you know? Q. 22 There's a plethora of them. Not just one or two. Α. 2.3 Well, can you tell us what they are? Ο. 24 Not off the top of my head. Α. 25 Are there any threatened or endangered species that Q.

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1 fall into that category? 2 Protected by the Endangered Species Act, no, there Α. 3 are not. What about under South Dakota Law? 4 Ο. Not that I'm aware of. 5 Α. 6 Q. There's a list that you referenced in the 7 Application. In your testimony you indicate there's a 8 comprehensive list of all federal and state listed 9 species within the counties crossed by the project. 10 That's on line 427, page 22. 11 Did you prepare that list? 12 Yes. Participated in developing that list. Α. 13 Is there anyone else that participated in preparing Q. that list? 14 15 The environmental consultants hired by me for the Α. 16 project. 17 Q. Okay. And do you see where the northern long-eared 18 bat is listed? 19 Α. I don't have that table. No, I don't. 20 If I showed it to you, would it help you? Ο. 21 Α. Yes. 22 MR. RAPPOLD: I'd like to show the witness the 2.3 federally listed threatened and endangered species table 24 from the Application. 25 For the record, I believe that was MS. SEMMLER:

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1 marked and admitted as DAPL 4; is that correct? 2 MR. RAPPOLD: I don't know. 3 MS. SEMMLER: Well, I think we need to all know 4 what we're looking at. 5 MR. RAPPOLD: Yeah. I agree. 6 MS. WIEST: Can you identify that, and do you 7 know if it was in -- let's see. Exhibit No. 4, did you 8 say, Ms. Semmler? 9 MR. RAPPOLD: Yes, she did. 10 MS. SEMMLER: Correct. 11 MS. WIEST: So that would have been Exhibit C to 12 the Application. 13 THE WITNESS: That was updated. 14 MS. WIEST: Can we go ahead? Is everybody on 15 the same page here? 16 MS. SEMMLER: I'd just like some additional 17 clarification I guess on whether or not the witness is looking at the updated Exhibit C that the Applicant 18 19 admitted yesterday or if it's an older one? There's a 20 couple versions. I just want to be sure the witness is 21 looking at the appropriate updated version. MS. WIEST: Well, if it's an admitted exhibit, 22 2.3 we can get it wherever it is. 24 MR. RAPPOLD: I'm trying to get it on the 25 website.

1 MS. WIEST: Where is this exhibit at, the one 2 that was admitted? Okay. Here's the updated one. 3 4 Okay. Now you can proceed. Is it Exhibit 4 -- Exhibit C? 5 Ο. 6 MS. WIEST: I believe they were talking about 7 Exhibit 4 -- Exhibit No. 4, which was Exhibit C to the 8 Application. 9 MR. RAPPOLD: Yes. Okay. 10 Α. The version you handed me is the old version. 11 So is the northern long-eared bat listed on the Ο. document that you're looking at? 12 13 It's a qualified listing. Qualified by the 4D rule Α. 14 under which the species was listed by the agency. 15 Okay. What's the 4D rule? Ο. 16 Basically, I mean, I can read it for you, but it Α. limits the protection of the species to certain 17 18 documented zones of which South Dakota is not one. 19 Ο. And it's not a final rule, is it, 4D? 20 It is the interim rule based on the recent listing Α. 21 of the species. 22 And so there are still concerns with the northern Ο. 2.3 long-eared bat; correct? 24 MS. SEMMLER: Objection. Foundation. Whose 25 concerns?

1 MS. WIEST: Can you clarify your question? 2 MR. RAPPOLD: Yeah. 3 The Department of Interior. Ο. MS. SEMMLER: Objection. This witness can't 4 5 speak for the Department of Interior. 6 Q. Have you reviewed --7 MS. WIEST: Just one minute. Sustained. 8 MR. RAPPOLD: I'm sorry. 9 Q. Have you reviewed Federal Register Volume 80 No. 63, 10 April 2, 2015? 11 Assuming that's the listing date of the species, Α. 12 yes, I have. 13 Q. So, yes, it is. 14 MS. SEMMLER: I'm going to object. That's not 15 what the witness testified to. She made an assumption, 16 and she stated that in her testimony. Her answer was not 17 yes. 18 MR. RAPPOLD: I'm sorry. I missed that. I 19 didn't get it. 20 MS. WIEST: I don't know that you were speaking 21 about her testimony when you said yes, that is. 22 MR. RAPPOLD: Yes. That's the Federal Register 2.3 notice that listed the species. 2.4 MS. WIEST: Does that clarify that, Ms. Semmler? 25 MS. SEMMLER: Thank you.

1	MC WIECH, Thank you
1 2	MS. WIEST: Thank you.
	Q. So how does the 4D rule work?
3	A. I mean, I don't have the regulation in front of me
4	spelling it out exactly. I can relay it in layman's
5	terms and how it applies to this species.
6	Q. Okay.
7	A. Basically the species is listed due to a sickness
8	within the population and other bat populations and not
9	based on habitat or human infringement or other things.
10	So the area under protection for the species is limited
11	to the area where the illness has been documented.
12	Q. And are you aware of any the possibility of that
13	illness moving? Or does it just stay in one spot?
14	A. The protected area for the species is delineated by
15	the agency. I don't know that I understand your
16	question.
17	Q. No. Does the what's the disease called?
18	A. White-nose syndrome.
19	Q. And will that is it your understanding that that
20	syndrome will stay in one geographic location or can it
21	move?
22	A. It can move.
23	Q. And is there any indication that it may be moving in
24	the direction of South Dakota?
25	A. I don't know.

1 Ο. Have you published any research papers? 2 No. Α. What college did you go to? 3 Ο. 4 Α. I graduated from the University of Wisconsin-Platteville. 5 6 Ο. Wisconsin what? Platteville. 7 Α. 8 You testified -- your testimony indicates you've Ο. 9 supported the energy industry for 15 years. What do you 10 mean by supported the energy industry? 11 I've worked on both the consulting side of the Α. 12 industry and the company side of the industry supporting 13 different types of energy projects, vastly pipeline 14 varying from natural gas and liquids. Also includes 15 electric transmission and wind farms. 16 Are you responsible for participating in obtaining Ο. 17 any other permits from any other state or federal agency? 18 Yes. Α. 19 Ο. And which ones are you currently involved with? 20 Pertaining to this project or in my day-to-day work? Α. 21 Well, pertaining to this project, yeah. Q. 22 All of the states the project runs through. Α. 2.3 Okay. So you would be familiar with Endangered Q. 24 Species Act protection requirements in all of the states? 25 Absolutely. Α.

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1 Q. And because the species in each state are different, 2 there could be different requirements for each state; is 3 that correct? 4 Α. They're also different within the states, yes. 5 Sure. And would you agree then that in order for Q. 6 the Commission to grant -- grant you this Permit, you 7 would need to show compliance with laws in all 8 jurisdictions, all applicable laws? 9 No. Α. 10 Are there any other documents that you referred to Ο. 11 or relied on in preparing your list of threatened and 12 endangered species? 13 The list came from publicly available information as Α. 14 well as agency technical assistance. 15 What I said is is there any other documents Q. Right. 16 or resources that you relied on that were not included here in --17 In the reference? 18 Α. 19 Ο. Yeah. 20 I don't know. I would need to look at the Α. 21 reference. No. I would assume the reference is 22 inclusive. 23 Are you applying for easement -- a Special Use Ο. 24 Permit to cross through grassland and wetland areas? 25 We are -- we have applied for a Special Use Permit. Α.

1 Ο. You have? 2 To cross fish and wildlife, wetland, and Α. Yes. 3 grassland easements. 4 Q. Why do you need that Special Use Permit? 5 We don't necessarily feel that we do, but in our Α. 6 discussions with the agency, they would prefer for us to 7 apply for it. 8 Why don't you feel you need one? Q. 9 They're nonexclusive easements with limited Α. 10 jurisdiction. 11 I'm sorry. I couldn't hear you. Ο. 12 They're nonexclusive easement with limited Α. 13 jurisdiction. 14 And that's why you feel you don't need them? Q. 15 By and large, yes. Α. 16 But you're just kind of going through the motions? Q. 17 Absolutely. Α. 18 How far along are you in that process? Ο. 19 Α. The internal agency review is complete as of the 20 last update I've received, and they'll be working on 21 their interagency consultation as the next step. 22 What's an interagency consultation? Ο. 23 That has to do with NEPA. Α. 24 And why is NEPA involved? Q. 25 Because granting of the easement -- or granting of a Α.

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1 Special Use Permit by a federal agency is a federal 2 action. And did you hear -- were you in the room when Mr. 3 Ο. I don't know if I pronounce it --4 Mahmoud. 5 Α. 6 Mahmoud. Thank you. Sorry. Were you in the room Q. 7 when he testified? 8 Yes, I was. Α. 9 And did you hear him say that you weren't applying Ο. 10 for a Special Use Permit? 11 Α. No. 12 What did you hear about it? Did you hear him Ο. 13 testify about the grasslands and wetlands crossings? 14 I remember there being questions and answers. Α. As to 15 what they were specifically, I do not recall. 16 Who prepared the cultural service -- or the -- who Ο. 17 prepared the cultural surveys required by Section 106 of 18 the National Historic Preservation Act? 19 Α. Who prepared the surveys? 20 Yeah. The report. The Class III Report. Do you Ο. 21 know who prepared that? 22 It was done under Perennial Environmental Services Α. 2.3 and HRA Gray & Pape. 2.4 And is anyone from Gray & Pape planning on Q. 25 testifying at this hearing?

1 Α. No. 2 Did you consider the U.S. wildlife fish and -- U.S. Q. 3 Fish & Wildlife Service's species assessment and listing 4 priority assignment form for the Spraque's pipit in 5 preparing the Application? 6 I would have to see the Application. It's been Α. seven months since it was submitted. Six months. 7 8 Q. Well, you indicated that the references that were 9 listed on the exhibit was an exhaustive list of what you 10 relied on in forming your opinions. 11 Okay. Α. 12 And the priority listing assignment form for the Ο. 13 Spraque's Pipit's not on that list. 14 The Sprague's pipit is not listed. It's a candidate Α. 15 species. 16 I understand that. Ο. 17 So no. I'm sorry. No, we did not. Α. 18 You did not rely on or refer to this document, the Ο. 19 listing assignment form? 20 Α. Correct. 21 Ο. Okay. Did you rely on or refer to the Sprague's 22 pipit conservation plan in your assessment of the 2.3 Endangered Species Act? 24 A. Well, this was exhaustive, and it's not on here, so, 25 no.

1 Ο. Okay. And you did not consult the piping plover 2 recovery plan? 3 Yes, we did. Α. 4 But that's not on your list, though? Q. 5 Well, based on general knowledge. Α. 6 But I'm not asking about general knowledge. There's Q. 7 a specific recovery plan for this region I'm asking --8 The recovery plan was not used in developing the Α. 9 list on the table that you're referring to. It was used 10 in developing the EA that was submitted for the Special 11 Use Permit. 12 It was or wasn't? Ο. 13 It could have been. Α. 14 But it's not on your list. Q. 15 It's not on the list for the table, correct. Α. That 16 table was not included in the EA. 17 And the table reaches conclusions of effect on Q. 18 species, doesn't it? 19 Α. Yes. 20 And in -- your conclusions all reach a no effect; is Ο. 21 that correct? 22 With the -- no. It's not correct. Α. Which one doesn't? 23 Ο. 24 The Pallid Sturgeon, the Topeka shiner, that's it. Α. 25 Okay. So did you rely on or refer to -- refer to Q.

1 the Topeka shiner management plan in forming your It's not on your list. I just want to confirm. 2 opinion? 3 I don't think this list explains -- this is Α. Yes. 4 regarding the resources used to develop the table, not to 5 develop the effects determinations. They're not one in 6 the same. 7 What did you use then? Ο. 8 I don't understand the question. Α. 9 What other resources besides your own personal Ο. 10 knowledge and experience did you use to reach the 11 determination and a conclusion that the pipeline would 12 have no effect on most of the species located within the 13 corridor? 14 Technical assistance from the federal agency Α. 15 responsible for overseeing the act, field identification 16 and knowledge based on habitats observed, species 17 observed or not observed, professional experience and 18 knowledge of the species. 19 Q. Do you know that there are recovery plans in place 20 for certain species? 21 Α. I do. 22 And what you're telling us is you did not look at or Ο. 2.3 review yourself any recovery plans for identified species 24 to help you reach your conclusions? 25 Personally I did not reread those documents. Α. I am

1 familiar with them over the course of my career. I absolutely have read those. 2 So you can't really say with any degree of certainty 3 0. 4 if the proposed pipeline fits into, for example, the 5 Pallid Sturgeon recovery plan? Is inserting a pipeline 6 part of the recovery plan? 7 Α. No. 8 Are you familiar with wetland management Okay. Q. 9 districts? 10 Yes. Α. 11 Can you tell us, are you familiar with the purposes Q. 12 of any of the wetland management districts in 13 South Dakota? 14 Generally speaking, yes. I don't know their mission Α. 15 statements but --16 Did you review the Comprehensive Conservation Plan Ο. 17 for the South Dakota wetland management districts? 18 Yes. Α. 19 Ο. For this specific project and these determinations? 20 Yes. Α. And does that document state what the purposes are? 21 Q. 22 I'm sure it does. I have not memorized it. Α. 2.3 If I showed you -- is there any documents that would Q. 24 help refresh your memory as to what the purpose of the 25 districts are?

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1 Α. Yes. 2 Would that document be chapter 2 of the Ο. Comprehensive Conservation Plan? 3 4 Α. It could be. Okay. I'd like to show you RST Exhibit No. 22, 5 Ο. 6 which should be available on the PUC website. 7 He's handed me page 23. Α. 8 In the upper right hand --Q. 9 Under Section 2.3 of purposes. Α. 10 Thank you. In the upper right-hand corner where Ο. 11 it's highlighted, does it state a purpose for the 12 districts? 13 It does. And you've highlighted it. Α. 14 And can you read it? Q. 15 "To assure the long-term viability of breeding Α. 16 waterfowl population and production through the 17 acquisition and management of waterfowl production areas 18 while considering the need of other migratory birds, 19 threatened and endangered species and other wildlife." 20 Thank you. Ο. 21 And then would you agree that inserting a pipeline 22 into those areas doesn't really support that purpose? 23 Α. No. 24 MS. SEMMLER: I'm going to object. The witness 25 can't speak to the goals and purpose of the authors of

this document. She read it, and that's what she was 1 2 asked to do, but she's not aware of the method by which these purposes are created. The Rosebud Sioux Tribe 3 4 could have had a witness from this organization to 5 testify to that. 6 MR. RAPPOLD: Well, the witness has been working 7 presumably with these things and these concepts and these 8 areas for 15 years, and I'm just asking her if putting a 9 pipeline in an area that has a purpose such as this -- if 10 she thinks that's consistent with accomplishing this 11 purpose. And she's qualified to answer that question. 12 MS. WIEST: Overruled. 13 I do not think the pipeline conflicts with the Α. 14 purposes of the water management districts. 15 Are you aware of any of the wildlife management Q. 16 districts in South Dakota identifying any issues that 17 they're currently facing? 18 Α. No. 19 Q. You're not aware of any of those issues? 20 No. Α. 21 Is there anything that would help you refresh your Ο. 22 memory? Well, you don't even -- you don't know. 23 I'm going to hand the witness again RST Exhibit 22, 24 page 18, the right-hand side above where it says 2.2, 25 Special Values is where I'm referring to.

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1	Can you review that section real quick that's got
2	the blue markings next to it?
3	A. It says, "Issues faced by Sand Lake Wildlife
4	Management District include the following: Management's
5	district is a large entity, currently shares Staff with
6	the Sand Lake National Wildlife Refuge. The shared
7	arrangements provides minimal operation staffing for the
8	district. Headquarters are at the Sand Lake refuge.
9	This location is not ideal because it's far from the
10	majority of land holdings. Controlling invasive plants
11	is an ongoing effort for the district Staff. Tillage is
12	occurring at an accelerated rate."
13	Q. Thank you. And so is it your do you have any
14	knowledge of invasive plants taking over pipeline routes?
15	A. No.
16	Q. Have you ever heard of invasive plants being a
17	problem with pipeline construction and routing issues?
18	A. Routing issues? I don't understand the question.
19	Sorry.
20	Q. Are what are invasive species?
21	A. Generally speaking, non-Native plants.
22	Q. And in your experience have you come across
23	situations where after a pipeline is constructed,
24	invasive species move into the area where the pipeline
25	exists in the right of way?

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1	A. My personal experience?
2	Q. Yeah.
3	A. Not if they weren't already there.
4	Q. Did you prepare the entirety of your testimony?
5	A. Yes. I believe I did.
6	Q. Okay. Did you write the questions and then the
7	answers, or did someone give you the questions and then
8	you wrote the answers?
9	A. It was somewhat of a joint effort in the beginning,
10	and then I completed the whole thing.
11	Q. Did you look at any of the other witnesses'
12	testimony in preparing yours?
13	A. I glanced at a few.
14	Q. Was there an effort made to ensure that your
15	testimony was consistent with other witness's testimony?
16	A. By me personally, no.
17	Q. By anyone else that you're aware of?
18	A. I would imagine there were some quality assurance
19	done, but I couldn't speak to that.
20	Q. Do you know what the time line is for starting
21	construction?
22	A. Yes.
23	Q. And what is that?
24	A. Spring of 2016.
25	Q. Do you have to comply with the requirements of the

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1 Endangered Species Act in North Dakota? 2 Yes. Α. Do you know if the piping plover is a species of 3 Ο. 4 bird that could possibly be affected by the pipeline construction in North Dakota? 5 6 MS. SEMMLER: Objection. Relevancy. We're in a 7 South Dakota siting docket. 8 MR. RAPPOLD: It's still relevant because they 9 have to show that they have the ability to comply with 10 all laws that are applicable. And the witness has just 11 stated that the Endangered Species Act is applicable to 12 the project in North Dakota. 13 So I'm not getting into any substance of the 14 subject, but the issue's raised because there are piping 15 plovers on the endangered species list, but the habitat 16 and everything is restricted to the North Dakota area of 17 the pipeline and the Missouri River. And I believe 18 there's also conflicting testimony that we'll get to 19 later on as it relates to the piping plover in 20 South Dakota. And that's why I want to ask her questions 21 about the piping plover in North Dakota. 22 MS. WIEST: I'll allow it just for that limited 2.3 purpose. 24 THE WITNESS: Can you please repeat the 25 question.

1 MR. RAPPOLD: Can you read the question back. 2 (Reporter reads back the last question.) 3 Possibly be, yes. Α. How could it be affected in North Dakota? 4 Ο. 5 MS. SEMMLER: I'm going to object again as to 6 relevancy. I think it's gone beyond the scope of your 7 limited permission. 8 MR. RAPPOLD: I think it still goes to --9 CHAIRMAN NELSON: I'm going to sustain. 10 COMMISSIONER HANSON: I'd move to sustain. 11 COMMISSIONER SATTGAST: I move to sustain as 12 well. 13 MS. WIEST: You can go on to your next question. 14 MR. RAPPOLD: Thank you. 15 Q. Did you prepare Section 18 in your Application as it 16 relates to land use? 17 I was part of that, yes. Α. 18 Which parts were you responsible for? Ο. 19 Α. I was involved in both collecting the data and 20 overseeing the writing and participating and editing, and 21 I was part of it. 22 And did you participate in the Special Use Permit Ο. 23 Application with the Fish & Wildlife Service? 2.4 Yes. Α. 25 And is there information in that document that Ο.

1 wasn't part of the Application in South Dakota? The EA for the Special Use Permit includes areas in 2 Α. 3 North Dakota. So by default, yes. 4 Is there information related to South Dakota that's Ο. 5 in the grasslands and wetlands Application that's not in 6 the South Dakota PUC Application? 7 Without looking at them both side by side, I can't Α. 8 answer that. Your testimony indicates that you did species 9 Ο. 10 observations between September through November 2014. 11 That's three months; correct? 12 A. Yes. 13 Do you think that's a long enough time to accurately Q. 14 determine whether or not species may be present in an 15 area? 16 A. Additional surveys were done in the spring of '15, 17 not accounted for in the Application that was filed in 18 December. 19 Ο. So what's the time frame for the spring of '15 when 20 additional surveys were done? 21 Generally speaking, spring. Α. 22 There's been a lot of generally speaking of spring Ο. 2.3 around here. 24 So are you referring to the same generally speaking 25 definition that everyone else is, or are you referring to

1 the calendar definition of when spring occurs? 2 There's a lot of definitions of spring. I'm just Α. saying, generally speaking, after winter is when we would 3 4 perform our environmental and biological and cultural 5 surveys. 6 Q. Does the whooping crane have any species occurrence 7 documented within one mile of the project? 8 Off the top of my head I don't know. I don't Α. 9 believe so. 10 MS. WIEST: Mr. Rappold, do you have many more 11 questions? 12 MR. RAPPOLD: Yes. 13 MS. WIEST: Because I promised Cheri a break 14 around this time. We'll take a 15-minute break. 15 Assuming we're going until 6:00. 10-minute break. 16 (A short recess is taken) 17 MS. WIEST: You may continue questioning. MR. RAPPOLD: Thank you. 18 19 Q. Are you aware of what type of risk analysis was 20 performed regarding the HDD crossings? 21 Α. I don't understand the question. 22 There's a number of stream locations where the HDD Ο. 2.3 method is going to be used to cross the stream? 2.4 Yes. Α. 25 And you know what that is? Ο.

1 Α. Yes. 2 Do you know what type of risk analysis was done at Q. 3 those stream crossings? 4 Α. I don't understand risk analysis in relation to an 5 I'm not sure what you're trying to ask. HDD. 6 Could a pipeline that's crossing under a river Q. 7 rupture underneath of the river? 8 I don't know. Α. 9 You don't know that at all? Ο. 10 No. Α. 11 Is there another witness that might know that? Ο. 12 If a pipeline can rupture under a river? Α. 13 Yeah. Q. 14 Under what circumstances? Α. 15 Generally speaking. Q. 16 I suppose anything's possible. Α. 17 So if it is possible for an HDD crossing to leak Q. 18 under the river, what type of analysis was performed to 19 determine the harm that that could cause to fish and 20 other species that are in that river? 21 I'm aware of a full-blown risk analysis on the Α. 22 entire pipeline performed to PHMSA standards that 23 accounts for a guillotine crushed in the pipeline every 24 200 feet. 25 A guillotine crush. What do you mean by that? Q.

1 Α. Basically a complete severing of the pipeline. 2 Okay. Are you aware of any analysis that was done Q. at the HDD crossings specifically? 3 It accounts for the locations where there are 4 Α. Yes. 5 HDDs. 6 Q. And do you know what the worst-case discharge scenario is? 7 8 Α. No. 9 Are you aware of any -- well, could the -- in your Ο. 10 opinion, do you feel that a rupture that took place at an 11 HDD crossing could contaminate the river? 12 MS. SEMMLER: Commissioners, I'm sorry to 13 interrupt. To help move this along, we have an expert, 14 Todd Stamm, that's going to be able to answer some of 15 those sort of risk analysis type questions. I don't 16 believe this is the appropriate witness to do that. 17 MS. WIEST: Can you ask those of that witness, 18 Mr. Rappold? 19 MR. RAPPOLD: Yeah. But I really feel like I'm 20 being pushed along. I'm sorry. I've heard it a number 21 of times, in the interest of moving this along. But, 22 yeah, I'll ask a different witness those questions. Q. Would it be your understanding that right of ways 2.3 24 could cross different types of ecosystems? 25 Α. Yes.

1 Q. And is it -- would it be your understanding that those crossings could fragment habitat? 2 3 Depending on the ecosystem, yes. Α. 4 Ο. Could that also lead to a clearing of sensitive 5 vegetation and create pathways for the spread of invasive 6 species? I would have to understand what you're talking 7 Α. 8 about. I don't understand. 9 In the right of way. Ο. 10 If there are sensitive species present, yes, a right Α. 11 of way would clear them. 12 Invasive species? Ο. 13 I'm sorry. Can you repeat the question? Α. 14 MR. RAPPOLD: Can you repeat the question? 15 (Reporter reads back requested question.) 16 Sensitive vegetation? I'm sorry. I don't know what Α. 17 you mean by sensitive vegetation. 18 Well, if you eliminate vegetation. Ο. 19 Α. If you eliminate it? Just take out the word "sensitive" and then answer 20 Ο. 21 the question. 22 I'm sorry. I'm lost. Α. 2.3 Can a right of way lead to a pathway to spread Ο. 24 invasive species? 25 If not managed or restored properly, yes. Α.

1 Ο. Okay. Thank you. What types of -- what types of 2 biological problems could be encountered at right of way 3 stream crossings? Are you aware of any? 4 Α. Biological problem? 5 Uh-huh. Ο. 6 I don't understand what you're asking. Α. 7 Any problems relating to the biology of the Ο. 8 environment at the stream crossing where the right of way 9 exists? 10 There are temporary impacts at stream crossings. Α. 11 What types of activities are conducted, do you know, Q. 12 related to right of way maintenance? 13 Generally vegetation maintenance. Α. 14 Do you know if that ever involves spraying chemical Q. 15 pesticides or any other removal mechanisms? 16 Pesticides? I'm not aware of that, no. Α. 17 They wouldn't use pesticides on the right of way Q. 18 after the pipeline's constructed? I can't think of a circumstance where we've used 19 Α. 20 pesticides on the right of way. 21 Can right of ways result in the destruction of Ο. 22 normal groundwater flows? 23 There are temporary impacts to groundwater flow if Α. 24 the groundwater is intersected by the trench. 25 And those effects would only be temporary? Ο.

1 Α. Absolutely. 2 Were you involved in the determination that there Ο. 3 are no high consequence areas that the pipeline would 4 cross in South Dakota? 5 Yes. I was part of that analysis. Α. 6 And was the identification of unusually sensitive Ο. 7 areas part of what you participated in? 8 Yes. Α. 9 Are you aware of any multi species assemblage areas? Ο. 10 Α. No. 11 Q. Are you aware of any migratory water bird concentration areas? 12 13 No. Α. 14 Are you familiar with a Ramsar site? Q. 15 Can you repeat the question? Α. 16 Are you familiar with a Ramsar site? Q. 17 Α. Yes. 18 And what is that? Ο. 19 Α. It's a dedicated ecological wetland that provides 20 extensive value, part of a larger program, I believe, 21 worldwide. And is that -- do you know where that comes -- where 22 Ο. 2.3 the authority to do that comes from? 24 No. I'm not intimately familiar with the process. Α. 25 Are you familiar with the convention on wetlands of Q.

1 international importance? 2 Generally to the extent that I've heard of it. Α. 3 And are you aware that the Sand Lake Refuge has Ο. 4 received that designation? 5 Α. Yes. 6 And are you aware that the Sand Lake Refuge is part Ο. 7 of the Sand Lake Wetland Management District? 8 I recognize it's located within it, yes. Α. 9 And would you agree that there may be particular Ο. 10 concerns that are unique to that designation that the 11 other areas may not have? 12 Are you talking -- I don't understand the question. Α. 13 Well, the pipeline's passing through the Sand Lake Q. 14 district. 15 Yes. Α. 16 Within that district is the refuge that has a --Ο. 17 that's a Ramsar site, the Sand Lake. 18 Yes. Α. 19 Q. So do you think that there may be specific unique 20 concerns for that district that don't exist for any of 21 the other districts? 22 Because it has a Ramsar site in it? Α. 2.3 Uh-huh. Q. 24 Α. No. 25 No? Ο.

1	A. No.
2	Q. Are you aware that federal definition for unusually
3	sensitive areas includes migratory water bird
4	concentration areas?
5	A. Yes.
6	Q. As Ramsar sites?
7	A. Yes.
8	Q. Okay. Can water quality be degraded from
9	sedimentation?
10	A. Yes.
11	Q. Can oil spills and improperly handled waste degrade
12	soil water, harm vegetation, fish, and wildlife?
13	A. Yes.
14	Q. Can air quality be degraded from dust and engine
15	emissions?
16	A. Potentially.
17	Q. Do you believe in global warming?
18	MS. SEMMLER: Objection. That's outside the
19	scope of this witness's prefiled testimony, and it's
20	irrelevant.
21	MS. WIEST: Do you have a response?
22	MR. RAPPOLD: It is relevant. There's a number
23	of federal agencies that are required to take into
24	account the effects of global warming. Part of the
25	science behind global warming addresses carbon emissions.

So it is relevant. 1 Objection sustained. 2 MS. WIEST: 3 Would you agree that fish and wildlife can be Ο. 4 injured by human presence? 5 Potentially. Α. 6 Do you think 1,000 people in each of the -- 1,000 Ο. 7 people in the spread could damage fish and wildlife? 8 Anything's possible. Α. 9 And if there happened to be an endangered species in Ο. 10 that area -- what is the Endangered Species Act prohibit 11 people from doing? 12 Taking of a protected species. Α. 13 And what does a taking mean? Q. 14 Harm, harass, kill. Α. 15 So if there was an endangered species in one of the Ο. 16 spreads, is it possible that human presence and activity working in that area could kill any of those species 17 18 resulting in a violation of the Endangered Species Act? 19 MS. SEMMLER: I'm going to object. The question 20 calls for speculation. And it's very vague, actually 21 details completely nonexistent, circumstantial. The 22 witness can't testify to unknown circumstances. 23 MS. WIEST: Sustained. 24 Do you agree that cultural resources could be Q. 25 damaged or threatened through the installation and

1 operation of pipelines? 2 MS. SEMMLER: I'm going to make the same 3 objection. These questions call for significant 4 speculation. They're devoid of any basis or factual 5 background or foundation. The questions are vague and 6 require speculation. 7 MS. WIEST: Mr. Rappold. 8 MR. RAPPOLD: I'll move on. 9 Do you think public use can be impact -- public use Ο. 10 of wildlife areas can be impacted through construction 11 and operation of pipelines? 12 MS. SEMMLER: I'm going to make that same 13 objection. Again, the question is vague. It's very 14 broad. This witness has been provided no foundation or 15 basis for the question. She's speculating, at best. 16 MR. RAPPOLD: Well, she's making and offering 17 opinions on what affect the pipeline would have on 18 species that are located in the area where the pipeline will be. 19 20 And one of the uses of some of these areas, many 21 of these areas, in fact, are public use areas. And I'm 22 asking if the installation and operation of a pipeline 23 could interfere with public use of these areas. So I 2.4 believe it is irrelevant. 25 MS. WIEST: Objection overruled.

1 Α. In South Dakota the pipeline crosses private lands. 2 I'm not sure what you're referring to for public use. 3 So there's no public use of any of these lands? Ο. Ιs 4 that your testimony? 5 That's not my testimony. Α. 6 Would you agree that the Dakota Access Pipeline must Q. 7 comply with the requirements of the National Wildlife 8 Refuge System Administration Act of 1966? 9 As applicable, yes. Α. 10 What parts of it are applicable? The entirety of Ο. I just don't understand what you mean by as 11 it? 12 applicable. 13 I'm not sure how it applies to this project. Α. 14 Well, does it apply or not? Q. 15 We need no permits, clearances, consultations Α. 16 regarding that act. 17 So you're saying that it doesn't apply? Q. 18 Outside of the easement crossings, no. Α. So then it does apply to the easement crossings? 19 Ο. 20 I've already testified we are applying for a Special Α. 21 Use Permit to cross fish and wildlife easements. Τ 22 understand those easements are sought through the refuge 2.3 system. How it applies to the act I can't testify to. 24 Q. Okay. So then you can't testify as to whether or 25 not Dakota Access has the ability to comply with the

National Wildlife Refuge System Administration Act? 1 2 MS. SEMMLER: Objection. It's been asked and 3 This is now getting into badgering the answered. 4 witness. 5 MS. WIEST: Sustained. 6 Is it your understanding that compatibility and Ο. 7 appropriate use determination must be reached by Fish & 8 Wildlife Services? 9 On the easements? Α. 10 Q. Yeah. 11 Yes. Α. 12 Q. And are you familiar with the criteria for determining if a use is appropriate? 13 14 Α. Yes. 15 Has the Fish & Wildlife Service told you that the Ο. 16 proposed use is -- I'm sorry. That the proposed use 17 contributes to fulfilling the refuge purpose? 18 MS. SEMMLER: Objection. I think the use of the 19 word purpose is vague. I don't understand the meaning of 20 that. It's a vague question. 21 MS. WIEST: I will sustain on the basis of 22 vaqueness. 2.3 Q. You're involved with the Special Use Permit 24 Application; correct? 25 Α. Yes.

1 Q. We've already said that? 2 Uh-huh. Α. So in that process do you not know what the meaning 3 Ο. 4 of purpose is within this context of the Permit that 5 you're asking for? 6 MS. SEMMLER: Objection. The witness is now 7 being harassed. 8 MS. WIEST: I still believe it's vague. 9 Objection sustained. 10 Do you know what the purpose of establishing the Q. 11 Sand Lake Refuge was? Or is? 12 Α. No. 13 Have you received a jurisdictional determination Q. 14 from Fish & Wildlife Services? 15 We're utilizing a PJE for this project. Α. 16 So does that mean you will or will not receive a Ο. 17 jurisdictional determination? 18 It means we will not. Α. 19 Q. Has Fish & Wildlife Service told you that the 20 project will comply with all laws? 21 A. I don't know how Fish & Wildlife could say anything 22 about all laws. 2.3 These are just some of the things that Fish & Q. 24 Wildlife Service will consider in determining if the 25 proposed use is appropriate.

1 Α. Again, the Application's under review. 2 So they haven't told you then that the use is Q. consistent with all executive orders and Fish & Wildlife 3 4 Service policies? 5 In our -- let's see. We started consultations or Α. 6 conversations with them last July. There's nothing that's indicated to us that it is not. 7 8 But they haven't told you that it is? Q. 9 Correct. Α. 10 Have they told you that it -- the proposed use is Ο. 11 consistent with public safety? 12 They've told me nothing. Α. 13 Have you read anything that they may have written to Q. 14 anyone at Dakota Access involved with this Permit 15 Application? 16 I read everything that they would have sent to Α. 17 Dakota Access. 18 And in everything that you've read, have you read Ο. 19 any statements from Fish & Wildlife Services that says 20 the proposed use is consistent with public safety? 21 Α. Off the top of my head, I don't recall. 22 Have you read anything that Fish & Wildlife sent you Ο. to indicate that the use is consistent with the goals or 23 24 other management plans of the refuge? 25 Objection. I think the witness MS. SEMMLER:

1 has answered that she's not aware of any answer that's 2 been given by U.S. Fish & Wildlife Service. So it's been asked and answered. 3 4 MS. WIEST: Sustained. 5 Do you have any idea when you will have an answer Q. 6 from Fish & Wildlife Service regarding your Special Use 7 Permit Application? 8 I don't have a definitive receipt date, no. Α. 9 But you will need that to begin construction before Ο. 10 the spring of 2016; correct? 11 Α. No. 12 You won't? Ο. 13 Α. Correct. 14 Why not? Q. 15 Those Special Use Permits, if required, only apply Α. 16 to the areas of protection under those easements. It 17 does not apply to the entire project. 18 Well, I'm not trying to imply that it applies to the Ο. 19 entire project. 20 Would you begin constructing the project if you 21 didn't have all the necessary permits? 22 We could. Α. 23 But do you think you would? Ο. 24 It's not my call. Α. 25 I'm going to go back to page 23. I believe it's Q.

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1 Exhibit 22. Is that the right number? And I know I had you read this upper right-hand 2 3 corner portion earlier, and it defines what the meaning 4 purpose is. So can you go ahead and read that again out 5 loud? 6 MS. SEMMLER: You know, I'm going to object. 7 It's already been read. It's already in the record. If 8 Mr. Rappold could simply ask his question, it would be 9 appreciated. 10 MR. RAPPOLD: Well, we got hung up on the 11 definition of purpose, and -- when I was asking the 12 questions about whether or not they received any 13 information about the project fitting in with the purpose 14 of the wetland management districts. So the purpose is 15 clear. 16 MS. WIEST: You can just go ahead and ask your 17 question then. 18 Based on the purpose as it's written in the 0. 19 comprehensive conservation plan, has Fish & Wildlife 20 Service told you that the project is consistent with the 21 purpose of the refuge? MS. SEMMLER: I'm going to object. 22 It's been 2.3 asked and answered. The witness testified that she's 24 received no answer from U.S. Fish & Wildlife Service. 25 MR. RAPPOLD: No further questions.

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1 MS. WIEST: Sustained.	
2 Ms. Craven.	
3 <u>CROSS-EXAMINATION</u>	
4 <u>BY MS. CRAVEN</u> :	
5 Q. Kimberly Craven here on behalf of Dakota Ru	ral
6 Action and Indigenous Environmental Network. Th	nank you
7 for appearing here today.	
8 I'm a little curious about your background	too.
9 Have you been at Dakota Access or Energy Transfe	er
10 Partners your entire career?	
11 A. No.	
12 Q. What other companies were you with?	
13 A. I started here in 2007 with a company that	was
14 acquired by Energy Transfer. Prior to that I wa	as with a
15 company called TRC and AECOM, and so all of which	ch have
16 been bought and sold by each other.	
17 Q. Your testimony is quite extensive and cover	s a whole
18 wide range of topics, so I'm just going to ask,	are you a
19 hydrologist?	
20 A. I work with hydrology. Am I a hydrologist?	I don't
21 know what that would be defined as.	
22 Q. Are you a hydrologist?	
23 A. No.	
24 Q. Have you ever published anything, any acade	mic
25 articles about hydrology?	

1	A. No.
2	Q. Are you an expert in water science?
3	A. No.
4	Q. Have you ever published anything regarding water
5	science?
6	A. No.
7	Q. And you have stated that you're not a geologist.
8	You volunteered that, that you're not a geologist.
9	What about endangered species? Do you consider
10	yourself an endangered species expert?
11	A. I'm a biologist with extensive experience with
12	endangered species.
13	Q. I see that your degree, though, is in reclamation?
14	A. Biological reclamation, yes.
15	Q. What about cultural resources? Do you consider
16	yourself a cultural resource specialist?
17	A. Not a specialist, no.
18	MS. CRAVEN: We're going to try this again. We
19	are moving to strike testimony that is not expert
20	testimony that she cannot offer as an expert but that
21	DAPL is attempting to do and which they've done numerous
22	times. She can testify to the topics that she's an
23	expert in, which she says is biology and reclamation.
24	But she has testified to geology, hydraulic
25	impacts, impacts on threatened and endangered species,

1	BMPs for wetlands, mitigation for threatened endangered
2	species, air quality impacts and cultural resources.
3	Now these are all very important topics and that
4	we wish we had experts here to testify to these. But
5	it's really not fair to Ms. Howard to have her come up
6	and present testimony that she may have participated in
7	writing but that she is not an expert in and have that be
8	presented as expert testimony when it really doesn't fit
9	under the Rule 602, which is what she's presenting her
10	testimony on.
11	She's not been presented as an expert witness.
12	She's giving her opinion about stuff, but line after line
13	of her testimony is expert witness testimony that she
14	really has no expertise in.
15	So we're asking you to strike lines 85 through
16	104 that have very extensive information about geology,
17	lines 179 to 227 which have all sorts of information
18	about hydraulic impacts, lines 308 to 354 which are
19	impacts on threatened and endangered species, lines 355
20	to 389 which are impacts on hydrology and aquatic
21	resources, lines 389 to 425 for BMPs for wetlands, lines
22	425 to 450 regarding mitigation for threatened and
23	endangered species, lines 451 to 461 air quality impacts,
24	462 to 523 for cultural resources.
25	The standard in the State of South Dakota, which

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1 was established in the Guthrie case is that you have to be an expert to put forth expert testimony, and that is 2 3 just not the case here. 4 MS. WIEST: Did you have a response? 5 MS. SEMMLER: I do. Thank you. 6 You know, the questions Ms. Craven failed to ask 7 were who it was under your direction that studied all of 8 those various areas of science and prepared analysis and 9 prepared final documentation that Monica Howard reviewed. 10 None of those questions were asked. 11 MS. CRAVEN: Well, it --12 MS. SEMMLER: I am not done. 13 MS. WIEST: Ms. Craven, do not interrupt. 14 MS. SEMMLER: As the director of environmental 15 science and as the environmental project manager, 16 Ms. Howard is an expert in compiling that information and 17 hiring the folks that are experts in doing it and in 18 putting that material together for the decision-makers 19 within the company to construct this pipeline. 20 She is an expert in her field. And had 21 Ms. Craven gone a step further and asked who it was that 22 prepared those materials, it could have been answered. 23 So I do believe her testimony is very 24 appropriate and ask that the Commission render the same decision it has made for all other witnesses. 25

1 MS. WIEST: The motion to strike is denied. 2 MS. CRAVEN: I really find this ironic because 3 it was Ms. Semmler who said she's not a geologist; she 4 can't testify to that. She's not an attorney; she can't 5 testify to that. 6 I'm saying she's not a hydrologist. She 7 shouldn't be allowed to testify to that. If they want to 8 talk about hydrology and threatened and endangered 9 species, which we would love, we would like the experts 10 here, not someone who's read reports or who's had people bring reports, then compile them, and put that into her 11 12 testimony. 13 She can offer her own direct knowledge, but she 14 can't offer expert -- this is just laden with direct 15 testimony. 16 MS. WIEST: The motion to strike has been 17 denied. You can go on. 18 MS. CRAVEN: Well, I would just like to have --Let's talk about cultural resources then. 19 Ο. 20 Could you please tell me the difference between a 21 Class III Survey and a Level III Survey? 22 Level III has to do with documentation review Α. 2.3 whereas Class III is on the boots -- or on the ground, 24 boots on the ground survey in the field. 25 And you used -- it seems you used the terms Ο.

interchangeably in the testimony. You say that there was 1 2 a Class III Survey in South Dakota; is that correct? Was there a Class III Survey here? 3 4 Α. Absolutely. My understanding of a Class III Survey is that you 5 Q. 6 walk the entire length of the pipeline with an 7 archeologist or someone that has the credentials. Did 8 that occur in South Dakota? Yes. As I testified to earlier, over 98.6 percent 9 Α. 10 of the route was surveyed by principal investigators. 11 Okay. You also testified that no regulation Ο. 12 requires tribal participation and cultural resources 13 surveys; is that correct? 14 Α. No. 15 You did not testify that? Ο. 16 I don't believe that was my testimony. Α. 17 MS. CRAVEN: Could we get that read back, 18 please. 19 (Reporter reads back portion of testimony.) 20 On page 24 line 63 of your prefiled testimony, you Ο. 21 state cultural resources surveys were conducted for the 22 project in accordance with Section 106 of the National 2.3 Historic Preservation Act; is that correct? 2.4 Yes. Α. 25 Section 106 regulations codified at Ο.

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1	36 CFR 800.2(c)(2)(A) state that, "In conducting cultural
2	resources surveys under Section 106, the surveyors shall
3	ensure the consultation in the Section 106 process
4	provides Indian Tribes or native Hawaiian organizations a
5	reasonable opportunity to identify as concerns about
6	historic properties, advise on the identification and
7	evaluation of historic properties, including those
8	traditional religious or cultural importance articulated
9	views on the undertaking's effects on such properties and
10	participate in the resolution of adverse effects."
11	Do you want to change your testimony that tribal
12	participation and surveys is not required?
13	A. No, I do not.
14	Q. So you still think the tribal participation is not
15	required?
16	A. Under Section 106 that participation and
17	coordination happens from a government-to-government
18	perspective, so the state SHPO office would be the one
19	coordinating with the Tribes, which they are. So it has
20	been done, just not by the Applicant.
21	Q. You testified that the pipeline does not cross any
22	tribal lands, and that is why Tribes were left out of the
23	survey process; is that correct?
24	A. Yes, generally, yes.
25	Q. Do you know if the pipeline route crosses any Great

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1 Sioux Nation lands that were seated or aboriginal lands? 2 I know that the pipeline does not cross any tribal Α. 3 lands. 4 Ο. So what about seated lands? 5 There's nothing that the pipeline crosses that has Α. 6 been --7 What about aboriginal Indian land? Ο. 8 MS. SEMMLER: I'm going to object to the extent 9 this calls for a legal conclusion, the definition of 10 those terms. The question is vague, and it's lacking any 11 foundation. 12 She asked if she knows. MR. CAPOSSELA: 13 MS. WIEST: Sustained. 14 The Section 106 regulations at 36 CFR 800.2(c)(2)(D) Ο. 15 states that, "Frequently historic properties of religious 16 and cultural significance are located on ancestral, 17 aboriginal, or seated lands of Indian Tribes and native 18 Hawaiian organizations and should consider that when 19 complying with the procedures of this part." 20 Are you aware of this requirement when you stated 21 Tribes have been left out of surveys? 22 I didn't say Tribes have been left out of surveys. Α. 2.3 I said they weren't consulted for surveys. 24 Q. You say they weren't consulted, but they were --25 repeat that, please.

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1 Α. They weren't left out; they just weren't consulted. 2 They weren't left out; they just weren't consulted. Q. 3 Do you know the difference between a level -- I 4 quess we did ask this, but you say that we had a Class 5 III Survey, but in the documentation it only references a 6 Level III Survey. In the reports from Gray & Pape it 7 only references Level III Surveys. 8 They're titled Class III Reports. Α. 9 Pardon me? Ο. 10 Those reports are titled Class III Reports. Α. It may 11 have been a typo in a document referencing the report. 12 They are Class III Reports that were submitted to the 13 SHPO and approved and concurred with by them. 14 I read them, and they say over and over again Level Q. 15 III, Level III, Level III? 16 Objection. Counsel is testifying. MS. SEMMLER: 17 MS. WIEST: Sustained. 18 You also testified that you prepared the alternative Ο. section; is that correct? 19 20 Α. Yes. 21 Okay. Chapter 12 in the Revised Application is Ο. 22 entitled Alternative Sites. Subsection 12.1 is entitled 2.3 Root Selection and explains the GIS mapping used to 2.4 select the root. 25 Subsection 12.2 is entitled Root Evaluation and

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discusses route modifications.

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2 Subsection 12.3 entitled Proposed Route discusses commitments to work with the landowners. 3 Then the Application goes to chapter 13. 4 5 MS. SEMMLER: I'm going to object again. 6 Counseling is testifying. 7 MS. CRAVEN: I am getting to my question. 8 MS. WIEST: Objection overruled. 9 Then the Application goes to Chapter 13, a different Ο. 10 section, and when it's read, it really appears that no 11 alternatives to the current pipeline route were ever 12 considered, except slight modifications here and there. 13 Am I missing something? 14 Yes. Α. 15 What would that be? Ο. 16 Well, you're not missing it. You just read over the Α. 17 part where we have major reroutes. And I've already 18 testified to the environmental constraints analysis that 19 was done on this. 20 Is there an alternative route to this pipeline? Ο. 21 Α. There were alternatives, yes. 22 Where are they? Ο. 23 I don't understand the question. Α. 24 With an EIS you get alternative routes; you get Q. 25 alternative choices. So is there an alternative route to

this particular pipeline that was considered that would 1 2 be part of the Application as -- that would be included 3 in Chapter 12 as an alternative sites? 4 MS. SEMMLER: I'm going to object as to the form 5 of the question. We had a lot of discussion on EISs, and 6 there wasn't -- that process didn't take place. 7 MS. WIEST: Objection overruled on the 8 alternative route question. 9 Yes. There were a number of routes looked at for Α. 10 this pipeline. 11 Why were those not included in the Application? Ο. 12 Discussions of those routes were included in the Α. 13 alternative section and in depth. 14 Q. Under the 12.1 which is entitled Route Selection and 15 explains the GIS mapping? 16 Yes. Α. 17 Q. That's where it will be found? 18 I think I testified earlier how a route is selected, Α. and it includes a multitude of alternatives. 19 20 I think what I'm looking for is really the Ο. 21 alternative routes, a paper, that were looked at and then 22 not selected. 2.3 A. What about them? 24 I'd like to see them. I think a lot of people are Ο. 25 interested in if there were alternative routes

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considered. 1 2 MS. SEMMLER: Objection. The discovery time has 3 lapsed. MS. WIEST: Sustained. 4 5 MS. CRAVEN: Okay. 6 Are you familiar with the term no action Ο. 7 alternative? 8 Α. Yes. What does that mean? 9 Ο. What would happen provided the action did not take 10 Α. 11 place. 12 O. Was there an evaluation of no action and a 13 requirement -- which is a requirement under the National 14 Environmental Policy Act? 15 Yes. I'm aware of what the no action alternative Α. 16 is. 17 Okay. Was there an evaluation with this pipeline Q. 18 under that with that analysis? 19 Α. Sure. 20 And is that in the Application as well? Q. 21 Α. No. 22 Why not? Q. Earlier we had testimony that the Application is 23 24 equal to an EIS? 25 I think the information gathered for the project is Α.

1 equal to that required to develop an EIS, and that the 2 process is afforded the same opportunity to the public to comment. I don't know that it said the Application 3 4 equals an EIS. That was not said. 5 You also testified that there are no cumulative Ο. 6 impacts of DAPL and other projects. Have you evaluated 7 the potential cumulative impacts of DAPL and the Keystone 8 Pipeline on the Great Sioux Nation? 9 The location of the Keystone Pipeline does not Α. 10 warrant a cumulative impact or the location and impacts 11 of the DAPL project. 12 MS. CRAVEN: Could I have a minute, please. 13 MS. WIEST: Go ahead. 14 (Pause) 15 Q. So the Keystone XL Pipeline will be crossing the 16 South Fork of the Grand River near the Cheyenne River 17 Reservation. This pipeline is scheduled to cross the 18 Missouri River, which is just upstream and borders the 19 Standing Rock Sioux reservation? 20 MS. SEMMLER: Objection. This is asking to 21 assume facts not in evidence at this hearing. 22 MS. CRAVEN: There was testimony about 23 cumulative impacts in her testimony and that there would 2.4 be none. 25 MS. WIEST: Overruled.

1	Q. Would that be a cumulative impact?
2	A. Can you please restate the question.
3	Q. The Keystone XL Pipeline is going to be if it
4	gets recertified, will be crossing the South Fork of the
5	Grand River near the Cheyenne River Sioux Tribe
6	Reservation. This pipeline is scheduled to cross the
7	Missouri River near the Standing Rock Reservation.
8	Would those two crossings of those major waterways
9	that provide drinking water for native people, would that
10	be a cumulative impact?
11	A. No.
12	Q. Thank you. And you testified that there will be no
13	impacts on source water for drinking water systems.
14	What community drinking water intakes are located
15	along the Missouri River in South Dakota and on
16	South Dakota reservations?
17	A. The project doesn't cross any of those.
18	Q. There are drinking water intakes on the Missouri
19	River.
20	A. The project doesn't cross the Missouri River in
21	South Dakota.
22	Q. Under the clean under the Clean Water Act, there
23	are jurisdictional concerns of downstream users of
24	from upstream users. That's a right under the Clean
25	Water Act.

1 So what community drinking water intakes do you know 2 of that are located along the Missouri River that would be impacted from a spill up river? 3 4 Α. None. You don't know -- none? You say none or you don't 5 Ο. 6 know? 7 The spill? How much? Where? Under what Α. 8 circumstance? How close to the river? What time of 9 year? I can't answer that. 10 Q. But you don't know exactly if there are any 11 community water intakes? 12 A. I'm aware of community water intakes. How or when or if they would be impacted I am not. 13 14 Q. Could you tell for the record where are these 15 intakes? 16 A. It's in my documentation. I don't have any of that 17 memorized. 18 Do you know if there's a drinking water intake at Ο. Ft. Yates? 19 20 MS. SEMMLER: Objection. It's been asked and 21 answered. She does not remember and doesn't have the 22 material in front of her. 23 MS. WIEST: Sustained. 24 Are you familiar with the term Mni Wiconi? Q. 25 No. Α.

1 Ο. Do you know how many South Dakota Tribes use the 2 Missouri River as a source of drinking water? 3 No. Α. 4 Ο. You testified that the mitigation for wetlands is the use of mats. Will mats be used for every wetland 5 6 crossing? 7 Mats is a mitigation measure for crossing wetlands. Α. 8 If warranted, mats would be used, yes. 9 And how will it be chosen which wetlands will cross Ο. 10 and which contractors will use mats? 11 All contractors will use mats. Α. 12 And who's made that decision? Ο. 13 It's a fact of a pipeline of this length. Α. 14 And you also testified that there will be no Q. 15 permanent impact to agriculture. Could a spill affecting 16 groundwater used for irrigation potentially result in 17 long-term impacts on ag production? 18 Since you qualified it with potentially, yes, Α. anything's possible. 19 20 And you testified there would be no permanent impact Ο. 21 to water quality or water resources? 22 MS. SEMMLER: Objection. It calls for 23 speculation. The question's vague. 2.4 MS. CRAVEN: No. She testified to that. 25 Objection overruled. MS. WIEST:

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1	Q. Could a spill in surface water potentially result in
2	long-term impact on water quality or aquatic resources?
3	A. Again, anything is possible. Potentially, yes.
4	Q. Do you agree with this statement: Known tributaries
5	that could potentially be impacted in particular when
6	considering the Topeka shiner, is Shoe Creek, Pearl and
7	Middle Pearl Creeks, Red Stone Creek, Rock Creek, West
8	Fork of the Vermillion, East Fork of the Vermillion, and
9	the James River?
10	A. What was the question about those rivers?
11	Q. Do you agree with the statement?
12	A. That they have the potential presence for the
13	shiner? I'm sorry. Yes.
14	Q. What mitigation is proposed to protect the potential
15	impacts on the whooping crane?
16	A. We don't believe there are going to be any adverse
17	effects to the whooping crane.
18	Q. Is the answer no?
19	A. You asked what, not if.
20	Q. Are you familiar with the term TCP?
21	A. Yes.
22	Q. Describe the requirements under NHPA Section 106
23	with respect to TCPs, please.
24	A. Off the top of my head I can't.
25	Q. Where in the cultural resource reports are TCPs

identified? 1 2 They're not. Α. Is there a reason for that? 3 Ο. 4 Α. Hold on. I need to rethink about my statement. 5 I don't have the report in front of me. I'm sorry. 6 Did you yourself conduct any of the surveys of Q. 7 historic properties along the pipeline route? 8 I was present for some of the surveys. I did not Α. 9 lead any of them. 10 Q. And are you also familiar with the Secretary of 11 Interior's guidelines for archeology surveys under NHPA? 12 Α. Yes. 13 Do your qualifications meet those guidelines? Q. 14 Α. No. 15 What professional organizations do you belong to? Ο. 16 Southern Gas Association, National -- INGA. I don't Α. know right now. I'm sorry. I'm flustered. 17 18 MR. CAPOSSELA: Do you want to take five? 19 Q. Do you want to take a little break and come back? 20 No. I'm fine to proceed. Α. 21 But you can't remember what professional Q. 22 organizations you belong to? 2.3 MS. SEMMLER: Objection. 24 I don't know how you qualify that. I belong to a Α. 25 number of them.

1 MS. WIEST: Sustained. 2 MS. SEMMLER: Objection. Relevance. And she's 3 badgering the witness. 4 MS. WIEST: Ms. Craven, do you know how many 5 questions you have left? 6 MS. CRAVEN: I think I'm almost finished. 7 So you said that you are familiar with the term TCP? Ο. 8 Α. Yes. 9 Will you tell us what that term stands for? Ο. 10 Traditional cultural property. Α. 11 And what are those defined as? Ο. 12 I don't have that memorized. I don't know where or Α. 13 what they are. I oversee the people who are responsible 14 for our 106 compliance where that applies. 15 MS. CRAVEN: No further questions. 16 MS. WIEST: Ms. Northrup, did you have any 17 questions? 18 MS. NORTHRUP: I do not have any questions. 19 MS. WIEST: Ms. Edwards, did you have any 20 questions? 21 MS. EDWARDS: I believe so, very briefly. 22 CROSS-EXAMINATION 23 BY MS. EDWARDS: 24 Q. On line 431 of your direct testimony you provided a 25 list of eight water bodies crossed by the route that have

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1 Topeka shiner occurrences. However, in the table in your 2 same direct testimony on -- or at line 389 only six of 3 those eight water bodies are included as being considered 4 for HDD, the excluded ones being Pearl Creek and the East 5 Fork of the Vermillion River. 6 Will you please explain this discrepancy? 7 Those two creeks that you mentioned are the ones Α. 8 that were added in the HDD list in the revised testimony. 9 Okay. So can you confirm for us now that those will Ο. 10 be HDD? 11 The Pearl Creek and the East Fork will be HDD. Α. 12 Q. Thank you. 13 Do you have any reports or survey sheets produced 14 during the environmental surveys for determining if 15 threatened and endangered species exist within the 16 project corridor? 17 A. Yes. Those were collected as part of the biological 18 surveys. 19 Ο. Would you be willing to provide those to the Commission? 20 21 Α. Sure. Yes. 22 Thank you. No further questions. MS. EDWARDS: 23 MS. WIEST: Any questions from Commissioners? 24 CHAIRMAN NELSON: Just one. You testified that 25 you couldn't think of a circumstance where you would use

1 pesticides in the right of way. 2 How do you propose controlling Canadian thistle 3 after you've replaced the dirt? 4 THE WITNESS: With herbicides. Pesticides are 5 different. 6 CHAIRMAN NELSON: Herbicides are pesticides. 7 Your testimony is that herbicides are not 8 pesticides? 9 THE WITNESS: Herbicides are used in the right 10 of way management. 11 MS. WIEST: Any other Commissioner questions? 12 COMMISSIONER HANSON: I do. Thank you. 13 Ms. Howard, appreciate your job and your responsibility 14 in the environment, taking care of our state and our 15 citizens. 16 Are you aware of any environmental reason why 17 the route of the pipeline cannot be moved farther away 18 from the high growth areas of Tea and Harrisburg? 19 THE WITNESS: Yes. You asked for an 20 environmental reason why not? 21 COMMISSIONER HANSON: Are there any 22 environmental reasons why it should not be moved further 2.3 away? 2.4 THE WITNESS: Yeah. The general nature of 25 environmental impacts is to minimize impacts. And the

1 strongest way to minimize impacts is to minimize length. 2 The more dirt you turn over, the more erosion potential 3 The more length you add, the more likely you you have. 4 are to cross additional features or increase lengths of 5 habitats, things of that nature. So from an 6 environmental standpoint, minimization is by far 7 priority. 8 COMMISSIONER HANSON: So distance would be your 9 reason for not having it farther away? 10 THE WITNESS: That's the primary reason, I would 11 say. 12 COMMISSIONER HANSON: Is the environmental work 13 that the -- that Dakota Access has performed or has 14 testified that it will perform provide protections of 15 endangered species commensurate with an EIS that meets 16 the federal standards? 17 THE WITNESS: Yes. There's no different surveys 18 or measures we would have taken on our analysis and 19 evaluation of this project, whether it be for an EIS or 20 not. And we are absolutely complying with Endangered 21 Species Act with respect to threatened species. 22 COMMISSIONER HANSON: Endangered Species Act? 23 THE WITNESS: Yes. 2.4 COMMISSIONER HANSON: Thank you. 25 One of your responsibilities is community

1 impact. Does the distance from communities either 2 increase or decrease the community impact? 3 THE WITNESS: From a short-term perspective it 4 could. 5 COMMISSIONER HANSON: What about long-term? 6 Would a further rerouting of the pipeline farther away 7 from a highly populated areas further decrease community 8 impact? 9 THE WITNESS: Not at all. 10 COMMISSIONER HANSON: So why then did you 11 testify that moving it away from the communities 12 decreased the community impact if moving it away at this 13 juncture does not decrease it? 14 THE WITNESS: I apologize. I didn't mean to 15 testify that it would decrease community impact. 16 The community impact experienced by the project 17 would be a result of the construction activities, the 18 presence of vehicles and personnel and potentially having 19 it a few more miles away may interfere less with a 20 traffic pattern or something of that nature. It would 21 only be experienced during the actual construction of the 22 pipeline. 23 And how far away would it not impact that 24 community, considering that's where construction workers 25 may work and truck routes might come through. I can't

1 quarantee or say that a distance would increase or 2 decrease the community impact from a temporary 3 It's reasonable to assume it might, but from standpoint. 4 a long-term perspective, there would be no difference. 5 COMMISSIONER HANSON: What about future growth 6 of the communities, increase --7 THE WITNESS: Pipelines are routinely developed 8 around up and into and incorporated into developments.

9 It's by far not a limiting factor aside from the actual 10 placement of a structure on top of a narrow easement.

11 COMMISSIONER HANSON: Certainly. We're speaking 12 of a larger pipeline, and pipelines, as a generic term, 13 certainly there's water pipelines, there's natural gas 14 pipelines that run through communities. As a matter of 15 fact, I have them running down my street and running from 16 the curb to my home, so I recognize that there's 17 pipelines that run throughout communities.

We're talking about a much larger one than that, and with an easement that's much larger than just on the boulevard of someone's property here.

THE WITNESS: Let me clarify. The pipelines I was talking to are all main line trunk line systems. That's what my experience is in and what our company works with. So all the of the pipelines I'm talking about are 24 to 46, 42-inch pipe lines with 50 foot,

1 sometimes larger, easements that, again, are run through 2 communities. Communities are often built around them, like I 3 4 said, with the green space going down the middle 5 utilizing the lack of development able to go on those 6 pipelines. It's very commonplace for pipelines, 7 historical pipelines to become part of developments. And 8 I don't see why this would be any different. 9 COMMISSIONER HANSON: So in your testimony 10 you're saying that the close proximity to communities, to 11 households has nothing but positive effect? 12 THE WITNESS: I don't believe it has any 13 long-term negative effect. 14 COMMISSIONER HANSON: All right. Thank you. 15 THE WITNESS: You're welcome. 16 MS. WIEST: Any other questions from 17 Commissioners? 18 COMMISSIONER SATTGAST: Yes. Ms. Howard, 19 yesterday Commissioner Hanson mentioned birds as a 20 concern of his, and today Mr. Rappold discussed bats. Ι 21 come from an area -- I come from out in the Black Hills, 22 so trees are pretty commonplace. And I was looking 23 through your testimony and you answer, line 24 of how 2.4 Dakota Access categorized land found along the pipeline, 25 and then going further down to line 237 of what are

vegetation community types found along the pipeline. I don't see a very significant number of trees listed in that documentation, meaning that it's fairly scarce on this side of the state.

THE WITNESS: Fair.

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6 COMMISSIONER SATTGAST: So when we get down to 7 the other testimony of line 293, which you may want to go 8 there, and 295, where I believe Chairman Nelson mentioned 9 earlier that the 50-foot pipeline permanent ROW will be 10 kept clear of trees to allow for pipeline inspection and 11 maintenance.

And then if you go to line 295, disturbed areas outside the permanent ROW will be re-vegetated with a recommended seed mix, and natural succession will allow vegetation to revert to preconstruction types. Tree and shrub replanting is not proposed.

I'm just wondering why -- since it is a scarcity on this side, why is that part of the process? Why is the plan -- aren't those going to be replanted or brought back to their preconstruction periods?

THE WITNESS: That's a general statement along the route of the project. Certainly in coordination with landowner individuals that would request or, you know, require that as part of their easement we would entertain that for sure. But it's not proposed -- like you said, I

1 know it's only in the double digits of how many trees the 2 whole state we are taking that it appears to be in our easement at the time, as of now. 3 4 COMMISSIONER SATTGAST: Thank you. That was 5 going to be my other question. 6 Then my further question is bats are kind of a 7 concern. And so I'm just curious, has there been some 8 type of census done to see what the populations along 9 there have been since there are studies that have shown 10 that there's diminishing number of bat type of species in 11 our area? 12 THE WITNESS: No. We did do in-depth coordination with the Fish & Wildlife Service prior to 13 14 even going out on the ground. And they very clearly 15 defined for us where they wanted to see our bat surveys 16 performed. So they were almost certainly performed along 17 the project, just not in South Dakota. 18 COMMISSIONER SATTGAST: Thank you very much. 19 MS. WIEST: Any other Commissioner questions? 20 If not, are there any Intervenor questions based on 21 Commissioner questions? 22 Looking around. 23 Is there any --24 MS. BAKER: Yes. I'm sorry. The Yankton Sioux 25 Tribe.

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1	MS. WIEST: Oh, I didn't see you. Go ahead.
2	RECROSS-EXAMINATION
3	BY MS. BAKER:
4	Q. Going back to those cultural resource surveys again.
5	Do you think that a cultural survey conducted with the
6	existence of tribal representatives would yield more
7	information than surveys done without those
8	representatives from Tribes?
9	A. I suppose it could, yes.
10	Q. Okay. And there's been a lot of talk about
11	Harrisburg and growth. Do you know the size of the
12	pipeline I know the size of the pipeline varies, so do
13	you know what the size of the pipeline is in that region?
14	A. In the entire State of South Dakota it's 30 inches.
15	Q. It is 30 inches. Okay.
16	A. Uh-huh.
17	Q. And is there any green space planned for the
18	pipeline in South Dakota?
19	A. I don't understand the question.
20	Q. You had mentioned green space as a benefit to
21	communities.
22	A. For future development. We're currently outside of
23	all planned developments, but it is a potential for
24	future use. Our proposal is to restore to
25	preconstruction conditions.

1 Q. Okay. So nothing's planned right now? No. Everything would be turned back to agriculture 2 Α. 3 or ranchland, whatever it is currently in land use for. 4 MS. BAKER: Okay. Nothing further. Thank you. 5 MS. WIEST: Anyone else? Any redirect? 6 REDIRECT EXAMINATION 7 BY MS. SEMMLER: 8 Q. Ms. Howard, you were asked earlier today about your role in legal compliance type stuff. Do you remember 9 10 that question? 11 I do. Α. 12 Can you clarify for us what exactly your role is Ο. 13 within the corporate structure, your place of employment? 14 My role is to gather information, pass along Yeah. Α. 15 assessments and data with respect to compliance under 16 areas of my control. 17 So you're not a compliance officer? Q. 18 No, I'm not. Α. 19 Ο. There were questions in regard to karst. Do you 20 remember those? 21 Α. I do. 22 Did you do any sort of investigation or studies as Ο. 2.3 it pertains to karst, are you aware of? 24 The project did retain geologic professionals, Α. 25 geoengineers that did a full geological evaluation of the

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1 entire route of the project, including all of that in 2 South Dakota. Can you testify as to the contents of those studies? 3 Ο. 4 Α. Off the top of my head I cannot, but I do know that it accounted for karst and made recommendations. I just 5 6 don't know off the top of my head what they were. 7 Do you cross any land which is owned by a tribal Ο. 8 entity? 9 We do not. Α. 10 In South Dakota? Ο. 11 We do not. Α. As a result of that, in South Dakota are you 12 Ο. 13 required by law -- you being the project, to consult with 14 any of those tribal entities? 15 We are not. Α. 16 There was some talk about white-nose syndrome in the Ο. 17 bat population. 18 Yes. Α. 19 Q. Are you the person that makes determinations in 20 regards to where the bats are protected as it relates to 21 that disease? 22 That's clearly defined by the managing agency. No. Α. 23 The Fish & Wildlife Service issues maps and boundaries 24 and consults on it. 25 And you consulted with them? Ο.

1 Α. Uh-huh. Yes. You testified about hydraulic studies, geology 2 Q. studies, cultural studies, endangered species studies. 3 4 Were all those studies done under your direction? 5 The vast majority of them. Α. 6 If you remember, Mr. Rappold, from the Rosebud Sioux Ο. 7 Tribe, asked you several questions in regards to the 8 purpose of wetland districts? Did I use the right 9 terminology? 10 Wetland management districts, yes. Α. 11 And he had you read that purpose. Do you remember Q. 12 that? 13 I do. Α. 14 Based on your experience in the industry, do you Q. 15 believe it's possible for that district to accomplish its 16 purpose at the same time the project can accomplish its 17 purpose? In other words, can you coexist? 18 MR. RAPPOLD: Objection. Calls for a legal conclusion. 19 20 MS. SEMMLER: Just asked based on her 15 years 21 in the industry if she can -- if her employer's purpose 22 can coexist with this management district's purpose. 23 MR. RAPPOLD: A compatible use determination is a decision to be made under law by the Fish & Wildlife 24 25 Service. It calls for a legal conclusion. I renew my

objection. 1 2 MS. WIEST: Objection overruled. 3 Please answer. Ο. 4 Yes. A pipeline can certainly and does coexist with Α. 5 many conservation areas, including those for the Fish & 6 Wildlife Service. 7 Does the project cross any wildlife refuge? Ο. 8 Α. No. 9 And that includes Sand Lake; right? Ο. 10 Right. That was a priority routing function was to Α. 11 avoid those federal and public areas. 12 There was a line of questioning by Mr. Rappold about Ο. 13 invasive or noxious -- invasive plants or noxious weeds. 14 Do you remember that? 15 I do. Α. 16 Does the project in its postconstruction Ο. 17 rehabilitation stage, does the project have a plan for 18 weed management? 19 Α. Yes. 20 Is part of that weed management plan to control Ο. 21 those sorts of noxious plants and weeds? 22 Yes. It falls in line with our restoring everything Α. 2.3 to preconstruction conditions. 2.4 MS. SEMMLER: Nothing further. Thank you. 25 Any redirect -- any recross based on MS. WIEST:

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redirect? 1 2 MS. CRAVEN: I have one guestion. 3 MS. WIEST: Go ahead. 4 RECROSS-EXAMINATION 5 BY MS. CRAVEN: 6 Q. Is it your testimony that if a cultural survey is 7 conducted which purports to comply with the National 8 Historic Preservation Act and there's no TCP survey 9 conducted by tribal experts, that this survey would 10 comply with Section 106? 11 Absolutely. I've overseen countless, countless Α. 12 cultural resource surveys for hundreds of miles of pipe, 13 if not thousands, that did not account for tribal surveys 14 and still complied with the act. 15 Would that be in Indian Country like South Dakota Ο. 16 is? 17 This is my first project in South Dakota. Α. 18 MS. CRAVEN: Okay. Thank you. 19 MS. WIEST: Any other questions? 20 If not, you're excused. 21 THE WITNESS: Thank you. 22 MS. BAKER: Ms. Wiest, do we have an order of witnesses for tomorrow or could we discuss that? 23 2.4 MS. WIEST: Yes. That's what we're going to do. I'll talk to Dakota Access first. 25

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1 MS. SEMMLER: Todd Stamm will be the witness we 2 start with tomorrow. MS. WIEST: And any witnesses after that? 3 That is our final witness. 4 MS. SEMMLER: 5 MS. WIEST: So after Todd Stamm does -- who 6 would be going next with their witnesses? I'm trying to 7 remember the order about which witnesses were available 8 and which were not. 9 I believe Mr. Boomsma's are all scheduled Yes. 10 for next week. 11 CHAIRMAN NELSON: Diane's are next week. 12 MS. WIEST: Ms. Northrup, was yours scheduled for a time certain? 13 14 MS. NORTHRUP: In my motion for substitution I 15 had asked for Tuesday or Wednesday of next week. 16 MS. WIEST: That's right. Ms. Craven? 17 MS. CRAVEN: We do not have any direct 18 witnesses. We only have rebuttal. We could have Mr. Capossela go, if you'd like. 19 20 MS. WIEST: Are we up to Staff then? 21 MS. EDWARDS: If that's how the Commission would 22 like to proceed. I have no problem if Mr. Capossela 23 wants to go first for DRA IEN. Otherwise we are prepared 24 to proceed with our direct after Dakota Access is done. 25 MS. WIEST: Did you have a preference?

1 MR. CAPOSSELA: I was going to come in late and 2 write a brief on something else, but I'm happy to be 3 prepared, if that helps. 4 MS. WIEST: We will start with Mr. Stamm, 5 Mr. Capossela, and go to Staff. 6 Staff, do you have an order if anybody wants to 7 be prepared tomorrow? 8 MS. EDWARDS: I know we'll start with 9 Mr. Kearney then probably go to Brian Walsh. 10 MS. WIEST: Okay. Are there any questions 11 before we adjourn? 12 MR. RAPPOLD: Who would be next after Mr. Walsh 13 if we get farther than that? 14 MS. WIEST: Do you know, Ms. Edwards? 15 MS. EDWARDS: I don't. We'd have to see who's 16 available. Several of our witnesses -- obviously state 17 employee witnesses live in Pierre so it's just a matter 18 of seeing who's available at that time. 19 MS. WIEST: But perhaps by the morning you would 20 know who's available that day? 21 MR. CREMER: I don't know that we can get ahold 22 of anybody tonight yet. I know we've got a number of e-mails from people. They're out of town. They're in 23 24 meetings. We're going to have to look through those to 25 see. We might know before lunch tomorrow.

1	MS. WIEST: Okay. Anything else before we
2	adjourn for the evening?
3	If not, we will meet again tomorrow at 8 a.m.
4	(The hearing is in recess at 6:25 p.m.)
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1 STATE OF SOUTH DAKOTA) 2 :SS CERTIFICATE 3 COUNTY OF SULLY ) 4 5 I, CHERI MCCOMSEY WITTLER, a Registered 6 Professional Reporter, Certified Realtime Reporter and 7 Notary Public in and for the State of South Dakota: 8 DO HEREBY CERTIFY that as the duly-appointed 9 shorthand reporter, I took in shorthand the proceedings 10 had in the above-entitled matter on the 30th day of 11 September, 2015, and that the attached is a true and 12 correct transcription of the proceedings so taken. 13 Dated at Onida, South Dakota this 23rd day of 14 October, 2015. 15 16 17 18 Cheri McComsey Wittler, Notary Public and 19 Registered Professional Reporter Certified Realtime Reporter 20 21 22 23 24 25

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