

STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION

Coyote Creek Mining Company, L.L.C. : Case No.  
Permit NACC-1302 : RC-13-850  
Application :

TRANSCRIPT OF  
FORMAL HEARING  
VOLUME IV - (Pages 479-717)

Taken At  
State Capitol  
Bismarck, North Dakota  
January 2, 2015

BEFORE WADE MANN  
-- ADMINISTRATIVE LAW JUDGE --

A P P E A R A N C E S

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COMMISSIONERS PRESENT:

COMMISSIONER BRIAN P. KALK  
COMMISSIONER JULIE FEDORCHAK  
COMMISSIONER RANDY CHRISTMANN

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FOR THE COMMISSION.

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C O N T E N T S

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20  
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22  
23  
24  
25

**COYOTE CREEK WITNESSES:**

Page No.

**DONN STEFFEN**

Examination by Mr. Bjella	486
Examination by Mr. Braaten	492
Examination by Commissioner Christmann	495
Examination by Commissioner Fedorchak	497
Examination by Commissioner Kalk	505
Further Examination by Mr. Braaten	507

**SARAH FLATH**

Examination by Mr. Bjella	512
Examination by Mr. Braaten	540
Examination by Mr. Deutsch	561
Examination by Commissioner Christmann	562
Examination by Commissioner Fedorchak	580
Examination by Commissioner Kalk	586
Further Examination by Commissioner Christmann	590
Further Examination by Commissioner Kalk	592

**PSC WITNESSES:**

**BRUCE BEECHIE**

Examination by Ms. Jeffcoat-Sacco	595
Examination by Mr. Braaten	599
Examination by Mr. Bjella	621
Examination by Commissioner Christmann	622
Examination by Commissioner Fedorchak	624
Examination by Commissioner Kalk	626
Further Examination by Mr. Braaten	629
Further Examination by Commissioner Christmann	633
Further Examination by Ms. Jeffcoat-Sacco	634
Further Examination by Mr. Braaten	635

**DEAN MOOS**

Examination by Ms. Jeffcoat-Sacco	637
Examination by Mr. Braaten	643
Examination by Mr. Bjella	651
Examination by Commissioner Kalk	652

1  
2  
3  
4  
5  
6  
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19  
20  
21  
22  
23  
24  
25

C O N T E N T S (Continued)

**JAMES R. DEUTSCH**

Examination by Ms. Jeffcoat-Sacco	654
Examination by Mr. Braaten	664
Examination by Mr. Bjella	673
Examination by Commissioner Christmann	679
Examination by Commissioner Fedorchak	683
Examination by Commissioner Kalk	689

**MICHAEL THYBERG**

Statement by Mr. Thyberg	694
--------------------------	-----

**EUGENE WIRTZ**

Statement by Mr. Wirtz	702
Examination by Commissioner Kalk	706

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**C O N T E N T S (Continued)**

**VOIGT EXHIBITS:**

No.	Description	Off'd	Rec'd
16	Soil Map - Mercer County, DND, including Voigt property	647	648
17	Map Unit Description for Soil Map covering Voigt property	650	650

**COYOTE CREEK EXHIBITS:**

2	Indian Head Mine Reclaimed Land Productivity/Breakdown of Reclaimed Acres	489	489
3	Coteau Reclaimed Land Productivity	516	518
4	ND PSC Standards for Evaluation of Revegetation Success and Recommended Procedures for Pre- and Postmining Vegetation Assessments, Revised July 2003	519	519
5	Livestock Weight Gain Study	523	524
6	Data from Application	526	527
7	Range Nutrition Pamphlet	529	529
8	Grasses for the Northern Plains Publication; Volume 1 - Cool Season & Volume 2 - Warm Season	530	531
9	Application of Coyote Creek Mining Company	491	491
10	Permit to Engage in Surface Coal Mining and Reclamation Operations and Surface Coal Mining and Reclamation Permit Conditions dated 10/22/2014	537	538
11	OSM Annual Evaluation Report of ND PSC Regulatory Program for evaluation year 2013	676	676

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**C O N T E N T S (Continued)**

**COYOTE CREEK EXHIBITS:**

No.	Description	Off'd	Rec'd
12	OSM Annual Evaluation Report of ND PSC Regulatory Program for evaluation year 2014	677	677

**PSC EXHIBITS:**

3	CV of Bruce E. Beechie	594	595
4	CV of Dean K. Moos	594	595
5	CV of Brian P. Kalk	485	486
6	CV of James R. Deutsch	594	595
7	ND Final Bond Releases for Lands Permitted or Repermitted after July 1, 1979	660	661
8	ND Permanent Program Mining Permits (post-July 1979)	663	663
9	July 15, 2009, memorandum re: Coyote Creek AVF Field Investigation		621
10	October 20, 2014, memorandum re: Application for Permit No. NACC-1302		621

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1           (The proceedings continued, commencing at  
2 1:02 p.m., Friday, January 2nd, 2015, as follows:)

3           JUDGE MANN: We're back on the record.

4           And, Mr. Bjella, before we proceed with your next  
5 witness, Commissioner Kalk has -- we've got marked  
6 as PSC Exhibit No. 5 Commissioner Kalk's resume or  
7 CV essentially and like to maybe get that offered  
8 into the record. And before doing so, I guess if I  
9 could have Commissioner Kalk just identify what's  
10 been premarked as PSC Exhibit No. 5.

11           COMMISSIONER KALK: Thank you, Your Honor.  
12 For the folks out there, basically I thought over  
13 lunchtime is I wanted to put in the record the  
14 background that I have on soil science, water  
15 hydrology, a master's and a -- a master's and a  
16 doctorate out of NDSU related to, I think, a lot of  
17 the issues today. And so I will be using that  
18 background to make determinations and make a final  
19 ruling on this case, and I think it's very  
20 appropriate to get in the record because at some  
21 point in time another party may review this work  
22 and it shows that we've got also significant  
23 credentials as well as the other experts that have  
24 been offered up in this hearing.

25           JUDGE MANN: Okay. Mr. Bjella, any

1 objection to PSC Exhibit No. 5?

2 MR. BJELLA: No, Your Honor.

3 JUDGE MANN: Mr. Braaten?

4 MR. BRAATEN: No, Your Honor.

5 JUDGE MANN: Ms. Jeffcoat-Sacco?

6 MS. JEFFCOAT-SACCO: No.

7 JUDGE MANN: PSC Exhibit No. 5 is  
8 admitted. And, Mr. Bjella, you can call your next  
9 witness.

10 MR. BJELLA: Call Donn Steffen.

11 JUDGE MANN: Good afternoon, Mr. Steffen.

12 Before you testify, I'm required to give you the  
13 oath as well and advise you of the penalty for  
14 perjury in North Dakota. It's a Class C felony.  
15 It's punishable by a maximum fine of \$10,000,  
16 maximum five years imprisonment, or both.

17 (Witness sworn.)

18 JUDGE MANN: Go ahead, Mr. Bjella.

19 **DONN STEFFEN,**

20 being first duly sworn, was examined and testified  
21 as follows:

22 **EXAMINATION**

23 **BY MR. BJELLA:**

24 Q. Please state your name and business  
25 address.

1           A.     Donn Steffen, 6502 17th Street Southwest,  
2 Zap, North Dakota.

3           Q.     And where were you born and raised?

4           A.     I grew up on a farm near Parshall,  
5 North Dakota.

6           Q.     And what is your education after high  
7 school?

8           A.     I received a bachelor of science degree in  
9 civil engineering from the University of North  
10 Dakota in 1986.

11          Q.     And what is your position with Coyote  
12 Creek Mining Company?

13          A.     I'm the engineering and environmental  
14 manager. I'm responsible for obtaining required  
15 permits and making sure operations operate in  
16 accordance with all the permits.

17          Q.     And what is your experience with other  
18 mines in Mercer County, North Dakota?

19          A.     I worked at Indian Head Mine from 1990 to  
20 1995, I worked at the Freedom Mine from 1995 to  
21 2013, and I've been employed at Coyote Creek since  
22 February of 2013.

23          Q.     And what were your job duties at  
24 Indian Head?

25          A.     Initially I assisted with the engineering

1 functions of the mine. In April of 1992, the mine  
2 ceased coal production and started reclaiming the  
3 mine. During this period I assisted with the  
4 reclamation activities of the mine and managed all  
5 the environmental functions till the mine was fully  
6 reclaimed in the fall of 1993. It was at that  
7 time, in the fall of '93, I became the last  
8 employee of the mine and I continued to oversee all  
9 the reclamation, all the revegetation activities,  
10 the bond release activities until it was fully  
11 released from bond in 2005.

12 Q. And what were your job duties at Coteau?

13 A. I performed various engineering and  
14 environmental duties, functions and served as the  
15 environmental manager the last two years I was  
16 employed there.

17 Q. And how many years have you worked on land  
18 restoration, reclamation on mine lands in Mercer  
19 County?

20 A. Over 20 years.

21 Q. And where was the Indian Head Mine located  
22 in Mercer County?

23 A. The mine is located, oh, from an area  
24 about four miles south of Zap, North Dakota, and  
25 extended through the years all the way to about a

1 half-mile northwest of Beulah.

2 Q. And how far is that from the new Coyote  
3 Creek Mine?

4 A. About three miles to the north.

5 Q. And showing you what has been marked as  
6 Exhibit 2, would you please identify it?

7 A. It's a series of charts, Indian Head Mine  
8 Reclaimed Lands Productivity.

9 Q. And is data used to prepare this exhibit  
10 obtained from records available to the public?

11 A. Yes, it is.

12 Q. And who prepared the exhibit?

13 A. I prepared the exhibit.

14 MR. BJELLA: I would offer Coyote Creek  
15 Exhibit 2.

16 JUDGE MANN: Mr. Braaten?

17 MR. BRAATEN: No objection.

18 JUDGE MANN: Ms. Jeffcoat-Sacco?

19 MS. JEFFCOAT-SACCO: No objection.

20 JUDGE MANN: Coyote Creek Exhibit No. 2 is  
21 admitted.

22 Q. (MR. BJELLA CONTINUING) And what does  
23 this exhibit demonstrate with respect to reclaimed  
24 land productivity at the Indian Head Mine?

25 A. It shows that Indian Head Mine's reclaimed

1 native grassland productivity exceeded the required  
2 PSC reclamation standards by 34 percent, the  
3 reclaimed cropland productivity exceeded the  
4 reclaimed -- or the required standards by 25  
5 percent, and the reclaimed hayland and tame  
6 pasturelands exceeded the standards by 37 percent.

7 Q. So this would demonstrate that the  
8 reclamation lands were more productive; is that  
9 correct?

10 A. That's correct.

11 Q. Are the PSC's productivity standards for  
12 reclaimed native grasslands derived using NRCS, or  
13 Natural Resource Conservation Service, production  
14 values?

15 A. Yes, they are.

16 Q. They're not values established by a mining  
17 company, are they?

18 A. That's correct, they're not.

19 Q. And in your vast experience in native  
20 grassland restoration in Mercer County at Indian  
21 Head and Freedom Mine, have the native grasslands  
22 been restored to at least equal extent of cover and  
23 productivity to the natural vegetation of the area?

24 A. Yes, they have.

25 MR. BJELLA: Your Honor, I will now show

1 Mr. Steffen Exhibit 9. This is a CD of the entire  
2 mining application. I've discussed this with  
3 counsel for PSC and for Mr. Voigt and they were  
4 agreeable that we can just enter one CD as an  
5 exhibit.

6 JUDGE MANN: Mr. Braaten, is that correct?  
7 Any objection to admission of this CD version of  
8 the application?

9 MR. BRAATEN: No objection. I just want  
10 to clarify this is the final application.

11 THE WITNESS: It's the permit 1302, yes.

12 MR. BRAATEN: There were a number of  
13 revisions. I just want to make sure this is the  
14 final application.

15 THE WITNESS: Yes, it is.

16 MR. BRAATEN: No objection.

17 JUDGE MANN: Okay. Ms. Jeffcoat-Sacco?

18 MS. JEFFCOAT-SACCO: I have no objection.

19 JUDGE MANN: Okay. Exhibit No. 9 is  
20 admitted.

21 MR. BJELLA: We have no further questions  
22 of this witness, Your Honor.

23 JUDGE MANN: Okay. Mr. Braaten. You can  
24 hold onto it. I'll get it after you're done.

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**EXAMINATION**

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**BY MR. BRAATEN:**

Q. Mr. Steffen, in what year were the acres at the Indian Head Mine, specifically the native grasslands, disturbed?

A. Starting in 1922 till 1992.

Q. What was the required revegetation period for the native grasslands at that mine?

A. It varied. That mine was experimented. It had every law period involved, '69, '71, '73, '75, '77, '78 interim and the current law. Most of the land I dealt with was the current law stuff, post the SMCRA stuff here.

Q. And so on the exhibit it states that there's 3,800 acres reclaimed?

A. Yes.

Q. Was that all acreage that was put under bond by the PSC?

A. Yes, 100 percent would have been under bond. 2,475 of that would have been current law. 2,475 of that 38 is what I would call current law.

Q. And do you know what the standards were for the other acreage that was released?

A. They were standards probably the '73 law -- there was a little of everything. I had '71

1 law, '73 law, '75 law, '77 law, '78 interim. That  
2 was -- 1,400 acres of it was at pre-SMCRA law  
3 stuff.

4 Q. So 1,400 acres of land that was reclaimed  
5 at this mine was released from bond under standards  
6 that were pre-SMCRA?

7 A. That's correct.

8 Q. Do you know what proportion of those 1,400  
9 acres were native grasslands?

10 A. I don't know what portion, but probably an  
11 average about 60 percent of the land was native  
12 throughout there. And none of that production was  
13 shown on those charts. That is all post-SMCRA, the  
14 production shown there. Those charts are strictly  
15 post-SMCRA production.

16 Q. So was the total acreage mined here 3,800  
17 acres; is that right?

18 A. Yeah, through, I'll say, '71 -- started  
19 right around there, '71. Whenever we started  
20 adopting the state laws.

21 Q. I guess my question is, at what point did  
22 you start disturbing land at the Indian Head Mine?

23 A. It started in 1922.

24 Q. '22.

25 A. 1922 we started mining coal there. North

1 American was involved since 1957.

2 Q. And you obtained final bond release on the  
3 last acres in what year?

4 A. 2005.

5 Q. How does the size of this mine compare to  
6 other coal mines in the -- in North Dakota?

7 A. It's smaller.

8 Q. And how does the duration of mine from  
9 initial disturbance to final reclamation compare to  
10 other mines in the state?

11 A. It's the same criteria, very similar.

12 Q. So you're saying that other mines have --  
13 from the time of disturbance to final bond release  
14 of the last acre, 83 years is common?

15 A. We were releasing lands continuously  
16 through that process. It wasn't that it was all  
17 released in that last year. You would have to look  
18 at the records. There was many, many -- every year  
19 there was applications and releases every year.

20 Q. So it was a relatively small mine that was  
21 reclaimed over the course of 83 years?

22 A. Prior to 1969 there was no reclamation  
23 laws, sir, so -- remember, there was no laws at all  
24 prior to '69 so really it only applied since 1971  
25 on.

1 Q. That's when your reclamation work started?

2 A. Yes.

3 MR. BRAATEN: Okay. I have no further  
4 questions.

5 JUDGE MANN: Ms. Jeffcoat-Sacco?

6 MS. JEFFCOAT-SACCO: We have no questions.

7 JUDGE MANN: Commissioner Christmann?

8 COMMISSIONER CHRISTMANN: Thank you, Your  
9 Honor.

10 **EXAMINATION**

11 **BY COMMISSIONER CHRISTMANN:**

12 Q. Are questions about specific grasses and  
13 crops and that sort of thing for you or for Ms.  
14 Flath?

15 A. I would say Sarah is going to be having a  
16 lot of testimony on that, so if you're talking  
17 grass production, native grassland standards, it's  
18 best -- I can try, I mean, if you want to run them  
19 by me, but most likely I will defer them to her.

20 Q. Well, we don't want to take up more time  
21 than necessary.

22 A. Okay.

23 Q. We only want to take up the time we need,  
24 not more than necessary.

25 Casey, when he testified, had said that

1 the PSC said that on his land it's 92 percent  
2 native. Does that sound right to you?

3 A. It's -- Sarah has those numbers, but, yes,  
4 92 percent of his disturbed land is native  
5 grasslands -- native grass, 92 percent, 5 percent  
6 hay, and I think 3 percent other, and then like .3  
7 percent crop. That's his disturbed areas.

8 Q. Is soil health issues for you?

9 A. Sarah again. She's got a lot of testimony  
10 on that.

11 Q. All the rest of my questions apply to  
12 Sarah's testimony then except for this one. Repeat  
13 for me how many acres were at Indian Head that were  
14 under SMCRA laws that are bonded out.

15 A. We reclaimed -- under SMCRA we reclaimed  
16 2,475 acres, I believe, was the net acres --  
17 current law SMCRA reclaimed. There was more  
18 permitted. There was 710 undisturbed so there were  
19 like 3,000 permitted under SMCRA.

20 Q. In the first day of testimony I thought I  
21 heard it said that only 2,000 acres have ever been  
22 bonded out in North Dakota, which I thought sounded  
23 wrong. So you are disputing that just based on  
24 Indian Head alone?

25 A. Yeah. There's 15,000 or more.



1 was -- a lot of that land was tracked for many,  
2 many years.

3 Q. Do you -- this is a snapshot of at bond  
4 release?

5 A. Those would have been qualified for bond  
6 release, usually at that time in the last two years  
7 of the vegetative clock. At that time the  
8 standards have changed a little bit.

9 Q. Okay. So this doesn't capture anything  
10 after that?

11 A. No.

12 Q. You don't really have data after the fact?

13 A. We have no control over that land.

14 Q. Right. Understood.

15 A. Indian Head Mine didn't own any land  
16 hardly at all, maybe 10 percent. We worked with  
17 the producers and tenants on all that property.

18 Q. What about compaction? That's an issue  
19 that we heard discussed, a big concern that once it  
20 occurs, it's pretty difficult to fix, could be  
21 caused by the heavy equipment. Tell me your  
22 experience with this. What do you guys -- how do  
23 you avoid it? How do you fix it? How big of a  
24 deal is it to you to try to avoid compaction?

25 A. We are always looking for it, but I don't

1 think we have a big problem. I don't think it's a  
2 problem. There's isolated instances where there is  
3 compaction. We work with -- it would be working  
4 with our operations to avoid those situations, but  
5 there's access roads, haul road areas where we're  
6 concentrating our traffic. Overall I don't think  
7 there's a compaction problem out there except in  
8 those isolated instances.

9           And then if there is a compaction problem,  
10 during our grade approval process, there's a time  
11 frame when we do inspect the surface before we  
12 spread the grade approval process. That's one time  
13 that the Public Service Commission comes out,  
14 drives the whole area, looks for those isolated  
15 situations and makes recommendations. If they see  
16 something, they want us to scarify it, rip it, do  
17 other things, we can do it at that time prior to  
18 respread -- during the grade approval process.

19           Q. So tell me what the -- you talk fast.  
20 What is the solution -- if you discover compaction  
21 in this process, how do you fix that?

22           A. We can do some deep ripping or scarifying,  
23 both.

24           Q. Scarifying?

25           A. Scarify it, like a really heavy disk,

1 probe disk. It usually goes down 8 to 12 inches.

2 Q. Okay.

3 A. Then there's also ripping options with  
4 blades or dozers, which can go down 10 feet if need  
5 be.

6 Q. All right. What is your company's  
7 incentive or disincentive to complete bond release  
8 on time? There's been concerns that the bond  
9 release drags on too long, and so tell me what kind  
10 of incentive do you have to complete it on time or  
11 disincentive to not?

12 A. We're carrying a lot of bond. Coyote  
13 Creek in this situation is going to have a surety  
14 bond, which is -- there's a premium. You pay a  
15 pretty stiff premium to hold the bond. So you  
16 don't want to hold it any longer than you have to.  
17 It is very expensive to have a bond. On this  
18 property right now we're only at a \$5 million bond,  
19 but that's going to go up every year and we'll be  
20 seeing 10 to \$12 million in bond very soon. So  
21 it's very expensive. And it's just our obligation  
22 to give bond release also. We don't want to hold  
23 onto it. We want it back.

24 Q. So it's costly for you to keep the bond  
25 longer than you need?

1           A.    It is.  It will be at Coyote Creek.  Yes,  
2    it is.

3           Q.    And then another question.  One of the  
4    public -- members of the public said that if the --  
5    she actually called it a ruse -- a reclamation  
6    ruse.  If it was working, then the land would be  
7    coming out of bond release.  What's your response  
8    to that?

9           A.    What's that question again?

10          Q.    The member of the public claimed that  
11    this -- in her example that the reclamation process  
12    isn't working, bond release isn't being met.  So  
13    what's your response to that, that lands aren't  
14    coming out of bond release on time?

15          A.    A lot of times if they're not coming out,  
16    it's not production related, and a lot of times  
17    those are isolated tracts, small tracts, not  
18    adequate parts.  They're needed for other areas of  
19    the mine, they might be associated with the safety  
20    concern, very close to our active operations.  But  
21    most of our isolated tracts are in the middle of a  
22    50,000-acre permit area, so a lot of them are  
23    isolated or small.

24          Q.    And this might not be a fair question for  
25    you, but do you have any sense of your company's

1 lands in North Dakota, what percent of them are  
2 behind in bond release?

3 A. I don't. I think PSC has that  
4 information. You guys generate that, so the chart  
5 would come from you.

6 Q. I'll ask our folks.

7 A. I don't generate the chart.

8 COMMISSIONER FEDORCHAK: Jim, I hope you  
9 have that in your testimony.

10 MR. DEUTSCH: It might have been.

11 Q. (COMMISSIONER FEDORCHAK CONTINUING) And  
12 then do you have thoughts on the question -- we  
13 talked to the last witness about this, but the  
14 availability that the water before should be --  
15 water resources before should be similar to the  
16 water resources afterwards? What's your position  
17 on that?

18 A. Yes, if there is any diminishing of any  
19 water resources, we are obligated to replace it.  
20 That is right in our permit. Any diminishing of  
21 quality or quantity of water, we are required to  
22 replace it.

23 Q. In your experience, has that been a  
24 problem for you to accomplish?

25 A. No, it hasn't. We've replaced whatever

1 sources, groundwater wells, whatever. Depends on  
2 the source. If it's a source -- if they have a  
3 water well that we have to mine through, we're  
4 going to replace that water well. We put back all  
5 their systems equal or better quantities and  
6 quality than they had. If we have to mine through  
7 the well, we will replace it.

8 Q. And knowing the water resources that exist  
9 in this area with Mr. Voigt's land, you don't have  
10 any concerns about being able to replace that?

11 A. No, I don't. In most of his operation  
12 right now he utilizes a groundwater system -- very  
13 elaborate, very good system, put a lot of money  
14 into it. We're going to replace that system and  
15 keep it maintained during the mining. It's our  
16 obligation to keep it going during mining. There  
17 is some old springs in areas, but talking to  
18 available farmers and ranchers there, Casey  
19 himself, they weren't very reliable. They wanted  
20 better reliable sources so they went to the system.  
21 So he's got a nice system, very nice.

22 Q. And then you've been involved in the  
23 reclamation for many, many years now, the same time  
24 period almost that some are claiming that the  
25 standards haven't changed or the procedures haven't

1 changed, that they're virtually unchanged in the  
2 state. Is that a fair review of our reclamation?

3 A. Standards -- I mean, Jim can talk about  
4 the changes, but I think the last time the  
5 standards themselves that I'm aware of, the veg  
6 documents changed in 2003, but it is updated  
7 frequently. The vegetation document was the latest  
8 and greatest type of information -- research  
9 information. Jim can answer that better, but, yes,  
10 there is continually improvements towards that.  
11 And the mines can make improvements too obviously.  
12 We check our operations, we look at what we're  
13 doing. We're always looking for better ways, yes.

14 Q. Looking for and implementing or just --

15 A. Implement. I mean, we applied a lot of  
16 stuff towards our native grasslands establishment  
17 and rotational grazing programs. We're out there  
18 increasing the water sources on them. We would be  
19 looking at trying to keep the invasive species down  
20 by monitoring that early in the stages of life or  
21 avoiding actually the first augmented seeding. You  
22 know, that's one way we're going to be looking at  
23 Casey's property is to not seed that first year,  
24 introduce grasses that are on his property already,  
25 that seed bank, reestablish, kill it off and then

1 seed our grasses. So we will probably be  
2 administering something like that to give the land  
3 one year. It's going to postpone bond release a  
4 year because we're not going to seed it for a year,  
5 but it's just a benefit I think we have to do to  
6 eliminate some of that seed bank that may be on his  
7 property.

8 COMMISSIONER FEDORCHAK: I think that  
9 concludes my questions for now. Thank you.

10 JUDGE MANN: Commissioner Kalk.

11 COMMISSIONER KALK: Thank you, Your Honor.

12 **EXAMINATION**

13 **BY COMMISSIONER KALK:**

14 Q. Donn, you and I should get going as fast  
15 as we can and see how the reporter keeps up. We're  
16 just so excited to get it out there. I'm with you.

17 Just a couple questions, Donn. When we  
18 look at the chart, Exhibit 2, in the area of  
19 cropland you've exceeded standards by 25 percent;  
20 native grasses, 34 percent; hayland, 37 percent.  
21 How do you think anyone can claim that you're not  
22 doing better? The data is striking.

23 A. I guess I can't answer that.

24 Q. Okay. In your -- the only thing I thought  
25 of is, how do you aggregate your data? Do you

1 take -- your production -- do you take each little  
2 acre? I mean, how do you get to your 25 percent?  
3 There must be some that's 30 percent and some  
4 that's --

5 A. Yes, it's a tract and weight average by  
6 the area that it contributes. So one tract might  
7 be 75 acres, the next might be 150, but that's a  
8 weighted average through all the various tracts.

9 Q. So what would be the range of that that  
10 you think that would be occurring?

11 A. I don't know. I mean, I put this number  
12 together in 2005 and it's just a chart I've had  
13 since 2005. I don't know the range. I mean, it  
14 depends on the land. Indian Head Mine wasn't a  
15 real productive cropland area. It was marginal,  
16 probably should never have been broke. It was  
17 marginal cropland at best. So a lot of that land  
18 was only capable of county average, producing maybe  
19 20 bushel to the acre.

20 Q. Okay. I'm just trying to get a feel for  
21 it because I would look at that -- this data to me  
22 is -- it would be hard to argue against it. But if  
23 there's areas where there was 1 percent increase or  
24 maybe some areas that didn't have any, actually had  
25 decreases, would there be any area --



1           Q.     When was the last acre disturbed at the  
2 Indian Head Mine?

3           A.     Disturbed? We shut the mine down on April  
4 29th of '92, so that would be the last hole. I  
5 don't know how you say disturbed.

6           Q.     You mentioned that it's costly to keep a  
7 bond in place. Do you have portions of your bond  
8 released prior to final bond release?

9           A.     Yes, of course. Did that at Indian Head.  
10 Every year there was bond release occurring and  
11 diminution of the bond amount.

12          Q.     More specifically, if we take a certain  
13 field, for example, if that field is five years  
14 along in the revegetation, are you able to get some  
15 of the bond released on that field prior to final  
16 bond release?

17          A.     Yes, you can get partials first, second  
18 and third stage. There's four stages of bond  
19 release.

20          Q.     Okay. So how much of the bond is released  
21 at third stage percentagewise?

22          A.     It drops it -- I'm going by old numbers,  
23 Jim, but it used to be so much per acre. I want to  
24 say they hold \$508 on native. I don't remember.  
25 It's 12 years ago. I don't remember the exact.

1 It's a percentage. It's written right in the regs  
2 so much percent for each stage. I don't remember  
3 off the top of my head. They're in the regs,  
4 spelled out really defined there.

5 Q. But for each stage up to stage 4 you get a  
6 certain amount of that bond released?

7 A. Yes.

8 Q. And for stage-three bond release, for  
9 example, what do you have to achieve to get there?

10 A. On native grassland you've got to have  
11 cover, adequate control on erosion, cropland just  
12 basically -- I think you've got to be in a rotation  
13 program of cropland at third stage. But native  
14 there's at least a cover standard. I don't  
15 remember for sure anymore. I didn't brush up on it  
16 before coming here.

17 Q. So at stage 3 -- I know you don't recall  
18 specifically, but would at least more than half of  
19 that bond be released?

20 A. Stage 3, yes, it is.

21 Q. And at that point you have not proven  
22 productivity at all?

23 A. No, but there's observations. I mean,  
24 there's weekly or monthly inspections conducted  
25 that would show how it's producing and how it's

1 going. There's definite inspection involved of the  
2 property during that stage.

3 Q. Do the mines that North American runs keep  
4 production records prior to stage 4 bond release?

5 A. Yes.

6 Q. Do they at stage 3 bond release?

7 A. Yes, they would. There's records all the  
8 way from probably early on. Year 3 typically we  
9 start tracking production if it's tracked.

10 Q. So you could get to stage 3 bond release  
11 and have a significant amount of that bond amount  
12 released; correct?

13 A. On that tract of land, that's possible,  
14 yes.

15 Q. And if you couldn't prove productivity on  
16 it, then that would stay under bond until you  
17 could?

18 A. That's correct.

19 Q. Do you know who Marty Reich is?

20 A. Marty, yes.

21 Q. Did she own land that was mined by the  
22 Indian Head Mine?

23 A. Her father-in-law did, yes.

24 Q. Has she made complaints to you about  
25 sinkholes on that land?

1 A. Yes.

2 Q. How recently has she made complaints?

3 A. I talked to her September probably.

4 Q. And did you hire a contractor to do any  
5 work in her fields filling in those sinkholes?

6 A. Yes.

7 Q. And when did you do that?

8 A. The work was done here a couple weeks ago.

9 Q. And this is land that's been released from  
10 final bond release?

11 A. Yes, in the old law areas -- yeah, old law  
12 areas, pre-SMCRA.

13 MR. BRAATEN: I have no further questions.

14 JUDGE MANN: Ms. Jeffcoat-Sacco?

15 MS. JEFFCOAT-SACCO: We have no questions.

16 JUDGE MANN: Commissioner Christmann?

17 COMMISSIONER CHRISTMANN: No questions.

18 JUDGE MANN: Commissioner Fedorchak?

19 Commissioner Kalk? Mr. Bjella, anything further  
20 for this witness?

21 MR. BJELLA: No, Your Honor.

22 JUDGE MANN: Okay. Thank you. You can  
23 step down.

24 Mr. Bjella, you can call your next  
25 witness.

1 MR. BJELLA: Call Sarah Flath.

2 JUDGE MANN: Good afternoon, Ms. Flath.

3 I'm required to give you the oath and I'm sure  
4 you're aware having sat through it, but I am  
5 required to advise you of the penalty for perjury.  
6 A Class C felony in North Dakota, punishable by a  
7 maximum fine of \$10,000, maximum five years  
8 imprisonment, or both.

9 (Witness sworn.)

10 JUDGE MANN: Go ahead.

11 MR. BJELLA: Thank you.

12 **SARAH FLATH,**

13 being first duly sworn, was examined and testified  
14 as follows:

15 **EXAMINATION**

16 **BY MR. BJELLA:**

17 Q. Please state your name and business  
18 address.

19 A. Sarah Flath, 6502 17th Street Southwest,  
20 Zap, North Dakota 58580.

21 Q. By whom are you employed?

22 A. The Coyote Creek Mining Company.

23 Q. And what is your position with Coyote  
24 Creek Mining Company?

25 A. I am the senior environmental specialist.

1           Q.     And what other coal mines have you worked  
2     on?

3           A.     Previously I worked for the Coteau  
4     Properties' Freedom Mine.

5           Q.     And what is your background and education  
6     after high school?

7           A.     I was raised on a third-generation ranch  
8     near Amidon, North Dakota. I received my  
9     bachelor's of science in range science from NDSU,  
10    and I then received my master's of science in  
11    rangeland ecosystem science from Colorado State  
12    University.

13          Q.     And are you -- it sounds like you're an  
14    expert in grasslands and reclamation. Could you  
15    please talk about your history in that field?

16          A.     Yes. My interest started when I was very  
17    young. While in high school, I placed fourth in  
18    the nation at the national range judging  
19    competition. While in college, I worked for the  
20    NDSU animal nutrition lab and the NDSU range  
21    science department. I held various offices in the  
22    NDSU Range Club, including president, and through  
23    it I competed in the undergraduate range management  
24    exam and I presented a paper at the Society for  
25    Range Management's annual meeting.

1           After completing my master's degree, which  
2 focused on soil, water and infiltration on  
3 rangelands, I stayed active in professional  
4 organizations. I am the current president of the  
5 North Dakota Chapter of the Society for Range  
6 Management, and I've held other offices in our  
7 state chapter for many years. I've presented a  
8 paper on soil respread at the annual meeting of the  
9 American Society of Mining and Reclamation. I  
10 helped organize the North Dakota reclamation  
11 conference and the professional meeting hosted by  
12 the North Dakota Society for Range Management.

13           I'm also a certified wetland delineator.  
14 I've attended multiple meetings and training events  
15 and I maintain professional contacts to stay  
16 current in my field.

17           MR. BJELLA: I would offer the further  
18 testimony of Ms. Flath as an expert in vegetation  
19 and grasslands.

20           JUDGE MANN: Mr. Braaten?

21           MR. BRAATEN: No objection.

22           JUDGE MANN: Ms. Jeffcoat-Sacco?

23           MS. JEFFCOAT-SACCO: No objection.

24           JUDGE MANN: The testimony of Ms. Flath  
25 will be received as that of an expert in those

1 areas. You can proceed.

2 Q. (MR. BJELLA CONTINUING) Sarah, what are  
3 your job duties with Coyote Creek?

4 A. I coordinate baseline data collection, I  
5 prepare permits, including the reclamation  
6 provisions of our permit, manage reclaimed lands,  
7 and coordinate management with landowners, and  
8 day-to-day environmental compliance.

9 Q. And did you assist in preparation of the  
10 permit application of the Coyote Creek Mine to the  
11 Public Service Commission?

12 A. Yes.

13 Q. And what parts did you specifically work  
14 on?

15 A. I prepared the introductory and Surface  
16 Owner Protection Act compliance sections, the  
17 postmining land use and revegetation sections,  
18 components of the soils handling and mining  
19 sections, and I edited and compiled baseline  
20 vegetation soils, water, and wildlife data that I  
21 received from consultants.

22 Q. And is grassland restoration one of the  
23 areas you were responsible for at Coyote Creek?

24 A. Yes.

25 Q. And what is your experience with

1 reclamation when you worked at the Freedom Mine?

2 A. I've been involved in all phases of  
3 grassland reclamation mstarting with soil salvage  
4 and continuing through the process to bond release.  
5 For eight years, starting in 1999, I was involved  
6 with or oversaw revegetation and management of the  
7 reclaimed land, including seeding, grazing plans,  
8 data collection, and assembling bond release  
9 packages. For the six years following that,  
10 starting in 2007, I was a planner for operations,  
11 which included planning, the soil salvage, grading  
12 and respread operations.

13 Q. And showing you what has been marked  
14 Exhibit 3, who prepared this exhibit?

15 A. I did.

16 Q. And would you please describe it?

17 A. It's the Coteau reclaimed land  
18 productivity chart. It shows that Coteau's  
19 reclaimed native grassland productivity exceeded  
20 the PSC standards by 24 percent, the hayland by 25  
21 percent, and the cropland by 13 percent.

22 MR. BJELLA: We would offer Coyote Creek  
23 Exhibit 3.

24 JUDGE MANN: Mr. Braaten?

25 MR. BRAATEN: I object to foundation. I

1 think we need to know a little bit more about where  
2 these numbers come from.

3 JUDGE MANN: Will you be following up,  
4 Mr. Bjella? I mean, do you want to do that right  
5 now?

6 MR. BJELLA: I'll do it right now.

7 JUDGE MANN: Okay.

8 Q. (MR. BJELLA CONTINUING) Can you tell us  
9 how you prepared that, from what data?

10 A. These -- the data set came from part of  
11 the public record bond release packages that have  
12 been submitted to the Public Service Commission.

13 JUDGE MANN: Mr. Braaten?

14 MR. BRAATEN: Could I just ask a couple  
15 questions on it?

16 JUDGE MANN: Sure. Go ahead.

17 MR. BRAATEN: How many acres of land have  
18 been reclaimed at Coteau?

19 THE WITNESS: I would have to defer to Jim  
20 Deutsch's table that, I believe, he's going to be  
21 presenting later.

22 MR. BRAATEN: Does this document represent  
23 all of the land at Coteau that was disturbed?

24 THE WITNESS: No. It only represents the  
25 land that bond release has been achieved on,

1 because I wanted to use a data set that had been  
2 reviewed and was part of the public record already.

3 MR. BRAATEN: Okay. No objection.

4 JUDGE MANN: Okay. Ms. Jeffcoat-Sacco?

5 MS. JEFFCOAT-SACCO: No objection.

6 JUDGE MANN: Coyote Creek Exhibit No. 3 is  
7 admitted.

8 Q. (MR. BJELLA CONTINUING) How do the land  
9 uses compare to those -- at Freedom Mine compare to  
10 those on the Voigt land?

11 A. We project that a little over 2,000 acres  
12 will be disturbed on Voigt-owned land. The same  
13 three land uses are found on Voigt's land.  
14 However, 92 percent of his disturbed land is native  
15 grassland, 5 percent is hayland, less than 1  
16 percent is cropland, and then 3 percent is made up  
17 by other minor land uses.

18 Q. And how far is the Freedom Mine from the  
19 Coyote Creek Mine?

20 A. About 15 miles.

21 Q. And are the soil types and precipitation  
22 found at both mines comparable due to this  
23 proximity?

24 A. Yes, precipitation is very similar.  
25 Regarding soils, both mines have some sodic clayey

1 areas, some sandy areas and some areas in between.  
2 Soils at the north end of the Coyote Creek Mine are  
3 relatively thick and sandy textured, while some of  
4 the soils at the south end of the mine are shallow  
5 and sodic. Coteau also contains some sandy and  
6 some shallow sodic soils.

7 Q. Showing you what is marked Exhibit 4,  
8 would you please identify it?

9 A. It's the revegetation success standards  
10 document. It's a guidance document published by  
11 the North Dakota Public Service Commission.

12 Q. And is this document used in preparation  
13 of the mining permit application?

14 A. Yes.

15 MR. BJELLA: Your Honor, I believe that  
16 the Voigts had introduced a very similar exhibit,  
17 but just to make certain that all the appropriate  
18 pages were included, we would ask that ours be  
19 admitted at this time.

20 JUDGE MANN: Mr. Braaten?

21 MR. BRAATEN: No objection.

22 JUDGE MANN: Ms. Jeffcoat-Sacco?

23 MS. JEFFCOAT-SACCO: No objection.

24 JUDGE MANN: Coyote Creek Exhibit No. 4 is  
25 admitted.

1           Q.     (MR. BJELLA CONTINUING) Sarah, when we  
2 start talking about the mine permit application,  
3 one of the terms that comes up is a reference area.  
4 Could you describe what a reference area is?

5           A.     Yes. Reference areas are located on  
6 undisturbed native grassland and they're used to  
7 compare reclaimed lands to undisturbed lands and  
8 evaluate reclamation success.

9           Q.     And how were these reference areas  
10 selected?

11          A.     There were nine sites sampled on Voigts'  
12 land that were sampled for the permit to provide  
13 premined information. They were chosen to  
14 represent the variability of the Voigts' land,  
15 including soils, slope, and species composition.  
16 Of those nine most will be disturbed by mining.

17                   The proposed reference areas are three of  
18 the sites that are located outside of our  
19 anticipated disturbance boundary. However, the  
20 reference areas shown in the permit are only  
21 proposed locations at this point. They're still  
22 subject to review and approval by the PSC.

23          Q.     Now, is it correct that reference areas  
24 can be changed, including with Mr. Voigt's input  
25 should he so desire?

1           A.     Yes, with PSC approval.

2           Q.     So these reference areas are used to sort  
3 of establish a baseline, is that correct, for  
4 reclamation --

5           A.     Correct.

6           Q.     -- when reclamation occurs 15 or 20 years  
7 later?

8           A.     Correct.

9           Q.     Now, during Mr. Voigt's testimony he  
10 expressed concern or believes reclaimed grasslands  
11 are of lower quality and result in reduced cattle  
12 production. Do you agree?

13          A.     No.

14          Q.     Why don't you agree?

15          A.     Regulation requires that non-native grass  
16 species must not be present in quantities that may  
17 be considered detrimental to the native grassland  
18 use. Coyote's management plans will work towards  
19 minimizing the presence of introduced species on  
20 reclaimed land. Standards used to evaluate success  
21 of reclaimed native grassland are very strict and  
22 complex. The PSC documents explaining the  
23 methodologies, and they are part of Exhibit 4, are  
24 17 pages long. Standards consider production,  
25 cover, seasonality, and diversity.

1           Part of the purpose of having standards  
2 relating to seasonality and diversity are to assure  
3 that the reclaimed plant community functions  
4 similarly to a premine community and are of  
5 equivalent quality. As an indication of how strict  
6 these standards are, if they were applied to the  
7 nine baseline sites that were sampled on the Voigt  
8 land, only three of those nine would meet the  
9 standards. And this is typical of many native  
10 grasslands.

11           Q.    Meaning that they have a number of -- fair  
12 extent of introduced species; is that correct?

13           A.    Meaning that the diversity and the  
14 seasonality requirements require a number of  
15 species, which is a separate issue than the  
16 introduced species present even.

17           Q.    And have studies been done evaluating  
18 livestock production on reclaimed land?

19           A.    Yes.

20           Q.    Showing you what is marked as Exhibit 5,  
21 did you prepare this exhibit?

22           A.    Yes.

23           Q.    And could you please identify it?

24           A.    It's a chart titled Livestock Weight Gain  
25 Study, and that was from data at Coteau. The study

1 was done to compare cattle gains on reclaimed land  
2 and undisturbed land over a season. The result of  
3 the study was that the average daily gain was  
4 slightly higher from the cattle on the reclaimed  
5 land.

6 MR. BJELLA: We would offer Coyote Creek  
7 Exhibit 5.

8 JUDGE MANN: Mr. Braaten?

9 MR. BRAATEN: I object to foundation both  
10 with respect to the exhibit and with respect to the  
11 witness's expertise to testify about livestock  
12 weight gain.

13 JUDGE MANN: Mr. Bjella, can you address  
14 some of the foundational issues?

15 MR. BJELLA: Well, I guess, as she has  
16 testified, she holds a master's in rangeland  
17 management, so I think livestock weight gain  
18 certainly is right in her wheelhouse.

19 Q. (MR. BJELLA CONTINUING) Can you identify  
20 a little bit more where the information came from?

21 A. The calves -- as part of a cow-calf pair,  
22 the calves were weighed prior to turnout in the  
23 spring in May, and then they were weighed again  
24 when they were taken off the land at the end of the  
25 season.

1           Q.    And these are records that were maintained  
2 or taken by Coteau?

3           A.    Correct.

4           Q.    So you were able to access them and  
5 utilize them?

6           A.    Correct.

7           JUDGE MANN:   Mr. Braaten?

8           MR. BRAATEN:   I'm going to maintain my  
9 objection.  I think that I can probably cover a lot  
10 on cross, though.

11          JUDGE MANN:   Okay.  Ms. Jeffcoat-Sacco?

12          MS. JEFFCOAT-SACCO:   We have no objection.

13          JUDGE MANN:   I'll admit Coyote Creek  
14 Exhibit No. 5.  Mr. Braaten, as you indicated, you  
15 can address a lot of these issues on cross and the  
16 Commission can give it the weight it deems  
17 appropriate.

18                        You can continue, Mr. Bjella.

19          Q.    (MR. BJELLA CONTINUING)  Now, what does  
20 the Coyote Creek reclamation plan provide with  
21 respect to the percentage of non-native grasses in  
22 the reclaimed grasslands?

23          A.    Only native species will be seeded.  Our  
24 seed mix includes nine native grass species and  
25 several forb species.  The species included are

1 similar to those found premine. Our seed mix was  
2 developed in consultation with NRCS publications,  
3 data from the local NRCS office, and conversations  
4 I had with the representative of the USDA Plant  
5 Materials Center in Bismarck to specifically match  
6 the seed mix to the Coyote Creek site. Any  
7 non-native species present on reclaimed lands will  
8 come from premine seeds that were present in the  
9 existing topsoil or that have invaded from the  
10 surrounding undisturbed land.

11 Q. And if any introduced species are present  
12 on the reclaimed lands, what will Coyote Creek do  
13 to control that?

14 A. There are several options we have that we  
15 can use to control them. Seeding of native  
16 grassland can be delayed a year until -- or after  
17 respread, like Donn mentioned, so that any  
18 introduced species that have germinated from the  
19 soil seed bank or from the seed that's present in  
20 the existing topsoil can be sprayed prior to  
21 seeding. Reclaimed native grassland will also be  
22 closely monitored for introduced grasses after the  
23 grassland is seeded, and if after the first year or  
24 two introduced species are observed, they can be  
25 controlled through herbicide application.

1 Q. And showing you Exhibit 6. Sarah, showing  
2 you Exhibit 6, can you please identify it?

3 A. It contains excerpts from the permit  
4 application pertaining to reclamation,  
5 revegetation, and reclaimed land management.

6 Q. And all the materials contained in Exhibit  
7 6 were submitted as part of the Coyote Creek mining  
8 application?

9 A. Yes.

10 MR. BJELLA: Your Honor, at this point we  
11 would offer Exhibit 6. And the reason we have  
12 pulled this out is because while the mining permit  
13 application itself was submitted on a CD, this is  
14 pertinent data pertaining to Ms. Flath's testimony  
15 and it's directly from the permit app, so we would  
16 offer Exhibit 6.

17 JUDGE MANN: Mr. Braaten?

18 MR. BRAATEN: No objection.

19 JUDGE MANN: Ms. Jeffcoat-Sacco?

20 MS. JEFFCOAT-SACCO: I don't have any  
21 objection, but I have a question. What was  
22 submitted was the final permit application after  
23 technical changes and stuff were made, correct, the  
24 earlier exhibit? So is this from that document or  
25 from the original app? We need that on the record

1 of whether it's pulled from that final app because  
2 the original app isn't submitted.

3 THE WITNESS: This is from the final  
4 approved permit application for 13 -- NACC 1302.

5 MS. JEFFCOAT-SACCO: I have no objection.

6 JUDGE MANN: Okay. Coyote Creek Exhibit  
7 No. 6 is admitted.

8 Q. (MR. BJELLA CONTINUING) And, Sarah, could  
9 you briefly summarize what these application  
10 excerpts pertain to?

11 A. Section 2.4.7, and there's several  
12 subsections, provides premine native grassland  
13 data, including the NRCS ecological site  
14 descriptions. Section 3.1.1 provides an overview  
15 of operations that will occur in the proposed  
16 permit area. Section 3.1.1.1 describes the salvage  
17 grading and respread of soils. Section 3.1.1.2 is  
18 a mining methods narrative. Section 3.1.3 is a pit  
19 layout facilities map. Section 4.1.1 is the  
20 postmining land use narrative. Section 4.2.1  
21 discusses the revegetation and management of  
22 reclaimed lands. Section 4.2.2 contains seed  
23 mixes. And Section 4.3.1 discusses vegetation  
24 assessment and success standards.

25 Q. Now, Mr. Voigt had expressed concerns that

1       reclamation will not account for nutrient quality  
2       of reclaimed grassland, especially protein yields.  
3       Do you agree with that?

4             A.     No.

5             Q.     Why not?

6             A.     Exhibit 5 demonstrates that livestock  
7       weight gains are better on reclaimed land.  
8       Additionally, it is the grass species present and  
9       their maturity that are the primary drivers of  
10      mineral content and forage, not the soils. The  
11      primary thing that changes chemically in a  
12      reclaimed soil is that organic matter and soil  
13      nitrogen may be slightly less immediately following  
14      respread if the soil has been stockpiled. In this  
15      situation these decreases are short term. As  
16      vegetation becomes reestablished and nutrient  
17      cycling resumes, organic matter, nitrogen levels  
18      return to premine levels.

19            Q.     Now, showing you what is marked as Exhibit  
20      7, would you please identify it?

21            A.     There are two documents included in the  
22      exhibit. The first is Factors Affecting the  
23      Nutritive Value of Range and the Ranchers Guide to  
24      Grassland Management with the specific excerpt  
25      entitled Range Nutrition.

1 Q. And what is the source of these documents?

2 A. The first is a peer-reviewed article from  
3 the Journal of Range Management and the second is  
4 an NDSU Extension Service publication.

5 Q. And are these documents maintained by you  
6 in your -- for your professional working  
7 experience?

8 A. Yes.

9 Q. And have you relied on these documents in  
10 preparation of your testimony today?

11 A. Yes.

12 MR. BJELLA: I would offer Coyote Creek  
13 Exhibit 7.

14 JUDGE MANN: Mr. Braaten?

15 MR. BRAATEN: No objection.

16 JUDGE MANN: Ms. Jeffcoat?

17 MS. JEFFCOAT-SACCO: No objection.

18 JUDGE MANN: Coyote Creek Exhibit No. 7 is  
19 admitted.

20 Q. (MR. BJELLA CONTINUING) And what do these  
21 documents identify?

22 A. That plant species and time of grazing is  
23 the most important factor in determining the  
24 nutritional value of the forage.

25 Q. And so your point is what?

1           A.    The primary driver in determining the  
2           nutrient quality of reclaimed grassland, including  
3           the protein, will be our seed mix and the resulting  
4           species composition.

5           Q.    Now, do you have information on the  
6           nutrient value of plant species currently found on  
7           Mr. Voigt's land compared to plant species you have  
8           included in your seed mix?

9           A.    Yes.

10          Q.    Showing you Exhibit labeled No. 8, would  
11          you please identify it?

12          A.    It's titled the Grasses of the Northern  
13          Plains.

14          Q.    And what is the source of this document?

15          A.    It's an NDSU Extension Service  
16          publication.

17          Q.    And is this maintained by you for your  
18          professional expertise?

19          A.    Yes.

20          Q.    And have you relied on this document in  
21          preparation of your testimony today?

22          A.    Yes.

23                MR. BJELLA:  We would offer Coyote Creek  
24          Exhibit 8.

25                JUDGE MANN:  I just got two Exhibit 8s.

1 Is that -- oh, it's two volumes.

2 THE WITNESS: It's that exciting.

3 JUDGE MANN: All right. Mr. Braaten, any  
4 objection?

5 MR. BRAATEN: No objection.

6 JUDGE MANN: Ms. Jeffcoat-Sacco?

7 MS. JEFFCOAT-SACCO: No objection.

8 JUDGE MANN: Okay. Coyote Creek Exhibit  
9 No. 8 is admitted.

10 Q. (MR. BJELLA CONTINUING) And are the  
11 dominant species currently found on Mr. Voigt's  
12 land and those included in your seed mix listed in  
13 the permit application?

14 A. Yes.

15 Q. Now, there has been no mining yet at the  
16 Coyote Creek Mine, so no grassland has been  
17 reclaimed; is that correct?

18 A. Yes.

19 Q. So any concerns at this stage as to the  
20 yield or nutrient quality of the grasslands to be  
21 reclaimed at Coyote Creek Mine are speculative at  
22 this time; would that be correct?

23 A. Yes.

24 Q. Now, Mr. Voigt expressed concern in his  
25 testimony that standards generally require 12

1 inches of topsoil, 36 inches of subsoil to be  
2 respread while native grasses have seven to eight  
3 foot of rooting depth. Do you agree with this?

4 A. No.

5 Q. Why not?

6 A. Soil respread thickness is determined by  
7 sampling graded soil. In accordance with the  
8 regulations, depending on the chemical and physical  
9 properties of the spoil, between 24 and 48 inches  
10 of soil is respread. However, all topsoil is  
11 salvaged and respread, and then subsoil makes up  
12 the difference between topsoil thickness and the  
13 total required thickness of soil respread.

14 The reason 48 inches was established as  
15 the maximum respread thickness is because there was  
16 no research on soil respread that has ever found  
17 that greater thicknesses are required to maximize  
18 production. This maximum thickness doesn't also  
19 include a safety buffer of several inches.

20 The paper I presented at the American  
21 Society of Mining Reclamation annual meeting was a  
22 literature review of this topic and included 55  
23 sources. This research spans decades of work by  
24 many people in multiple states. In fact, premine  
25 topsoil and subsoil on Voigt's land only average a

1 total of 32 inches, so to make sure the mine  
2 salvages enough material to meet the 48-inch  
3 maximum thickness, additional material of  
4 equivalent quality to subsoil that is currently  
5 between five and ten feet below the surface will be  
6 salvaged to supplement the Voigt subsoil.

7 Q. Now, Dr. Merrill testified for the Voigts,  
8 recommended a survey of the reclaimed soil be done  
9 by a qualified soil scientist to create profiles to  
10 a depth of four feet. Is this being done?

11 A. Yes. The NRCS has completed a soil survey  
12 of reclaimed mine land which includes creating  
13 profiles to a depth of four feet.

14 Q. And does North Dakota's mining law require  
15 that native grasslands be reclaimed to a diverse,  
16 effective, and permanent cover of the same seasonal  
17 variety to the area and capable of a plant  
18 succession at least equal in extent of cover and  
19 productivity to the natural vegetation of the area?

20 A. Yes.

21 Q. Does Coyote Creek intend to meet that  
22 standard?

23 A. Yes.

24 Q. Is Coyote Creek mandated by law to meet  
25 that standard?

1           A.     Yes.   Coyote Creek is required by law to  
2     reclaim native grassland of equal quantity through  
3     production and cover standards and required to meet  
4     equal quality through diversity and seasonality  
5     standards.

6           Q.     In your experience in working with  
7     grassland restoration in the area of Beulah, North  
8     Dakota, have the grasslands been restored to at  
9     least equal in extent of cover and productivity to  
10    natural vegetation of the area?

11          A.     Yes.

12          Q.     Now, are you aware, does North Dakota law  
13    exceed federal law with respect to restoration of  
14    grassland productivity?

15          A.     Yes.   The federal law only requires that  
16    90 percent of the premine productivity be  
17    reestablished whereas North Dakota law requires a  
18    hundred percent of the premine productivity.

19          Q.     I'm going to show you what is Voigt  
20    Exhibit No. 7 entitled Voigt Ranch Alfalfa.   Have  
21    you reviewed this document prior to your testimony  
22    today?

23          A.     Yes.

24          Q.     And can you tell me what observations  
25    you've drawn from this exhibit?

1           A.     From my background, I would expect that  
2     any lowland hayfield would probably outproduce a  
3     hayfield on an upland, especially since the lowland  
4     fields would receive additional runoff, so  
5     additional moisture, have deeper soils, and  
6     especially in this case the upland hayfields that  
7     are on the Voigt ranch are sandy soils as well.

8           So with that background information in  
9     mind, I went to the mining permit and I evaluated  
10    the soils of both fields and calculated an expected  
11    productivity difference between the fields and to  
12    try to see just how much the difference in the  
13    soils would indicate that we would expect to see  
14    regardless of whether there was subirrigation or  
15    not, because the NRCS data reflects dry land  
16    conditions since none of the soil map units were  
17    subirrigated.

18           Looking at that, the expected yield  
19    difference between the two fields is that the  
20    lowland fields should produce about 76 percent more  
21    than the upland fields based on soils alone, with  
22    zero extra moisture contribution.

23           Looking at this table that Voigts  
24    submitted, I calculated an average difference of  
25    only a 47 percent increase in yields of the

1 lowlands over the uplands, again, compared to 76  
2 percent is what we would expect to see just because  
3 the soils are better.

4 Then I also made some other notes, things  
5 that were worth looking at. 2012 was a dry year  
6 compared to the others, and the production on the  
7 lowland was considerably less than the other five  
8 years. We would expect that if it was receiving  
9 supplemental moisture that was separate from  
10 precipitation, that the production wouldn't have  
11 dropped off near as much.

12 Q. Do you mean subirrigation when you say  
13 that?

14 A. Yes. And then also if the lowlands were  
15 subirrigated, I would expect to see a more similar  
16 production, less of a drop, less of a decline  
17 between the first and second cuttings. Just  
18 because of plant vigor, you would expect to see  
19 about a 25 percent drop under subirrigated  
20 conditions, whereas in this case it's much more  
21 significant. Also in 2013 and '14 it seemed odd  
22 that the uplands outproduced the lowlands for their  
23 first cutting.

24 Q. Thank you. And showing you what is marked  
25 as Exhibit 10, would you please identify it?

1           A.     It is the mining permit that Coyote Creek  
2 Mine received.

3           Q.     From the North Dakota Public Service  
4 Commission?

5           A.     From the North Dakota Public Service  
6 Commission.

7           Q.     And was this mining permit issued after  
8 the Public Service Commission's Reclamation  
9 Division approved of Coyote Creek's reclamation  
10 plan?

11          A.     Yes.

12           MR. BJELLA:   We would offer Exhibit No.  
13 10.

14           JUDGE MANN:   Mr. Braaten?

15           MR. BRAATEN:   No objection.

16           JUDGE MANN:   Ms. Jeffcoat-Sacco?

17           MS. JEFFCOAT-SACCO:   We have no objection.  
18 We would note that it's two documents, though,  
19 correct, the permit and the conditions?

20           MR. BRAATEN:   Yes.

21           MS. JEFFCOAT-SACCO:   You've got two  
22 paper-clipped together. Is that what you intended?

23           MR. BJELLA:   Yes.

24           THE WITNESS:   Yes.

25           MR. BJELLA:   Yes, it is.

1 MS. JEFFCOAT-SACCO: We were going to ask  
2 to admit those also. No objection.

3 JUDGE MANN: Okay. Coyote Creek Exhibit  
4 No. 10 is admitted.

5 Q. (MR. BJELLA CONTINUING) And is it the  
6 request of Coyote Creek Mining Company that this  
7 mining permit be affirmed?

8 A. Yes.

9 MR. BJELLA: We have no further questions  
10 of this witness.

11 JUDGE MANN: Mr. Braaten.

12 MR. BRAATEN: If I may, Your Honor, we've  
13 been going about an hour, and this is one of those  
14 times I would like to consult with my expert, so if  
15 we could take one of our breaks now, I would  
16 appreciate that.

17 JUDGE MANN: Mr. Bjella?

18 MR. BJELLA: Well, I guess we would  
19 object. I mean, we've only been going an hour and  
20 we have a lot to do yet, so I would request we keep  
21 going.

22 JUDGE MANN: Well, Mr. Braaten had  
23 indicated prior that -- I guess I don't think it  
24 was an agreement, I guess, but he indicated that he  
25 would like an opportunity -- he would withhold his

1 objection to -- what was it, Mr. Braaten, just so I  
2 can get an understanding what the agreement between  
3 the parties was?

4 MR. BRAATEN: My understanding was that  
5 Ms. Jeffcoat-Sacco was asking about having her  
6 staff and experts questioning witnesses, and I  
7 indicated that I understood how that can be  
8 helpful, but I think it's unfair for one party to  
9 be able to do that and not another, and so what I  
10 had asked at that time is that I would withhold my  
11 objection if I would have the right within reason  
12 to consult with my experts prior to  
13 cross-examination.

14 JUDGE MANN: And I think that is  
15 reasonable and I think we will allow a very brief  
16 break. On the second day of the hearing I did  
17 allow Coyote Creek a brief opportunity to confer  
18 with someone before asking a question. I think  
19 that's reasonable in this case. It doesn't  
20 prejudice Coyote Creek in any way, so I will allow  
21 a very brief break for Mr. Braaten to consult and  
22 it is a logical time. We have been taking  
23 testimony for approximately a little over an hour  
24 for each of the witnesses and taking a break at  
25 that point, so I think we'll continue with that and

1 we'll take approximately ten minutes, I guess, at  
2 this time and then we'll come back and allow  
3 cross-examination.

4 (Recess taken.)

5 JUDGE MANN: We are back on the record.  
6 Mr. Braaten, you can begin your cross-examination.

7 MR. BRAATEN: Thank you.

8 **EXAMINATION**

9 **BY MR. BRAATEN:**

10 Q. Ms. Flath, I've handed you a document that  
11 was previously marked as Voigt Exhibit No. 12, and,  
12 as you can see, it represents a number of native  
13 plants and typical depth and feet rooting depths.  
14 What I would like you to do is take a look at that  
15 and let me know if you disagree with the depths  
16 represented as potential rooting depths for these  
17 plants.

18 MR. BJELLA: At this time I guess I'm  
19 going to -- if you might recall, I objected to this  
20 exhibit.

21 JUDGE MANN: Correct.

22 MR. BJELLA: And so I'm going to renew my  
23 objection at this time. There's no foundation. We  
24 have no basis for it from the person who presented  
25 it.

1           JUDGE MANN: Understood. And I did admit  
2 the exhibit over the objection previously, it is in  
3 the record, but your objection is noted.

4           THE WITNESS: I don't know about the  
5 specific exhibit -- document that you're showing  
6 me. I'm aware that some native species have  
7 deep-rooted systems, but I'd refer back to my  
8 previous testimony that no study has ever shown  
9 that it takes more than 48 inches to maximize  
10 productivity on reclaimed native grasslands.

11          Q.     (MR. BRAATEN CONTINUING) But you don't  
12 dispute that some of these species root at a depth  
13 beyond 48 inches?

14          A.     Correct. I don't dispute that some  
15 species do. I can't testify to the exhibit that  
16 you're showing me, but I am aware that some species  
17 do.

18          Q.     I'll refer you back to Coyote Creek  
19 Exhibit No. 3, which shows the reclaimed land  
20 productivity at the Freedom Mine.

21          A.     Yes.

22          Q.     Are you aware that the total bonded area  
23 released at this mine is 5.6 percent?

24          A.     I was not aware of that.

25          Q.     So the success rate you're showing here

1 indicates a success rate on a very small amount of  
2 the land that has been disturbed and bonded at that  
3 mine?

4 A. It shows that it relates -- or it shows  
5 the success of the land that was bond released, but  
6 I don't believe it shows anything about the success  
7 of the reclaimed land that has been disturbed  
8 there.

9 Q. And the amount of land that was bond  
10 released is a very small percentage of the total  
11 land disturbed at that mine?

12 A. Based on what you're telling me, yes.

13 Q. You referred to reference areas with  
14 respect to how you achieve revegetation success,  
15 and I believe your testimony was that there were  
16 three sites that would be outside the mining area  
17 that would be utilized for that purpose; is that  
18 right?

19 A. Correct.

20 Q. And are you aware that the Voigts have  
21 previously communicated to Coyote Creek that at  
22 least one of these areas is one of their  
23 lowest-producing fields on the ranch?

24 A. Mr. Steffen communicated with me that  
25 Mr. Voigt had concerns about a reference area in

1 Section 12. And what I told Mr. Steffen at that  
2 point and what I shared in the testimony today is  
3 that reference areas are always initially submitted  
4 as just an initial proposal and they do go through  
5 a very thorough review process before they're  
6 accepted by the PSC. There are frequently changes.  
7 It's just kind of a working starting point, and if  
8 Mr. Voigt has concerns, they would certainly be  
9 considered.

10 Q. By what criteria do you choose what areas  
11 you're going to use as reference points?

12 A. The species composition, the production,  
13 the slope of an area sampled within each ecosite,  
14 but then beyond that we want to make sure we  
15 represent all of the dominant ecosites. The three  
16 dominant ecosites on the Voigt land are represented  
17 by our reference areas, and that's why those were  
18 selected as the starting point.

19 Q. And so you say you use production as a  
20 primary criterion. Why would you end up choosing  
21 an area that has the lowest production on the  
22 ranch?

23 A. I have not reviewed the specific  
24 production of -- to make an assessment, to make a  
25 statement about how this site actually compares to

1 his entire ranch, but I will say that some ecosites  
2 are more productive than others and that the south  
3 end of the Voigts' ranch is, I think, less  
4 productive as a whole and we need to also represent  
5 that.

6 Q. And you just indicated that you hadn't  
7 reviewed the production, but you also stated that  
8 that's one of the criteria you use to determine  
9 these reference sites. Did anybody look at the  
10 production?

11 A. Yes. What I -- what I was indicating with  
12 that is I didn't do a weighted analysis of all  
13 ecosites over all sample sites on Casey's land  
14 comparing it to that one site. I did look at that  
15 one ecosite to make sure that, combined with the  
16 other sites as a whole, was representative of the  
17 variability of Casey's land.

18 So to try to be a little bit more clear, I  
19 can't say that that one site in itself would stand  
20 alone and represent Casey's land, but it is a  
21 component, and when used with the other sites, that  
22 was the intent to represent the variability of the  
23 Voigt land.

24 Q. And when you say that, you mean that that  
25 site, along with the other nine sites you chose,

1 represented the variability?

2 A. Our consultant did, to be clear. Our  
3 consultant, KDK Consulting, did. He spent a lot of  
4 time on the field to select these sites and  
5 described -- as he described it to me, that was his  
6 methods.

7 Q. But the method used was such that the  
8 variability was represented by the nine initial  
9 sites selected; right?

10 A. That in combination with other sites  
11 sampled on the state land that the Voigts  
12 considered to be part of their management unit. As  
13 described in the permit in Section 2.4, the  
14 sampling methodology looked at the Voigt management  
15 unit as a whole because conversations with the  
16 Voigts, they stressed that that's how they viewed  
17 their ranch. They have deeded land, they have  
18 state-owned land, and both lands are integral to  
19 their management.

20 Q. And six of those sites were then taken out  
21 of consideration because they would be a part of  
22 the mine; right?

23 A. Correct.

24 Q. And was the representative value of the  
25 remaining three sites assessed to determine if that

1 was a fair representation of production on the  
2 ranch?

3 A. Yes.

4 Q. And how was that done?

5 A. By conversations with the KDK Consulting  
6 professional. He was involved in the selection of  
7 those reference areas because he spent a lot more  
8 time on the ground than I did. He was out sampling  
9 throughout the 2012 year. He on the ground was at  
10 every single site, so he was better able to make  
11 that decision.

12 Q. Did someone look at specific numbers to  
13 make that decision?

14 A. Yes.

15 Q. Are those numbers in the record anywhere?

16 A. They are in the permit and all the  
17 sampling results are included in that 2.4.7  
18 section.

19 Q. I'll refer you back to Exhibit No. 5, the  
20 Livestock Weight Gain Study. Can you tell me a  
21 little bit about how this study was conducted?

22 A. With cooperation from a producer, a Coteau  
23 representative and this producer, landowner that  
24 grazed cattle on reclaimed land and nearby  
25 undisturbed land that they owned, they had a

1 conversation, they decided that they would like to  
2 conduct a study assessing what reclaimed land --  
3 what impact it had on the gains of cattle. So they  
4 weighed the calves going on and coming off.

5 Q. Were the same calves grazed on the  
6 reclaimed land as were grazed on the undisturbed  
7 land?

8 A. No.

9 Q. Were the same amount of cattle grazed on  
10 the reclaimed land as on the undisturbed land?

11 A. No. And that's why it's -- an average is  
12 calculated. The pounds per day, it was tracked and  
13 divided by the number of calves. They were part of  
14 both a commercial and registered herd operation,  
15 though, and attention was paid to that detail to  
16 make sure that there wasn't some weight of  
17 genetics, that genetics didn't factor into the  
18 results seen.

19 Q. Can you explain that a little bit more?

20 A. Because a producer that is raising a  
21 registered herd that is paying a lot of attention  
22 to genetics, one of the things they're already  
23 tracking is this average daily gain, which is  
24 what's reflected on the chart, and their breeding  
25 -- their genetic program is focused on maximizing

1 average daily gain. So they wanted to make sure  
2 that the livestock used on both situations, it  
3 couldn't be said that the genetics and then related  
4 to that the average daily gain just driven by  
5 genetics would have caused the difference in the  
6 outcome.

7 Q. So your understanding of the cattle's  
8 genetics is based on the average daily gains the  
9 producer monitored in these cattle over time?

10 A. My understanding is based on notes in the  
11 documentation of this study that documented the  
12 background of -- the genetic background or makeup  
13 of each herd, whether they were Red Angus or what  
14 they were, if they were a Red Angus cross with  
15 Hereford, that sort of thing.

16 Q. And so you had an identical match of  
17 specific species or crosses based on genetics for  
18 each herd?

19 A. I can't speak to that because I wasn't  
20 involved in it, but based on the perusal of the  
21 records that I was given, it appeared that they  
22 were comparable herds.

23 Q. With what degree of uncertainty?

24 A. I didn't run any statistics on it, but  
25 based on an overview, I would say I'm very

1 confident, and that's backed up with the comments  
2 that I received from the employee that conducted  
3 the survey. He said the private landowner or the  
4 cooperator who owned the cattle was very happy with  
5 the gains that he saw on reclaimed land, and they  
6 decided not to do a follow-up study because there  
7 weren't any more concerns after these results.

8 Q. What was the size of the pasture used for  
9 the reclaimed land?

10 A. I'm not sure.

11 Q. What was the size of the pasture used for  
12 the undisturbed land?

13 A. I'm also not sure of that. But these  
14 pastures were large enough to support a herd  
15 rotated through an entire season, May through  
16 October.

17 Q. Were they identical in size?

18 A. I doubt that.

19 Q. When was the study done?

20 A. I don't see a date on this, but from  
21 memory, it was the early 2000s.

22 Q. How many cow-calf pairs were involved in  
23 the study?

24 A. There again, I do not know. I wasn't the  
25 person involved in the study. I'm only basing this

1 on the notes. Off the top of my head, I don't  
2 remember.

3 Q. How did the reclaimed land compare to the  
4 undisturbed land prior to mining?

5 A. I can't speak to that because I didn't see  
6 any data on that.

7 Q. So there was no assessment done as to  
8 whether the pasture that was undisturbed was better  
9 or worse than the other pasture prior to having  
10 been mined?

11 A. There was no vegetation assessment done to  
12 compare the two. It was based on a landowner being  
13 interested in this topic. The research was done  
14 and the topic he was interested in was not so much  
15 species composition, but the effects that it would  
16 have on his bottom line to use reclaimed land, and  
17 the results satisfied his concerns.

18 Q. Have you ever participated in a  
19 peer-reviewed study?

20 A. Yes.

21 Q. Would this study pass peer review?

22 A. No. It wasn't done for publication. It  
23 was done for the purpose to address a landowner's  
24 concern and it was -- the study design included his  
25 -- his comments, I guess, and his concerns drove

1 the setup of it.

2 Q. There was discussion of the testimony of  
3 Stephen Merrill and the soil survey that he had  
4 suggested, and you indicated that NRCS had already  
5 completed such a survey; is that right?

6 A. Yes.

7 Q. Are you referring to the survey conducted  
8 by Perry Sullivan at the Falkirk Mine?

9 A. Yes.

10 Q. And the purpose of that survey was simply  
11 to create soil categories for the farmers there so  
12 that they could participate in federal ag programs;  
13 right?

14 A. I wouldn't put it as simply, because along  
15 with the soil classification program, he made new  
16 soil series and -- to describe those soils, and  
17 there's a lot of backup information that becomes  
18 part of the description, including expected  
19 productivity, slope class, use, management, the  
20 soil genesis, if you will, in this case because  
21 it's reclaimed, the activities that led up to its  
22 creation. If a person were to go on to the NRCS  
23 web soil survey, there's a lot of information that  
24 was put together for these new soil series  
25 descriptions.

1           Q.     And that's based on the new soil types, as  
2 we call them, that were created by the mixing of  
3 the soils at the Falkirk Mine?

4           A.     Correct.

5           Q.     Are the soils at the Falkirk Mine  
6 identical to the soil types at the Coyote Creek  
7 Mine?

8           A.     No.

9           Q.     Will the soils at the Coyote Creek Mine be  
10 mixed in the exact same way as they were at the  
11 Falkirk Mine?

12          A.     Methods will be similar. There will be a  
13 dragline operation. There will be a truck shovel  
14 operation. There will be respread operations. And  
15 all of the work will be done under the same  
16 regulations and standards.

17          Q.     But you're going to have different soil  
18 types there; right?

19          A.     I can't predict how the NRCS would map  
20 them, but the physical characteristics and the  
21 premine soil series are different between Falkirk  
22 and Coyote Creek Mine.

23          Q.     And so when you mix those together, it's  
24 going to be different than what was mixed together  
25 at Falkirk?

1           A.    I would anticipate that.  I can't speak  
2 for sure about any of that, though.

3           Q.    And the productivity -- well, let me ask  
4 first, are you familiar with the study that was  
5 done by Perry Sullivan?

6           A.    Yes.

7           Q.    And the productivity index that he used in  
8 that study was based on the -- essentially the same  
9 productivity index used for all of the original  
10 soil surveys?

11          A.    Yes.  Same system, if that's what you're  
12 asking.

13          Q.    Right.  And so the aspects of soil quality  
14 looked at were the same as those looked at when the  
15 original web soil surveys were done -- or soil  
16 surveys were done?

17          A.    I don't have specific knowledge, but my  
18 background information on a soil survey is that all  
19 the methods would be the same, so I would think so.

20          Q.    And were you present for Mr. Merrill's  
21 testimony?

22          A.    Yes.

23          Q.    And do you recall that in his testimony  
24 some of the soil survey criteria he was suggesting  
25 should be looked at were biological in nature?

1           A.    Yes.

2           Q.    And is it your understanding that the  
3 original web -- the original soil surveys did not  
4 look at biological characteristics of soil?

5           A.    I don't believe they would have.

6           Q.    And nor would the Sullivan study?

7           A.    No.   But to create a soil profile, which  
8 is what I testified to, is what the soil survey  
9 did.  The noting and testing for the biological  
10 component is a separate suggestion, so there are  
11 two separate ideas that Dr. Merrill proposed.

12          Q.    And so you understand that Dr. Merrill's  
13 proposition was not simply that one do a soil  
14 survey as Sullivan did at Falkirk?

15          A.    Correct.  I was just explaining that that  
16 one component is being addressed by the NRCS  
17 currently.

18          Q.    Is it your understanding that the Sullivan  
19 study involved looking at anything other than the  
20 respread depth or the slope to create their  
21 classifications?

22          A.    Based on the -- I would probably describe  
23 it as a story that was put on the NRCS website,  
24 there was a summary of the project and the reasons  
25 why they did it, and so I'm only basing my

1 testimony on reading that document on the Internet.

2 MR. BRAATEN: And I would object to that  
3 testimony.

4 JUDGE MANN: Object to -- what are you  
5 objecting to? Previously -- previous testimony?

6 MR. BRAATEN: Well, I was asking about her  
7 understanding of the Sullivan study, which I  
8 understood she was familiar with, and what she's  
9 testifying to now is hearsay that she read on the  
10 Internet about the study.

11 JUDGE MANN: I'll overrule it. It's --  
12 essentially it's already -- I mean, I'm not going  
13 to strike it.

14 THE WITNESS: Possibly to clarify, when I  
15 said I was familiar with the study, I have reviewed  
16 the results that the NRCS published.

17 Q. (MR. BRAATEN CONTINUING) Can I have you  
18 take a look at Coyote Creek Exhibit No. 4. And you  
19 stated in your testimony that Coyote Creek would  
20 restore the productivity of the native grassland on  
21 Mr. Voigt's property to as good or better  
22 production as prior to mining; right?

23 A. Yes.

24 Q. Can I have you turn to page II-D-10 of  
25 Exhibit 4?

1           A.     Okay.

2           MR. BJELLA:   Was that B or D?

3           MR. BRAATEN:   D.

4           Q.     (MR. BRAATEN CONTINUING)   Are you familiar  
5 with the standard in these guidelines that the  
6 native plant species comprise at least 65 percent  
7 of the total composition by cover or weight?

8           A.     Yes.

9           Q.     And so when you say that you intend to  
10 restore the productivity on Mr. Voigt's land, are  
11 you saying that you're going to comply with this  
12 guideline that at least 65 percent will be native  
13 grasses on his land?

14          A.     You're asking me about productivity --  
15 you're saying productivity, but you're not asking  
16 me about productivity.  You're asking me about the  
17 native species component.

18          Q.     If Mr. Voigt has 5 percent tame grasses on  
19 his land right now, is Coyote Creek going to  
20 restore his land such that it has only 5 percent  
21 tame grasses?

22          A.     I can't testify as to what will happen 20  
23 years from now in the field.  I can testify to the  
24 methods we're going to use and the standards that  
25 we need to meet.  The methods that we are going to

1 use, as I expressed in my testimony, is to minimize  
2 at every step of the way the amount of introduced  
3 species that will be there, both through our seed  
4 selection and through the management of the newly  
5 reclaimed land.

6 The standards, I can say that we can both  
7 read this sheet of paper and say that the standards  
8 allow up to 65 percent, but I can't testify as to  
9 what will actually happen. I can just say that we  
10 will be minimizing -- with every method that we  
11 have minimizing the introduced species present.

12 Q. So pound for pound do you believe that a  
13 field that has 5 percent tame grasses is more or  
14 less productive than a field with 35 percent tame  
15 grasses?

16 A. I think that there's no way I can answer  
17 that because some native grasses are very much less  
18 productive than introduced species. Some native  
19 are more. I would need more information to be able  
20 to answer that question.

21 Q. Is that information contained in the  
22 mining permit anywhere?

23 A. No. I would need a more specific question  
24 to answer that adequately.

25 Q. Are you familiar with the amount of tame

1 grass that exists on Mr. Voigt's land right now?

2 A. Yes.

3 Q. And are you aware that it is much less  
4 than 35 percent?

5 A. Yes.

6 Q. And are you familiar with the kinds of  
7 native grasses that exist on Mr. Voigt's land right  
8 now?

9 A. Yes.

10 Q. And if the composition of the grasses and  
11 plants on Mr. Voigt's land changes such that  
12 there's a significant increase in the tame grasses,  
13 do you believe his fields are going to be as  
14 productive as they are now?

15 A. I actually believe they would be more  
16 productive, because with my knowledge after  
17 reviewing the sampling results shown here, there  
18 are many warm season grasses that are an important  
19 part of native grassland. However, they're  
20 low-producing species. So I feel I can state with  
21 quite a bit of certainty that the production would  
22 not be an issue even if there was a large amount  
23 introduced.

24 Q. You also indicated that there's a lack of  
25 evidence that subsoil thicker than four feet has an

1 impact on yields; is that right?

2 A. There's a lack of evidence that total soil  
3 depth, which is topsoil plus subsoil, greater than  
4 48 inches, hasn't been shown by research to have an  
5 impact on productivity.

6 Q. And what research are you referring to?

7 A. The paper that is published in the  
8 American Society of Mining and Reclamation  
9 literature review that I did as cited in my  
10 testimony.

11 Q. And so the studies that were conducted  
12 that you reviewed, were these conducted on  
13 reclaimed mine lands?

14 A. Yes. They included the wedge plot study  
15 that Dr. Merrill was involved with at Zap, Stanton.  
16 They included a lot of information that was used to  
17 basically write the laws for our state and other  
18 states. They also included follow-up research that  
19 was done on the same plots after 20 years and --  
20 20-plus years by several authors on several plots,  
21 and they still didn't see any result -- change in  
22 results except that they actually found that less  
23 soil than originally -- than the original studies  
24 showed as necessary, the follow-up study showed  
25 that less soil thickness was required to maximize

1 production.

2 Q. You're referring to the 2003 studies  
3 conducted by Merrill and others?

4 A. Those are one of the studies I'm referring  
5 to.

6 Q. You're not saying that the depth of the  
7 topsoil doesn't -- the depth of the topsoil does  
8 have an impact on productivity, though; right?

9 A. Yes. That's why it's required by law to  
10 salvage all topsoil and handle it separately, which  
11 is what we will do since we will comply with law.

12 Q. And so when you say that you're going to  
13 restore the productivity on the Voigt land, is it  
14 your testimony that you're going to do that  
15 specifically because you're going to comply with  
16 the rules and regulations of the PSC?

17 A. Can you restate? I'm not sure I  
18 understand what your question is. Or explain a  
19 little more.

20 Q. Do you believe that by complying with the  
21 rules and regulations of the PSC, you will  
22 necessarily restore the productivity of the Voigt  
23 land?

24 A. Absolutely, because the productivity  
25 standard -- and if you're only talking about

1 productivity, that's what I'm replying to -- the  
2 productivity standard is that the reclaimed land  
3 has to be as or more productive.

4 MR. BRAATEN: That's all I have right now.

5 JUDGE MANN: Ms. Jeffcoat-Sacco?

6 MS. JEFFCOAT-SACCO: Actually I am going  
7 to ask permission for Jim Deutsch to ask a question  
8 or two.

9 JUDGE MANN: Okay. Go ahead.

10 **EXAMINATION**

11 **BY MR. DEUTSCH:**

12 Q. I think just one unless there's followup.  
13 Earlier you discussed the alfalfa production on  
14 Casey's haylands, both uplands and some of the  
15 lowlands along Coyote Creek. I guess there's been  
16 a lot of discussion about that hayland along Coyote  
17 Creek, what's on the alluvial soils map. How much  
18 of that -- of Casey's hayland on the alluvial soils  
19 near Coyote Creek, how much of that will actually  
20 be disturbed by your proposed operations as  
21 depicted in NACC-1302?

22 A. None of it will. Our haul road will cross  
23 a hay yard near one field, but none of his hayland  
24 will actually be disturbed.

25 MR. DEUTSCH: Okay. That's all I had on

1 that.

2 JUDGE MANN: Commissioner Christmann?

3 COMMISSIONER CHRISTMANN: Thank you, Your  
4 Honor.

5 **EXAMINATION**

6 **BY COMMISSIONER CHRISTMANN:**

7 Q. Ms. Flath, this one doesn't really fit in  
8 with most of the rest of them, but I'm just going  
9 to get it out of the way. The first day, I believe  
10 you were here; right?

11 A. Yes.

12 Q. There was reference made to some of the  
13 producers who farm some of the reclaimed land. I  
14 don't know if they were mentioned by name, so I'm  
15 not going to mention since I think I know who they  
16 were talking about, but how do you respond to that,  
17 that you have one or more producers who are not  
18 thinking that the production is very good?

19 A. I can't testify at all to Falkirk because  
20 I don't have any experience with the Falkirk  
21 situation. I believe I'm familiar with the  
22 situation -- the one landowner that was named by  
23 Mr. Voigt. I wasn't involved with managing the  
24 reclaimed lands at that point. I could provide  
25 hearsay-type testimony repeating what others told

1 me. Would that be acceptable? I wasn't personally  
2 involved with it myself. I could speak -- I  
3 suppose I could speak from my experience when I was  
4 the one prior to that person being on reclaimed  
5 land.

6 Q. Whatever you think makes a good response,  
7 and specifically are the person or persons  
8 referenced farming land that has been bonded out or  
9 are they farming land that is in the process of  
10 proving itself and maybe just wouldn't even be  
11 expected to produce fully yet?

12 A. That would actually -- you're leading to  
13 what -- I think what would actually have been my  
14 point, is the producer that Mr. Voigt mentioned in  
15 his testimony was on new reclamation. To my  
16 knowledge, every year that he was farming he  
17 received some first-year reclamation. In other  
18 words, the first year after the soil was respread,  
19 he was farming the soil. And as mentioned in  
20 earlier testimony today, we wouldn't expect  
21 production to be maximized on reclaimed cropland on  
22 the first year. That's part of the reason why  
23 there is a ten-year liability period that the mine  
24 is required to manage and collect data before  
25 applying to bond release. I don't know of anyone

1 that operates on land that has been managed for its  
2 full ten years that has problems with production.  
3 I don't personally know of any issues or complaints  
4 on that mature land.

5 Q. What's the difference between an ecosite  
6 and the reference point?

7 A. An ecosite is used to describe an area of  
8 rangeland. It has a given soil texture, in other  
9 words, physical properties, landscape position, and  
10 characteristics. Also in the ecosite description,  
11 which was some of the information submitted as part  
12 of the exhibit, one of the reasons why that stack  
13 was so large is because I included the ecosite  
14 descriptions because I felt they were pertinent  
15 because we've been discussing it so much.

16 In that ecosite description it also  
17 includes what you would expect for species  
18 composition of that ecosite at climax condition,  
19 how it would change with management, the species  
20 makeup of the site, how you can change between the  
21 different -- the different stages of succession or  
22 with management of that site. There's a lot of  
23 really good information there.

24 Q. Okay.

25 A. So a reference area then, the sampling of

1 undisturbed rangeland is broken up to represent or  
2 weighted to represent those variable ecosites that  
3 are out there, and, similarly, the reference area  
4 also needs to represent the different dominant  
5 ecosites. To make sure that the reference areas  
6 are representing what, for example, Mr. Voigt would  
7 have, we have to make sure that we represent his  
8 three dominant ecosites.

9 Q. And you started with nine reference  
10 points, six of them have been kind of ruled out  
11 because they're going to be in the mine site so  
12 they're going to get disturbed, leaving three; is  
13 that correct?

14 A. Yes.

15 Q. But those aren't set in stone and that's  
16 something that still needs to be worked out with  
17 the Commission?

18 A. Correct.

19 Q. And Mr. Voigt can participate in helping  
20 make sure that he would agree that it's a fair  
21 representation of his property as a whole?

22 A. Absolutely.

23 Q. Can he get more?

24 A. More.

25 Q. More reference sites than the three.

1           A.     Yes.

2           Q.     I mean, how do you negotiate if he feels  
3           that the three that you're feeling are accurate and  
4           he feels it's a little off -- can you do a couple  
5           more?

6           A.     Yes, I would say that we could.  Each  
7           reference site we have to make sure is managed in a  
8           way that it won't change negatively the species  
9           composition of that site, and so we want several  
10          options to choose from for sites in case there are  
11          issues with some so we have sites on Casey's land,  
12          we have sites that are also on neighboring land.  
13          Management is somewhat similar between the Voigt  
14          land and the neighboring Unruh land.  It would be  
15          up to the Commission, and possibly Casey would have  
16          input, if sites on the Unruh land would be -- if he  
17          felt that they would be adequate for use.  But,  
18          yeah, we could select more.  At a certain point,  
19          kind of as Dave Bickel testified, more -- at a  
20          certain point we have what is necessary, but if  
21          Mr. Voigt had concerns, yeah, we'd take that into  
22          consideration and we could choose more.

23          Q.     Are you doing other reference points for  
24          the -- as I recall, there's primarily two  
25          operators --

1           A.     Correct.

2           Q.     -- in Coyote Creek.  Are you doing other  
3 reference points to compare that land reclamation  
4 to, or are these the three for the whole mine site?

5           A.     There are other sites, because when the  
6 sites -- the reference area sites were selected, we  
7 made sure that they represented the dominant  
8 ecosites on every single surface owner, including  
9 the surface owners that don't have a lot of surface  
10 area.  There are several smaller surface owners as  
11 well, although there are primarily two.  And the  
12 reference areas don't have to be unique for each  
13 landowner as long as the vegetation demonstrated  
14 through sampling is comparable on the two that we  
15 can show that they would be representative.

16          Q.     Okay.  Mark Anderson recommended requiring  
17 95 percent native grasses.  Refresh me on the  
18 discussion that we had, whichever day it was, about  
19 Kentucky bluegrass counting as a native, if it was  
20 there in some proportion or not and how that all  
21 works, and then also did you testify earlier that  
22 you do not seed any tame grasses like Kentucky  
23 blue, or is this one that you do introduce some?

24          A.     Kentucky bluegrass is not seeded.  We  
25 don't seed any intrusive species.  But it is

1 starting to be recognized by the community of  
2 researchers and people that manage reclaimed -- or  
3 excuse me -- not reclaimed, but native grasslands  
4 that Kentucky bluegrass can be found throughout  
5 this region on undisturbed native tracts, and it's  
6 referred to by some scientists as becoming  
7 naturalized; in other words, it's so ubiquitous  
8 that even a healthy, desirable functioning plant  
9 community often has a small component of Kentucky  
10 bluegrass present.

11 I believe that type of thinking is what  
12 led to it being added to the standards to allow a  
13 certain percentage of Kentucky bluegrass, and the  
14 PSC staff would be better equipped to speak to  
15 that. But because of this naturalization of native  
16 -- or of Kentucky bluegrass, it's -- that is why if  
17 the reference area has it and that represents the  
18 premine condition of the native grassland that a  
19 similar amount would be an allowed postmine and  
20 considered naturalized or native.

21 Q. But you're not going to seed any?

22 A. No. No. That's one of the species we're  
23 going to be managing to try to minimize and  
24 control.

25 Q. In Coyote Creek Exhibit 6, like the third

1 and fourth pages in are these diagrams with the  
2 yellow.

3 A. Yes.

4 Q. The first sampling here shows 3 percent  
5 Kentucky bluegrass, the second one shows 52 -- 62  
6 percent Kentucky bluegrass. So in that case what  
7 you're saying -- am I understanding correctly that  
8 you will seed none, but if everything else met all  
9 the standards and there were some percentage of  
10 Kentucky bluegrass that did come back on its own up  
11 to 35 percent, you could get approval, you would  
12 meet PSC standards, but you could not exceed 35  
13 percent even though it starts out with way more  
14 than that?

15 A. Generally speaking, I would say yes, but I  
16 need to throw in a few caveats to that. The 35  
17 percent would include all non-native -- or all  
18 species that aren't native grasses, including  
19 native forbs, so it could be native forbs, shrubs,  
20 anything that volunteers that may or may not be  
21 desirable that isn't a native grass.

22 But, yes, if there was Kentucky bluegrass  
23 and it was evaluated that it also -- the other  
24 criteria that seems like keeps getting overlooked  
25 is in the standards it says that the introduced

1 species can't have a negative impact on the use of  
2 the land. And so if the Commission felt that  
3 Kentucky bluegrass at such high of a percentage  
4 didn't hurt the native grassland, technically it  
5 would be allowed. But that is something that would  
6 have been weighed and considered, and I would guess  
7 that it wouldn't be something that would be viewed  
8 positively.

9 Q. So when you evaluate, when you did these  
10 points -- or Mr. Krabbenhoft did, and when we  
11 evaluate your reclamation years down the road, how  
12 many samplings do we take on a section of land and  
13 how big are the sample sizes?

14 A. You're talking for the bond release  
15 applications?

16 Q. As well as the premine tests.

17 A. Each one of these sheets represents one of  
18 the sample sites that was taken prior to mining. I  
19 believe there's 33 total, although a person would  
20 have to count to make sure.

21 Q. On 8,100 acres?

22 A. Yes.

23 Q. Okay.

24 A. And those were selected by Mr. Krabbenhoft  
25 after extensive time on the ground to represent

1     what was present prior to mining. His background,  
2     his experience is that he had been a consultant --  
3     or he had been hired by the NRCS to use this same  
4     methodology in their assessments. And using the  
5     NRCS methodology is the standard of being adequate  
6     or not. I would testify that he's very well  
7     trained and technically savvy on this method to  
8     describe a site.

9             On the reclaimed side of things we haven't  
10     -- for Coyote Creek Mine we haven't designed our  
11     sampling method for reclaimed lands, but I can  
12     testify to what was done at Coteau.

13             There, I believe, on a pasture -- and  
14     pastures, I think, are typically maybe a quarter to  
15     a half section in size, and on those for  
16     production, I believe 15 to 20 frames are clipped,  
17     and that's a quarter meter frame and that's where  
18     the samples are weighed and that's part of the data  
19     collected. And then there's also what we call  
20     cover data that assesses the basal cover, and that  
21     information is used to assess the seasonality and  
22     diversity typically. Production or cover could be  
23     used, but cover is often what is done. And there,  
24     I believe, oftentimes there's a couple hundred  
25     sample points were taken for that.

1           Q.     Okay.  Now, I'm going back to these same  
2     two -- it just intrigued me that they're so much  
3     different insofar as Kentucky bluegrass that was  
4     discussed so heavily the other day.  So if this  
5     were two different parcels of reclaimed land that  
6     you're looking at getting bond release on, and so  
7     one of them is at 62 percent and one is at 3  
8     percent, on average you're under 35 percent.  Would  
9     that be okay, you could bond both of those out, or  
10    would one be bonded out and one rejected?

11          A.     If they were in the same pasture and they  
12    were different samples within that pasture and one  
13    sample happened to be on a patch of 62 percent  
14    Kentucky, but overall the whole pasture averaged  
15    fine, yes, it could be bond released.  But the same  
16    could be said for premine land.  I could go out  
17    onto some of the premine land at Coyote Creek Mine  
18    and find almost a hundred percent pure stand of  
19    smooth brome.  That doesn't mean the average of  
20    that landowner is a hundred percent smooth brome.  
21    That's one sample point within that site.

22          Q.     Yeah.  I was talking about different  
23    pastures more than --

24          A.     Okay.  If they're two different tracts,  
25    no, each tract has to stand alone on bond release.

1 Q. Did you say you seed nine different native  
2 species?

3 A. Yes.

4 Q. Or it's your intention to?

5 A. Yes.

6 Q. And are those mostly -- I would assume  
7 that that's some of these that are found in these  
8 lists other than the Kentucky bluegrass?

9 A. Yes, the dominant species of our seed mix  
10 is similar to those found on the Voigt ranch  
11 premining with the exceptions being that we don't  
12 seed needle-and-thread or porcupine grass, which  
13 are two species that are often prevalent on the  
14 Voigt ranch, and that's because both of those  
15 species have sharp seeds that can puncture and  
16 injure livestock and make livestock avoid grazing  
17 them and cause issues, so those weren't ones that  
18 we selected as being desirable for the postmine use  
19 of grazing.

20 Q. And the reason for nine is to get a  
21 diverse mix so that there's as good of production  
22 as possible in different seasons and different  
23 conditions?

24 A. Correct. We are trying to -- the goal is  
25 to have high production, also high diversity, and

1 to have not just a cool season species component,  
2 because one of the concerns, I think, with  
3 introduced species is that because they do most of  
4 their active growing during the -- early in the  
5 year when it's cool, they lose their nutrient value  
6 later in the year.

7 We target our seed mix to make sure  
8 that -- when you hear seasonality standard, that's  
9 what that is referring to, that there has to be  
10 species that do their active growing early in the  
11 season and late in the season, and that's what  
12 helps protect the quality of the forage -- that  
13 standard.

14 Q. And did I understand right a couple days  
15 ago that of those nine, we require four of them to  
16 be 5 percent or more of the --

17 A. By production.

18 Q. Total mix?

19 A. Correct.

20 Q. As I paged through some of these -- I've  
21 only gone through about five or six of them, but I  
22 only see a couple that would meet that. I wasn't  
23 looking at Kentucky blue. I don't know if I was  
24 counting that. So is that one of the things that  
25 when people talk about is good or better, that

1 potentially the better is that there would be more  
2 native species of significant amounts?

3 A. Correct. That is one of the issues or one  
4 of the things that that measurement would be  
5 stating.

6 Q. Be patient here. Mr. Steffen pushed a lot  
7 of questions off on you.

8 I discussed last week with Mr. Anderson  
9 the concept of averaging the soil suitable for  
10 plant growth as opposed to having some areas where  
11 there's more and some areas where there's less and  
12 so conceivably if those plants wanted to really go  
13 down, there would be some places where they could.  
14 Do you do your best to keep this as even as  
15 possible when you reclaim it, or do you attempt to  
16 diversify that as well?

17 A. By -- our respread depths are really  
18 dictated by regulation or by law. We take samples  
19 of the spoil and whatever that quality dictates is  
20 what we respread. So if it requires deep respread,  
21 that's what we have to put back. And we're  
22 projecting that most of the areas on the Voigt  
23 ranch will require the full 48 inches.

24 Q. And did you say that the average now is  
25 less in the areas you've sampled?

1           A.     Correct.   The average now is 32 inches.

2           Q.     And where do you get the soil to make up  
3 for that?

4           A.     We have in addition to the soil survey,  
5 which profiles and maps the soil in the top five  
6 feet -- because we identified that there would be a  
7 shortage of soil, in other words, most areas are  
8 going to require 48 inches based on law, but the  
9 Voigt surface only has an average of 32 inches, we  
10 have to make up the difference somehow, and so we  
11 are doing what is called the deep lift survey.  
12 Borings are taken or an auger is used to take soil  
13 material going down to 120 inches, or ten feet, to  
14 identify other material that meets subsoil  
15 criteria, so it's also suitable for plant growth.

16          Q.     I think it was Mr. Anderson talked about  
17 noxious weeds, and you have this land in a state of  
18 disturbance for a number of years, and I understand  
19 how you can be spraying during that time, spraying  
20 your topsoil piles and things like that, but then  
21 when you start reclaiming it before the grass  
22 really thickens and during the subsequent years  
23 waiting for bond removal -- bond release, how do  
24 you control the noxious weeds?

25          A.     Spraying is the primary method.   I believe

1 he also told the story about pulling out weeds by  
2 hand, and I know that's been done at Coteau as  
3 well. It's something that the employees of the  
4 mine are definitely going to be watching. It's  
5 also something that the Public Service Commission,  
6 the reclamation staff when they come out for their  
7 inspections, also is watching and monitoring for,  
8 and they also make sure that we're addressing the  
9 control of those noxious weeds.

10 When we seed our -- reseed our native  
11 grasslands, when we seed them, we often include a  
12 cover crop and that's to help make sure that there  
13 aren't a lot of bare areas that are easy or  
14 susceptible to colonization by noxious weeds.

15 Q. Mr. Merrill's testimony talked about a  
16 whole bunch of recommendations that he had for  
17 reclamation, topographic reconnaissance for one or  
18 two years, tests to check for compaction, resurvey  
19 three to four years after soil is laid down,  
20 four-foot borings to examine compaction, check for  
21 salinity and acidity. And I don't mean to  
22 completely speak for him. I'm rephrasing as well  
23 as I could take notes. My point here is you heard  
24 that as well. Do you -- he went on to say that  
25 following his recommendations would bring the

1 reclamation program up to the standards of modern  
2 agriculture. Do you have differences of opinion  
3 with his ideas on these strategies or do you agree,  
4 or what are your thoughts on those?

5 A. I believe -- and this, again, I'm going to  
6 paraphrase or restate my understanding of Dr.  
7 Merrill's testimony. When asked the purpose of all  
8 of these tests that he recommended, it was because  
9 he thought then that the land could be managed, you  
10 could identify different management practices that  
11 could then maybe be used. In other words, we do  
12 all these tests, then what do we do with it?

13 And some of -- I believe the two  
14 management practices he mentioned that I remembered  
15 were deep tilling and planting deep-rooted crops to  
16 help with compaction. And also the perennial  
17 deep-rooted crops would also assist, and this is  
18 coming from myself. In the organic matter they  
19 would improve the soil structure and the  
20 infiltration and overall soil health.

21 And mines owned by North American Coal are  
22 already using those practices. So I would agree  
23 with his recommendations in that sense that what  
24 should we be doing on reclaimed land if there's  
25 problems. If there's areas that are identified as

1 areas that might have issues with compaction, let's  
2 try deep tilling or possibly plant a perennial, on  
3 cropland this would be, because native grass  
4 already has perennial, deep-rooted species planted  
5 on there. Reclaimed cropland, then possibly let's  
6 look at using deep-rooted either an annual cover  
7 crop mix or a perennial hayland mix for a few years  
8 to restore the soil.

9 Is there any further information you're  
10 wondering on that?

11 Q. Well, to sum it up, my understanding was  
12 that he just came up with these ideas in, I think  
13 he said, October at a conference that he attended,  
14 but you're saying that several of the practices  
15 that he was recommending are already being  
16 incorporated?

17 A. Correct. They are being incorporated at  
18 current operations, and Coyote Creek Mine intends  
19 to use them as well as management tools.

20 Q. And so do you agree with him that if the  
21 problems are detected at the three- to four-year  
22 stage, management can be changed to improve soil  
23 health?

24 A. Absolutely.

25 Q. On the first day we were told that once

1 the topsoil and subsoil is replaced, there's really  
2 nothing more than can be done if there's problems.  
3 So are you and would you say that Mr. Merrill are  
4 contradicting that?

5 A. I believe that that really lays the  
6 groundwork for revegetation success, but there's a  
7 lot of follow-up management that can be done. The  
8 biological component is important, and those  
9 management tools can be used to -- as part of that  
10 biological tool kit.

11 COMMISSIONER CHRISTMANN: I think, Your  
12 Honor, I've gone through all my questions.

13 JUDGE MANN: Okay. Commissioner  
14 Fedorchak?

15 **EXAMINATION**

16 **BY COMMISSIONER FEDORCHAK:**

17 Q. I'll start up right with that then, on the  
18 biological components, because there was a lot of  
19 talk about that and viewing soil as a system. Can  
20 you tell me, how is that different from how you are  
21 viewing it and managing it today?

22 A. I view soil -- a little bit of the theory  
23 regarding reclamation a little bit, the theory of  
24 if you build it, they will come. If you put the  
25 soil resources back, the biological component, if

1 managed correctly, will come back as well. By  
2 managed correctly, I mean if we seed the native  
3 species shown in our seed mix, if we put back those  
4 components of the ecosystem, the biological part of  
5 the soil will follow as well.

6 At professional meetings on reclamation,  
7 some research has been done on the soil microbes on  
8 the living portion of the soil and they show that  
9 that increases with time. There hasn't been a long  
10 history of that research so I can't put specifics  
11 to that, but I haven't seen a study yet that hasn't  
12 said that they increased -- the trend increases  
13 with time as the reclamation matures.

14 Q. How else do you change the biological  
15 components other than through revegetation and the  
16 practices you're already doing?

17 A. The species seeded matter, the management  
18 of the species. Since we're talking about  
19 reclaimed native grasslands primarily, since that's  
20 the resource that Casey has the most of, one of the  
21 key managements of that resource will be proper  
22 grazing of that resource, because that will affect  
23 the species composition, how the species changes  
24 over time, the amount of organic matter that is  
25 left that will be incorporated into the soil. The

1 slope of the reclaimed land is important because  
2 soil or water infiltration, we won't have extremely  
3 steep slopes present. That will lead to  
4 infiltration, and water also will help with the  
5 freeze-thaw cycle to help break up if there are  
6 compaction issues and also help with the growth and  
7 rooting of those plants. And all this leads to a  
8 stable functioning ecosystem eventually.

9 Q. And I asked those experts a lot about how  
10 you measure that. I want to ask you too. What is  
11 the best measurement of soil health?

12 A. My opinion is productivity really does a  
13 good job of that because -- and along with the  
14 other standards when we're dealing with native  
15 grassland of seasonality and diversity, because you  
16 might have one year, all conditions being great,  
17 that you can get productivity on an unhealthy soil  
18 if you get enough moisture and all the conditions  
19 are just right, but you won't have a productive,  
20 healthy stand of reclaimed native grassland with  
21 poor soil health.

22 Q. Are there other ways you're aware of  
23 through your meetings and interaction with other  
24 soil professionals that you could use to measure  
25 other than productivity?

1           A.     Some of the suggestions that Dr. Merrill  
2     made, they could be done. I didn't hear in any of  
3     his testimony anything that changed my mind,  
4     though, as far as productivity and the other  
5     standards missing the boat on not adequately  
6     measuring the success of the reclamation.

7           Q.     My recollection was his -- he ultimately  
8     said that productivity was kind of the gold  
9     standard for measuring the soil health ultimately,  
10    but I'd have to revisit the record for that to be  
11    sure. Let's see here.

12                   Talking about Mr. Anderson's testimony, he  
13    talked a lot about the soil depth, and you've kind  
14    of covered that so I understand your thoughts on  
15    that, but he talked also about diversity. You and  
16    Commissioner Christmann talked a bit about the  
17    diversity. Help me summarize. I'm hearing you say  
18    that the diversity might be improved over what it  
19    is today; is that correct?

20           A.     The -- it depends on your interpretation  
21    or how you measure diversity. There are different  
22    ways. When you look at the sampling results and  
23    count the total number of species present, I don't  
24    know that -- I honestly can't say if we will or we  
25    won't, if you just do there's 14 present premine,

1 will there be 14 present postmine. Because in  
2 addition to the 12 species that we are seeding, a  
3 majority of our land will also be reclaimed using  
4 direct respread methods, so there will be this seed  
5 bank that I mentioned before of these seeds in the  
6 soil that come back. And we've seen on reclaimed  
7 mine lands before under direct respread conditions  
8 a lot of those native species come back. So I'm  
9 not sure if the same number will be there or not.

10 What the diversity standard ensures and  
11 the seasonality standard ensures that we have right  
12 now is that not only will there be a fairly large  
13 number of species of present, but you can't have  
14 one or two species that make up most of the  
15 composition. You have to have four present in a  
16 significant amount.

17 Q. So the diversity might be less on some  
18 areas where there was, say, 14 different grasses,  
19 and it might be less than that, but the mix of the  
20 cool versus warm might be stronger and it might  
21 produce better health overall, is what I'm hearing?

22 A. We're talking a lot of mights, but based  
23 on what I've seen on other reclaimed lands, I would  
24 say the composition of the number of species that  
25 are present in a significant amount will likely

1       increase.

2                   To use a specific example, if we flip  
3 through the sampling results, a lot of those sites  
4 only have two or three species present. Probably  
5 on average there's only three species present that  
6 are present with 5 percent composition, or four.  
7 The minimum standard on reclaimed land is four, so  
8 right there that tells you that that measurement of  
9 diversity we have to improve upon. I honestly  
10 can't speculate as to the total number. That may  
11 go up, it may go down. That's something I've never  
12 measured or tracked myself.

13           Q.     Okay. Agreeing that we're talking might,   
14 what's your commitment on diversity?

15           A.     My commitment is to follow all of the  
16 standards and all of the requirements by law.

17           Q.     And then in your testimony you talked,  
18 kind of towards the end of your discussion with  
19 Mr. Bjella, about a quantity and a quality  
20 measurement. Can you restate what it was you said  
21 because I didn't have a chance to get that?

22           A.     Yeah. I was trying to -- because the  
23 revegetation success standards are pretty  
24 complicated, they're hard to just sit down and  
25 explain, but my basic layman version of what

1 they're trying to assure is that the production and  
2 cover component of the standards, the intent is --  
3 or they assure that the productivity will be  
4 reestablished, and the seasonality and diversity  
5 would address the quality of the forage.

6 COMMISSIONER FEDORCHAK: Okay. That's all  
7 for me. Thank you.

8 JUDGE MANN: Commissioner Kalk?

9 COMMISSIONER KALK: Thank you, Your Honor.

10 **EXAMINATION**

11 **BY COMMISSIONER KALK:**

12 Q. Thank you, Sarah, for your testimony. We  
13 spend a lot of time in hearings talking about power  
14 lines and those kinds of things, which are  
15 important, but I like the good natural resources  
16 discussion. It's good education for everyone and  
17 updates and all that.

18 I just have a couple general questions.  
19 How do you classify the difference between native  
20 grassland and rangeland? I noticed that in the  
21 Indian Head Mine exhibit we break it down cropland,  
22 native grassland and hayland. In Coteau we have it  
23 broken down cropland, rangeland and hayland. I  
24 have in my mind what the difference is. I'm just  
25 curious what you think it would be.

1           A.    We actually use the terms interchangeably.

2           Q.    Okay.

3           A.    Rangeland is a more common term, but all  
4 of the standards refer to native grassland.

5           Q.    That's what I thought, but I wanted to  
6 clarify that up. Okay. So that's pretty clear.

7                   And maybe just to summarize some points  
8 that I thought I heard you say in other questions  
9 is that there's a commitment that you're going to  
10 replace 48 inches of what I would consider good,  
11 fertile soil even though in some of those areas now  
12 there's 36 inches?

13          A.    We aren't committing to 48 inches  
14 everywhere, but we will -- we are committing to  
15 replace what the soil quality dictates. We're  
16 projecting based on our sampling prior to mining  
17 that it will likely be 48 inches in many areas --  
18 in most areas.

19          Q.    Sure. And as you get to a hillside, it's  
20 going to be less than it would be in the bottom, so  
21 you'll contour all that out, put it right back the  
22 same way it was. Do you have just a gut feeling  
23 why there seems to be so much concern that you're  
24 not going to do that in this permit and where  
25 you've done it in the past?

1           A.    I would be speculating as to Mr. Voigt's  
2 personal feelings.  What I have seen, though, is  
3 that --

4           Q.    Is there something different about the  
5 land profile here or something that we're missing?

6           A.    I think one of the unique things is that  
7 in many other permit areas there's a lot of  
8 cropland present and that's not so much of a  
9 long-term -- or a result of long-term management  
10 strategies and just the management is different.  
11 This permit there's a small number of owners that  
12 take great pride, and rightly so, in their land and  
13 they worked very hard to develop this resource that  
14 they have right now.

15          Q.    And maybe the high percentage of  
16 rangeland/native grassland may be different in this  
17 than in other areas?

18          A.    I think that's the primary reason.

19          Q.    And just the last point.  You said -- I  
20 guess two last points.  You made a comment that you  
21 will be removing some of the plant mix which  
22 perhaps isn't good for grazing right now.  Did I  
23 understand that correct?

24          A.    There's two species that we aren't going  
25 to reseed.  Some will likely occur because of

1 direct respread, but we aren't going to seed it on  
2 purpose.

3 Q. Okay. So you should be improving the  
4 quality of food mix, if you will, for the cattle by  
5 this?

6 A. That's the intention.

7 Q. And then earlier in the hearings there was  
8 some questioning about the current mix of  
9 vegetation doesn't even meet the reclaimed  
10 standards, something to that effect. Do you recall  
11 that line of discussion and questioning?

12 A. Yes.

13 Q. Could you walk me through that again?

14 A. Of the nine sites that were sampled on the  
15 Voigt deeded land, only three meet the current  
16 reclamation standards. And the main reason was,  
17 like we had discussed, that often these sites,  
18 there might be a large number of total species  
19 present, but many contribute just a very small  
20 percentage of the total composition.

21 Q. So do you have any reason to have concern  
22 that if you follow everything the way you plan to  
23 do it, that you won't exceed -- you won't meet  
24 and/or exceed the requirements that you're saying  
25 you're going to do?



1 and what we want to see present, but if you were to  
2 just look at strictly on the percentage of what  
3 we're seeding, you wouldn't be able to probably  
4 ascertain what that goal is. It's because some  
5 species are very hard to reestablish and the  
6 success rate of how much you seed versus how much  
7 you get was taken into consideration. And that was  
8 based on input I received from the sources I cited  
9 in my testimony.

10 I went out and I got -- requested  
11 information from the local NRCS office, I talked to  
12 a person that's oftentimes cited in our state as  
13 being the expert at the ARS station plant material  
14 center on revegetation or restoring native  
15 grasslands, so I also considered his input on what  
16 the species should be and the composition of that  
17 mix as well.

18 Q. Are there four or maybe five or six of  
19 them that you primarily want to emphasize, that are  
20 the ones you're shooting to get the 5 percent or  
21 more on, or if you had a perfect catch, would they  
22 each be 11 percent?

23 A. I would say that that's going to vary by  
24 site, because some are more adapted to the wet, low  
25 areas, some do better on the hilltops. It will

1 depend somewhat on soil texture as well. So we  
2 seed these, and then to a certain extent Mother  
3 Nature will dictate which species will be able to  
4 out-compete the others.

5 With that said, we still have to meet the  
6 diversity requirements, so the same four won't, and  
7 shouldn't be, dominant on every single reclaimed  
8 site, but we would need four everywhere that were  
9 present, 5 percent by production.

10 Q. And the specific nine, they're part of the  
11 mine plan that's part of the record?

12 A. Correct. That's part of the permit,  
13 Section 4.2.2.

14 COMMISSIONER CHRISTMANN: No other  
15 questions. Thank you, Your Honor.

16 JUDGE MANN: Commissioner Fedorchak?

17 COMMISSIONER FEDORCHAK: No questions.

18 JUDGE MANN: Commissioner Kalk?

19 COMMISSIONER KALK: Just one, Your Honor.

20 **FURTHER EXAMINATION**

21 **BY COMMISSIONER KALK:**

22 Q. I believe I have an answer that I think in  
23 my mind is correct, but I want to see what your  
24 thoughts are.

25 Where would you classify a field of

1 alfalfa? Would that be cropland, would that be  
2 rangeland, or would that be hayland?

3 A. That is hayland.

4 Q. No question about it?

5 A. Yes.

6 COMMISSIONER KALK: Okay. Thank you.

7 JUDGE MANN: Mr. Bjella, anything further?

8 MR. BJELLA: No, Your Honor.

9 JUDGE MANN: Thank you. You can step  
10 down.

11 MR. BJELLA: That concludes our case, Your  
12 Honor.

13 JUDGE MANN: Okay. I think we'll break  
14 for about ten minutes before advisory staff  
15 presents its case.

16 (Recess taken at 3:35 p.m. to 3:48 p.m.)

17 JUDGE MANN: We are now back on the  
18 record. Ms. Jeffcoat-Sacco, are you ready to  
19 proceed?

20 MS. JEFFCOAT-SACCO: Yes, we are. A  
21 couple preliminary things.

22 JUDGE MANN: Okay.

23 MS. JEFFCOAT-SACCO: Commissioners did ask  
24 for kind of an overview of our witnesses. We're  
25 planning on calling three witnesses in this order:

1 Bruce Beechie to address the alluvial valley floor  
2 issue, Dean Moos to address soil issues, and Jim  
3 Deutsch to address coal mining and permitting  
4 program in general and the requirements and  
5 standards. Jim also will have the two spreadsheets  
6 that people have alluded to a time or two in the  
7 last three days of hearing.

8 I do want to mention that we don't have an  
9 Exhibit 1 and 2 because they were going to be the  
10 same exhibit that, I think, is Coyote 10.

11 Exhibits 3, 4, and 6 I passed out during  
12 the break. They are the resumes of Bruce Beechie,  
13 Dean Moos, and Jim Deutsch. They were stipulated  
14 to by the parties via email, and so I would like to  
15 get those admitted.

16 The parties also at my -- responded to my  
17 request that they stipulate to the expertise of  
18 expert witnesses for those three gentlemen, for  
19 Bruce Beechie in hydrology and geology and  
20 hydrologic impact assessments of mining and AVF  
21 status determinations; for Dean Moos, soil science,  
22 soil mapping, classification, interpretation and  
23 management and soil reclamation; and for Jim, coal  
24 mining and reclamation, program implementation and  
25 administration.



1           A.     Bruce Beechie.  Excuse me.  By the way,  
2     I'm losing my voice.  I've been sick for about a  
3     week, but I'm going to do the best I can, folks.  
4     Bruce Beechie, spelled B-e-e-c-h-i-e.  Address is  
5     1401 16th Street Southeast in Mandan, 58554.  Work  
6     for the Public Service Commission.

7           Q.     Thank you.  Your resume has been admitted.  
8     Would you please summarize your qualifications and  
9     experience as it relates to the issues in this  
10    hearing?

11          A.     I've been -- worked as a geologist and  
12    hydrologist for the Reclamation Division for the  
13    past eight years.  And prior to that, 20 or 22  
14    years prior to that, worked as a geologist and  
15    project manager for their abandoned mine lands  
16    program, also with the Public Service Commission,  
17    and worked on all aspects of geology and hydrology  
18    involving the abandoned land mines projects, for me  
19    in particular working with reclamation of abandoned  
20    underground coal mines, essentially by pressure  
21    route injection projects, across North Dakota.

22          Q.     And have you also worked on surface mining  
23    permits regarding the hydrology and the  
24    determination of alluvial valley floor?

25          A.     I do.  That's what I've been doing

1 currently, and which includes all aspects of  
2 geology and hydrology with mining permits,  
3 including postmining hydrologic assessments, the  
4 permit applications, bond release applications, and  
5 I respond to water supply complaints, occasional  
6 complaints from landowners, and basically anything  
7 geology and hydrology related for the Reclamation  
8 Division.

9 Q. And did you work on the alluvial valley  
10 floor filings that preceded the permit filing for  
11 the case at issue?

12 A. I did.

13 Q. Can you tell me in your own words what  
14 that involved and how -- what process you used and  
15 what your conclusions were?

16 A. And I know this has been mentioned a few  
17 times, but alluvial valley floor determination is a  
18 premine application. Before a mining company can  
19 submit a permit application, they need to -- they  
20 need to supply us with a study regarding potential  
21 alluvial valley floor status, if there's stream  
22 channels either within or adjacent to the proposed  
23 permit area.

24 And so these folks -- sometimes it's the  
25 mine personnel themselves. Other times it's a

1 consultant. There's a significant amount of data  
2 that they need to generate or obtain. This data  
3 mostly deals with soils and vegetation, some  
4 geology, hydrology and geomorphic information.

5 So basically they provide a report to us,  
6 we review this report, and usually the next course  
7 of business is for us to go out and do a field  
8 investigation. And when we go out and do these  
9 field investigations, which we did for the Voigt  
10 property, this would have been DWC Revision 22, the  
11 KRSB-8603, which would be the AVF area in question  
12 for this particular -- Dr. Bickel spoke about --  
13 actually there's two AVF reports and determinations  
14 within this permit area, but I think the biggest  
15 one with the complainants that they're concerned  
16 about is the DWC-Revision 22 report and  
17 investigation.

18 So for this particular -- we received a  
19 report and then there was four of us from the PSC  
20 that went out and did an investigation. We  
21 typically do this. Amongst those was myself, Dean  
22 Moos, Guy Welch from the PSC, and also Bill  
23 Gunnerson. Dean and Bill Gunnerson are both soil  
24 scientists. Guy Welch is a vegetation expert, and  
25 geology and hydrology on my part. So when we go

1 out and do these investigations, we do everything  
2 we can to cover all of the components of a  
3 potential AVF, and based on that and our review of  
4 the data provided by either the coal mining company  
5 or the consultant, we make a determination on AVF  
6 status.

7 Q. And what was your determination in this  
8 case?

9 A. Our determination in this case is that  
10 there was not AVF.

11 Q. That's consistent with the testimony you  
12 heard today from Dr. Bickel, is it not?

13 A. Yes, it is.

14 MS. JEFFCOAT-SACCO: I have no further  
15 questions.

16 JUDGE MANN: Mr. Braaten?

17 MR. BRAATEN: Yes, Your Honor.

18 **EXAMINATION**

19 **BY MR. BRAATEN:**

20 Q. Mr. Beechie, with respect to Section 21,  
21 which has been the subject of a lot of conversation  
22 and is the section that contains Mr. Voigt's  
23 alfalfa fields, what study was conducted to  
24 determine whether or not that area contained AVF?

25 A. Did you say Section 21 or 31?

1 Q. I meant 31.

2 A. I believe it's 31. We concentrated on the  
3 big cropland tract that's located in the south half  
4 of Section 19 and the north half of Section 30.  
5 There's a large hundred-acre tract and then there's  
6 a couple of smaller tracts on the north side -- or  
7 northeast side of the creek. And what we did  
8 was -- I think the first thing we did is dug some  
9 holes, at least a half a dozen holes to about a  
10 foot and a half depth. And the reason that we did  
11 that was to try and determine, number one, what the  
12 soils are of the area, and there's definite soil  
13 types associated with floodplain and terrace  
14 systems. And what we figure out there is that  
15 according to our soil scientist is that Straw loam  
16 and Shambo loam were the two soil series  
17 represented. They are not subirrigated soils.

18 Another thing we are looking for in the  
19 soils investigation part of it was a condition  
20 called redoximorphic conditions, also known as  
21 mottling, basically iron oxide content in the soil  
22 or the soil horizon from intermittent flooding and  
23 drying out, which is also a condition associated --  
24 which would be a condition associated with  
25 subirrigation.

1 Q. And right now you're talking about the  
2 field study you did; right?

3 A. That's correct.

4 Q. Okay. And that was a part of a larger  
5 study; right? Let me ask a different question.  
6 That field study was associated with the Dakota  
7 Westmoreland Company Revision 22 AVF report?

8 A. Yep. And we also did a field  
9 investigation for the Coyote Creek AVF report and  
10 areas as well too. Two different reports, two  
11 different inspections.

12 Q. Okay. And the inspection you just  
13 described was related to the Dakota Westmoreland  
14 Company report?

15 A. Yes.

16 Q. Okay. And that occurred in 2009?

17 A. Yes.

18 Q. And so you're saying you did a field  
19 investigation with respect to the Coyote Creek Mine  
20 AVF determination?

21 A. More recently, yes.

22 Q. And when did that occur?

23 A. That was prior to the permit submittal.  
24 Mr. Braaten, did you want to know the date of the  
25 report submittal or our inspection?

1 Q. Your inspection.

2 A. I don't have that with me right now. I --

3 Q. Do you know generally just in the last  
4 year what time of year?

5 A. It would have been probably a good year or  
6 year and a half ago, would be my best -- probably  
7 more than a year, year and a half ago or so at  
8 least.

9 Q. Do you know who was present for that field  
10 investigation?

11 A. It was myself for sure. I know Randy  
12 Kowalski from our staff was there. I think Bill  
13 Gunnerson was also on that first -- the three of us  
14 for sure.

15 Q. And this investigation was specifically  
16 for the Coyote Creek mining permit we're here  
17 talking about today; right?

18 A. That's correct.

19 Q. And do you recall what sections of land or  
20 what areas you conducted the investigation on?

21 A. We generally tried to key in on areas that  
22 we think that are the best-looking spots for what  
23 we would consider to be subirrigation. We look for  
24 the best spots. And I know we generate a report  
25 from that inspection also, a copy I'm sure which we

1 can give you. But at least six or seven stops to  
2 the north -- mostly to the north and to the south.  
3 Several of the stops were along Knife River and  
4 confluences of the tributary drainages to the Knife  
5 River, as well as down south where Beaver Creek  
6 dumps into Coyote Creek.

7 Q. So was any of that investigation conducted  
8 along Coyote Creek itself?

9 A. Not much of it. A little bit down south  
10 and a little bit to the north.

11 Q. And can you just describe for us what you  
12 did during that investigation?

13 A. During that particular investigation we --  
14 before we went on the investigation, we had chosen  
15 a handful of different spots that we definitely and  
16 absolutely wanted to take a look at, and that's  
17 what we did. We -- when we do these  
18 investigations, we allow either the mining company  
19 or the consultant who put their report together --  
20 we allow them to come with, which is also what we  
21 did at the DWC -- during the DWC field  
22 investigation, and I believe Dr. Bickel was along  
23 on that one. And Dr. Bickel, myself, Randy  
24 Kowalski, Bill Gunnerson, to the best of my  
25 ability.

1           To answer your question more directly, at  
2           least a half a dozen spots that we stopped, checked  
3           out stream channels, vegetation, any cropland  
4           growing, any evidence of subirrigation, if there is  
5           any, and took lots of -- probably a hundred  
6           photographs, and, similar to the DWC AVF report, we  
7           write an inspection report based on our findings.

8           Q.     Did you take any soil samples during that  
9           investigation?

10          A.     I don't think we did on that one. I would  
11          have to look back at the report. I haven't looked  
12          at that, so --

13          Q.     Do you have Exhibit No. 13 in front of you  
14          up there? It's the David Bickel report.

15          A.     Yes, I do.

16          Q.     I'm going to have you turn to Exhibit C.

17          A.     The report I've got is just one. That's  
18          my own copy. I don't have -- I don't think I have  
19          any of the exhibits included in this.

20          Q.     Thank you.

21          A.     Yes, sir.

22          Q.     And what I'd like is just to see if you're  
23          able to be a little bit more specific by pointing  
24          to specific sections here. If you can tell us the  
25          more recent field investigation with respect to the

1 Coyote Creek mine application -- if you could point  
2 out on here what sections you were in when you were  
3 doing the field investigation.

4 A. I'm going to start down south, and it  
5 doesn't really say it, but Beaver Creek dumps into  
6 Antelope Creek way down in the Northeast Quarter of  
7 Section 7.

8 Q. Okay.

9 A. And most of the other stops were to the  
10 west and northwest. You can see some areas of  
11 cropland, some strip cropping there that jumps out  
12 just to the west of the black line at the northwest  
13 corner of the map.

14 Q. Okay. So we're up in Township --

15 A. I'm sorry. It's along the Knife River.

16 Q. And the cropland you're referring to is?

17 A. In Section 16 and the East Half of Section  
18 21.

19 Q. Okay.

20 A. Those couple of areas there. I know  
21 there's a couple of other spots. There was --  
22 continuing around to the west there was at least  
23 three more stops where Brush Creek dumps into the  
24 Knife River. I know there was one stop to the  
25 north and northwest of the Coyote Station power

1 plant, also a valley floor but not an alluvial  
2 valley floor in the SMCRA terms. But -- so at  
3 least three or four or five or six spots up along  
4 that north and west sides of that study area.

5 Q. So the last few spots you talked about  
6 were to the north-northwest of the stripes of  
7 cropland in Section 16 and 17?

8 A. Yes.

9 Q. And I apologize, but did you say you did  
10 not take any soil samples during this field  
11 investigation?

12 A. I don't think we did.

13 Q. In going back to the 2009 field  
14 investigation for Dakota Westmoreland, you took  
15 soil samples in cropland; is that right?

16 A. Yes.

17 Q. And why did you do that specifically in  
18 cropland areas?

19 A. We picked -- well, we looked at air  
20 photography, and the most prominent feature that  
21 jumps out along that whole valley is that cropland  
22 tract, Sections 19 and 30, and Coyote Creek runs  
23 adjacent to the whole thing and it actually splits  
24 a couple of other cropland tracts, and we zeroed in  
25 on that. We wanted to get a handful of soil

1 samples. We know there's decent access to it.  
2 Mr. Voigt had just planted corn there a couple,  
3 three weeks previous and we just zeroed in on that  
4 area.

5 Q. And you took soil samples to a depth of  
6 about 18 inches?

7 A. Yep.

8 Q. And what were you looking for specifically  
9 in those soil samples?

10 A. The -- well, the two soil scientists that  
11 were with us, number one -- well, they were both  
12 soil classifiers or are -- or, I guess, maybe still  
13 are registered soil classifiers, but, number one,  
14 they wanted to determine what is the soils. And  
15 Mercer County also has those soils along that  
16 valley listed as Straw loam and Shambo loam, and in  
17 particular they wanted to reconfirm that that's  
18 actually what we were looking at there. And,  
19 number two, like I had mentioned before, redox  
20 conditions, or mottling conditions, indicative also  
21 of subirrigated soils.

22 Q. And so in looking for redox or the  
23 mottling conditions, you would have had to have had  
24 subirrigation rising to a level of within 18 inches  
25 of the surface in order to discover that in the

1 soil samples you took?

2 A. I don't think so. I think -- I think your  
3 expert witness testified, and I think everybody  
4 else knows about the -- Dr. Bickel also talked  
5 about capillary rise, which could be several feet  
6 according to Chuck Norris and others, and even the  
7 OSM guidelines talks about capillary rise. So even  
8 in those areas of capillary rise, redox conditions  
9 will be apparent.

10 Q. Okay. And I apologize. I'll be more  
11 specific. The area in which you see capillary  
12 rise, is it fair to refer to that as the capillary  
13 zone?

14 A. I think most people would refer to it as  
15 the vadose zone.

16 Q. Vadose?

17 A. Vadose.

18 Q. Vadose. Okay. So in looking for the  
19 indications of subirrigation, redox or mottling,  
20 you would only have found those had the vadose zone  
21 risen to a level of within 18 inches of the  
22 surface?

23 A. In that particular instance, yes. We did  
24 have some other information, though.

25 Q. What information?

1           A.     Well -- and it was in the report, the 2009  
2     DWC report, with the water level information from  
3     the alluvial aquifer.  And the 1970 Mercer County  
4     geologic report took water levels from two wells  
5     that -- which was back then, I think, the Murray  
6     home, and apparently the Voigt home now, and  
7     alluvial water levels of 16 and 18 feet below  
8     surface, and apparently the folks from DWC had  
9     interviewed Casey and Mr. Voigt had told them that  
10    the water levels at the wells -- the alluvial wells  
11    at his place were 15 and 20 feet deep.

12           Q.     What's the location of the wells you're  
13    discussing right now?

14           A.     They're both -- I think one was north of  
15    the house.  I think it's probably been -- I think  
16    I've heard it's been covered up by that landslide  
17    or whatever.  I think one of them was to the north  
18    of the house and the other was to the south, both  
19    near the center of Section 31, I think maybe one  
20    just barely into the northwest quarter and the  
21    other into the southwest quarter.

22           Q.     And how many measurements were taken from  
23    those wells?

24           A.     I think -- for that 1970 report I think  
25    probably just one measurement from each well.

1 Q. For the -- sorry. Did you say 1970  
2 report?

3 A. That's right, yeah. The Mercer -- the  
4 Oliver-Mercer County geologic and water resources  
5 reports, and I think they just took the one  
6 measurement from each of the wells, and then that  
7 business about 15 to 20 feet, that would have been  
8 information that Mr. Voigt had apparently given to  
9 Greg Smestad, who was the consultant that put the  
10 2009 AVF report together.

11 Q. So the actual readings from the wells  
12 relied upon were taken in 1970?

13 A. No. The -- those two, yes, the 16 and 18  
14 feet, that's correct. And -- but, of course, the  
15 Casey Voigt depths that they provided would have  
16 been recent, as of 2009.

17 Q. And how many readings did Mr. Voigt take  
18 that were reported to you?

19 A. I don't -- I don't -- basically we were  
20 going by what he had reported to Mr. Smestad, and  
21 whether he received those different water levels in  
22 the recent past or if he's known several times  
23 during the year, I don't know. And we're going by  
24 -- I guess we're holding Mr. Smestad to his word.  
25 He has no reason -- he had no reason to lie to us

1       whatsoever.

2                   MS. JEFFCOAT-SACCO:   Your Honor, could we  
3       identify -- I think -- I think, if I'm right,  
4       they're talking about your exhibit, the Dakota  
5       Westmoreland report on the AVF.   And can we  
6       identify the exhibit number, Derrick?

7                   JUDGE MANN:   I can find it if you don't.

8                   MR. BJELLA:   No. 3.

9                   MS. JEFFCOAT-SACCO:   And the witness could  
10       have a copy to help refresh his recollection, if  
11       you have one available.

12                   JUDGE MANN:   Do you want to give him a  
13       copy of Voigt Exhibit No. 3?

14                   MS. JEFFCOAT-SACCO:   Thank you.

15                   Q.   (MR. BRAATEN CONTINUING)   Do you know if  
16       Mr. Voigt ever took any actual readings from a  
17       well?

18                   A.   I don't know about it personally, no, sir.

19                   Q.   Do you know what time of year the readings  
20       were taken from the wells back in 1970?

21                   A.   No, but that information is available in  
22       the report.   I don't know offhand.   No, I don't.   I  
23       do know that in the DWC report they had referenced  
24       that particular report and water levels and depths,  
25       and I do know that I checked it out just to make

1 sure that they were in there and, yes, they were.

2 Q. The field study that you conducted in 2009  
3 related to the Dakota Westmoreland report was  
4 conducted in Sections 19 and 30; is that right?

5 A. Yes.

6 Q. And the more recent field investigation  
7 you conducted, you were not in Section 31 during  
8 that investigation; right?

9 A. That is correct.

10 MR. BRAATEN: I've handed everyone a copy  
11 of North Dakota Administrative Code Section  
12 69-05.2-08-13 and primarily just so everyone has  
13 this for the sake of reference.

14 Q. (MR. BRAATEN CONTINUING) Mr. Beechie, are  
15 you familiar with these regulations?

16 A. I am.

17 Q. And so if we turn to page 15 of the  
18 document, there are a number of subparagraphs, A  
19 through F, and it's my understanding that it's a  
20 combination of these things required to begin an  
21 investigation or report regarding the existence of  
22 alluvial valley floors; is that fair?

23 A. True.

24 Q. With respect to either the Dakota  
25 Westmoreland study in 2009 or your more recent

1 field investigation or the study for the Coyote  
2 Creek mining permit, in subsection A it says that  
3 you need to have a mapping of the probable alluvial  
4 valley floor, including geologic maps of  
5 unconsolidated deposits, delineating the  
6 stream-laid deposits. Was that part of what was  
7 included in the investigation?

8 A. I think -- in that report I think they did  
9 have a cross-section in there, and I'm pretty sure  
10 they did not have a mapping of the alluvial valley.

11 Q. And in either the Dakota Westmoreland  
12 report or more recent reports for the Coyote Creek  
13 mining permit, I'll refer you to subsection D which  
14 requires documentation that areas identified in  
15 this section are, or are not, subirrigated, based  
16 on groundwater monitoring data, representative  
17 water quality, soil moisture measurements, and  
18 measurements of rooting depth, soil mottling, and  
19 water requirements of vegetation.

20 Were any of these included in the  
21 investigations in 2009 or the more recent one for  
22 the Coyote Creek mining permit?

23 A. I think all of those elements were touched  
24 on.

25 Q. Can you point me to where they were?

1           A.     In the DWC report?

2           Q.     In either that or the materials for the  
3 Coyote Creek mining permit.

4           A.     When you say the materials in the Coyote  
5 Creek mining permit, you mean the 1302 permit?

6           Q.     Yes. Or were the materials submitted for  
7 the AVF determination prior to the application for  
8 that permit?

9           A.     Yes. Yes, that is the case.

10          Q.     And can you identify, for example, the  
11 documentation that areas identified in this section  
12 are or are not subirrigated based on groundwater  
13 monitoring data?

14          A.     Generally speaking, we're going with the  
15 information that was available in the report and  
16 the 1983 and '85 OSM guidelines, and even our rules  
17 stipulate that information required to put this  
18 initial AVF report together only needs to be either  
19 easily obtainable or readily obtainable data. And  
20 looking back in the reports, all the elements that  
21 are laid out there are discussed.

22          Q.     Was any color infrared photography  
23 utilized to determine if certain areas were  
24 subirrigated?

25          A.     There was.

1 Q. And at what time was that done?

2 A. That would have been back in the 1983 to  
3 '85 time period. I think probably in September of  
4 the year.

5 Q. So the infrared photography used to  
6 determine areas that may or may not be subirrigated  
7 was from one time in September in 1980 -- what was  
8 it?

9 A. Be either -- it was between 1983 and 1985.  
10 It was an OSM product and it's a corresponding  
11 product with their 1983 alluvial valley floor study  
12 and guidelines document that we have been talking  
13 about. It's two books.

14 Q. Okay. And so the other one that you're  
15 referring to was the reconnaissance report from  
16 OSM?

17 A. Yes.

18 Q. And I just want to make sure we're clear.  
19 We had an earlier exhibit, and I don't know if you  
20 have it up there, but it was, I believe, a 1985 OSM  
21 reconnaissance report on alluvial valley floors.

22 A. Yes.

23 Q. Do you have a copy of that up there?

24 A. No, I don't.

25 Q. Were you here for the testimony at the

1 prior two days of hearings when that report was  
2 discussed?

3 A. I was.

4 Q. Do you recall that report indicating the  
5 likelihood of subirrigation along Coyote Creek?

6 A. Yes. And in fact any areas that it didn't  
7 show -- it showed potential AVF areas, is what it  
8 did, and actually even -- and Coyote Creek was one  
9 of those areas, and probably rightfully so. So was  
10 Knife River. But the stretch of Knife River to the  
11 west and going all the way to the east of where  
12 Coyote Creek is was categorically excluded from AVF  
13 status in the very same report where the map shows  
14 that it's potential AVF. And the reason it was  
15 categorically excluded was because of the deep lane  
16 sized nature of the stream channel.

17 Q. But the only infrared photography that you  
18 relied on in either of the reports was the infrared  
19 photography from that report which found the  
20 likelihood of subirrigation?

21 A. We've got the actual color air photos up  
22 in our office.

23 MR. BRAATEN: That's all the questions I  
24 have. But I do need to make a note that we had at  
25 one point requested anything that the PSC was

1 relying on with respect to the AVF determination or  
2 this permit and we have not received -- we have now  
3 received a report from the 2009 investigation, and  
4 in Illona's defense she did say that they didn't  
5 mean to not give that to us, but I also understand  
6 now that with respect to the 1985 reconnaissance  
7 report there are infrared photos that were relied  
8 on which are not in the record, and which we don't  
9 have possession of, and we were also not aware of  
10 the field investigation conducted more recently and  
11 the report generated from that, all of which should  
12 have been given to us in response to our request.  
13 So if nothing else, I just need to note that for  
14 the record and I hope that we can possibly get  
15 copies of those.

16 JUDGE MANN: Ms. Jeffcoat-Sacco.

17 MS. JEFFCOAT-SACCO: We have no objection  
18 to providing copies of the two field inspection  
19 reports, the '09 one and the more recent one, and  
20 we can even make those exhibits. I'm not real  
21 sure, I would have to confer with Jim. I mean, I  
22 think the photos are upstairs, but I'm not real  
23 sure how we would produce them for the record in  
24 the right size and all of that or digitally. But  
25 anything would be available.

1           I will say in defense of all of us here at  
2 the staff, we did have a records request and we did  
3 provide what we thought was the entire volume of  
4 data that was relied upon to analyze this permit.  
5 In the turnaround time, given the holiday and  
6 everything -- this was before, but December was a  
7 busy month, we didn't have a lot of time to turn it  
8 around. We did think we included everything, and  
9 we are happy to include these at this point.

10           JUDGE MANN: Happy to include the two --

11           MS. JEFFCOAT-SACCO: I mean, we can make  
12 them exhibits or we can just provide them to the  
13 parties, whatever the parties prefer.

14           JUDGE MANN: What are you asking for,  
15 Mr. Braaten?

16           MR. BRAATEN: I guess at this juncture, if  
17 there's no objection, what I would like -- they did  
18 provide as a potential exhibit the 2009 report. If  
19 following the hearing they could provide the more  
20 recent report and let us take a look at these  
21 aerial photographs and make a determination and we  
22 could file them as a late-filed exhibit if we  
23 choose to do that. I guess that's the way I would  
24 propose to do it just for efficiency sake, if  
25 nothing else.

1           JUDGE MANN: Okay. Ms. Jeffcoat-Sacco,  
2 your thoughts on that approach.

3           MS. JEFFCOAT-SACCO: We find that  
4 acceptable.

5           JUDGE MANN: Mr. Bjella?

6           MR. BJELLA: When you say "more recent  
7 report," are you referring to the DWC --

8           MS. JEFFCOAT-SACCO: No.

9           MR. BJELLA: -- determination?

10          MR. BRAATEN: No. And I'm sorry. Illona,  
11 correct me if I'm wrong, but my understanding from  
12 Mr. Beechie's testimony is that there was a more  
13 recent field investigation and a report generated  
14 from that specifically with respect to the Coyote  
15 Creek mining permit AVF determination that we don't  
16 have a copy of.

17          MS. JEFFCOAT-SACCO: That's correct. The  
18 company is submitting the report about whether they  
19 think they have an AVF coming up or not. And then  
20 the staff goes out, and the staff pretty much  
21 documents everything they ever do in reclamation,  
22 so they document that visit, that field inspection  
23 and so there is sort of a memo on that. Jim --

24          JUDGE MANN: Go ahead, Mr. Deutsch.

25          MR. DEUTSCH: I just want to explain about

1 those two field reports. I guess what I copied for  
2 you, Derrick, was everything we had in our official  
3 file for this, and it happened that these two memos  
4 following these fields inspections were in a  
5 different directory that I wasn't aware of until --  
6 Bruce had given me a copy of the one from 2009. I  
7 didn't realize that was in his personal directory  
8 rather than the directory for this.

9 MR. BRAATEN: And I guess I just want to  
10 say, I wasn't trying to cast aspersions, and I  
11 certainly understand the short turnaround time and  
12 I'm not implying that there was any intent to  
13 withhold anything here. I'm just saying that at  
14 this point I'm aware of them and I would like to  
15 see them.

16 MR. DEUTSCH: We'll get those to you.

17 MS. JEFFCOAT-SACCO: Mr. Bjella, the  
18 second memo would be very much like the first one  
19 that I sent out the other day saying I think this  
20 might be an exhibit, only it would be a more recent  
21 date. Okay?

22 JUDGE MANN: Okay. So upon conclusion of  
23 the hearing, the advisory staff will make the two  
24 reports or documents available in addition to the  
25 photographs, and at that point the parties will

1 decide amongst themselves whether or not there's a  
2 need to have those offered and admitted as  
3 late-filed exhibits; correct?

4 MS. JEFFCOAT-SACCO: Yes.

5 MR. BRAATEN: Correct.

6 JUDGE MANN: Any further examination of  
7 the witness, Mr. Braaten?

8 MR. BRAATEN: No, Your Honor.

9 JUDGE MANN: Mr. Bjella?

10 MR. BJELLA: Just a couple, Your Honor.

11 **EXAMINATION**

12 **BY MR. BJELLA:**

13 Q. Bruce, referring to the regulation that  
14 was just handed out, if you look at the last  
15 sentence on page 14, it says, Studies performed  
16 during the investigation by the applicant or  
17 subsequent studies required of the applicant must  
18 include an appropriate combination -- emphasizing  
19 an appropriate combination -- adapted to  
20 site-specific conditions of, and it has A through  
21 F. I would interpret that to read you don't  
22 necessarily have to include A through F. You have  
23 to include -- provide an appropriate combination.  
24 Would that be a correct reading of that?

25 A. That would be correct. And I think what

1 it really boils down to is once we receive that  
2 report, if we require more information, this gives  
3 us the power to ask it, ask for that information.

4 Q. And my last question, have you seen any  
5 evidence presented at this hearing which would  
6 indicate that an AVF is present in Coyote Creek?

7 A. No.

8 MR. BJELLA: I have no further questions.

9 JUDGE MANN: Commissioner Christmann?

10 **EXAMINATION**

11 **BY COMMISSIONER CHRISTMANN:**

12 Q. Earlier I asked, I think, Mr. Bickel about  
13 the groundwater tests at nighttime versus daytime  
14 and some other recommendations that had been made  
15 in previous days' testimony, and his response was  
16 that they weren't necessary because the potential  
17 for AVF had already been ruled out.

18 I guess I'm just reasking in a different  
19 way Mr. Bjella's last question, in hindsight do you  
20 think that our team should have done more to  
21 investigate this before coming up with a  
22 determination, or are you still comfortable in your  
23 determination based on the evidence that you put  
24 together and the inspections that you did do?

25 A. I am very comfortable with the

1 determination. I would be absolutely unable to  
2 defend a positive AVF determination, I know that,  
3 and the determination that we have come up with is  
4 correct.

5 Getting to your question specifically  
6 about monitoring wells and that kind of stuff, and  
7 one mining company did it, South Heart Coal Mine  
8 here several years ago, and during the AVF report  
9 we did not require that data. They voluntarily  
10 provided data whereas these monitoring wells,  
11 they're two-inch plastic pipe in alluvium and they  
12 install pressure recording transducers and they  
13 record water levels every second or ten seconds,  
14 wherever you want to set it, or every five minutes,  
15 if you want, and it will record diurnal  
16 fluctuation, which would be a response to a rise in  
17 the water level of the alluvial aquifer getting  
18 towards sundown because of the loss of  
19 evapotranspiration from the plants that are  
20 actually being able to use subirrigated water from  
21 the alluvial aquifer. And they provided that  
22 information of their own volition. We didn't  
23 require it. And in this particular instance -- and  
24 that was the one and only time that that type of  
25 information has been made available.



1 floor status need to be retained or restored. And  
2 there are -- once a site is determined to be of AVF  
3 status, that's when these different monitoring  
4 wells and all that kind of stuff go in. There's  
5 various levels of monitoring and protection and  
6 restoration that's required over and above what  
7 would normally be considered in the permit  
8 application.

9 Q. And in terms of the hydrologic resources  
10 in this area, you're -- talk to me about your  
11 confidence in reclaiming them -- the ability of the  
12 company to reclaim them postmining.

13 A. I don't know that it's actually been done  
14 in the United States. I guess I need to make it  
15 perfectly clear that this valley floor -- Coyote  
16 Creek valley floor is not going to be mined, and  
17 not even close. The closest thing that's going to  
18 be mined averages 75 feet higher than the valley  
19 floor. And I don't think there's going to be any  
20 stockpiles. There's not going to be any sediment  
21 ponds. The only thing going across that valley is  
22 going to be two access roads, one from the shop  
23 office and the other would be the haul road to take  
24 coal to the Coyote Station power plant.

25 Q. Okay. So now you're presenting me with

1 information either I'm not understanding or I  
2 didn't realize. So Section 30 and Section 31 are  
3 not going to be mined?

4 A. Absolutely not. There's no coal there.

5 Q. So what are we concerned about then in  
6 terms of the reclamation of those areas? What  
7 reclamation will there be?

8 A. Well, I think, you know, it's been kind of  
9 fragmented, the various different subjects that  
10 have been discussed here. Reclamation is  
11 definitely not talking about down in the valley  
12 floor. It's up on top where the coal is going to  
13 get removed.

14 COMMISSIONER FEDORCHAK: Okay. I don't  
15 have any more questions.

16 JUDGE MANN: Commissioner Kalk.

17 COMMISSIONER KALK: Thank you, Your Honor.

18 **EXAMINATION**

19 **BY COMMISSIONER KALK:**

20 Q. Thank you, Bruce, for that last bit of  
21 testimony. I've been hoping that would come out  
22 for the last day. You laid it out perfectly,  
23 what's going on out there.

24 I just have one, I guess, thought. You  
25 talked about it in -- you recited almost perfectly

1 not so much Mr. Bickel's conclusion, but the  
2 conclusion of 1985 where it said that, however, the  
3 report recognized correctly the deeply incised  
4 channel and lack of AVF potential of the Knife  
5 River valley and Elm Creek to Spring Creek.

6 So what I'm trying to walk through is, the  
7 way I read that is that if someone walks out on  
8 this ground that is trained in hydrology and soil  
9 science, they'll be able to quickly determine  
10 whether there's even the potential of AVF. If  
11 you're an expert and you walk this ground, you're  
12 going to know right away?

13 A. It's -- I don't know if I would quite  
14 agree with that. It's complex. There's -- the  
15 1983 report is 300 pages long, and a lot of that is  
16 about the definition and identification of an  
17 alluvial valley floor, and a lot of it is also  
18 descriptive of what is not an alluvial valley  
19 floor. And so it's -- it's not quite a cakewalk,  
20 but, generally speaking, in this region, in this  
21 area of North Dakota -- and Dr. Bickel spoke to  
22 this too -- we just really don't see AVF like we do  
23 down in northeast Wyoming, southeast Montana, Utah,  
24 and New Mexico.

25 And if you can just picture scrubland and

1 sagebrush and then dropping down into a valley  
2 floor where they're actually able to get some hay  
3 production for cattle, that would give you a good  
4 picture of what a true AVF in the statutory and  
5 regulatory definition of SMCRA is all about.

6 Q. Would you agree that if someone walks the  
7 ground and has -- if you have the data available to  
8 you and you walk the ground, you're going to be  
9 able to make a better determination than if you  
10 just have the data available to you?

11 A. Yep. And that's why we bring soils people  
12 and a vegetation specialist with us when we do  
13 these investigations.

14 Q. Were you in the room when Mr. Norris  
15 testified?

16 A. I was.

17 Q. Do you recall my question to him about his  
18 thoughts on whose data I should -- whose opinion I  
19 should value better, someone who just looked at the  
20 data or someone who walked the ground, do you  
21 remember what his answer was?

22 A. I think he said whoever had boots on the  
23 ground would be the one.

24 COMMISSIONER KALK: Thank you. No further  
25 questions.

1 JUDGE MANN: Ms. Jeffcoat-Sacco?

2 MS. JEFFCOAT-SACCO: We have no questions.

3 JUDGE MANN: Mr. Braaten?

4 MR. BRAATEN: Yes, Your Honor.

5 **FURTHER EXAMINATION**

6 **BY MR. BRAATEN:**

7 Q. Mr. Beechie, during your investigations,  
8 did you ever have your boots on the ground in  
9 Section 31?

10 A. I could have. I may have gotten close.  
11 It's possible that I wasn't in -- I know I've been  
12 across Section 31. You can drive, you know, access  
13 to the Voigts' place, of course, so I would have  
14 been there and looked at it, I guess.

15 Q. The study area for the 2009 investigation  
16 report indicates that it was Sections 19 and 30; is  
17 that right?

18 A. That's what we zeroed in on, yes.

19 Q. And you mentioned that Section 31 is not  
20 going to be mined. Is it your testimony that the  
21 AVF determination is less important in areas that  
22 are adjacent to the mined area rather than actually  
23 in the mine?

24 A. No. No, it would not be my -- I would not  
25 testify to that. There are instances where mining

1 operations can affect water supply to an alluvial  
2 aquifer or AVF, and so the answer to that would be  
3 no.

4 Q. Okay. So you're looking at Section 31  
5 specifically because of the concern that the  
6 hydrological balance could be impacted such that  
7 the AVF, if it existed in Section 31, would be  
8 impacted?

9 A. Could you maybe rephrase that? Maybe I  
10 can boil it down for you. I don't think -- I don't  
11 think any of the central hydrologic functions  
12 associated with the Coyote Creek valley, whether  
13 it's an AVF or not -- whether we determine it AVF  
14 or not doesn't matter. We've seen through -- at  
15 all the other mines in North Dakota, and they're  
16 all mining next to creeks and rivers, and there has  
17 been absolutely no relationship between coal mining  
18 and alluvial water aquifer water levels. They rise  
19 and fall with precipitation trends.

20 Q. So the fact that you haven't seen an  
21 impact on an AVF before means that you're less  
22 concerned about the accuracy of your AVF  
23 determinations?

24 A. Not at all. We take these very seriously,  
25 and that's why we get a truck full of guys to go

1 out and they have their own specialty. We take  
2 them all very seriously. I, for one, thought we  
3 might have half a chance to see some subirrigation  
4 here, but it's just not there.

5 Q. Why was it significant to you that there's  
6 no mining occurring in Section 31?

7 A. Why is it significant to me? None of  
8 Coyote Creek valley is going to get mined. There's  
9 no coal under there until you get way deep. The  
10 Upper Beulah coal seam, which is the bed that  
11 Coyote Creek Mine is going after, is up on the high  
12 ground off to the west. And the valley floor, the  
13 coal that was there has been washed out thousands  
14 of years ago and replaced with alluvium.

15 Q. And is the information you just relayed to  
16 me pertinent because you think that if there were  
17 an AVF in Section 31, it wouldn't be impacted by  
18 mining activities?

19 A. Okay. Could you rephrase that one again?

20 Q. You've essentially indicated that you  
21 don't believe there's any concern that mining  
22 activities outside of Section 31 would impact an  
23 AVF if it existed in Section 31; right?

24 A. That would be my testimony, yes.

25 Q. And the reason you bring that up, the fact

1 that you don't think it's going to have an impact  
2 is because you're not as concerned about whether an  
3 AVF exists because you don't believe that it would  
4 be impacted if it was there or not?

5 A. Whether an AVF -- whether we term this  
6 area an AVF or not, it is going to require the same  
7 protections, the same hydrologic performance  
8 parameters and all requirements that the rest of  
9 the coal mine that's in the permit receives and  
10 off-permit areas too.

11 Q. So your testimony is that there's no  
12 special protections for AVF?

13 A. There absolutely is. That's why everybody  
14 is going through this whole rigmarole to try and  
15 determine what AVF is and is not.

16 Q. I just want to follow up on one thing.  
17 You had mentioned that the Dakota Westmoreland  
18 Company, when they were doing their report, they  
19 were mining a ways away as well; is that correct?

20 A. That's correct.

21 Q. What was the reason that Dakota  
22 Westmoreland Company had to obtain an AVF  
23 determination in 2009?

24 A. Because anytime that a mine permit area is  
25 within or adjacent to a substantial stream valley,





1 lot more money, it would be time-consuming, and  
2 they would have to go through the restoration  
3 process of the essential hydrologic functions,  
4 which in effect would be cost prohibitive.

5 Q. But I was asking about in your  
6 determination of whether or not there is an AVF  
7 pre-permit, does the fact that the permit planning  
8 is going to include actual mining there or not,  
9 does that have anything to do with how you approach  
10 a determination or an investigation of whether  
11 something is AVF or not?

12 A. No, it doesn't.

13 MS. JEFFCOAT-SACCO: Thank you.

14 JUDGE MANN: Mr. Braaten, any followup on  
15 that?

16 MR. BRAATEN: Just one question. My  
17 microphone is dead. I'll try to be loud.

18 COMMISSIONER KALK: Let's get a different  
19 one.

20 JUDGE MANN: Hang on. It streams over the  
21 Internet as well so we need to make sure that  
22 you're picked up.

23 **FURTHER EXAMINATION**

24 **BY MR. BRAATEN:**

25 Q. You just indicated that that doesn't have

1 any impact on your determination of AVF?

2 A. It would not.

3 Q. Why not?

4 A. Why not? Because we're going to go look  
5 at an area even if -- even if, for example, the --  
6 a large permit area, if they don't plan to mine a  
7 certain stream channel, which they don't, but maybe  
8 even down the road 20 years or whatever plans may  
9 change, and, you know, if there's coal under a  
10 stream valley, the potential is there to be mined,  
11 so really we're going into this with an open mind  
12 and -- that's all I have to say.

13 MR. BRAATEN: I have nothing further.

14 JUDGE MANN: Mr. Bjella?

15 MR. BJELLA: No, Your Honor.

16 JUDGE MANN: Commissioner Christmann?

17 COMMISSIONER CHRISTMANN: No.

18 JUDGE MANN: Commissioner Fedorchak,  
19 Commissioner Kalk? Okay.

20 Ms. Jeffcoat-Sacco, anything else with  
21 this witness?

22 MS. JEFFCOAT-SACCO: No. Thank you.

23 JUDGE MANN: Thank you. You can step  
24 down. Are you ready to call your next witness?

25 MS. JEFFCOAT-SACCO: Yes. Dean Moos.



1 particular mine?

2 A. Yes, I did.

3 Q. Could you tell me in your own words,  
4 please, some information about your approach? It  
5 was mentioned by Mr. Beechie that you had  
6 accompanied him on the field investigation, so your  
7 approach and work and conclusions regarding the AVF  
8 issue, please.

9 A. Sure. When the 2009 investigation was  
10 done in Section 19, I was out on that. I was along  
11 to look at the soils. The soil survey information  
12 I was provided, the AVF study indicated it was  
13 Straw soil, and as Bruce indicated -- Mr. Beechie  
14 indicated, we verified. That was the purpose of  
15 the holes, was to verify that it is a Straw soil.  
16 Straw soils are a floodplain soil. They developed  
17 in stream-laid deposits. They're a highly  
18 productive soil, high organic matter, their level  
19 soils are good cropland. In fact, in Mercer County  
20 they're considered prime farmland.

21 But -- then with regard to the later  
22 Coyote Creek investigation, I was not out on the  
23 field investigation, but I did review the soils  
24 information that was provided for that study, and  
25 that also again indicated that the primary soils

1 along the Coyote Creek drainage, the floodplain  
2 soils were Straw soils. Straw is just a common  
3 name for the soils there. Again, the bulk of the  
4 soils along Coyote Creek are the Straw soils. And,  
5 again, like I said, I was not out on the  
6 investigation there, but verified -- or reviewed  
7 the information I was provided in that  
8 investigation.

9 Q. The person who was the soils person on  
10 that investigation, is that person in the room  
11 today?

12 A. No. That would be Bill Gunnerson, I  
13 believe, was out on that.

14 Q. Did the information lead you to conclude  
15 anything about -- to assist the staff in making its  
16 recommendation or conclusions about whether or not  
17 an AVF existed?

18 A. In reviewing it, I verified with the  
19 Mercer County soil survey that there were indeed  
20 Straw soils there, and that's what they are mapped  
21 as, the floodplain soils, that they were indeed  
22 Straw soils. And, again, this was verified by our  
23 field investigation back in 2009. And reviewing --  
24 I reviewed the soils interpretation data for the  
25 Straw soils. Straw soils are a deep soil, like I

1 said, high organic matter, medium textured, but  
2 what was of most importance was the depth to  
3 groundwater.

4 The NRCS provided interpretive data for  
5 each soil map unit, and the Mercer County soil  
6 survey indicates the depth to water table for Straw  
7 soil at greater than 80 inches. 80 inches is the  
8 depth to which they provide interpretations. They  
9 do not provide interpretations below 80 inches. So  
10 because they say it's greater than 80 inches  
11 doesn't mean it's 80 inches, but it's at least  
12 greater than 80 inches.

13 Q. And what does that tell you about AVFs, if  
14 anything?

15 A. It would indicate to me that it's not  
16 subirrigation, that it's at least 80 inches below  
17 the surface to the groundwater table as provided by  
18 the NRCS and a later detailed soil survey that was  
19 done for the permit, for permit 1302.

20 Q. This next question is slightly out of  
21 order, and I apologize, but I'm starting to glaze  
22 over. I should have asked you for a very quick  
23 summary of your soil experience and expertise  
24 before we got into that discussion.

25 A. All right. I have a bachelor's in soil

1 science degree from North Dakota State University  
2 in 1978. For the first seven years of my career I  
3 mapped soils for what was then known as the Soil  
4 Conservation Service in both Grant County, North  
5 Dakota, and Cavalier County, North Dakota. I then  
6 worked for a short time for an agricultural  
7 consultant as a soil specialist, and then went to  
8 work for the Health Department for two years. And  
9 since 1988 I worked for the Public Service  
10 Commission, and early on the 15-plus years of my  
11 career here, my area of responsibility was soils  
12 and prime farmland.

13 Q. And your area of responsibility today?

14 A. More administrative, inspection  
15 enforcement, administrative, but I still keep my  
16 finger in the soils and prime farmland issues.

17 Q. Do you work on the mining plans and permit  
18 applications and the reclamation plans as it  
19 relates to soils?

20 A. Sure. Review the plans as they come in.  
21 You know, staff reviews them and we review their  
22 reviews, if you will.

23 Q. So did you work on this particular permit  
24 application in that regard?

25 A. I did.

1           Q.     And do you have any conclusions or can you  
2 explain to the Commission your conclusions as far  
3 as approving -- recommending approval of the permit  
4 as it relates to soil reclamation?

5           A.     The methods that they're proposing are  
6 similar to what are used at other mines, and we  
7 found those to be adequate. There has been bond  
8 release at the other mines. This permit came up a  
9 little short, as Sarah indicated earlier, that they  
10 had a 32-inch average salvage depth for Mr. Voigt's  
11 land and that they will be identifying additional  
12 material to provide a full 48-inch respread, what  
13 is the maximum required by the law.

14          Q.     So you've heard the three days of hearing  
15 so far on this case; correct?

16          A.     Correct.

17          Q.     Much of which was about soil health and  
18 reclamation?

19          A.     Mm-hmm.

20          Q.     As the commissioner asked the previous  
21 witness, did you hear anything in that other  
22 testimony to lead you to conclude that there were  
23 any errors or any tweaks that should be made to  
24 this permit regarding soil reclamation and health?

25          A.     No. You know, reclamation is an evolving

1 science. It certainly is, and as time goes on,  
2 there's always the opportunity for improvement.  
3 And even the short time that I have been here,  
4 there has been improvements made to alleviate  
5 compaction, address soil health, the use of winter  
6 annuals to relieve compactions. There's steps  
7 being made. It's an evolving science.

8 Q. Are those incorporated into this  
9 particular permit reclamation plan?

10 A. Some of the features are, and especially  
11 with regard to soil handling to reduce compaction,  
12 some of those things.

13 MS. JEFFCOAT-SACCO: That's all the  
14 questions that we have.

15 JUDGE MANN: Mr. Braaten?

16 **EXAMINATION**

17 **BY MR. BRAATEN:**

18 Q. Mr. Moos, you indicated that you had  
19 looked at the specific soil types. Did you look at  
20 the soil types in Section 31?

21 A. No, I did not. The time we were there in  
22 2009 we stayed up in Section 19 and 30.

23 Q. Do you recall the specific soil type or  
24 types that you found in 19 and 30?

25 A. Straw on the lower-lying terraces, the

1 lower floodplain position, and then as it grades up  
2 to the west, it grades towards a Shambo soil, which  
3 is even a higher soil and not nearly as productive  
4 of soil as the Straw soil.

5 Q. Is there a difference between Straw and  
6 Straw loam soil?

7 A. Straw and Straw loam. All the loam refers  
8 to its surface texture. They're both medium  
9 textured.

10 Q. And tell me again what the soil type tells  
11 you about the existence of subirrigation.

12 A. Well, Straw is typically not a  
13 subirrigated soil. It's considered a well-drained  
14 soil. And, like I said, I went to the  
15 interpretations in the Mercer County soil survey  
16 and it said the depth of the water table is greater  
17 than 80 inches.

18 Q. So the subirrigation characteristics that  
19 are tied to the soil types are created by the -- is  
20 it created by the Soil Conservation Service?

21 A. I believe so.

22 Q. Okay. Do you have the OSM Alluvial Valley  
23 Floor Identification and Study Guides in front of  
24 you?

25 A. Not in front of me.

1 MS. JEFFCOAT-SACCO: We can give you one.

2 JUDGE MANN: Mr. Braaten, just identify  
3 that exhibit again.

4 MR. BRAATEN: This is Voigt Exhibit No.  
5 15.

6 JUDGE MANN: Okay. Thank you.

7 Q. (MR. BRAATEN CONTINUING) I'll direct your  
8 attention to the paragraph under general  
9 definitions. It states that Soil Conservation  
10 Service's definition of naturally subirrigated area  
11 is land with an effective subsurface groundwater  
12 table and water rarely over the surface during the  
13 growing season.

14 Now, at the beginning of this paragraph it  
15 states that subirrigation in terms of the alluvial  
16 valley floor regulatory program is the supplying of  
17 water to plants from underneath or from a semi-  
18 saturated or saturated zone where water is  
19 available for use by vegetation, referring to SMCRA  
20 regulations?

21 MR. BJELLA: Can we just get a quick  
22 reference, what page you're on there?

23 MR. BRAATEN: I'm sorry. It's C1 --  
24 Appendix C1.

25 Q. (MR. BRAATEN CONTINUING) Mr. Moos, the

1 definition of subirrigation used by the Soil  
2 Conservation Service is different than that used by  
3 SMCRA, isn't it?

4 A. Subirrigation, it might be different  
5 wording, but I think it implies the same thing.

6 Q. So those definitions to you mean the same  
7 thing?

8 A. I believe so.

9 Q. Are you aware of how soil is classified  
10 into clay, loam and sand? Is that familiar to you?

11 A. Yes.

12 Q. Can you explain that for us a little bit?

13 A. It refers to the relative proportion of  
14 sand, silt, and clay particles, a loam being a  
15 mixture of all; of course a silty clay is a mixture  
16 of silt and clay; fine sandy loam, a mixture of all  
17 of them.

18 Q. And do you know what combination or  
19 individual soil types the clay, sand, or loam are  
20 more conducive to capillary rise?

21 A. A loam probably would be the highest  
22 capillary rise, finer textured.

23 Q. And finer textured, you mean clay would be  
24 finer textured; right?

25 A. Right.

1 Q. So would a clay loam to loam be the most  
2 conducive to capillary rise?

3 A. Probably.

4 Q. Okay. Mr. Moos, are you familiar with the  
5 Web Soil Survey?

6 A. Yes, I am.

7 Q. And have you ever printed out maps of soil  
8 types from the Web Soil Survey?

9 A. Yes, I have.

10 Q. And so do you recognize the map that I've  
11 given you?

12 A. Yes. This is a portion of Section 31,  
13 including the Voigt farm site. It's very similar  
14 to a map that I had produced for myself.

15 Q. And so this would be an accurate map  
16 printed out from the Web Soil Survey of Section 31,  
17 in your opinion?

18 A. Yes.

19 MR. BRAATEN: I have not marked this and  
20 I'm not sure where we're at on Voigt for numbers.

21 JUDGE MANN: It would be Voigt Exhibit 16.

22 MR. BRAATEN: So I would mark that and  
23 offer this as Voigt Exhibit 16.

24 JUDGE MANN: Mr. Bjella?

25 MR. BJELLA: Am I correct in understanding

1 this is printed from the Natural Resources  
2 Conservation Service website?

3 MR. BRAATEN: Correct.

4 MR. BJELLA: I have no objection.

5 JUDGE MANN: Ms. Jeffcoat-Sacco?

6 MS. JEFFCOAT-SACCO: No objection. We're  
7 just talking about the map part, not the other  
8 document right now; right?

9 JUDGE MANN: That's my understanding.

10 MS. JEFFCOAT-SACCO: Derrick?

11 MR. BRAATEN: Yeah. I can go through the  
12 rest, I guess.

13 Q. (MR. BRAATEN CONTINUING) Mr. Moos, when  
14 you print out a map from the Web Soil Survey --

15 JUDGE MANN: Hang on. So you did not have  
16 an objection?

17 MS. JEFFCOAT-SACCO: No objection.

18 JUDGE MANN: So Voigt Exhibit 16 is  
19 admitted. Now you can continue. Go ahead.

20 Q. (MR. BRAATEN CONTINUING) When you print  
21 out a map from the Web Soil Survey, does it  
22 typically come with a legend attached to it?

23 A. Yes. You can print the legend separate  
24 from that -- from your area of interest -- what  
25 they call the area of interest.

1 Q. And then the third page, also the map unit  
2 legend, is also something that you can print along  
3 with that map?

4 A. Correct.

5 MR. BRAATEN: For simplicity sake, I'd  
6 offer all three pages as Voigt Exhibit No. 16 as a  
7 single exhibit, if I can do that at this point.  
8 Otherwise, I will mark them as 17 and 18.

9 JUDGE MANN: I think, yeah, all of the  
10 stapled three pages can be considered part of  
11 Exhibit No. 16. Any objection to that, Mr. Bjella?

12 MR. BJELLA: No, Your Honor.

13 JUDGE MANN: Ms. Jeffcoat-Sacco?

14 MS. JEFFCOAT-SACCO: No. Thank you.

15 JUDGE MANN: Yeah, that's all considered  
16 Exhibit -- Voigt Exhibit 16.

17 Q. (MR. BRAATEN CONTINUING) And, Mr. Moos,  
18 are you also familiar with the more detailed  
19 descriptions of the soil types that you can access  
20 through the Web Soil Survey?

21 A. Yes, I am.

22 Q. And if you look at the other document I've  
23 handed you, are you able to identify this?

24 A. It appears to be the map unit description.  
25 Just -- I'm guessing it's probably a generic

1 description there and then it appears to go on to  
2 the detailed description for the Straw loam map  
3 unit.

4 Q. And that map unit is E4161A?

5 A. Correct.

6 Q. And if you look at Exhibit 16, does that  
7 roughly correspond to the alfalfa fields of  
8 Mr. Voigt?

9 A. It does.

10 MR. BRAATEN: I would offer the map unit  
11 description as Voigt No. 17.

12 JUDGE MANN: Mr. Bjella?

13 MR. BJELLA: No objection.

14 JUDGE MANN: Ms. Jeffcoat-Sacco?

15 MS. JEFFCOAT-SACCO: No objection.

16 JUDGE MANN: Voigt Exhibit 17 is admitted.

17 Q. (MR. BRAATEN CONTINUING) So, Mr. Moos, is  
18 it your understanding that this map unit  
19 description is a description of the specific soil  
20 type found in Mr. Voigt's alfalfa fields?

21 A. Yes.

22 Q. Okay. And can I have you turn to page 3  
23 of 4 of Exhibit 17, which is the map unit  
24 description.

25 A. Okay.

1 Q. And the typical profile, as indicated on  
2 this, shows that from zero to 60 inches you have  
3 beginning a combination of loam up to 30 inches and  
4 after that a clay loam down to 60 inches; is that  
5 correct?

6 A. That's correct.

7 Q. And that's what you indicated would be  
8 most conducive to capillary rise?

9 A. Correct.

10 MR. BRAATEN: I have no further questions.

11 JUDGE MANN: Mr. Bjella?

12 **EXAMINATION**

13 **BY MR. BJELLA:**

14 Q. Dean, looking at Exhibit 17, page 3, under  
15 properties and qualities, it says, depth to water  
16 table: More than 80 inches. That seems to support  
17 your testimony you previously gave; is that  
18 correct?

19 A. That's correct.

20 MR. BJELLA: I have no further questions.

21 JUDGE MANN: Commissioner Christmann?

22 COMMISSIONER CHRISTMANN: No questions.

23 JUDGE MANN: Commissioner Fedorchak?

24 COMMISSIONER FEDORCHAK: I don't have any  
25 questions either. Thanks, Dean.

1 JUDGE MANN: Commissioner Kalk.

2 COMMISSIONER KALK: Thank you, Your Honor.

3 **EXAMINATION**

4 **BY COMMISSIONER KALK:**

5 Q. Thank you, Dean, for your testimony. Just  
6 one thought. In your opinion, do you believe soil  
7 type is a significant factor in AVF determination?

8 A. It's certainly part of it. A number of  
9 things go in to make up an AVF and you use  
10 different things to arrive at that determination,  
11 and soils is certainly one of them.

12 Q. But if you had a certain soil type that  
13 was -- well, for example, I'll rephrase. Go back  
14 to the exhibit we just talked about. Exhibit 17  
15 talks about frequency of flooding: Rare; frequency  
16 of ponding: None. That would just reenforce even  
17 more the probability of AVF in this area probably  
18 is low?

19 A. Based on the soils.

20 Q. So if there was a soil type that differed  
21 than that --

22 COMMISSIONER KALK: I don't need to go  
23 down that road, so thank you.

24 JUDGE MANN: Ms. Jeffcoat-Sacco?

25 MS. JEFFCOAT-SACCO: We have no further

1 questions.

2 JUDGE MANN: Okay. You can step down.  
3 Thank you.

4 Ms. Jeffcoat-Sacco, before you call your  
5 next witness, I think I want to make an  
6 announcement. Mr. Nitschke reminded me that the  
7 Capitol doors are secured at 5:30, is that correct,  
8 and after that point they need to go through you  
9 to --

10 (Discussion had off the record.)

11 JUDGE MANN: Go ahead. You can call your  
12 next witness.

13 MS. JEFFCOAT-SACCO: I'll call Jim  
14 Deutsch.

15 JUDGE MANN: Mr. Deutsch, I'm required to  
16 give you the oath and I'm required as well to  
17 advise you of the penalty for perjury. A Class C  
18 in North Dakota, punishable by a maximum fine of  
19 \$10,000, a maximum five years imprisonment, or  
20 both.

21 (Witness sworn.)

22 JUDGE MANN: Okay. Go ahead.

23 **JAMES R. DEUTSCH,**  
24 being first duly sworn, was examined and testified  
25 as follows:

**EXAMINATION**

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**BY MS. JEFFCOAT-SACCO:**

Q. Mr. Deutsch, could you state your name, spell your last name, give us your address and where you work, please.

A. My name is Jim Deutsch. Last name is spelled D-e-u-t-s-c-h. And I'm the director of the Reclamation and Abandoned Mine Lands Division for the Public Service Commission. My work address is 600 East Boulevard Avenue, Bismarck, North Dakota.

Q. Thank you. And can you give us a summary of your qualifications and experience?

A. I have a soils degree from NDSU dating back here, I guess, more than 40 years now. And I've been employed with the Commission in the Reclamation Division, starting out there, since July of 1974. I started initially as a reclamation inspector, environmental scientist, then back in the late '80s became assistant director of the Reclamation Division, and in, I think it was, 1997 became director of the Reclamation Division, then in 2006 also picked up the responsibilities as director of Abandoned Mine Land Division.

Q. So how many years of experience do you have in federal and state mining -- mining,



1 acknowledge in the permit approval document that  
2 there was a negative determination for the alluvial  
3 valley floor with regard to areas in and around  
4 Coyote Creek and the Knife River.

5 And with regard to the reclamation  
6 standards, it was our finding that the reclamation  
7 can be accomplished as proposed by the Coyote Creek  
8 Mining Company. And in part that's based on the  
9 practices they've used and the successful  
10 reclamation of other lands using those techniques  
11 as evidenced by bond release.

12 And, there again, with regard to the  
13 permit approval, there's a number of findings we  
14 have to make that's part of the permit approval  
15 document, and it's a matter of working through the  
16 entire application process where we do our  
17 completeness, technical reviews and a number of  
18 letters that went to Coyote Creek Mining Company to  
19 address items in the application to make sure all  
20 those requirements were met. And once that was  
21 done, we prepared the findings and recommended  
22 approval to the Commission.

23 Q. Is there anything you heard in the  
24 testimony over the course of the three days to make  
25 you question a permit finding or a condition,

1 thinking that perhaps something should be tweaked  
2 or changed?

3 A. No, I don't see any reason for making any  
4 changes to the permit as approved.

5 MS. JEFFCOAT-SACCO: There was some  
6 discussion early on about some reclamation  
7 statistics, and we did offer you to produce two  
8 spreadsheets, and I've got those marked as Exhibits  
9 7 and 8 -- PSC 7 and 8, if we could get those  
10 passed out now.

11 Q. (MS. JEFFCOAT-SACCO CONTINUING) Okay.  
12 Mr. Deutsch, could you identify Exhibit 7 and tell  
13 us what it is and whether or not you prepared it  
14 and, if you did prepare it, from what data.

15 A. Exhibit 7 lists the bond release acreage  
16 that has been approved by the Commission as well as  
17 there's another column in there that lists the  
18 current permitted acreage, and this was as of  
19 October 1st of 2014.

20 And the top half of the page, the first  
21 table, lists the bond releases for lands that were  
22 permitted or re-permitted after July 1, 1979. I  
23 guess it's supposed to be considered post-SMCRA or  
24 after the full requirements of the federal law went  
25 into effect here in North Dakota after our law

1 was -- basically a new law was adopted by the 1979  
2 legislative session.

3 And this lists the total bond release  
4 acreage, then we break that out by land use and we  
5 also identify if there's undisturbed acres that are  
6 part of those bond releases.

7 And, there again, the total, I guess as  
8 I'll call it, post-SMCRA bond release acreage is  
9 20,800. Of that, just about 5,700 acres was  
10 undisturbed. The cropland total is a little over  
11 4,000 acres, hayland nearly 1,700, more than 4,700  
12 acres of native grasslands, and there's 163 acres  
13 of tame pasture -- tame grassland, and then for  
14 wildlife and recreation there's 903 acres.  
15 Industrial roads, there's over 3,000 acres. A lot  
16 of this includes areas that are used for the  
17 disposal of coal ash under Health Department  
18 regulation. Then there's also woodlands, ponds,  
19 and some residential area.

20 Q. Did you prepare this document, PSC 7?

21 A. Yes. This is a document that was -- I  
22 guess, we first started preparing this here more  
23 than ten years ago. There was different questions  
24 about the amount of bond release, so we started  
25 tracking this based on the bond releases that had

1       been approved. And in the documents that we  
2       prepare when we recommend it to the Commission for  
3       approval, we include the acres of the different  
4       land uses and it's based on that.

5               Then it also included the acres of the, I  
6       guess we'll call it, pre-SMCRA, lands permitted  
7       before July 1 of '79. And, there again, they're  
8       listed by mine but not by land use. And, there  
9       again, the way things were permitted in the earlier  
10      days, of that total of 6,223 acres listed there,  
11      nearly all of that was disturbed by mining. There  
12      may be some small areas that weren't, but for most  
13      purposes consider most of that land mined and  
14      reclaimed as well. And some of that was subject to  
15      our earlier reclamation laws, even before topsoil  
16      requirements came into effect.

17             The first requirements to save topsoil  
18      came into place in 1973. And then in 1975 our law  
19      was changed to require -- basically ended up  
20      requiring that both topsoil and subsoil be saved,  
21      and in that law was the requirements that was put  
22      into place that the intent was to restore the  
23      productivity of agricultural lands. And that's  
24      something that we have maintained that is in North  
25      Dakota law that is not in federal law. Federal law

1       only requires the productivity be restored on prime  
2       farmlands. On nonprime the OSM regulations require  
3       that to be restored to 90 percent of the premined.

4               So with regard to restoring productivity,  
5       that is something -- on all agricultural land that  
6       is unique to North Dakota. And some of those lands  
7       that are listed, permitted prior to 1979 would  
8       include lands that had to meet those productivity  
9       requirements. I don't have a breakdown of that.

10              As other bond releases are approved, we  
11       generally update this table and it's frequently  
12       asked for by different groups and that, so we  
13       maintain it.

14              Q.     And all of the information you're using to  
15       update it is from your own mining and permit  
16       records; correct?

17              A.     It's from our records. And to say it's a  
18       hundred percent accurate, there could be some  
19       errors, but generally it gives a good idea where  
20       things are at with regard to bond release and that.

21              MS. JEFFCOAT-SACCO: I would offer Exhibit  
22       7.

23              JUDGE MANN: Mr. Braaten?

24              MR. BRAATEN: No objection.

25              JUDGE MANN: Mr. Bjella?

1 MR. BJELLA: No objection.

2 JUDGE MANN: PSC Exhibit 7 is admitted.

3 Q. (MS. JEFFCOAT-SACCO CONTINUING) And then,  
4 Mr. Deutsch, if you would turn to PSC 8 and  
5 identify that and tell us who prepared it and from  
6 what data.

7 A. Exhibit 8, that gives an estimation of the  
8 lands that have been disturbed and reclaimed, and  
9 it also lists the lands that -- the total permit  
10 acreage by mine as well as the lands by mine which  
11 have -- the disturbed lands that have received  
12 final bond release. It's basically taken from the  
13 previous table.

14 This data is based off of annual mine maps  
15 that are submitted by the mining companies. There  
16 again, it goes back -- probably more than ten years  
17 ago we started collecting this information. It was  
18 information that the OSM wanted as part of their  
19 annual oversight. So from different methods from  
20 what was reported and early on kind of  
21 perlimitering areas and now more with use of GIS,  
22 we determined the amount of lands that have been  
23 disturbed and some of the -- kind of the active  
24 disturbance, what we consider long-term facilities  
25 listed on that table by mine.

1           And long-term disturbances would be the  
2 roads, the stockpiles, sedimentation ponds, other  
3 facilities. And the active mine areas are  
4 generally the pit areas themselves and areas  
5 immediately in front of and some areas behind where  
6 topsoil and subsoil has been removed.

7           Then areas that have been graded, that's  
8 mined areas that have been regraded and approved  
9 for soil respread. That also includes -- there's  
10 some associated disturbances. If those areas have  
11 been through the reclamation process, those areas  
12 are included as well.

13           Then there's a listing for areas re-soiled  
14 and seeded. There again, the acreage by mine.  
15 Then another table that lists the areas that have  
16 been seeded for ten years or more. And, there  
17 again, that number is calculated by going back to  
18 the annual maps from ten years ago and looking at  
19 what the total was then that had been seeded, but  
20 then subtracting out areas that have received bond  
21 release. So it gives a pretty good idea of the  
22 status of reclamation of the mine lands of those  
23 lands that have been disturbed.

24           And like I said earlier, we do get annual  
25 mine maps from mining companies, and that's where

1 this information is collected. And, I guess,  
2 initially I worked on this table. In more recent  
3 years Dean Moos has been putting together a lot of  
4 the information as well.

5 But it's based on information that we get  
6 from the mining companies, and, there again, those  
7 annual mine maps, that's something that we go  
8 through and verify based on air photos, mine  
9 inspections to try to make sure that information is  
10 correct.

11 MS. JEFFCOAT-SACCO: I would offer Exhibit  
12 8.

13 JUDGE MANN: Mr. Braaten?

14 MR. BRAATEN: No objection.

15 JUDGE MANN: Mr. Bjella?

16 MR. BJELLA: No objection.

17 JUDGE MANN: PSC Exhibit 8 is admitted.

18 Q. (MS. JEFFCOAT-SACCO CONTINUING) Mr.  
19 Deutsch, I do have another question for you  
20 regarding testimony that we've heard the last few  
21 days, the three days of hearing.

22 Some of the suggestions that were made by  
23 the landowner for different types of reclamation or  
24 additional standards, did you hear some that would  
25 require a change in rule -- or did you hear any

1 that would require a change in rule?

2 A. Well, if there's going to be different  
3 standards used for determining reclamation success,  
4 if we would go to a soil health standard rather  
5 than productivity, that would not only require a  
6 change of rules, but a change in the law, because  
7 the law is very specific in stating that the  
8 agricultural productivity has to be restored before  
9 we release bond.

10 Q. And that was the point you were making  
11 that our law has said that even despite SMCRA?

12 A. Yes. Going back to 1975, that is correct.

13 MS. JEFFCOAT-SACCO: That's all I have.

14 JUDGE MANN: Mr. Braaten.

15 **EXAMINATION**

16 **BY MR. BRAATEN:**

17 Q. I direct your attention to Exhibit 8,  
18 Mr. Deutsch. A few questions just to clarify. In  
19 the final column here you list all of the disturbed  
20 lands that were granted final bond release, but in  
21 the column for disturbed lands you stop listing  
22 them after Gascoyne, and I understand that that's  
23 because those all had received final bond release;  
24 is that right?

25 A. That is correct.

1           Q.     And can you just explain why you chose to  
2 represent the information that way?

3           A.     Well, I represented in the manner I did to  
4 show the lands that are currently under permit  
5 where -- lands that have or will be disturbed by  
6 listing the total permit area, then from there  
7 listing what -- of the permitted lands what's  
8 disturbed, and this was as of the end of last  
9 year -- or I should say now the end of 2013. But  
10 it was a matter to give indication of what -- the  
11 status of those disturbed lands, how much of it is  
12 reclaimed.

13                     And I know there has been a lot of  
14 discussion with regard to areas that are still  
15 under bond, you know, what is eligible for bond  
16 release. And that column that says area seeded for  
17 ten years, that would indicate lands that would be  
18 potentially eligible for bond release provided the  
19 companies had all the data they needed to  
20 demonstrate reclamation success.

21                     But I purposely chose not to list the  
22 disturbed lands at the mines that have been totally  
23 bond released because there's no ongoing  
24 reclamation liabilities for those mines, but to  
25 give a complete picture of what had been mined and

1 reclaimed at those mines, I wanted this table to  
2 reflect that as well.

3 Q. Okay. So you'd agree that if you wanted  
4 to know, for example, using these numbers, what  
5 percentage the disturbed lands granted final bond  
6 release were out of the total disturbed lands that  
7 were in North Dakota, you would have to add that  
8 number back into the disturbed lands total?

9 A. That would be correct.

10 Q. Okay. And it appears that the --  
11 substantially the largest four mines are Beulah,  
12 Center, Falkirk, and Freedom. Can you give me an  
13 idea of when each of those mines began active  
14 mining operations?

15 A. The Beulah Mine, their mine south of  
16 Beulah -- there used to be a North Beulah Mine. In  
17 fact, there were some permitted lands there too.  
18 But I believe that mine south of Beulah that was  
19 Knife River, now Dakota Westmoreland, that they  
20 began operations there back in the late 1960s.

21 The Center Mine began operations in the  
22 early '70s, probably right around 1970, I believe.  
23 The Falkirk and Freedom Mines, I think Falkirk was  
24 permitted first in -- the first permit there was  
25 probably in the mid-'70s, then I think the first

1 permit for the Freedom Mine was probably about  
2 1977.

3 Q. So if I took the top four numbers under  
4 disturbed lands granted final bond release and  
5 divided that by the top four numbers under  
6 disturbed lands, that would give me the percentage  
7 of lands for those four mines that have been  
8 released from bond in the life of the mine?

9 A. Yeah, after you added back in the bond  
10 released acreage into that disturbed total, that  
11 would give you that percentage.

12 Q. Sure. Let me ask that again. So the  
13 numbers you have for a total under disturbed lands,  
14 that does not include the amount for disturbed  
15 lands granted final bond release?

16 A. That is correct.

17 Q. Okay.

18 A. And maybe that isn't real clear on the  
19 table there, but I guess with the footnote that I  
20 have there, I was trying to clarify that. And the  
21 reason on that far right-hand column as far as for  
22 the bond release, oftentimes there are undisturbed  
23 lands that get bond released, but that does not  
24 include any of the undisturbed. And that's the  
25 same on, I guess, the one -- the column on that

1 Exhibit 7 that we identify the acres that's  
2 undisturbed with the various bond releases.

3 Q. So I have a calculator and if you want to  
4 verify my math, I'd be happy to let you, but when I  
5 calculate the top four under disturbed lands  
6 granted final bond release, I come up with 5,369,  
7 and when I add that back into the top four numbers  
8 under disturbed lands, I come up with 63,096, and  
9 so when I divide the disturbed lands for bond  
10 release by the total disturbed lands, I get 8 and a  
11 half percent, meaning that in the entire time these  
12 four mines have been in operation, they've managed  
13 to get 8 and a half percent of that land released  
14 from bond. Does that sound right?

15 A. Just looking at the numbers, I don't have  
16 a calculator, but that looks approximately right.

17 Q. You have a number of listings under the  
18 areas seeded for ten years, and was your testimony  
19 that that represents land that is in third-stage  
20 bond release?

21 A. That's not necessarily third-stage bond  
22 release, but it's the lands -- areas -- the  
23 reclaimed lands that have been seeded for ten years  
24 or more. So that means with our ten-year  
25 revegetation liability period, that these areas

1 would be eligible for bond release based on  
2 satisfying that requirement that they remain under  
3 bond for at least ten years.

4           It's a matter we cannot release reclaimed  
5 lands from bond until that ten-year liability  
6 period is up. This is -- in here this is a number  
7 that OSM has been interested in too, wondering what  
8 lands are eligible for bond release that haven't  
9 received it, and that's essentially what that  
10 number represents. It's that 13,639. So earlier  
11 you came up with a percentage that -- with nearly  
12 15,000 acres that it's a little over 8 percent that  
13 has bond release, but there's only -- there's less  
14 than that presently eligible for bond release  
15 because that ten-year liability period has not  
16 otherwise expired on a lot of the lands that have  
17 been reclaimed.

18           Q.    And the areas seeded for ten years, those  
19 aren't released from bond until they prove  
20 productivity better than prior to mining for a  
21 certain number of years; right?

22           A.    That's correct, for any of those having  
23 the agricultural use, which is probably over 95  
24 percent of that acreage listed there.

25           Q.    The acreage listed there, do you know how

1 many of those acres have been seeded for more than  
2 ten years?

3 A. Well, more than ten years, I guess if you  
4 subtract out the acreage that was for 2013, that  
5 would mean that would have been for -- it would  
6 have been more than that. So some of these lands  
7 probably have been reclaimed for -- some of the  
8 lands, I guess, it's more than 20 years, and  
9 sometimes it's acreage that's dissected by a haul  
10 road or there's still a pond nearby or whatever  
11 that probably will be a smaller, irregular-shaped  
12 parcel.

13 Some of the companies have said that they  
14 generally don't look at going after bond release,  
15 to go through everything that's required for  
16 collecting data until they get -- they try to get  
17 at least the entire quarter section. And once you  
18 do that -- a lot of these areas the companies  
19 haven't pursued for that reason. But they  
20 certainly could take the smaller areas, but, there  
21 again, the bond release requirements, it's not just  
22 the data collection, but it's a matter of coming up  
23 with legal descriptions and pulling out all the  
24 histories for the areas, that these bond release  
25 packages take a lot of work too.

1           Q.     So for these areas -- these agricultural  
2     lands, for example, that you mentioned maybe have  
3     been reclaimed for 20 years, aside from the other  
4     administrative issues you mentioned, they can't be  
5     released from bond because they haven't proven  
6     productivity yet; is that right?

7           A.     That's correct.

8           Q.     How much longer could they go before they  
9     need to prove productivity to get final bond  
10    release?

11          A.     Well, that's up to the mining companies.  
12    There is no requirement in the state or federal law  
13    that says -- that gives a time frame on mining  
14    companies have to submit bond release.

15          Q.     So that could be under bond for another 40  
16    years?

17          A.     It's possible.   And some of these areas --  
18    reclaimed areas are right adjacent to, you know, a  
19    haul road.   Particularly if there's other  
20    stockpiles for that haul road, that some of these  
21    lands could remain under bond for a long period of  
22    time.

23          Q.     And when they get the land seeded for a  
24    period of ten years, is a part of their bond  
25    released at that point?

1           A.     They can request that bond be released,  
2     but, there again, that has to go through the bond  
3     release process, which includes a public notice and  
4     meeting other informational requirements.

5           Q.     Has that happened with any of these mines?

6           A.     The amount of partial bond release we have  
7     is pretty minimal.  There is one permit area up at  
8     Falkirk where they've went through the phase one  
9     and two release, and the third phase is for -- it's  
10    considered vegetation establishment and basically  
11    stability -- the sedimentation ponds are no longer  
12    needed, that the land is stable and not erosive.

13          Q.     So are you saying that the vast majority  
14    of the lands that have reached third-stage  
15    reclamation still are fully bonded?

16          A.     That is correct.

17          Q.     And if a mine is unable to prove  
18    productivity on a piece of land, they could simply  
19    keep that under bond for the next 60 years if they  
20    wanted?

21          A.     It's conceivable the way the law is  
22    written that that is the case.

23                 MR. BRAATEN:  I have no more questions  
24    right now.

25                 JUDGE MANN:  Mr. Bjella?

1 MR. BJELLA: Yes, Your Honor.

2 EXAMINATION

3 BY MR. BJELLA:

4 Q. Jim, looking at PSC 8, earlier in the  
5 testimony there was a statement made that the  
6 Freedom Mine had only released 5.6 percent of their  
7 land, but that's not really an accurate statement,  
8 is it, because that is not the land that's been  
9 seeded for at least ten years and available for  
10 bond release; is that correct?

11 A. I guess the total for the Freedom Mine,  
12 what they have listed there is 2,746 acres, and  
13 when you look at the total that is disturbed, it  
14 represents probably about -- well, more than 10  
15 percent. But when you look at what would be  
16 eligible for release, it's probably closer to 40,  
17 45 percent.

18 Q. 46, I believe it is. That's a more  
19 accurate reflection of what's really going on,  
20 isn't it, of what's eligible for mine release? You  
21 can't compare it to the disturbed lands, which are  
22 in various stages of mining or whatever. You have  
23 to look at what's eligible versus what has to get a  
24 real accurate statement; wouldn't that be correct?

25 A. I think that would be more accurate in

1 reflecting where reclamation is at with regard to  
2 what's eligible for release. In fact, oftentimes  
3 we see figures that are based on the total  
4 permitted area, as it was kind of mentioned  
5 earlier, I guess, for the Freedom Mine. But when  
6 you look at total permitted acreage, oftentimes  
7 less than half of that has actually been disturbed  
8 by mining, so that is not a good representation of  
9 the status of bond release particularly when you  
10 use the total permitted acreage.

11 Q. So that's the point you make on Exhibit 7,  
12 isn't it? You have the note, "Less than one-half  
13 of the acreage currently under permit has been  
14 disturbed by mining as of October 1, 2014." That's  
15 your point, isn't it?

16 A. Yes. Yeah, that's my point because of the  
17 way some of this information has been used in the  
18 past to -- statements are made where it implies  
19 that very little, if any, bond release has  
20 occurred.

21 Q. Just a few more questions. Now, the  
22 Reclamation Division Standards for Evaluation of  
23 Revegetation Success, it's our Exhibit 4, I  
24 believe, it goes on, Recommended Procedures for  
25 Pre- and Postmining Vegetation Assessments, that

1 was approved by the Federal Office of Surface  
2 Mining; is that correct?

3 A. Yes. We initially submitted that to OSM  
4 back in 1988, then we've had three revisions since  
5 then as submitted to OSM as program amendments that  
6 have been approved. But back here, around ten  
7 years ago, OSM revised its rules now that we can  
8 make changes without having to have them approve  
9 that as a formal program amendment. That has been  
10 approved. The document that's in place right now  
11 had OSM approval and that last change was -- like I  
12 said, I believe it was 2003, around that time.

13 Q. Has the Public Service Commission and the  
14 Office of Federal Surface Mining issued excellence  
15 in surface coal mining and reclamation awards to  
16 the North American Coal Corporation mines in North  
17 Dakota?

18 A. Yes, they have.

19 Q. Okay. Showing you what has been marked as  
20 Exhibit Coyote Creek No. 11, is this the OSM's 2013  
21 evaluation of the North Dakota Public Service  
22 Commission?

23 A. Yes, it is for our coal regulatory  
24 program.

25 Q. And is this available on the Public

1 Service Commission's website?

2 A. I'm not sure. If it's not, it should be.  
3 I know it's available on the OSM website.

4 Q. Would you turn to page 15, please.

5 A. Okay.

6 Q. Can you read the first three sentences of  
7 the conclusion? Excuse me.

8 A. "Based on the topics evaluated this year,  
9 North Dakota has an effective program with no  
10 issues that need corrective action. NDPSC actively  
11 pursues public participation and outreach efforts.  
12 NDPSC employees demonstrate an appropriate level of  
13 technical expertise and take advantage of OSM and  
14 other training opportunities."

15 Q. Would you read the last sentence, please?

16 A. "The State conducts the appropriate number  
17 of inspections and those inspections are thorough  
18 and complete."

19 MR. BJELLA: I would offer Exhibit No. 11.

20 JUDGE MANN: Mr. Braaten?

21 MR. BRAATEN: No objection.

22 JUDGE MANN: Ms. Jeffcoat-Sacco?

23 MS. JEFFCOAT-SACCO: No objection.

24 JUDGE MANN: Coyote Creek Exhibit No. 11  
25 is admitted.

1 Q. (MR. BJELLA CONTINUING) I show you what  
2 is marked as Exhibit No. 12. Is this the OSM's  
3 2014 evaluation of the North Dakota Public Service  
4 Commission?

5 A. Yes, it is the evaluation again for our  
6 coal regulatory program.

7 Q. And is this available on OSM's website?

8 A. I'm assuming it is. I guess I haven't  
9 went out and looked for it myself, but I'm assuming  
10 it is. They're generally pretty good about posting  
11 it as soon as they send them to the State.

12 MR. BJELLA: We'd offer Exhibit No. 12.

13 JUDGE MANN: Mr. Braaten?

14 MR. BRAATEN: No objection.

15 JUDGE MANN: Ms. Jeffcoat-Sacco?

16 MS. JEFFCOAT-SACCO: No objection.

17 JUDGE MANN: Coyote Creek Exhibit No. 12  
18 is admitted.

19 Q. (MR. BJELLA CONTINUING) Please turn to  
20 page 31, the conclusion. Would you read the first  
21 three sentences, please?

22 A. "Based on the topics evaluated this year,  
23 North Dakota has an effective program with no  
24 issues that need corrective action. NDPSC actively  
25 pursues public participation and outreach efforts.

1 NDPSC employees demonstrate an appropriate level of  
2 technical expertise and take advantage of OSMRE and  
3 other training opportunities."

4 Q. And then could you skip down, I think it's  
5 two sentences, starts with the words, "Reclamation  
6 is occurring," and read the rest of the paragraph.

7 A. Yes. "Reclamation is occurring as  
8 contemporaneously as possible. NDPSC does an  
9 appropriate job of collecting and tracking the data  
10 necessary to accurately track and assess  
11 reclamation success as well as the contemporaneous  
12 nature of that reclamation. Customer service  
13 efforts have been demonstrated to be appropriate  
14 and scientifically sound. The State conducts the  
15 appropriate number of inspections and those  
16 inspections are thorough and complete."

17 Q. So would these evaluations indicate that  
18 the Federal Office of Surface Mining believes the  
19 Public Service Commission is doing a good job in  
20 enforcing the law and seeing to it that reclamation  
21 of mine lands is being successfully completed?

22 A. Yes, I believe it does.

23 MR. BJELLA: I have no further questions.

24 JUDGE MANN: Commissioner Christmann?  
25

**EXAMINATION**

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**BY COMMISSIONER CHRISTMANN:**

Q. In your calculations on the bond releases of the lands that have been seeded for ten years but have not received bond release, did I understand you correctly that a good part of those are not bond released because they're closely associated with haul roads or water ponds or shops or things like that?

A. I would say a considerable part of that acreage. I don't have an accurate percentage of that, but just the way the -- the mines are laid out and the mining generally progresses away from the facilities so you have the roads and that, that will continue to serve active mining that go through reclaimed areas.

Q. Are there significant amounts of that acreage where the mine has requested bond release -- not specifically this mine, but you can point out specifically, I guess, if you want -- for either North American or mines in general where they have sought bond release but their reclamation work wasn't sufficient for the PSC to grant the bond release?

A. No. As far as the denial of bond

1 releases, I think there might have been a couple  
2 times where some tracts have been deleted for one  
3 reason or the other, but I don't recall where an  
4 entire bond release application has been denied  
5 because standards were not met. And presently with  
6 regard to what's pending, we do have three bond  
7 release applications pending now. Two of those are  
8 for the Gascoyne Mine and the other one is for  
9 BNI's Center Mine.

10 Q. But there's not large amounts of acreage  
11 that are being denied based on the productivity?

12 A. No. No, there's not. In fact, say I  
13 don't recall a bond release ever being denied.  
14 There may have been tracts that were removed, then  
15 later on they've come back and reapplied for that  
16 acreage and have gotten a bond release. There's  
17 been a couple of situations where they've had data  
18 and they thought it met the required standards,  
19 then during our review we found out there's some  
20 problems with that data, then a tract may have been  
21 withdrawn from that release and resubmitted. I  
22 think I recall that happening up at BNI's Larson  
23 Mine that is now completely bond released.

24 Q. And of the acreage that has received bond  
25 release, have you over the years received

1 significant amounts of complaints from the  
2 landowners about compaction issues or poor grass  
3 coverage or problems that they maybe wish that it  
4 hadn't been bonded out?

5 A. No issues with regard to compaction. I  
6 think we've got a couple calls with regard to some  
7 of the settling features or, as some call them,  
8 sinkholes, but -- and there's only been a few of  
9 those. In fact, I recall a couple landowners -- in  
10 fact one at the old Indian Head Mine that he was  
11 somewhat almost disappointed that there was going  
12 to be final bond release because he said once it's  
13 bond released, if there's any problems with it,  
14 that there's no longer the requirements for the  
15 mining company to go in there and do any corrective  
16 action. And that was a tract where there had been  
17 some settling issues along where there had been --  
18 in the area of the final highwall. I don't recall  
19 just how long that was under bond following  
20 reclamation. It may have went 12, 15 years after  
21 the mining was completed.

22 Q. So once that is bond released, the mine  
23 has no more obligation to come in and fix anything,  
24 even though we hear today that apparently they have  
25 just recently gone in and fixed something that has

1       been bond released?

2           A.     Yes.   Upon final bond release the  
3       Commission's jurisdiction terminates unless it's  
4       later proven that the company fraudulently provided  
5       data or obtained bond release in some manner that  
6       was inappropriate.   But in essence once final bond  
7       release is approved, the Commission's oversight and  
8       responsibility over that land terminates.

9           Q.     Okay.   And my last question, having worked  
10       40 years in an industry where you kind of get beat  
11       up for not getting the land bond released quickly  
12       enough and then get beat up if something is  
13       inadequate and then the bond is released already  
14       and there's no one to fix it, do you think ten  
15       years is about the right time frame -- and I  
16       realize we're operating under federal law and we  
17       can't change it, as a commission, anyway, but if  
18       you had your choice, would we push these through  
19       more quickly and release the bond and get the land  
20       back out into private ownership, or should it be  
21       longer, or do you think we have about the right  
22       time frame under federal law?

23           A.     I think we have about the right time.   I  
24       guess there could be some arguments made, you know,  
25       to reduce that time period and others to extend it.

1 But overall I think that is a reasonable time frame  
2 that applies to most areas in the western United  
3 States.

4 COMMISSIONER CHRISTMANN: No other  
5 questions.

6 JUDGE MANN: Commissioner Fedorchak?

7 **EXAMINATION**

8 **BY COMMISSIONER FEDORCHAK:**

9 Q. Thank you, Jim. How active are you in  
10 national, regional mining and reclamation circles?

11 A. The State belongs to the Interstate Mining  
12 Compact Commission, and generally I attend at least  
13 their annual meeting, and they do have a fall  
14 meeting as well and either myself or Dean will  
15 generally attend that. Then also there's an annual  
16 OSM western states meeting, that OSM schedules  
17 those for each of the three regions they have where  
18 topics of more of a regional interest can be  
19 discussed. I'm also -- I haven't been very active  
20 for the last, I guess, several years in the  
21 American Society of Mining and Reclamation. That  
22 is a professional group that's been around for, I  
23 think, well over 30 years.

24 Q. And how about staff? How much do you  
25 encourage your staff to go out and get continuing

1 education and be up to speed on the latest concerns  
2 and topics and standards for mining and  
3 reclamation? Are there requirements for staff to  
4 do that?

5 A. There's no specific requirements, but the  
6 OSM does offer a comprehensive training program and  
7 the staff attend that. Particularly newer staff  
8 will generally attend several of those within the  
9 first couple years. It provides some good  
10 understanding of different aspects of the mining  
11 and reclamation requirements, but it also gives  
12 them the opportunity to interact with some of the  
13 people in other states and with OSM that work in  
14 the same technical areas and have that interaction.  
15 Then usually have at least one person attend the  
16 American Society of Mining and Reclamation, their  
17 annual conference. Here the last few years Guy  
18 Welch has been attending most of those. A few  
19 years ago it was held at Laramie, Wyoming. I think  
20 we had four staff attend then.

21 Q. And how do these folks share the  
22 information that they learn amongst each other on  
23 our staff?

24 A. I guess through our weekly staff meetings.  
25 I guess when people attend training, there's some

1 discussion there. But a lot of it is just with  
2 interaction day to day as they're working together  
3 on some of these applications. Everybody is  
4 located in the same general area and there's a lot  
5 of back-and-forth discussion. Other discussion  
6 comes up as we review and prepare deficiency  
7 letters on applications, concerns that one person  
8 raises, that oftentimes that's bounced off others  
9 and discussed as well.

10 Q. So we heard from a number of folks that  
11 have concerns that the reclamation isn't proving  
12 out on these coal mined lands, that the standards  
13 aren't keeping up with changing ag production  
14 practices and that there's just not enough being  
15 done to actively improve standards and practices.  
16 Are you seeing any evidence in all your interaction  
17 regionally, nationally with you, your assistant,  
18 and staff -- are you seeing any evidence from  
19 studies reclaiming the land is not working out,  
20 that we're not able to do this effectively and  
21 return it into productivity?

22 A. No, I haven't heard any concerns like  
23 that. Overall the reclamation standards that are  
24 in place -- in some of the discussions there's been  
25 no indications that there's problems with the basic

1 reclamation standards, with the grading and soil  
2 respread, revegetation requirements for a lot of  
3 states -- not hearing concerns like that.

4 Q. Okay. What's happening in this period  
5 where areas are seeded, like especially in this  
6 seeded -- areas re-soiled and seeded and then  
7 there's this time frame where they're establishing  
8 the productivity of the land and trying to meet the  
9 standards, what's happening? Describe for me  
10 what's happening with the landowner during that  
11 time period.

12 A. Generally within a year or two after the  
13 lands are re-soiled and seeded if the individual  
14 farmer is still farming in that area, that he's  
15 back in there either farming it himself or taking  
16 hay crops off, in some cases lands get fenced and  
17 doing some grazing, but most of it's usually either  
18 haying or going into direct cropping in the  
19 postmining.

20 Q. And are they kind of partners in the  
21 process, working with the mining company and your  
22 staff?

23 A. Yeah, I guess primarily working with the  
24 mining companies, because the mining company needs  
25 to coordinate with them in collection of the

1 productivity data. Then a lot of times working  
2 with the mining company for access too, because if  
3 it's right adjacent to some of these active haul  
4 roads and ponds, they have to coordinate with the  
5 mining company. Now, at Freedom and Falkirk Mines,  
6 the majority of that land is company owned, but,  
7 there again, they lease those reclaimed lands out  
8 to local farmers and ranchers for them to use  
9 during that revegetation period.

10 Q. And are you hearing any -- do you get  
11 involved in complaints where the land isn't as  
12 productive as the landowner would like it to be or  
13 feel that it should be and they aren't making  
14 enough money and they don't feel like they're --  
15 you know, there's income loss, do you get involved  
16 -- does the PSC get involved in that at all at that  
17 point, or is that purely part of the lease  
18 agreement?

19 A. No. If there's issues with the reclaimed  
20 lands, if a landowner or somebody farming the  
21 reclaimed lands have a complaint, they can come and  
22 complain to us, but we've heard very few of those  
23 type of complaints.

24 Q. Okay. And I think this is my last  
25 question for you, Jim. Do you -- in your opinion,

1 do the mining companies need additional incentives  
2 to encourage them to bond release?

3 A. You know, looking at some --

4 Q. Incentives, maybe penalties or some sort  
5 of a -- you know, they testified that the bond --  
6 the cost of the bond is their incentive and that  
7 it's a pretty good one, it's motivating. Do you  
8 believe that that's the case, or have you and your  
9 staff thought that maybe in some cases there should  
10 be additional incentive or requirements put on that  
11 to kind of get that up to the ten years, encourage  
12 them to speed that up and finish and release those  
13 bonds?

14 A. Well, for the active mines, the way the  
15 bond is calculated based on the worst-case  
16 reclamation condition, that generally keeps going  
17 up as time goes on. It can go the other way, but  
18 generally goes up. So, there again, when you have  
19 a -- when there's a lot of reclaimed lands there,  
20 there really isn't any additional bond for that.  
21 If a person has the idea that, looking at lands  
22 that have been reclaimed, and particularly those  
23 that have been seeded for the ten years or more, if  
24 they're not under bond release, that we possibly  
25 add some additional amount to the bond for those

1 areas. There again, it provides some incentive for  
2 that. It's something thought about. It's nothing  
3 we've proposed. Knowing that the cost of -- if the  
4 companies have a surety bond, that is expensive,  
5 that adds additional cost, but I think something  
6 like that would provide an incentive because if  
7 they don't, they're otherwise paying more for bond.

8 Q. Would there be possible fallout on the  
9 other side with landowners, you know, who, like you  
10 were saying, kind of like having the bond as a --  
11 to make sure that they're getting the productivity  
12 that they want?

13 A. Well, that could be too. There's -- a lot  
14 of times what you do, there's sometimes positive  
15 and sometimes negative consequences.

16 COMMISSIONER FEDORCHAK: Okay. That's all  
17 my questions. Thanks, Jim.

18 JUDGE MANN: Commissioner Kalk?

19 COMMISSIONER KALK: Thank you, Your Honor.

20 **EXAMINATION**

21 **BY COMMISSIONER KALK:**

22 Q. Thank you, Jim. Just a couple things.  
23 You literally have written the book on reclamation  
24 standards; is that correct?

25 A. I wouldn't say that I have -- not

1 entirely, but I've been involved in writing the  
2 book.

3 Q. So it's an evolving process; correct?

4 A. It has been, although a lot of the  
5 standards have been pretty constant for quite a few  
6 years now. But as mentioned before, with our  
7 revegetation success standards there is some need  
8 to update that, and it's something that's been on  
9 our to-do list for several years now. But with  
10 some of the permitting activities and, as you know,  
11 we had some other lawsuits, that took a lot of  
12 time, it's just something that we haven't gotten  
13 done.

14 Particularly that we rely on the NRCS  
15 quite a bit for our revegetation standards, and  
16 they'll come up with some new technical guides and  
17 we need to get those incorporated into that. Plus  
18 there's been some changes in farming practice,  
19 particularly in the cropland. Some of what we have  
20 in there implies that you have summerfallowed  
21 lands, and that is no longer the case. That's  
22 pretty much gone away completely in the last --

23 Q. Do you find it interesting, Jim, that the  
24 coal mine has -- coal mining has such strict  
25 reclamation standards where wind farms and certain

1 pipelines have zero reclamation standards?

2 A. Well, I think the difference with this is  
3 because of the federal law and regulations. As you  
4 know -- in fact, I brought these up for a reason if  
5 it came to that -- you know, the law and rules we  
6 have, there's two books here that are pretty  
7 lengthy and these requirements are pretty  
8 prescriptive as far as what has to be done there.  
9 And if we want to change any of our rules, those  
10 have to be approved by OSM and they have to make a  
11 finding that those changes be as effective as the  
12 counterpart federal regulations.

13 Q. Just one last clarification more for, I  
14 guess, me than anything, Jim. In the order which  
15 we issued on October 22nd, 2014, page 6, the top  
16 paragraph, and I'll just read it, "In the future  
17 the applicant may exercise an option in the lease  
18 obtained from the building owners to purchase the  
19 buildings." Can you walk me through -- I'm just  
20 trying to clarify. Do we have to be notified on  
21 that if that exercise has happened? It's in our  
22 order. I remember having this discussion, but I  
23 wanted to just walk through it one more time.

24 A. The mining companies are required to not  
25 conduct any operations within 500 feet of an

1 occupied dwelling, and then the actual coal removal  
2 operations cannot come in within 500 feet of any  
3 farm building. And I think this particular  
4 language about exercising an option to purchase the  
5 buildings, I'm assuming that was language that was  
6 in Coyote Creek's permit, that they put that in the  
7 permit themselves. I'd have to go into the permit  
8 and verify that, but I believe that's the case.

9 Q. I looked in the Exhibit 1, the lease  
10 itself, and it talks about, page 4, it says -- it  
11 reinforces what we put in the order, however you  
12 want to look at it, but I was just curious, does  
13 the PSC need to be notified if that happens, or is  
14 that something that we just put in the order or is  
15 that something we require notification of?

16 A. I think it's something we would want to be  
17 aware of, because if they do exercise that option,  
18 then the mining operations could come within 500  
19 feet of that occupied dwelling, and, otherwise,  
20 they have to maintain an identified buffer zone to  
21 stay back at least 500 feet.

22 COMMISSIONER KALK: Thank you, Jim. No  
23 more questions.

24 JUDGE MANN: Ms. Jeffcoat-Sacco?

25 MS. JEFFCOAT-SACCO: We have no questions.

1 JUDGE MANN: Mr. Braaten?

2 MR. BRAATEN: Nothing further.

3 JUDGE MANN: Mr. Bjella?

4 MR. BJELLA: No, Your Honor.

5 JUDGE MANN: Commissioner Christmann?

6 Commissioner Fedorchak? Commissioner Kalk?

7 All right. Thank you. You can step down.

8 Ms. Jeffcoat-Sacco, anything further?

9 MS. JEFFCOAT-SACCO: Nothing further.

10 Thank you.

11 JUDGE MANN: Okay. I know there's been  
12 public testimony offered at the end of the first  
13 day. Are there any other individuals who wish to  
14 offer testimony who haven't already been given the  
15 opportunity in this case? Okay. We have one. Is  
16 there anybody out there who had intended to offer  
17 testimony? So just the one. I think before we do  
18 that, we'll just take a -- we've been going for  
19 quite a while, or do you want to --

20 COMMISSIONER FEDORCHAK: Let's just go.

21 JUDGE MANN: You want to just go. All  
22 right. You can come on up. Fine by me.

23 Sir, can I get your name?

24 MR. THYBERG: Michael Thyberg.

25 JUDGE MANN: And, Mr. Thyberg, I need to

1 give you the same oath. I need to advise you of  
2 the penalty for perjury in North Dakota. It's a  
3 Class C felony, punishable by a maximum fine of  
4 \$10,000, maximum five years imprisonment, or both.

5 (Witness sworn.)

6 JUDGE MANN: You can go ahead with your  
7 testimony.

8 **MICHAEL THYBERG,**  
9 being first duly sworn, was examined and testified  
10 as follows:

11 MR. THYBERG: I have a farm -- I'm not  
12 associated with the Voigt situation across the  
13 river. I live on -- or I have a farm west of the  
14 current Falkirk coal mining operation, in the path  
15 of the future coal mining.

16 My farm was homesteaded by my grandfather,  
17 I'm third owner, 131 years ago. And so I have some  
18 concern in that area of losing all of the  
19 centennial farms, and so forth.

20 My first item that I would like to discuss  
21 would be the surface mining royalty that was  
22 discussed by your first witness this morning by  
23 North American Coal, the loss of income.

24 The current three cents a ton for the  
25 surface owner is supposedly paid, and that is

1 supposed to cover the loss of production, the loss  
2 of income during the mining operation.

3 In my case over the previous few years,  
4 the coal mine has come in and done several sets of  
5 testing, test holes, and I've requested their  
6 results or their printouts that they have gotten.  
7 On one of them there was a handwritten calculation  
8 by Falkirk Mine of how much coal was underneath  
9 each one of the two quarters that are in question.  
10 It amounts to about two and a half million ton per  
11 quarter. At three center a ton, when it is  
12 eventually mined, that's going to be \$75,000. For  
13 a quarter at 160 acres that amounts to, I think  
14 it's, \$468 or something like that an acre.

15 That is essentially the gross income for  
16 one year, and they're going to be in what they call  
17 mining operation for ten years. So that three  
18 cents a ton might have been acceptable 30, 40 years  
19 ago, but as of now that amounts to maybe \$50 an  
20 acre return as your token of lost income until they  
21 get back out of the mining and get back into the  
22 reclamation.

23 Falkirk mining is holding land that's been  
24 in their hands for 35 years. They're buying most  
25 of it if they can, and only lease under the worst

1 conditions just to be able to mine it.

2 Coal royalty payments, the 10 to 12 cents  
3 per ton that my folks signed for back in the '60s  
4 represented about 5 to 6 percent value of what that  
5 coal would have -- what the power plants would have  
6 had to pay for that coal. The lease were --  
7 duration were 20 years, subject to 20-year renewal.  
8 Well, that's gone through the process and we're  
9 within five miles and I'm within a mile of the coal  
10 mining operation and so it's perpetual at this  
11 point, there's nothing you can do.

12 Today that same 12 cents per ton royalty  
13 represents approximately six-tenths of 1 percent of  
14 the value of the coal sold to the power plant, ten  
15 times less or one-tenth of what it did 40, 50 years  
16 ago.

17 North Dakota imposes a coal severance tax  
18 of 37 and a half cents a ton. Why does North  
19 Dakota get over three times more in taxes than I  
20 get for my coal? Just a question I would like  
21 answered.

22 If the lignite coal royalties had been  
23 adjusted for inflation, which they weren't -- at  
24 the time my folks signed the lease and stuff they  
25 were without legal representation, there were no

1 public hearings. It was each man for himself, and  
2 most of them lost out. If they were realistic, the  
3 royalty rates would be approximately \$1.20 a ton  
4 now, and that's not realistic.

5           When you look at compared to the older oil  
6 well royalties of one-eighth or 12 and a half  
7 percent, or now the newer ones go in as high as  
8 one-fourth share, 25 percent, that pales at  
9 something less than 1 percent. Something is way  
10 off kilter here, needs to be changed. Maybe you  
11 need to be considering BTUs or, you know, some  
12 other measure.

13           Owners of the coal in North Dakota are  
14 getting really ripped off. Federally owned mine  
15 mineral rights royalty payment rates are 2.25 an  
16 acre. Why is the fed's rate \$2.25 an acre and the  
17 coal owner rights, mineral rights, local mineral  
18 owner rights only 12 cents an acre, or 10, 12, 13,  
19 whatever it happens to be?

20           Reclamation. Current method of  
21 reclamation has improved substantially, I would  
22 say, over the years since '74 or since they've  
23 started out in my area mining -- or Falkirk coal  
24 mine. But over the first five to ten years it  
25 still settles unevenly. You've addressed somewhat

1 of the packing problems when you're putting back  
2 the subsoil, going away from the scraper and  
3 hauling it in, but you still get irregular  
4 compaction. That's leveled, the topsoil is put on,  
5 you plant grass and five, ten years down the road  
6 the shelterbelts, the hole where the snow that was  
7 buried in the pits at the time the pits were  
8 refilled, the farmsteads that were pushed in, all  
9 of that debris tends to rot or decompose, areas  
10 become -- that were compacted, you know, somewhat  
11 become less compacted. But, anyway, the surface of  
12 the topsoil becomes very uneven, maybe one or two  
13 feet differences in very short length, 50, 60 feet,  
14 20 feet down the field, making it very hard for  
15 larger equipment for harvesting.

16 I maintain that sometime in the  
17 reclamation process, maybe at year five or  
18 something, you should come in and check the level  
19 of the land. And you cannot go back and grade it,  
20 because if you graded the high spots in to the low  
21 spots, you wouldn't have any topsoil left on the  
22 high spots, so the topsoil needs to be hauled in to  
23 fill the low spots because of settling.

24 The other thing that happens during the  
25 mine reclamation or during premining is that all

1 the topsoil is removed in one lift. Your organic  
2 matter is in the top few inches of the soil.  
3 That's where your plants grow in. And so by mixing  
4 that top six inches with the other 18 inches or a  
5 foot or whatever topsoil you have and then  
6 commingling it and then spreading it on, you end up  
7 with very little organic matter being spread on at  
8 the time. This is, I think, one of the biggest  
9 problems we have in the redefining or getting the  
10 productivity back up on mined land.

11 I think the topsoil should be brought --  
12 taken off on two lifts or three lifts total with  
13 taking it down to the five-foot level, the subsoil,  
14 the lower topsoil and then the top six inches with  
15 the organic matter in. I think that would resolve  
16 that.

17 The other thing is after the reclamation  
18 is done, grass is planted, and as soon as that's  
19 established, it is leased out to farmers to harvest  
20 that grass, which is narrow strips of grass left  
21 for holding snow. The growth is hauled off. I  
22 think probably in the first five years or the first  
23 certain period of time, this material should be  
24 mulched to be put back into the topsoil to try to  
25 regain the organic matter at a faster rate.

1           Bond release. I think Falkirk Mine is  
2           acquiring land for alternate use. The Falkirk  
3           Mining Company continues to add land to existing  
4           surface mine permit with land ownership now in  
5           approximately, I don't know, 35-, 40,000 acres to  
6           date. Almost half of the land allocated for the  
7           Falkirk Mining Company mining operation is not  
8           mined and is dedicated due to local auxiliary  
9           facilities and operations. That's that gray area  
10          around where they're actually mining.

11           JUDGE MANN: And this permit relates to  
12          the Coyote Creek Mine, and I don't know if you're  
13          asserting that these same things are going to  
14          occur, but your testimony needs to be relevant to  
15          the particular hearing and that relates to Coyote  
16          Creek's mine in this case. Go ahead.

17           MR. THYBERG: Okay. Well, this -- yeah,  
18          this is more or less the Falkirk Mine operation  
19          where the Falkirk Mine owns the land, buys the  
20          land. Their first return on the bonded -- in 2012  
21          the Falkirk Mining Company released about 217 acres  
22          of land that was mined from 1983 to 1989, returning  
23          it to its original agricultural use. This was the  
24          first piece of land to return to its original use  
25          since Falkirk Mining started mining the area 35

1 years ago. So for some reason in Falkirk it has  
2 taken an extremely long time to turn any of this  
3 land back over to the originally displaced farmers.

4 That's about the only comments I got.

5 JUDGE MANN: Just sit tight for a minute.

6 I'll see if anybody has any questions for you.

7 Mr. Braaten?

8 MR. BRAATEN: No, Your Honor.

9 JUDGE MANN: Mr. Bjella?

10 MR. BJELLA: No, Your Honor.

11 JUDGE MANN: Ms. Jeffcoat-Sacco?

12 MS. JEFFCOAT-SACCO: No, Your Honor.

13 JUDGE MANN: Commissioner Christmann?

14 COMMISSIONER CHRISTMANN: No, Your Honor.

15 JUDGE MANN: Commissioner Fedorchak?

16 COMMISSIONER FEDORCHAK: No questions.

17 JUDGE MANN: Commissioner Kalk?

18 COMMISSIONER KALK: Just one, sir. Could

19 you give us your exact address?

20 MR. THYBERG: 2912 Eighth Street

21 Southwest, Washburn --

22 COMMISSIONER KALK: Thank you, sir.

23 MR. THYBERG: -- North Dakota, 58577.

24 COMMISSIONER KALK: Thank you.

25 JUDGE MANN: Thank you. You can step

1 down. I think that was it. Is there anybody else?

2 MR. WIRTZ: I wouldn't mind saying  
3 something.

4 JUDGE MANN: You need to come on up and be  
5 sworn in. Can you state your name, sir.

6 MR. WIRTZ: My name is Eugene Wirtz. I'm  
7 from Underwood, North Dakota.

8 JUDGE MANN: Okay. Mr. Wirtz, I'm  
9 required to give you the oath and advise you of the  
10 penalty for perjury in North Dakota. It's a Class  
11 C felony, punishable by a maximum fine of \$10,000,  
12 maximum five years imprisonment, or both.

13 (Witness sworn.)

14 JUDGE MANN: Go ahead.

15 **EUGENE WIRTZ,**

16 being first duly sworn, was examined and testified  
17 as follows:

18 MR. WIRTZ: I think there's been a lot of  
19 discussion about farmers not coming forward and  
20 saying what's going on, because a lot of the local  
21 farmers are farming this land, and there's a reason  
22 why farmers don't say much and why they don't call  
23 Jim Deutsch and complain. It's because if you do  
24 complain and you were leasing land from the mine,  
25 you will get that land taken away.

1           MR. BJELLA: I'm going to object to this  
2 line of testimony. He's not testifying to his own  
3 particular experience. This is all hearsay.

4           MR. WIRTZ: No. This is my own  
5 experience. This is my own experience.

6           MR. BJELLA: And it's at Falkirk Mine.

7           MR. WIRTZ: Yes, it's at Falkirk Mine, but  
8 it happens everywhere.

9           MR. BJELLA: So I think this testimony  
10 should be --

11          JUDGE MANN: The testimony does need to be  
12 relevant to the particular mining permit that's at  
13 issue, the Coyote Creek Mine.

14          MR. WIRTZ: It's pertinent in the sense  
15 that if you want an actual realistic evaluation of  
16 how things are going in a certain area, there are  
17 reasons why it doesn't happen. That's my --

18          JUDGE MANN: I'll overrule it. I'll allow  
19 brief testimony to the extent that you're  
20 asserting --

21          MR. WIRTZ: Okay.

22          JUDGE MANN: -- based on your experience  
23 these things have occurred and they may be relevant  
24 to your permit. You can go ahead.

25          MR. WIRTZ: Okay. Thank you. I used to

1 mine -- or I used to farm land that ended up being  
2 bought by Falkirk Mine. I rented it before from a  
3 landowner. I was a neighbor. My neighbor and I  
4 issued -- or gave a complaint to the Public Service  
5 Commission, to Jim Deutsch, and I think Englerth  
6 was in the office at that time. And we contended  
7 that the mine didn't have a right to do something,  
8 they didn't have a right to go through our  
9 township, they didn't have permits to go through  
10 our township roads.

11 That road caved in when my neighbor was  
12 driving across it. Had he been driving across it  
13 at a faster speed, he could have been seriously  
14 hurt, maybe even killed.

15 We filed the complaint. The PSC found  
16 that we were correct. Afterwards I got a notice  
17 from the Falkirk Mine that I would no longer be  
18 renting their land from them. And I had rented it  
19 for about four or five years. So that is my  
20 contention. I mean, I have the letter from Falkirk  
21 Mine.

22 And let me tell you, they had to come to  
23 our township supervisors and get a permit and they  
24 were asked -- one of our supervisors for our  
25 township asked, Why did you take that land away?

1 They said, We do not rent land to people that don't  
2 help our mining operation.

3 So that is why nobody is going to say  
4 anything and complain to the PSC, because if they  
5 do and it's found out, they will not be renting  
6 land, and some of these people are very dependent.  
7 I only had 80 acres. I wasn't dependent on it.  
8 Thank God. But there are a lot of people that are  
9 held hostage by these mines because they either  
10 have to rent from them because their grandparents  
11 or somebody else who owned the land made agreements  
12 that they were not party to.

13 That's basically what I wanted to say.

14 JUDGE MANN: Okay. Mr. Braaten?

15 MR. BRAATEN: No. Thank you.

16 JUDGE MANN: Mr. Bjella?

17 MR. BJELLA: I just renew my objection.

18 That was hearsay again on other people and it  
19 pertains to Falkirk Mine, not the Coyote Creek  
20 Mine.

21 MR. WIRTZ: Hearsay?

22 JUDGE MANN: It was. Noted. Ms.

23 Jeffcoat-Sacco?

24 MS. JEFFCOAT-SACCO: I have no questions.

25 JUDGE MANN: All right. Commissioner

1 Christmann?

2 COMMISSIONER CHRISTMANN: No questions.

3 JUDGE MANN: Commissioner Fedorchak?

4 COMMISSIONER FEDORCHAK: I have no  
5 questions. Thank you.

6 JUDGE MANN: Commissioner Kalk?

7 **EXAMINATION**

8 **BY COMMISSIONER KALK:**

9 Q. Just a couple. Mr. Wirtz, can you spell  
10 your first name and your last name with your  
11 complete address? I know you gave it, but I want  
12 to make sure I have it.

13 A. I didn't actually. My official name is  
14 Eugene Wirtz, I go by Gene normally. My address is  
15 3423 --

16 Q. How do you spell your last name, sir?

17 A. W-i-r-t-z.

18 Q. Okay. Official address?

19 A. 3423 Third Street Northwest, Underwood,  
20 North Dakota.

21 Q. Thank you, sir. And just a general time  
22 frame when you would have given this complaint to  
23 the PSC. I'm just trying to -- was this last year?  
24 Was this 20 years ago?

25 A. No. This was -- I don't know. It would

1 be in the records. The PSC fined Falkirk Mine.

2 Q. You must know -- just give me a range.

3 A. I'm guessing. Fifteen years ago?

4 UNIDENTIFIED SPEAKER: '92.

5 JUDGE MANN: Hang on. Just wait. It's  
6 your testimony to the best of your ability. Those  
7 in the public need to be quiet, and, if not, they  
8 need to go ahead and step outside. If you want to  
9 testify you'll have the opportunity, but,  
10 otherwise, no statements from the crowd. Go ahead.

11 MR. WIRTZ: You know, I'd have to think  
12 about it. I mean, Falkirk would have the records,  
13 the PSC would have the records when we filed the  
14 citizens complaint.

15 Q. (COMMISSIONER KALK CONTINUING) Was it  
16 before or after 2000?

17 A. I think it was before.

18 COMMISSIONER KALK: Okay. Thank you, sir.

19 JUDGE MANN: You can step down.

20 Any other members of the public wish to  
21 offer any testimony?

22 Mr. Braaten, do you have any closing  
23 statement or closing remarks?

24 MR. BRAATEN: We had a prehearing  
25 conference, and at that point I believe that we had

1       agreed that we would do written closing statements  
2       and Ms. Jeffcoat-Sacco also suggested that  
3       Mr. Bjella and I also submit proposed findings of  
4       fact and conclusions of law, and so my request and  
5       suggestion would be to try and set a deadline for  
6       submitting those things and the late-filed exhibit  
7       we discussed earlier.

8                JUDGE MANN:  No deadline was discussed at  
9       the prehearing conference for submitting those  
10       documents?

11               MS. JEFFCOAT-SACCO:  No, but at the  
12       prehearing conference we didn't think we'd have  
13       three days either or two apart either.

14               JUDGE MANN:  I guess do you have a thought  
15       on what your preference would be with respect to  
16       time frame?  And I'll allow the others to chime in  
17       on that.

18               (Discussion had off the record.)

19               JUDGE MANN:  Six weeks for the transcript,  
20       you said?  Okay.

21               COMMISSIONER KALK:  This may cross the  
22       line to a work session question, but isn't there  
23       some statute that within 30 days after this hearing  
24       we have to do something?  And I understand there's  
25       a lot of things that could happen here.  I recall

1 that from some discussion somewhere.

2 MR. DEUTSCH: The Commission is required  
3 by law to have a ruling within 30 days after the  
4 close of the hearing, but I guess I know there has  
5 been some other cases where there's been other  
6 filings when it required. Once those are  
7 submitted, I think the Commission have 30 days  
8 after that to issue its ruling.

9 MS. JEFFCOAT-SACCO: When this has come up  
10 before, the hearing simply hasn't closed until  
11 these filings are in.

12 COMMISSIONER KALK: That's key, Illona. I  
13 just wanted to make sure I understood when that  
14 clock started.

15 MS. JEFFCOAT-SACCO: Yes. Well, it  
16 depends what the hearing officer says, but in the  
17 past we have kind of worked it out that way.

18 JUDGE MANN: So, Mr. Bjella, your  
19 thoughts?

20 MR. BJELLA: I would assume we would  
21 probably want the transcript. Derrick, would you  
22 agree to that?

23 MR. BRAATEN: Yeah, I would.

24 JUDGE MANN: Ms. Jeffcoat-Sacco?

25 MS. JEFFCOAT-SACCO: Yes, but I'm not

1 producing these documents to file, but, yes, I  
2 would expect they would want the transcript.

3 JUDGE MANN: I don't know that we  
4 necessarily can set a date certain on the time  
5 frame for submission of the proposed findings  
6 because it is contingent upon receiving the  
7 transcript that will allow the parties to produce  
8 their proposed findings.

9 MS. JEFFCOAT-SACCO: A certain length of  
10 time after.

11 JUDGE MANN: Mr. Braaten, what do you  
12 propose for how long after you receive the  
13 transcript, how long you need to prepare your  
14 proposed findings?

15 MR. BRAATEN: I'm open to disagreement,  
16 I'm just throwing this out there, but I was going  
17 to say three weeks.

18 JUDGE MANN: I'll see what Mr. Bjella  
19 says.

20 MR. BJELLA: I'm sorry, Your Honor. We  
21 discussed three weeks after the transcript?

22 JUDGE MANN: Correct.

23 MR. BJELLA: That's fine.

24 JUDGE MANN: Ms. Jeffcoat-Sacco?

25 MS. JEFFCOAT-SACCO: That's good with me.

1           JUDGE MANN: And then the other matter,  
2 the late-filed exhibit, is it my understanding that  
3 the two reports that you wanted as late-filed  
4 exhibits have now been entered into evidence? Is  
5 that not correct?

6           MR. BRAATEN: No. There's one that we did  
7 receive that was not entered into evidence.

8           MS. JEFFCOAT-SACCO: Right. There's one  
9 you received, there's one upstairs, and there's the  
10 photos, and I'm sure we can --

11          JUDGE MANN: And that was something that  
12 the parties were going to get together on and work  
13 out and see whether or not they even had to be  
14 submitted as late-filed exhibits, so there may not  
15 be any late-filed exhibits.

16          MS. JEFFCOAT-SACCO: Right. That will be  
17 done -- I think that can be done next week.

18          JUDGE MANN: Go ahead, Mr. Bjella.

19          MR. BJELLA: There was the one that  
20 Commissioner Kalk had requested, the report by  
21 Mr. Bickel, all of the data that was pertinent to  
22 that was requested, so we agreed to submit that as  
23 a late-filed exhibit.

24          COMMISSIONER KALK: Certainly  
25 electronically would be fine.

1           JUDGE MANN: It was Coyote Creek's Exhibit  
2 No. 13, you were to supplement that with a complete  
3 Exhibit E to that exhibit. Is that what you're  
4 referring to?

5           MR. BJELLA: Yes.

6           JUDGE MANN: So that will be -- I guess  
7 that will be a late-filed exhibit for certain. And  
8 then there potentially could be other late-filed  
9 exhibits once counsel have met with advisory staff.

10          MR. BJELLA: And just one further. With  
11 respect to the closing statement, are they to be --  
12 is Mr. Braaten to go first and we follow, or what  
13 is the thought there?

14          JUDGE MANN: Well, was that addressed at  
15 the prehearing conference?

16          MR. BRAATEN: It was not, and right now  
17 I'm fine with whatever Mr. Bjella would like to do.

18          JUDGE MANN: Okay. What do you propose?

19          MR. BJELLA: Well, my perception of this  
20 closing statement is really a brief.

21          MR. BRAATEN: Yeah.

22          MR. BJELLA: And typically in these  
23 scenarios like this, with their side being the  
24 applicant, the proponent of the measure, that they  
25 would file their brief and then we would have like

1 ten days after to file ours or something like that.

2 JUDGE MANN: Are you okay with that,  
3 Mr. Braaten?

4 MR. BRAATEN: Yeah.

5 JUDGE MANN: So you'll file your brief  
6 simultaneous with your proposed findings of fact  
7 three weeks after receiving the transcript?

8 MR. BRAATEN: That sounds fine.

9 JUDGE MANN: Then Mr. Bjella will have ten  
10 days after that to file his response?

11 MR. BRAATEN: That's fine with me.

12 JUDGE MANN: Ms. Jeffcoat-Sacco, any  
13 concerns or questions?

14 MS. JEFFCOAT-SACCO: Only if the -- will  
15 the company's findings be coming in with the brief.

16 MR. BJELLA: Yes.

17 MS. JEFFCOAT-SACCO: That's fine. As long  
18 as it's all clear.

19 JUDGE MANN: Sure.

20 MR. BJELLA: Yes.

21 JUDGE MANN: Any other procedural issues  
22 to address?

23 MR. BJELLA: No, Your Honor.

24 JUDGE MANN: Mr. Braaten, anything  
25 further?

1 MR. BRAATEN: No, Your Honor.

2 JUDGE MANN: Ms. Jeffcoat-Sacco?

3 MS. JEFFCOAT-SACCO: No. Thank you.

4 JUDGE MANN: How about closing comments  
5 from the commissioners? Commissioner Christmann.

6 COMMISSIONER CHRISTMANN: Well, not a lot  
7 of closing comments except for that obviously we  
8 have a lot of information to review here. I've  
9 certainly appreciated all the information. I think  
10 it's certainly been a learning experience and I  
11 look forward to reviewing this.

12 I appreciate everybody's patience in  
13 answering a lot of questions during these three  
14 days and I look forward to seeing the closings from  
15 the attorneys and their findings of fact and  
16 conclusions of law.

17 JUDGE MANN: Commissioner Fedorchak.

18 COMMISSIONER FEDORCHAK: I had a New  
19 Year's resolution to read 12 books at the start of  
20 the year. I think I just have to put that off for  
21 a month or two while I read the 12 books that were  
22 supplied to me today. So thank you for that.

23 No. In all seriousness, I know this is a  
24 sensitive matter, an important matter to every  
25 party, and you have my commitment to look at all

1 the materials thoroughly and be as fair as possible  
2 in dealing with the jurisdiction that we have.  
3 There are issues brought up that we have no  
4 jurisdiction over. And so while I can understand  
5 some of the frustrations, there are just simply  
6 things the PSC can't control. But I think that  
7 everyone exhibited a lot of patience and  
8 professionalism and thoroughness, and we'll do our  
9 very best to get a good decision, you know, as  
10 expeditiously as possible. Thank you.

11 JUDGE MANN: Commissioner Kalk.

12 COMMISSIONER KALK: Thank you, Your Honor.  
13 Just kind of echo what both my colleagues have  
14 said. Just thank everyone for the work and the  
15 patience and the decorum.

16 I think I talked about -- when we first  
17 started this thing about the infamous Cooperstown  
18 community hearing where people were literally  
19 fighting in the hallway, and nothing good comes of  
20 that. And whatever decision this Commission comes  
21 to, somebody is going to be upset, and the thing is  
22 that you have to live together and work together,  
23 and that's the big thing, is we're going to do our  
24 best to make the best decision we can. You've  
25 given us a lot of information to look through, and

1 I appreciate that, but just at the end of the day,  
2 remember, we're all neighbors here, we're all going  
3 to need to work together and live together when  
4 this is all said and done.

5 So just thank you all very much for your  
6 effort and for staying with this hearing process.

7 JUDGE MANN: Thank you. And that will  
8 conclude testimony for today. The hearing -- the  
9 record will remain open until receipt of the  
10 transcript and the proposed findings and the briefs  
11 from the parties. Thank you.

12 (Concluded at 6:49 p.m., Friday, January  
13 2, 2015.)

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CERTIFICATE OF COURT REPORTER

I, Denise M. Andahl, a Registered  
Professional Reporter,

DO HEREBY CERTIFY that I recorded in  
shorthand the foregoing proceedings had and made of  
record at the time and place hereinbefore  
indicated.

I DO HEREBY FURTHER CERTIFY that the  
foregoing typewritten pages contain an accurate  
transcript of my shorthand notes then and there  
taken.

Bismarck, North Dakota, this 10th day of  
February, 2015.

-----  
Denise M. Andahl  
Registered Professional Reporter

<b>\$</b>	<p><b>12</b><sup>[18]</sup> - 484:4, 500:1, 508:25, 531:25, 540:11, 543:1, 584:2, 677:2, 677:12, 677:17, 681:20, 696:2, 696:12, 697:6, 697:18, 714:19, 714:21</p> <p><b>120</b><sup>[1]</sup> - 576:13</p> <p><b>13</b><sup>[5]</sup> - 516:21, 527:4, 604:13, 697:18, 712:2</p> <p><b>13,639</b><sup>[1]</sup> - 669:10</p> <p><b>1302</b><sup>[4]</sup> - 491:11, 527:4, 614:5, 640:19</p> <p><b>131</b><sup>[1]</sup> - 694:17</p> <p><b>14</b><sup>[4]</sup> - 583:25, 584:1, 584:18, 621:15</p> <p><b>1401</b><sup>[1]</sup> - 596:5</p> <p><b>15</b><sup>[10]</sup> - 484:14, 518:20, 521:6, 571:16, 609:11, 610:7, 612:17, 645:5, 676:4, 681:20</p> <p><b>15,000</b><sup>[2]</sup> - 496:25, 669:12</p> <p><b>15-plus</b><sup>[1]</sup> - 641:10</p> <p><b>150</b><sup>[1]</sup> - 506:7</p> <p><b>16</b><sup>[12]</sup> - 483:4, 605:17, 606:7, 609:7, 610:13, 647:21, 647:23, 648:18, 649:6, 649:11, 649:16, 650:6</p> <p><b>160</b><sup>[1]</sup> - 695:13</p> <p><b>163</b><sup>[1]</sup> - 658:12</p> <p><b>16th</b><sup>[1]</sup> - 596:5</p> <p><b>17</b><sup>[9]</sup> - 483:5, 521:24, 606:7, 649:8, 650:11, 650:16, 650:23, 651:14, 652:14</p> <p><b>17th</b><sup>[2]</sup> - 487:1, 512:19</p> <p><b>18</b><sup>[7]</sup> - 607:6, 607:24, 608:21, 609:7, 610:13, 649:8, 699:4</p> <p><b>19</b><sup>[10]</sup> - 600:4, 606:22, 612:4, 629:16, 633:20, 633:24, 638:10, 643:22, 643:24</p> <p><b>1922</b><sup>[3]</sup> - 492:6, 493:23, 493:25</p> <p><b>1957</b><sup>[1]</sup> - 494:1</p> <p><b>1960s</b><sup>[1]</sup> - 666:20</p> <p><b>1969</b><sup>[1]</sup> - 494:22</p> <p><b>1970</b><sup>[6]</sup> - 609:3, 609:24, 610:1, 610:12, 611:20, 666:22</p> <p><b>1971</b><sup>[1]</sup> - 494:24</p> <p><b>1973</b><sup>[1]</sup> - 659:18</p> <p><b>1974</b><sup>[1]</sup> - 654:17</p> <p><b>1975</b><sup>[2]</sup> - 659:18, 664:12</p> <p><b>1977</b><sup>[2]</sup> - 655:9, 667:2</p> <p><b>1978</b><sup>[1]</sup> - 641:2</p> <p><b>1979</b><sup>[5]</sup> - 484:12, 484:13, 657:22, 658:1, 660:7</p> <p><b>1980</b><sup>[1]</sup> - 615:7</p> <p><b>1983</b><sup>[6]</sup> - 614:16, 615:2,</p>	<p>615:9, 615:11, 627:15, 700:22</p> <p><b>1985</b><sup>[4]</sup> - 615:9, 615:20, 617:6, 627:2</p> <p><b>1986</b><sup>[1]</sup> - 487:10</p> <p><b>1988</b><sup>[2]</sup> - 641:9, 675:4</p> <p><b>1989</b><sup>[1]</sup> - 700:22</p> <p><b>1990</b><sup>[1]</sup> - 487:19</p> <p><b>1992</b><sup>[2]</sup> - 488:1, 492:6</p> <p><b>1993</b><sup>[1]</sup> - 488:6</p> <p><b>1995</b><sup>[2]</sup> - 487:20</p> <p><b>1997</b><sup>[1]</sup> - 654:20</p> <p><b>1999</b><sup>[1]</sup> - 516:5</p> <p><b>1:02</b><sup>[1]</sup> - 485:2</p> <p><b>1st</b><sup>[1]</sup> - 657:19</p>	<p><b>2015</b><sup>[4]</sup> - 479:17, 485:2, 716:13, 717:14</p> <p><b>21</b><sup>[3]</sup> - 599:20, 599:25, 605:18</p> <p><b>217</b><sup>[1]</sup> - 700:21</p> <p><b>22</b><sup>[5]</sup> - 596:13, 598:10, 598:16, 601:7, 633:4</p> <p><b>22nd</b><sup>[1]</sup> - 691:15</p> <p><b>24</b><sup>[2]</sup> - 516:20, 532:9</p> <p><b>25</b><sup>[7]</sup> - 490:4, 505:19, 506:2, 507:6, 516:20, 536:19, 697:8</p> <p><b>250</b><sup>[1]</sup> - 480:8</p> <p><b>2798</b><sup>[1]</sup> - 480:8</p> <p><b>2912</b><sup>[1]</sup> - 701:20</p> <p><b>29th</b><sup>[1]</sup> - 508:4</p> <p><b>2nd</b><sup>[1]</sup> - 485:2</p>
<b>'</b>	<p><b>'09</b><sup>[1]</sup> - 617:19</p> <p><b>'14</b><sup>[1]</sup> - 536:21</p> <p><b>'22</b><sup>[1]</sup> - 493:24</p> <p><b>'60s</b><sup>[1]</sup> - 696:3</p> <p><b>'69</b><sup>[2]</sup> - 492:10, 494:24</p> <p><b>'70s</b><sup>[1]</sup> - 666:22</p> <p><b>'71</b><sup>[4]</sup> - 492:10, 492:25, 493:18, 493:19</p> <p><b>'73</b><sup>[3]</sup> - 492:10, 492:24, 493:1</p> <p><b>'74</b><sup>[1]</sup> - 697:22</p> <p><b>'75</b><sup>[2]</sup> - 492:11, 493:1</p> <p><b>'77</b><sup>[2]</sup> - 492:11, 493:1</p> <p><b>'78</b><sup>[2]</sup> - 492:11, 493:1</p> <p><b>'79</b><sup>[1]</sup> - 659:7</p> <p><b>'80s</b><sup>[1]</sup> - 654:19</p> <p><b>'85</b><sup>[2]</sup> - 614:16, 615:3</p> <p><b>'92</b><sup>[2]</sup> - 508:4, 707:4</p> <p><b>'93</b><sup>[1]</sup> - 488:7</p>	<b>2</b>	<b>3</b>
<p><b>'09</b><sup>[1]</sup> - 617:19</p> <p><b>'14</b><sup>[1]</sup> - 536:21</p> <p><b>'22</b><sup>[1]</sup> - 493:24</p> <p><b>'60s</b><sup>[1]</sup> - 696:3</p> <p><b>'69</b><sup>[2]</sup> - 492:10, 494:24</p> <p><b>'70s</b><sup>[1]</sup> - 666:22</p> <p><b>'71</b><sup>[4]</sup> - 492:10, 492:25, 493:18, 493:19</p> <p><b>'73</b><sup>[3]</sup> - 492:10, 492:24, 493:1</p> <p><b>'74</b><sup>[1]</sup> - 697:22</p> <p><b>'75</b><sup>[2]</sup> - 492:11, 493:1</p> <p><b>'77</b><sup>[2]</sup> - 492:11, 493:1</p> <p><b>'78</b><sup>[2]</sup> - 492:11, 493:1</p> <p><b>'79</b><sup>[1]</sup> - 659:7</p> <p><b>'80s</b><sup>[1]</sup> - 654:19</p> <p><b>'85</b><sup>[2]</sup> - 614:16, 615:3</p> <p><b>'92</b><sup>[2]</sup> - 508:4, 707:4</p> <p><b>'93</b><sup>[1]</sup> - 488:7</p>	<p><b>2</b><sup>[9]</sup> - 479:17, 483:8, 483:18, 489:6, 489:15, 489:20, 505:18, 594:9, 716:13</p> <p><b>2,000</b><sup>[2]</sup> - 496:21, 518:11</p> <p><b>2,475</b><sup>[3]</sup> - 492:20, 492:21, 496:16</p> <p><b>2,746</b><sup>[1]</sup> - 673:12</p> <p><b>2.25</b><sup>[1]</sup> - 697:15</p> <p><b>2.4</b><sup>[1]</sup> - 545:13</p> <p><b>2.4.7</b><sup>[2]</sup> - 527:11, 546:17</p> <p><b>20</b><sup>[16]</sup> - 484:16, 488:20, 506:19, 521:6, 556:22, 559:19, 571:16, 596:13, 609:11, 610:7, 636:8, 670:8, 671:3, 696:7, 698:14, 706:24</p> <p><b>20,800</b><sup>[1]</sup> - 658:9</p> <p><b>20-plus</b><sup>[1]</sup> - 559:20</p> <p><b>20-year</b><sup>[1]</sup> - 696:7</p> <p><b>2000</b><sup>[1]</sup> - 707:16</p> <p><b>2000s</b><sup>[1]</sup> - 549:21</p> <p><b>2003</b><sup>[4]</sup> - 483:13, 504:6, 560:2, 675:12</p> <p><b>2005</b><sup>[4]</sup> - 488:11, 494:4, 506:12, 506:13</p> <p><b>2006</b><sup>[1]</sup> - 654:22</p> <p><b>2007</b><sup>[1]</sup> - 516:10</p> <p><b>2009</b><sup>[17]</sup> - 484:14, 601:16, 606:13, 609:1, 610:10, 610:16, 612:2, 612:25, 613:21, 617:3, 618:18, 620:6, 629:15, 632:23, 638:9, 639:23, 643:22</p> <p><b>2012</b><sup>[3]</sup> - 536:5, 546:9, 700:20</p> <p><b>2013</b><sup>[7]</sup> - 483:25, 487:21, 487:22, 536:21, 665:9, 670:4, 675:20</p> <p><b>2014</b><sup>[6]</sup> - 484:5, 484:16, 657:19, 674:14, 677:3, 691:15</p>	<p><b>3</b><sup>[22]</sup> - 483:10, 484:7, 496:6, 509:17, 509:20, 510:6, 510:8, 510:10, 516:14, 516:23, 518:6, 518:16, 541:19, 569:4, 572:7, 594:11, 595:5, 611:8, 611:13, 650:22, 651:14</p> <p><b>3,000</b><sup>[2]</sup> - 496:19, 658:15</p> <p><b>3,800</b><sup>[2]</sup> - 492:15, 493:16</p> <p><b>3.1.1</b><sup>[1]</sup> - 527:14</p> <p><b>3.1.1.1</b><sup>[1]</sup> - 527:16</p> <p><b>3.1.1.2</b><sup>[1]</sup> - 527:17</p> <p><b>3.1.3</b><sup>[1]</sup> - 527:18</p> <p><b>30</b><sup>[17]</sup> - 506:3, 600:4, 606:22, 612:4, 626:2, 629:16, 633:20, 633:22, 633:25, 643:22, 643:24, 651:3, 683:23, 695:18, 708:23, 709:3, 709:7</p> <p><b>300</b><sup>[1]</sup> - 627:15</p> <p><b>31</b><sup>[21]</sup> - 599:25, 600:1, 600:2, 609:19, 612:7, 626:2, 629:9, 629:12, 629:19, 630:4, 630:7, 631:6, 631:17, 631:22, 631:23, 633:23, 634:17, 643:20, 647:12, 647:16, 677:20</p> <p><b>32</b><sup>[3]</sup> - 533:1, 576:1, 576:9</p> <p><b>32-inch</b><sup>[1]</sup> - 642:10</p> <p><b>33</b><sup>[1]</sup> - 570:19</p> <p><b>34</b><sup>[2]</sup> - 490:2, 505:20</p> <p><b>3423</b><sup>[2]</sup> - 706:15, 706:19</p> <p><b>35</b><sup>[10]</sup> - 507:8, 557:14, 558:4, 569:11, 569:12, 569:16, 572:8, 695:24, 700:5, 700:25</p> <p><b>35s</b><sup>[1]</sup> - 507:11</p> <p><b>36</b><sup>[2]</sup> - 532:1, 587:12</p>	
<b>1</b>	<p><b>1</b><sup>[12]</sup> - 483:18, 484:12, 506:23, 507:5, 518:15, 594:9, 657:22, 659:7, 674:14, 692:9, 696:13, 697:9</p> <p><b>1,400</b><sup>[3]</sup> - 493:2, 493:4, 493:8</p> <p><b>1,700</b><sup>[1]</sup> - 658:11</p> <p><b>10</b><sup>[12]</sup> - 483:21, 484:16, 498:16, 500:4, 500:20, 536:25, 537:13, 538:4, 594:10, 673:14, 696:2, 697:18</p> <p><b>10/22/2014</b><sup>[1]</sup> - 483:23</p> <p><b>100</b><sup>[3]</sup> - 480:8, 480:14, 492:19</p> <p><b>109</b><sup>[1]</sup> - 480:14</p> <p><b>10th</b><sup>[1]</sup> - 717:13</p> <p><b>11</b><sup>[5]</sup> - 483:24, 591:22, 675:20, 676:19, 676:24</p>		

<p><b>37</b> [3] - 490:6, 505:20, 696:18  <b>38</b> [1] - 492:21  <b>3:35</b> [1] - 593:16  <b>3:48</b> [1] - 593:16</p>	<p><b>507</b> [1] - 481:7  <b>512</b> [1] - 481:9  <b>516</b> [1] - 483:10  <b>518</b> [1] - 483:10  <b>519</b> [2] - 483:13  <b>52</b> [1] - 569:5  <b>523</b> [1] - 483:14  <b>524</b> [1] - 483:14  <b>526</b> [1] - 483:15  <b>527</b> [1] - 483:15  <b>529</b> [2] - 483:16  <b>530</b> [1] - 483:18  <b>531</b> [1] - 483:18  <b>537</b> [1] - 483:23  <b>538</b> [1] - 483:23  <b>540</b> [1] - 481:9  <b>55</b> [1] - 532:22  <b>561</b> [1] - 481:10  <b>562</b> [1] - 481:10  <b>580</b> [1] - 481:11  <b>58501</b> [1] - 480:14  <b>58502-2798</b> [1] - 480:9  <b>58505-0480</b> [1] - 480:19  <b>58554</b> [1] - 596:5  <b>58577</b> [1] - 701:23  <b>58580</b> [1] - 512:20  <b>586</b> [1] - 481:11  <b>590</b> [1] - 481:12  <b>592</b> [1] - 481:13  <b>594</b> [3] - 484:7, 484:8, 484:10  <b>595</b> [4] - 481:16, 484:7, 484:8, 484:10  <b>599</b> [1] - 481:16  <b>5:30</b> [1] - 653:7</p>	<p><b>643</b> [1] - 481:24  <b>647</b> [1] - 483:4  <b>648</b> [1] - 483:4  <b>65</b> [3] - 556:6, 556:12, 557:8  <b>650</b> [2] - 483:6  <b>6502</b> [2] - 487:1, 512:19  <b>651</b> [1] - 481:24  <b>652</b> [1] - 481:25  <b>654</b> [1] - 482:3  <b>660</b> [1] - 484:12  <b>661</b> [1] - 484:12  <b>663</b> [2] - 484:13  <b>664</b> [1] - 482:3  <b>673</b> [1] - 482:4  <b>676</b> [2] - 483:25  <b>677</b> [2] - 484:5  <b>679</b> [1] - 482:4  <b>683</b> [1] - 482:5  <b>689</b> [1] - 482:5  <b>69-05.2-08-13</b> [1] - 612:12  <b>694</b> [1] - 482:7  <b>6:49</b> [1] - 716:12</p>	<p><b>903</b> [1] - 658:14  <b>92</b> [4] - 496:1, 496:4, 496:5, 518:14  <b>95</b> [2] - 567:17, 669:23</p>
<b>4</b>		<b>7</b>	<b>A</b>
<p><b>4</b> [14] - 483:11, 484:8, 509:5, 510:4, 519:7, 519:24, 521:23, 555:18, 555:25, 594:11, 595:5, 650:23, 674:23, 692:10  <b>4,000</b> [1] - 658:11  <b>4,700</b> [1] - 658:11  <b>4.1.1</b> [1] - 527:19  <b>4.2.1</b> [1] - 527:20  <b>4.2.2</b> [2] - 527:22, 592:13  <b>4.3.1</b> [1] - 527:23  <b>40</b> [7] - 654:14, 655:2, 671:15, 673:16, 682:10, 695:18, 696:15  <b>40,000</b> [1] - 700:5  <b>408</b> [1] - 480:19  <b>45</b> [1] - 673:17  <b>46</b> [1] - 673:18  <b>47</b> [1] - 535:25  <b>479-717</b> [1] - 479:13  <b>48</b> [10] - 532:9, 532:14, 541:9, 541:13, 559:4, 575:23, 576:8, 587:10, 587:13, 587:17  <b>48-inch</b> [2] - 533:2, 642:12  <b>485</b> [1] - 484:9  <b>486</b> [2] - 481:4, 484:9  <b>489</b> [2] - 483:9  <b>491</b> [2] - 483:20  <b>492</b> [1] - 481:5  <b>495</b> [1] - 481:5  <b>497</b> [1] - 481:6</p>			<p><b>abandoned</b> [3] - 596:15, 596:18, 596:19  <b>Abandoned</b> [2] - 654:8, 654:23  <b>ability</b> [3] - 603:25, 625:11, 707:6  <b>able</b> [17] - 503:10, 508:14, 524:4, 539:9, 546:10, 557:19, 590:2, 591:3, 592:3, 604:23, 623:20, 627:9, 628:2, 628:9, 649:23, 685:20, 696:1  <b>absolutely</b> [9] - 560:24, 565:22, 579:24, 603:16, 623:1, 624:6, 626:4, 630:17, 632:13  <b>acceptable</b> [3] - 563:1, 619:4, 695:18  <b>accepted</b> [1] - 543:6  <b>access</b> [7] - 499:5, 524:4, 607:1, 625:22, 629:12, 649:19, 687:2  <b>accompanied</b> [1] - 638:6  <b>accomplish</b> [1] - 502:24  <b>accomplished</b> [1] - 656:7  <b>accordance</b> [2] - 487:16, 532:7  <b>according</b> [2] - 600:15, 608:6  <b>account</b> [1] - 528:1  <b>accuracy</b> [1] - 630:22  <b>accurate</b> [9] - 566:3, 647:15, 660:18, 673:7, 673:19, 673:24, 673:25, 679:11, 717:10  <b>accurately</b> [1] - 678:10  <b>achieve</b> [2] - 509:9, 542:14  <b>achieved</b> [1] - 517:25  <b>acidity</b> [1] - 577:21  <b>acknowledge</b> [1] - 656:1  <b>acquiring</b> [1] - 700:2  <b>acre</b> [11] - 494:14, 506:2, 506:19, 508:1, 508:23, 600:5, 695:14, 695:20, 697:16, 697:18  <b>acreage</b> [22] - 492:17, 492:23, 493:16, 657:15, 657:18, 658:4, 658:8, 661:10, 662:14, 667:10, 669:24, 669:25, 670:4, 670:9, 674:6, 674:10, 674:13, 679:11, 679:18,</p>
<b>5</b>	<b>6</b>	<b>8</b>	
<p><b>5</b> [24] - 483:14, 484:9, 485:6, 485:10, 486:1, 486:7, 496:5, 500:18, 507:10, 518:15, 522:20, 523:7, 524:14, 528:6, 546:19, 556:18, 556:20, 557:13, 574:16, 585:6, 590:22, 591:20, 592:9, 696:4  <b>5,369</b> [1] - 668:6  <b>5,700</b> [1] - 658:9  <b>5.6</b> [2] - 541:23, 673:6  <b>50</b> [2] - 696:15, 698:13  <b>50,000-acre</b> [1] - 501:22  <b>500</b> [4] - 691:25, 692:2, 692:18, 692:21  <b>505</b> [1] - 481:6</p>	<p><b>6</b> [13] - 483:15, 484:10, 526:1, 526:2, 526:7, 526:11, 526:16, 527:7, 568:25, 594:11, 595:5, 691:15, 696:4  <b>6,223</b> [1] - 659:10  <b>60</b> [5] - 493:11, 651:2, 651:4, 672:19, 698:13  <b>600</b> [3] - 480:19, 637:17, 654:10  <b>62</b> [3] - 569:5, 572:7, 572:13  <b>621</b> [3] - 481:17, 484:15, 484:17  <b>622</b> [1] - 481:17  <b>624</b> [1] - 481:18  <b>626</b> [1] - 481:18  <b>629</b> [1] - 481:19  <b>63,096</b> [1] - 668:8  <b>633</b> [1] - 481:20  <b>634</b> [1] - 481:21  <b>635</b> [1] - 481:21  <b>637</b> [1] - 481:23</p>	<p><b>7</b> [16] - 483:16, 484:11, 528:20, 529:13, 529:18, 534:20, 605:7, 657:9, 657:12, 657:15, 658:20, 660:22, 661:2, 668:1, 674:11  <b>702</b> [1] - 482:9  <b>706</b> [1] - 482:10  <b>710</b> [1] - 496:18  <b>75</b> [2] - 506:7, 625:18  <b>76</b> [2] - 535:20, 536:1</p>	
		<b>9</b>	
		<p><b>8</b> [17] - 483:17, 484:13, 500:1, 530:10, 530:24, 531:9, 657:9, 661:4, 661:7, 663:12, 663:17, 664:17, 668:10, 668:13, 669:12, 673:4  <b>8,100</b> [1] - 570:21  <b>80</b> [10] - 640:7, 640:9, 640:10, 640:11, 640:12, 640:16, 644:17, 651:16, 705:7  <b>83</b> [2] - 494:14, 494:21  <b>8s</b> [1] - 530:25</p>	
		<p><b>9</b> [4] - 483:19, 484:14, 491:1, 491:19  <b>90</b> [2] - 534:16, 660:3</p>	

<p>680:10, 680:16, 680:24  <b>Acres</b> [1] - 483:9  <b>acres</b> [33] - 492:3, 492:15, 493:2, 493:4, 493:9, 493:17, 494:3, 496:13, 496:16, 496:21, 506:7, 517:17, 518:11, 570:21, 658:5, 658:9, 658:11, 658:12, 658:14, 658:15, 659:3, 659:5, 659:10, 668:1, 669:12, 670:1, 673:12, 695:13, 700:5, 700:21, 705:7  <b>Act</b> [1] - 515:16  <b>action</b> [3] - 676:10, 677:24, 681:16  <b>active</b> [12] - 501:20, 514:3, 574:4, 574:10, 661:23, 662:3, 666:13, 679:15, 683:9, 683:19, 687:3, 688:14  <b>actively</b> [4] - 633:8, 676:10, 677:24, 685:15  <b>activities</b> [7] - 488:4, 488:9, 488:10, 551:21, 631:18, 631:22, 690:10  <b>actual</b> [8] - 610:11, 611:16, 616:21, 634:17, 634:18, 635:8, 692:1, 703:15  <b>adapted</b> [2] - 591:24, 621:19  <b>add</b> [5] - 633:4, 666:7, 668:7, 688:25, 700:3  <b>added</b> [2] - 568:12, 667:9  <b>addition</b> [3] - 576:4, 584:2, 620:24  <b>additional</b> [10] - 533:3, 535:4, 535:5, 642:11, 663:24, 688:1, 688:10, 688:20, 688:25, 689:5  <b>additionally</b> [1] - 528:8  <b>address</b> [21] - 486:25, 512:18, 523:13, 524:15, 550:23, 586:5, 594:1, 594:2, 594:3, 595:24, 596:4, 637:15, 643:5, 654:4, 654:9, 656:19, 701:19, 706:11, 706:14, 706:18, 713:22  <b>addressed</b> [4] - 554:16, 655:18, 697:25, 712:14  <b>addressing</b> [1] - 577:8  <b>adds</b> [1] - 689:5  <b>adequate</b> [5] - 501:18, 509:11, 566:17, 571:5, 642:7  <b>adequately</b> [2] - 557:24, 583:5  <b>adjacent</b> [7] - 597:22, 606:23, 629:22, 632:25, 633:2, 671:18, 687:3</p>	<p><b>adjusted</b> [1] - 696:23  <b>administering</b> [1] - 505:2  <b>administration</b> [1] - 594:25  <b>administrative</b> [3] - 641:14, 641:15, 671:4  <b>Administrative</b> [1] - 612:11  <b>ADMINISTRATIVE</b> [1] - 479:22  <b>admission</b> [2] - 491:7, 595:8  <b>admit</b> [4] - 524:13, 538:2, 541:1, 595:4  <b>admitted</b> [20] - 486:8, 489:21, 491:20, 518:7, 519:19, 519:25, 527:7, 529:19, 531:9, 538:4, 594:15, 595:9, 596:7, 621:2, 648:19, 650:16, 661:2, 663:17, 676:25, 677:18  <b>admonition</b> [1] - 637:3  <b>adopted</b> [1] - 658:1  <b>adopting</b> [1] - 493:20  <b>advantage</b> [2] - 676:13, 678:2  <b>advise</b> [6] - 486:13, 512:5, 595:12, 653:17, 694:1, 702:9  <b>advisory</b> [3] - 593:14, 620:23, 712:9  <b>aerial</b> [1] - 618:21  <b>affect</b> [2] - 581:22, 630:1  <b>Affecting</b> [1] - 528:22  <b>affirmed</b> [1] - 538:7  <b>afternoon</b> [2] - 486:11, 512:2  <b>afterwards</b> [2] - 502:16, 704:16  <b>ag</b> [2] - 551:12, 685:13  <b>aggregate</b> [1] - 505:25  <b>ago</b> [18] - 508:25, 511:8, 574:15, 602:6, 602:7, 623:8, 631:14, 658:23, 661:17, 662:18, 675:7, 684:19, 694:17, 695:19, 696:16, 701:1, 706:24, 707:3  <b>agree</b> [12] - 521:12, 521:14, 528:3, 532:3, 565:20, 578:3, 578:22, 579:20, 627:14, 628:6, 666:3, 709:22  <b>agreeable</b> [1] - 491:4  <b>agreed</b> [2] - 708:1, 711:22  <b>agreeing</b> [1] - 585:13  <b>agreement</b> [3] - 538:24, 539:2, 687:18  <b>agreements</b> [1] - 705:11  <b>agricultural</b> [7] - 641:6, 659:23, 660:5, 664:8, 669:23, 671:1, 700:23  <b>agriculture</b> [1] - 578:2</p>	<p><b>ahead</b> [18] - 486:18, 512:10, 517:16, 561:9, 595:4, 595:17, 619:24, 637:8, 648:19, 653:11, 653:22, 694:6, 700:16, 702:14, 703:24, 707:8, 707:10, 711:18  <b>air</b> [3] - 606:19, 616:21, 663:8  <b>Alfalfa</b> [1] - 534:20  <b>alfalfa</b> [5] - 561:13, 593:1, 599:23, 650:7, 650:20  <b>alleviate</b> [1] - 643:4  <b>allocated</b> [1] - 700:6  <b>all</b> [11] - 539:15, 539:17, 539:20, 540:2, 557:8, 568:12, 603:18, 603:20, 703:18, 708:16, 710:7  <b>allowed</b> [2] - 568:19, 570:5  <b>alluded</b> [1] - 594:6  <b>alluvial</b> [27] - 561:17, 561:18, 594:1, 596:24, 597:9, 597:17, 597:21, 606:1, 609:3, 609:7, 609:10, 612:22, 613:3, 613:10, 615:11, 615:21, 623:17, 623:21, 624:1, 624:25, 627:17, 627:18, 630:1, 630:18, 645:15, 655:20, 656:2  <b>Alluvial</b> [1] - 644:22  <b>alluvium</b> [2] - 623:11, 631:14  <b>almost</b> [5] - 503:24, 572:18, 626:25, 681:11, 700:6  <b>alone</b> [4] - 496:24, 535:21, 544:20, 572:25  <b>alternate</b> [1] - 700:2  <b>amendment</b> [1] - 675:9  <b>amendments</b> [1] - 675:5  <b>American</b> [11] - 494:1, 510:3, 514:9, 532:20, 559:8, 578:21, 675:16, 679:21, 683:21, 684:16, 694:23  <b>Amidon</b> [1] - 513:8  <b>amount</b> [20] - 508:11, 509:6, 510:11, 542:1, 542:9, 547:9, 557:2, 557:25, 558:22, 568:19, 581:24, 584:16, 584:25, 598:1, 658:24, 661:22, 667:14, 672:6, 688:25  <b>amounts</b> [7] - 575:2, 679:17, 680:10, 681:1, 695:10, 695:13, 695:19  <b>analysis</b> [1] - 544:12  <b>analyze</b> [1] - 618:4  <b>Andahl</b> [2] - 717:3, 717:16  <b>Anderson</b> [3] - 567:16, 575:8, 576:16  <b>Anderson's</b> [1] - 583:12</p>	<p><b>Angus</b> [2] - 548:13, 548:14  <b>animal</b> [1] - 513:20  <b>announcement</b> [1] - 653:6  <b>Annual</b> [2] - 483:24, 484:4  <b>annual</b> [12] - 513:25, 514:8, 532:21, 579:6, 661:14, 661:19, 662:18, 662:24, 663:7, 683:13, 683:15, 684:17  <b>annuals</b> [1] - 643:6  <b>answer</b> [9] - 504:9, 505:23, 557:16, 557:20, 557:24, 592:22, 604:1, 628:21, 630:2  <b>answered</b> [1] - 696:21  <b>answering</b> [1] - 714:13  <b>Antelope</b> [1] - 605:6  <b>anticipate</b> [1] - 553:1  <b>anticipated</b> [1] - 520:19  <b>anytime</b> [1] - 632:24  <b>anyway</b> [2] - 682:17, 698:11  <b>apart</b> [1] - 708:13  <b>apologize</b> [4] - 497:9, 606:9, 608:10, 640:21  <b>app</b> [4] - 526:15, 526:25, 527:1, 527:2  <b>apparent</b> [1] - 608:9  <b>appeared</b> [1] - 548:21  <b>Appendix</b> [1] - 645:24  <b>applicant</b> [4] - 621:16, 621:17, 691:17, 712:24  <b>APPLICANT</b> [1] - 480:10  <b>application</b> [25] - 491:2, 491:8, 491:10, 491:14, 515:10, 519:13, 520:2, 525:25, 526:4, 526:8, 526:13, 526:22, 527:4, 527:9, 531:13, 597:18, 597:19, 605:1, 614:7, 625:8, 641:24, 655:17, 656:16, 656:19, 680:4  <b>Application</b> [4] - 479:7, 483:15, 483:19, 484:17  <b>applications</b> [8] - 494:19, 570:15, 597:4, 641:18, 680:7, 685:3, 685:7  <b>applied</b> [3] - 494:24, 504:15, 522:6  <b>applies</b> [1] - 683:2  <b>apply</b> [1] - 496:11  <b>applying</b> [1] - 563:25  <b>appreciate</b> [3] - 538:16, 714:12, 716:1  <b>appreciated</b> [1] - 714:9  <b>approach</b> [4] - 619:2, 635:9, 638:4, 638:7  <b>appropriate</b> [12] - 485:20, 519:17, 524:17, 621:18, 621:19, 621:23, 676:12, 676:16, 678:1, 678:9,</p>
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<p>678:13, 678:15  <b>approval</b> [13] - 499:10, 499:12, 499:18, 520:22, 521:1, 569:11, 642:3, 656:1, 656:13, 656:14, 656:22, 659:3, 675:11  <b>approve</b> [1] - 675:8  <b>approved</b> [13] - 527:4, 537:9, 655:17, 657:4, 657:16, 659:1, 660:10, 662:8, 675:1, 675:6, 675:10, 682:7, 691:10  <b>approving</b> [1] - 642:3  <b>April</b> [2] - 488:1, 508:3  <b>aquifer</b> [5] - 609:3, 623:17, 623:21, 630:2, 630:18  <b>area</b> [63] - 488:23, 490:23, 499:14, 501:22, 503:9, 505:18, 506:6, 506:15, 506:25, 520:3, 520:4, 527:16, 533:17, 533:19, 534:7, 534:10, 541:22, 542:16, 542:25, 543:13, 543:21, 564:7, 564:25, 565:3, 567:6, 567:10, 568:17, 597:23, 598:11, 598:14, 599:24, 600:12, 606:4, 607:4, 608:11, 625:10, 627:21, 629:15, 629:22, 632:6, 632:24, 633:2, 636:5, 636:6, 641:11, 641:13, 645:10, 648:24, 648:25, 652:17, 658:19, 665:6, 665:16, 672:7, 674:4, 681:18, 685:4, 686:14, 694:18, 697:23, 700:9, 700:25, 703:16  <b>areas</b> [93] - 496:7, 499:5, 501:18, 503:17, 506:23, 506:24, 511:11, 511:12, 515:1, 515:23, 519:1, 520:5, 520:9, 520:17, 520:20, 520:23, 521:2, 542:13, 542:22, 543:3, 543:10, 543:17, 546:7, 565:5, 567:12, 575:10, 575:11, 575:22, 575:25, 576:7, 577:13, 578:25, 579:1, 584:18, 587:11, 587:17, 587:18, 588:7, 588:17, 591:25, 595:8, 601:10, 602:20, 602:21, 605:10, 605:20, 606:18, 608:8, 613:14, 614:11, 614:23, 615:6, 616:6, 616:7, 616:9, 626:6, 629:21, 632:10, 656:3, 658:16, 659:12, 661:21, 662:3, 662:4, 662:5, 662:7,</p>	<p>662:8, 662:10, 662:11, 662:13, 662:15, 662:20, 665:14, 668:18, 668:22, 668:25, 669:18, 670:18, 670:20, 670:24, 671:1, 671:17, 671:18, 679:16, 683:2, 684:14, 686:5, 686:6, 689:1, 698:9  <b>argue</b> [1] - 506:22  <b>arguments</b> [1] - 682:24  <b>arrive</b> [1] - 652:10  <b>ARS</b> [1] - 591:13  <b>article</b> [1] - 529:2  <b>ascertain</b> [1] - 591:4  <b>ash</b> [1] - 658:17  <b>aside</b> [1] - 671:3  <b>aspects</b> [4] - 553:13, 596:17, 597:1, 684:10  <b>aspersions</b> [1] - 620:10  <b>assembling</b> [1] - 516:8  <b>asserting</b> [2] - 700:13, 703:20  <b>assess</b> [2] - 571:21, 678:10  <b>assessed</b> [1] - 545:25  <b>assesses</b> [1] - 571:20  <b>assessing</b> [1] - 547:2  <b>assessment</b> [4] - 527:24, 543:24, 550:7, 550:11  <b>Assessments</b> [2] - 483:13, 674:25  <b>assessments</b> [3] - 571:4, 594:20, 597:3  <b>assist</b> [3] - 515:9, 578:17, 639:15  <b>assistant</b> [3] - 637:20, 654:19, 685:17  <b>assisted</b> [2] - 487:25, 488:3  <b>associated</b> [9] - 501:19, 600:13, 600:23, 600:24, 601:6, 630:12, 662:10, 679:8, 694:12  <b>assume</b> [2] - 573:6, 709:20  <b>assuming</b> [3] - 677:8, 677:9, 692:5  <b>assure</b> [3] - 522:2, 586:1, 586:3  <b>attached</b> [1] - 648:22  <b>attempt</b> [1] - 575:15  <b>attend</b> [7] - 683:12, 683:15, 684:7, 684:8, 684:15, 684:20, 684:25  <b>attended</b> [2] - 514:14, 579:13  <b>attending</b> [1] - 684:18  <b>attention</b> [5] - 547:15, 547:21, 645:8, 655:16, 664:17  <b>Attorneys</b> [2] - 480:7, 480:13  <b>attorneys</b> [2] - 497:13, 714:15  <b>auger</b> [1] - 576:12</p>	<p><b>augmented</b> [1] - 504:21  <b>authors</b> [1] - 559:20  <b>auxiliary</b> [1] - 700:8  <b>availability</b> [1] - 502:14  <b>available</b> [15] - 489:10, 503:18, 611:11, 611:21, 614:15, 617:25, 620:24, 623:25, 628:7, 628:10, 645:19, 673:9, 675:25, 676:3, 677:7  <b>Avenue</b> [2] - 480:19, 654:10  <b>average</b> [20] - 493:11, 506:5, 506:8, 506:18, 507:12, 523:3, 532:25, 535:24, 547:11, 547:23, 548:1, 548:4, 548:8, 572:8, 572:19, 575:24, 576:1, 576:9, 585:5, 642:10  <b>averaged</b> [1] - 572:14  <b>averages</b> [1] - 625:18  <b>averaging</b> [1] - 575:9  <b>AVF</b> [62] - 484:15, 594:20, 598:11, 598:13, 599:3, 599:5, 599:10, 599:24, 601:7, 601:9, 601:20, 604:6, 610:10, 611:5, 614:7, 614:18, 616:7, 616:12, 616:14, 617:1, 619:15, 619:19, 622:6, 622:17, 623:2, 623:8, 624:15, 624:18, 625:2, 627:4, 627:10, 627:22, 628:4, 629:21, 630:2, 630:7, 630:13, 630:21, 630:22, 631:17, 631:23, 632:3, 632:5, 632:6, 632:12, 632:15, 632:22, 633:6, 634:20, 634:24, 635:6, 635:11, 636:1, 637:24, 638:7, 638:12, 639:17, 652:7, 652:9, 652:17  <b>AVFs</b> [3] - 624:20, 624:21, 640:13  <b>avoid</b> [4] - 498:23, 498:24, 499:4, 573:16  <b>avoiding</b> [1] - 504:21  <b>awards</b> [1] - 675:15  <b>aware</b> [15] - 504:5, 512:4, 534:12, 541:6, 541:16, 541:22, 541:24, 542:20, 558:3, 582:22, 617:9, 620:5, 620:14, 646:9, 692:17</p>	<p><b>bachelor's</b> [2] - 513:9, 640:25  <b>back-and-forth</b> [1] - 685:5  <b>backed</b> [1] - 549:1  <b>background</b> [9] - 485:14, 485:18, 513:5, 535:1, 535:8, 548:12, 553:18, 571:1  <b>backup</b> [1] - 551:17  <b>balance</b> [1] - 630:6  <b>bank</b> [4] - 504:25, 505:6, 525:19, 584:5  <b>bare</b> [1] - 577:13  <b>barely</b> [1] - 609:20  <b>basal</b> [1] - 571:20  <b>based</b> [37] - 496:23, 535:21, 542:12, 548:8, 548:10, 548:17, 548:20, 548:25, 550:12, 552:1, 553:8, 554:22, 576:8, 584:22, 587:16, 590:24, 590:25, 591:8, 599:3, 604:7, 613:15, 614:12, 622:23, 652:19, 656:8, 658:25, 669:4, 661:14, 663:5, 663:8, 669:1, 674:3, 676:8, 677:22, 680:11, 688:15, 703:22  <b>baseline</b> [4] - 515:4, 515:19, 521:3, 522:7  <b>basic</b> [2] - 585:25, 685:25  <b>basing</b> [2] - 549:25, 554:25  <b>basis</b> [1] - 540:24  <b>Baumstark</b> [1] - 480:13  <b>beat</b> [2] - 682:10, 682:12  <b>Beaver</b> [2] - 603:5, 605:5  <b>became</b> [3] - 488:7, 654:19, 654:21  <b>become</b> [2] - 698:10, 698:11  <b>becomes</b> [3] - 528:16, 551:17, 698:12  <b>becoming</b> [1] - 568:6  <b>bed</b> [1] - 631:10  <b>BEECHIE</b> [2] - 481:15, 595:18  <b>Beechie</b> [15] - 484:7, 594:1, 594:12, 594:19, 595:3, 595:10, 595:23, 596:1, 596:4, 599:20, 612:14, 629:7, 634:14, 638:5, 638:13  <b>Beechie's</b> [1] - 619:12  <b>BEFORE</b> [1] - 479:21  <b>began</b> [3] - 666:13, 666:20, 666:21  <b>begin</b> [2] - 540:6, 612:20  <b>beginning</b> [2] - 645:14, 651:3  <b>behind</b> [2] - 502:2, 662:5  <b>believes</b> [2] - 521:10, 678:18</p>
<b>B</b>			
		<p><b>B-e-e-c-h-i-e</b> [1] - 596:4  <b>bachelor</b> [1] - 487:8</p>	

<p><b>belongs</b> [1] - 683:11</p> <p><b>below</b> [4] - 533:5, 609:7, 640:9, 640:16</p> <p><b>benefit</b> [1] - 505:5</p> <p><b>best</b> [13] - 495:18, 506:17, 575:14, 582:11, 596:3, 602:6, 602:22, 602:24, 603:24, 707:6, 715:9, 715:24</p> <p><b>best-looking</b> [1] - 602:22</p> <p><b>better</b> [18] - 503:5, 503:20, 504:9, 504:13, 505:22, 528:7, 536:3, 546:10, 550:8, 555:21, 568:14, 574:25, 575:1, 584:21, 591:25, 628:9, 628:19, 669:20</p> <p><b>between</b> [17] - 519:1, 532:9, 532:12, 533:5, 535:11, 535:19, 536:17, 539:2, 552:21, 564:5, 564:20, 566:13, 586:19, 615:9, 630:17, 633:2, 644:5</p> <p><b>Beulah</b> [8] - 489:1, 534:7, 631:10, 666:11, 666:15, 666:16, 666:18</p> <p><b>beyond</b> [2] - 541:13, 543:14</p> <p><b>Bickel</b> [10] - 566:19, 598:12, 599:12, 603:22, 603:23, 604:14, 608:4, 622:12, 627:21, 711:21</p> <p><b>Bickel's</b> [1] - 627:1</p> <p><b>big</b> [6] - 498:19, 498:23, 499:1, 570:13, 600:3, 715:23</p> <p><b>biggest</b> [2] - 598:14, 699:8</p> <p><b>Bill</b> [5] - 598:22, 598:23, 602:12, 603:24, 639:12</p> <p><b>biological</b> [9] - 553:25, 554:4, 554:9, 580:8, 580:10, 580:18, 580:25, 581:4, 581:14</p> <p><b>Bismarck</b> [8] - 479:17, 480:9, 480:14, 480:19, 525:5, 637:18, 654:10, 717:13</p> <p><b>bit</b> [17] - 498:8, 507:13, 517:1, 523:20, 544:18, 546:21, 547:19, 558:21, 580:22, 580:23, 583:16, 603:9, 603:10, 604:23, 626:20, 646:12, 690:15</p> <p><b>BJELLA</b> [84] - 480:6, 486:2, 486:10, 486:23, 489:14, 489:22, 490:25, 491:21, 507:18, 511:21, 512:1, 512:11, 512:16, 514:17, 515:2, 516:22, 517:6, 517:8, 518:8, 519:15, 520:1, 523:6, 523:15, 523:19, 524:19, 526:10,</p>	<p>527:8, 529:12, 529:20, 530:23, 531:10, 537:12, 537:23, 537:25, 538:5, 538:9, 538:18, 540:18, 540:22, 556:2, 590:5, 593:8, 593:11, 611:8, 619:6, 619:9, 621:10, 621:12, 622:8, 633:14, 636:15, 645:21, 647:25, 648:4, 649:12, 650:13, 651:13, 651:20, 661:1, 663:16, 673:1, 673:3, 676:19, 677:1, 677:12, 677:19, 678:23, 693:4, 701:10, 703:1, 703:6, 703:9, 705:17, 709:20, 710:20, 710:23, 711:19, 712:5, 712:10, 712:19, 712:22, 713:16, 713:20, 713:23</p> <p><b>Bjella</b> [40] - 481:4, 481:9, 481:17, 481:24, 482:4, 485:4, 485:25, 486:8, 486:18, 507:17, 511:19, 511:24, 517:4, 523:13, 524:18, 538:17, 585:19, 590:4, 593:7, 619:5, 620:17, 621:9, 633:13, 636:14, 647:24, 649:11, 650:12, 651:11, 660:25, 663:15, 672:25, 693:3, 701:9, 705:16, 708:3, 709:18, 710:18, 711:18, 712:17, 713:9</p> <p><b>Bjella's</b> [1] - 622:19</p> <p><b>black</b> [1] - 605:12</p> <p><b>blades</b> [1] - 500:4</p> <p><b>BLAINE</b> [1] - 480:6</p> <p><b>blue</b> [2] - 567:23, 574:23</p> <p><b>bluegrass</b> [13] - 567:19, 567:24, 568:4, 568:10, 568:13, 568:16, 569:5, 569:6, 569:10, 569:22, 570:3, 572:3, 573:8</p> <p><b>BNI's</b> [2] - 680:9, 680:22</p> <p><b>boat</b> [1] - 583:5</p> <p><b>boil</b> [1] - 630:10</p> <p><b>boils</b> [1] - 622:1</p> <p><b>bond</b> [151] - 488:10, 488:11, 492:18, 492:20, 493:5, 494:2, 494:13, 497:16, 497:21, 498:3, 498:5, 500:7, 500:8, 500:12, 500:14, 500:15, 500:17, 500:18, 500:20, 500:22, 500:24, 501:7, 501:12, 501:14, 502:2, 505:3, 507:1, 508:7, 508:8, 508:10, 508:11, 508:15, 508:16, 508:18, 508:20,</p>	<p>509:6, 509:8, 509:19, 510:4, 510:6, 510:10, 510:11, 510:16, 511:10, 516:4, 516:8, 517:11, 517:25, 542:5, 542:9, 563:25, 570:14, 572:6, 572:9, 572:15, 572:25, 576:23, 597:4, 642:7, 656:11, 657:15, 657:21, 658:3, 658:6, 658:8, 658:24, 658:25, 660:10, 660:20, 661:12, 662:20, 664:9, 664:20, 664:23, 665:15, 665:18, 665:23, 666:5, 667:4, 667:8, 667:9, 667:15, 667:22, 667:23, 668:2, 668:6, 668:9, 668:14, 668:20, 668:21, 669:1, 669:3, 669:5, 669:8, 669:13, 669:14, 669:19, 670:14, 670:21, 670:24, 671:5, 671:9, 671:14, 671:15, 671:21, 671:24, 672:1, 672:2, 672:6, 672:19, 673:10, 674:9, 674:19, 679:3, 679:5, 679:7, 679:18, 679:22, 679:24, 679:25, 680:4, 680:6, 680:13, 680:16, 680:23, 680:24, 681:12, 681:13, 681:19, 681:22, 682:1, 682:2, 682:5, 682:6, 682:11, 682:13, 682:19, 688:2, 688:5, 688:6, 688:15, 688:20, 688:24, 688:25, 689:4, 689:7, 689:10, 700:1</p> <p><b>Bond</b> [1] - 484:11</p> <p><b>bonded</b> [9] - 496:14, 496:22, 541:22, 542:2, 563:8, 572:10, 672:15, 681:4, 700:20</p> <p><b>bonds</b> [1] - 688:13</p> <p><b>book</b> [2] - 689:23, 690:2</p> <p><b>books</b> [4] - 615:13, 691:6, 714:19, 714:21</p> <p><b>boots</b> [2] - 628:22, 629:8</p> <p><b>borings</b> [2] - 576:12, 577:20</p> <p><b>born</b> [1] - 487:3</p> <p><b>bottom</b> [2] - 550:16, 587:20</p> <p><b>bought</b> [1] - 704:2</p> <p><b>Boulevard</b> [3] - 480:19, 637:18, 654:10</p> <p><b>bounced</b> [1] - 685:8</p> <p><b>boundary</b> [1] - 520:19</p> <p><b>Box</b> [1] - 480:8</p> <p><b>BRAATEN</b> [89] - 480:12, 486:4, 489:17, 491:9, 491:12, 491:16, 492:2, 495:3, 507:20, 507:22,</p>	<p>511:13, 514:21, 516:25, 517:14, 517:17, 517:22, 518:3, 519:21, 523:9, 524:8, 526:18, 529:15, 531:5, 537:15, 537:20, 538:12, 539:4, 540:7, 540:9, 541:11, 555:2, 555:6, 555:17, 556:3, 556:4, 561:4, 590:7, 599:17, 599:19, 611:15, 612:10, 612:14, 616:23, 618:16, 619:10, 620:9, 621:5, 621:8, 629:4, 629:6, 633:12, 635:16, 635:24, 636:13, 643:17, 645:4, 645:7, 645:23, 645:25, 647:19, 647:22, 648:3, 648:11, 648:13, 648:20, 649:5, 649:17, 650:10, 650:17, 651:10, 660:24, 663:14, 664:16, 672:23, 676:21, 677:14, 693:2, 701:8, 705:15, 707:24, 709:23, 710:15, 711:6, 712:16, 712:21, 713:4, 713:8, 713:11, 714:1</p> <p><b>Braaten</b> [52] - 480:13, 481:5, 481:7, 481:9, 481:16, 481:19, 481:21, 481:24, 482:3, 486:3, 489:16, 491:6, 491:23, 507:19, 514:20, 516:24, 517:13, 519:20, 523:8, 524:7, 524:14, 526:17, 529:14, 531:3, 537:14, 538:11, 538:22, 539:1, 539:21, 540:6, 590:6, 599:16, 601:24, 618:15, 621:7, 629:3, 635:14, 643:15, 645:2, 660:23, 663:13, 664:14, 676:20, 677:13, 693:1, 701:7, 705:14, 707:22, 710:11, 712:12, 713:3, 713:24</p> <p><b>break</b> [8] - 539:16, 539:21, 539:24, 582:5, 586:21, 593:13, 594:12, 658:4</p> <p><b>breakdown</b> [1] - 660:9</p> <p><b>breaks</b> [1] - 538:15</p> <p><b>breeding</b> [1] - 547:24</p> <p><b>Brian</b> [1] - 484:9</p> <p><b>BRIAN</b> [2] - 480:3, 480:6</p> <p><b>brief</b> [8] - 539:15, 539:17, 539:21, 703:19, 712:20, 712:25, 713:5, 713:15</p> <p><b>briefly</b> [1] - 527:9</p> <p><b>briefs</b> [1] - 716:10</p> <p><b>bring</b> [3] - 577:25, 628:11, 631:25</p> <p><b>broadcasts</b> [1] - 633:19</p>
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<p><b>Broadway</b> [1] - 480:8  <b>broke</b> [1] - 506:16  <b>broken</b> [2] - 565:1, 586:23  <b>brome</b> [2] - 572:19, 572:20  <b>brought</b> [4] - 655:16, 691:4, 699:11, 715:3  <b>BRUCE</b> [2] - 481:15, 595:18  <b>Bruce</b> [12] - 484:7, 594:1, 594:12, 594:19, 595:3, 596:1, 596:4, 620:6, 621:13, 624:14, 626:20, 638:13  <b>Brush</b> [1] - 605:23  <b>brush</b> [1] - 509:15  <b>BTUs</b> [1] - 697:11  <b>buffer</b> [2] - 532:19, 692:20  <b>build</b> [1] - 580:24  <b>building</b> [2] - 691:18, 692:3  <b>buildings</b> [2] - 691:19, 692:5  <b>bulk</b> [1] - 639:3  <b>bunch</b> [1] - 577:16  <b>buried</b> [1] - 698:7  <b>bushel</b> [1] - 506:19  <b>business</b> [4] - 486:24, 512:17, 598:7, 610:7  <b>busy</b> [1] - 618:7  <b>buying</b> [1] - 695:24  <b>buys</b> [1] - 700:19  <b>BY</b> [35] - 486:23, 492:2, 495:11, 497:5, 505:13, 507:22, 512:16, 540:9, 561:11, 562:6, 580:16, 586:11, 590:13, 592:21, 595:22, 599:19, 621:12, 622:11, 624:13, 626:19, 629:6, 633:17, 634:13, 635:24, 637:13, 643:17, 651:13, 652:4, 654:2, 664:16, 673:3, 679:2, 683:8, 689:21, 706:8</p>	<p>608:8, 608:11, 608:12, 646:20, 646:22, 647:2, 651:8  <b>Capitol</b> [3] - 479:16, 637:17, 653:7  <b>capture</b> [1] - 498:9  <b>career</b> [2] - 641:2, 641:11  <b>carrying</b> [1] - 500:12  <b>Case</b> [1] - 479:6  <b>case</b> [22] - 485:19, 535:6, 536:20, 539:19, 551:20, 566:10, 569:6, 593:11, 593:15, 597:11, 599:8, 599:9, 614:9, 642:15, 672:22, 688:8, 688:15, 690:21, 692:8, 693:15, 695:3, 700:16  <b>cases</b> [4] - 497:25, 686:16, 688:9, 709:5  <b>Casey</b> [6] - 495:25, 503:18, 566:15, 581:20, 609:9, 610:15  <b>Casey's</b> [7] - 504:23, 544:13, 544:17, 544:20, 561:14, 561:18, 566:11  <b>cast</b> [1] - 620:10  <b>catch</b> [1] - 591:21  <b>categorically</b> [2] - 616:12, 616:15  <b>categories</b> [1] - 551:11  <b>cattle</b> [10] - 521:11, 523:1, 523:4, 546:24, 547:3, 547:9, 548:9, 549:4, 589:4, 628:3  <b>cattle's</b> [1] - 548:7  <b>caused</b> [2] - 498:21, 548:5  <b>Cavalier</b> [1] - 641:5  <b>caveats</b> [1] - 569:16  <b>caved</b> [1] - 704:11  <b>CD</b> [4] - 491:1, 491:4, 491:7, 526:13  <b>ceased</b> [1] - 488:2  <b>centennial</b> [1] - 694:19  <b>center</b> [3] - 591:14, 609:19, 695:11  <b>Center</b> [4] - 525:5, 666:12, 666:21, 680:9  <b>central</b> [1] - 630:11  <b>cents</b> [6] - 694:24, 695:18, 696:2, 696:12, 696:18, 697:18  <b>certain</b> [19] - 497:10, 508:12, 509:6, 519:17, 566:18, 566:20, 568:13, 592:2, 614:23, 624:22, 636:7, 652:12, 669:21, 690:25, 699:23, 703:16, 710:4, 710:9, 712:7  <b>certainly</b> [11] - 523:18, 543:8, 620:11, 634:25,</p>	<p>643:1, 652:8, 652:11, 670:20, 711:24, 714:9, 714:10  <b>certainty</b> [1] - 558:21  <b>CERTIFICATE</b> [1] - 717:1  <b>certified</b> [1] - 514:13  <b>CERTIFY</b> [2] - 717:5, 717:9  <b>chance</b> [2] - 585:21, 631:3  <b>change</b> [13] - 559:21, 564:19, 564:20, 566:8, 581:14, 636:9, 663:25, 664:1, 664:6, 675:11, 682:17, 691:9  <b>changed</b> [10] - 498:8, 503:25, 504:1, 504:6, 520:24, 579:22, 583:3, 657:2, 659:19, 697:10  <b>changes</b> [10] - 504:4, 526:23, 528:11, 543:6, 558:11, 581:23, 657:4, 675:8, 690:18, 691:11  <b>changing</b> [1] - 685:13  <b>channel</b> [3] - 616:16, 627:4, 636:7  <b>channels</b> [2] - 597:22, 604:3  <b>Chapter</b> [1] - 514:5  <b>chapter</b> [1] - 514:7  <b>characteristics</b> [4] - 552:20, 554:4, 564:10, 644:18  <b>chart</b> [7] - 502:4, 502:7, 505:18, 506:12, 516:18, 522:24, 547:24  <b>charts</b> [3] - 489:7, 493:13, 493:14  <b>check</b> [4] - 504:12, 577:18, 577:20, 698:18  <b>checked</b> [2] - 604:2, 611:25  <b>chemical</b> [1] - 532:8  <b>chemically</b> [1] - 528:11  <b>chime</b> [1] - 708:16  <b>choice</b> [1] - 682:18  <b>choose</b> [4] - 543:10, 566:10, 566:22, 618:23  <b>choosing</b> [1] - 543:20  <b>chose</b> [3] - 544:25, 665:1, 665:21  <b>chosen</b> [2] - 520:13, 603:14  <b>CHRISTMANN</b> [21] - 480:4, 495:8, 495:11, 497:1, 511:17, 562:3, 562:6, 580:11, 590:13, 592:14, 622:11, 624:9, 633:17, 634:2, 636:17, 651:22, 679:2, 683:4, 701:14, 706:2, 714:6  <b>Christmann</b> [20] - 481:5, 481:10, 481:12, 481:17, 481:20, 482:4, 495:7, 511:16, 562:2, 583:16, 590:11, 622:9, 633:15,</p>	<p>636:16, 651:21, 678:24, 693:5, 701:13, 706:1, 714:5  <b>Chuck</b> [1] - 608:6  <b>circles</b> [1] - 683:10  <b>cited</b> [3] - 559:9, 591:8, 591:12  <b>citizens</b> [1] - 707:14  <b>civil</b> [1] - 487:9  <b>claim</b> [1] - 505:21  <b>claimed</b> [1] - 501:10  <b>claiming</b> [1] - 503:24  <b>clarification</b> [1] - 691:13  <b>clarify</b> [6] - 491:10, 555:14, 587:6, 664:18, 667:20, 691:20  <b>class</b> [1] - 551:19  <b>Class</b> [7] - 486:14, 512:6, 595:13, 637:4, 653:17, 694:3, 702:10  <b>classification</b> [2] - 551:15, 594:22  <b>classifications</b> [1] - 554:21  <b>classified</b> [1] - 646:9  <b>classifiers</b> [2] - 607:12, 607:13  <b>classify</b> [2] - 586:19, 592:25  <b>clay</b> [8] - 646:10, 646:14, 646:15, 646:16, 646:19, 646:23, 647:1, 651:4  <b>clayey</b> [1] - 518:25  <b>clear</b> [7] - 544:18, 545:2, 587:6, 615:18, 625:15, 667:18, 713:18  <b>climax</b> [1] - 564:18  <b>clipped</b> [2] - 537:22, 571:16  <b>clock</b> [2] - 498:7, 709:14  <b>close</b> [4] - 501:20, 625:17, 629:10, 709:4  <b>closed</b> [1] - 709:10  <b>closely</b> [2] - 525:22, 679:7  <b>closer</b> [1] - 673:16  <b>closest</b> [1] - 625:17  <b>closing</b> [7] - 707:22, 707:23, 708:1, 712:11, 712:20, 714:4, 714:7  <b>closings</b> [1] - 714:14  <b>Club</b> [1] - 513:22  <b>coal</b> [43] - 488:2, 493:25, 494:6, 513:1, 594:3, 594:23, 596:20, 599:4, 624:8, 625:24, 626:4, 626:12, 630:17, 631:9, 631:10, 631:13, 632:9, 634:17, 634:23, 636:9, 658:17, 675:15, 675:23, 677:6, 685:12, 690:24, 692:1, 694:14, 694:15, 695:4, 695:8, 696:2, 696:5, 696:6, 696:9, 696:14,</p>
<b>C</b>			
<p><b>C1</b> [2] - 645:23, 645:24  <b>cakewalk</b> [1] - 627:19  <b>calculate</b> [1] - 668:5  <b>calculated</b> [5] - 535:10, 535:24, 547:12, 662:17, 688:15  <b>calculation</b> [1] - 695:7  <b>calculations</b> [1] - 679:3  <b>calculator</b> [2] - 668:3, 668:16  <b>calf</b> [2] - 523:21, 549:22  <b>calves</b> [5] - 523:21, 523:22, 547:4, 547:5, 547:13  <b>cannot</b> [4] - 624:21, 669:4, 692:2, 698:19  <b>capable</b> [2] - 506:18, 533:17  <b>capillary</b> [9] - 608:5, 608:7,</p>			

<p>696:17, 696:20, 696:22, 697:13, 697:17, 697:23  <b>Coal</b> [6] - 483:21, 483:22, 578:21, 623:7, 675:16, 694:23  <b>Code</b> [1] - 612:11  <b>colleagues</b> [1] - 715:13  <b>collect</b> [1] - 563:24  <b>collected</b> [2] - 571:19, 663:1  <b>collecting</b> [3] - 661:17, 670:16, 678:9  <b>collection</b> [4] - 515:4, 516:8, 670:22, 686:25  <b>college</b> [1] - 513:19  <b>colonization</b> [1] - 577:14  <b>color</b> [2] - 614:22, 616:21  <b>Colorado</b> [1] - 513:11  <b>column</b> [6] - 657:17, 664:19, 664:21, 665:16, 667:21, 667:25  <b>combination</b> [7] - 545:10, 612:20, 621:18, 621:19, 621:23, 646:18, 651:3  <b>combined</b> [1] - 544:15  <b>comfortable</b> [2] - 622:22, 622:25  <b>coming</b> [11] - 501:7, 501:14, 501:15, 509:16, 547:4, 578:18, 619:19, 622:21, 670:22, 702:19, 713:15  <b>commencing</b> [1] - 485:1  <b>comment</b> [1] - 588:20  <b>commenting</b> [1] - 634:16  <b>comments</b> [5] - 549:1, 550:25, 701:4, 714:4, 714:7  <b>commercial</b> [1] - 547:14  <b>commingling</b> [1] - 699:6  <b>commission</b> [1] - 682:17  <b>Commission</b> [33] - 480:18, 499:13, 515:11, 517:12, 519:11, 524:16, 537:4, 537:6, 565:17, 566:15, 570:2, 577:5, 596:6, 596:16, 637:17, 637:19, 641:10, 642:2, 654:9, 654:15, 655:16, 656:22, 657:16, 659:2, 675:13, 675:22, 677:4, 678:19, 683:12, 704:5, 709:2, 709:7, 715:20  <b>COMMISSION</b> [2] - 479:3, 480:20  <b>Commission's</b> [4] - 537:8, 676:1, 682:3, 682:7  <b>commissioner</b> [12] - 497:3, 580:13, 624:11, 634:4, 636:18, 642:20, 651:23, 683:6, 701:13, 705:25, 714:5, 714:17</p>	<p><b>COMMISSIONER</b> [71] - 480:3, 480:3, 480:4, 485:11, 495:8, 495:11, 497:1, 497:5, 502:8, 502:11, 505:8, 505:11, 505:13, 507:16, 511:17, 562:3, 562:6, 580:11, 580:16, 586:6, 586:9, 586:11, 590:3, 590:13, 592:14, 592:17, 592:19, 592:21, 593:6, 622:11, 624:9, 624:13, 626:14, 626:17, 626:19, 628:24, 633:17, 634:2, 634:5, 634:7, 635:18, 636:17, 651:22, 651:24, 652:2, 652:4, 652:22, 679:2, 683:4, 683:8, 689:16, 689:19, 689:21, 692:22, 693:20, 701:14, 701:16, 701:18, 701:22, 701:24, 706:2, 706:4, 706:8, 707:15, 707:18, 708:21, 709:12, 711:24, 714:6, 714:18, 715:12  <b>Commissioner</b> [50] - 481:5, 481:6, 481:6, 481:10, 481:11, 481:11, 481:12, 481:13, 481:17, 481:18, 481:18, 481:19, 481:25, 482:4, 482:5, 482:5, 482:10, 485:5, 485:6, 485:9, 495:7, 505:10, 511:16, 511:18, 511:19, 562:2, 583:16, 586:8, 590:11, 592:16, 592:18, 622:9, 626:16, 633:15, 634:6, 636:16, 636:19, 651:21, 652:1, 678:24, 689:18, 693:5, 693:6, 701:15, 701:17, 706:3, 706:6, 711:20, 715:11  <b>commissioners</b> [2] - 593:23, 714:5  <b>COMMISSIONERS</b> [1] - 480:2  <b>commitment</b> [4] - 585:14, 585:15, 587:9, 714:25  <b>committing</b> [2] - 587:13, 587:14  <b>common</b> [3] - 494:14, 587:3, 639:2  <b>communicated</b> [2] - 542:21, 542:24  <b>community</b> [5] - 522:3, 522:4, 568:1, 568:9, 715:18  <b>Compact</b> [1] - 683:12  <b>compacted</b> [2] - 698:10, 698:11</p>	<p><b>compaction</b> [16] - 498:18, 498:24, 499:3, 499:7, 499:9, 499:20, 577:18, 577:20, 578:16, 579:1, 582:6, 643:5, 643:11, 681:2, 681:5, 698:4  <b>compactness</b> [1] - 643:6  <b>companies</b> [12] - 661:15, 662:25, 663:6, 665:19, 670:13, 670:18, 671:11, 671:14, 686:24, 688:1, 689:4, 691:24  <b>company</b> [14] - 490:17, 597:18, 599:4, 603:18, 619:18, 623:7, 625:12, 681:15, 682:4, 686:21, 686:24, 687:2, 687:5, 687:6  <b>Company</b> [15] - 479:6, 483:20, 487:12, 512:22, 512:24, 538:6, 601:7, 601:14, 632:18, 632:22, 656:8, 656:18, 700:3, 700:7, 700:21  <b>company's</b> [3] - 500:6, 501:25, 713:15  <b>comparable</b> [3] - 518:22, 548:22, 567:14  <b>compare</b> [10] - 494:5, 494:9, 518:9, 520:7, 523:1, 550:3, 550:12, 567:3, 673:21  <b>compared</b> [4] - 530:7, 536:1, 536:6, 697:5  <b>compares</b> [1] - 543:25  <b>comparing</b> [1] - 544:14  <b>compete</b> [1] - 592:4  <b>competed</b> [1] - 513:23  <b>competition</b> [1] - 513:19  <b>compiled</b> [1] - 515:19  <b>complain</b> [4] - 687:22, 702:23, 702:24, 705:4  <b>COMPLAINANT</b> [1] - 480:15  <b>complainants</b> [1] - 598:15  <b>complaint</b> [5] - 687:21, 704:4, 704:15, 706:22, 707:14  <b>complaints</b> [9] - 497:11, 510:24, 511:2, 564:3, 597:5, 597:6, 681:1, 687:11, 687:23  <b>complete</b> [7] - 500:7, 500:10, 665:25, 676:18, 678:16, 706:11, 712:2  <b>completed</b> [4] - 533:11, 551:5, 678:21, 681:21  <b>completely</b> [3] - 577:22, 680:23, 690:22  <b>completeness</b> [1] - 656:17  <b>completing</b> [1] - 514:1  <b>complex</b> [2] - 521:22, 627:14</p>	<p><b>compliance</b> [2] - 515:8, 515:16  <b>complicated</b> [1] - 585:24  <b>comply</b> [3] - 556:11, 560:11, 560:15  <b>complying</b> [1] - 560:20  <b>component</b> [9] - 544:21, 554:10, 554:16, 556:17, 568:9, 574:1, 580:8, 580:25, 586:2  <b>components</b> [5] - 515:18, 580:18, 581:4, 581:15, 599:2  <b>composition</b> [14] - 520:15, 530:4, 543:12, 550:15, 556:7, 558:10, 564:18, 566:9, 581:23, 584:15, 584:24, 585:6, 589:20, 591:16  <b>comprehensive</b> [1] - 684:6  <b>comprise</b> [1] - 556:6  <b>conceivable</b> [1] - 672:21  <b>conceivably</b> [1] - 575:12  <b>concentrated</b> [1] - 600:2  <b>concentrating</b> [1] - 499:6  <b>concept</b> [1] - 575:9  <b>concern</b> [10] - 498:19, 501:20, 521:10, 531:24, 550:24, 587:23, 589:21, 630:5, 631:21, 694:18  <b>concerned</b> [4] - 598:15, 626:5, 630:22, 632:2  <b>concerns</b> [17] - 500:8, 503:10, 527:25, 531:19, 542:25, 543:8, 549:7, 550:17, 550:25, 566:21, 574:2, 684:1, 685:7, 685:11, 685:22, 686:3, 713:13  <b>conclude</b> [3] - 639:14, 642:22, 716:8  <b>concluded</b> [1] - 716:12  <b>concludes</b> [2] - 505:9, 593:11  <b>conclusion</b> [5] - 620:22, 627:1, 627:2, 676:7, 677:20  <b>conclusions</b> [7] - 597:15, 638:7, 639:16, 642:1, 642:2, 708:4, 714:16  <b>condition</b> [7] - 564:18, 568:18, 600:19, 600:23, 600:24, 656:25, 688:16  <b>conditions</b> [14] - 535:16, 536:20, 537:19, 573:23, 582:16, 582:18, 584:7, 600:20, 607:20, 607:23, 608:8, 621:20, 696:1  <b>Conditions</b> [1] - 483:22  <b>conductive</b> [3] - 646:20,</p>
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<p>647:2, 651:8  <b>conduct</b> [2] - 547:2, 691:25  <b>conducted</b> [14] - 509:24, 546:21, 549:2, 551:7, 559:11, 559:12, 560:3, 599:23, 602:20, 603:7, 612:2, 612:4, 612:7, 617:10  <b>conducts</b> [2] - 676:16, 678:14  <b>confer</b> [2] - 539:17, 617:21  <b>conference</b> [7] - 514:11, 579:13, 684:17, 707:25, 708:9, 708:12, 712:15  <b>confidence</b> [1] - 625:11  <b>confident</b> [2] - 549:1, 590:1  <b>confluences</b> [1] - 603:4  <b>consequences</b> [1] - 689:15  <b>Conservation</b> [6] - 490:13, 641:4, 644:20, 645:9, 646:2, 648:2  <b>consider</b> [5] - 521:24, 587:10, 602:23, 659:13, 661:24  <b>considerable</b> [1] - 679:10  <b>considerably</b> [1] - 536:7  <b>consideration</b> [3] - 545:21, 566:22, 591:7  <b>considered</b> [13] - 521:17, 543:9, 545:12, 568:20, 570:6, 591:15, 625:7, 638:20, 644:13, 649:10, 649:15, 657:23, 672:10  <b>considering</b> [1] - 697:11  <b>consistent</b> [1] - 599:11  <b>constant</b> [1] - 690:5  <b>consult</b> [3] - 538:14, 539:12, 539:21  <b>consultant</b> [8] - 545:2, 545:3, 571:2, 598:1, 599:5, 603:19, 610:9, 641:7  <b>consultants</b> [1] - 515:21  <b>consultation</b> [1] - 525:2  <b>Consulting</b> [2] - 545:3, 546:5  <b>consuming</b> [1] - 635:1  <b>contacts</b> [1] - 514:15  <b>contain</b> [1] - 717:10  <b>contained</b> [3] - 526:6, 557:21, 599:24  <b>contains</b> [4] - 519:5, 526:3, 527:22, 599:22  <b>contemporaneous</b> [1] - 678:11  <b>contemporaneously</b> [1] - 678:8  <b>contended</b> [1] - 704:6  <b>content</b> [2] - 528:10, 600:21  <b>contention</b> [1] - 704:20  <b>contingent</b> [1] - 710:6  <b>continually</b> [1] - 504:10</p>	<p><b>continue</b> [4] - 524:18, 539:25, 648:19, 679:15  <b>continued</b> [2] - 485:1, 488:8  <b>Continued</b> [3] - 482:1, 483:1, 484:1  <b>continues</b> [1] - 700:3  <b>CONTINUING</b> [29] - 489:22, 502:11, 515:2, 517:8, 518:8, 520:1, 523:19, 524:19, 527:8, 529:20, 531:10, 538:5, 541:11, 555:17, 556:4, 611:15, 612:14, 645:7, 645:25, 648:13, 648:20, 649:17, 650:17, 657:11, 661:3, 663:18, 677:1, 677:19, 707:15  <b>continuing</b> [3] - 516:4, 605:22, 683:25  <b>continuously</b> [1] - 494:15  <b>contour</b> [1] - 587:21  <b>contractor</b> [1] - 511:4  <b>contradicting</b> [1] - 580:4  <b>contribute</b> [1] - 589:19  <b>contributes</b> [1] - 506:6  <b>contribution</b> [1] - 535:22  <b>control</b> [8] - 498:13, 509:11, 525:13, 525:15, 568:24, 576:24, 577:9, 715:6  <b>controlled</b> [1] - 525:25  <b>conversation</b> [2] - 547:1, 599:21  <b>conversations</b> [3] - 525:3, 545:15, 546:5  <b>Cool</b> [1] - 483:18  <b>cool</b> [3] - 574:1, 574:5, 584:20  <b>cooperation</b> [1] - 546:22  <b>cooperator</b> [1] - 549:4  <b>Cooperstown</b> [1] - 715:17  <b>coordinate</b> [4] - 515:4, 515:7, 686:25, 687:4  <b>copied</b> [1] - 620:1  <b>copies</b> [2] - 617:15, 617:18  <b>copy</b> [8] - 602:25, 604:18, 611:10, 611:13, 612:10, 615:23, 619:16, 620:6  <b>corn</b> [1] - 607:2  <b>corner</b> [1] - 605:13  <b>Corporation</b> [1] - 675:16  <b>correct</b> [79] - 490:9, 490:10, 490:18, 491:6, 493:7, 510:12, 510:18, 520:23, 521:3, 521:5, 521:8, 522:12, 524:3, 524:6, 526:23, 531:17, 531:22, 537:19, 540:21, 541:14, 542:19, 545:23, 552:4, 554:15, 565:13, 565:18, 567:1, 573:24, 574:19,</p>	<p>575:3, 576:1, 579:17, 583:19, 588:23, 592:12, 592:23, 601:3, 602:18, 610:14, 612:9, 619:11, 619:17, 621:3, 621:5, 621:24, 621:25, 623:4, 632:19, 632:20, 642:15, 642:16, 647:25, 648:3, 649:4, 650:5, 651:5, 651:6, 651:9, 651:18, 651:19, 653:7, 655:12, 660:16, 663:10, 664:12, 664:25, 666:9, 667:16, 669:22, 671:7, 672:16, 673:10, 673:24, 675:2, 689:24, 690:3, 704:16, 710:22, 711:5  <b>corrective</b> [3] - 676:10, 677:24, 681:15  <b>correctly</b> [5] - 569:7, 581:1, 581:2, 627:3, 679:6  <b>correspond</b> [1] - 650:7  <b>corresponding</b> [1] - 615:10  <b>cost</b> [5] - 634:25, 635:4, 688:6, 689:3, 689:5  <b>costly</b> [2] - 500:24, 508:6  <b>Coteau</b> [13] - 483:10, 488:12, 513:3, 516:17, 517:18, 517:23, 519:5, 522:25, 524:2, 546:22, 571:12, 577:2, 586:22  <b>Coteau's</b> [1] - 516:18  <b>counsel</b> [2] - 491:3, 712:9  <b>Counsel</b> [1] - 480:18  <b>count</b> [2] - 570:20, 583:23  <b>counterpart</b> [1] - 691:12  <b>counting</b> [2] - 567:19, 574:24  <b>County</b> [14] - 483:4, 487:18, 488:19, 488:22, 490:20, 607:15, 609:3, 610:4, 638:19, 639:19, 640:5, 641:4, 641:5, 644:15  <b>county</b> [1] - 506:18  <b>couple</b> [24] - 497:8, 505:17, 511:8, 517:14, 566:4, 571:24, 574:14, 574:22, 586:18, 593:21, 600:6, 605:20, 605:21, 606:24, 607:2, 621:10, 634:15, 680:1, 680:17, 681:6, 681:9, 684:9, 689:22, 706:9  <b>course</b> [7] - 494:21, 508:9, 598:6, 610:14, 629:13, 646:15, 656:24  <b>COURT</b> [1] - 717:1  <b>cover</b> [19] - 490:22, 509:11, 509:14, 521:25, 524:9, 533:16, 533:18, 534:3,</p>	<p>534:9, 556:7, 571:20, 571:22, 571:23, 577:12, 579:6, 586:2, 599:2, 695:1  <b>coverage</b> [1] - 681:3  <b>covered</b> [2] - 583:14, 609:16  <b>covering</b> [1] - 483:6  <b>cow</b> [2] - 523:21, 549:22  <b>cow-calf</b> [2] - 523:21, 549:22  <b>COYOTE</b> [3] - 481:2, 483:7, 484:2  <b>Coyote</b> [104] - 479:6, 483:19, 484:15, 487:11, 487:21, 489:2, 489:14, 489:20, 500:12, 501:1, 512:22, 512:23, 515:3, 515:10, 515:23, 516:22, 518:6, 518:19, 519:2, 519:24, 523:6, 524:13, 524:20, 525:6, 525:12, 526:7, 527:6, 529:12, 529:18, 530:23, 531:8, 531:16, 531:21, 533:21, 533:24, 534:1, 537:1, 537:9, 538:3, 538:6, 539:17, 539:20, 541:18, 542:21, 552:6, 552:9, 552:22, 555:18, 555:19, 556:19, 561:15, 561:16, 561:19, 567:2, 568:25, 571:10, 572:17, 579:18, 594:10, 601:9, 601:19, 602:16, 603:6, 603:8, 605:1, 605:25, 606:22, 613:1, 613:12, 613:22, 614:3, 614:4, 616:5, 616:8, 616:12, 619:14, 622:6, 624:2, 624:3, 624:7, 624:8, 625:15, 625:24, 630:12, 631:8, 631:11, 633:1, 633:9, 638:22, 639:1, 639:4, 655:21, 656:4, 656:7, 656:18, 675:20, 676:24, 677:17, 692:6, 700:12, 700:15, 703:13, 705:19, 712:1  <b>Coyote's</b> [1] - 521:18  <b>create</b> [4] - 533:9, 551:11, 554:7, 554:20  <b>created</b> [3] - 552:2, 644:19, 644:20  <b>creating</b> [1] - 533:12  <b>creation</b> [1] - 551:22  <b>credentials</b> [1] - 485:23  <b>creek</b> [1] - 600:7  <b>Creek</b> [103] - 479:6, 483:19, 484:15, 487:12, 487:21, 489:3, 489:14, 489:20, 500:13, 501:1, 512:22, 512:24, 515:3, 515:10, 515:23, 516:22, 518:6,</p>
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<p>518:19, 519:2, 519:24, 523:6, 524:13, 524:20, 525:6, 525:12, 526:7, 527:6, 529:12, 529:18, 530:23, 531:8, 531:16, 531:21, 533:21, 533:24, 534:1, 537:1, 538:3, 538:6, 539:17, 539:20, 541:18, 542:21, 552:6, 552:9, 552:22, 555:18, 555:19, 556:19, 561:15, 561:17, 561:19, 567:2, 568:25, 571:10, 572:17, 579:18, 601:9, 601:19, 602:16, 603:5, 603:6, 603:8, 605:1, 605:5, 605:6, 605:23, 606:22, 613:2, 613:12, 613:22, 614:3, 614:5, 616:5, 616:8, 616:12, 619:15, 622:6, 624:2, 624:3, 624:7, 624:8, 625:16, 627:5, 630:12, 631:8, 631:11, 633:1, 633:9, 638:22, 639:1, 639:4, 655:21, 656:4, 656:7, 656:18, 675:20, 676:24, 677:17, 700:12, 703:13, 705:19</p> <p><b>CREEK</b> [3] - 481:2, 483:7, 484:2</p> <p><b>Creek's</b> [4] - 537:9, 692:6, 700:16, 712:1</p> <p><b>creeks</b> [1] - 630:16</p> <p><b>criteria</b> [6] - 494:11, 543:10, 544:8, 553:24, 569:24, 576:15</p> <p><b>criterion</b> [1] - 543:20</p> <p><b>crop</b> [3] - 496:7, 577:12, 579:7</p> <p><b>cropland</b> [27] - 490:3, 505:19, 506:15, 506:17, 509:11, 509:13, 516:21, 518:16, 563:21, 579:3, 579:5, 586:21, 586:23, 588:8, 593:1, 600:3, 604:3, 605:11, 605:16, 606:7, 606:15, 606:18, 606:21, 606:24, 638:19, 658:10, 690:19</p> <p><b>cropping</b> [2] - 605:11, 686:18</p> <p><b>crops</b> [4] - 495:13, 578:15, 578:17, 686:16</p> <p><b>cross</b> [9] - 524:10, 524:15, 539:13, 540:3, 540:6, 548:14, 561:22, 613:9, 708:21</p> <p><b>cross-examination</b> [3] - 539:13, 540:3, 540:6</p> <p><b>cross-section</b> [1] - 613:9</p>	<p><b>crosses</b> [1] - 548:17</p> <p><b>crowd</b> [1] - 707:10</p> <p><b>Crowley</b> [1] - 480:7</p> <p><b>curious</b> [2] - 586:25, 692:12</p> <p><b>current</b> [14] - 492:11, 492:12, 492:20, 492:21, 496:17, 514:4, 514:16, 579:18, 589:8, 589:15, 657:18, 694:14, 694:24, 697:20</p> <p><b>customer</b> [1] - 678:12</p> <p><b>cutting</b> [1] - 536:23</p> <p><b>cuttings</b> [1] - 536:17</p> <p><b>CV</b> [5] - 484:7, 484:8, 484:9, 484:10, 485:7</p> <p><b>cycle</b> [1] - 582:5</p> <p><b>cycling</b> [1] - 528:17</p>	<p>639:24, 640:4, 657:14, 661:6, 661:14, 665:19, 670:16, 670:22, 678:9, 680:17, 680:20, 682:5, 687:1, 711:21</p> <p><b>date</b> [5] - 549:20, 601:24, 620:21, 700:6, 710:4</p> <p><b>dated</b> [1] - 483:23</p> <p><b>dating</b> [1] - 654:13</p> <p><b>Dave</b> [1] - 566:19</p> <p><b>David</b> [1] - 604:14</p> <p><b>day-to-day</b> [1] - 515:8</p> <p><b>days</b> [17] - 497:8, 574:14, 594:7, 616:1, 642:14, 655:11, 656:24, 659:10, 663:21, 708:13, 708:23, 709:3, 709:7, 713:1, 713:10, 714:14</p> <p><b>days'</b> [1] - 622:15</p> <p><b>daytime</b> [1] - 622:13</p> <p><b>dead</b> [1] - 635:17</p> <p><b>deadline</b> [2] - 708:5, 708:6</p> <p><b>deal</b> [2] - 498:24, 624:17</p> <p><b>dealing</b> [2] - 582:14, 715:2</p> <p><b>deals</b> [1] - 598:3</p> <p><b>dealt</b> [1] - 492:12</p> <p><b>Dean</b> [13] - 484:8, 594:2, 594:13, 594:21, 598:21, 598:23, 636:25, 637:16, 651:14, 651:25, 652:5, 663:3, 683:14</p> <p><b>DEAN</b> [2] - 481:22, 637:9</p> <p><b>debris</b> [1] - 698:9</p> <p><b>decades</b> [1] - 532:23</p> <p><b>December</b> [1] - 618:6</p> <p><b>decent</b> [1] - 607:1</p> <p><b>decide</b> [1] - 621:1</p> <p><b>decided</b> [2] - 547:1, 549:6</p> <p><b>decision</b> [5] - 546:11, 546:13, 715:9, 715:20, 715:24</p> <p><b>decline</b> [1] - 536:16</p> <p><b>decompose</b> [1] - 698:9</p> <p><b>decorum</b> [1] - 715:15</p> <p><b>decrease</b> [1] - 507:1</p> <p><b>decreases</b> [2] - 506:25, 528:15</p> <p><b>dedicated</b> [1] - 700:8</p> <p><b>deeded</b> [2] - 545:17, 589:15</p> <p><b>deems</b> [1] - 524:16</p> <p><b>deep</b> [14] - 499:22, 541:7, 575:20, 576:11, 578:15, 578:17, 579:2, 579:4, 579:6, 609:11, 616:15, 631:9, 639:25</p> <p><b>deep-rooted</b> [5] - 541:7, 578:15, 578:17, 579:4, 579:6</p> <p><b>deeper</b> [1] - 535:5</p> <p><b>deeply</b> [1] - 627:3</p>	<p><b>defend</b> [1] - 623:2</p> <p><b>defense</b> [2] - 617:4, 618:1</p> <p><b>defer</b> [2] - 495:19, 517:19</p> <p><b>deficiency</b> [1] - 685:6</p> <p><b>defined</b> [1] - 509:4</p> <p><b>definite</b> [2] - 510:1, 600:12</p> <p><b>definitely</b> [3] - 577:4, 603:15, 626:11</p> <p><b>definition</b> [4] - 627:16, 628:5, 645:10, 646:1</p> <p><b>definitions</b> [2] - 645:9, 646:6</p> <p><b>degree</b> [5] - 487:8, 514:1, 548:23, 641:1, 654:13</p> <p><b>delayed</b> [1] - 525:16</p> <p><b>deleted</b> [1] - 680:2</p> <p><b>delineating</b> [1] - 613:5</p> <p><b>delineator</b> [1] - 514:13</p> <p><b>demonstrate</b> [5] - 489:23, 490:7, 665:20, 676:12, 678:1</p> <p><b>demonstrated</b> [2] - 567:13, 678:13</p> <p><b>demonstrates</b> [1] - 528:6</p> <p><b>denial</b> [1] - 679:25</p> <p><b>denied</b> [3] - 680:4, 680:11, 680:13</p> <p><b>Denise</b> [2] - 717:3, 717:16</p> <p><b>Department</b> [2] - 641:8, 658:17</p> <p><b>department</b> [1] - 513:21</p> <p><b>dependent</b> [2] - 705:6, 705:7</p> <p><b>depicted</b> [1] - 561:21</p> <p><b>deposits</b> [3] - 613:5, 613:6, 638:17</p> <p><b>Dept</b> [1] - 480:19</p> <p><b>depth</b> [19] - 532:3, 533:10, 533:13, 540:13, 541:12, 554:20, 559:3, 560:6, 560:7, 583:13, 600:10, 607:5, 613:18, 640:2, 640:6, 640:8, 642:10, 644:16, 651:15</p> <p><b>depths</b> [6] - 540:13, 540:15, 540:16, 575:17, 610:15, 611:24</p> <p><b>derived</b> [1] - 490:12</p> <p><b>Derrick</b> [4] - 611:6, 620:2, 648:10, 709:21</p> <p><b>DERRICK</b> [1] - 480:12</p> <p><b>describe</b> [8] - 516:16, 520:4, 551:16, 554:22, 564:7, 571:8, 603:11, 686:9</p> <p><b>described</b> [4] - 545:5, 545:13, 601:13</p> <p><b>describes</b> [1] - 527:16</p> <p><b>description</b> [10] - 551:18, 564:10, 564:16, 649:24, 650:1, 650:2, 650:11, 650:19, 650:24</p> <p><b>Description</b> [3] - 483:3,</p>
<b>D</b>			
<p><b>D-e-u-t-s-c-h</b> [1] - 654:7</p> <p><b>daily</b> [5] - 523:3, 547:23, 548:1, 548:4, 548:8</p> <p><b>DAKOTA</b> [1] - 479:2</p> <p><b>Dakota</b> [65] - 479:17, 480:9, 480:14, 480:19, 486:14, 487:2, 487:5, 487:10, 487:18, 488:24, 494:6, 496:22, 502:1, 507:24, 512:6, 512:20, 513:8, 514:5, 514:10, 514:12, 519:11, 534:8, 534:12, 534:17, 537:3, 537:5, 595:13, 596:21, 601:6, 601:13, 606:14, 611:4, 612:3, 612:11, 612:24, 613:11, 627:21, 630:15, 632:17, 632:21, 637:18, 641:1, 641:5, 653:18, 654:10, 657:25, 659:25, 660:6, 666:7, 666:19, 675:17, 675:21, 676:9, 677:3, 677:23, 694:2, 696:17, 696:19, 697:13, 701:23, 702:7, 702:10, 706:20, 717:13</p> <p><b>Dakota's</b> [1] - 533:14</p> <p><b>Data</b> [1] - 483:15</p> <p><b>data</b> [49] - 489:9, 498:12, 505:22, 505:25, 506:21, 507:3, 507:23, 515:4, 515:20, 516:8, 517:9, 517:10, 518:1, 522:25, 525:3, 526:14, 527:13, 535:15, 550:6, 563:24, 571:18, 571:20, 598:1, 598:2, 599:4, 613:16, 614:13, 614:19, 618:4, 623:9, 623:10, 628:7, 628:10, 628:18, 628:20,</p>			

<p>483:5, 484:3  <b>descriptions</b> [5] - 527:14, 551:25, 564:14, 649:19, 670:23  <b>descriptive</b> [1] - 627:18  <b>design</b> [1] - 550:24  <b>designed</b> [1] - 571:10  <b>desirable</b> [3] - 568:8, 569:21, 573:18  <b>desire</b> [1] - 520:25  <b>desired</b> [1] - 590:25  <b>despite</b> [1] - 664:11  <b>detail</b> [1] - 547:15  <b>detailed</b> [3] - 640:18, 649:18, 650:2  <b>detected</b> [1] - 579:21  <b>determination</b> [29] - 596:24, 597:17, 599:5, 599:7, 599:9, 601:20, 614:7, 617:1, 618:21, 619:9, 619:15, 622:22, 622:23, 623:1, 623:2, 623:3, 624:15, 624:18, 628:9, 629:21, 632:23, 634:21, 635:6, 635:10, 636:1, 652:7, 652:10, 655:20, 656:2  <b>determinations</b> [4] - 485:18, 594:21, 598:13, 630:23  <b>determine</b> [10] - 544:8, 545:25, 599:24, 600:11, 607:14, 614:23, 615:6, 627:9, 630:13, 632:15  <b>determined</b> [4] - 532:6, 625:2, 634:24, 661:22  <b>determining</b> [3] - 529:23, 530:1, 664:3  <b>detrimental</b> [1] - 521:17  <b>DEUTSCH</b> [8] - 482:2, 502:10, 561:11, 561:25, 619:25, 620:16, 653:23, 709:2  <b>deutsch</b> [1] - 654:3  <b>Deutsch</b> [15] - 481:10, 484:10, 561:7, 594:3, 594:13, 619:24, 653:14, 653:15, 654:6, 657:12, 661:4, 663:19, 664:18, 702:23, 704:5  <b>Deutsch's</b> [1] - 517:20  <b>develop</b> [1] - 588:13  <b>developed</b> [2] - 525:2, 638:16  <b>diagrams</b> [1] - 569:1  <b>dictate</b> [1] - 592:3  <b>dictated</b> [1] - 575:18  <b>dictates</b> [2] - 575:19, 587:15  <b>differed</b> [1] - 652:20  <b>difference</b> [12] - 532:12, 535:11, 535:12, 535:19,</p>	<p>535:24, 548:5, 564:5, 576:10, 586:19, 586:24, 644:5, 691:2  <b>differences</b> [2] - 578:2, 698:13  <b>different</b> [43] - 552:17, 552:21, 552:24, 564:21, 565:4, 572:3, 572:5, 572:12, 572:22, 572:24, 573:1, 573:22, 578:10, 580:20, 583:21, 584:18, 588:4, 588:10, 588:16, 590:17, 601:5, 601:10, 601:11, 603:15, 610:21, 620:5, 622:18, 624:20, 625:3, 626:9, 635:18, 646:2, 646:4, 652:10, 658:23, 659:3, 660:12, 661:19, 663:23, 664:2, 684:10  <b>difficult</b> [1] - 498:20  <b>digitally</b> [1] - 617:24  <b>diminishing</b> [2] - 502:18, 502:20  <b>diminution</b> [1] - 508:11  <b>direct</b> [6] - 584:4, 584:7, 589:1, 645:7, 664:17, 686:18  <b>directly</b> [2] - 526:15, 604:1  <b>director</b> [5] - 637:20, 654:7, 654:19, 654:21, 654:23  <b>directory</b> [3] - 620:5, 620:7, 620:8  <b>disagree</b> [1] - 540:15  <b>disagreement</b> [1] - 710:15  <b>disappointed</b> [1] - 681:11  <b>discover</b> [2] - 499:20, 607:25  <b>discuss</b> [1] - 694:20  <b>discussed</b> [15] - 491:2, 498:19, 561:13, 572:4, 575:8, 589:17, 614:21, 616:2, 626:10, 683:19, 685:9, 694:22, 708:7, 708:8, 710:21  <b>discusses</b> [2] - 527:21, 527:23  <b>discussing</b> [2] - 564:15, 609:13  <b>discussion</b> [17] - 551:2, 561:16, 567:18, 585:18, 586:16, 589:11, 633:24, 634:14, 640:24, 657:6, 665:14, 685:1, 685:5, 691:22, 702:19, 709:1  <b>Discussion</b> [2] - 653:10, 708:18  <b>discussions</b> [1] - 685:24  <b>disincentive</b> [2] - 500:7, 500:11  <b>disk</b> [2] - 499:25, 500:1</p>	<p><b>displaced</b> [1] - 701:3  <b>disposal</b> [1] - 658:17  <b>dispute</b> [2] - 541:12, 541:14  <b>disputing</b> [1] - 496:23  <b>dissected</b> [1] - 670:9  <b>disturbance</b> [5] - 494:9, 494:13, 520:19, 576:18, 661:24  <b>disturbances</b> [2] - 662:1, 662:10  <b>disturbed</b> [43] - 492:5, 496:4, 496:7, 508:1, 508:3, 508:5, 517:23, 518:12, 518:14, 520:16, 542:2, 542:7, 542:11, 561:20, 561:24, 565:12, 659:11, 661:8, 661:11, 661:23, 662:23, 664:19, 664:21, 665:5, 665:8, 665:11, 665:22, 666:5, 666:6, 666:8, 667:4, 667:6, 667:10, 667:13, 667:14, 668:5, 668:8, 668:9, 668:10, 673:13, 673:21, 674:7, 674:14  <b>disturbing</b> [1] - 493:22  <b>diurnal</b> [1] - 623:15  <b>diverse</b> [2] - 533:15, 573:21  <b>diversify</b> [1] - 575:16  <b>diversity</b> [17] - 521:25, 522:2, 522:13, 534:4, 571:22, 573:25, 582:15, 583:15, 583:17, 583:18, 583:21, 584:10, 584:17, 585:9, 585:14, 586:4, 592:6  <b>divide</b> [1] - 668:9  <b>divided</b> [2] - 547:13, 667:5  <b>Division</b> [10] - 537:9, 596:12, 597:8, 637:21, 654:8, 654:16, 654:20, 654:21, 654:23, 674:22  <b>DND</b> [1] - 483:4  <b>DO</b> [2] - 717:5, 717:9  <b>doctorate</b> [1] - 485:16  <b>document</b> [22] - 504:7, 517:22, 519:10, 519:12, 526:24, 530:14, 530:20, 534:21, 540:10, 541:5, 555:1, 612:18, 615:12, 619:22, 648:8, 649:22, 656:1, 656:15, 658:20, 658:21, 675:10  <b>documentation</b> [3] - 548:11, 613:14, 614:11  <b>documented</b> [1] - 548:11  <b>documents</b> [13] - 504:6, 521:22, 528:21, 529:1, 529:5, 529:9, 529:21, 537:18, 619:21, 620:24, 659:1, 708:10, 710:1</p>	<p><b>dominant</b> [8] - 531:11, 543:15, 543:16, 565:4, 565:8, 567:7, 573:9, 592:7  <b>done</b> [40] - 491:24, 511:8, 522:17, 523:1, 533:8, 533:10, 546:4, 549:19, 550:7, 550:11, 550:13, 550:22, 550:23, 552:15, 553:5, 553:15, 553:16, 559:19, 571:12, 571:23, 577:2, 580:2, 580:7, 581:7, 583:2, 587:25, 615:1, 622:20, 625:13, 638:10, 640:19, 656:21, 685:15, 690:13, 691:8, 695:4, 699:18, 711:17, 716:4  <b>DONN</b> [2] - 481:3, 486:19  <b>Donn</b> [5] - 486:10, 487:1, 505:14, 505:17, 525:17  <b>doors</b> [1] - 653:7  <b>doubt</b> [2] - 549:18, 633:1  <b>down</b> [36] - 500:1, 500:4, 504:19, 508:3, 511:23, 570:11, 575:13, 576:13, 577:19, 585:11, 585:24, 586:21, 586:23, 593:10, 603:5, 603:9, 605:4, 605:6, 622:1, 624:3, 626:11, 627:23, 628:1, 630:10, 636:8, 636:24, 651:4, 652:23, 653:2, 678:4, 693:7, 698:5, 698:14, 699:13, 702:1, 707:19  <b>dozen</b> [2] - 600:9, 604:2  <b>dozers</b> [1] - 500:4  <b>Dr</b> [12] - 533:7, 554:11, 554:12, 559:15, 578:6, 583:1, 598:12, 599:12, 603:22, 603:23, 608:4, 627:21  <b>dragline</b> [1] - 552:13  <b>DND</b> [1] - 500:9  <b>drainage</b> [1] - 639:1  <b>drainages</b> [1] - 603:4  <b>drained</b> [1] - 644:13  <b>drawn</b> [1] - 534:25  <b>drive</b> [1] - 629:12  <b>driven</b> [1] - 548:4  <b>driver</b> [1] - 530:1  <b>drivers</b> [1] - 528:9  <b>drives</b> [1] - 499:14  <b>driving</b> [2] - 704:12  <b>drop</b> [2] - 536:16, 536:19  <b>dropped</b> [1] - 536:11  <b>dropping</b> [1] - 628:1  <b>drops</b> [1] - 508:22  <b>drove</b> [1] - 550:25  <b>dry</b> [2] - 535:15, 536:5  <b>drying</b> [1] - 600:23  <b>due</b> [2] - 518:22, 700:8</p>
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------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p><b>dug</b> [1] - 600:8  <b>duly</b> [7] - 486:20, 512:13, 595:19, 637:10, 653:24, 694:9, 702:16  <b>dumps</b> [3] - 603:6, 605:5, 605:23  <b>duration</b> [2] - 494:8, 696:7  <b>during</b> [29] - 488:3, 499:10, 499:18, 503:15, 503:16, 510:2, 521:9, 574:4, 576:19, 576:22, 594:11, 603:12, 603:13, 603:21, 604:8, 606:10, 610:23, 612:7, 621:16, 623:8, 629:7, 645:12, 680:19, 686:10, 687:9, 695:2, 698:24, 698:25, 714:13  <b>duties</b> [4] - 487:23, 488:12, 488:14, 515:3  <b>DWC</b> [11] - 598:10, 598:16, 603:21, 604:6, 609:2, 609:8, 611:23, 614:1, 619:7, 624:3  <b>DWC-Revision</b> [1] - 598:16  <b>dwelling</b> [2] - 692:1, 692:19</p>	<p><b>effort</b> [1] - 716:6  <b>efforts</b> [3] - 676:11, 677:25, 678:13  <b>eight</b> [3] - 516:5, 532:2, 596:13  <b>eighth</b> [1] - 697:6  <b>Eighth</b> [1] - 701:20  <b>either</b> [20] - 579:6, 597:22, 599:4, 603:18, 612:24, 613:11, 614:2, 614:18, 615:9, 616:18, 626:1, 637:24, 651:25, 679:21, 683:14, 686:15, 686:17, 705:9, 708:13  <b>elaborate</b> [1] - 503:13  <b>electronically</b> [1] - 711:25  <b>elements</b> [2] - 613:23, 614:20  <b>eligible</b> [9] - 665:15, 665:18, 669:1, 669:8, 669:14, 673:16, 673:20, 673:23, 674:2  <b>eliminate</b> [1] - 505:6  <b>Elm</b> [1] - 627:5  <b>email</b> [1] - 594:14  <b>emphasize</b> [1] - 591:19  <b>emphasizing</b> [1] - 621:18  <b>employed</b> [4] - 487:21, 488:16, 512:21, 654:15  <b>employee</b> [2] - 488:8, 549:2  <b>employees</b> [3] - 577:3, 676:12, 678:1  <b>enactment</b> [1] - 655:8  <b>encourage</b> [3] - 683:25, 688:2, 688:11  <b>end</b> [11] - 519:2, 519:4, 523:24, 543:20, 544:3, 585:18, 665:8, 665:9, 693:12, 699:6, 716:1  <b>ended</b> [2] - 659:19, 704:1  <b>enforcement</b> [1] - 641:15  <b>enforcing</b> [1] - 678:20  <b>Engage</b> [1] - 483:21  <b>engineering</b> [4] - 487:9, 487:13, 487:25, 488:13  <b>ENGLAND</b> [1] - 480:12  <b>Englerth</b> [1] - 704:5  <b>ensures</b> [2] - 584:10, 584:11  <b>enter</b> [1] - 491:4  <b>entered</b> [2] - 711:4, 711:7  <b>entire</b> [9] - 491:1, 497:16, 544:1, 549:15, 618:3, 656:16, 668:11, 670:17, 680:4  <b>entirely</b> [1] - 690:1  <b>entitled</b> [2] - 528:25, 534:20  <b>environmental</b> [7] - 487:13, 488:5, 488:14, 488:15, 512:25, 515:8, 654:18  <b>equal</b> [8] - 490:22, 503:5,</p>	<p>507:4, 533:18, 534:2, 534:4, 534:9, 590:19  <b>equipment</b> [2] - 498:21, 698:15  <b>equipped</b> [1] - 568:14  <b>equivalent</b> [2] - 522:5, 533:4  <b>erosion</b> [1] - 509:11  <b>erosive</b> [1] - 672:12  <b>errors</b> [2] - 642:23, 660:19  <b>especially</b> [5] - 528:2, 535:3, 535:6, 643:10, 686:5  <b>essence</b> [1] - 682:6  <b>essential</b> [2] - 624:22, 635:3  <b>essentially</b> [7] - 485:7, 553:8, 555:12, 596:20, 631:20, 669:9, 695:15  <b>establish</b> [1] - 521:3  <b>established</b> [3] - 490:16, 532:14, 699:19  <b>establishing</b> [1] - 686:7  <b>establishment</b> [2] - 504:16, 672:10  <b>estimation</b> [1] - 661:7  <b>EUGENE</b> [2] - 482:8, 702:15  <b>Eugene</b> [2] - 702:6, 706:14  <b>evaluate</b> [4] - 520:8, 521:20, 570:9, 570:11  <b>evaluated</b> [4] - 535:9, 569:23, 676:8, 677:22  <b>evaluating</b> [1] - 522:17  <b>evaluation</b> [6] - 483:25, 484:5, 675:21, 677:3, 677:5, 703:15  <b>Evaluation</b> [4] - 483:11, 483:24, 484:4, 674:22  <b>evaluations</b> [1] - 678:17  <b>evapotranspiration</b> [1] - 623:19  <b>events</b> [1] - 514:14  <b>eventually</b> [3] - 582:8, 633:10, 695:12  <b>everywhere</b> [4] - 587:14, 590:18, 592:8, 703:8  <b>evidence</b> [9] - 558:25, 559:2, 604:4, 622:5, 622:23, 685:16, 685:18, 711:4, 711:7  <b>evidenced</b> [1] - 656:11  <b>evolving</b> [3] - 642:25, 643:7, 690:3  <b>exact</b> [3] - 508:25, 552:10, 701:19  <b>exam</b> [1] - 513:24  <b>EXAMINATION</b> [35] - 486:22, 492:1, 495:10, 497:4, 505:12, 507:21, 512:15, 540:8, 561:10, 562:5, 580:15, 586:10, 590:12, 592:20, 595:21, 599:18, 621:11, 622:10, 624:12,</p>	<p>626:18, 629:5, 633:16, 634:12, 635:23, 637:12, 643:16, 651:12, 652:3, 654:1, 664:15, 673:2, 679:1, 683:7, 689:20, 706:7  <b>Examination</b> [31] - 481:4, 481:5, 481:5, 481:6, 481:6, 481:7, 481:9, 481:10, 481:10, 481:11, 481:11, 481:12, 481:13, 481:16, 481:17, 481:17, 481:18, 481:18, 481:19, 481:19, 481:20, 481:21, 481:23, 481:24, 481:25, 482:3, 482:4, 482:4, 482:5, 482:5, 482:10  <b>examination</b> [8] - 481:9, 481:16, 481:24, 482:3, 539:13, 540:3, 540:6, 621:6  <b>examine</b> [1] - 577:20  <b>examined</b> [7] - 486:20, 512:13, 595:19, 637:10, 653:24, 694:9, 702:16  <b>example</b> [10] - 501:11, 508:13, 509:9, 565:6, 585:2, 614:10, 636:5, 652:13, 666:4, 671:2  <b>exceed</b> [4] - 534:13, 569:12, 589:23, 589:24  <b>exceeded</b> [5] - 490:1, 490:3, 490:6, 505:19, 516:19  <b>excellence</b> [1] - 675:14  <b>except</b> [4] - 496:12, 499:7, 559:22, 714:7  <b>exceptions</b> [1] - 573:11  <b>excerpt</b> [1] - 528:24  <b>excerpts</b> [2] - 526:3, 527:10  <b>excited</b> [1] - 505:16  <b>exciting</b> [1] - 531:2  <b>excluded</b> [2] - 616:12, 616:15  <b>excuse</b> [3] - 568:3, 596:1, 676:7  <b>exercise</b> [3] - 691:17, 691:21, 692:17  <b>exercising</b> [1] - 692:4  <b>exhibit</b> [34] - 489:9, 489:12, 489:13, 489:23, 491:5, 492:14, 516:14, 519:16, 522:21, 523:10, 526:24, 528:22, 534:25, 540:20, 541:2, 541:5, 541:15, 564:12, 586:21, 594:10, 611:4, 611:6, 615:19, 618:18, 618:22, 620:20, 645:3, 649:7, 652:14, 708:6, 711:2, 711:23, 712:3, 712:7</p>
<b>E</b>			
<p><b>E4161A</b> [1] - 650:4  <b>early</b> [9] - 504:20, 510:8, 549:21, 574:4, 574:10, 641:10, 657:6, 661:20, 666:22  <b>easily</b> [1] - 614:19  <b>East</b> [5] - 480:8, 480:19, 605:17, 637:17, 654:10  <b>east</b> [1] - 616:11  <b>easy</b> [1] - 577:13  <b>echo</b> [1] - 715:13  <b>ecological</b> [1] - 527:13  <b>ecosite</b> [8] - 543:13, 544:15, 564:5, 564:7, 564:10, 564:13, 564:16, 564:18  <b>ecosites</b> [8] - 543:15, 543:16, 544:1, 544:13, 565:2, 565:5, 565:8, 567:8  <b>ecosystem</b> [3] - 513:11, 581:4, 582:8  <b>edited</b> [1] - 515:19  <b>education</b> [4] - 487:6, 513:5, 586:16, 684:1  <b>effect</b> [5] - 589:10, 624:7, 635:4, 657:25, 659:16  <b>effective</b> [5] - 533:16, 645:11, 676:9, 677:23, 691:11  <b>effectively</b> [1] - 685:20  <b>effects</b> [1] - 550:15  <b>efficiency</b> [1] - 618:24</p>	<p><b>effort</b> [1] - 716:6  <b>efforts</b> [3] - 676:11, 677:25, 678:13  <b>eight</b> [3] - 516:5, 532:2, 596:13  <b>eighth</b> [1] - 697:6  <b>Eighth</b> [1] - 701:20  <b>either</b> [20] - 579:6, 597:22, 599:4, 603:18, 612:24, 613:11, 614:2, 614:18, 615:9, 616:18, 626:1, 637:24, 651:25, 679:21, 683:14, 686:15, 686:17, 705:9, 708:13  <b>elaborate</b> [1] - 503:13  <b>electronically</b> [1] - 711:25  <b>elements</b> [2] - 613:23, 614:20  <b>eligible</b> [9] - 665:15, 665:18, 669:1, 669:8, 669:14, 673:16, 673:20, 673:23, 674:2  <b>eliminate</b> [1] - 505:6  <b>Elm</b> [1] - 627:5  <b>email</b> [1] - 594:14  <b>emphasize</b> [1] - 591:19  <b>emphasizing</b> [1] - 621:18  <b>employed</b> [4] - 487:21, 488:16, 512:21, 654:15  <b>employee</b> [2] - 488:8, 549:2  <b>employees</b> [3] - 577:3, 676:12, 678:1  <b>enactment</b> [1] - 655:8  <b>encourage</b> [3] - 683:25, 688:2, 688:11  <b>end</b> [11] - 519:2, 519:4, 523:24, 543:20, 544:3, 585:18, 665:8, 665:9, 693:12, 699:6, 716:1  <b>ended</b> [2] - 659:19, 704:1  <b>enforcement</b> [1] - 641:15  <b>enforcing</b> [1] - 678:20  <b>Engage</b> [1] - 483:21  <b>engineering</b> [4] - 487:9, 487:13, 487:25, 488:13  <b>ENGLAND</b> [1] - 480:12  <b>Englerth</b> [1] - 704:5  <b>ensures</b> [2] - 584:10, 584:11  <b>enter</b> [1] - 491:4  <b>entered</b> [2] - 711:4, 711:7  <b>entire</b> [9] - 491:1, 497:16, 544:1, 549:15, 618:3, 656:16, 668:11, 670:17, 680:4  <b>entirely</b> [1] - 690:1  <b>entitled</b> [2] - 528:25, 534:20  <b>environmental</b> [7] - 487:13, 488:5, 488:14, 488:15, 512:25, 515:8, 654:18  <b>equal</b> [8] - 490:22, 503:5,</p>	<p>507:4, 533:18, 534:2, 534:4, 534:9, 590:19  <b>equipment</b> [2] - 498:21, 698:15  <b>equipped</b> [1] - 568:14  <b>equivalent</b> [2] - 522:5, 533:4  <b>erosion</b> [1] - 509:11  <b>erosive</b> [1] - 672:12  <b>errors</b> [2] - 642:23, 660:19  <b>especially</b> [5] - 528:2, 535:3, 535:6, 643:10, 686:5  <b>essence</b> [1] - 682:6  <b>essential</b> [2] - 624:22, 635:3  <b>essentially</b> [7] - 485:7, 553:8, 555:12, 596:20, 631:20, 669:9, 695:15  <b>establish</b> [1] - 521:3  <b>established</b> [3] - 490:16, 532:14, 699:19  <b>establishing</b> [1] - 686:7  <b>establishment</b> [2] - 504:16, 672:10  <b>estimation</b> [1] - 661:7  <b>EUGENE</b> [2] - 482:8, 702:15  <b>Eugene</b> [2] - 702:6, 706:14  <b>evaluate</b> [4] - 520:8, 521:20, 570:9, 570:11  <b>evaluated</b> [4] - 535:9, 569:23, 676:8, 677:22  <b>evaluating</b> [1] - 522:17  <b>evaluation</b> [6] - 483:25, 484:5, 675:21, 677:3, 677:5, 703:15  <b>Evaluation</b> [4] - 483:11, 483:24, 484:4, 674:22  <b>evaluations</b> [1] - 678:17  <b>evapotranspiration</b> [1] - 623:19  <b>events</b> [1] - 514:14  <b>eventually</b> [3] - 582:8, 633:10, 695:12  <b>everywhere</b> [4] - 587:14, 590:18, 592:8, 703:8  <b>evidence</b> [9] - 558:25, 559:2, 604:4, 622:5, 622:23, 685:16, 685:18, 711:4, 711:7  <b>evidenced</b> [1] - 656:11  <b>evolving</b> [3] - 642:25, 643:7, 690:3  <b>exact</b> [3] - 508:25, 552:10, 701:19  <b>exam</b> [1] - 513:24  <b>EXAMINATION</b> [35] - 486:22, 492:1, 495:10, 497:4, 505:12, 507:21, 512:15, 540:8, 561:10, 562:5, 580:15, 586:10, 590:12, 592:20, 595:21, 599:18, 621:11, 622:10, 624:12,</p>	<p>626:18, 629:5, 633:16, 634:12, 635:23, 637:12, 643:16, 651:12, 652:3, 654:1, 664:15, 673:2, 679:1, 683:7, 689:20, 706:7  <b>Examination</b> [31] - 481:4, 481:5, 481:5, 481:6, 481:6, 481:7, 481:9, 481:10, 481:10, 481:11, 481:11, 481:12, 481:13, 481:16, 481:17, 481:17, 481:18, 481:18, 481:19, 481:19, 481:20, 481:21, 481:23, 481:24, 481:25, 482:3, 482:4, 482:4, 482:5, 482:5, 482:10  <b>examination</b> [8] - 481:9, 481:16, 481:24, 482:3, 539:13, 540:3, 540:6, 621:6  <b>examine</b> [1] - 577:20  <b>examined</b> [7] - 486:20, 512:13, 595:19, 637:10, 653:24, 694:9, 702:16  <b>example</b> [10] - 501:11, 508:13, 509:9, 565:6, 585:2, 614:10, 636:5, 652:13, 666:4, 671:2  <b>exceed</b> [4] - 534:13, 569:12, 589:23, 589:24  <b>exceeded</b> [5] - 490:1, 490:3, 490:6, 505:19, 516:19  <b>excellence</b> [1] - 675:14  <b>except</b> [4] - 496:12, 499:7, 559:22, 714:7  <b>exceptions</b> [1] - 573:11  <b>excerpt</b> [1] - 528:24  <b>excerpts</b> [2] - 526:3, 527:10  <b>excited</b> [1] - 505:16  <b>exciting</b> [1] - 531:2  <b>excluded</b> [2] - 616:12, 616:15  <b>excuse</b> [3] - 568:3, 596:1, 676:7  <b>exercise</b> [3] - 691:17, 691:21, 692:17  <b>exercising</b> [1] - 692:4  <b>exhibit</b> [34] - 489:9, 489:12, 489:13, 489:23, 491:5, 492:14, 516:14, 519:16, 522:21, 523:10, 526:24, 528:22, 534:25, 540:20, 541:2, 541:5, 541:15, 564:12, 586:21, 594:10, 611:4, 611:6, 615:19, 618:18, 618:22, 620:20, 645:3, 649:7, 652:14, 708:6, 711:2, 711:23, 712:3, 712:7</p>

<p><b>Exhibit</b> <sup>[80]</sup> - 485:6, 485:10, 486:1, 486:7, 489:6, 489:15, 489:20, 491:1, 491:19, 505:18, 516:14, 516:23, 518:6, 519:7, 519:24, 521:23, 522:20, 523:7, 524:14, 526:1, 526:2, 526:6, 526:11, 526:16, 527:6, 528:6, 528:19, 529:13, 529:18, 530:10, 530:24, 530:25, 531:8, 534:20, 536:25, 537:12, 538:3, 540:11, 541:19, 546:19, 555:18, 555:25, 568:25, 594:9, 604:13, 604:16, 611:13, 645:4, 647:21, 647:23, 648:18, 649:6, 649:11, 649:16, 650:6, 650:16, 650:23, 651:14, 652:14, 657:12, 657:15, 660:21, 661:2, 661:7, 663:11, 663:17, 664:17, 668:1, 674:11, 674:23, 675:20, 676:19, 676:24, 677:2, 677:12, 677:17, 692:9, 712:1, 712:3</p> <p><b>exhibited</b> <sup>[1]</sup> - 715:7</p> <p><b>exhibits</b> <sup>[10]</sup> - 594:11, 595:9, 604:19, 617:20, 618:12, 621:3, 711:4, 711:14, 711:15, 712:9</p> <p><b>EXHIBITS</b> <sup>[4]</sup> - 483:2, 483:7, 484:2, 484:6</p> <p><b>Exhibits</b> <sup>[2]</sup> - 595:5, 657:8</p> <p><b>exist</b> <sup>[2]</sup> - 503:8, 558:7</p> <p><b>existed</b> <sup>[3]</sup> - 630:7, 631:23, 639:17</p> <p><b>existence</b> <sup>[2]</sup> - 612:21, 644:11</p> <p><b>existing</b> <sup>[3]</sup> - 525:9, 525:20, 700:3</p> <p><b>exists</b> <sup>[2]</sup> - 558:1, 632:3</p> <p><b>expect</b> <sup>[9]</sup> - 535:1, 535:13, 536:2, 536:8, 536:15, 536:18, 563:20, 564:17, 710:2</p> <p><b>expected</b> <sup>[4]</sup> - 535:10, 535:18, 551:18, 563:11</p> <p><b>expeditiously</b> <sup>[1]</sup> - 715:10</p> <p><b>expensive</b> <sup>[3]</sup> - 500:17, 500:21, 689:4</p> <p><b>experience</b> <sup>[20]</sup> - 487:17, 490:19, 497:15, 498:22, 502:23, 515:25, 529:7, 534:6, 562:20, 563:3, 571:2, 596:9, 640:23, 654:12, 654:24, 703:3, 703:5, 703:22, 714:10</p> <p><b>experimented</b> <sup>[1]</sup> - 492:9</p>	<p><b>expert</b> <sup>[10]</sup> - 513:14, 514:18, 514:25, 538:14, 591:13, 594:18, 598:24, 608:3, 627:11, 637:23</p> <p><b>expertise</b> <sup>[7]</sup> - 523:11, 530:18, 594:17, 595:7, 640:23, 676:13, 678:2</p> <p><b>experts</b> <sup>[5]</sup> - 485:23, 497:13, 539:6, 539:12, 582:9</p> <p><b>expired</b> <sup>[1]</sup> - 669:16</p> <p><b>explain</b> <sup>[7]</sup> - 547:19, 560:18, 585:25, 619:25, 642:2, 646:12, 665:1</p> <p><b>explaining</b> <sup>[2]</sup> - 521:22, 554:15</p> <p><b>expressed</b> <sup>[4]</sup> - 521:10, 527:25, 531:24, 557:1</p> <p><b>extend</b> <sup>[1]</sup> - 682:25</p> <p><b>extended</b> <sup>[1]</sup> - 488:25</p> <p><b>Extension</b> <sup>[2]</sup> - 529:4, 530:15</p> <p><b>extensive</b> <sup>[1]</sup> - 570:25</p> <p><b>extent</b> <sup>[6]</sup> - 490:22, 522:12, 533:18, 534:9, 592:2, 703:19</p> <p><b>extra</b> <sup>[1]</sup> - 535:22</p> <p><b>extremely</b> <sup>[2]</sup> - 582:2, 701:2</p>	<p><b>fall</b> <sup>[4]</sup> - 488:6, 488:7, 630:19, 683:13</p> <p><b>fallout</b> <sup>[1]</sup> - 689:8</p> <p><b>familiar</b> <sup>[11]</sup> - 553:4, 555:8, 555:15, 556:4, 557:25, 558:6, 562:21, 612:15, 646:10, 647:4, 649:18</p> <p><b>familiarity</b> <sup>[1]</sup> - 655:4</p> <p><b>far</b> <sup>[10]</sup> - 489:2, 497:20, 518:18, 583:4, 642:2, 642:15, 667:21, 679:25, 691:8</p> <p><b>farm</b> <sup>[8]</sup> - 487:4, 562:13, 647:13, 692:3, 694:11, 694:13, 694:16, 704:1</p> <p><b>farmer</b> <sup>[1]</sup> - 686:14</p> <p><b>farmers</b> <sup>[8]</sup> - 503:18, 551:11, 687:8, 699:19, 701:3, 702:19, 702:21, 702:22</p> <p><b>farming</b> <sup>[9]</sup> - 563:8, 563:9, 563:16, 563:19, 686:14, 686:15, 687:20, 690:18, 702:21</p> <p><b>farmland</b> <sup>[3]</sup> - 638:20, 641:12, 641:16</p> <p><b>farmlands</b> <sup>[1]</sup> - 660:2</p> <p><b>farms</b> <sup>[2]</sup> - 690:25, 694:19</p> <p><b>farmsteads</b> <sup>[1]</sup> - 698:8</p> <p><b>fast</b> <sup>[2]</sup> - 499:19, 505:14</p> <p><b>faster</b> <sup>[2]</sup> - 699:25, 704:13</p> <p><b>father</b> <sup>[1]</sup> - 510:23</p> <p><b>father-in-law</b> <sup>[1]</sup> - 510:23</p> <p><b>feature</b> <sup>[1]</sup> - 606:20</p> <p><b>features</b> <sup>[2]</sup> - 643:10, 681:7</p> <p><b>February</b> <sup>[2]</sup> - 487:22, 717:14</p> <p><b>fed's</b> <sup>[1]</sup> - 697:16</p> <p><b>federal</b> <sup>[15]</sup> - 534:13, 534:15, 551:12, 654:25, 655:4, 655:7, 655:9, 657:24, 659:25, 671:12, 682:16, 682:22, 691:3, 691:12</p> <p><b>Federal</b> <sup>[3]</sup> - 675:1, 675:14, 678:18</p> <p><b>federally</b> <sup>[1]</sup> - 697:14</p> <p><b>FEDORCHAK</b> <sup>[18]</sup> - 480:3, 497:5, 502:8, 502:11, 505:8, 580:16, 586:6, 592:17, 624:13, 626:14, 634:5, 651:24, 683:8, 689:16, 693:20, 701:16, 706:4, 714:18</p> <p><b>Fedorchak</b> <sup>[17]</sup> - 481:6, 481:11, 481:18, 482:5, 497:3, 511:18, 580:14, 592:16, 624:11, 634:4, 636:18, 651:23, 683:6, 693:6, 701:15, 706:3, 714:17</p> <p><b>feelings</b> <sup>[1]</sup> - 588:2</p>	<p><b>feet</b> <sup>[21]</sup> - 500:4, 533:5, 533:10, 533:13, 540:13, 558:25, 576:6, 576:13, 608:5, 609:7, 609:11, 610:7, 610:14, 625:18, 691:25, 692:2, 692:19, 692:21, 698:13, 698:14</p> <p><b>felony</b> <sup>[6]</sup> - 486:14, 512:6, 595:13, 637:4, 694:3, 702:11</p> <p><b>felt</b> <sup>[3]</sup> - 564:14, 566:17, 570:2</p> <p><b>fenced</b> <sup>[1]</sup> - 686:16</p> <p><b>fertile</b> <sup>[1]</sup> - 587:11</p> <p><b>few</b> <sup>[15]</sup> - 497:7, 569:16, 579:7, 597:16, 606:5, 663:20, 664:18, 674:21, 681:8, 684:17, 684:18, 687:22, 690:5, 695:3, 699:2</p> <p><b>Field</b> <sup>[1]</sup> - 484:15</p> <p><b>field</b> <sup>[35]</sup> - 508:13, 508:15, 513:15, 514:16, 545:4, 556:23, 557:13, 557:14, 561:23, 592:25, 598:7, 598:9, 601:2, 601:6, 601:8, 601:18, 602:9, 603:21, 604:25, 605:3, 606:10, 606:13, 612:2, 612:6, 613:1, 617:10, 617:18, 619:13, 619:22, 620:1, 638:6, 638:23, 639:23, 698:14</p> <p><b>fields</b> <sup>[13]</sup> - 511:5, 535:4, 535:10, 535:11, 535:19, 535:20, 535:21, 542:23, 558:13, 599:23, 620:4, 650:7, 650:20</p> <p><b>Fifteen</b> <sup>[1]</sup> - 707:3</p> <p><b>fighting</b> <sup>[1]</sup> - 715:19</p> <p><b>figure</b> <sup>[1]</sup> - 600:14</p> <p><b>figures</b> <sup>[1]</sup> - 674:3</p> <p><b>file</b> <sup>[7]</sup> - 618:22, 620:3, 710:1, 712:25, 713:1, 713:5, 713:10</p> <p><b>filed</b> <sup>[12]</sup> - 618:22, 621:3, 704:15, 707:13, 708:6, 711:2, 711:3, 711:14, 711:15, 711:23, 712:7, 712:8</p> <p><b>filling</b> <sup>[1]</sup> - 597:10</p> <p><b>filings</b> <sup>[3]</sup> - 597:10, 709:6, 709:11</p> <p><b>fill</b> <sup>[1]</sup> - 698:23</p> <p><b>filling</b> <sup>[1]</sup> - 511:5</p> <p><b>final</b> <sup>[25]</sup> - 485:18, 491:10, 491:14, 494:2, 494:9, 494:13, 508:8, 508:15, 511:10, 526:22, 527:1, 527:3, 661:12, 664:19,</p>
<b>F</b>			
	<p><b>facilities</b> <sup>[5]</sup> - 527:19, 661:24, 662:3, 679:14, 700:9</p> <p><b>fact</b> <sup>[18]</sup> - 498:12, 532:24, 616:6, 630:20, 631:25, 634:21, 635:7, 638:19, 655:6, 666:17, 674:2, 680:12, 681:9, 681:10, 691:4, 708:4, 713:6, 714:15</p> <p><b>factor</b> <sup>[3]</sup> - 529:23, 547:17, 652:7</p> <p><b>Factors</b> <sup>[1]</sup> - 528:22</p> <p><b>fair</b> <sup>[8]</sup> - 501:24, 504:2, 522:11, 546:1, 565:20, 608:12, 612:22, 715:1</p> <p><b>fairly</b> <sup>[1]</sup> - 584:12</p> <p><b>Falkirk</b> <sup>[34]</sup> - 551:8, 552:3, 552:5, 552:11, 552:21, 552:25, 554:14, 562:19, 562:20, 666:12, 666:23, 672:8, 687:5, 694:14, 695:8, 695:23, 697:23, 700:1, 700:2, 700:7, 700:18, 700:19, 700:21, 700:25, 701:1, 703:6, 703:7, 704:2, 704:17, 704:20, 705:19, 707:1, 707:12</p>		

<p>664:20, 664:23, 666:5, 667:4, 667:15, 668:6, 671:9, 681:12, 681:18, 682:2, 682:6</p> <p><b>Final</b> [1] - 484:11</p> <p><b>findings</b> [11] - 604:7, 656:13, 656:21, 708:3, 710:5, 710:8, 710:14, 713:6, 713:15, 714:15, 716:10</p> <p><b>fine</b> [17] - 486:15, 497:20, 512:7, 572:15, 595:14, 637:4, 646:16, 653:18, 693:22, 694:3, 702:11, 710:23, 711:25, 712:17, 713:8, 713:11, 713:17</p> <p><b>fined</b> [1] - 707:1</p> <p><b>finer</b> [3] - 646:22, 646:23, 646:24</p> <p><b>finger</b> [1] - 641:16</p> <p><b>finish</b> [1] - 688:12</p> <p><b>first</b> [48] - 486:20, 496:20, 504:21, 504:23, 507:8, 508:17, 512:13, 525:23, 528:22, 529:2, 536:17, 536:23, 553:4, 562:9, 563:17, 563:18, 563:22, 569:4, 579:25, 595:19, 600:8, 602:13, 620:18, 637:10, 641:2, 653:24, 657:20, 658:22, 659:17, 666:24, 666:25, 676:6, 677:20, 684:9, 693:12, 694:9, 694:20, 694:22, 697:24, 699:22, 700:20, 700:24, 702:16, 706:10, 712:12, 715:16</p> <p><b>first-year</b> [1] - 563:17</p> <p><b>fit</b> [1] - 562:7</p> <p><b>five</b> [23] - 486:16, 508:13, 512:7, 533:5, 536:7, 574:21, 576:5, 590:20, 591:18, 595:14, 606:3, 623:14, 637:5, 653:19, 694:4, 696:9, 697:24, 698:5, 698:17, 699:13, 699:22, 702:12, 704:19</p> <p><b>five-foot</b> [1] - 699:13</p> <p><b>fix</b> [5] - 498:20, 498:23, 499:21, 681:23, 682:14</p> <p><b>fixed</b> [1] - 681:25</p> <p><b>FLATH</b> [2] - 481:8, 512:12</p> <p><b>Flath</b> [8] - 495:14, 512:1, 512:2, 512:19, 514:18, 514:24, 540:10, 562:7</p> <p><b>flath's</b> [1] - 526:14</p> <p><b>Fleck</b> [1] - 480:7</p> <p><b>flip</b> [1] - 585:2</p> <p><b>flooding</b> [2] - 600:22, 652:15</p> <p><b>floodplain</b> [5] - 600:13, 638:16, 639:1, 639:21,</p>	<p>644:1</p> <p><b>floor</b> [21] - 594:1, 596:24, 597:10, 597:17, 597:21, 606:1, 606:2, 613:4, 615:11, 625:1, 625:15, 625:16, 625:19, 626:12, 627:17, 627:19, 628:2, 631:12, 645:16, 655:20, 656:3</p> <p><b>Floor</b> [1] - 644:23</p> <p><b>floors</b> [2] - 612:22, 615:21</p> <p><b>fluctuation</b> [1] - 623:16</p> <p><b>focused</b> [2] - 514:2, 547:25</p> <p><b>folks</b> [9] - 485:12, 502:6, 596:3, 597:24, 609:8, 684:21, 685:10, 696:3, 696:24</p> <p><b>follow</b> [9] - 549:6, 559:18, 559:24, 580:7, 581:5, 585:15, 589:22, 632:16, 712:12</p> <p><b>follow-up</b> [4] - 549:6, 559:18, 559:24, 580:7</p> <p><b>following</b> [9] - 497:7, 516:9, 517:3, 528:13, 577:25, 618:19, 620:4, 655:8, 681:19</p> <p><b>follows</b> [8] - 485:2, 486:21, 512:14, 595:20, 637:11, 653:25, 694:10, 702:17</p> <p><b>followup</b> [2] - 561:12, 635:14</p> <p><b>food</b> [1] - 589:4</p> <p><b>foot</b> [5] - 532:3, 577:20, 600:10, 699:5, 699:13</p> <p><b>footnote</b> [1] - 667:19</p> <p><b>FOR</b> [3] - 480:10, 480:15, 480:20</p> <p><b>forage</b> [4] - 528:10, 529:24, 574:12, 586:5</p> <p><b>forb</b> [1] - 524:25</p> <p><b>forbs</b> [2] - 569:19</p> <p><b>foregoing</b> [2] - 717:6, 717:10</p> <p><b>formal</b> [1] - 675:9</p> <p><b>FORMAL</b> [1] - 479:12</p> <p><b>forth</b> [3] - 507:9, 685:5, 694:19</p> <p><b>forward</b> [3] - 702:19, 714:11, 714:14</p> <p><b>foundation</b> [3] - 516:25, 523:9, 540:23</p> <p><b>foundational</b> [1] - 523:14</p> <p><b>four</b> [27] - 488:24, 508:18, 533:10, 533:13, 558:25, 574:15, 577:19, 577:20, 579:21, 584:15, 585:6, 585:7, 590:20, 591:18, 592:6, 592:8, 598:19, 606:3, 666:11, 667:3, 667:5, 667:7, 668:5, 668:7, 668:12, 684:20, 704:19</p>	<p><b>four-foot</b> [1] - 577:20</p> <p><b>four-year</b> [1] - 579:21</p> <p><b>fourth</b> [3] - 513:17, 569:1, 697:8</p> <p><b>Fourth</b> [1] - 480:14</p> <p><b>fragmented</b> [1] - 626:9</p> <p><b>frame</b> [10] - 499:11, 571:17, 671:13, 682:15, 682:22, 683:1, 686:7, 706:22, 708:16, 710:5</p> <p><b>frames</b> [1] - 571:16</p> <p><b>frankly</b> [1] - 624:7</p> <p><b>fraudulently</b> [1] - 682:4</p> <p><b>Freedom</b> [14] - 487:20, 490:21, 513:4, 516:1, 518:9, 518:18, 541:20, 666:12, 666:23, 667:1, 673:6, 673:11, 674:5, 687:5</p> <p><b>freeze</b> [1] - 582:5</p> <p><b>freeze-thaw</b> [1] - 582:5</p> <p><b>frequency</b> [2] - 652:15</p> <p><b>frequently</b> [3] - 504:7, 543:6, 660:11</p> <p><b>Friday</b> [2] - 485:2, 716:12</p> <p><b>front</b> [4] - 604:13, 644:23, 644:25, 662:5</p> <p><b>frustrations</b> [1] - 715:5</p> <p><b>full</b> [6] - 564:2, 575:23, 630:25, 642:12, 655:11, 657:24</p> <p><b>fully</b> [4] - 488:5, 488:10, 563:11, 672:15</p> <p><b>functioning</b> [4] - 497:18, 497:20, 568:8, 582:8</p> <p><b>functions</b> [7] - 488:1, 488:5, 488:14, 522:3, 624:23, 630:11, 635:3</p> <p><b>FURTHER</b> [8] - 507:21, 590:12, 592:20, 629:5, 633:16, 634:12, 635:23, 717:9</p> <p><b>future</b> [2] - 691:16, 694:15</p>	<p><b>generally</b> [18] - 531:25, 569:15, 602:3, 602:21, 614:14, 627:20, 660:11, 660:19, 662:4, 670:14, 677:10, 679:13, 683:12, 683:15, 684:8, 686:12, 688:16, 688:18</p> <p><b>generate</b> [4] - 502:4, 502:7, 598:2, 602:24</p> <p><b>generated</b> [2] - 617:11, 619:13</p> <p><b>generation</b> [1] - 513:7</p> <p><b>generic</b> [1] - 649:25</p> <p><b>genesis</b> [1] - 551:20</p> <p><b>genetic</b> [2] - 547:25, 548:12</p> <p><b>genetics</b> [7] - 547:17, 547:22, 548:3, 548:5, 548:8, 548:17</p> <p><b>gentlemen</b> [1] - 594:18</p> <p><b>geologic</b> [3] - 609:4, 610:4, 613:4</p> <p><b>geologist</b> [2] - 596:11, 596:14</p> <p><b>geology</b> [6] - 594:19, 596:17, 597:2, 597:7, 598:4, 598:25</p> <p><b>geomorphic</b> [1] - 598:4</p> <p><b>germinated</b> [1] - 525:18</p> <p><b>GIS</b> [1] - 661:21</p> <p><b>given</b> [10] - 548:21, 564:8, 610:8, 617:12, 618:5, 620:6, 647:11, 693:14, 706:22, 715:25</p> <p><b>glaze</b> [1] - 640:21</p> <p><b>goal</b> [2] - 573:24, 591:4</p> <p><b>God</b> [1] - 705:8</p> <p><b>gold</b> [1] - 583:8</p> <p><b>grade</b> [4] - 499:10, 499:12, 499:18, 698:19</p> <p><b>graded</b> [3] - 532:7, 662:7, 698:20</p> <p><b>grades</b> [2] - 644:1, 644:2</p> <p><b>grading</b> [3] - 516:11, 527:17, 686:1</p> <p><b>grandfather</b> [1] - 694:16</p> <p><b>grandparents</b> [1] - 705:10</p> <p><b>grant</b> [1] - 679:23</p> <p><b>Grant</b> [1] - 641:4</p> <p><b>granted</b> [5] - 664:20, 666:5, 667:4, 667:15, 668:6</p> <p><b>grass</b> [15] - 495:17, 496:5, 521:15, 524:24, 528:8, 558:1, 569:21, 573:12, 576:21, 579:3, 681:2, 698:5, 699:18, 699:20</p> <p><b>Grasses</b> [2] - 483:17, 530:12</p> <p><b>grasses</b> [21] - 495:12, 504:24, 505:1, 505:20, 524:21, 525:22, 532:2, 556:13, 556:18, 556:21,</p>
		<b>G</b>	
		<p><b>gain</b> [6] - 523:3, 523:12, 523:17, 547:23, 548:1, 548:4</p> <p><b>Gain</b> [3] - 483:14, 522:24, 546:20</p> <p><b>gains</b> [5] - 523:1, 528:7, 547:3, 548:8, 549:5</p> <p><b>Gascoyne</b> [2] - 664:22, 680:8</p> <p><b>Gene</b> [1] - 706:14</p> <p><b>General</b> [1] - 480:18</p> <p><b>general</b> [6] - 586:18, 594:4, 645:8, 679:21, 685:4, 706:21</p>	

<p>557:13, 557:15, 557:17, 558:7, 558:10, 558:12, 558:18, 567:17, 567:22, 569:18, 584:18</p> <p><b>grassland</b> [32] - 490:1, 490:20, 495:17, 509:10, 515:22, 516:3, 516:19, 518:15, 520:6, 521:17, 521:21, 525:16, 525:21, 525:23, 527:12, 528:2, 530:2, 531:16, 534:2, 534:7, 534:14, 555:20, 558:19, 568:18, 570:4, 582:15, 582:20, 586:20, 586:22, 587:4, 588:16, 658:13</p> <p><b>Grassland</b> [1] - 528:24</p> <p><b>grasslands</b> [22] - 490:12, 490:21, 492:5, 492:8, 493:9, 496:5, 504:16, 513:14, 514:19, 521:10, 522:10, 524:22, 531:20, 533:15, 534:8, 541:10, 568:3, 577:11, 581:19, 591:15, 655:24, 658:12</p> <p><b>gray</b> [1] - 700:9</p> <p><b>grazed</b> [4] - 546:24, 547:5, 547:6, 547:9</p> <p><b>grazing</b> [8] - 504:17, 516:7, 529:22, 573:16, 573:19, 581:22, 588:22, 686:17</p> <p><b>great</b> [3] - 582:16, 588:12, 655:3</p> <p><b>greater</b> [6] - 532:17, 559:3, 640:7, 640:10, 640:12, 644:16</p> <p><b>greatest</b> [1] - 504:8</p> <p><b>Greg</b> [1] - 610:9</p> <p><b>grew</b> [1] - 487:4</p> <p><b>gross</b> [1] - 695:15</p> <p><b>ground</b> [11] - 546:8, 546:9, 570:25, 627:8, 627:11, 628:7, 628:8, 628:20, 628:23, 629:8, 631:12</p> <p><b>groundwater</b> [9] - 503:1, 503:12, 613:16, 614:12, 622:13, 624:4, 640:3, 640:17, 645:11</p> <p><b>groundwork</b> [1] - 580:6</p> <p><b>group</b> [1] - 683:22</p> <p><b>groups</b> [1] - 660:12</p> <p><b>grow</b> [1] - 699:3</p> <p><b>growing</b> [4] - 574:4, 574:10, 604:4, 645:13</p> <p><b>growth</b> [4] - 575:10, 576:15, 582:6, 699:21</p> <p><b>guess</b> [48] - 485:8, 493:21, 505:23, 523:15, 538:18, 538:23, 538:24, 540:1, 540:18, 550:25, 561:15,</p>	<p>570:6, 588:20, 607:12, 610:24, 618:16, 618:23, 620:1, 620:9, 622:18, 625:14, 626:24, 629:14, 648:12, 654:14, 655:19, 657:23, 658:7, 658:22, 659:6, 663:1, 667:19, 667:25, 670:3, 670:8, 673:11, 674:5, 677:8, 679:20, 682:24, 683:20, 684:24, 684:25, 686:23, 691:14, 708:14, 709:4, 712:6</p> <p><b>guessing</b> [2] - 649:25, 707:3</p> <p><b>guidance</b> [1] - 519:10</p> <p><b>Guide</b> [1] - 528:23</p> <p><b>guideline</b> [1] - 556:12</p> <p><b>guidelines</b> [4] - 556:5, 608:7, 614:16, 615:12</p> <p><b>Guides</b> [1] - 644:23</p> <p><b>guides</b> [1] - 690:16</p> <p><b>Gunnerson</b> [5] - 598:23, 602:13, 603:24, 639:12</p> <p><b>gut</b> [1] - 587:22</p> <p><b>Guy</b> [2] - 598:22, 684:17</p> <p><b>guy</b> [1] - 598:24</p> <p><b>guys</b> [3] - 498:22, 502:4, 630:25</p>	<p><b>haul</b> [8] - 499:5, 561:22, 625:23, 670:9, 671:19, 671:20, 679:8, 687:3</p> <p><b>hauled</b> [2] - 698:22, 699:21</p> <p><b>hauling</b> [1] - 698:3</p> <p><b>hay</b> [4] - 496:6, 561:23, 628:2, 686:16</p> <p><b>hayfield</b> [2] - 535:2, 535:3</p> <p><b>hayfields</b> [1] - 535:6</p> <p><b>haying</b> [1] - 686:18</p> <p><b>hayland</b> [13] - 490:5, 505:20, 516:20, 518:15, 561:16, 561:18, 561:23, 579:7, 586:22, 586:23, 593:2, 593:3, 658:11</p> <p><b>haylands</b> [1] - 561:14</p> <p><b>head</b> [2] - 509:3, 550:1</p> <p><b>Head</b> [19] - 483:8, 487:19, 487:24, 488:21, 489:7, 489:24, 489:25, 490:21, 492:4, 493:22, 496:13, 496:24, 498:15, 506:14, 508:2, 508:9, 510:22, 586:21, 681:10</p> <p><b>Health</b> [2] - 641:8, 658:17</p> <p><b>health</b> [11] - 496:8, 578:20, 579:23, 582:11, 582:21, 583:9, 584:21, 642:17, 642:24, 643:5, 664:4</p> <p><b>healthy</b> [2] - 568:8, 582:20</p> <p><b>hear</b> [6] - 574:8, 583:2, 642:21, 663:24, 663:25, 681:24</p> <p><b>heard</b> [16] - 496:21, 497:8, 497:11, 498:19, 577:23, 587:8, 599:12, 609:16, 642:14, 655:12, 655:15, 656:23, 663:20, 685:10, 685:22, 687:22</p> <p><b>HEARING</b> [1] - 479:12</p> <p><b>hearing</b> [21] - 485:24, 539:16, 583:17, 584:21, 594:7, 596:10, 618:19, 620:23, 622:5, 642:14, 663:21, 686:3, 687:10, 700:15, 708:23, 709:4, 709:10, 709:16, 715:18, 716:6, 716:8</p> <p><b>hearings</b> [5] - 586:13, 589:7, 616:1, 655:11, 697:1</p> <p><b>hearsay</b> [5] - 555:9, 562:25, 703:3, 705:18, 705:21</p> <p><b>hearsay-type</b> [1] - 562:25</p> <p><b>Heart</b> [1] - 623:7</p> <p><b>heavier</b> [1] - 590:21</p> <p><b>heavily</b> [1] - 572:4</p> <p><b>heavy</b> [2] - 498:21, 499:25</p> <p><b>held</b> [4] - 513:21, 514:6, 684:19, 705:9</p> <p><b>help</b> [8] - 577:12, 578:16,</p>	<p>582:4, 582:5, 582:6, 583:17, 611:10, 705:2</p> <p><b>helped</b> [1] - 514:10</p> <p><b>helpful</b> [1] - 539:8</p> <p><b>helping</b> [1] - 565:19</p> <p><b>helps</b> [1] - 574:12</p> <p><b>herbicide</b> [1] - 525:25</p> <p><b>herd</b> [5] - 547:14, 547:21, 548:13, 548:18, 549:14</p> <p><b>herds</b> [1] - 548:22</p> <p><b>HEREBY</b> [2] - 717:5, 717:9</p> <p><b>Hereford</b> [1] - 548:15</p> <p><b>hereinbefore</b> [1] - 717:7</p> <p><b>high</b> [13] - 487:6, 513:6, 513:17, 570:3, 573:25, 588:15, 631:11, 638:18, 640:1, 697:7, 698:20, 698:22</p> <p><b>higher</b> [4] - 507:5, 523:4, 625:18, 644:3</p> <p><b>highest</b> [1] - 646:21</p> <p><b>highly</b> [1] - 638:17</p> <p><b>highwall</b> [1] - 681:18</p> <p><b>hill</b> [1] - 624:6</p> <p><b>hillside</b> [1] - 587:19</p> <p><b>hills</b> [1] - 591:25</p> <p><b>himself</b> [3] - 503:19, 686:15, 697:1</p> <p><b>hindsight</b> [1] - 622:19</p> <p><b>hire</b> [1] - 511:4</p> <p><b>hired</b> [1] - 571:3</p> <p><b>histories</b> [1] - 670:24</p> <p><b>history</b> [2] - 513:15, 581:10</p> <p><b>hmm</b> [1] - 642:19</p> <p><b>hold</b> [5] - 491:24, 500:15, 500:16, 500:22, 508:24</p> <p><b>holding</b> [3] - 610:24, 695:23, 699:21</p> <p><b>holds</b> [1] - 523:16</p> <p><b>hole</b> [2] - 508:4, 698:6</p> <p><b>holes</b> [4] - 600:9, 638:15, 695:5</p> <p><b>holiday</b> [1] - 618:5</p> <p><b>home</b> [2] - 609:6</p> <p><b>homesteaded</b> [1] - 694:16</p> <p><b>honestly</b> [2] - 583:24, 585:9</p> <p><b>Honor</b> [44] - 485:11, 486:2, 486:4, 490:25, 491:22, 495:9, 505:11, 507:18, 507:20, 511:21, 519:15, 526:10, 538:12, 562:4, 580:12, 586:9, 590:5, 590:7, 592:15, 592:19, 593:8, 593:12, 599:17, 611:2, 621:8, 621:10, 626:17, 629:4, 633:14, 634:7, 636:15, 649:12, 652:2, 673:1, 689:19, 693:4, 701:8, 701:10, 701:12, 701:14, 710:20,</p>
<b>H</b>			
<p><b>Half</b> [1] - 605:17</p> <p><b>half</b> [23] - 489:1, 509:18, 571:15, 600:3, 600:4, 600:9, 600:10, 602:6, 602:7, 604:2, 624:5, 631:3, 633:2, 633:8, 657:20, 668:11, 668:13, 674:7, 674:12, 695:10, 696:18, 697:6, 700:6</p> <p><b>half-mile</b> [1] - 489:1</p> <p><b>hallway</b> [1] - 715:19</p> <p><b>hand</b> [2] - 577:2, 667:21</p> <p><b>handed</b> [4] - 540:10, 612:10, 621:14, 649:23</p> <p><b>handful</b> [2] - 603:15, 606:25</p> <p><b>handle</b> [1] - 560:10</p> <p><b>handling</b> [2] - 515:18, 643:11</p> <p><b>hands</b> [1] - 695:24</p> <p><b>handwritten</b> [1] - 695:7</p> <p><b>hang</b> [3] - 635:20, 648:15, 707:5</p> <p><b>happy</b> [4] - 549:4, 618:9, 618:10, 668:4</p> <p><b>hard</b> [5] - 506:22, 585:24, 588:13, 591:5, 698:14</p> <p><b>hardly</b> [1] - 498:16</p> <p><b>harvest</b> [1] - 699:19</p> <p><b>harvesting</b> [1] - 698:15</p>			

<p>713:23, 714:1, 715:12  <b>hope</b> [2] - 502:8, 617:14  <b>hoping</b> [1] - 626:21  <b>horizon</b> [1] - 600:22  <b>hostage</b> [1] - 705:9  <b>hosted</b> [1] - 514:11  <b>hour</b> [3] - 538:13, 538:19, 539:23  <b>house</b> [2] - 609:15, 609:18  <b>hundred</b> [8] - 534:18, 571:24, 572:18, 572:20, 590:1, 600:5, 604:5, 660:18  <b>hundred-acre</b> [1] - 600:5  <b>hurt</b> [2] - 570:4, 704:14  <b>hydrologic</b> [7] - 594:20, 597:3, 624:23, 625:9, 630:11, 632:7, 635:3  <b>hydrological</b> [1] - 630:6  <b>hydrologist</b> [1] - 596:12  <b>hydrology</b> [9] - 485:15, 594:19, 596:17, 596:23, 597:2, 597:7, 598:4, 598:25, 627:8</p>	<p><b>implementation</b> [1] - 594:24  <b>implementing</b> [1] - 504:14  <b>implies</b> [3] - 646:5, 674:18, 690:20  <b>implying</b> [1] - 620:12  <b>hosted</b> [1] - 640:2  <b>importance</b> [7] - 529:23, 558:18, 580:8, 582:1, 586:15, 629:21, 714:24  <b>imposes</b> [1] - 696:17  <b>imprisonment</b> [7] - 486:16, 512:8, 595:14, 637:5, 653:19, 694:4, 702:12  <b>improve</b> [4] - 578:19, 579:22, 585:9, 685:15  <b>improved</b> [3] - 507:13, 583:18, 697:21  <b>improvement</b> [1] - 643:2  <b>improvements</b> [3] - 504:10, 504:11, 643:4  <b>improving</b> [1] - 589:3  <b>inadequate</b> [1] - 682:13  <b>inappropriate</b> [1] - 682:6  <b>incentive</b> [6] - 500:7, 500:10, 688:6, 688:10, 689:1, 689:6  <b>incentives</b> [2] - 688:1, 688:4</p>	<p>569:18, 597:3, 613:4, 647:13  <b>income</b> [5] - 687:15, 694:23, 695:2, 695:15, 695:20  <b>incorporated</b> [5] - 579:16, 579:17, 581:25, 643:8, 690:17  <b>increase</b> [4] - 506:23, 535:25, 558:12, 585:1  <b>increased</b> [3] - 507:3, 507:7, 581:12  <b>increases</b> [2] - 581:9, 581:12  <b>increasing</b> [1] - 504:18  <b>indeed</b> [2] - 639:19, 639:21  <b>index</b> [2] - 553:7, 553:9  <b>Indian</b> [19] - 483:8, 487:19, 487:24, 488:21, 489:7, 489:24, 489:25, 490:20, 492:4, 493:22, 496:13, 496:24, 498:15, 506:14, 508:2, 508:9, 510:22, 586:21, 681:10  <b>indicate</b> [5] - 535:13, 622:6, 640:15, 665:17, 678:17  <b>indicated</b> [19] - 524:14, 538:23, 538:24, 539:7, 544:6, 551:4, 558:24, 595:6, 631:20, 635:25, 638:12, 638:13, 638:14, 638:25, 642:9, 643:18, 651:1, 651:7, 717:8  <b>indicates</b> [3] - 542:1, 629:16, 640:6  <b>indicating</b> [2] - 544:11, 616:4  <b>indication</b> [2] - 522:5, 665:10  <b>indications</b> [2] - 608:19, 685:25  <b>indicative</b> [1] - 607:20  <b>individual</b> [2] - 646:19, 686:13  <b>individuals</b> [1] - 693:13  <b>industrial</b> [1] - 658:15  <b>industry</b> [1] - 682:10  <b>infamous</b> [1] - 715:17  <b>infiltration</b> [4] - 514:2, 578:20, 582:2, 582:4  <b>inflation</b> [1] - 696:23  <b>information</b> [50] - 502:4, 504:8, 504:9, 520:13, 523:20, 530:5, 535:8, 551:17, 551:23, 553:18, 557:19, 557:21, 559:16, 564:11, 564:23, 571:21, 579:9, 591:11, 598:4, 608:24, 608:25, 609:2, 610:8, 611:21, 614:15, 614:17, 622:2, 622:3, 623:22, 623:25, 626:1, 631:15, 638:4, 638:11, 638:24, 639:7, 639:14,</p>	<p>660:14, 661:17, 661:18, 663:1, 663:4, 663:5, 663:9, 665:2, 674:17, 684:22, 714:8, 714:9, 715:25  <b>informational</b> [1] - 672:4  <b>infrared</b> [5] - 614:22, 615:5, 616:17, 616:18, 617:7  <b>initial</b> [4] - 494:9, 543:4, 545:8, 614:18  <b>injection</b> [1] - 596:21  <b>injure</b> [1] - 573:16  <b>input</b> [4] - 520:24, 566:16, 591:8, 591:15  <b>insofar</b> [1] - 572:3  <b>inspect</b> [1] - 499:11  <b>inspection</b> [9] - 510:1, 601:12, 601:25, 602:1, 602:25, 604:7, 617:18, 619:22, 641:14  <b>inspections</b> [10] - 509:24, 577:7, 601:11, 620:4, 622:24, 663:9, 676:17, 678:15, 678:16  <b>inspector</b> [1] - 654:18  <b>install</b> [2] - 623:12, 624:3  <b>instance</b> [2] - 608:23, 623:23  <b>instances</b> [3] - 499:2, 499:8, 629:25  <b>integral</b> [1] - 545:18  <b>intend</b> [2] - 533:21, 556:9  <b>intended</b> [2] - 537:22, 693:16  <b>intends</b> [1] - 579:18  <b>intent</b> [4] - 544:22, 586:2, 620:12, 659:22  <b>intention</b> [2] - 573:4, 589:6  <b>interact</b> [1] - 684:12  <b>interaction</b> [4] - 582:23, 684:14, 685:2, 685:16  <b>interchangeably</b> [1] - 587:1  <b>interest</b> [4] - 513:16, 648:24, 648:25, 683:18  <b>interested</b> [3] - 550:13, 550:14, 669:7  <b>interesting</b> [1] - 690:23  <b>interim</b> [2] - 492:11, 493:1  <b>intermittent</b> [1] - 600:22  <b>Internet</b> [3] - 555:1, 555:10, 635:21  <b>interpret</b> [1] - 621:21  <b>interpretation</b> [3] - 583:20, 594:22, 639:24  <b>interpretations</b> [3] - 640:8, 640:9, 644:15  <b>interpretive</b> [1] - 640:4  <b>Interstate</b> [1] - 683:11  <b>interviewed</b> [1] - 609:9  <b>intrigued</b> [1] - 572:2  <b>introduce</b> [2] - 504:24, 567:23  <b>introduced</b> [14] - 519:16,</p>
<b>I</b>			
<p><b>idea</b> [4] - 660:19, 662:21, 666:13, 688:21  <b>ideas</b> [3] - 554:11, 578:3, 579:12  <b>identical</b> [3] - 548:16, 549:17, 552:6  <b>Identification</b> [1] - 644:23  <b>identification</b> [1] - 627:16  <b>identified</b> [5] - 576:6, 578:25, 613:14, 614:11, 692:20  <b>identify</b> [21] - 485:9, 489:6, 519:8, 522:23, 523:19, 526:2, 528:20, 529:21, 530:11, 536:25, 576:14, 578:10, 611:3, 611:6, 614:10, 645:2, 649:23, 657:12, 658:5, 661:5, 668:1  <b>identifying</b> [1] - 642:11  <b>II-D-10</b> [1] - 555:24  <b>Illona</b> [2] - 619:10, 709:12  <b>ILLONA</b> [1] - 480:17  <b>Illona's</b> [1] - 617:4  <b>immediately</b> [4] - 528:13, 633:23, 633:24, 662:5  <b>impact</b> [11] - 547:3, 559:1, 559:5, 560:8, 570:1, 594:20, 630:21, 631:22, 632:1, 634:20, 636:1  <b>impacted</b> [4] - 630:6, 630:8, 631:17, 632:4  <b>implement</b> [1] - 504:15</p>	<p><b>inch</b> [1] - 623:11  <b>inches</b> [38] - 500:1, 532:1, 532:9, 532:14, 532:19, 533:1, 541:9, 541:13, 559:4, 575:23, 576:1, 576:8, 576:9, 576:13, 587:10, 587:12, 587:13, 587:17, 607:6, 607:24, 608:21, 640:7, 640:9, 640:10, 640:11, 640:12, 640:16, 644:17, 651:2, 651:3, 651:4, 651:16, 699:2, 699:4, 699:14  <b>incised</b> [1] - 627:3  <b>include</b> [13] - 532:19, 569:17, 577:11, 618:9, 618:10, 621:18, 621:22, 621:23, 635:8, 659:3, 660:8, 667:14, 667:24  <b>included</b> [19] - 516:11, 519:18, 524:25, 528:21, 530:8, 531:12, 532:22, 546:17, 550:24, 559:14, 559:16, 559:18, 564:13, 604:19, 613:7, 613:20, 618:8, 659:5, 662:12  <b>includes</b> [7] - 524:24, 533:12, 564:17, 597:1, 658:16, 662:9, 672:3  <b>including</b> [14] - 483:4, 513:22, 515:5, 516:7, 520:15, 520:24, 527:13, 530:2, 551:18, 567:8,</p>	<p>647:13  <b>income</b> [5] - 687:15, 694:23, 695:2, 695:15, 695:20  <b>incorporated</b> [5] - 579:16, 579:17, 581:25, 643:8, 690:17  <b>increase</b> [4] - 506:23, 535:25, 558:12, 585:1  <b>increased</b> [3] - 507:3, 507:7, 581:12  <b>increases</b> [2] - 581:9, 581:12  <b>increasing</b> [1] - 504:18  <b>indeed</b> [2] - 639:19, 639:21  <b>index</b> [2] - 553:7, 553:9  <b>Indian</b> [19] - 483:8, 487:19, 487:24, 488:21, 489:7, 489:24, 489:25, 490:20, 492:4, 493:22, 496:13, 496:24, 498:15, 506:14, 508:2, 508:9, 510:22, 586:21, 681:10  <b>indicate</b> [5] - 535:13, 622:6, 640:15, 665:17, 678:17  <b>indicated</b> [19] - 524:14, 538:23, 538:24, 539:7, 544:6, 551:4, 558:24, 595:6, 631:20, 635:25, 638:12, 638:13, 638:14, 638:25, 642:9, 643:18, 651:1, 651:7, 717:8  <b>indicates</b> [3] - 542:1, 629:16, 640:6  <b>indicating</b> [2] - 544:11, 616:4  <b>indication</b> [2] - 522:5, 665:10  <b>indications</b> [2] - 608:19, 685:25  <b>indicative</b> [1] - 607:20  <b>individual</b> [2] - 646:19, 686:13  <b>individuals</b> [1] - 693:13  <b>industrial</b> [1] - 658:15  <b>industry</b> [1] - 682:10  <b>infamous</b> [1] - 715:17  <b>infiltration</b> [4] - 514:2, 578:20, 582:2, 582:4  <b>inflation</b> [1] - 696:23  <b>information</b> [50] - 502:4, 504:8, 504:9, 520:13, 523:20, 530:5, 535:8, 551:17, 551:23, 553:18, 557:19, 557:21, 559:16, 564:11, 564:23, 571:21, 579:9, 591:11, 598:4, 608:24, 608:25, 609:2, 610:8, 611:21, 614:15, 614:17, 622:2, 622:3, 623:22, 623:25, 626:1, 631:15, 638:4, 638:11, 638:24, 639:7, 639:14,</p>	<p>660:14, 661:17, 661:18, 663:1, 663:4, 663:5, 663:9, 665:2, 674:17, 684:22, 714:8, 714:9, 715:25  <b>informational</b> [1] - 672:4  <b>infrared</b> [5] - 614:22, 615:5, 616:17, 616:18, 617:7  <b>initial</b> [4] - 494:9, 543:4, 545:8, 614:18  <b>injection</b> [1] - 596:21  <b>injure</b> [1] - 573:16  <b>input</b> [4] - 520:24, 566:16, 591:8, 591:15  <b>insofar</b> [1] - 572:3  <b>inspect</b> [1] - 499:11  <b>inspection</b> [9] - 510:1, 601:12, 601:25, 602:1, 602:25, 604:7, 617:18, 619:22, 641:14  <b>inspections</b> [10] - 509:24, 577:7, 601:11, 620:4, 622:24, 663:9, 676:17, 678:15, 678:16  <b>inspector</b> [1] - 654:18  <b>install</b> [2] - 623:12, 624:3  <b>instance</b> [2] - 608:23, 623:23  <b>instances</b> [3] - 499:2, 499:8, 629:25  <b>integral</b> [1] - 545:18  <b>intend</b> [2] - 533:21, 556:9  <b>intended</b> [2] - 537:22, 693:16  <b>intends</b> [1] - 579:18  <b>intent</b> [4] - 544:22, 586:2, 620:12, 659:22  <b>intention</b> [2] - 573:4, 589:6  <b>interact</b> [1] - 684:12  <b>interaction</b> [4] - 582:23, 684:14, 685:2, 685:16  <b>interchangeably</b> [1] - 587:1  <b>interest</b> [4] - 513:16, 648:24, 648:25, 683:18  <b>interested</b> [3] - 550:13, 550:14, 669:7  <b>interesting</b> [1] - 690:23  <b>interim</b> [2] - 492:11, 493:1  <b>intermittent</b> [1] - 600:22  <b>Internet</b> [3] - 555:1, 555:10, 635:21  <b>interpret</b> [1] - 621:21  <b>interpretation</b> [3] - 583:20, 594:22, 639:24  <b>interpretations</b> [3] - 640:8, 640:9, 644:15  <b>interpretive</b> [1] - 640:4  <b>Interstate</b> [1] - 683:11  <b>interviewed</b> [1] - 609:9  <b>intrigued</b> [1] - 572:2  <b>introduce</b> [2] - 504:24, 567:23  <b>introduced</b> [14] - 519:16,</p>

<p>521:19, 522:12, 522:16, 525:11, 525:18, 525:22, 525:24, 557:2, 557:11, 557:18, 558:23, 569:25, 574:3</p> <p><b>introductory</b> [1] - 515:15</p> <p><b>intrusive</b> [1] - 567:25</p> <p><b>invaded</b> [1] - 525:9</p> <p><b>invasive</b> [1] - 504:19</p> <p><b>investigate</b> [1] - 622:21</p> <p><b>investigation</b> [39] - 598:8, 598:17, 598:20, 600:19, 601:9, 601:19, 602:10, 602:15, 602:20, 603:7, 603:12, 603:13, 603:14, 603:22, 604:9, 604:25, 605:3, 606:11, 606:14, 612:6, 612:8, 612:21, 613:1, 613:7, 617:3, 617:10, 619:13, 621:16, 629:15, 634:20, 635:10, 638:6, 638:9, 638:22, 638:23, 639:6, 639:8, 639:10, 639:23</p> <p><b>Investigation</b> [1] - 484:15</p> <p><b>investigations</b> [6] - 598:9, 599:1, 603:18, 613:21, 628:13, 629:7</p> <p><b>involved</b> [20] - 492:10, 494:1, 503:22, 510:1, 516:2, 516:5, 546:6, 548:20, 549:22, 549:25, 554:19, 559:15, 562:23, 563:2, 597:14, 655:6, 687:11, 687:15, 687:16, 690:1</p> <p><b>involving</b> [1] - 596:18</p> <p><b>iron</b> [1] - 600:21</p> <p><b>irregular</b> [2] - 670:11, 698:3</p> <p><b>irregular-shaped</b> [1] - 670:11</p> <p><b>isolated</b> [7] - 497:25, 499:2, 499:8, 499:14, 501:17, 501:21, 501:23</p> <p><b>issue</b> [8] - 498:18, 522:15, 558:22, 594:2, 597:11, 638:8, 703:13, 709:8</p> <p><b>issued</b> [4] - 537:7, 675:14, 691:15, 704:4</p> <p><b>issues</b> [26] - 485:17, 496:8, 523:14, 524:15, 564:3, 566:11, 573:17, 575:3, 579:1, 582:6, 594:2, 596:9, 641:16, 655:15, 655:18, 655:19, 655:21, 671:4, 676:10, 677:24, 681:2, 681:5, 681:17, 687:19, 713:21, 715:3</p> <p><b>item</b> [1] - 694:20</p> <p><b>items</b> [1] - 656:19</p> <p><b>itself</b> [6] - 526:13, 544:19,</p>	<p>563:10, 603:8, 655:25, 692:10</p> <p><b>IV</b> [1] - 479:13</p> <p style="text-align: center;"><b>J</b></p> <p><b>J.J</b> [1] - 480:12</p> <p><b>JAMES</b> [2] - 482:2, 653:23</p> <p><b>James</b> [1] - 484:10</p> <p><b>January</b> [3] - 479:17, 485:2, 716:12</p> <p><b>JEFFCOAT</b> [74] - 480:17, 486:6, 489:19, 491:18, 495:6, 511:15, 514:23, 518:5, 519:23, 524:12, 526:20, 527:5, 529:17, 531:7, 537:17, 537:21, 538:1, 561:6, 590:9, 593:20, 593:23, 595:22, 599:14, 611:2, 611:9, 611:14, 617:17, 618:11, 619:3, 619:8, 619:17, 620:17, 621:4, 629:2, 634:10, 634:13, 635:13, 636:22, 636:25, 637:13, 643:13, 645:1, 648:6, 648:10, 648:17, 649:14, 650:15, 652:25, 653:13, 654:2, 657:5, 657:11, 660:21, 661:3, 663:11, 663:18, 664:13, 676:23, 677:16, 692:25, 693:9, 701:12, 705:24, 708:11, 709:9, 709:15, 709:25, 710:9, 710:25, 711:8, 711:16, 713:14, 713:17, 714:3</p> <p><b>Jeffcoat-Sacco</b> [42] - 481:16, 481:21, 481:23, 482:3, 486:5, 489:18, 491:17, 495:5, 511:14, 514:22, 518:4, 519:22, 524:11, 526:19, 531:6, 537:16, 539:5, 561:5, 590:8, 593:18, 595:6, 617:16, 619:1, 629:1, 634:8, 636:20, 648:5, 649:13, 650:14, 652:24, 653:4, 676:22, 677:15, 692:24, 693:8, 701:11, 705:23, 708:2, 709:24, 710:24, 713:12, 714:2</p> <p><b>Jim</b> [24] - 502:8, 504:3, 504:9, 508:23, 517:19, 561:7, 594:2, 594:5, 594:13, 594:23, 617:21, 619:23, 653:13, 654:6, 673:4, 683:9, 687:25, 689:17, 689:22, 690:23, 691:14, 692:22, 702:23, 704:5</p> <p><b>job</b> [6] - 487:23, 488:12, 515:3, 582:13, 678:9, 678:19</p> <p><b>JOHNSON</b> [1] - 480:6</p> <p><b>Journal</b> [1] - 529:3</p> <p><b>JUDGE</b> [215] - 479:22, 485:3, 485:25, 486:3, 486:5, 486:7, 486:11, 486:18, 489:16, 489:18, 489:20, 491:6, 491:17, 491:19, 491:23, 495:5, 495:7, 497:3, 505:10, 507:17, 507:19, 511:14, 511:16, 511:18, 511:22, 512:2, 512:10, 514:20, 514:22, 514:24, 516:24, 517:3, 517:7, 517:13, 517:16, 518:4, 518:6, 519:20,</p>	<p>595:22, 599:14, 611:2, 611:9, 611:14, 617:17, 618:11, 619:3, 619:8, 619:17, 620:17, 621:4, 629:2, 634:10, 634:13, 635:13, 636:22, 636:25, 637:13, 643:13, 645:1, 648:6, 648:10, 648:17, 649:14, 650:15, 652:25, 653:13, 654:2, 657:5, 657:11, 660:21, 661:3, 663:11, 663:18, 664:13, 676:23, 677:16, 692:25, 693:9, 701:12, 705:24, 708:11, 709:9, 709:15, 709:25, 710:9, 710:25, 711:8, 711:16, 713:14, 713:17, 714:3</p> <p><b>Jeffcoat-Sacco</b> [42] - 481:16, 481:21, 481:23, 482:3, 486:5, 489:18, 491:17, 495:5, 511:14, 514:22, 518:4, 519:22, 524:11, 526:19, 531:6, 537:16, 539:5, 561:5, 590:8, 593:18, 595:6, 617:16, 619:1, 629:1, 634:8, 636:20, 648:5, 649:13, 650:14, 652:24, 653:4, 676:22, 677:15, 692:24, 693:8, 701:11, 705:23, 708:2, 709:24, 710:24, 713:12, 714:2</p> <p><b>Jim</b> [24] - 502:8, 504:3, 504:9, 508:23, 517:19, 561:7, 594:2, 594:5, 594:13, 594:23, 617:21, 619:23, 653:13, 654:6, 673:4, 683:9, 687:25, 689:17, 689:22, 690:23, 691:14, 692:22, 702:23, 704:5</p> <p><b>job</b> [6] - 487:23, 488:12, 515:3, 582:13, 678:9, 678:19</p> <p><b>JOHNSON</b> [1] - 480:6</p> <p><b>Journal</b> [1] - 529:3</p> <p><b>JUDGE</b> [215] - 479:22, 485:3, 485:25, 486:3, 486:5, 486:7, 486:11, 486:18, 489:16, 489:18, 489:20, 491:6, 491:17, 491:19, 491:23, 495:5, 495:7, 497:3, 505:10, 507:17, 507:19, 511:14, 511:16, 511:18, 511:22, 512:2, 512:10, 514:20, 514:22, 514:24, 516:24, 517:3, 517:7, 517:13, 517:16, 518:4, 518:6, 519:20,</p>	<p>519:22, 519:24, 523:8, 523:13, 524:7, 524:11, 524:13, 526:17, 526:19, 527:6, 529:14, 529:16, 529:18, 530:25, 531:3, 531:6, 531:8, 537:14, 537:16, 538:3, 538:11, 538:17, 538:22, 539:14, 540:5, 540:21, 541:1, 555:4, 555:11, 561:5, 561:9, 562:2, 580:13, 586:8, 590:4, 590:6, 590:8, 590:11, 592:16, 592:18, 593:7, 593:9, 593:13, 593:17, 593:22, 595:4, 595:17, 599:16, 611:7, 611:12, 617:16, 618:10, 618:14, 619:1, 619:5, 619:24, 620:22, 621:6, 621:9, 622:9, 624:11, 626:16, 629:1, 629:3, 633:13, 633:15, 634:4, 634:6, 634:8, 635:14, 635:20, 636:14, 636:16, 636:18, 636:23, 637:1, 637:8, 643:15, 645:2, 645:6, 647:21, 647:24, 648:5, 648:9, 648:15, 648:18, 649:9, 649:13, 649:15, 650:12, 650:14, 650:16, 651:11, 651:21, 651:23, 652:1, 652:24, 653:2, 653:11, 653:15, 653:22, 660:23, 660:25, 661:2, 663:13, 663:15, 663:17, 664:14, 672:25, 676:20, 676:22, 676:24, 677:13, 677:15, 677:17, 678:24, 683:6, 689:18, 692:24, 693:1, 693:3, 693:5, 693:11, 693:21, 693:25, 694:6, 700:11, 701:5, 701:9, 701:11, 701:13, 701:15, 701:17, 701:25, 702:4, 702:8, 702:14, 703:11, 703:18, 703:22, 705:14, 705:16, 705:22, 705:25, 706:3, 706:6, 707:5, 707:19, 708:8, 708:14, 708:19, 709:18, 709:24, 710:3, 710:11, 710:18, 710:22, 710:24, 711:1, 711:11, 711:18, 712:1, 712:6, 712:14, 712:18, 713:2, 713:5, 713:9, 713:12, 713:19, 713:21, 713:24, 714:2, 714:4, 714:17, 715:11, 716:7</p> <p><b>judging</b> [1] - 513:18</p> <p><b>JULIE</b> [1] - 480:3</p>
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<p><b>July</b> [7] - 483:13, 484:12, 484:13, 484:14, 654:17, 657:22, 659:7  <b>jumps</b> [2] - 605:11, 606:21  <b>junction</b> [1] - 618:16  <b>jurisdiction</b> [3] - 682:3, 715:2, 715:4</p>	<p><b>kinds</b> [2] - 558:6, 586:14  <b>kit</b> [1] - 580:10  <b>Knife</b> [9] - 603:3, 603:4, 605:15, 605:24, 616:10, 627:4, 656:4, 666:19  <b>knowing</b> [2] - 503:8, 689:3  <b>knowledge</b> [3] - 553:17, 558:16, 563:16  <b>known</b> [3] - 600:20, 610:22, 641:3  <b>knows</b> [1] - 608:4  <b>Kowalski</b> [2] - 602:12, 603:24  <b>Krabbenhof</b> [2] - 570:10, 570:24  <b>KRSB-8603</b> [1] - 598:11</p>	<p>563:5, 563:8, 563:9, 564:1, 564:4, 566:11, 566:12, 566:14, 566:16, 567:3, 570:2, 570:12, 572:5, 572:16, 572:17, 576:17, 578:9, 578:24, 582:1, 584:3, 585:7, 588:5, 588:12, 589:15, 596:18, 602:19, 633:4, 633:7, 642:11, 645:11, 658:4, 659:4, 659:8, 659:13, 660:5, 668:13, 668:19, 671:23, 672:12, 672:18, 673:7, 673:8, 682:8, 682:11, 682:19, 685:19, 686:8, 687:6, 687:11, 695:23, 698:19, 699:10, 700:2, 700:3, 700:4, 700:6, 700:19, 700:20, 700:22, 700:24, 701:3, 702:21, 702:24, 702:25, 704:1, 704:18, 704:25, 705:1, 705:6, 705:11</p>	<p><b>landslide</b> [1] - 609:16  <b>lane</b> [1] - 616:15  <b>language</b> [2] - 692:4, 692:5  <b>Laramie</b> [1] - 684:19  <b>large</b> [8] - 549:14, 558:22, 564:13, 584:12, 589:18, 600:5, 636:6, 680:10  <b>larger</b> [2] - 601:4, 698:15  <b>largest</b> [1] - 666:11  <b>Larson</b> [1] - 680:22  <b>last</b> [39] - 488:7, 488:15, 494:3, 494:14, 494:17, 497:8, 498:6, 502:13, 504:4, 508:1, 508:4, 575:8, 588:19, 588:20, 594:7, 595:24, 602:3, 606:5, 621:14, 622:4, 622:19, 626:20, 626:22, 637:15, 654:4, 654:6, 663:20, 665:8, 675:11, 676:15, 682:9, 683:20, 684:17, 687:24, 690:22, 691:13, 706:10, 706:16, 706:23  <b>late</b> [13] - 574:11, 618:22, 621:3, 654:19, 666:20, 708:6, 711:2, 711:3, 711:14, 711:15, 711:23, 712:7, 712:8  <b>late-filed</b> [10] - 618:22, 621:3, 708:6, 711:2, 711:3, 711:14, 711:15, 711:23, 712:7, 712:8  <b>latest</b> [2] - 504:7, 684:1  <b>law</b> [51] - 492:10, 492:11, 492:12, 492:20, 492:21, 492:25, 493:1, 493:2, 496:17, 510:23, 511:11, 533:14, 533:24, 534:1, 534:12, 534:13, 534:15, 534:17, 560:9, 560:11, 575:18, 576:8, 585:16, 642:13, 655:8, 655:9, 657:24, 657:25, 658:1, 659:18, 659:21, 659:25, 664:6, 664:7, 664:11, 671:12, 672:21, 678:20, 682:16, 682:22, 691:3, 691:5, 708:4, 709:3, 714:16  <b>LAW</b> [1] - 479:22  <b>Law</b> [3] - 480:7, 480:13, 480:13  <b>laws</b> [6] - 493:20, 494:23, 496:14, 559:17, 659:15  <b>lawsuits</b> [1] - 690:11  <b>layman</b> [1] - 585:25  <b>layout</b> [1] - 527:19  <b>lays</b> [1] - 580:5  <b>lead</b> [3] - 582:3, 639:14, 642:22</p>
<b>K</b>			
<p><b>Kalk</b> [24] - 481:6, 481:11, 481:13, 481:18, 481:25, 482:5, 482:10, 484:9, 485:5, 485:9, 505:10, 511:19, 586:8, 592:18, 626:16, 634:6, 636:19, 652:1, 689:18, 693:6, 701:17, 706:6, 711:20, 715:11</p>	<b>L</b>		
<p><b>KALK</b> [32] - 480:3, 485:11, 505:11, 505:13, 507:16, 586:9, 586:11, 590:3, 592:19, 592:21, 593:6, 626:17, 626:19, 628:24, 634:7, 635:18, 652:2, 652:4, 652:22, 689:19, 689:21, 692:22, 701:18, 701:22, 701:24, 706:8, 707:15, 707:18, 708:21, 709:12, 711:24, 715:12  <b>Kalk's</b> [1] - 485:6  <b>KDK</b> [2] - 545:3, 546:5  <b>keep</b> [10] - 500:24, 503:15, 503:16, 504:19, 508:6, 510:3, 538:20, 575:14, 641:15, 672:19  <b>keeping</b> [1] - 685:13  <b>keeps</b> [3] - 505:15, 569:24, 688:16  <b>Kentucky</b> [16] - 567:19, 567:22, 567:24, 568:4, 568:9, 568:13, 568:16, 569:5, 569:6, 569:10, 569:22, 570:3, 572:3, 572:14, 573:8, 574:23  <b>kept</b> [1] - 497:24  <b>key</b> [3] - 581:21, 602:21, 709:12  <b>kill</b> [1] - 504:25  <b>killed</b> [1] - 704:14  <b>kilter</b> [1] - 697:10  <b>kind</b> [21] - 497:6, 500:9, 543:7, 565:10, 566:19, 583:8, 583:13, 585:18, 593:24, 623:6, 625:4, 626:8, 661:20, 661:23, 674:4, 682:10, 686:20, 688:11, 689:10, 709:17, 715:13</p>	<p><b>L.L.C</b> [1] - 479:6  <b>lab</b> [1] - 513:20  <b>labeled</b> [1] - 530:10  <b>lack</b> [3] - 558:24, 559:2, 627:4  <b>laid</b> [6] - 577:19, 613:6, 614:21, 626:22, 638:17, 679:12  <b>Land</b> [3] - 483:8, 483:10, 654:23  <b>land</b> [163] - 488:17, 489:24, 492:12, 493:4, 493:11, 493:22, 496:1, 496:4, 497:15, 497:23, 498:1, 498:13, 498:15, 501:6, 503:9, 505:2, 506:14, 506:17, 510:13, 510:21, 510:25, 511:9, 515:17, 516:7, 516:17, 517:17, 517:23, 517:25, 518:8, 518:10, 518:12, 518:13, 518:14, 518:17, 520:12, 520:14, 521:20, 522:8, 522:18, 523:1, 523:2, 523:5, 523:24, 525:10, 526:5, 527:20, 528:7, 530:7, 531:12, 532:25, 533:12, 535:15, 541:19, 542:2, 542:5, 542:7, 542:9, 542:11, 543:16, 544:13, 544:17, 544:20, 544:23, 545:11, 545:17, 545:18, 546:24, 546:25, 547:2, 547:6, 547:7, 547:10, 549:5, 549:9, 549:12, 550:3, 550:4, 550:16, 556:10, 556:13, 556:19, 556:20, 557:5, 558:1, 558:7, 558:11, 560:13, 560:23, 561:2, 562:13,</p>	<p><b>landowner</b> [12] - 546:23, 549:3, 550:12, 562:22, 567:13, 572:20, 655:15, 663:23, 686:10, 687:12, 687:20, 704:3  <b>landowner's</b> [1] - 550:23  <b>landowners</b> [5] - 515:7, 597:6, 681:2, 681:9, 689:9  <b>Lands</b> [3] - 484:11, 489:8, 654:8  <b>lands</b> [77] - 488:18, 490:8, 494:15, 497:17, 497:18, 501:13, 502:1, 515:6, 520:7, 525:7, 525:12, 527:22, 545:18, 559:13, 562:24, 571:11, 584:7, 584:23, 596:15, 656:10, 657:21, 659:6, 659:23, 660:6, 660:8, 661:8, 661:9, 661:10, 661:11, 661:22, 662:22, 662:23, 664:20, 664:21, 665:4, 665:5, 665:7, 665:11, 665:17, 665:22, 666:5, 666:6, 666:8, 666:17, 667:4, 667:6, 667:7, 667:13, 667:15, 667:23, 668:5, 668:8, 668:9, 668:10, 668:22, 668:23, 669:5, 669:8, 669:16, 670:6, 670:8, 671:2, 671:21, 672:14, 673:21, 678:21, 679:4, 685:12, 686:13, 686:16, 687:7, 687:20, 687:21, 688:19, 688:21, 690:21  <b>landscape</b> [1] - 564:9</p>	<p>706:10, 706:16, 706:23  <b>landowner</b> [12] - 546:23, 549:3, 550:12, 562:22, 567:13, 572:20, 655:15, 663:23, 686:10, 687:12, 687:20, 704:3  <b>landowner's</b> [1] - 550:23  <b>landowners</b> [5] - 515:7, 597:6, 681:2, 681:9, 689:9  <b>Lands</b> [3] - 484:11, 489:8, 654:8  <b>lands</b> [77] - 488:18, 490:8, 494:15, 497:17, 497:18, 501:13, 502:1, 515:6, 520:7, 525:7, 525:12, 527:22, 545:18, 559:13, 562:24, 571:11, 584:7, 584:23, 596:15, 656:10, 657:21, 659:6, 659:23, 660:6, 660:8, 661:8, 661:9, 661:10, 661:11, 661:22, 662:22, 662:23, 664:20, 664:21, 665:4, 665:5, 665:7, 665:11, 665:17, 665:22, 666:5, 666:6, 666:8, 666:17, 667:4, 667:6, 667:7, 667:13, 667:15, 667:23, 668:5, 668:8, 668:9, 668:10, 668:22, 668:23, 669:5, 669:8, 669:16, 670:6, 670:8, 671:2, 671:21, 672:14, 673:21, 678:21, 679:4, 685:12, 686:13, 686:16, 687:7, 687:20, 687:21, 688:19, 688:21, 690:21  <b>landscape</b> [1] - 564:9</p>

<p><b>leading</b> [1] - 563:12</p> <p><b>leads</b> [1] - 582:7</p> <p><b>learn</b> [1] - 684:22</p> <p><b>learning</b> [1] - 714:10</p> <p><b>lease</b> [7] - 687:7, 687:17, 691:17, 692:9, 695:25, 696:6, 696:24</p> <p><b>leased</b> [1] - 699:19</p> <p><b>leasing</b> [1] - 702:24</p> <p><b>least</b> [23] - 490:22, 507:4, 509:14, 509:18, 533:18, 534:9, 542:22, 556:6, 556:12, 600:9, 602:8, 603:1, 604:2, 605:22, 606:3, 640:11, 640:16, 669:3, 670:17, 673:9, 683:12, 684:15, 692:21</p> <p><b>leaving</b> [1] - 565:12</p> <p><b>led</b> [2] - 551:21, 568:12</p> <p><b>left</b> [3] - 581:25, 698:21, 699:20</p> <p><b>legal</b> [2] - 670:23, 696:25</p> <p><b>legend</b> [3] - 648:22, 648:23, 649:2</p> <p><b>legislative</b> [1] - 658:2</p> <p><b>length</b> [2] - 698:13, 710:9</p> <p><b>lengthy</b> [1] - 691:7</p> <p><b>less</b> [24] - 518:15, 528:13, 536:7, 536:16, 544:3, 557:14, 557:17, 558:3, 559:22, 559:25, 575:11, 575:25, 584:17, 584:19, 587:20, 629:21, 630:21, 669:13, 674:7, 696:15, 697:9, 698:11, 700:18</p> <p><b>Less</b> [1] - 674:12</p> <p><b>letter</b> [1] - 704:20</p> <p><b>letters</b> [2] - 656:18, 685:7</p> <p><b>level</b> [10] - 507:14, 607:24, 608:21, 609:2, 623:17, 638:18, 676:12, 678:1, 698:18, 699:13</p> <p><b>leveled</b> [1] - 698:4</p> <p><b>levels</b> [10] - 528:17, 528:18, 609:4, 609:7, 609:10, 610:21, 611:24, 623:13, 625:5, 630:18</p> <p><b>liabilities</b> [1] - 665:24</p> <p><b>liability</b> [4] - 563:23, 668:25, 669:5, 669:15</p> <p><b>lie</b> [1] - 610:25</p> <p><b>life</b> [2] - 504:20, 667:8</p> <p><b>lift</b> [2] - 576:11, 699:1</p> <p><b>lifts</b> [2] - 699:12</p> <p><b>lignite</b> [1] - 696:22</p> <p><b>likelihood</b> [2] - 616:5, 616:20</p> <p><b>likely</b> [4] - 495:19, 584:25, 587:17, 588:25</p> <p><b>line</b> [5] - 550:16, 589:11, 605:12, 703:2, 708:22</p>	<p><b>lines</b> [1] - 586:14</p> <p><b>list</b> [3] - 664:19, 665:21, 690:9</p> <p><b>listed</b> [9] - 531:12, 607:16, 659:8, 659:10, 660:7, 661:25, 669:24, 669:25, 673:12</p> <p><b>listing</b> [4] - 662:13, 664:21, 665:6, 665:7</p> <p><b>listings</b> [1] - 668:17</p> <p><b>lists</b> [7] - 573:8, 657:15, 657:17, 657:21, 658:3, 661:9, 662:15</p> <p><b>literally</b> [2] - 689:23, 715:18</p> <p><b>literature</b> [2] - 532:22, 559:9</p> <p><b>live</b> [3] - 694:13, 715:22, 716:3</p> <p><b>Livestock</b> [3] - 483:14, 522:24, 546:20</p> <p><b>livestock</b> [7] - 522:18, 523:11, 523:17, 528:6, 548:2, 573:16</p> <p><b>living</b> [1] - 581:8</p> <p><b>loam</b> [17] - 600:15, 600:16, 607:16, 644:6, 644:7, 646:10, 646:14, 646:16, 646:19, 646:21, 647:1, 650:2, 651:3, 651:4</p> <p><b>local</b> [6] - 525:3, 591:11, 687:8, 697:17, 700:8, 702:20</p> <p><b>located</b> [6] - 488:21, 488:23, 520:5, 520:18, 600:3, 685:4</p> <p><b>location</b> [1] - 609:12</p> <p><b>locations</b> [1] - 520:21</p> <p><b>logical</b> [1] - 539:22</p> <p><b>long-term</b> [5] - 497:14, 588:9, 661:24, 662:1</p> <p><b>look</b> [34] - 494:17, 504:12, 505:18, 506:21, 540:14, 544:9, 544:14, 546:12, 554:4, 555:18, 579:6, 583:22, 591:2, 602:23, 603:16, 604:11, 618:20, 621:14, 636:4, 638:11, 643:19, 649:22, 650:6, 670:14, 673:13, 673:15, 673:23, 674:6, 692:12, 697:5, 714:11, 714:14, 714:25, 715:25</p> <p><b>looked</b> [11] - 545:14, 553:14, 553:25, 604:11, 606:19, 628:19, 629:14, 643:19, 677:9, 692:9</p> <p><b>looking</b> [26] - 498:25, 504:13, 504:14, 504:19, 504:22, 535:18, 535:23, 536:5, 554:19, 572:6, 574:23, 590:22, 600:18,</p>	<p>602:22, 607:8, 607:18, 607:22, 608:18, 614:20, 630:4, 651:14, 662:18, 668:15, 673:4, 688:3, 688:21</p> <p><b>looks</b> [2] - 499:14, 668:16</p> <p><b>lose</b> [1] - 574:5</p> <p><b>losing</b> [2] - 596:2, 694:18</p> <p><b>loss</b> [5] - 623:18, 687:15, 694:23, 695:1</p> <p><b>lost</b> [2] - 695:20, 697:2</p> <p><b>loud</b> [1] - 635:17</p> <p><b>low</b> [5] - 558:20, 591:24, 652:18, 698:20, 698:23</p> <p><b>low-producing</b> [1] - 558:20</p> <p><b>lower</b> [4] - 521:11, 643:25, 644:1, 699:14</p> <p><b>lower-lying</b> [1] - 643:25</p> <p><b>lowest</b> [2] - 542:23, 543:21</p> <p><b>lowest-producing</b> [1] - 542:23</p> <p><b>lowland</b> [4] - 535:2, 535:3, 535:20, 536:7</p> <p><b>lowlands</b> [4] - 536:1, 536:14, 536:22, 561:15</p> <p><b>lunchtime</b> [1] - 485:13</p> <p><b>lying</b> [1] - 643:25</p>	<p><b>manager</b> [3] - 487:14, 488:15, 596:15</p> <p><b>managing</b> [3] - 562:23, 568:23, 580:21</p> <p><b>Mandan</b> [1] - 596:5</p> <p><b>mandated</b> [1] - 533:24</p> <p><b>MANN</b> [215] - 479:21, 485:3, 485:25, 486:3, 486:5, 486:7, 486:11, 486:18, 489:16, 489:18, 489:20, 491:6, 491:17, 491:19, 491:23, 495:5, 495:7, 497:3, 505:10, 507:17, 507:19, 511:14, 511:16, 511:18, 511:22, 512:2, 512:10, 514:20, 514:22, 514:24, 516:24, 517:3, 517:7, 517:13, 517:16, 518:4, 518:6, 519:20, 519:22, 519:24, 523:8, 523:13, 524:7, 524:11, 524:13, 526:17, 526:19, 527:6, 529:14, 529:16, 529:18, 530:25, 531:3, 531:6, 531:8, 537:14, 537:16, 538:3, 538:11, 538:17, 538:22, 539:14, 540:5, 540:21, 541:1, 555:4, 555:11, 561:5, 561:9, 562:2, 580:13, 586:8, 590:4, 590:6, 590:8, 590:11, 592:16, 592:18, 593:7, 593:9, 593:13, 593:17, 593:22, 595:4, 595:17, 599:16, 611:7, 611:12, 617:16, 618:10, 618:14, 619:1, 619:5, 619:24, 620:22, 621:6, 621:9, 622:9, 624:11, 626:16, 629:1, 629:3, 633:13, 633:15, 634:4, 634:6, 634:8, 635:14, 635:20, 636:14, 636:16, 636:18, 636:23, 637:1, 637:8, 643:15, 645:2, 645:6, 647:21, 647:24, 648:5, 648:9, 648:15, 648:18, 649:9, 649:13, 649:15, 650:12, 650:14, 650:16, 651:11, 651:21, 651:23, 652:1, 652:24, 653:2, 653:11, 653:15, 653:22, 660:23, 660:25, 661:2, 663:13, 663:15, 663:17, 664:14, 672:25, 676:20, 676:22, 676:24, 677:13, 677:15, 677:17, 678:24, 683:6, 689:18, 692:24, 693:1, 693:3, 693:5, 693:11, 693:21,</p>
<b>M</b>			
		<p><b>M-o-o-s</b> [1] - 637:16</p> <p><b>main</b> [1] - 589:16</p> <p><b>maintain</b> [5] - 514:15, 524:8, 660:13, 692:20, 698:16</p> <p><b>maintained</b> [6] - 503:15, 524:1, 529:5, 530:17, 624:23, 659:24</p> <p><b>majority</b> [3] - 584:3, 672:13, 687:6</p> <p><b>makeup</b> [2] - 548:12, 564:20</p> <p><b>man</b> [1] - 697:1</p> <p><b>manage</b> [3] - 515:6, 563:24, 568:2</p> <p><b>managed</b> [7] - 488:4, 564:1, 566:7, 578:9, 581:1, 581:2, 668:12</p> <p><b>Management</b> [4] - 514:6, 514:12, 528:24, 529:3</p> <p><b>management</b> [25] - 513:23, 515:7, 516:6, 521:18, 523:17, 526:5, 527:21, 545:12, 545:14, 545:19, 551:19, 557:4, 564:19, 564:22, 566:13, 578:10, 578:14, 579:19, 579:22, 580:7, 580:9, 581:17, 588:9, 588:10, 594:23</p> <p><b>Management's</b> [1] - 513:25</p> <p><b>managements</b> [1] - 581:21</p>	

<p>693:25, 694:6, 700:11, 701:5, 701:9, 701:11, 701:13, 701:15, 701:17, 701:25, 702:4, 702:8, 702:14, 703:11, 703:18, 703:22, 705:14, 705:16, 705:22, 705:25, 706:3, 706:6, 707:5, 707:19, 708:8, 708:14, 708:19, 709:18, 709:24, 710:3, 710:11, 710:18, 710:22, 710:24, 711:1, 711:11, 711:18, 712:1, 712:6, 712:14, 712:18, 713:2, 713:5, 713:9, 713:12, 713:19, 713:21, 713:24, 714:2, 714:4, 714:17, 715:11, 716:7</p> <p><b>manner</b> [2] - 665:3, 682:5</p> <p><b>map</b> [22] - 527:19, 535:16, 552:19, 561:17, 605:13, 616:13, 633:22, 640:5, 647:10, 647:14, 647:15, 648:7, 648:14, 648:21, 649:1, 649:3, 649:24, 650:2, 650:4, 650:10, 650:18, 650:23</p> <p><b>Map</b> [3] - 483:4, 483:5, 483:6</p> <p><b>mapped</b> [2] - 639:20, 641:3</p> <p><b>mapping</b> [3] - 594:22, 613:3, 613:10</p> <p><b>maps</b> [7] - 576:5, 613:4, 647:7, 661:14, 662:18, 662:25, 663:7</p> <p><b>marginal</b> [2] - 506:15, 506:17</p> <p><b>mark</b> [3] - 567:16, 647:22, 649:8</p> <p><b>marked</b> [12] - 485:5, 489:5, 516:13, 519:7, 522:20, 528:19, 536:24, 540:11, 647:19, 657:8, 675:19, 677:2</p> <p><b>Marty</b> [2] - 510:19, 510:20</p> <p><b>master's</b> [5] - 485:15, 513:10, 514:1, 523:16</p> <p><b>match</b> [2] - 525:5, 548:16</p> <p><b>material</b> [7] - 533:2, 533:3, 576:13, 576:14, 591:13, 642:12, 699:23</p> <p><b>Materials</b> [1] - 525:5</p> <p><b>materials</b> [5] - 526:6, 614:2, 614:4, 614:6, 715:1</p> <p><b>math</b> [1] - 668:4</p> <p><b>matter</b> [19] - 528:12, 528:17, 578:18, 581:17, 581:24, 630:14, 638:18, 640:1, 656:15, 665:10, 669:4, 670:22, 699:2, 699:7, 699:15, 699:25, 711:1, 714:24</p>	<p><b>matters</b> [1] - 595:1</p> <p><b>mature</b> [1] - 564:4</p> <p><b>matures</b> [1] - 581:13</p> <p><b>maturity</b> [1] - 528:9</p> <p><b>maximize</b> [3] - 532:17, 541:9, 559:25</p> <p><b>maximized</b> [1] - 563:21</p> <p><b>maximizing</b> [1] - 547:25</p> <p><b>maximum</b> [18] - 486:15, 486:16, 512:7, 532:15, 532:18, 533:3, 595:13, 595:14, 637:4, 637:5, 642:13, 653:18, 653:19, 694:3, 694:4, 702:11, 702:12</p> <p><b>mean</b> [27] - 495:18, 504:3, 504:15, 506:2, 506:11, 506:13, 509:23, 517:4, 536:12, 538:19, 544:24, 555:12, 566:2, 572:19, 577:21, 581:2, 614:5, 617:5, 617:21, 618:11, 640:11, 646:6, 646:23, 655:7, 670:5, 704:20, 707:12</p> <p><b>meaning</b> [3] - 522:11, 522:13, 668:11</p> <p><b>means</b> [2] - 630:21, 668:24</p> <p><b>meant</b> [1] - 600:1</p> <p><b>measure</b> [5] - 582:10, 582:24, 583:21, 697:12, 712:24</p> <p><b>measured</b> [1] - 585:12</p> <p><b>measurement</b> [6] - 575:4, 582:11, 585:8, 585:20, 609:25, 610:6</p> <p><b>measurements</b> [3] - 609:22, 613:17, 613:18</p> <p><b>measuring</b> [2] - 583:6, 583:9</p> <p><b>medium</b> [2] - 640:1, 644:8</p> <p><b>meet</b> [14] - 522:8, 533:2, 533:21, 533:24, 534:3, 556:25, 569:12, 574:22, 589:9, 589:15, 589:23, 592:5, 660:8, 686:8</p> <p><b>meeting</b> [8] - 513:25, 514:8, 514:11, 532:21, 672:4, 683:13, 683:14, 683:16</p> <p><b>meetings</b> [4] - 514:14, 581:6, 582:23, 684:24</p> <p><b>meets</b> [1] - 576:14</p> <p><b>member</b> [1] - 501:10</p> <p><b>members</b> [2] - 501:4, 707:20</p> <p><b>memo</b> [2] - 619:23, 620:18</p> <p><b>memorandum</b> [2] - 484:14, 484:16</p> <p><b>memory</b> [1] - 549:21</p> <p><b>memos</b> [1] - 620:3</p> <p><b>mention</b> [2] - 562:15, 594:8</p> <p><b>mentioned</b> [16] - 508:6,</p>	<p>525:17, 562:14, 563:14, 563:19, 578:14, 584:5, 597:16, 607:19, 629:19, 632:17, 638:5, 671:2, 671:4, 674:4, 690:6</p> <p><b>Mercer</b> [13] - 483:4, 487:18, 488:18, 488:22, 490:20, 607:15, 609:3, 610:3, 610:4, 638:19, 639:19, 640:5, 644:15</p> <p><b>Merrill</b> [7] - 533:7, 551:3, 554:11, 559:15, 560:3, 580:3, 583:1</p> <p><b>Merrill's</b> [4] - 553:20, 554:12, 577:15, 578:7</p> <p><b>met</b> [6] - 501:12, 569:8, 656:20, 680:5, 680:18, 712:9</p> <p><b>meter</b> [1] - 571:17</p> <p><b>method</b> [6] - 545:7, 557:10, 571:7, 571:11, 576:25, 697:20</p> <p><b>methodologies</b> [1] - 521:23</p> <p><b>methodology</b> [3] - 545:14, 571:4, 571:5</p> <p><b>methods</b> [9] - 527:18, 545:6, 552:12, 553:19, 556:24, 556:25, 584:4, 642:5, 661:19</p> <p><b>Mexico</b> [1] - 627:24</p> <p><b>MICHAEL</b> [2] - 482:6, 694:8</p> <p><b>Michael</b> [1] - 693:24</p> <p><b>microbes</b> [1] - 581:7</p> <p><b>microphone</b> [1] - 635:17</p> <p><b>mid-'70s</b> [1] - 666:25</p> <p><b>middle</b> [1] - 501:21</p> <p><b>might</b> [22] - 501:19, 501:24, 502:10, 506:6, 506:7, 507:10, 507:11, 540:19, 579:1, 582:16, 583:18, 584:17, 584:19, 584:20, 589:18, 620:20, 631:3, 633:20, 646:4, 680:1, 695:18</p> <p><b>mights</b> [2] - 584:22, 585:13</p> <p><b>mile</b> [7] - 489:1, 624:5, 633:3, 633:8, 696:9</p> <p><b>miles</b> [4] - 488:24, 489:4, 518:20, 696:9</p> <p><b>million</b> [3] - 500:18, 500:20, 695:10</p> <p><b>mind</b> [6] - 535:9, 583:3, 586:24, 592:23, 636:11, 702:2</p> <p><b>mine</b> [78] - 488:1, 488:3, 488:4, 488:5, 488:8, 488:18, 488:23, 492:8, 492:9, 493:5, 494:5, 494:8, 494:20, 497:17, 501:19, 503:3, 503:6, 508:3, 519:4,</p>	<p>520:2, 533:1, 533:12, 541:23, 542:3, 542:11, 545:22, 559:13, 563:23, 565:11, 567:4, 577:4, 584:7, 592:11, 596:15, 597:25, 605:1, 624:8, 629:23, 632:9, 632:24, 633:8, 634:25, 636:6, 637:25, 638:1, 659:8, 661:10, 661:14, 661:25, 662:3, 662:14, 662:22, 662:25, 663:7, 663:8, 666:15, 666:18, 667:8, 672:17, 673:20, 678:21, 679:18, 679:19, 681:22, 690:24, 695:4, 696:1, 697:14, 697:24, 698:25, 700:4, 700:16, 702:24, 704:1, 704:7</p> <p><b>Mine</b> [66] - 483:8, 487:19, 487:20, 488:21, 489:3, 489:7, 489:24, 490:21, 492:4, 493:22, 498:15, 506:14, 508:2, 510:22, 513:4, 515:10, 516:1, 518:9, 518:18, 518:19, 519:2, 531:16, 531:21, 537:2, 541:20, 551:8, 552:3, 552:5, 552:7, 552:9, 552:11, 552:22, 571:10, 572:17, 579:18, 586:21, 601:19, 623:7, 631:11, 654:8, 654:23, 666:15, 666:16, 666:21, 667:1, 673:6, 673:11, 674:5, 680:8, 680:9, 680:23, 681:10, 695:8, 700:1, 700:12, 700:18, 700:19, 703:6, 703:7, 703:13, 704:2, 704:17, 704:21, 705:19, 705:20, 707:1</p> <p><b>Mine's</b> [1] - 489:25</p> <p><b>mined</b> [21] - 493:16, 510:21, 550:10, 624:20, 624:22, 625:16, 625:18, 626:3, 629:20, 629:22, 631:8, 634:22, 636:10, 659:13, 662:8, 665:25, 685:12, 695:12, 699:10, 700:8, 700:22</p> <p><b>mineral</b> [4] - 528:10, 697:15, 697:17</p> <p><b>Mines</b> [2] - 666:23, 687:5</p> <p><b>mines</b> [29] - 487:18, 494:6, 494:10, 494:12, 504:11, 507:24, 510:3, 513:1, 518:22, 518:25, 578:21, 596:18, 596:20, 630:15, 642:6, 642:8, 665:22, 665:24, 666:1, 666:11,</p>
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<p>666:13, 667:7, 668:12, 672:5, 675:16, 679:12, 679:21, 688:14, 705:9</p> <p><b>minimal</b> [1] - 672:7</p> <p><b>minimize</b> [2] - 557:1, 568:23</p> <p><b>minimizing</b> [3] - 521:19, 557:10, 557:11</p> <p><b>minimum</b> [1] - 585:7</p> <p><b>mining</b> [98] - 490:16, 491:2, 493:25, 503:15, 503:16, 515:18, 519:13, 520:16, 526:7, 526:12, 527:18, 531:15, 533:14, 535:9, 537:1, 537:7, 538:7, 542:16, 550:4, 555:22, 557:22, 570:18, 571:1, 587:16, 594:3, 594:20, 594:24, 596:22, 597:2, 597:18, 599:4, 602:16, 603:18, 613:2, 613:13, 613:22, 614:3, 614:5, 619:15, 623:7, 624:5, 624:16, 629:25, 630:16, 630:17, 631:6, 631:18, 631:21, 632:19, 634:18, 635:8, 641:17, 654:25, 655:9, 659:11, 660:15, 661:15, 662:25, 663:6, 666:14, 669:20, 671:11, 671:13, 673:22, 674:8, 674:14, 675:15, 679:13, 679:15, 681:15, 681:21, 683:10, 684:2, 684:10, 686:21, 686:24, 687:2, 687:5, 688:1, 690:24, 691:24, 692:18, 694:14, 694:15, 694:21, 695:2, 695:17, 695:21, 695:23, 696:10, 697:23, 700:7, 700:10, 700:25, 703:12, 705:2</p> <p><b>Mining</b> [24] - 479:6, 483:20, 483:21, 483:22, 484:13, 487:12, 512:22, 512:24, 514:9, 532:21, 538:6, 559:8, 656:8, 656:18, 675:2, 675:14, 678:18, 683:11, 683:21, 684:16, 700:3, 700:7, 700:21, 700:25</p> <p><b>minor</b> [1] - 518:17</p> <p><b>minute</b> [2] - 633:5, 701:5</p> <p><b>minutes</b> [3] - 540:1, 593:14, 623:14</p> <p><b>missed</b> [1] - 590:14</p> <p><b>missing</b> [2] - 583:5, 588:5</p> <p><b>mitigated</b> [1] - 624:16</p> <p><b>mix</b> [20] - 524:24, 525:1, 525:6, 530:3, 530:8, 531:12, 552:23, 573:9,</p>	<p>573:21, 574:7, 574:18, 579:7, 581:3, 584:19, 588:21, 589:4, 589:8, 590:24, 591:17</p> <p><b>mixed</b> [2] - 552:10, 552:24</p> <p><b>mixes</b> [1] - 527:23</p> <p><b>mixing</b> [2] - 552:2, 699:3</p> <p><b>mixture</b> [3] - 646:15, 646:16</p> <p><b>modern</b> [1] - 578:1</p> <p><b>moisture</b> [5] - 535:5, 535:22, 536:9, 582:18, 613:17</p> <p><b>money</b> [3] - 503:13, 635:1, 687:14</p> <p><b>monitored</b> [2] - 525:22, 548:9</p> <p><b>monitoring</b> [10] - 504:20, 577:7, 613:16, 614:13, 623:6, 623:10, 624:1, 624:4, 625:3, 625:5</p> <p><b>Montana</b> [1] - 627:23</p> <p><b>month</b> [2] - 618:7, 714:21</p> <p><b>monthly</b> [1] - 509:24</p> <p><b>Moos</b> [15] - 484:8, 594:2, 594:13, 594:21, 598:22, 636:25, 637:1, 637:14, 637:16, 643:18, 647:4, 648:13, 649:17, 650:17, 663:3</p> <p><b>MOOS</b> [2] - 481:22, 637:9</p> <p><b>moos</b> [1] - 645:25</p> <p><b>morning</b> [1] - 694:22</p> <p><b>most</b> [26] - 492:11, 495:19, 501:21, 503:11, 520:16, 529:23, 562:8, 574:3, 575:22, 576:7, 581:20, 584:14, 587:18, 605:9, 606:20, 608:14, 640:2, 647:1, 651:8, 659:12, 659:13, 683:2, 684:18, 686:17, 695:24, 697:2</p> <p><b>mostly</b> [3] - 573:6, 598:3, 603:2</p> <p><b>Mother</b> [1] - 592:2</p> <p><b>motivating</b> [1] - 688:7</p> <p><b>mottling</b> [5] - 600:21, 607:20, 607:23, 608:19, 613:18</p> <p><b>MR</b> [194] - 480:6, 480:6, 480:12, 480:12, 486:2, 486:4, 486:10, 486:23, 489:14, 489:17, 489:22, 490:25, 491:9, 491:12, 491:16, 491:21, 492:2, 495:3, 502:10, 507:18, 507:20, 507:22, 511:13, 511:21, 512:1, 512:11, 512:16, 514:17, 514:21, 515:2, 516:22, 516:25, 517:6, 517:8, 517:14, 517:17, 517:22, 518:3,</p>	<p>518:8, 519:15, 519:21, 520:1, 523:6, 523:9, 523:15, 523:19, 524:8, 524:19, 526:10, 526:18, 527:8, 529:12, 529:15, 529:20, 530:23, 531:5, 531:10, 537:12, 537:15, 537:20, 537:23, 537:25, 538:5, 538:9, 538:12, 538:18, 539:4, 540:7, 540:9, 540:18, 540:22, 541:11, 555:2, 555:6, 555:17, 556:2, 556:3, 556:4, 561:4, 561:11, 561:25, 590:5, 590:7, 593:8, 593:11, 599:17, 599:19, 611:8, 611:15, 612:10, 612:14, 616:23, 618:16, 619:6, 619:9, 619:10, 619:25, 620:9, 620:16, 621:5, 621:8, 621:10, 621:12, 622:8, 629:4, 629:6, 633:12, 633:14, 635:16, 635:24, 636:13, 636:15, 643:17, 645:4, 645:7, 645:21, 645:23, 645:25, 647:19, 647:22, 647:25, 648:3, 648:4, 648:11, 648:13, 648:20, 649:5, 649:12, 649:17, 650:10, 650:13, 650:17, 651:10, 651:13, 651:20, 660:24, 661:1, 663:14, 663:16, 664:16, 672:23, 673:1, 673:3, 676:19, 676:21, 677:1, 677:12, 677:14, 677:19, 678:23, 693:2, 693:4, 693:24, 694:11, 700:17, 701:8, 701:10, 701:20, 701:23, 702:2, 702:6, 703:1, 703:4, 703:6, 703:9, 703:14, 703:21, 703:25, 705:15, 705:17, 705:21, 707:11, 707:24, 709:2, 709:20, 709:23, 710:15, 710:20, 710:23, 711:6, 711:19, 712:5, 712:10, 712:16, 712:19, 712:21, 712:22, 713:4, 713:8, 713:11, 713:16, 713:20, 713:23, 714:1</p> <p><b>MS</b> [74] - 480:17, 486:6, 489:19, 491:18, 495:6, 511:15, 514:23, 518:5, 519:23, 524:12, 526:20, 527:5, 529:17, 531:7, 537:17, 537:21, 538:1, 561:6, 590:9, 593:20, 593:23, 595:22, 599:14, 611:2, 611:9, 611:14,</p>	<p>617:17, 618:11, 619:3, 619:8, 619:17, 620:17, 621:4, 629:2, 634:10, 634:13, 635:13, 636:22, 636:25, 637:13, 643:13, 645:1, 648:6, 648:10, 648:17, 649:14, 650:15, 652:25, 653:13, 654:2, 657:5, 657:11, 660:21, 661:3, 663:11, 663:18, 664:13, 676:23, 677:16, 692:25, 693:9, 701:12, 705:24, 708:11, 709:9, 709:15, 709:25, 710:9, 710:25, 711:8, 711:16, 713:14, 713:17, 714:3</p> <p><b>mstarting</b> [1] - 516:3</p> <p><b>mulched</b> [1] - 699:24</p> <p><b>multiple</b> [2] - 514:14, 532:24</p> <p><b>Murray</b> [1] - 609:5</p> <p><b>must</b> [4] - 506:3, 521:16, 621:17, 707:2</p> <p style="text-align: center;"><b>N</b></p> <p><b>NACC</b> [1] - 527:4</p> <p><b>NACC-1302</b> [3] - 479:6, 484:17, 561:21</p> <p><b>name</b> [19] - 486:24, 512:17, 562:14, 595:23, 595:24, 637:14, 637:15, 639:3, 654:3, 654:4, 654:6, 693:23, 702:5, 702:6, 706:10, 706:13, 706:16</p> <p><b>named</b> [1] - 562:22</p> <p><b>narrative</b> [2] - 527:18, 527:20</p> <p><b>narrow</b> [1] - 699:20</p> <p><b>nation</b> [1] - 513:18</p> <p><b>national</b> [2] - 513:18, 683:10</p> <p><b>nationally</b> [1] - 685:17</p> <p><b>native</b> [74] - 490:1, 490:12, 490:19, 490:21, 492:4, 492:8, 493:9, 493:11, 495:17, 496:2, 496:4, 496:5, 504:16, 505:20, 508:24, 509:10, 509:13, 516:19, 518:14, 520:6, 521:15, 521:17, 521:21, 522:9, 524:21, 524:23, 524:24, 525:7, 525:15, 525:21, 527:12, 532:2, 533:15, 534:2, 540:12, 541:6, 541:10, 555:20, 556:6, 556:12, 556:17, 557:17, 557:18, 558:7, 558:19, 567:17, 567:19, 568:3, 568:5, 568:15, 568:18, 568:20, 569:17, 569:18, 569:19, 569:21, 570:4, 573:1, 575:2,</p>
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<p>577:10, 579:3, 581:2, 581:19, 582:14, 582:20, 584:8, 586:19, 586:22, 587:4, 590:14, 591:14, 655:23, 658:12</p> <p><b>natural</b> [4] - 490:23, 533:19, 534:10, 586:15</p> <p><b>Natural</b> [2] - 490:13, 648:1</p> <p><b>naturalization</b> [1] - 568:15</p> <p><b>naturalized</b> [2] - 568:7, 568:20</p> <p><b>naturally</b> [1] - 645:10</p> <p><b>Nature</b> [1] - 592:3</p> <p><b>nature</b> [3] - 553:25, 616:16, 678:12</p> <p><b>ND</b> [5] - 483:11, 483:24, 484:4, 484:11, 484:13</p> <p><b>NDPSC</b> [5] - 676:10, 676:12, 677:24, 678:1, 678:8</p> <p><b>NDSU</b> [8] - 485:16, 513:9, 513:20, 513:22, 529:4, 530:15, 654:13</p> <p><b>near</b> [6] - 487:4, 513:8, 536:11, 561:19, 561:23, 609:19</p> <p><b>nearby</b> [2] - 546:24, 670:10</p> <p><b>nearly</b> [4] - 644:3, 658:11, 659:11, 669:11</p> <p><b>necessarily</b> [4] - 560:22, 621:22, 668:21, 710:4</p> <p><b>necessary</b> [6] - 495:21, 495:24, 559:24, 566:20, 622:16, 678:10</p> <p><b>need</b> [41] - 495:23, 500:4, 500:25, 517:1, 526:25, 544:4, 556:25, 557:19, 557:23, 569:16, 592:8, 597:19, 597:20, 598:2, 613:3, 616:24, 617:13, 621:2, 624:23, 625:1, 625:14, 633:6, 635:21, 652:22, 653:8, 671:9, 676:10, 677:24, 688:1, 690:7, 690:17, 692:13, 693:25, 694:1, 697:11, 702:4, 703:11, 707:7, 707:8, 710:13, 716:3</p> <p><b>needed</b> [3] - 501:18, 665:19, 672:12</p> <p><b>needle</b> [1] - 573:12</p> <p><b>needle-and-thread</b> [1] - 573:12</p> <p><b>needs</b> [7] - 565:4, 565:16, 614:18, 686:24, 697:10, 698:22, 700:14</p> <p><b>negative</b> [3] - 570:1, 656:2, 689:15</p> <p><b>negatively</b> [1] - 566:8</p> <p><b>negotiate</b> [1] - 566:2</p> <p><b>neighbor</b> [3] - 704:3, 704:11</p>	<p><b>neighboring</b> [2] - 566:12, 566:14</p> <p><b>neighbors</b> [1] - 716:2</p> <p><b>net</b> [1] - 496:16</p> <p><b>never</b> [3] - 506:16, 585:11, 633:18</p> <p><b>new</b> [7] - 489:2, 551:15, 551:24, 552:1, 563:15, 658:1, 690:16</p> <p><b>New</b> [2] - 627:24, 714:18</p> <p><b>newer</b> [2] - 684:7, 697:7</p> <p><b>newly</b> [1] - 557:4</p> <p><b>next</b> [12] - 485:4, 486:8, 506:7, 511:24, 598:6, 630:16, 636:24, 640:20, 653:5, 653:12, 672:19, 711:17</p> <p><b>nice</b> [2] - 503:21</p> <p><b>nighttime</b> [1] - 622:13</p> <p><b>nine</b> [18] - 520:11, 520:16, 522:7, 522:8, 524:24, 544:25, 545:8, 565:9, 573:1, 573:20, 574:15, 589:14, 590:14, 590:15, 590:16, 590:17, 590:18, 592:10</p> <p><b>nitrogen</b> [2] - 528:13, 528:17</p> <p><b>nitschke</b> [1] - 653:6</p> <p><b>nobody</b> [1] - 705:3</p> <p><b>non</b> [4] - 521:15, 524:21, 525:7, 569:17</p> <p><b>non-native</b> [4] - 521:15, 524:21, 525:7, 569:17</p> <p><b>none</b> [7] - 493:12, 535:16, 561:22, 561:23, 569:8, 631:7, 652:16</p> <p><b>nonprime</b> [1] - 660:2</p> <p><b>normally</b> [2] - 625:7, 706:14</p> <p><b>Norris</b> [2] - 608:6, 628:14</p> <p><b>north</b> [12] - 489:4, 519:2, 600:4, 600:6, 603:2, 603:10, 605:25, 606:4, 606:6, 609:14, 609:17</p> <p><b>NORTH</b> [1] - 479:2</p> <p><b>North</b> [64] - 479:17, 480:9, 480:14, 480:14, 480:19, 486:14, 487:2, 487:5, 487:9, 487:18, 488:24, 493:25, 494:6, 496:22, 502:1, 507:24, 510:3, 512:6, 512:20, 513:8, 514:5, 514:10, 514:12, 519:11, 533:14, 534:7, 534:12, 534:17, 537:3, 537:5, 578:21, 595:12, 596:21, 612:11, 627:21, 630:15, 637:18, 641:1, 641:4, 641:5, 653:18, 654:10, 657:25, 659:24, 660:6, 666:7, 666:16,</p>	<p>675:16, 675:21, 676:9, 677:3, 677:23, 679:21, 694:2, 694:23, 696:17, 696:18, 697:13, 701:23, 702:7, 702:10, 706:20, 717:13</p> <p><b>north-northwest</b> [1] - 606:6</p> <p><b>northeast</b> [2] - 600:7, 627:23</p> <p><b>Northeast</b> [1] - 605:6</p> <p><b>Northern</b> [2] - 483:17, 530:12</p> <p><b>Northwest</b> [1] - 706:19</p> <p><b>northwest</b> [6] - 489:1, 605:10, 605:12, 605:25, 606:6, 609:20</p> <p><b>note</b> [4] - 537:18, 616:24, 617:13, 674:12</p> <p><b>noted</b> [2] - 541:3, 705:22</p> <p><b>notes</b> [5] - 536:4, 548:10, 550:1, 577:23, 717:11</p> <p><b>nothing</b> [11] - 580:2, 590:7, 590:9, 617:13, 618:25, 636:13, 689:2, 693:2, 693:9, 696:11, 715:19</p> <p><b>notice</b> [2] - 672:3, 704:16</p> <p><b>noticed</b> [1] - 586:20</p> <p><b>notification</b> [1] - 692:15</p> <p><b>notified</b> [2] - 691:20, 692:13</p> <p><b>noting</b> [1] - 554:9</p> <p><b>noxious</b> [4] - 576:17, 576:24, 577:9, 577:14</p> <p><b>NRCS</b> [18] - 490:12, 525:2, 525:3, 527:13, 533:11, 535:15, 551:4, 551:22, 552:19, 554:16, 554:23, 555:16, 571:3, 571:5, 591:11, 640:4, 640:18, 690:14</p> <p><b>number</b> [32] - 491:12, 506:11, 522:11, 522:14, 540:12, 547:13, 576:18, 583:23, 584:9, 584:13, 584:24, 585:10, 588:11, 589:18, 600:11, 607:11, 607:13, 607:19, 611:6, 612:18, 652:8, 656:13, 656:17, 662:17, 666:8, 668:17, 669:6, 669:10, 669:21, 676:16, 678:15, 685:10</p> <p><b>numbers</b> [12] - 496:3, 508:22, 517:2, 546:12, 546:15, 647:20, 666:4, 667:3, 667:5, 667:13, 668:7, 668:15</p> <p><b>nutrient</b> [6] - 528:1, 528:16, 530:2, 530:6, 531:20, 574:5</p> <p><b>Nutrition</b> [2] - 483:16, 528:25</p> <p><b>nutrition</b> [1] - 513:20</p>	<p><b>nutritional</b> [1] - 529:24</p> <p><b>Nutritive</b> [1] - 528:23</p> <p style="text-align: center;"><b>O</b></p> <p><b>oath</b> [7] - 486:13, 512:3, 595:11, 637:2, 653:16, 694:1, 702:9</p> <p><b>object</b> [6] - 516:25, 523:9, 538:19, 555:2, 555:4, 703:1</p> <p><b>objected</b> [1] - 540:19</p> <p><b>objecting</b> [1] - 555:5</p> <p><b>objection</b> [49] - 486:1, 489:17, 489:19, 491:7, 491:9, 491:16, 491:18, 514:21, 514:23, 518:3, 518:5, 519:21, 519:23, 524:9, 524:12, 526:18, 526:21, 527:5, 529:15, 529:17, 531:4, 531:5, 531:7, 537:15, 537:17, 538:2, 539:1, 539:11, 540:23, 541:2, 541:3, 617:17, 618:17, 648:4, 648:6, 648:16, 648:17, 649:11, 650:13, 650:15, 660:24, 661:1, 663:14, 663:16, 676:21, 676:23, 677:14, 677:16, 705:17</p> <p><b>obligated</b> [1] - 502:19</p> <p><b>obligation</b> [3] - 500:21, 503:16, 681:23</p> <p><b>observations</b> [2] - 509:23, 534:24</p> <p><b>observed</b> [1] - 525:24</p> <p><b>obtain</b> [2] - 598:2, 632:22</p> <p><b>obtainable</b> [2] - 614:19</p> <p><b>obtained</b> [4] - 489:10, 494:2, 682:5, 691:18</p> <p><b>obtaining</b> [1] - 487:14</p> <p><b>obviously</b> [3] - 497:22, 504:11, 714:7</p> <p><b>occasion</b> [1] - 637:23</p> <p><b>occasional</b> [1] - 597:5</p> <p><b>occupied</b> [2] - 692:1, 692:19</p> <p><b>occur</b> [4] - 527:15, 588:25, 601:22, 700:14</p> <p><b>occurred</b> [3] - 601:16, 674:20, 703:23</p> <p><b>occurring</b> [6] - 506:10, 508:10, 631:6, 634:18, 678:6, 678:7</p> <p><b>occurs</b> [2] - 498:20, 521:6</p> <p><b>October</b> [6] - 484:16, 549:16, 579:13, 657:19, 674:14, 691:15</p> <p><b>odd</b> [1] - 536:21</p> <p><b>OF</b> [3] - 479:2, 479:11, 717:1</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------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<p><b>Off'd</b> [2] - 483:3, 484:3  <b>off-permit</b> [1] - 632:10  <b>offer</b> [21] - 489:14, 514:17, 516:22, 523:6, 526:11, 526:16, 529:12, 530:23, 537:12, 647:23, 649:6, 650:10, 657:7, 660:21, 663:11, 676:19, 677:12, 684:6, 693:14, 693:16, 707:21  <b>offered</b> [4] - 485:7, 485:24, 621:2, 693:12  <b>offhand</b> [1] - 611:22  <b>Office</b> [3] - 675:1, 675:14, 678:18  <b>office</b> [5] - 525:3, 591:11, 616:22, 625:23, 704:6  <b>officer</b> [1] - 709:16  <b>offices</b> [2] - 513:21, 514:6  <b>official</b> [3] - 620:2, 706:13, 706:18  <b>officially</b> [1] - 655:17  <b>often</b> [5] - 568:9, 571:23, 573:13, 577:11, 589:17  <b>oftentimes</b> [6] - 571:24, 591:12, 667:22, 674:2, 674:6, 685:8  <b>oil</b> [1] - 697:5  <b>old</b> [5] - 503:17, 508:22, 511:11, 681:10  <b>older</b> [1] - 697:5  <b>Oliver</b> [1] - 610:4  <b>Oliver-Mercer</b> [1] - 610:4  <b>once</b> [11] - 498:19, 579:25, 622:1, 625:2, 656:20, 670:17, 681:12, 681:22, 682:6, 709:6, 712:9  <b>one</b> [122] - 491:4, 496:12, 497:11, 499:12, 501:3, 504:22, 505:3, 506:6, 507:8, 515:22, 520:3, 538:13, 538:15, 539:8, 542:22, 544:8, 544:14, 544:15, 544:19, 547:22, 554:13, 554:16, 560:4, 561:12, 561:23, 562:7, 562:17, 562:22, 563:4, 564:12, 567:23, 568:22, 569:5, 570:17, 572:7, 572:10, 572:12, 572:21, 574:2, 574:24, 575:3, 577:17, 581:20, 582:16, 584:14, 588:6, 590:14, 590:16, 592:19, 598:15, 600:11, 603:23, 604:10, 604:17, 605:24, 607:11, 607:13, 609:14, 609:17, 609:19, 609:25, 610:5, 611:11, 613:21, 615:7, 615:14, 616:8, 616:25,</p>	<p>617:19, 620:6, 620:18, 623:7, 623:24, 625:22, 626:24, 628:23, 631:2, 631:19, 632:16, 634:10, 635:16, 635:19, 645:1, 652:6, 652:11, 667:25, 672:7, 672:8, 674:12, 680:2, 680:8, 681:10, 682:14, 684:15, 685:7, 688:7, 691:13, 691:23, 693:15, 693:17, 695:7, 695:9, 695:16, 696:15, 697:6, 697:8, 698:12, 699:1, 699:8, 701:18, 704:24, 711:6, 711:8, 711:9, 711:19, 712:10  <b>one-eighth</b> [1] - 697:6  <b>one-fourth</b> [1] - 697:8  <b>one-half</b> [1] - 674:12  <b>one-tenth</b> [1] - 696:15  <b>ones</b> [4] - 573:17, 590:21, 591:20, 697:7  <b>ongoing</b> [1] - 665:23  <b>open</b> [3] - 636:11, 710:15, 716:9  <b>operate</b> [1] - 487:15  <b>operates</b> [1] - 564:1  <b>operating</b> [1] - 682:16  <b>operation</b> [12] - 503:11, 547:14, 552:13, 552:14, 668:12, 694:14, 695:2, 695:17, 696:10, 700:7, 700:18, 705:2  <b>Operations</b> [1] - 483:21  <b>operations</b> [18] - 487:15, 499:4, 501:20, 504:12, 516:10, 516:12, 527:15, 552:14, 561:20, 579:18, 630:1, 666:14, 666:20, 666:21, 691:25, 692:2, 692:18, 700:9  <b>operators</b> [1] - 566:25  <b>opinion</b> [6] - 578:2, 582:12, 628:18, 647:17, 652:6, 687:25  <b>opportunities</b> [2] - 676:14, 678:3  <b>opportunity</b> [6] - 538:25, 539:17, 643:2, 684:12, 693:15, 707:9  <b>opposed</b> [1] - 575:10  <b>option</b> [3] - 691:17, 692:4, 692:17  <b>options</b> [3] - 500:3, 525:14, 566:10  <b>order</b> [8] - 497:10, 593:25, 607:25, 640:21, 691:14, 691:22, 692:11, 692:14  <b>organic</b> [10] - 528:12, 528:17, 578:18, 581:24,</p>	<p>638:18, 640:1, 699:1, 699:7, 699:15, 699:25  <b>organizations</b> [1] - 514:4  <b>organize</b> [1] - 514:10  <b>original</b> [9] - 526:25, 527:2, 553:9, 553:15, 554:3, 559:23, 700:23, 700:24  <b>originally</b> [2] - 559:23, 701:3  <b>OSM</b> [22] - 483:24, 484:4, 608:7, 614:16, 615:10, 615:16, 615:20, 644:22, 660:2, 661:18, 669:7, 675:3, 675:5, 675:7, 675:11, 676:3, 676:13, 683:16, 684:6, 684:13, 691:10  <b>OSM's</b> [3] - 675:20, 677:2, 677:7  <b>OSMRE</b> [1] - 678:2  <b>otherwise</b> [5] - 649:8, 669:16, 689:7, 692:19, 707:10  <b>out-compete</b> [1] - 592:4  <b>outcome</b> [2] - 548:6, 590:25  <b>outproduce</b> [1] - 535:2  <b>outproduced</b> [1] - 536:22  <b>outreach</b> [2] - 676:11, 677:25  <b>outside</b> [4] - 520:18, 542:16, 631:22, 707:8  <b>overall</b> [6] - 499:6, 572:14, 578:20, 584:21, 683:1, 685:23  <b>overlooked</b> [1] - 569:24  <b>override</b> [2] - 555:11, 703:18  <b>oversaw</b> [1] - 516:6  <b>oversee</b> [1] - 488:8  <b>oversight</b> [2] - 661:19, 682:7  <b>overview</b> [3] - 527:14, 548:25, 593:24  <b>own</b> [14] - 498:15, 510:21, 569:10, 597:13, 604:18, 623:22, 631:1, 633:20, 638:3, 655:14, 660:15, 703:2, 703:4, 703:5  <b>owned</b> [8] - 518:12, 545:18, 546:25, 549:4, 578:21, 687:6, 697:14, 705:11  <b>Owner</b> [1] - 515:16  <b>owner</b> [5] - 567:8, 694:17, 694:25, 697:17, 697:18  <b>owners</b> [5] - 567:9, 567:10, 588:11, 691:18, 697:13  <b>ownership</b> [2] - 682:20, 700:4  <b>owns</b> [1] - 700:19  <b>oxide</b> [1] - 600:21</p>	<p style="text-align: center;"><b>P</b></p> <p><b>p.m</b> [4] - 485:2, 593:16, 716:12  <b>P.O</b> [1] - 480:8  <b>packages</b> [3] - 516:9, 517:11, 670:25  <b>packing</b> [1] - 698:1  <b>Page</b> [1] - 481:2  <b>page</b> [12] - 555:24, 612:17, 621:15, 645:22, 649:1, 650:22, 651:14, 657:20, 676:4, 677:20, 691:15, 692:10  <b>paged</b> [1] - 574:20  <b>pages</b> [7] - 519:18, 521:24, 569:1, 627:15, 649:6, 649:10, 717:10  <b>Pages</b> [1] - 479:13  <b>paid</b> [2] - 547:15, 694:25  <b>pair</b> [1] - 523:21  <b>pairs</b> [1] - 549:22  <b>pales</b> [1] - 697:8  <b>Pamphlet</b> [1] - 483:16  <b>paper</b> [6] - 513:24, 514:8, 532:20, 537:22, 557:7, 559:7  <b>paper-clipped</b> [1] - 537:22  <b>paragraph</b> [4] - 645:8, 645:14, 678:6, 691:16  <b>parameters</b> [1] - 632:8  <b>paraphrase</b> [1] - 578:6  <b>parcel</b> [1] - 670:12  <b>parcels</b> [1] - 572:5  <b>Parshall</b> [1] - 487:4  <b>part</b> [34] - 517:10, 518:2, 521:23, 522:1, 523:21, 526:7, 545:12, 545:21, 547:13, 551:18, 558:19, 563:22, 564:11, 571:18, 580:9, 581:4, 592:10, 592:11, 592:12, 598:25, 600:19, 601:4, 613:6, 648:7, 649:10, 652:8, 656:8, 656:14, 658:6, 661:18, 671:24, 679:6, 679:10, 687:17  <b>partial</b> [1] - 672:6  <b>partials</b> [1] - 508:17  <b>participate</b> [2] - 551:12, 565:19  <b>participated</b> [1] - 550:18  <b>participation</b> [2] - 676:11, 677:25  <b>particles</b> [1] - 646:14  <b>particular</b> [17] - 595:8, 596:19, 598:12, 598:18, 603:13, 607:17, 608:23, 611:24, 623:23, 637:25,</p>
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------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>638:1, 641:23, 643:9, 692:3, 700:15, 703:3, 703:12</p> <p><b>particularly</b> [7] - 655:23, 671:19, 674:9, 684:7, 688:22, 690:14, 690:19</p> <p><b>parties</b> [11] - 539:3, 594:14, 594:16, 595:3, 595:6, 618:13, 620:25, 710:7, 711:12, 716:11</p> <p><b>Partners</b> [1] - 480:13</p> <p><b>partners</b> [1] - 686:20</p> <p><b>parts</b> [2] - 501:18, 515:13</p> <p><b>party</b> [4] - 485:21, 539:8, 705:12, 714:25</p> <p><b>pass</b> [1] - 550:21</p> <p><b>passed</b> [2] - 594:11, 657:10</p> <p><b>past</b> [6] - 497:24, 587:25, 596:13, 610:22, 674:18, 709:17</p> <p><b>pasture</b> [9] - 549:8, 549:11, 550:8, 550:9, 571:13, 572:11, 572:12, 572:14, 658:13</p> <p><b>pasturelands</b> [1] - 490:6</p> <p><b>pastures</b> [3] - 549:14, 571:14, 572:23</p> <p><b>patch</b> [1] - 572:13</p> <p><b>path</b> [1] - 694:14</p> <p><b>patience</b> [3] - 714:12, 715:7, 715:15</p> <p><b>patient</b> [1] - 575:6</p> <p><b>pay</b> [2] - 500:14, 696:6</p> <p><b>paying</b> [2] - 547:21, 689:7</p> <p><b>payment</b> [1] - 697:15</p> <p><b>payments</b> [1] - 696:2</p> <p><b>peer</b> [3] - 529:2, 550:19, 550:21</p> <p><b>peer-reviewed</b> [2] - 529:2, 550:19</p> <p><b>penalties</b> [1] - 688:4</p> <p><b>penalty</b> [7] - 486:13, 512:5, 595:12, 637:3, 653:17, 694:2, 702:10</p> <p><b>pending</b> [2] - 680:6, 680:7</p> <p><b>people</b> [14] - 532:24, 568:2, 574:25, 594:6, 608:14, 628:11, 633:21, 684:13, 684:25, 705:1, 705:6, 705:8, 705:18, 715:18</p> <p><b>per</b> [5] - 508:23, 547:12, 695:10, 696:3, 696:12</p> <p><b>percent</b> [80] - 490:2, 490:5, 490:6, 492:19, 493:11, 496:1, 496:4, 496:5, 496:6, 496:7, 498:16, 502:1, 505:19, 505:20, 506:2, 506:3, 506:23, 507:5, 507:6, 507:8, 507:10, 509:2, 516:20, 516:21,</p>	<p>518:14, 518:15, 518:16, 534:16, 534:18, 535:20, 535:25, 536:2, 536:19, 541:23, 556:6, 556:12, 556:18, 556:20, 557:8, 557:13, 557:14, 558:4, 567:17, 569:4, 569:6, 569:11, 569:13, 569:17, 572:7, 572:8, 572:13, 572:18, 572:20, 574:16, 585:6, 590:1, 590:22, 591:20, 591:22, 592:9, 660:3, 660:18, 668:11, 668:13, 669:12, 669:24, 673:6, 673:15, 673:17, 696:4, 696:13, 697:7, 697:8, 697:9</p> <p><b>percentage</b> [14] - 509:1, 524:21, 542:10, 568:13, 569:9, 570:3, 588:15, 589:20, 591:2, 666:5, 667:6, 667:11, 669:11, 679:11</p> <p><b>percentages</b> [1] - 590:24</p> <p><b>percentagewise</b> [1] - 508:21</p> <p><b>perception</b> [1] - 712:19</p> <p><b>perennial</b> [4] - 578:16, 579:2, 579:4, 579:7</p> <p><b>perfect</b> [1] - 591:21</p> <p><b>perfectly</b> [3] - 625:15, 626:22, 626:25</p> <p><b>performance</b> [1] - 632:7</p> <p><b>performed</b> [2] - 488:13, 621:15</p> <p><b>perhaps</b> [2] - 588:22, 657:1</p> <p><b>period</b> [16] - 488:3, 492:7, 492:10, 503:24, 563:23, 615:3, 668:25, 669:6, 669:15, 671:21, 671:24, 682:25, 686:4, 686:11, 687:9, 699:23</p> <p><b>perjury</b> [7] - 486:14, 512:5, 595:12, 637:3, 653:17, 694:2, 702:10</p> <p><b>perlimiting</b> [1] - 661:21</p> <p><b>permanent</b> [1] - 533:16</p> <p><b>Permanent</b> [1] - 484:13</p> <p><b>permission</b> [1] - 561:7</p> <p><b>Permit</b> [4] - 479:6, 483:21, 483:22, 484:17</p> <p><b>permit</b> [86] - 491:11, 501:22, 502:20, 515:6, 515:10, 519:13, 520:2, 520:12, 520:20, 526:3, 526:12, 526:15, 526:22, 527:4, 527:16, 531:13, 535:9, 537:1, 537:7, 537:19, 538:7, 545:13, 546:16, 557:22, 587:24, 588:7, 588:11, 592:12, 597:4,</p>	<p>597:10, 597:19, 597:23, 598:14, 601:23, 602:16, 613:2, 613:13, 613:22, 614:3, 614:5, 614:8, 617:2, 618:4, 619:15, 624:16, 625:7, 632:9, 632:10, 632:24, 635:7, 636:6, 637:25, 640:19, 641:17, 641:23, 642:3, 642:8, 642:24, 643:9, 655:17, 655:18, 655:25, 656:1, 656:13, 656:14, 656:25, 657:4, 660:15, 661:9, 665:4, 665:6, 666:24, 667:1, 672:7, 674:13, 692:6, 692:7, 700:4, 700:11, 703:12, 703:24, 704:23</p> <p><b>Permits</b> [1] - 484:13</p> <p><b>permits</b> [6] - 487:15, 487:16, 515:5, 596:23, 597:2, 704:9</p> <p><b>permitted</b> [13] - 496:18, 496:19, 657:18, 657:22, 659:6, 659:9, 660:7, 665:7, 666:17, 666:24, 674:4, 674:6, 674:10</p> <p><b>Permitted</b> [1] - 484:11</p> <p><b>permitting</b> [3] - 594:3, 655:1, 690:10</p> <p><b>perpetual</b> [1] - 696:10</p> <p><b>Perry</b> [2] - 551:8, 553:5</p> <p><b>person</b> [13] - 540:24, 549:25, 551:22, 563:4, 563:7, 570:19, 591:12, 639:9, 639:10, 684:15, 685:7, 688:21</p> <p><b>personal</b> [2] - 588:2, 620:7</p> <p><b>personally</b> [3] - 563:1, 564:3, 611:18</p> <p><b>personnel</b> [1] - 597:25</p> <p><b>persons</b> [1] - 563:7</p> <p><b>pertain</b> [1] - 527:10</p> <p><b>pertaining</b> [2] - 526:4, 526:14</p> <p><b>pertains</b> [1] - 705:19</p> <p><b>pertinent</b> [5] - 526:14, 564:14, 631:16, 703:14, 711:21</p> <p><b>perusal</b> [1] - 548:20</p> <p><b>phase</b> [2] - 672:8, 672:9</p> <p><b>phases</b> [1] - 516:2</p> <p><b>photographs</b> [3] - 604:6, 618:21, 620:25</p> <p><b>photography</b> [5] - 606:20, 614:22, 615:5, 616:17, 616:19</p> <p><b>photos</b> [5] - 616:21, 617:7, 617:22, 663:8, 711:10</p> <p><b>physical</b> [3] - 532:8, 552:20,</p>	<p>564:9</p> <p><b>picked</b> [3] - 606:19, 635:22, 654:22</p> <p><b>picture</b> [3] - 627:25, 628:4, 665:25</p> <p><b>piece</b> [2] - 672:18, 700:24</p> <p><b>piles</b> [1] - 576:20</p> <p><b>pipe</b> [1] - 623:11</p> <p><b>pipelines</b> [1] - 691:1</p> <p><b>pit</b> [2] - 527:18, 662:4</p> <p><b>pits</b> [2] - 698:7</p> <p><b>place</b> [9] - 508:7, 590:16, 609:11, 629:13, 659:18, 659:22, 675:10, 685:24, 717:7</p> <p><b>placed</b> [1] - 513:17</p> <p><b>places</b> [1] - 575:13</p> <p><b>Plains</b> [2] - 483:17, 530:13</p> <p><b>plan</b> [6] - 524:20, 537:10, 589:22, 592:11, 636:6, 643:9</p> <p><b>planner</b> [1] - 516:10</p> <p><b>planning</b> [3] - 516:11, 593:25, 635:7</p> <p><b>plans</b> [6] - 516:7, 521:18, 636:8, 641:17, 641:18, 641:20</p> <p><b>plant</b> [17] - 522:3, 529:22, 530:6, 530:7, 533:17, 536:18, 556:6, 568:8, 575:10, 576:15, 579:2, 588:21, 591:13, 606:1, 625:24, 696:14, 698:5</p> <p><b>Plant</b> [1] - 525:4</p> <p><b>planted</b> [3] - 579:4, 607:2, 699:18</p> <p><b>planting</b> [1] - 578:15</p> <p><b>plants</b> [9] - 540:13, 540:17, 558:11, 575:12, 582:7, 623:19, 645:17, 696:5, 699:3</p> <p><b>plastic</b> [1] - 623:11</p> <p><b>PLLP</b> [1] - 480:7</p> <p><b>plot</b> [1] - 559:14</p> <p><b>plots</b> [2] - 559:19, 559:20</p> <p><b>plus</b> [2] - 559:3, 690:17</p> <p><b>point</b> [37] - 485:21, 493:21, 507:13, 509:21, 520:21, 526:10, 529:25, 539:25, 543:2, 543:7, 543:18, 562:24, 563:14, 564:6, 566:18, 566:20, 572:21, 577:23, 588:19, 605:1, 613:25, 616:25, 618:9, 620:14, 620:25, 634:3, 649:7, 653:8, 664:10, 671:25, 674:11, 674:15, 674:16, 679:20, 687:17, 696:11, 707:25</p> <p><b>pointing</b> [1] - 604:23</p>
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<p><b>points</b> [8] - 543:11, 565:10, 566:23, 567:3, 570:10, 571:25, 587:7, 588:20</p> <p><b>pond</b> [1] - 670:10</p> <p><b>ponding</b> [1] - 652:16</p> <p><b>ponds</b> [6] - 625:21, 658:18, 662:2, 672:11, 679:8, 687:4</p> <p><b>poor</b> [2] - 582:21, 681:2</p> <p><b>porcupine</b> [1] - 573:12</p> <p><b>portion</b> [3] - 493:10, 581:8, 647:12</p> <p><b>portions</b> [1] - 508:7</p> <p><b>position</b> [6] - 487:11, 502:16, 512:23, 564:9, 637:19, 644:1</p> <p><b>positive</b> [2] - 623:2, 689:14</p> <p><b>positively</b> [1] - 570:8</p> <p><b>possession</b> [1] - 617:9</p> <p><b>possible</b> [9] - 510:13, 573:22, 575:15, 629:11, 671:17, 678:8, 689:8, 715:1, 715:10</p> <p><b>possibly</b> [6] - 555:14, 566:15, 579:2, 579:5, 617:14, 688:24</p> <p><b>post</b> [6] - 484:13, 492:13, 493:13, 493:15, 657:23, 658:8</p> <p><b>post-July</b> [1] - 484:13</p> <p><b>post-SMCRA</b> [4] - 493:13, 493:15, 657:23, 658:8</p> <p><b>posting</b> [1] - 677:10</p> <p><b>postmine</b> [3] - 568:19, 573:18, 584:1</p> <p><b>postmining</b> [5] - 515:17, 527:20, 597:3, 625:12, 686:19</p> <p><b>Postmining</b> [2] - 483:13, 674:25</p> <p><b>postpone</b> [1] - 505:3</p> <p><b>potential</b> [10] - 540:16, 597:20, 599:3, 616:7, 616:14, 618:18, 622:16, 627:4, 627:10, 636:10</p> <p><b>potentially</b> [3] - 575:1, 665:18, 712:8</p> <p><b>pound</b> [2] - 557:12</p> <p><b>pounds</b> [1] - 547:12</p> <p><b>power</b> [6] - 586:13, 605:25, 622:3, 625:24, 696:5, 696:14</p> <p><b>practice</b> [1] - 690:18</p> <p><b>practices</b> [8] - 578:10, 578:14, 578:22, 579:14, 581:16, 656:9, 685:14, 685:15</p> <p><b>pre</b> [5] - 493:2, 493:6, 511:12, 635:7, 659:6</p> <p><b>Pre</b> [2] - 483:12, 674:25</p>	<p><b>pre-permit</b> [1] - 635:7</p> <p><b>pre-SMCRA</b> [4] - 493:2, 493:6, 511:12, 659:6</p> <p><b>preceded</b> [1] - 597:10</p> <p><b>precipitation</b> [4] - 518:21, 518:24, 536:10, 630:19</p> <p><b>predetermination</b> [1] - 637:24</p> <p><b>predict</b> [1] - 552:19</p> <p><b>prefer</b> [1] - 618:13</p> <p><b>preference</b> [1] - 708:15</p> <p><b>prehearing</b> [4] - 707:24, 708:9, 708:12, 712:15</p> <p><b>prejudice</b> [1] - 539:20</p> <p><b>preliminary</b> [2] - 593:21, 595:1</p> <p><b>premarked</b> [1] - 485:10</p> <p><b>premine</b> [15] - 522:4, 525:1, 525:8, 527:12, 528:18, 532:24, 534:16, 534:18, 552:21, 568:18, 570:16, 572:16, 572:17, 583:25, 597:18</p> <p><b>premined</b> [2] - 520:13, 660:3</p> <p><b>premining</b> [2] - 573:11, 698:25</p> <p><b>premium</b> [2] - 500:14, 500:15</p> <p><b>preparation</b> [4] - 515:9, 519:12, 529:10, 530:21</p> <p><b>prepare</b> [8] - 489:9, 515:5, 522:21, 657:14, 658:20, 659:2, 685:6, 710:13</p> <p><b>prepared</b> [8] - 489:12, 489:13, 515:15, 516:14, 517:9, 656:21, 657:13, 661:5</p> <p><b>preparing</b> [1] - 658:22</p> <p><b>prescriptive</b> [1] - 691:8</p> <p><b>presence</b> [1] - 521:19</p> <p><b>PRESENT</b> [1] - 480:2</p> <p><b>present</b> [27] - 521:16, 522:16, 525:7, 525:8, 525:11, 525:19, 528:8, 553:20, 557:11, 568:10, 571:1, 582:3, 583:23, 583:25, 584:1, 584:13, 584:15, 584:25, 585:4, 585:5, 585:6, 588:8, 589:19, 591:1, 592:9, 602:9, 622:6</p> <p><b>presented</b> [5] - 513:24, 514:7, 532:20, 540:24, 622:5</p> <p><b>presenting</b> [2] - 517:21, 625:25</p> <p><b>presently</b> [2] - 669:14, 680:5</p> <p><b>presents</b> [1] - 593:15</p> <p><b>president</b> [2] - 513:22, 514:4</p> <p><b>pressure</b> [2] - 596:20, 623:12</p>	<p><b>pretty</b> [14] - 498:20, 500:15, 585:23, 587:6, 613:9, 619:20, 662:21, 672:7, 677:10, 688:7, 690:5, 690:22, 691:6, 691:7</p> <p><b>prevalent</b> [1] - 573:13</p> <p><b>previous</b> [7] - 541:8, 555:5, 607:3, 622:15, 642:20, 661:13, 695:3</p> <p><b>previously</b> [7] - 513:3, 540:11, 541:2, 542:21, 555:5, 637:22, 651:17</p> <p><b>pride</b> [1] - 588:12</p> <p><b>primarily</b> [6] - 566:24, 567:11, 581:19, 591:19, 612:12, 686:23</p> <p><b>primary</b> [8] - 528:9, 528:11, 530:1, 543:20, 576:25, 588:18, 638:25, 655:19</p> <p><b>prime</b> [4] - 638:20, 641:12, 641:16, 660:1</p> <p><b>print</b> [4] - 648:14, 648:20, 648:23, 649:2</p> <p><b>printed</b> [3] - 647:7, 647:16, 648:1</p> <p><b>printouts</b> [1] - 695:6</p> <p><b>private</b> [2] - 549:3, 682:20</p> <p><b>probability</b> [1] - 652:17</p> <p><b>probable</b> [1] - 613:3</p> <p><b>probe</b> [1] - 500:1</p> <p><b>problem</b> [5] - 499:1, 499:2, 499:7, 499:9, 502:24</p> <p><b>problems</b> [10] - 564:2, 578:25, 579:21, 580:2, 680:20, 681:3, 681:13, 685:25, 698:1, 699:9</p> <p><b>procedural</b> [1] - 713:21</p> <p><b>Procedures</b> [2] - 483:12, 674:24</p> <p><b>procedures</b> [2] - 503:25, 655:22</p> <p><b>proceed</b> [3] - 485:4, 515:1, 593:19</p> <p><b>proceedings</b> [2] - 485:1, 717:6</p> <p><b>process</b> [20] - 494:16, 497:22, 499:10, 499:12, 499:18, 499:21, 501:11, 516:4, 543:5, 563:9, 597:14, 635:3, 656:16, 662:11, 672:3, 686:21, 690:3, 696:8, 698:17, 716:6</p> <p><b>produce</b> [6] - 535:20, 563:11, 584:21, 617:23, 657:7, 710:7</p> <p><b>produced</b> [1] - 647:14</p> <p><b>producer</b> [5] - 546:22, 546:23, 547:20, 548:9, 563:14</p>	<p><b>producers</b> [3] - 498:17, 562:13, 562:17</p> <p><b>producing</b> [5] - 506:18, 509:25, 542:23, 558:20, 710:1</p> <p><b>product</b> [2] - 615:10, 615:11</p> <p><b>production</b> [42] - 488:2, 490:13, 493:12, 493:14, 493:15, 495:17, 501:16, 506:1, 510:4, 510:9, 521:12, 521:24, 522:18, 532:18, 534:3, 536:6, 536:10, 536:16, 543:12, 543:19, 543:21, 543:24, 544:7, 544:10, 546:1, 555:22, 558:21, 560:1, 561:13, 562:18, 563:21, 564:2, 571:16, 571:22, 573:21, 573:25, 574:17, 586:1, 592:9, 628:3, 685:13, 695:1</p> <p><b>productive</b> [13] - 490:8, 506:15, 544:2, 544:4, 557:14, 557:18, 558:14, 558:16, 561:3, 582:19, 638:18, 644:3, 687:12</p> <p><b>Productivity</b> [2] - 483:10, 489:8</p> <p><b>productivity</b> [58] - 489:24, 490:1, 490:3, 490:11, 490:23, 497:14, 497:19, 509:22, 510:15, 516:18, 516:19, 533:19, 534:9, 534:14, 534:16, 534:18, 535:11, 541:10, 541:20, 551:19, 553:3, 553:7, 553:9, 555:20, 556:10, 556:14, 556:15, 556:16, 559:5, 560:8, 560:13, 560:22, 560:24, 561:1, 561:2, 582:12, 582:17, 582:25, 583:4, 583:8, 586:3, 655:23, 659:23, 660:1, 660:4, 660:8, 664:5, 664:8, 669:20, 671:6, 671:9, 672:18, 680:11, 685:21, 686:8, 687:1, 689:11, 699:10</p> <p><b>Productivity/Breakdown</b> [1] - 483:8</p> <p><b>professional</b> [8] - 514:3, 514:11, 514:15, 529:6, 530:18, 546:6, 581:6, 683:22</p> <p><b>Professional</b> [2] - 717:4, 717:17</p> <p><b>professionalism</b> [1] - 715:8</p> <p><b>professionals</b> [1] - 582:24</p> <p><b>profile</b> [3] - 554:7, 588:5, 651:1</p>
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<p><b>profiles</b> [3] - 533:9, 533:13, 576:5</p> <p><b>Program</b> [3] - 483:24, 484:4, 484:13</p> <p><b>program</b> [15] - 509:13, 547:25, 551:15, 578:1, 594:4, 594:24, 596:16, 645:16, 675:5, 675:9, 675:24, 676:9, 677:6, 677:23, 684:6</p> <p><b>programs</b> [2] - 504:17, 551:12</p> <p><b>progresses</b> [1] - 679:13</p> <p><b>prohibitive</b> [1] - 635:4</p> <p><b>project</b> [3] - 518:11, 554:24, 596:15</p> <p><b>projecting</b> [2] - 575:22, 587:16</p> <p><b>projects</b> [2] - 596:18, 596:21</p> <p><b>prominent</b> [1] - 606:20</p> <p><b>proper</b> [1] - 581:21</p> <p><b>properties</b> [3] - 532:9, 564:9, 651:15</p> <p><b>Properties'</b> [1] - 513:4</p> <p><b>property</b> [11] - 483:4, 483:6, 498:17, 500:18, 504:23, 504:24, 505:7, 510:2, 555:21, 565:21, 598:10</p> <p><b>proponent</b> [1] - 712:24</p> <p><b>proportion</b> [3] - 493:8, 567:20, 646:13</p> <p><b>proportions</b> [1] - 590:19</p> <p><b>proposal</b> [1] - 543:4</p> <p><b>propose</b> [3] - 618:24, 710:12, 712:18</p> <p><b>proposed</b> [14] - 520:17, 520:21, 527:15, 554:11, 561:20, 597:22, 656:7, 689:3, 708:3, 710:5, 710:8, 710:14, 713:6, 716:10</p> <p><b>proposing</b> [1] - 642:5</p> <p><b>proposition</b> [1] - 554:13</p> <p><b>protect</b> [1] - 574:12</p> <p><b>protection</b> [1] - 625:5</p> <p><b>Protection</b> [1] - 515:16</p> <p><b>protections</b> [2] - 632:7, 632:12</p> <p><b>protein</b> [2] - 528:2, 530:3</p> <p><b>prove</b> [4] - 510:15, 669:19, 671:9, 672:17</p> <p><b>proven</b> [3] - 509:21, 671:5, 682:4</p> <p><b>provide</b> [14] - 520:12, 524:20, 562:24, 598:5, 618:3, 618:12, 618:18, 618:19, 621:23, 637:15, 640:8, 640:9, 642:12, 689:6</p> <p><b>provided</b> [11] - 599:4, 610:15, 623:10, 623:21,</p>	<p>638:12, 638:24, 639:7, 640:4, 640:17, 665:18, 682:4</p> <p><b>provides</b> [4] - 527:12, 527:14, 684:9, 689:1</p> <p><b>providing</b> [2] - 617:18, 624:25</p> <p><b>proving</b> [2] - 563:10, 685:11</p> <p><b>provisions</b> [1] - 515:6</p> <p><b>proximity</b> [1] - 518:23</p> <p><b>PSC</b> [42] - 481:14, 483:11, 483:24, 484:4, 484:6, 485:6, 485:10, 486:1, 486:7, 490:2, 491:3, 492:18, 496:1, 502:3, 516:20, 520:22, 521:1, 521:22, 543:6, 560:16, 560:21, 568:14, 569:12, 595:5, 598:19, 598:22, 616:25, 657:9, 658:20, 661:2, 661:4, 663:17, 673:4, 679:23, 687:16, 692:13, 704:15, 705:4, 706:23, 707:1, 707:13, 715:6</p> <p><b>PSC's</b> [1] - 490:11</p> <p><b>PUBLIC</b> [1] - 479:3</p> <p><b>public</b> [14] - 489:10, 497:12, 501:4, 501:10, 517:11, 518:2, 672:3, 676:11, 677:25, 693:12, 697:1, 707:7, 707:20</p> <p><b>Public</b> [20] - 480:18, 499:13, 515:11, 517:12, 519:11, 537:3, 537:5, 537:8, 577:5, 596:6, 596:16, 637:16, 641:9, 654:9, 675:13, 675:21, 675:25, 677:3, 678:19, 704:4</p> <p><b>Publication</b> [1] - 483:18</p> <p><b>publication</b> [3] - 529:4, 530:16, 550:22</p> <p><b>publications</b> [1] - 525:2</p> <p><b>published</b> [3] - 519:10, 555:16, 559:7</p> <p><b>pulled</b> [2] - 526:12, 527:1</p> <p><b>pulling</b> [2] - 577:1, 670:23</p> <p><b>puncture</b> [1] - 573:15</p> <p><b>punishable</b> [7] - 486:15, 512:6, 595:13, 637:4, 653:18, 694:3, 702:11</p> <p><b>purchase</b> [2] - 691:18, 692:4</p> <p><b>pure</b> [1] - 572:18</p> <p><b>purely</b> [1] - 687:17</p> <p><b>purpose</b> [7] - 522:1, 542:17, 550:23, 551:10, 578:7, 589:2, 638:14</p> <p><b>purposely</b> [1] - 665:21</p> <p><b>purposes</b> [1] - 659:13</p> <p><b>pursued</b> [1] - 670:19</p>	<p><b>pursues</b> [2] - 676:11, 677:25</p> <p><b>push</b> [1] - 682:18</p> <p><b>pushed</b> [2] - 575:6, 698:8</p> <p><b>put</b> [25] - 485:13, 492:17, 503:4, 503:13, 506:11, 551:14, 551:24, 554:23, 575:21, 580:24, 581:3, 581:10, 587:21, 603:19, 610:9, 614:17, 622:23, 659:21, 688:10, 692:6, 692:11, 692:14, 698:4, 699:24, 714:20</p> <p><b>putting</b> [2] - 663:3, 698:1</p>	<p><b>quite</b> [7] - 558:21, 624:7, 627:13, 627:19, 690:5, 690:15, 693:19</p>
<b>R</b>			
<p><b>raised</b> [2] - 487:3, 513:7</p> <p><b>raises</b> [1] - 685:8</p> <p><b>raising</b> [1] - 547:20</p> <p><b>Ranch</b> [1] - 534:20</p> <p><b>ranch</b> [11] - 513:7, 535:7, 542:23, 543:22, 544:1, 544:3, 545:17, 546:2, 573:10, 573:14, 575:23</p> <p><b>ranchers</b> [2] - 503:18, 687:8</p> <p><b>Ranchers</b> [1] - 528:23</p> <p><b>random</b> [1] - 497:7</p> <p><b>RANDY</b> [1] - 480:4</p> <p><b>Randy</b> [2] - 602:11, 603:23</p> <p><b>range</b> [8] - 506:9, 506:13, 513:9, 513:18, 513:20, 513:23, 633:2, 707:2</p> <p><b>Range</b> [8] - 483:16, 513:22, 513:25, 514:5, 514:12, 528:23, 528:25, 529:3</p> <p><b>rangeland</b> [8] - 513:11, 523:16, 564:8, 565:1, 586:20, 586:23, 587:3, 593:2</p> <p><b>rangeland/native</b> [1] - 588:16</p> <p><b>rangelands</b> [1] - 514:3</p> <p><b>rare</b> [1] - 652:15</p> <p><b>rarely</b> [1] - 645:12</p> <p><b>rate</b> [5] - 541:25, 542:1, 591:6, 697:16, 699:25</p> <p><b>rates</b> [2] - 697:3, 697:15</p> <p><b>rather</b> [3] - 620:8, 629:22, 664:4</p> <p><b>ratio</b> [1] - 590:23</p> <p><b>RC-13-850</b> [1] - 479:6</p> <p><b>re</b> [5] - 484:14, 484:16, 662:13, 686:6, 686:13</p> <p><b>re-soiled</b> [3] - 662:13, 686:6, 686:13</p> <p><b>reached</b> [1] - 672:14</p> <p><b>read</b> [11] - 555:9, 557:7, 621:21, 627:7, 676:6, 676:15, 677:20, 678:6, 691:16, 714:19, 714:21</p> <p><b>readily</b> [1] - 614:19</p> <p><b>reading</b> [2] - 555:1, 621:24</p> <p><b>readings</b> [4] - 610:11, 610:17, 611:16, 611:19</p> <p><b>ready</b> [2] - 593:18, 636:24</p> <p><b>real</b> [5] - 506:15, 617:20, 617:22, 667:18, 673:24</p> <p><b>realistic</b> [3] - 697:2, 697:4, 703:15</p>			
<b>Q</b>			
<p><b>qualifications</b> [2] - 596:8, 654:12</p> <p><b>qualified</b> [3] - 498:5, 533:9, 637:22</p> <p><b>qualities</b> [1] - 651:15</p> <p><b>quality</b> [17] - 502:21, 503:6, 521:11, 522:5, 528:1, 530:2, 531:20, 533:4, 534:4, 553:13, 574:12, 575:19, 585:19, 586:5, 587:15, 589:4, 613:17</p> <p><b>quantities</b> [2] - 503:5, 521:16</p> <p><b>quantity</b> [3] - 502:21, 534:2, 585:19</p> <p><b>quarter</b> [7] - 571:14, 571:17, 609:20, 609:21, 670:17, 695:11, 695:13</p> <p><b>Quarter</b> [1] - 605:6</p> <p><b>quarters</b> [1] - 695:9</p> <p><b>questioning</b> [4] - 497:14, 539:6, 589:8, 589:11</p> <p><b>questions</b> [52] - 491:21, 495:4, 495:6, 495:12, 496:11, 497:2, 497:7, 505:9, 505:17, 511:13, 511:15, 511:17, 517:15, 538:9, 575:7, 580:12, 586:18, 587:8, 592:15, 592:17, 599:15, 616:23, 622:8, 624:10, 626:15, 628:25, 629:2, 633:12, 634:3, 634:5, 643:14, 651:10, 651:20, 651:22, 651:25, 653:1, 658:23, 664:18, 672:23, 674:21, 678:23, 683:5, 689:17, 692:23, 692:25, 701:6, 701:16, 705:24, 706:2, 706:5, 713:13, 714:13</p> <p><b>quick</b> [2] - 640:22, 645:21</p> <p><b>quickly</b> [3] - 627:9, 682:11, 682:19</p> <p><b>quiet</b> [1] - 707:7</p>			

<p><b>realize</b> [3] - 620:7, 626:2, 682:16</p> <p><b>really</b> [21] - 494:24, 498:12, 499:25, 509:4, 562:7, 564:23, 575:12, 575:17, 576:22, 580:1, 580:5, 582:12, 605:5, 622:1, 627:22, 636:11, 673:7, 673:19, 688:20, 697:14, 712:20</p> <p><b>realm</b> [1] - 507:7</p> <p><b>reapplied</b> [1] - 680:15</p> <p><b>reasking</b> [1] - 622:18</p> <p><b>reason</b> [21] - 526:11, 532:14, 539:11, 563:22, 573:20, 588:18, 589:16, 589:21, 600:10, 610:25, 616:14, 631:25, 632:21, 657:3, 667:21, 670:19, 680:3, 691:4, 701:1, 702:21</p> <p><b>reasonable</b> [3] - 539:15, 539:19, 683:1</p> <p><b>reasons</b> [3] - 554:24, 564:12, 703:17</p> <p><b>Rec'd</b> [2] - 483:3, 484:3</p> <p><b>receipt</b> [1] - 716:9</p> <p><b>receive</b> [4] - 535:4, 622:1, 710:12, 711:7</p> <p><b>received</b> [21] - 487:8, 513:8, 513:10, 514:25, 515:21, 537:2, 549:2, 563:17, 591:8, 598:18, 610:21, 617:2, 617:3, 661:11, 662:20, 664:23, 669:9, 679:5, 680:24, 680:25, 711:9</p> <p><b>receives</b> [1] - 632:9</p> <p><b>receiving</b> [3] - 536:8, 710:6, 713:7</p> <p><b>recent</b> [13] - 604:25, 610:16, 610:22, 612:6, 612:25, 613:12, 613:21, 617:19, 618:20, 619:6, 619:13, 620:20, 663:2</p> <p><b>recently</b> [4] - 511:2, 601:21, 617:10, 681:25</p> <p><b>Recess</b> [2] - 540:4, 593:16</p> <p><b>recited</b> [1] - 626:25</p> <p><b>reclaim</b> [3] - 534:2, 575:15, 625:12</p> <p><b>reclaimed</b> [95] - 488:6, 489:23, 489:25, 490:3, 490:4, 490:5, 490:12, 492:15, 493:4, 494:21, 496:15, 496:17, 497:14, 497:18, 515:6, 516:7, 516:17, 516:19, 517:18, 520:7, 521:10, 521:20, 521:21, 522:3, 522:18, 523:1, 523:4, 524:22,</p>	<p>525:7, 525:12, 525:21, 526:5, 527:22, 528:2, 528:7, 528:12, 530:2, 531:17, 531:21, 533:8, 533:12, 533:15, 541:10, 541:19, 542:7, 546:24, 547:2, 547:6, 547:10, 549:5, 549:9, 550:3, 550:16, 551:21, 557:5, 559:13, 561:2, 562:13, 562:24, 563:4, 563:21, 568:2, 568:3, 571:9, 571:11, 572:5, 578:24, 579:5, 581:19, 582:1, 582:20, 584:3, 584:6, 584:23, 585:7, 589:9, 592:7, 624:21, 659:14, 661:8, 665:12, 666:1, 668:23, 669:4, 669:17, 670:7, 671:3, 671:18, 679:16, 687:7, 687:19, 687:21, 688:19, 688:22</p> <p><b>Reclaimed</b> [4] - 483:8, 483:9, 483:10, 489:8</p> <p><b>reclaiming</b> [4] - 488:2, 576:21, 625:11, 685:19</p> <p><b>Reclamation</b> [17] - 483:21, 483:22, 514:9, 532:21, 537:8, 559:8, 596:12, 597:7, 637:21, 654:8, 654:16, 654:20, 654:21, 674:22, 678:5, 683:21, 684:16</p> <p><b>reclamation</b> [88] - 488:4, 488:9, 488:18, 490:2, 490:8, 494:9, 494:22, 495:1, 501:5, 501:11, 503:23, 504:2, 513:14, 514:10, 515:5, 516:1, 516:3, 520:8, 521:4, 521:6, 524:20, 526:4, 528:1, 537:9, 563:15, 563:17, 567:3, 570:11, 577:6, 577:17, 578:1, 580:23, 581:6, 581:13, 583:6, 589:16, 594:23, 594:24, 596:19, 619:21, 626:6, 626:7, 626:10, 641:18, 642:4, 642:18, 642:24, 642:25, 643:9, 654:17, 655:1, 655:21, 656:5, 656:6, 656:10, 657:6, 659:15, 662:11, 662:22, 663:23, 664:3, 665:20, 665:24, 672:15, 674:1, 675:15, 678:7, 678:11, 678:12, 678:20, 679:22, 681:20, 683:10, 684:3, 684:11, 685:11, 685:23, 686:1, 688:16, 689:23, 690:25, 691:1, 695:22,</p>	<p>697:20, 697:21, 698:17, 698:25, 699:17</p> <p><b>recognize</b> [1] - 647:10</p> <p><b>recognized</b> [2] - 568:1, 627:3</p> <p><b>recollection</b> [2] - 583:7, 611:10</p> <p><b>recommend</b> [1] - 659:2</p> <p><b>recommendation</b> [1] - 639:16</p> <p><b>recommendations</b> [5] - 499:15, 577:16, 577:25, 578:23, 622:14</p> <p><b>Recommended</b> [2] - 483:12, 674:24</p> <p><b>recommended</b> [4] - 533:8, 567:16, 578:8, 656:21</p> <p><b>recommending</b> [2] - 579:15, 642:3</p> <p><b>reconfirm</b> [1] - 607:17</p> <p><b>reconnaissance</b> [4] - 577:17, 615:15, 615:21, 617:6</p> <p><b>record</b> [23] - 485:3, 485:8, 485:13, 485:20, 517:11, 518:2, 526:25, 540:5, 541:3, 546:15, 583:10, 592:11, 593:18, 595:25, 617:8, 617:14, 617:23, 623:13, 623:15, 653:10, 708:18, 716:9, 717:7</p> <p><b>recorded</b> [1] - 717:5</p> <p><b>recording</b> [1] - 623:12</p> <p><b>records</b> [12] - 489:10, 494:18, 510:4, 510:7, 524:1, 548:21, 618:2, 660:16, 660:17, 707:1, 707:12, 707:13</p> <p><b>recreation</b> [1] - 658:14</p> <p><b>Red</b> [2] - 548:13, 548:14</p> <p><b>redefining</b> [1] - 699:9</p> <p><b>redox</b> [4] - 607:19, 607:22, 608:8, 608:19</p> <p><b>redoximorphic</b> [1] - 600:20</p> <p><b>reduce</b> [2] - 643:11, 682:25</p> <p><b>reduced</b> [1] - 521:11</p> <p><b>reenforce</b> [1] - 652:16</p> <p><b>reestablish</b> [2] - 504:25, 591:5</p> <p><b>reestablished</b> [3] - 528:16, 534:17, 586:4</p> <p><b>reestablishment</b> [1] - 655:22</p> <p><b>refer</b> [7] - 541:7, 541:18, 546:19, 587:4, 608:12, 608:14, 613:13</p> <p><b>reference</b> [30] - 520:3, 520:4, 520:5, 520:9, 520:17, 520:20, 520:23, 521:2, 542:13, 542:25, 543:3, 543:11, 543:17, 544:9, 546:7, 562:12, 564:6,</p>	<p>564:25, 565:3, 565:5, 565:9, 565:25, 566:7, 566:23, 567:3, 567:6, 567:12, 568:17, 612:13, 645:22</p> <p><b>referenced</b> [2] - 563:8, 611:23</p> <p><b>referred</b> [2] - 542:13, 568:6</p> <p><b>referring</b> [11] - 551:7, 559:6, 560:2, 560:4, 574:9, 605:16, 615:15, 619:7, 621:13, 645:19, 712:4</p> <p><b>refers</b> [2] - 644:7, 646:13</p> <p><b>refilled</b> [1] - 698:8</p> <p><b>reflect</b> [1] - 666:2</p> <p><b>reflected</b> [1] - 547:24</p> <p><b>reflecting</b> [1] - 674:1</p> <p><b>reflection</b> [1] - 673:19</p> <p><b>reflects</b> [1] - 535:15</p> <p><b>refresh</b> [2] - 567:17, 611:10</p> <p><b>regain</b> [1] - 699:25</p> <p><b>regard</b> [14] - 638:21, 641:24, 643:11, 655:25, 656:3, 656:5, 656:12, 660:4, 660:20, 665:14, 674:1, 680:6, 681:5, 681:6</p> <p><b>regarding</b> [8] - 518:25, 580:23, 596:23, 597:20, 612:21, 638:7, 642:24, 663:20</p> <p><b>regardless</b> [1] - 535:14</p> <p><b>region</b> [2] - 568:5, 627:20</p> <p><b>regional</b> [2] - 683:10, 683:18</p> <p><b>regionally</b> [1] - 685:17</p> <p><b>regions</b> [1] - 683:17</p> <p><b>Registered</b> [2] - 717:3, 717:17</p> <p><b>registered</b> [3] - 547:14, 547:21, 607:13</p> <p><b>reggraded</b> [1] - 662:8</p> <p><b>regs</b> [2] - 509:1, 509:3</p> <p><b>regulation</b> [4] - 521:15, 575:18, 621:13, 658:18</p> <p><b>regulations</b> [9] - 532:8, 552:16, 560:16, 560:21, 612:15, 645:20, 660:2, 691:3, 691:12</p> <p><b>regulatory</b> [4] - 628:5, 645:16, 675:23, 677:6</p> <p><b>Regulatory</b> [2] - 483:24, 484:4</p> <p><b>Reich</b> [1] - 510:19</p> <p><b>reinforces</b> [1] - 692:11</p> <p><b>rejected</b> [1] - 572:10</p> <p><b>relate</b> [1] - 655:21</p> <p><b>related</b> [6] - 485:16, 501:16, 548:3, 597:7, 601:13, 612:3</p> <p><b>relates</b> [6] - 542:4, 596:9, 641:19, 642:4, 700:11,</p>
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<p>700:15  <b>relating</b> [1] - 522:2  <b>relationship</b> [1] - 630:17  <b>relative</b> [1] - 646:13  <b>relatively</b> [2] - 494:20, 519:3  <b>relayed</b> [1] - 631:15  <b>release</b> [94] - 488:10, 494:2, 494:13, 497:16, 497:22, 498:4, 498:6, 500:7, 500:9, 500:22, 501:7, 501:12, 501:14, 502:2, 505:3, 508:8, 508:10, 508:16, 508:19, 509:8, 510:4, 510:6, 510:10, 511:10, 516:4, 516:8, 517:11, 517:25, 563:25, 570:14, 572:6, 572:25, 576:23, 597:4, 642:8, 656:11, 657:15, 658:3, 658:8, 658:24, 660:20, 661:12, 662:21, 664:9, 664:20, 664:23, 665:16, 665:18, 666:6, 667:4, 667:15, 667:22, 668:6, 668:10, 668:20, 668:22, 669:1, 669:4, 669:8, 669:13, 669:14, 670:14, 670:21, 670:24, 671:10, 671:14, 672:3, 672:6, 672:9, 673:10, 673:16, 673:20, 674:2, 674:9, 674:19, 679:5, 679:19, 679:22, 679:24, 680:4, 680:7, 680:13, 680:16, 680:21, 680:25, 681:12, 682:2, 682:5, 682:7, 682:19, 688:2, 688:12, 688:24, 700:1  <b>released</b> [34] - 488:11, 492:23, 493:5, 494:17, 507:2, 508:8, 508:15, 508:20, 509:6, 509:19, 510:12, 511:9, 541:23, 542:5, 542:10, 572:15, 665:23, 667:8, 667:10, 667:23, 668:13, 669:19, 671:5, 671:25, 672:1, 673:6, 679:7, 680:23, 681:13, 681:22, 682:1, 682:11, 682:13, 700:21  <b>Releases</b> [1] - 484:11  <b>releases</b> [8] - 494:19, 657:21, 658:6, 658:25, 660:10, 668:2, 679:3, 680:1  <b>releasing</b> [1] - 494:15  <b>relevant</b> [3] - 700:14, 703:12, 703:23  <b>reliable</b> [2] - 503:19, 503:20  <b>relied</b> [6] - 529:9, 530:20,</p>	<p>610:12, 616:18, 617:7, 618:4  <b>relieve</b> [1] - 643:6  <b>rely</b> [1] - 690:14  <b>relying</b> [1] - 617:1  <b>remain</b> [3] - 669:2, 671:21, 716:9  <b>remaining</b> [1] - 545:25  <b>remarks</b> [1] - 707:23  <b>remember</b> [9] - 494:23, 508:24, 508:25, 509:2, 509:15, 550:2, 628:21, 691:22, 716:2  <b>remembered</b> [1] - 578:14  <b>reminded</b> [1] - 653:6  <b>removal</b> [2] - 576:23, 692:1  <b>removed</b> [4] - 626:13, 662:6, 680:14, 699:1  <b>removing</b> [1] - 588:21  <b>renew</b> [2] - 540:22, 705:17  <b>renewal</b> [1] - 696:7  <b>rent</b> [2] - 705:1, 705:10  <b>rented</b> [2] - 704:2, 704:18  <b>renting</b> [2] - 704:18, 705:5  <b>repeat</b> [1] - 496:12  <b>repeated</b> [1] - 634:16  <b>repeating</b> [1] - 562:25  <b>repermitted</b> [1] - 657:22  <b>Repermitted</b> [1] - 484:11  <b>rephrase</b> [3] - 630:9, 631:19, 652:13  <b>rephrasing</b> [1] - 577:22  <b>replace</b> [8] - 502:19, 502:22, 503:4, 503:7, 503:10, 503:14, 587:10, 587:15  <b>replaced</b> [3] - 502:25, 580:1, 631:14  <b>replying</b> [1] - 561:1  <b>report</b> [53] - 598:5, 598:6, 598:16, 598:19, 601:7, 601:9, 601:14, 601:25, 602:24, 603:19, 604:6, 604:7, 604:11, 604:14, 604:17, 609:1, 609:2, 609:4, 609:24, 610:2, 610:10, 611:5, 611:22, 611:23, 611:24, 612:3, 612:21, 613:8, 613:12, 614:1, 614:15, 614:18, 615:15, 615:21, 616:1, 616:4, 616:13, 616:19, 617:3, 617:7, 617:11, 618:18, 618:20, 619:7, 619:13, 619:18, 622:2, 623:8, 627:3, 627:15, 629:16, 632:18, 711:20  <b>Report</b> [2] - 483:24, 484:4  <b>reported</b> [3] - 610:18, 610:20, 661:20  <b>reporter</b> [1] - 505:15</p>	<p><b>REPORTER</b> [1] - 717:1  <b>Reporter</b> [2] - 717:4, 717:17  <b>reports</b> [10] - 598:13, 601:10, 610:5, 613:12, 614:20, 616:18, 617:19, 620:1, 620:24, 711:3  <b>represent</b> [12] - 517:22, 520:14, 543:15, 544:4, 544:20, 544:22, 565:1, 565:2, 565:4, 565:7, 570:25, 665:2  <b>representation</b> [4] - 546:1, 565:21, 674:8, 696:25  <b>representative</b> [6] - 525:4, 544:16, 545:24, 546:23, 567:15, 613:16  <b>represented</b> [8] - 540:16, 543:16, 545:1, 545:8, 567:7, 600:17, 665:3, 696:4  <b>representing</b> [1] - 565:6  <b>represents</b> [8] - 517:24, 540:12, 568:17, 570:17, 668:19, 669:10, 673:14, 696:13  <b>request</b> [7] - 538:6, 538:20, 594:17, 617:12, 618:2, 672:1, 708:4  <b>requested</b> [6] - 591:10, 616:25, 679:18, 695:5, 711:20, 711:22  <b>require</b> [16] - 522:14, 531:25, 533:14, 574:15, 575:23, 576:8, 622:2, 623:9, 623:23, 632:6, 659:19, 660:2, 663:25, 664:1, 664:5, 692:15  <b>required</b> [31] - 486:12, 487:14, 490:1, 490:4, 492:7, 502:21, 512:3, 512:5, 532:13, 532:17, 534:1, 534:3, 559:25, 560:9, 563:24, 595:11, 612:20, 614:17, 621:17, 624:2, 625:6, 637:2, 642:13, 653:15, 653:16, 670:15, 680:18, 691:24, 702:9, 709:2, 709:6  <b>requirement</b> [2] - 669:2, 671:12  <b>requirements</b> [24] - 522:14, 585:16, 589:24, 592:6, 594:4, 613:19, 632:8, 655:4, 655:5, 656:20, 657:24, 659:16, 659:17, 659:21, 660:9, 670:21, 672:4, 681:14, 684:3, 684:5, 684:11, 686:2, 688:10, 691:7  <b>requires</b> [6] - 521:15,</p>	<p>534:15, 534:17, 575:20, 613:14, 660:1  <b>requiring</b> [2] - 567:16, 659:20  <b>research</b> [9] - 504:8, 532:16, 532:23, 550:13, 559:4, 559:6, 559:18, 581:7, 581:10  <b>researchers</b> [1] - 568:2  <b>reseed</b> [3] - 577:10, 588:25, 590:15  <b>residential</b> [1] - 658:19  <b>resolution</b> [1] - 714:19  <b>resolve</b> [1] - 699:15  <b>resource</b> [4] - 581:20, 581:21, 581:22, 588:13  <b>Resource</b> [1] - 490:13  <b>resources</b> [9] - 502:15, 502:16, 502:19, 503:8, 580:25, 586:15, 610:4, 624:24, 625:9  <b>Resources</b> [1] - 648:1  <b>respect</b> [16] - 489:23, 523:10, 524:21, 534:13, 542:14, 599:20, 601:19, 604:25, 612:24, 617:1, 617:6, 619:14, 637:3, 708:15, 712:11  <b>respond</b> [2] - 562:16, 597:5  <b>responded</b> [1] - 594:16  <b>response</b> [7] - 501:7, 501:13, 563:6, 617:12, 622:15, 623:16, 713:10  <b>responsibilities</b> [1] - 654:22  <b>responsibility</b> [3] - 641:11, 641:13, 682:8  <b>responsible</b> [2] - 487:14, 515:23  <b>respread</b> [25] - 499:18, 514:8, 516:12, 525:17, 527:17, 528:14, 532:2, 532:6, 532:10, 532:11, 532:13, 532:15, 532:16, 552:14, 554:20, 563:18, 575:17, 575:20, 584:4, 584:7, 589:1, 642:12, 662:9, 686:2  <b>rest</b> [5] - 496:11, 562:8, 632:8, 648:12, 678:6  <b>restate</b> [3] - 560:17, 578:6, 585:20  <b>restoration</b> [7] - 488:18, 490:20, 515:22, 534:7, 534:13, 625:6, 635:2  <b>restore</b> [7] - 555:20, 556:10, 556:20, 560:13, 560:22, 579:8, 659:22  <b>restored</b> [7] - 490:22, 534:8, 624:21, 625:1, 660:1, 660:3, 664:8</p>
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<p><b>restoring</b> [2] - 591:14, 660:4  <b>resubmitted</b> [1] - 680:21  <b>result</b> [4] - 521:11, 523:2, 559:21, 588:9  <b>resulting</b> [1] - 530:3  <b>results</b> [10] - 546:17, 547:18, 549:7, 550:17, 555:16, 558:17, 559:22, 583:22, 585:3, 695:6  <b>resume</b> [2] - 485:6, 596:7  <b>resumes</b> [2] - 528:17, 594:12  <b>resurvey</b> [1] - 577:18  <b>retained</b> [1] - 625:1  <b>return</b> [5] - 528:18, 685:21, 695:20, 700:20, 700:24  <b>returning</b> [1] - 700:22  <b>revegetation</b> [18] - 488:9, 492:7, 508:14, 515:17, 516:6, 519:9, 526:5, 527:21, 542:14, 580:6, 581:15, 585:23, 591:14, 668:25, 686:2, 687:9, 690:7, 690:15  <b>Revegetation</b> [2] - 483:12, 674:23  <b>review</b> [15] - 485:21, 504:2, 520:22, 532:22, 543:5, 550:21, 559:9, 598:6, 599:3, 638:23, 641:20, 641:21, 680:19, 685:6, 714:8  <b>reviewed</b> [10] - 518:2, 529:2, 534:21, 543:23, 544:7, 550:19, 555:15, 559:12, 639:6, 639:24  <b>reviewing</b> [4] - 558:17, 639:18, 639:23, 714:11  <b>reviews</b> [3] - 641:21, 641:22, 656:17  <b>revised</b> [1] - 675:7  <b>Revised</b> [1] - 483:13  <b>Revision</b> [4] - 598:10, 598:16, 601:7, 633:4  <b>revision</b> [1] - 633:4  <b>revisions</b> [2] - 491:13, 675:4  <b>revisit</b> [1] - 583:10  <b>right-hand</b> [1] - 667:21  <b>rightfully</b> [1] - 616:9  <b>rightly</b> [1] - 588:12  <b>rights</b> [4] - 697:15, 697:17, 697:18  <b>rigmarole</b> [1] - 632:14  <b>rip</b> [1] - 499:16  <b>ripped</b> [1] - 697:14  <b>ripping</b> [2] - 499:22, 500:3  <b>rise</b> [10] - 608:5, 608:7, 608:8, 608:12, 623:16, 630:18, 646:20, 646:22, 647:2, 651:8  <b>risen</b> [1] - 608:21</p>	<p><b>rising</b> [1] - 607:24  <b>River</b> [9] - 603:3, 603:5, 605:15, 605:24, 616:10, 627:5, 656:4, 666:19  <b>river</b> [1] - 694:13  <b>rivers</b> [1] - 630:16  <b>road</b> [11] - 499:5, 561:22, 570:11, 625:23, 636:8, 652:23, 670:10, 671:19, 671:20, 698:5, 704:11  <b>roads</b> [8] - 499:5, 625:22, 658:15, 662:2, 679:8, 679:14, 687:4, 704:10  <b>room</b> [2] - 628:14, 639:10  <b>root</b> [1] - 541:12  <b>rooted</b> [5] - 541:7, 578:15, 578:17, 579:4, 579:6  <b>rooting</b> [5] - 532:3, 540:13, 540:16, 582:7, 613:18  <b>rot</b> [1] - 698:9  <b>rotated</b> [1] - 549:15  <b>rotation</b> [1] - 509:12  <b>rotational</b> [1] - 504:17  <b>roughly</b> [1] - 650:7  <b>route</b> [1] - 596:21  <b>royalties</b> [2] - 696:22, 697:6  <b>royalty</b> [5] - 694:21, 696:2, 696:12, 697:3, 697:15  <b>rule</b> [2] - 663:25, 664:1  <b>ruled</b> [2] - 565:10, 622:17  <b>rules</b> [8] - 560:16, 560:21, 614:16, 655:8, 664:6, 675:7, 691:5, 691:9  <b>ruling</b> [3] - 485:19, 709:3, 709:8  <b>run</b> [2] - 495:18, 548:24  <b>runoff</b> [1] - 535:4  <b>runs</b> [2] - 510:3, 606:22  <b>ruse</b> [2] - 501:5, 501:6</p>	<p>511:15, 514:23, 518:5, 519:23, 524:12, 526:20, 527:5, 529:17, 531:7, 537:17, 537:21, 538:1, 561:6, 590:9, 593:20, 593:23, 595:22, 599:14, 611:2, 611:9, 611:14, 617:17, 618:11, 619:3, 619:8, 619:17, 620:17, 621:4, 629:2, 634:10, 634:13, 635:13, 636:22, 636:25, 637:13, 643:13, 645:1, 648:6, 648:10, 648:17, 649:14, 650:15, 652:25, 653:13, 654:2, 657:5, 657:11, 660:21, 661:3, 663:11, 663:18, 664:13, 676:23, 677:16, 692:25, 693:9, 701:12, 705:24, 708:11, 709:9, 709:15, 709:25, 710:9, 710:25, 711:8, 711:16, 713:14, 713:17, 714:3  <b>safe</b> [1] - 655:3  <b>safety</b> [2] - 501:19, 532:19  <b>sagebrush</b> [1] - 628:1  <b>sake</b> [3] - 612:13, 618:24, 649:5  <b>salinity</b> [1] - 577:21  <b>salvage</b> [5] - 516:3, 516:11, 527:16, 560:10, 642:10  <b>salvaged</b> [2] - 532:11, 533:6  <b>salvages</b> [1] - 533:2  <b>sample</b> [6] - 544:13, 570:13, 570:18, 571:25, 572:13, 572:21  <b>sampled</b> [7] - 520:11, 520:12, 522:7, 543:13, 545:11, 575:25, 589:14  <b>samples</b> [10] - 571:18, 572:12, 575:18, 604:8, 606:10, 606:15, 607:1, 607:5, 607:9, 608:1  <b>sampling</b> [12] - 532:7, 545:14, 546:8, 546:17, 558:17, 564:25, 567:14, 569:4, 571:11, 583:22, 585:3, 587:16  <b>samplings</b> [1] - 570:12  <b>sand</b> [3] - 646:10, 646:14, 646:19  <b>sandy</b> [5] - 519:1, 519:3, 519:5, 535:7, 646:16  <b>Sarah</b> [11] - 495:15, 496:3, 496:9, 512:1, 512:19, 515:2, 520:1, 526:1, 527:8, 586:12, 642:9  <b>SARAH</b> [2] - 481:8, 512:12  <b>Sarah's</b> [1] - 496:12  <b>sat</b> [1] - 512:4</p>	<p><b>satisfied</b> [1] - 550:17  <b>satisfying</b> [1] - 669:2  <b>saturated</b> [2] - 645:18  <b>save</b> [1] - 659:17  <b>saved</b> [1] - 659:20  <b>savvy</b> [1] - 571:7  <b>saw</b> [1] - 549:5  <b>scarify</b> [2] - 499:16, 499:25  <b>scarifying</b> [2] - 499:22, 499:24  <b>scenarios</b> [1] - 712:23  <b>schedules</b> [1] - 683:16  <b>school</b> [3] - 487:7, 513:6, 513:17  <b>science</b> [13] - 485:14, 487:8, 513:9, 513:10, 513:11, 513:21, 594:21, 627:9, 637:23, 641:1, 643:1, 643:7  <b>scientifically</b> [1] - 678:14  <b>scientist</b> [3] - 533:9, 600:15, 654:18  <b>scientists</b> [3] - 568:6, 598:24, 607:10  <b>scraper</b> [1] - 698:2  <b>scrubland</b> [1] - 627:25  <b>seam</b> [1] - 631:10  <b>Season</b> [2] - 483:18  <b>season</b> [8] - 523:2, 523:25, 549:15, 558:18, 574:1, 574:11, 645:13  <b>seasonal</b> [1] - 533:16  <b>seasonality</b> [9] - 521:25, 522:2, 522:14, 534:4, 571:21, 574:8, 582:15, 584:11, 586:4  <b>seasons</b> [1] - 573:22  <b>second</b> [7] - 508:17, 529:3, 536:17, 539:16, 569:5, 620:18, 623:13  <b>seconds</b> [1] - 623:13  <b>Section</b> [37] - 527:14, 527:23, 543:1, 545:13, 592:13, 599:20, 599:25, 600:4, 605:7, 605:17, 606:7, 609:19, 612:7, 612:11, 626:2, 629:9, 629:12, 629:19, 630:4, 630:7, 631:6, 631:17, 631:22, 631:23, 633:22, 633:23, 633:24, 633:25, 634:17, 638:10, 643:20, 643:22, 647:12, 647:16  <b>section</b> [15] - 527:11, 527:16, 527:17, 527:18, 527:19, 527:20, 527:22, 546:18, 570:12, 571:15, 599:22, 613:9, 613:15, 614:11, 670:17  <b>sections</b> [6] - 515:16,</p>
<b>S</b>			
<p><b>Sacco</b> [42] - 481:16, 481:21, 481:23, 482:3, 486:5, 489:18, 491:17, 495:5, 511:14, 514:22, 518:4, 519:22, 524:11, 526:19, 531:6, 537:16, 539:5, 561:5, 590:8, 593:18, 595:6, 617:16, 619:1, 629:1, 634:8, 636:20, 648:5, 649:13, 650:14, 652:24, 653:4, 676:22, 677:15, 692:24, 693:8, 701:11, 705:23, 708:2, 709:24, 710:24, 713:12, 714:2  <b>SACCO</b> [74] - 480:17, 486:6, 489:19, 491:18, 495:6,</p>			

<p>515:17, 515:19, 602:19, 604:24, 605:2</p> <p><b>Sections</b> [4] - 606:22, 612:4, 629:16, 633:20</p> <p><b>secured</b> [1] - 653:7</p> <p><b>sediment</b> [1] - 625:20</p> <p><b>sedimentation</b> [2] - 662:2, 672:11</p> <p><b>see</b> [27] - 499:15, 505:15, 535:12, 535:13, 536:2, 536:15, 536:18, 540:12, 549:20, 550:5, 559:21, 574:22, 583:11, 591:1, 592:23, 604:22, 605:10, 608:11, 620:15, 627:22, 631:3, 655:19, 657:3, 674:3, 701:6, 710:18, 711:13</p> <p><b>seed</b> [35] - 504:23, 504:25, 505:1, 505:4, 505:6, 524:24, 525:1, 525:6, 525:19, 527:22, 530:3, 530:8, 531:12, 557:3, 567:22, 567:25, 568:21, 569:8, 573:1, 573:9, 573:12, 574:7, 577:10, 577:11, 581:2, 581:3, 584:4, 589:1, 590:16, 590:21, 590:24, 591:6, 592:2</p> <p><b>seeded</b> [20] - 524:23, 525:23, 567:24, 581:17, 662:14, 662:16, 662:19, 665:16, 668:18, 668:23, 669:18, 670:1, 671:23, 673:9, 679:4, 686:5, 686:6, 686:13, 688:23</p> <p><b>seeding</b> [6] - 504:21, 516:7, 525:15, 525:21, 584:2, 591:3</p> <p><b>seeds</b> [3] - 525:8, 573:15, 584:5</p> <p><b>seeing</b> [5] - 500:20, 678:20, 685:16, 685:18, 714:14</p> <p><b>select</b> [2] - 545:4, 566:18</p> <p><b>selected</b> [6] - 520:10, 543:18, 545:9, 567:6, 570:24, 573:18</p> <p><b>selection</b> [2] - 546:6, 557:4</p> <p><b>semi</b> [1] - 645:17</p> <p><b>send</b> [1] - 677:11</p> <p><b>senior</b> [1] - 512:25</p> <p><b>sense</b> [4] - 501:25, 578:23, 624:5, 703:14</p> <p><b>sensitive</b> [1] - 714:24</p> <p><b>sent</b> [1] - 620:19</p> <p><b>sentence</b> [2] - 621:15, 676:15</p> <p><b>sentences</b> [3] - 676:6, 677:21, 678:5</p>	<p><b>separate</b> [5] - 522:15, 536:9, 554:10, 554:11, 648:23</p> <p><b>separately</b> [1] - 560:10</p> <p><b>September</b> [3] - 511:3, 615:3, 615:7</p> <p><b>series</b> [5] - 489:7, 551:16, 551:24, 552:21, 600:16</p> <p><b>seriously</b> [3] - 630:24, 631:2, 704:13</p> <p><b>seriousness</b> [1] - 714:23</p> <p><b>serve</b> [1] - 679:15</p> <p><b>served</b> [1] - 488:14</p> <p><b>SERVICE</b> [1] - 479:3</p> <p><b>service</b> [1] - 678:12</p> <p><b>Service</b> [27] - 480:18, 490:13, 499:13, 515:11, 517:12, 519:11, 529:4, 530:15, 537:3, 537:5, 537:8, 577:5, 596:6, 596:16, 637:17, 641:4, 641:9, 644:20, 646:2, 648:2, 654:9, 675:13, 675:21, 676:1, 677:3, 678:19, 704:4</p> <p><b>Service's</b> [1] - 645:10</p> <p><b>session</b> [2] - 658:2, 708:22</p> <p><b>set</b> [6] - 517:10, 518:1, 565:15, 623:14, 708:5, 710:4</p> <p><b>sets</b> [1] - 695:4</p> <p><b>settles</b> [1] - 697:25</p> <p><b>settling</b> [3] - 681:7, 681:17, 698:23</p> <p><b>setup</b> [1] - 551:1</p> <p><b>seven</b> [3] - 532:2, 603:1, 641:2</p> <p><b>several</b> [17] - 524:25, 525:14, 527:11, 532:19, 559:20, 566:9, 567:10, 579:14, 603:3, 608:5, 610:22, 623:8, 683:20, 684:8, 690:9, 695:4</p> <p><b>severance</b> [1] - 696:17</p> <p><b>shallow</b> [2] - 519:4, 519:6</p> <p><b>Shambo</b> [3] - 600:16, 607:16, 644:2</p> <p><b>shaped</b> [1] - 670:11</p> <p><b>share</b> [2] - 684:21, 697:8</p> <p><b>shared</b> [1] - 543:2</p> <p><b>sharp</b> [1] - 573:15</p> <p><b>sheet</b> [1] - 557:7</p> <p><b>sheets</b> [1] - 570:17</p> <p><b>shelterbelts</b> [1] - 698:6</p> <p><b>shooting</b> [1] - 591:20</p> <p><b>shop</b> [1] - 625:22</p> <p><b>shops</b> [1] - 679:8</p> <p><b>short</b> [6] - 528:15, 620:11, 641:6, 642:9, 643:3, 698:13</p> <p><b>shortage</b> [1] - 576:7</p>	<p><b>shorthand</b> [2] - 717:6, 717:11</p> <p><b>shovel</b> [1] - 552:13</p> <p><b>show</b> [8] - 490:25, 509:25, 534:19, 567:15, 581:8, 616:7, 665:4, 677:1</p> <p><b>showed</b> [3] - 559:24, 616:7</p> <p><b>showing</b> [13] - 489:5, 516:13, 519:7, 522:20, 526:1, 528:19, 530:10, 536:24, 541:5, 541:16, 541:25, 675:19</p> <p><b>shown</b> [7] - 493:13, 493:14, 520:20, 541:8, 558:17, 559:4, 581:3</p> <p><b>shows</b> [11] - 485:22, 489:25, 516:18, 541:19, 542:4, 542:6, 569:4, 569:5, 616:13, 651:2</p> <p><b>shrubs</b> [1] - 569:19</p> <p><b>shut</b> [1] - 508:3</p> <p><b>sick</b> [1] - 596:2</p> <p><b>side</b> [5] - 571:9, 600:6, 600:7, 689:9, 712:23</p> <p><b>sides</b> [1] - 606:4</p> <p><b>signed</b> [2] - 696:3, 696:24</p> <p><b>significant</b> [13] - 485:22, 510:11, 536:21, 558:12, 575:2, 584:16, 584:25, 598:1, 631:5, 631:7, 652:7, 679:17, 681:1</p> <p><b>silt</b> [2] - 646:14, 646:16</p> <p><b>silty</b> [1] - 646:15</p> <p><b>similar</b> [14] - 494:11, 502:15, 507:23, 518:24, 519:16, 525:1, 536:15, 552:12, 566:13, 568:19, 573:10, 604:6, 642:6, 647:13</p> <p><b>similarly</b> [2] - 522:4, 565:3</p> <p><b>simplicity</b> [1] - 649:5</p> <p><b>simply</b> [6] - 551:10, 551:14, 554:13, 672:18, 709:10, 715:5</p> <p><b>simultaneous</b> [1] - 713:6</p> <p><b>single</b> [4] - 546:10, 567:8, 592:7, 649:7</p> <p><b>sinkholes</b> [3] - 510:25, 511:5, 681:8</p> <p><b>sit</b> [2] - 585:24, 701:5</p> <p><b>site</b> [20] - 525:6, 527:13, 543:25, 544:14, 544:19, 544:25, 546:10, 564:20, 564:22, 565:11, 566:7, 566:9, 567:4, 571:8, 572:21, 591:24, 592:8, 621:20, 625:2, 647:13</p> <p><b>site-specific</b> [1] - 621:20</p> <p><b>sites</b> [26] - 520:11, 520:18, 522:7, 542:16, 544:9, 544:13, 544:16, 544:21,</p>	<p>544:25, 545:4, 545:9, 545:10, 545:20, 545:25, 565:25, 566:10, 566:11, 566:12, 566:16, 567:5, 567:6, 570:18, 585:3, 589:14, 589:17</p> <p><b>situation</b> [5] - 500:13, 528:15, 562:21, 562:22, 694:12</p> <p><b>situations</b> [4] - 499:4, 499:15, 548:2, 680:17</p> <p><b>six</b> [11] - 516:9, 545:20, 565:10, 574:21, 591:18, 603:1, 606:3, 696:13, 699:4, 699:14, 708:19</p> <p><b>six-tenths</b> [1] - 696:13</p> <p><b>size</b> [6] - 494:5, 549:8, 549:11, 549:17, 571:15, 617:24</p> <p><b>sized</b> [1] - 616:16</p> <p><b>sizes</b> [1] - 570:13</p> <p><b>skip</b> [1] - 678:4</p> <p><b>slightly</b> [3] - 523:4, 528:13, 640:20</p> <p><b>slope</b> [5] - 520:15, 543:13, 551:19, 554:20, 582:1</p> <p><b>slopes</b> [1] - 582:3</p> <p><b>small</b> [9] - 494:20, 501:17, 501:23, 542:1, 542:10, 568:9, 588:11, 589:19, 659:12</p> <p><b>smaller</b> [5] - 494:7, 567:10, 600:6, 670:11, 670:20</p> <p><b>SMCRA</b> [18] - 492:13, 493:2, 493:6, 493:13, 493:15, 496:14, 496:15, 496:17, 496:19, 511:12, 606:2, 628:5, 645:19, 646:3, 657:23, 658:8, 659:6, 664:11</p> <p><b>Smestad</b> [3] - 610:9, 610:20, 610:24</p> <p><b>smooth</b> [2] - 572:19, 572:20</p> <p><b>snapshot</b> [1] - 498:3</p> <p><b>snow</b> [2] - 698:6, 699:21</p> <p><b>Society</b> [8] - 513:24, 514:5, 514:9, 514:12, 532:21, 559:8, 683:21, 684:16</p> <p><b>sodic</b> [3] - 518:25, 519:5, 519:6</p> <p><b>soil</b> [145] - 485:14, 496:8, 514:2, 514:8, 516:3, 516:11, 518:21, 525:19, 528:12, 528:14, 532:6, 532:7, 532:10, 532:13, 532:16, 533:8, 533:9, 533:11, 535:16, 551:3, 551:11, 551:15, 551:16, 551:20, 551:23, 551:24, 552:1, 552:6, 552:17,</p>
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<p>552:21, 553:10, 553:13, 553:15, 553:18, 553:24, 554:3, 554:4, 554:7, 554:8, 554:13, 559:2, 559:23, 559:25, 563:18, 563:19, 564:8, 575:9, 576:2, 576:4, 576:5, 576:7, 576:12, 577:19, 578:19, 578:20, 579:8, 579:22, 580:19, 580:22, 580:25, 581:5, 581:7, 581:8, 581:25, 582:2, 582:11, 582:17, 582:21, 582:24, 583:9, 583:13, 584:6, 587:11, 587:15, 592:1, 594:2, 594:21, 594:22, 594:23, 598:23, 600:12, 600:15, 600:16, 600:21, 600:22, 604:8, 606:10, 606:15, 606:25, 607:5, 607:9, 607:10, 607:12, 607:13, 608:1, 613:17, 613:18, 627:8, 637:23, 638:11, 638:13, 638:15, 638:16, 638:18, 639:19, 639:25, 640:5, 640:7, 640:18, 640:23, 640:25, 641:7, 642:4, 642:17, 642:24, 643:5, 643:11, 643:19, 643:20, 643:23, 644:2, 644:3, 644:4, 644:6, 644:10, 644:13, 644:14, 644:15, 644:19, 646:9, 646:19, 647:7, 649:19, 650:19, 652:6, 652:12, 652:20, 662:9, 664:4, 686:1, 699:2</p> <p><b>Soil</b> [12] - 483:4, 483:5, 641:3, 644:20, 645:9, 646:1, 647:5, 647:8, 647:16, 648:14, 648:21, 649:20</p> <p><b>soiled</b> [3] - 662:13, 686:6, 686:13</p> <p><b>soils</b> [53] - 515:18, 515:20, 518:25, 519:2, 519:4, 519:6, 520:15, 527:17, 528:10, 535:5, 535:7, 535:10, 535:13, 535:21, 536:3, 551:16, 552:3, 552:5, 552:9, 561:17, 561:18, 598:3, 600:12, 600:17, 600:19, 607:14, 607:15, 607:21, 628:11, 638:11, 638:16, 638:19, 638:23, 638:25, 639:2, 639:3, 639:4, 639:9, 639:20, 639:21, 639:22, 639:24, 639:25, 641:3, 641:11, 641:16, 641:19, 652:11, 652:19, 654:13</p>	<p><b>sold</b> [1] - 696:14</p> <p><b>solution</b> [1] - 499:20</p> <p><b>someone</b> [6] - 539:18, 546:12, 627:7, 628:6, 628:19, 628:20</p> <p><b>sometime</b> [1] - 698:16</p> <p><b>sometimes</b> [4] - 597:24, 670:9, 689:14, 689:15</p> <p><b>somewhat</b> [6] - 566:13, 590:25, 592:1, 681:11, 697:25, 698:10</p> <p><b>somewhere</b> [3] - 590:17, 633:21, 709:1</p> <p><b>soon</b> [3] - 500:20, 677:11, 699:18</p> <p><b>sorry</b> [5] - 605:15, 610:1, 619:10, 645:23, 710:20</p> <p><b>sort</b> [6] - 495:13, 497:9, 521:2, 548:15, 619:23, 688:4</p> <p><b>sought</b> [1] - 679:22</p> <p><b>sound</b> [4] - 496:2, 633:21, 668:14, 678:14</p> <p><b>sounded</b> [1] - 496:22</p> <p><b>sounds</b> [2] - 513:13, 713:8</p> <p><b>source</b> [4] - 503:2, 529:1, 530:14</p> <p><b>sources</b> [5] - 503:1, 503:20, 504:18, 532:23, 591:8</p> <p><b>South</b> [1] - 623:7</p> <p><b>south</b> [11] - 488:24, 519:4, 544:2, 600:3, 603:2, 603:5, 603:9, 605:4, 609:18, 666:15, 666:18</p> <p><b>southeast</b> [1] - 627:23</p> <p><b>Southeast</b> [1] - 596:5</p> <p><b>southwest</b> [1] - 609:21</p> <p><b>Southwest</b> [3] - 487:1, 512:19, 701:21</p> <p><b>spans</b> [1] - 532:23</p> <p><b>SPEAKER</b> [1] - 707:4</p> <p><b>speaking</b> [3] - 569:15, 614:14, 627:20</p> <p><b>special</b> [1] - 632:12</p> <p><b>specialist</b> [3] - 512:25, 628:12, 641:7</p> <p><b>specialty</b> [1] - 631:1</p> <p><b>species</b> [69] - 504:19, 520:15, 521:16, 521:19, 522:12, 522:15, 522:16, 524:23, 524:24, 524:25, 525:7, 525:11, 525:18, 525:24, 528:8, 529:22, 530:4, 530:6, 530:7, 531:11, 541:6, 541:12, 541:15, 541:16, 543:12, 548:17, 550:15, 556:6, 556:17, 557:3, 557:11, 557:18, 558:20, 564:17, 564:19, 566:8, 567:25,</p>	<p>568:22, 569:18, 570:1, 573:2, 573:9, 573:13, 573:15, 574:1, 574:3, 574:10, 575:2, 579:4, 581:3, 581:17, 581:18, 581:23, 583:23, 584:2, 584:8, 584:13, 584:14, 584:24, 585:4, 585:5, 588:24, 589:18, 590:15, 591:5, 591:16, 592:3</p> <p><b>specific</b> [19] - 495:12, 528:24, 541:5, 543:23, 546:12, 548:17, 553:17, 557:23, 585:2, 592:10, 604:23, 604:24, 608:11, 621:20, 643:19, 643:23, 650:19, 664:7, 684:5</p> <p><b>specifically</b> [15] - 492:4, 508:12, 509:18, 515:13, 525:5, 560:15, 563:7, 602:15, 606:17, 607:8, 619:14, 623:5, 630:5, 679:19, 679:20</p> <p><b>specifics</b> [1] - 581:10</p> <p><b>speculate</b> [1] - 585:10</p> <p><b>speculating</b> [1] - 588:1</p> <p><b>speculative</b> [1] - 531:21</p> <p><b>speed</b> [3] - 684:1, 688:12, 704:13</p> <p><b>spell</b> [5] - 595:24, 637:14, 654:4, 706:9, 706:16</p> <p><b>spelled</b> [3] - 509:4, 596:4, 654:7</p> <p><b>spend</b> [1] - 586:13</p> <p><b>spent</b> [2] - 545:3, 546:7</p> <p><b>splits</b> [1] - 606:23</p> <p><b>spoil</b> [2] - 532:9, 575:19</p> <p><b>spots</b> [11] - 602:22, 602:24, 603:15, 604:2, 605:21, 606:3, 606:5, 698:20, 698:21, 698:22, 698:23</p> <p><b>sprayed</b> [1] - 525:20</p> <p><b>spraying</b> [3] - 576:19, 576:25</p> <p><b>spread</b> [2] - 499:12, 699:7</p> <p><b>spreading</b> [1] - 699:6</p> <p><b>spreadsheets</b> [2] - 594:5, 657:8</p> <p><b>spring</b> [1] - 523:23</p> <p><b>Spring</b> [1] - 627:5</p> <p><b>springs</b> [1] - 503:17</p> <p><b>stability</b> [1] - 672:11</p> <p><b>stable</b> [2] - 582:8, 672:12</p> <p><b>stack</b> [1] - 564:12</p> <p><b>staff</b> [23] - 539:6, 568:14, 577:6, 593:14, 602:12, 618:2, 619:20, 620:23, 639:15, 641:21, 683:24, 683:25, 684:3, 684:7, 684:20, 684:23, 684:24, 685:18, 686:22, 688:9,</p>	<p>712:9</p> <p><b>stage</b> [18] - 508:18, 508:21, 509:2, 509:5, 509:8, 509:13, 509:17, 509:20, 510:2, 510:4, 510:6, 510:10, 531:19, 579:22, 668:19, 668:21, 672:14</p> <p><b>stage-three</b> [1] - 509:8</p> <p><b>stages</b> [4] - 504:20, 508:18, 564:21, 673:22</p> <p><b>stand</b> [4] - 544:19, 572:18, 572:25, 582:20</p> <p><b>standard</b> [14] - 509:14, 533:22, 533:25, 556:5, 560:25, 561:2, 571:5, 574:8, 574:13, 583:9, 584:10, 584:11, 585:7, 664:4</p> <p><b>standards</b> [59] - 490:2, 490:4, 490:6, 490:11, 492:22, 492:24, 493:5, 495:17, 498:8, 503:25, 504:3, 504:5, 505:19, 516:20, 519:9, 521:20, 521:24, 522:1, 522:6, 522:9, 527:24, 531:25, 534:3, 534:5, 552:16, 556:24, 557:6, 557:7, 568:12, 569:9, 569:12, 569:25, 578:1, 582:14, 583:5, 585:16, 585:23, 586:2, 587:4, 589:10, 589:16, 594:5, 656:6, 663:24, 664:3, 680:5, 680:18, 684:2, 685:12, 685:15, 685:23, 686:1, 686:9, 689:24, 690:5, 690:7, 690:15, 690:25, 691:1</p> <p><b>Standards</b> [2] - 483:11, 674:22</p> <p><b>Stanton</b> [1] - 559:15</p> <p><b>stapled</b> [1] - 649:10</p> <p><b>start</b> [7] - 493:22, 510:9, 520:2, 576:21, 580:17, 605:4, 714:19</p> <p><b>started</b> [16] - 488:2, 493:18, 493:19, 493:23, 493:25, 495:1, 513:16, 565:9, 654:17, 658:22, 658:24, 661:17, 697:23, 700:25, 709:14, 715:17</p> <p><b>starting</b> [8] - 492:6, 516:5, 516:10, 543:7, 543:18, 568:1, 640:21, 654:16</p> <p><b>starts</b> [2] - 569:13, 678:5</p> <p><b>state</b> [21] - 486:24, 493:20, 494:10, 504:2, 512:17, 514:7, 545:11, 545:18, 558:20, 559:17, 576:17,</p>
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<p>591:12, 595:23, 637:14, 654:3, 654:25, 655:5, 655:7, 655:8, 671:12, 702:5</p> <p><b>STATE</b> [1] - 479:2</p> <p><b>State</b> [8] - 479:16, 513:11, 637:17, 641:1, 676:16, 677:11, 678:14, 683:11</p> <p><b>state-owned</b> [1] - 545:18</p> <p><b>Statement</b> [2] - 482:7, 482:9</p> <p><b>statement</b> [7] - 543:25, 673:5, 673:7, 673:24, 707:23, 712:11, 712:20</p> <p><b>statements</b> [3] - 674:18, 707:10, 708:1</p> <p><b>states</b> [8] - 492:14, 532:24, 559:18, 645:9, 645:15, 683:16, 684:13, 686:3</p> <p><b>States</b> [2] - 625:14, 683:3</p> <p><b>stating</b> [2] - 575:5, 664:7</p> <p><b>station</b> [1] - 591:13</p> <p><b>Station</b> [2] - 605:25, 625:24</p> <p><b>statistics</b> [2] - 548:24, 657:7</p> <p><b>status</b> [9] - 594:21, 597:21, 599:6, 616:13, 625:1, 625:3, 662:22, 665:11, 674:9</p> <p><b>statute</b> [1] - 708:23</p> <p><b>statutory</b> [1] - 628:4</p> <p><b>stay</b> [3] - 510:16, 514:15, 692:21</p> <p><b>stayed</b> [2] - 514:3, 643:22</p> <p><b>staying</b> [1] - 716:6</p> <p><b>steep</b> [1] - 582:3</p> <p><b>STEFFEN</b> [2] - 481:3, 486:19</p> <p><b>Steffen</b> [10] - 486:10, 486:11, 487:1, 491:1, 492:3, 497:6, 507:23, 542:24, 543:1, 575:6</p> <p><b>step</b> [9] - 511:23, 557:2, 593:9, 636:23, 653:2, 693:7, 701:25, 707:8, 707:19</p> <p><b>Stephen</b> [1] - 551:3</p> <p><b>steps</b> [1] - 643:6</p> <p><b>stiff</b> [1] - 500:15</p> <p><b>still</b> [13] - 520:21, 559:21, 565:16, 592:5, 607:12, 622:22, 641:15, 665:14, 670:10, 672:15, 686:14, 697:25, 698:3</p> <p><b>stipulate</b> [2] - 594:17, 614:17</p> <p><b>stipulated</b> [2] - 594:13, 595:7</p> <p><b>stipulation</b> [1] - 595:2</p> <p><b>stockpiled</b> [1] - 528:14</p> <p><b>stockpiles</b> [3] - 625:20, 662:2, 671:20</p> <p><b>stone</b> [1] - 565:15</p> <p><b>stop</b> [2] - 605:24, 664:21</p> <p><b>stopped</b> [1] - 604:2</p>	<p><b>stops</b> [4] - 603:1, 603:3, 605:9, 605:23</p> <p><b>story</b> [2] - 554:23, 577:1</p> <p><b>strategies</b> [2] - 578:3, 588:10</p> <p><b>stratification</b> [1] - 507:9</p> <p><b>straw</b> [3] - 639:25, 643:25, 644:7</p> <p><b>Straw</b> [18] - 600:15, 607:16, 638:13, 638:15, 638:16, 639:2, 639:4, 639:20, 639:22, 639:25, 640:6, 644:4, 644:5, 644:6, 644:7, 644:12, 650:2</p> <p><b>stream</b> [8] - 597:21, 604:3, 613:6, 616:16, 632:25, 636:7, 636:10, 638:17</p> <p><b>stream-laid</b> [2] - 613:6, 638:17</p> <p><b>streams</b> [1] - 635:20</p> <p><b>Street</b> [6] - 480:14, 487:1, 512:19, 596:5, 701:20, 706:19</p> <p><b>stressed</b> [1] - 545:16</p> <p><b>stretch</b> [1] - 616:10</p> <p><b>strict</b> [3] - 521:21, 522:5, 690:24</p> <p><b>strictly</b> [2] - 493:14, 591:2</p> <p><b>strike</b> [1] - 555:13</p> <p><b>striking</b> [1] - 505:22</p> <p><b>strip</b> [1] - 605:11</p> <p><b>stripes</b> [1] - 606:6</p> <p><b>strips</b> [1] - 699:20</p> <p><b>stronger</b> [1] - 584:20</p> <p><b>structure</b> [1] - 578:19</p> <p><b>studies</b> [7] - 522:17, 559:11, 559:23, 560:2, 560:4, 621:17, 685:19</p> <p><b>Studies</b> [1] - 621:15</p> <p><b>Study</b> [4] - 483:14, 522:25, 546:20, 644:23</p> <p><b>study</b> [36] - 522:25, 523:3, 541:8, 546:21, 547:2, 548:11, 549:6, 549:19, 549:23, 549:25, 550:19, 550:21, 550:24, 553:4, 553:8, 554:6, 554:19, 555:7, 555:10, 555:15, 559:14, 559:24, 581:11, 597:20, 599:23, 601:2, 601:5, 601:6, 606:4, 612:2, 612:25, 613:1, 615:11, 629:15, 638:12, 638:24</p> <p><b>stuff</b> [8] - 492:12, 492:13, 493:3, 504:16, 526:23, 623:6, 625:4, 696:24</p> <p><b>subirrigated</b> [12] - 535:17, 536:15, 536:19, 600:17, 607:21, 613:15, 614:12, 614:24, 615:6, 623:20, 644:13, 645:10</p>	<p><b>subirrigation</b> [16] - 535:14, 536:12, 600:25, 602:23, 604:4, 607:24, 608:19, 616:5, 616:20, 631:3, 640:16, 644:11, 644:18, 645:15, 646:1, 646:4</p> <p><b>subject</b> [5] - 520:22, 599:21, 637:1, 659:14, 696:7</p> <p><b>subjects</b> [1] - 626:9</p> <p><b>submission</b> [1] - 710:5</p> <p><b>submit</b> [4] - 597:19, 671:14, 708:3, 711:22</p> <p><b>submittal</b> [2] - 601:23, 601:25</p> <p><b>submitted</b> [15] - 517:12, 526:7, 526:13, 526:22, 527:2, 535:24, 543:3, 564:11, 595:2, 614:6, 661:15, 675:3, 675:5, 709:7, 711:14</p> <p><b>submitting</b> [3] - 619:18, 708:6, 708:9</p> <p><b>subparagraphs</b> [1] - 612:18</p> <p><b>subsection</b> [2] - 613:2, 613:13</p> <p><b>subsections</b> [1] - 527:12</p> <p><b>subsequent</b> [2] - 576:22, 621:17</p> <p><b>subsoil</b> [13] - 532:1, 532:11, 532:25, 533:4, 533:6, 558:25, 559:3, 576:14, 580:1, 659:20, 662:6, 698:2, 699:13</p> <p><b>substantial</b> [1] - 632:25</p> <p><b>substantially</b> [2] - 666:11, 697:21</p> <p><b>subsurface</b> [1] - 645:11</p> <p><b>subtract</b> [1] - 670:4</p> <p><b>subtracting</b> [1] - 662:20</p> <p><b>Success</b> [2] - 483:12, 674:23</p> <p><b>success</b> [17] - 519:9, 520:8, 521:20, 527:24, 541:25, 542:1, 542:5, 542:6, 542:14, 580:6, 583:6, 585:23, 591:6, 664:3, 665:20, 678:11, 690:7</p> <p><b>successful</b> [1] - 656:9</p> <p><b>successfully</b> [1] - 678:21</p> <p><b>succession</b> [2] - 533:18, 564:21</p> <p><b>sufficient</b> [1] - 679:23</p> <p><b>suggested</b> [2] - 551:4, 708:2</p> <p><b>suggesting</b> [1] - 553:24</p> <p><b>suggestion</b> [2] - 554:10, 708:5</p> <p><b>suggestions</b> [2] - 583:1, 663:22</p> <p><b>suitable</b> [2] - 575:9, 576:15</p> <p><b>Suite</b> [2] - 480:8, 480:14</p> <p><b>Sullivan</b> [6] - 551:8, 553:5,</p>	<p>554:6, 554:14, 554:18, 555:7</p> <p><b>sum</b> [1] - 579:11</p> <p><b>summarize</b> [5] - 527:9, 583:17, 587:7, 596:8, 634:19</p> <p><b>summary</b> [3] - 554:24, 640:23, 654:11</p> <p><b>summerfallowed</b> [1] - 690:20</p> <p><b>sundown</b> [1] - 623:18</p> <p><b>supervisors</b> [2] - 704:23, 704:24</p> <p><b>supplement</b> [2] - 533:6, 712:2</p> <p><b>supplemental</b> [1] - 536:9</p> <p><b>supplied</b> [1] - 714:22</p> <p><b>supply</b> [3] - 597:5, 597:20, 630:1</p> <p><b>supplying</b> [1] - 645:16</p> <p><b>support</b> [2] - 549:14, 651:16</p> <p><b>suppose</b> [1] - 563:3</p> <p><b>supposed</b> [2] - 657:23, 695:1</p> <p><b>supposedly</b> [1] - 694:25</p> <p><b>surety</b> [2] - 500:13, 689:4</p> <p><b>Surface</b> [6] - 483:21, 483:22, 515:15, 675:1, 675:14, 678:18</p> <p><b>surface</b> [20] - 499:11, 533:5, 567:8, 567:9, 567:10, 576:9, 596:22, 607:25, 608:22, 609:8, 640:17, 644:8, 645:12, 655:9, 675:15, 694:21, 694:25, 698:11, 700:4</p> <p><b>surrounding</b> [1] - 525:10</p> <p><b>Survey</b> [6] - 647:5, 647:8, 647:16, 648:14, 648:21, 649:20</p> <p><b>survey</b> [19] - 533:8, 533:11, 549:3, 551:3, 551:5, 551:7, 551:10, 551:23, 553:18, 553:24, 554:8, 554:14, 576:4, 576:11, 638:11, 639:19, 640:6, 640:18, 644:15</p> <p><b>surveys</b> [4] - 553:10, 553:15, 553:16, 554:3</p> <p><b>susceptible</b> [1] - 577:14</p> <p><b>sworn</b> [15] - 486:17, 486:20, 512:9, 512:13, 595:16, 595:19, 637:7, 637:10, 653:21, 653:24, 694:5, 694:9, 702:5, 702:13, 702:16</p> <p><b>system</b> [7] - 503:12, 503:13, 503:14, 503:20, 503:21, 553:11, 580:19</p> <p><b>systems</b> [3] - 503:5, 541:7, 600:14</p>
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<p><b>table</b> <sup>[15]</sup> - 517:20, 535:23, 640:6, 640:17, 644:16, 645:12, 651:16, 657:21, 660:11, 661:13, 661:25, 662:15, 663:2, 666:1, 667:19</p> <p><b>talks</b> <sup>[3]</sup> - 608:7, 652:15, 692:10</p> <p><b>tame</b> <sup>[10]</sup> - 490:5, 556:18, 556:21, 557:13, 557:14, 557:25, 558:12, 567:22, 658:13</p> <p><b>target</b> <sup>[1]</sup> - 574:7</p> <p><b>tax</b> <sup>[1]</sup> - 696:17</p> <p><b>taxes</b> <sup>[1]</sup> - 696:19</p> <p><b>team</b> <sup>[2]</sup> - 622:20, 655:7</p> <p><b>technical</b> <sup>[6]</sup> - 526:23, 656:17, 676:13, 678:2, 684:14, 690:16</p> <p><b>technically</b> <sup>[2]</sup> - 570:4, 571:7</p> <p><b>techniques</b> <sup>[1]</sup> - 656:10</p> <p><b>ten</b> <sup>[36]</sup> - 497:24, 497:25, 533:5, 540:1, 563:23, 564:2, 576:13, 593:14, 623:13, 658:23, 661:16, 662:16, 662:18, 665:17, 668:18, 668:23, 668:24, 669:3, 669:5, 669:15, 669:18, 670:2, 670:3, 671:24, 673:9, 675:6, 679:4, 682:14, 688:11, 688:23, 695:17, 696:14, 697:24, 698:5, 713:1, 713:9</p> <p><b>ten-year</b> <sup>[4]</sup> - 563:23, 668:24, 669:5, 669:15</p> <p><b>tenants</b> <sup>[1]</sup> - 498:17</p> <p><b>tends</b> <sup>[1]</sup> - 698:9</p> <p><b>tenth</b> <sup>[1]</sup> - 696:15</p> <p><b>tenths</b> <sup>[1]</sup> - 696:13</p> <p><b>term</b> <sup>[8]</sup> - 497:14, 528:15, 587:3, 588:9, 632:5, 661:24, 662:1</p> <p><b>terminates</b> <sup>[2]</sup> - 682:3, 682:8</p> <p><b>terms</b> <sup>[7]</sup> - 497:18, 520:3, 587:1, 606:2, 625:9, 626:6, 645:15</p> <p><b>terrace</b> <sup>[1]</sup> - 600:13</p> <p><b>terraces</b> <sup>[1]</sup> - 643:25</p> <p><b>test</b> <sup>[1]</sup> - 695:5</p> <p><b>testified</b> <sup>[15]</sup> - 486:20, 495:25, 512:13, 523:16, 533:7, 554:8, 566:19, 595:19, 608:3, 628:15, 637:10, 653:24, 688:5, 694:9, 702:16</p> <p><b>testify</b> <sup>[13]</sup> - 486:12, 523:11,</p>	<p>541:15, 556:22, 556:23, 557:8, 562:19, 567:21, 571:6, 571:12, 595:10, 629:25, 707:9</p> <p><b>testifying</b> <sup>[2]</sup> - 555:9, 703:2</p> <p><b>testimony</b> <sup>[67]</sup> - 495:16, 496:9, 496:12, 496:20, 497:9, 502:9, 514:18, 514:24, 521:9, 526:14, 529:10, 530:21, 531:25, 534:21, 539:23, 541:8, 542:15, 543:2, 551:2, 553:21, 553:23, 555:1, 555:3, 555:5, 555:19, 557:1, 559:10, 560:14, 562:25, 563:15, 563:20, 577:15, 578:7, 583:3, 583:12, 585:17, 586:12, 591:9, 599:11, 615:25, 619:12, 622:15, 624:14, 626:21, 629:20, 631:24, 632:11, 642:22, 651:17, 652:5, 655:12, 656:24, 663:20, 668:18, 673:5, 693:12, 693:14, 693:17, 694:7, 700:14, 703:2, 703:9, 703:11, 703:19, 707:6, 707:21, 716:8</p> <p><b>testing</b> <sup>[3]</sup> - 554:9, 633:20, 695:5</p> <p><b>tests</b> <sup>[5]</sup> - 570:16, 577:18, 578:8, 578:12, 622:13</p> <p><b>texture</b> <sup>[3]</sup> - 564:8, 592:1, 644:8</p> <p><b>textured</b> <sup>[6]</sup> - 519:3, 640:1, 644:9, 646:22, 646:23, 646:24</p> <p><b>thaw</b> <sup>[1]</sup> - 582:5</p> <p><b>THE</b> <sup>[12]</sup> - 480:10, 480:15, 480:20, 491:11, 491:15, 517:19, 517:24, 527:3, 531:2, 537:24, 541:4, 555:14</p> <p><b>themselves</b> <sup>[5]</sup> - 504:5, 597:25, 621:1, 662:4, 692:7</p> <p><b>theory</b> <sup>[2]</sup> - 580:22, 580:23</p> <p><b>they've</b> <sup>[6]</sup> - 656:9, 668:12, 672:8, 680:15, 680:17, 697:22</p> <p><b>thick</b> <sup>[1]</sup> - 519:3</p> <p><b>thickens</b> <sup>[1]</sup> - 576:22</p> <p><b>thicker</b> <sup>[1]</sup> - 558:25</p> <p><b>thickness</b> <sup>[7]</sup> - 532:6, 532:12, 532:13, 532:15, 532:18, 533:3, 559:25</p> <p><b>thicknesses</b> <sup>[1]</sup> - 532:17</p> <p><b>thinking</b> <sup>[3]</sup> - 562:18, 568:11, 657:1</p> <p><b>third</b> <sup>[11]</sup> - 508:18, 508:21,</p>	<p>509:13, 513:7, 568:25, 649:1, 668:19, 668:21, 672:9, 672:14, 694:17</p> <p><b>Third</b> <sup>[1]</sup> - 706:19</p> <p><b>third-generation</b> <sup>[1]</sup> - 513:7</p> <p><b>third-stage</b> <sup>[3]</sup> - 668:19, 668:21, 672:14</p> <p><b>thorough</b> <sup>[3]</sup> - 543:5, 676:17, 678:16</p> <p><b>thoroughly</b> <sup>[1]</sup> - 715:1</p> <p><b>thoroughness</b> <sup>[1]</sup> - 715:8</p> <p><b>thoughts</b> <sup>[7]</sup> - 502:12, 578:4, 583:14, 592:24, 619:2, 628:18, 709:19</p> <p><b>thousands</b> <sup>[1]</sup> - 631:13</p> <p><b>thread</b> <sup>[1]</sup> - 573:12</p> <p><b>three</b> <sup>[46]</sup> - 489:4, 509:8, 518:13, 520:17, 522:8, 542:16, 543:15, 545:25, 565:8, 565:12, 565:25, 566:3, 567:4, 577:19, 579:21, 585:4, 585:5, 589:15, 593:25, 594:7, 594:18, 602:13, 605:23, 606:3, 607:3, 642:14, 649:6, 649:10, 655:11, 656:24, 663:21, 675:4, 676:6, 677:21, 680:6, 683:17, 694:24, 695:11, 695:17, 696:19, 699:12, 708:13, 710:17, 710:21, 713:7, 714:13</p> <p><b>throughout</b> <sup>[3]</sup> - 493:12, 546:9, 568:4</p> <p><b>throw</b> <sup>[1]</sup> - 569:16</p> <p><b>throwing</b> <sup>[1]</sup> - 710:16</p> <p><b>THYBERG</b> <sup>[7]</sup> - 482:6, 693:24, 694:8, 694:11, 700:17, 701:20, 701:23</p> <p><b>Thyberg</b> <sup>[3]</sup> - 482:7, 693:24, 693:25</p> <p><b>tied</b> <sup>[1]</sup> - 644:19</p> <p><b>tight</b> <sup>[1]</sup> - 701:5</p> <p><b>tilling</b> <sup>[2]</sup> - 578:15, 579:2</p> <p><b>time-consuming</b> <sup>[1]</sup> - 635:1</p> <p><b>titled</b> <sup>[2]</sup> - 522:24, 530:12</p> <p><b>to-do</b> <sup>[1]</sup> - 690:9</p> <p><b>today</b> <sup>[17]</sup> - 485:17, 497:18, 529:10, 530:21, 534:22, 543:2, 563:20, 580:21, 583:19, 599:12, 602:17, 639:11, 641:13, 681:24, 696:12, 714:22, 716:8</p> <p><b>together</b> <sup>[16]</sup> - 506:12, 537:22, 551:24, 552:23, 552:24, 603:19, 610:10, 614:18, 622:24, 663:3, 685:2, 711:12, 715:22, 716:3</p> <p><b>token</b> <sup>[1]</sup> - 695:20</p>	<p><b>ton</b> <sup>[8]</sup> - 694:24, 695:10, 695:11, 695:18, 696:3, 696:12, 696:18, 697:3</p> <p><b>took</b> <sup>[9]</sup> - 604:5, 606:14, 607:5, 608:1, 609:4, 610:5, 611:16, 667:3, 690:11</p> <p><b>tool</b> <sup>[1]</sup> - 580:10</p> <p><b>tools</b> <sup>[2]</sup> - 579:19, 580:9</p> <p><b>top</b> <sup>[13]</sup> - 509:3, 550:1, 576:5, 626:12, 657:20, 667:3, 667:5, 668:5, 668:7, 691:15, 699:2, 699:4, 699:14</p> <p><b>topic</b> <sup>[3]</sup> - 532:22, 550:13, 550:14</p> <p><b>topics</b> <sup>[4]</sup> - 676:8, 677:22, 683:18, 684:2</p> <p><b>topographic</b> <sup>[1]</sup> - 577:17</p> <p><b>topsoil</b> <sup>[25]</sup> - 525:9, 525:20, 532:1, 532:10, 532:12, 532:25, 559:3, 560:7, 560:10, 576:20, 580:1, 659:15, 659:17, 659:20, 662:6, 698:4, 698:12, 698:21, 698:22, 699:1, 699:5, 699:11, 699:14, 699:24</p> <p><b>total</b> <sup>[31]</sup> - 493:16, 532:13, 533:1, 541:22, 542:10, 556:7, 559:2, 570:19, 574:18, 583:23, 585:10, 589:18, 589:20, 658:3, 658:7, 658:10, 659:10, 661:9, 662:19, 665:6, 666:6, 666:8, 667:10, 667:13, 668:10, 673:11, 673:13, 674:3, 674:6, 674:10, 699:12</p> <p><b>totally</b> <sup>[1]</sup> - 665:22</p> <p><b>touched</b> <sup>[1]</sup> - 613:23</p> <p><b>towards</b> <sup>[6]</sup> - 504:10, 504:16, 521:18, 585:18, 623:18, 644:2</p> <p><b>township</b> <sup>[4]</sup> - 704:9, 704:10, 704:23, 704:25</p> <p><b>Township</b> <sup>[1]</sup> - 605:14</p> <p><b>track</b> <sup>[1]</sup> - 678:10</p> <p><b>tracked</b> <sup>[6]</sup> - 497:21, 497:23, 498:1, 510:9, 547:12, 585:12</p> <p><b>tracking</b> <sup>[4]</sup> - 510:9, 547:23, 658:25, 678:9</p> <p><b>tract</b> <sup>[9]</sup> - 506:5, 506:6, 510:13, 572:25, 600:3, 600:5, 606:22, 680:20, 681:16</p> <p><b>tracts</b> <sup>[12]</sup> - 497:22, 497:24, 501:17, 501:21, 506:8, 568:5, 572:24, 600:6, 606:24, 680:2, 680:14</p>

<p><b>traffic</b> [1] - 499:6  <b>trained</b> [2] - 571:7, 627:8  <b>training</b> [5] - 514:14, 676:14, 678:3, 684:6, 684:25  <b>transcript</b> [9] - 708:19, 709:21, 710:2, 710:7, 710:13, 710:21, 713:7, 716:10, 717:11  <b>TRANSCRIPT</b> [1] - 479:11  <b>transducers</b> [1] - 623:12  <b>trend</b> [1] - 581:12  <b>trends</b> [1] - 630:19  <b>tributary</b> [1] - 603:4  <b>tried</b> [1] - 602:21  <b>truck</b> [2] - 552:13, 630:25  <b>true</b> [2] - 612:23, 628:4  <b>try</b> [13] - 495:18, 498:24, 535:12, 544:18, 568:23, 579:2, 600:11, 632:14, 635:17, 663:9, 670:16, 699:24, 708:5  <b>trying</b> [12] - 504:19, 506:20, 573:24, 585:22, 586:1, 590:20, 620:10, 627:6, 667:20, 686:8, 691:20, 706:23  <b>turn</b> [9] - 555:24, 604:16, 612:17, 618:7, 650:22, 661:4, 676:4, 677:19, 701:2  <b>turnaround</b> [2] - 618:5, 620:11  <b>turnout</b> [1] - 523:22  <b>tweaked</b> [1] - 657:1  <b>tweaks</b> [1] - 642:23  <b>two</b> [59] - 488:15, 498:6, 525:24, 528:21, 530:25, 531:1, 535:19, 537:18, 537:21, 550:12, 554:11, 561:8, 566:24, 567:11, 567:14, 572:2, 572:5, 572:24, 573:13, 577:18, 578:13, 584:14, 585:4, 588:20, 588:24, 594:5, 594:6, 598:13, 600:16, 601:10, 607:10, 607:19, 609:4, 610:13, 615:13, 616:1, 617:18, 618:10, 620:1, 620:3, 620:23, 623:11, 624:19, 625:22, 641:8, 657:7, 672:9, 678:5, 680:7, 686:12, 691:6, 695:9, 695:10, 698:12, 699:12, 708:13, 711:3, 714:21  <b>two-inch</b> [1] - 623:11  <b>type</b> [12] - 504:8, 562:25, 568:11, 623:24, 634:20, 643:23, 644:10, 650:20, 652:7, 652:12, 652:20,</p>	<p>687:23  <b>types</b> [15] - 518:21, 552:1, 552:6, 552:18, 600:13, 624:19, 624:20, 643:19, 643:20, 643:24, 644:19, 646:19, 647:8, 649:19, 663:23  <b>typewritten</b> [1] - 717:10  <b>typical</b> [3] - 522:9, 540:13, 651:1  <b>typically</b> [7] - 510:8, 571:14, 571:22, 598:21, 644:12, 648:22, 712:22</p> <p style="text-align: center;"><b>U</b></p> <p><b>ubiquitous</b> [1] - 568:7  <b>ultimately</b> [2] - 583:7, 583:9  <b>unable</b> [2] - 623:1, 672:17  <b>uncertainty</b> [1] - 548:23  <b>unchanged</b> [1] - 504:1  <b>unconsolidated</b> [1] - 613:5  <b>under</b> [37] - 492:17, 492:19, 493:5, 496:14, 496:15, 496:19, 510:16, 536:19, 552:15, 572:8, 584:7, 631:9, 633:23, 634:17, 634:23, 636:9, 645:8, 651:14, 658:17, 665:4, 665:15, 667:3, 667:5, 667:13, 668:5, 668:8, 668:17, 669:2, 671:15, 671:21, 672:19, 674:13, 681:19, 682:16, 682:22, 688:24, 695:25  <b>undergraduate</b> [1] - 513:23  <b>underground</b> [1] - 596:20  <b>underneath</b> [2] - 645:17, 695:8  <b>understood</b> [5] - 498:14, 539:7, 541:1, 555:8, 709:13  <b>Underwood</b> [2] - 702:7, 706:19  <b>undisturbed</b> [18] - 496:18, 520:6, 520:7, 523:2, 525:10, 546:25, 547:6, 547:10, 549:12, 550:4, 550:8, 565:1, 568:5, 658:5, 658:10, 667:22, 667:24, 668:2  <b>uneven</b> [1] - 698:12  <b>unevenly</b> [1] - 697:25  <b>unfair</b> [1] - 539:8  <b>unhealthy</b> [1] - 582:17  <b>UNIDENTIFIED</b> [1] - 707:4  <b>unique</b> [3] - 567:12, 588:6, 660:6  <b>Unit</b> [1] - 483:5</p>	<p><b>unit</b> [10] - 545:12, 545:15, 640:5, 649:1, 649:24, 650:3, 650:4, 650:10, 650:18, 650:23  <b>United</b> [2] - 625:14, 683:2  <b>units</b> [1] - 535:16  <b>University</b> [3] - 487:9, 513:12, 641:1  <b>unless</b> [2] - 561:12, 682:3  <b>Unruh</b> [2] - 566:14, 566:16  <b>up</b> [83] - 485:24, 487:4, 495:20, 495:23, 497:7, 500:19, 505:15, 509:5, 509:15, 517:3, 518:16, 520:3, 532:11, 543:20, 549:1, 549:6, 551:21, 557:8, 559:18, 559:24, 565:1, 566:15, 569:10, 576:2, 576:10, 578:1, 579:11, 579:12, 580:7, 580:17, 582:5, 584:14, 585:11, 587:6, 604:14, 605:14, 606:3, 609:16, 615:20, 615:23, 616:21, 619:19, 622:21, 623:3, 624:6, 626:12, 631:11, 631:25, 632:16, 635:22, 642:8, 643:22, 644:1, 651:3, 652:9, 654:22, 659:19, 668:6, 668:8, 669:6, 669:11, 670:22, 671:11, 672:7, 680:22, 682:11, 682:12, 684:1, 685:6, 685:13, 688:11, 688:12, 688:17, 688:18, 690:16, 691:4, 693:22, 699:6, 699:10, 702:4, 704:1, 709:9, 715:3  <b>update</b> [3] - 660:11, 660:15, 690:8  <b>updated</b> [1] - 504:6  <b>updates</b> [1] - 586:17  <b>upfront</b> [1] - 595:5  <b>upland</b> [3] - 535:3, 535:6, 535:21  <b>uplands</b> [3] - 536:1, 536:22, 561:14  <b>Upper</b> [1] - 631:10  <b>upset</b> [1] - 715:21  <b>upstairs</b> [2] - 617:22, 711:9  <b>USDA</b> [1] - 525:4  <b>uses</b> [4] - 518:9, 518:13, 518:17, 659:4  <b>Utah</b> [1] - 627:23  <b>utilize</b> [1] - 524:5  <b>utilized</b> [2] - 542:17, 614:23  <b>utilizes</b> [1] - 503:12</p>	<p style="text-align: center;"><b>V</b></p> <p><b>vadose</b> [5] - 608:15, 608:16, 608:17, 608:18, 608:20  <b>valley</b> [34] - 594:1, 596:24, 597:9, 597:17, 597:21, 606:1, 606:2, 606:21, 607:16, 612:22, 613:4, 613:10, 615:11, 615:21, 624:3, 624:25, 625:15, 625:16, 625:18, 625:21, 626:11, 627:5, 627:17, 627:18, 628:1, 630:12, 631:8, 631:12, 632:25, 633:9, 636:10, 645:16, 655:20, 656:3  <b>Valley</b> [1] - 644:22  <b>value</b> [8] - 529:24, 530:6, 545:24, 574:5, 624:25, 628:19, 696:4, 696:14  <b>Value</b> [1] - 528:23  <b>values</b> [2] - 490:14, 490:16  <b>variability</b> [5] - 520:14, 544:17, 544:22, 545:1, 545:8  <b>variable</b> [1] - 565:2  <b>varied</b> [1] - 492:9  <b>variety</b> [1] - 533:17  <b>various</b> [7] - 488:13, 506:8, 513:21, 625:5, 626:9, 668:2, 673:22  <b>vary</b> [1] - 591:23  <b>vast</b> [2] - 490:19, 672:13  <b>veg</b> [1] - 504:5  <b>Vegetation</b> [2] - 483:13, 674:25  <b>vegetation</b> [19] - 490:23, 504:7, 514:18, 515:20, 527:23, 528:16, 533:19, 534:10, 550:11, 567:13, 589:9, 598:3, 598:24, 604:3, 613:19, 628:12, 645:19, 655:23, 672:10  <b>vegetative</b> [1] - 498:7  <b>verified</b> [4] - 638:14, 639:6, 639:18, 639:22  <b>verify</b> [4] - 638:15, 663:8, 668:4, 692:8  <b>version</b> [2] - 491:7, 585:25  <b>versus</b> [4] - 584:20, 591:6, 622:13, 673:23  <b>via</b> [1] - 594:14  <b>view</b> [1] - 580:22  <b>viewed</b> [2] - 545:16, 570:7  <b>viewing</b> [2] - 580:19, 580:21  <b>vigor</b> [1] - 536:18  <b>virtually</b> [1] - 504:1  <b>visit</b> [1] - 619:22  <b>voice</b> [1] - 596:2</p>
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<p><b>VOIGT</b> <sup>[1]</sup> - 483:2  <b>Voigt</b> <sup>[54]</sup> - 483:4, 483:6, 491:3, 497:12, 518:10, 518:12, 522:7, 527:25, 531:24, 533:6, 534:19, 534:20, 535:7, 540:11, 542:25, 543:8, 543:16, 544:23, 545:14, 556:18, 560:13, 560:22, 562:23, 563:14, 565:6, 565:19, 566:13, 566:21, 573:10, 573:14, 575:22, 576:9, 589:15, 598:9, 607:2, 609:6, 609:9, 610:8, 610:15, 610:17, 611:13, 611:16, 645:4, 647:13, 647:20, 647:21, 647:23, 648:18, 649:6, 649:16, 650:8, 650:11, 650:16, 694:12  <b>Voigt's</b> <sup>[16]</sup> - 503:9, 518:13, 520:24, 521:9, 530:7, 531:11, 532:25, 555:21, 556:10, 558:1, 558:7, 558:11, 588:1, 599:22, 642:10, 650:20  <b>Voigt-owned</b> <sup>[1]</sup> - 518:12  <b>Voigts</b> <sup>[6]</sup> - 519:16, 533:7, 535:23, 542:20, 545:11, 545:16  <b>Voigts'</b> <sup>[4]</sup> - 520:11, 520:14, 544:3, 629:13  <b>volition</b> <sup>[1]</sup> - 623:22  <b>VOLUME</b> <sup>[1]</sup> - 479:13  <b>Volume</b> <sup>[2]</sup> - 483:18, 483:18  <b>volume</b> <sup>[1]</sup> - 618:3  <b>volumes</b> <sup>[1]</sup> - 531:1  <b>voluntarily</b> <sup>[1]</sup> - 623:9  <b>volunteers</b> <sup>[1]</sup> - 569:20</p>	<p>502:21, 503:3, 503:4, 503:8, 504:18, 514:2, 515:20, 582:2, 582:4, 597:5, 609:2, 609:4, 609:7, 609:10, 610:4, 610:21, 611:24, 613:17, 613:19, 623:13, 623:17, 623:20, 624:24, 630:1, 630:18, 640:6, 644:16, 645:12, 645:17, 645:18, 651:15, 679:8  <b>ways</b> <sup>[5]</sup> - 504:13, 582:22, 583:22, 632:19, 633:22  <b>web</b> <sup>[3]</sup> - 551:23, 553:15, 554:3  <b>Web</b> <sup>[6]</sup> - 647:5, 647:8, 647:16, 648:14, 648:21, 649:20  <b>website</b> <sup>[5]</sup> - 554:23, 648:2, 676:1, 676:3, 677:7  <b>wedge</b> <sup>[1]</sup> - 559:14  <b>weeds</b> <sup>[5]</sup> - 576:17, 576:24, 577:1, 577:9, 577:14  <b>week</b> <sup>[3]</sup> - 575:8, 596:3, 711:17  <b>weekly</b> <sup>[2]</sup> - 509:24, 684:24  <b>weeks</b> <sup>[6]</sup> - 511:8, 607:3, 708:19, 710:17, 710:21, 713:7  <b>weighed</b> <sup>[5]</sup> - 523:22, 523:23, 547:4, 570:6, 571:18  <b>weight</b> <sup>[7]</sup> - 506:5, 523:12, 523:17, 524:16, 528:7, 547:16, 556:7  <b>Weight</b> <sup>[3]</sup> - 483:14, 522:24, 546:20  <b>weighted</b> <sup>[4]</sup> - 506:8, 507:11, 544:12, 565:2  <b>Welch</b> <sup>[3]</sup> - 598:22, 598:24, 684:18  <b>well-drained</b> <sup>[1]</sup> - 644:13  <b>wells</b> <sup>[14]</sup> - 503:1, 609:4, 609:10, 609:12, 609:23, 610:6, 610:11, 611:20, 623:6, 623:10, 624:1, 624:4, 625:4  <b>west</b> <sup>[8]</sup> - 605:10, 605:12, 605:22, 606:4, 616:11, 631:12, 644:2, 694:13  <b>western</b> <sup>[2]</sup> - 683:2, 683:16  <b>Westmoreland</b> <sup>[10]</sup> - 601:7, 601:13, 606:14, 611:5, 612:3, 612:25, 613:11, 632:17, 632:22, 666:19  <b>wet</b> <sup>[1]</sup> - 591:24  <b>wetland</b> <sup>[1]</sup> - 514:13  <b>whatsoever</b> <sup>[1]</sup> - 611:1  <b>wheelhouse</b> <sup>[1]</sup> - 523:18  <b>whereas</b> <sup>[3]</sup> - 534:17,</p>	<p>536:20, 623:10  <b>whichever</b> <sup>[1]</sup> - 567:18  <b>whole</b> <sup>[11]</sup> - 499:14, 544:4, 544:16, 545:15, 565:21, 567:4, 572:14, 577:16, 606:21, 606:23, 632:14  <b>wildlife</b> <sup>[2]</sup> - 515:20, 658:14  <b>wind</b> <sup>[1]</sup> - 690:25  <b>winter</b> <sup>[1]</sup> - 643:5  <b>WIRTZ</b> <sup>[12]</sup> - 482:8, 702:2, 702:6, 702:15, 702:18, 703:4, 703:7, 703:14, 703:21, 703:25, 705:21, 707:11  <b>Wirtz</b> <sup>[5]</sup> - 482:9, 702:6, 702:8, 706:9, 706:14  <b>wish</b> <sup>[3]</sup> - 681:3, 693:13, 707:20  <b>withdrawn</b> <sup>[1]</sup> - 680:21  <b>withhold</b> <sup>[3]</sup> - 538:25, 539:10, 620:13  <b>witness</b> <sup>[17]</sup> - 485:5, 486:9, 491:22, 502:13, 511:20, 511:25, 538:10, 608:3, 611:9, 621:7, 636:21, 636:24, 637:7, 642:21, 653:5, 653:12, 694:22  <b>Witness</b> <sup>[6]</sup> - 486:17, 512:9, 595:16, 653:21, 694:5, 702:13  <b>WITNESS</b> <sup>[9]</sup> - 491:11, 491:15, 517:19, 517:24, 527:3, 531:2, 537:24, 541:4, 555:14  <b>witness's</b> <sup>[2]</sup> - 523:11, 595:7  <b>witnesses</b> <sup>[5]</sup> - 539:6, 539:24, 593:24, 593:25, 594:18  <b>WITNESSES</b> <sup>[2]</sup> - 481:2, 481:14  <b>wondering</b> <sup>[2]</sup> - 579:10, 669:7  <b>woodlands</b> <sup>[1]</sup> - 658:18  <b>word</b> <sup>[1]</sup> - 610:24  <b>wording</b> <sup>[1]</sup> - 646:5  <b>words</b> <sup>[9]</sup> - 563:18, 564:9, 568:7, 576:7, 578:11, 597:13, 638:3, 655:14, 678:5  <b>works</b> <sup>[1]</sup> - 567:21  <b>worse</b> <sup>[1]</sup> - 550:9  <b>worst</b> <sup>[2]</sup> - 688:15, 695:25  <b>worst-case</b> <sup>[1]</sup> - 688:15  <b>worth</b> <sup>[1]</sup> - 536:5  <b>write</b> <sup>[2]</sup> - 559:17, 604:7  <b>writing</b> <sup>[1]</sup> - 690:1  <b>written</b> <sup>[4]</sup> - 509:1, 672:22, 689:23, 708:1  <b>wrote</b> <sup>[1]</sup> - 655:7  <b>Wyoming</b> <sup>[2]</sup> - 627:23,</p>	<p>684:19</p> <p style="text-align: center;"><b>Y</b></p> <p><b>yard</b> <sup>[1]</sup> - 561:23  <b>year</b> <sup>[47]</sup> - 483:25, 484:5, 492:3, 494:3, 494:17, 494:18, 494:19, 500:19, 504:23, 505:3, 505:4, 508:10, 510:8, 525:16, 525:23, 536:5, 546:9, 563:16, 563:17, 563:18, 563:22, 563:23, 574:5, 574:6, 579:21, 582:16, 602:4, 602:5, 602:6, 602:7, 610:23, 611:19, 615:4, 665:9, 668:24, 669:5, 669:15, 676:8, 677:22, 686:12, 695:16, 698:17, 706:23, 714:20  <b>Year's</b> <sup>[1]</sup> - 714:19  <b>years</b> <sup>[96]</sup> - 486:16, 488:15, 488:17, 488:20, 488:25, 494:14, 494:21, 497:23, 497:24, 497:25, 498:2, 498:6, 503:23, 508:13, 508:25, 512:7, 514:7, 516:5, 516:9, 521:6, 536:8, 556:23, 559:19, 559:20, 564:2, 570:11, 576:18, 576:22, 577:18, 577:19, 579:7, 595:14, 596:13, 596:14, 623:8, 631:14, 636:8, 637:5, 641:2, 641:8, 641:10, 653:19, 654:14, 654:24, 655:2, 658:23, 661:16, 662:16, 662:18, 663:3, 665:17, 668:18, 668:23, 669:3, 669:18, 669:21, 670:2, 670:3, 670:8, 671:3, 671:16, 671:24, 672:19, 673:9, 675:7, 679:4, 680:25, 681:20, 682:10, 682:15, 683:20, 683:23, 684:9, 684:17, 684:19, 688:11, 688:23, 690:6, 690:9, 694:4, 694:17, 695:3, 695:17, 695:18, 695:24, 696:7, 696:15, 697:22, 697:24, 698:5, 699:22, 701:1, 702:12, 704:19, 706:24, 707:3  <b>worth</b> <sup>[1]</sup> - 569:2  <b>yield</b> <sup>[2]</sup> - 531:20, 535:18  <b>yields</b> <sup>[3]</sup> - 528:2, 535:25, 559:1  <b>young</b> <sup>[1]</sup> - 513:17</p>
<b>W</b>			
<p><b>W-i-r-t-z</b> <sup>[1]</sup> - 706:17  <b>WADE</b> <sup>[1]</sup> - 479:21  <b>wait</b> <sup>[2]</sup> - 633:5, 707:5  <b>waiting</b> <sup>[1]</sup> - 576:23  <b>walk</b> <sup>[6]</sup> - 589:13, 627:6, 627:11, 628:8, 691:19, 691:23  <b>walked</b> <sup>[1]</sup> - 628:20  <b>walks</b> <sup>[2]</sup> - 627:7, 628:6  <b>warm</b> <sup>[2]</sup> - 558:18, 584:20  <b>Warm</b> <sup>[1]</sup> - 483:18  <b>Washburn</b> <sup>[1]</sup> - 701:21  <b>washed</b> <sup>[1]</sup> - 631:13  <b>watching</b> <sup>[3]</sup> - 577:4, 577:7, 633:18  <b>water</b> <sup>[38]</sup> - 485:14, 502:14, 502:15, 502:16, 502:19,</p>			

**Z**

**Zap** [4] - 487:2, 488:24,  
512:20, 559:15

**zero** [4] - 507:5, 535:22,  
651:2, 691:1

**zeroed** [3] - 606:24, 607:3,  
629:18

**zone** [5] - 608:13, 608:15,  
608:20, 645:18, 692:20