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STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

Meeting No. 2482 454 2999

Moderated by Dylan Fuge  
Thursday, July 13, 2023  
12:00 p.m.

New Mexico State Capitol Building  
490 Old Santa Fe Trail, Room 317  
Santa Fe, New Mexico 87501

Reported by: Dana Fulton  
JOB NO.: 5985085

A P P E A R A N C E S

List of Attendees:

- 1 Dylan Fuge, Host
- 2 Million Gebremichael, Panel
- 3 Florene Davidson, Panel
- 4 Deana Bennett, Panel
- 5 John Garcia, Panel
- 6 Greg Bloom, Panel
- 7 William Ampomah, Panel
- 8 Chris Moander, Panel
- 9 Dana Hardy, Panel
- 10 Michael Feldewert, Panel
- 11 Jeremy Nichols, Public Speaker
- 12 Tim Davis, Public Speaker
- 13 Brandon Powell, Public Speaker
- 14 Douglas Meiklejohn, Public Speaker
- 15 Anita Lopez, Public Speaker
- 16 Kayla Himota [ph], Public Speaker
- 17 Stephanie Krupnik [ph], Public Speaker
- 18 Francesca Marie Sanchez, Public Speaker
- 19 Charles Goodmacher, Public Speaker
- 20 Angelo Tomedi, Public Speaker
- 21 Joan Brown, Public Speaker
- 22 Ally Beasley, Public Speaker
- 23 Lilliana Castillo, Public Speaker
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A P P E A R A N C E S (cont'd)

Dusty Horwitt, Public Speaker

Antoinette Reyes, Public Speaker

Jozee Zuniga, Public Speaker

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E X H I B I T S

NO.	DESCRIPTION	ID/EVD
Targa:		
Exhibit A	C-108 Application for Red Hills No. 2	54/61
Exhibit B	Hearing Presentation	55/61
Exhibit C	Hearing Notices	60/61

1 P R O C E E D I N G S

2 MR. FUGE: Good afternoon, everyone.  
3 It's the -- today is the July 13th meeting of the Oil  
4 Conservation Commission and we're getting started at  
5 noon, Mountain Standard Time. We do a quick roll  
6 call. Commissioner Bloom?

7 MR. BLOOM: Present.

8 MR. FUGE: Commissioner Ampomah?

9 DR. AMPOMAH: Present.

10 MR. FUGE: Please let the record  
11 reflect we have a quorum. Me. The agenda for this  
12 evening was distributed in advance consistent with the  
13 Open Meetings Act. Do we have any questions, comments  
14 or additions, otherwise, can I get a motion to approve  
15 the agenda?

16 MR. BLOOM: I so move.

17 MR. FUGE: Let the record reflect the  
18 agenda was approved unanimously. Similarly, the  
19 meeting for the July 8, 2023, meeting minutes from the  
20 July 8, 2023 meeting of the Oil Conservation  
21 Commission was -- were circulated in advance. Do you  
22 my fellow commissioners have any edits or comments on  
23 those minutes? Otherwise, can I get a meeting -- can  
24 I get a motion to approve the minutes?

25 MR. BLOOM: Here, the meeting does look

1 good and I move to --

2 MR. FUGE: Let the record reflect the  
3 meeting -- meeting minutes were approved unanimously.  
4 We're going to move to the first item on the agenda  
5 today, which is Case No. 23580. It's the application  
6 of Wildearth Guardians in the matter of Proposed  
7 Amendment to the Commission's Rules to Address  
8 Perfluoroalkyl and Polyfluoroalkyl Substances and  
9 Their Use in the -- and Their Use in Oil and Gas  
10 Extraction.

11 The purpose of today's hearing and this  
12 is for folks in attendance and members of the public,  
13 is to address the sole issues consistent with, and  
14 that 19.15.3.8, as to whether the Commission should  
15 decide to hold a hearing on the petition. It is not  
16 to discuss the substance of the petition or the merits  
17 one way or another.

18 I know we've had a number of parties  
19 enter appearances in this case. I would ask them to  
20 come forward. The Commission is going to offer  
21 a -- would like just a brief explanation of the  
22 petition to help us weigh the decision we need to  
23 make. I'd like to hear from all parties who've  
24 entered an appearance and consistent with prior  
25 notices for it.

1                   We did -- the Commission provided an  
2 allowance for 30 minutes for public comment. Again,  
3 the -- the issue -- the question before is the narrow  
4 one, whether to hold a hearing on the petition. Not,  
5 necessarily, the broader -- not the broader question  
6 of the merits of this specific petition. So I would  
7 invite folks to come up, encourage you to project like  
8 I'm doing now, but the mics there are live, both of  
9 them.

10                   So please come up and, five to ten  
11 minutes to just explain the petition, what it seeks to  
12 do and then I'd like to hear from the other parties  
13 who've entered an appearance in this matter. Go from  
14 there.

15                   MR. NICHOLS: Mr. Chairman, before we  
16 begin -- okay --

17                   MR. FUGE: Yeah. And the mic in front  
18 of you, the -- that's down low, also works as well --

19                   MR. NICHOLS: Okay. Thank you.  
20 Commission, my name is Jeremy Nichols. -- I'll  
21 be -- really appreciate you all -- background, as  
22 well. Obviously, -- reads that it -- it  
23 is -- attorney -- we've got a few slides and -- and he  
24 said the PDF for a minute -- that that --

25                   UNIDENTIFIED SPEAKER: I'm going to

1 turn on the -- maybe folks --

2 MR. NICHOLS: -- so that begins --

3 UNIDENTIFIED SPEAKER: Well, we're  
4 dealing with that -- there is a sign-up sheet in the  
5 back where the public could -- so if we sign --

6 UNIDENTIFIED SPEAKER: Welcome -- enter  
7 your access question or a meeting number followed  
8 by -- enter your -- ID number followed by the pound.

9 MR. FUGE: Yeah.

10 MR. NICHOLS: Okay.

11 MR. FUGE: -- the mic will pick up but  
12 that'll --

13 MR. NICHOLS: Should I move this in the  
14 middle?

15 MR. FUGE: Yeah.

16 MR. NICHOLS: Okay. Here, I'll  
17 catch -- okay, great. Thank you for that. Definitely  
18 want to make sure everybody can hear what everybody  
19 has to say. So, I'm not going to get into the  
20 details, obviously, but we do hope the Commission  
21 agrees that -- that there is a need for a process to  
22 get into those details. And does grant the  
23 application and set a hearing date.

24 I just, you know, briefly, just want to  
25 go over, you know, why we have submitted this

1 application and kind of what's the driver here. I  
2 guess, first and foremost, I just want to emphasis  
3 that we're here today because New Mexico is a leader.  
4 New Mexico is a leader in confronting the use of  
5 perfluoroalkyl and polyfluoroalkyl substances,  
6 otherwise known as PFAS.

7           These forever chemicals are an  
8 acknowledged problem by Governor Michelle Lujan  
9 Grisham and she has committed considerable state  
10 resources toward addressing that problem. She has  
11 taken steps to ensure the federal government is  
12 correct as properly regulating PFAS and protecting  
13 people and communities here in New Mexico.

14           She has primarily petitioned the EPA to  
15 regulate PFAS under the Resource Conservation and  
16 Recovery Act, otherwise known as RCRA. Unfortunately,  
17 there is an exemption in RCRA for oil and gas  
18 exploration, production and development waste that is  
19 troubling. And it does appear that there is a  
20 considerable gap in federal oversight that the State  
21 of New Mexico needs to be wary of and needs to do  
22 something about.

23           Adding to that, the release of a report  
24 earlier this year by Physicians for Social  
25 Responsibility, this is in the record, as well, so you

1 should all have access to it and we've -- we referred  
2 to it in our application, which documented that  
3 industry is, indeed, using PFAS in drilling and  
4 hydraulic fracturing operations in the state.

5 We don't know the full extent,  
6 unfortunately, because we don't have adequate  
7 reporting requirements in place. But we do have  
8 documentation that PFAS -- certain PFAS are being used  
9 in certain situations. So we know that there is an  
10 issue. This isn't a solution looking for a problem.  
11 There is a problem and there is -- federal oversight.  
12 We know that something needs to be done.

13 And so, we decided to ask this  
14 Commission to take action to address the regulatory  
15 gap. And what we suggested is a pretty straight-  
16 forward approach. One, ban the use of PFAS by the oil  
17 and gas industry, and two, establish stronger  
18 reporting requirements to ensure that that ban can be  
19 enforced. And to also ensure that the division has  
20 access to information, not only regarding PFAS but  
21 regarding the use of potentially other harmful,  
22 dangerous substances by the oil and gas industry.

23 What we've suggested, and -- and of  
24 course, to suggest to kick up the process,  
25 was -- virtual connectivity interruption -- but we

1 suggested ruling which -- that largely mirrors  
2 legislation that was passed in Colorado. So we're  
3 not -- we're not trying to reinvent anything. We're  
4 not trying to make up stuff. We're trying to go off  
5 what has worked in neighboring states that also are  
6 dealing PFAS and oil and gas extraction activity.

7 And what we've suggested is two new  
8 stand-alone regulatory provisions to deal with these  
9 issues, to update the -- the reporting and the  
10 disclosure requirements, and to expressly prohibit the  
11 use of PFAS. It just seemed cleaner to suggest two  
12 new regulatory sections, so that's what we suggested  
13 and -- and we have proposed related amendments to  
14 existing rules to accommodate the addition of those  
15 two new regulatory sections.

16 So with that, I'm going to hand it over  
17 to Tim to just briefly discuss where we see the  
18 authority for the commission to act here.

19 MR. DAVIS: Thanks, Jeremy. I'd like  
20 to briefly talk about the Commission's authority to  
21 adopt the rule, but also address the -- the contents  
22 of the petition. Oil and Gas Act gives this  
23 Commission authority, broad authority, to carry out  
24 the purposes of the Act. But specifically, in  
25 70-2-12-B, there are provisions that allow this

1 commission to make rules to regulate and produce water  
2 and non-domestic ways to protect public health and the  
3 environment. So that is this commission's authority  
4 to adopt the rule.

5 And then the contents of the petition  
6 comply with 19.15.3.8 NMAC, and you'll see in your  
7 packet we have a proposed rule attached as Exhibit A,  
8 we have a summary of the rule, and there's also an  
9 Exhibit B which is the proposed legal notice.

10 And just to reiterate what Jeremy was  
11 saying, we're here today to ask for a public process.  
12 This is a public process that would allow the  
13 commission, the public and the parties to gain  
14 information about this issue, and also help the  
15 commission to make a decision about this issue.

16 We urge to support the proposed  
17 procedural order that Mr. Tremaine circulated to the  
18 parties, and that is a procedural order that allows  
19 all the parties to participate via video, in person,  
20 it will allow for greater public participation. So we  
21 ask that you do support that. And also, if you have  
22 any questions, we're happy to answer those and we look  
23 forward to participating further. Thank you.

24 MR. NICHOLS: And just to wrap it up  
25 and just to emphasis, you know, this is a waste issue

1 and what this is aiming for is to ensure that PFAS  
2 doesn't make its way into the waste stream. The best  
3 way to do that is to make sure it's not used in the  
4 first place. So, pretty straight-forward approach and  
5 we hope we'll have an opportunity to present more  
6 information and testimony as part of this process.  
7 Thank you.

8 MR. FUGE: Thank you both. I'm waiting  
9 for the clerk to correct the -- party that -- in the  
10 matter are the oil conservation division and NMOGA.  
11 I'd like you to -- the commission would like to hear  
12 from oil -- oil conservation division next. And  
13 please, for those -- phone just state your name.

14 MR. MOANDER: Chris Moander on behalf  
15 of OCD and with me is Deputy Director Brandon Powell.  
16 May I proceed, Mr. Commissioner or Mr. Chair?

17 MR. FUGE: Yes, please.

18 MR. MOANDER: OCD doesn't object to  
19 proceeding forward with a rulemaking hearing as  
20 to -- of Wildearth Guardian's petition in Case  
21 No. 3 -- 23580. I think the main issue at this point,  
22 because there's no objection from the division, is  
23 it's going to be a question of the procedural order,  
24 which has been going back and forth amongst both  
25 the -- the two -- well, the one party that's entered

1 its appearance in the case, but additionally, there's  
2 been discussions with others who will almost certainly  
3 end up entering an appearance.

4 The -- the main issue that we're facing  
5 here, I mean, there -- there's some objections as  
6 Wildearth Guardians' counsel noted a few minutes ago,  
7 the main issue here is that in order to get this  
8 rulemaking done in a way that's going to be efficient  
9 and that's going to incorporate share stakeholder,  
10 shareholder participation, this is going to require a  
11 rulemaking to be set probably after the general  
12 session in 2024.

13 Right now, as far as I'm aware, I  
14 haven't heard any objection to this particular date, I  
15 think this is the most important of this procedural  
16 order, is February 19th through the 23rd of 2024.  
17 That would be the week following the general session.  
18 It's going to be impossible, probably, to get every  
19 bit of work done that's truly necessary for a  
20 rulemaking for then or without more work.

21 So one of the things I do want to touch  
22 on -- touch on and you will see a copy of this order.  
23 I apologize. Between myself and Mr. Tremaine, we've  
24 had some issues come up in the last few weeks that  
25 have delayed this. So I -- I -- I ask for some

1 forgiveness and some leeway on that. We need to set  
2 this up -- procedural order up so we ensure that we  
3 get the stakeholder conversation, that we give the  
4 parties enough time to engage in motion -- practice,  
5 if that's -- if it's deemed necessary.

6 And then there's the usual issues of  
7 technical testimony and the unique rules that OCD has  
8 with pre-hearing statements and the nature of that.  
9 While I'm eager to get this order in and have  
10 the -- the commission accept it, I -- I think the two  
11 main sticking points right now are the requirement,  
12 the -- the pitched requirement, the requested  
13 requirement, that everybody attend in person, period.

14 I think we're closing in on a  
15 resolution of that matter. I don't know that we're  
16 there in agreement yet. I mean, I'm happy to discuss  
17 the procedural order further, but I -- without  
18 the -- the commission having it in front of them --

19 UNIDENTIFIED SPEAKER: Can -- can you  
20 verify what you mean by having everyone --

21 MR. MOANDER: That would include all  
22 parties and all witnesses. And so, there's been some  
23 concern from Wildearth Guardians and -- and I -- I'm  
24 suspecting, I could be corrected on this, that it has  
25 to do with their constituents might have some issues

1 getting to or getting down to Sante Fe for a hearing,  
2 the rulemaking hearing.

3 There also, I would expect, will be  
4 technical expert-type testimony from individuals who  
5 probably won't be located geographically inside the  
6 state of New Mexico. So and OCD's not take a position  
7 on this either way. More advising the commission that  
8 these are issues that still have yet to be resolved.

9 MR. FUGE: Well, I can speak to the  
10 chair to these questions within -- revolution. The  
11 OCC intends to be a hybrid body on chair. Consistent  
12 with the Open Meetings Act, commissioners will attend  
13 in person and form a quorum, unless one of the  
14 exceptions when they'll be meeting back to five.

15 And while I appreciate that our current  
16 setup is a little less than ideal because formerly  
17 Quarter Hall, now Pecos Hall it's still under  
18 construction, I hope to have it built out by October,  
19 and it can be built out for a full virtual  
20 presentation. And so, it will be a hybrid hearing.

21 MR. MOANDER: Thank you, Mr. Chair.  
22 Other than that, I -- I'm just not -- oh, the other  
23 issue is, there is some -- the commission elects to  
24 appoint a hearing officer, which will be at its  
25 discretion, and I know that's not before the

1 commission today. This procedural order contemplates  
2 that issue, as well.

3 There's been some push-back and some  
4 discussion on the role of a hearing officer. OCD's  
5 position is we anticipate the commission would appoint  
6 a hearing officer. So that way, the commission can  
7 observe, take notes and so on. So I -- I'm kind  
8 of -- I'm kind of caught in a rock and a hard place  
9 here 'cause I think there's a little more negotiation  
10 that needs to be done before we can finalize this  
11 procedural order.

12 But at the same time, I do think it  
13 would be appropriate for the commission to consider  
14 the February 19th through 2024 rulemaking date. And  
15 with that, commissioners --

16 MR. FUGE: Is your testimony, Mr.  
17 Moander, that the February 19th through 23rd --

18 MR. MOANDER: Sir?

19 MR. FUGE: I'm sorry. February 19th  
20 through 23rd -- they consent to state for the hearing  
21 amongst the parties?

22 MR. MOANDER: That's my understanding,  
23 Mr. Chair.

24 MR. FUGE: Okay. Mr. Powell, do you  
25 have any comments?

1 MR. POWELL: I don't have any comments,  
2 other than this is consistent with the public outreach  
3 and -- that we've done with other rulemakings and  
4 bringing in expert witnesses to make sure we get the  
5 best rule that we can, presented to the commission.

6 MR. FUGE: Okay. Thank you.

7 UNIDENTIFIED SPEAKER: Thank you,  
8 Commissioners. Appreciate it.

9 MR. FUGE: And it looks like I missed  
10 one party who entered an appearance before  
11 the -- comment. Ms. Bennett entered an appearance on  
12 behalf of EOG, as well, but Mr. Feldewert, I believe  
13 you're here on behalf of NMOGA in connection with this  
14 petition --

15 MR. FELDEWERT: Good morning.

16 MR. FUGE: Good morning.

17 MR. FELDEWERT: Or afternoon, I should  
18 say, Mr. Chair, members of the commission.

19 MULTIPLE SPEAKERS: Good morning.

20 MR. FELDEWERT: Exactly. Michael  
21 Feldewert with Santa Fe Office of Holland and Hart on  
22 behalf of the New Mexico Oil and Gas Association. On  
23 the first issue before you, I really -- we don't have  
24 a position. We're still digesting the proposal,  
25 trying to get an understanding to the extent that PFAS

1 is an issue today in the completion operations in --  
2 that are being done here in the state of New Mexico  
3 and trying to examine and get an arms around what  
4 Wildearth Guardians has provided in terms of that  
5 report to suggest that the industry is using PFAS  
6 today. So, I don't have a comment on that.

7 Issues, I did have concerns about the  
8 pre-hearing order that was circulated. There were  
9 really three points that I wanted to address. I don't  
10 have a problem with the timeframe. I think that makes  
11 sense and allows the stakeholder meetings that we  
12 have -- that the commission has traditionally had  
13 recently. At least in the last ten years, whenever  
14 there's major rulemaking, I think there's some -- I  
15 would think that there's some common ground that can  
16 be reached between the parties and takeaway issues for  
17 the commission, right?

18 So I think a timeframe to have that  
19 occur and then have a re-examination of what petition  
20 is necessary and an understanding at that point of  
21 what the issues are that need to be addressed, I think  
22 would be fruitful for the commission. I came prepared  
23 today with our redlines of the proposed procedural  
24 order that had been circulated. I can hand those out  
25 to you. I can discuss that, it that would be helpful.

1 MR. FUGE: I hadn't -- the --  
2 paragraph, look in advance on --

3 MR. NICHOLS: Mr. Chair, that -- I  
4 circulated that to OCC counsel this morning, so  
5 you -- the -- the -- may not have it yet.

6 MR. FUGE: Got it.

7 MR. NICHOLS: But it -- it is in there  
8 somewhere.

9 MR. FELDEWERT: I'll look in my cell,  
10 commissioners. I might get that one question first.  
11 NMOGA comfortable with the old -- hearing as composed  
12 right now?

13 MR. FUGE: Yes. Yes.

14 MR. FELDEWERT: In --

15 MR. NICHOLS: Mr. Chair, are you  
16 comfortable with -- open -- hearing the day after  
17 the -- Monday after the session?

18 MR. FUGE: I mean, I'm already  
19 obligated --

20 MR. NICHOLS: -- not -- not the  
21 hearing -- going to be at a hearing as I'm -- sessions  
22 for a month, but --

23 MR. FUGE: I was going to ask that  
24 question that, is there magic to the 19th or could we  
25 push a week later? 'Cause Commissioner Bloom

1 does -- does ask a question if we're talking  
2 about -- dates effective of -- discomfort or disquiet,  
3 just as my looking out at it?

4 MR. BLOOM: Mr. Chair, I mean, if we  
5 requested a hearing in September, because we feel like  
6 this is an urgent issue that needs attention, we're  
7 willing to go with the February 19th date. That, to  
8 your point, we also want to be realistic and  
9 reasonable. So if the commission needs a week, I  
10 don't think we'd oppose that.

11 MR. FUGE: Okay. I'm going to let my  
12 fellow commissioners maybe answer his question there.  
13 It sounds like we may be able to -- the potential date  
14 if we decided -- petition, but maybe just give the  
15 parties some more time to hash out procedural order.  
16 We -- we might even be able to do, if they come in  
17 with a consensus, just via email and not even  
18 necessarily have it, you know, bring us a final  
19 procedural order by the next meeting or -- thought  
20 process here -- proceed that way?

21 MR. BLOOM: Whereas, I would agree with  
22 that and I'm comfortable -- week, so --

23 MR. FUGE: Okay. So I think we'll hold  
24 onto redline, where?

25 UNIDENTIFIED SPEAKER: So your -- your

1 thought process is we'd address that at the  
2 next -- next commission meeting?

3 MR. FUGE: On or before the next --

4 UNIDENTIFIED SPEAKER: As needed.

5 MR. FUGE: As needed.

6 UNIDENTIFIED SPEAKER: Okay.

7 Understand?

8 UNIDENTIFIED SPEAKER: All right.

9 MR. FUGE: If -- if -- we need on the  
10 agenda, I -- I think there's an opportunity -- that  
11 the commission and the parties, and just -- and as  
12 a -- here's our -- schedule and -- you know. It's  
13 adopted.

14 UNIDENTIFIED SPEAKER: Understand.

15 MR. FUGE: All right.

16 UNIDENTIFIED SPEAKER: Thank you.

17 MR. FUGE: I believe, Ms. Bennett, I  
18 understand your stuck in traffic, but I understand  
19 you've entered appearance on behalf of EOG. Are you  
20 in a position to speak freely?

21 I will circle back before we close this  
22 out. As I said at the outset, and we're going to  
23 provide 30 minutes for public comment. I have a list  
24 of folks who are in the room, and I also have a list  
25 of folks who are online. I'm going to go through the

1 folks in the room. If you're in the room, I would ask  
2 you to come up to the dais here, near -- near  
3 the -- and speak.

4 The first person up, I apologize in  
5 advance if I mispronounce anyone's name, but Douglas  
6 Meiklejohn.

7 MR. MEIKLEJOHN: Thank you, Mr.  
8 Chairman and members of the commission. First of all,  
9 you pronounced my name exactly correctly. I  
10 appreciate that. I represent Conversation Votes New  
11 Mexico. Conservation Votes urges you to hold a  
12 hearing on this petition and commends you for the  
13 decision to make it a hybrid hearing so that people  
14 can participate even if they can't get to Sante Fe.

15 The resource that is most at risk from  
16 oil and gas operations is groundwater. And the  
17 groundwater in this state is the source of drinking  
18 water for a majority of the people in this state. And  
19 so we urge that you take this petition seriously --

20 MS. BROWN: My name is Romus -- Brown  
21 and I'm calling to inquire about what you charge for  
22 overnight stays, weekly stays, that kind of thing? My  
23 number is (720) 581-3134.

24 MR. MEIKLEJOHN: I don't think I'm the  
25 person to answer this.

1 UNIDENTIFIED SPEAKER: Have you ever --

2 MR. MEIKLEJOHN: Thank you very much.

3 MR. FUGE: Anita Lopez.

4 UNIDENTIFIED SPEAKER: -- this message.

5 MS. LOPEZ: Hello, good morning. Good  
6 afternoon, Chairman and members of the commission. My  
7 name is Anita Lopez. I'm from the International  
8 District in Albuquerque. I'm here today as the  
9 spokesperson for YUCCA, Youth United for Climate  
10 Crisis Action. I am here to speak on behalf of our  
11 thousands of members and supporters across the state,  
12 and some who are here today.

13 We stand in strong support of this  
14 rulemaking -- rulemaking petition.

15 UNIDENTIFIED SPEAKER: Awesome.

16 MS. LOPEZ: It is vital for the OCC to  
17 ban the use of PFAS chemicals and require  
18 comprehensive chemical disclosure from industry  
19 operators. Oil and gas takes a heavy toll on  
20 frontline communities and workers. The very least we  
21 can do is protect those bearing the disproportionate  
22 health impacts, and protect our precious water and  
23 environment by banning the use of PFAS chemicals and  
24 requiring industry to reveal just what poison they are  
25 releasing into our environment and our community.

1           Companies responsible for poisoning our  
2 air, land and water must be held accountable for the  
3 environmental racism and injustice frontline  
4 communities and workers have been subjected to at  
5 their hands in the interest of profit. Today we are  
6 asking you to take the first step forward in  
7 protecting our public health and limited water  
8 resources by granting this petition a hearing as soon  
9 as possible. Thank you.

10           MR. FUGE: -- Jamie Huerta.

11           MS. HIMOTA [ph]: Hello. My name is  
12 Kayla Himota [ph] I am a member of YUCCA and Earth  
13 Care. I am 19 years old and I'm a second-year student  
14 at University of New Mexico. I am speaking in strong  
15 support of the rulemaking petition. PFAS chemicals  
16 are incredibly dangerous. The report by  
17 physician -- already -- and gas companies have used  
18 PFAS in the New Mexico -- putting the state  
19 groundwater and drinking water at risk of -- virtual  
20 connectivity interruption --

21           MS. HIMOTA [ph]: Should I start over?

22           MR. FUGE: Please. Yes.

23           MS. HIMOTA [ph]: All right. Okay.  
24 Let's start again. My name is Kayla Himota [ph]. I  
25 am 19 years old. I am a second-year student at

1 University of New Mexico. I am here with YUCCA and  
2 Earth Care, and I am speaking in strong support of  
3 this rulemaking petition. PFAS chemicals are  
4 incredibly dangerous.

5 The report by Physicians for -- Social  
6 Responsibility mentioned that already oil and gas  
7 companies have used PFAS in the New  
8 Mexico's -- putting the state groundwater and drinking  
9 water at risk of contamination, causing issues  
10 with -- all throughout the body. These health issues  
11 can be passed down through generations and devastate  
12 communities.

13 PFAS has disproportionately impact  
14 indigenous, frontline and low-income communities. We  
15 have to hold oil and gas companies accountable for  
16 poisoning our communities and environment. Please  
17 support this rulemaking petition. Thank you for your  
18 time.

19 MR. FUGE: Destiny Krupnik [ph]?

20 MS. KRUPNIK [ph]: Good afternoon,  
21 Chairman, members of the committee. My name is  
22 Destiny Krupnik [ph]. I'm a 20-year-old member of  
23 the -- Nation and Jimenez Pueblo. I'm also here as a  
24 member of Earth Care today. I want to shed light on  
25 the critical issue affecting Native American

1 communities. PFAS's are toxic forever chemicals have  
2 infiltrated our ancestral lands causing severe health  
3 complications like kidney disease and heart disease,  
4 reproductive health issues and heart attacks.

5 Oil and drilling operations in and near  
6 our territories have unleashed into silent epidemic,  
7 silencing our people's heartbeats. Sometimes  
8 literally. Our elders, the pillars of wisdom and  
9 guidance, are falling victim to heart disease.

10 Tragically, one of my Navajo elders, who was imparting  
11 their knowledge of the Navajo language, weaving in our  
12 culture onto me, passed away suddenly from a heart  
13 attack. His son, who happens to my age, witness to  
14 the entire thing.

15 He isn't the only one of us who has  
16 died suddenly from heart issues. The utilization of  
17 our indigenous territories for industrial and economic  
18 progress perpetuates an ongoing cycle that reveals the  
19 prioritization of economic growth over the rights and  
20 wellbeing of Native communities. It is a haunting  
21 reality where our concerns are overshadowed by a  
22 national industrial system that prioritizes profit  
23 over the welfare of its people.

24 Our communities bear the weight of  
25 these consequences, grappling with the impact of this

1 unbalanced equation. I urge you to listen to our  
2 raised voices and institute more stringent regulations  
3 through testing -- thorough testing and robust  
4 remediation mediation measures that eradicate PFAS  
5 contamination from our sacred lands.

6 Our battle for environmental justice is  
7 inseparable from our struggle for cultural  
8 preservation as we fight for our future where our  
9 communities can flourish in a health -- in health and  
10 vitality. Thank you.

11 MR. FUGE: Francesca Monique Sanchez?

12 MS. SANCHEZ: Good afternoon, Chairman,  
13 people. Commissioners, my name is Monique  
14 and -- Francesco Monique Sanchez and I am a member of  
15 YUCCA and Earth Care. I am 16 years old and a student  
16 at Capital High School. I am speaking in strong  
17 support of this rulemaking petition. I want to pursue  
18 a career in agriculture and care deeply about having  
19 clean water for our communities and our farmers.

20 PFAS chemicals are incredibly dangerous  
21 and will stay in our water for decades poisoning our  
22 land, crops and people causing devastating health  
23 effects. Already, Physicians for Social  
24 Responsibility found oil and gas companies already  
25 using PFAS in New Mexico, putting the state's limited

1 groundwater and drinking water at risk of  
2 contamination.

3 I want to be able to safely farm in my  
4 community and we need stronger regulations to protect  
5 our water and our communities. Please support this  
6 rulemaking petition. Thank you.

7 MR. FUGE: Before I go online, I just  
8 wanted to double-check. There is Kayla listed here  
9 without a last name. I'm assuming that was double  
10 entry, but just wanted to double-check. Okay. All  
11 right. Online and I just in the order of folks who  
12 messaged. Charles Goodmach?

13 MR. GOODMACHER: Thank you, Mr. Fuge  
14 and members of the commission. My name's Charles  
15 Goodmacher and today I'm representing Earthworks  
16 regarding petition which is the subject of this  
17 hearing. Earthworks partners with grassroots leaders  
18 to reign in the worst abuses of the fossil fuel and  
19 mining industries, while working against the clock to  
20 promote clean energy alternatives.

21 Earthworks is in full support of this  
22 request that your commission should hold a hearing on  
23 the petition on the merits of the petition. We urge  
24 the commission to hold a hearing to adopt the rules as  
25 quickly as possible. We support this petition because

1 so much of what makes our state so enchanting is under  
2 threat from PFAS chemicals used by the oil and gas  
3 industries.

4 It's critical the public has access to  
5 information about potential exposure to toxic  
6 chemicals that put our health at risk. Holding a  
7 hearing on the merits of the petition will itself  
8 better inform New Mexico about the PFAS threat. The  
9 disclosure requirements in the petition are just as  
10 important as the PFAS ban that it calls for. Again,  
11 thank you very much members of the commission for this  
12 opportunity to comment.

13 MR. FUGE: Thank you. Angelo Tomedi?

14 MR. TOMEDI: Yes. Thank you, members  
15 of the commission for the opportunity to speak. My  
16 name is Dr. Angelo Tomedi. I'm a family medicine  
17 physician working in Albuquerque and Socorro, New  
18 Mexico. Thank you for the opportunity to speak. I  
19 support the adoption of rules to address PFAS and urge  
20 the commission to hold a hearing to adopt rules as  
21 soon as possible.

22 And the toxic substances commonly known  
23 as PFAS, or P-F-A-S, have been associated with harmful  
24 health effects in people who are exposed. These  
25 forever chemicals, as they are known, have been used

1 by oil and gas companies in New Mexico, putting the  
2 state's groundwater and drinking water at risk of  
3 contamination. We need to support the public health  
4 of our New Mexico communities by protecting them from  
5 exposure to these toxic substances.

6 I also urge the commission to adopt  
7 rules to require oil and gas companies to disclose the  
8 chemicals that they use when drilling and fracking.  
9 It would be difficult to assess public health risks if  
10 we do not know the -- even know the chemicals that are  
11 being used. Thank you very much for your time.

12 MR. FUGE: Thank you. Joan Brown?

13 MS. BROWN: Yes. Good afternoon,  
14 commissioners and chair. Thank you so much for the  
15 opportunity to speak. My name is Joan Brown. I'm a  
16 Franciscan sister and the executive director of New  
17 Mexico and El Paso Region Interfaith Power and Light.  
18 We work with hundreds of faith congregations all over  
19 the state and thousands of people of faith.

20 And our water is a huge concern to us  
21 because it is a right for all humans and all creatures  
22 and it is under threat, and we have a moral and  
23 ethical responsibility to address this because of the  
24 health and because we need to care for our sacred  
25 creation. So we very much support these rules and the

1 hearing, and because one of the ethical proponents of  
2 addressing water is that there be a public input.

3 We really support, also, a hybrid  
4 hearing so that everyone has the opportunity, if they  
5 chose, to weigh in and call in for this -- I thank you  
6 again for your work on this and all the work that you  
7 do, and your support. Thank you.

8 MR. FUGE: Thank you. Ally Beasley?

9 MS. BEASLEY: Hi. Good afternoon,  
10 commissioners and chair, and thank you so much for the  
11 chance to comment. I'm Ally Beasley, an attorney with  
12 Western Environmental Law Center or WELC. I also have  
13 a masters in public health. WELC supports Guardians'  
14 petition for rulemaking on legal, health and  
15 environmental justice grounds and urge the commission  
16 to hold a hearing.

17 PFAS chemicals are toxic even at low  
18 concentrations and can accumulate in the body over  
19 time, so that even small or incremental exposures can  
20 have significant adverse health impacts such as cancer  
21 or birth defects. The known use of PFAS in hundreds  
22 of oil and gas wells in New Mexico can contaminate  
23 groundwater and likely adds to cumulative exposures  
24 from other things like food, personal products or  
25 drinking water, compounding these health risks.

1           And thousands more wells in the state  
2     may contain undisclosed trade secret PFAS chemicals,  
3     but lack of transparency around what chemicals are  
4     being used and where makes it difficult to assess the  
5     full scope of risk and act to protect public health  
6     and the environment. New Mexico should thus require  
7     full disclosure of all chemicals used in downhole oil  
8     and gas operations as our neighbor, Colorado, has  
9     recently done.

10           I understand the risks posed by oil and  
11     gas all too well. I grew up in Oklahoma next to an  
12     oil well that contaminated our home water supply.  
13     That well is long gone, but toxic PFAS may remain.  
14     And social and structural -- still make clean water  
15     out of reach for too many who live near oil and gas.  
16     These proposed rules will promote transparency and  
17     protect New Mexico's people and communities' precious  
18     water and environment from these forever chemicals,  
19     now and for future generations.

20           This important petition adds a fully  
21     participatory hybrid public hearing. Thank you so  
22     much.

23           MR. FUGE: Thank you. Lilliana  
24     Gatillo?

25           MS. CASTILLO: Yes. Thank you, Mr.

1 Chair and members of the commission. My name is  
2 Lilliana Castillo. I'm a board member for Amigos  
3 Bravos. Thank you for the opportunity to provide  
4 public comment today. Amigos Bravos is a state-wide  
5 water conservation organization guided by social  
6 justice principles and dedicated to preserving and  
7 restoring the ecological and cultural integrity of New  
8 Mexico's water and the communities that depend on it.

9 We stand in full support of this  
10 petition and encourage the OCC to host -- hold a  
11 hearing as soon as possible and we commend the  
12 commission for moving forward with a hybrid hearing.  
13 Our water is our most important resource and we need  
14 all the protections we can get, especially -- this is  
15 especially pressing as drought and heat, fueled by  
16 climate change, impact our water supplies. And yes,  
17 thank you so much for the opportunity to comment  
18 today.

19 MR. FUGE: And the last person I have  
20 signed up for comment is Dusty Horwitt.

21 MR. HORWITT: Can you hear me?

22 MR. FUGE: Yes, sir.

23 MR. HORWITT: Okay. Great. I am a  
24 consultant with Physicians for Social Responsibility,  
25 a non-profit organization that focuses on protecting

1 human health. I'm also lead author of PSR's report  
2 released in April about the use of PFAS or per- and  
3 polyfluoroalkyl substances in New Mexico's oil and gas  
4 wells.

5 The report was covered by the Santa Fe  
6 New Mexican, Carlsbad Current-Argus and NM Political  
7 Report. We found that according to oil and gas  
8 industry records oil and gas companies injected more  
9 than 200 wells in New Mexico over the past decade with  
10 PFAS, the class of chemicals that as we've heard are  
11 extremely toxic, has been linked to cancer and other  
12 serious health impacts and do not break down in the  
13 environment, which is why they are called forever  
14 chemicals.

15 These findings may significantly  
16 underrepresent the significant -- the reality of PFAS  
17 use. Industry records also show that more than 9,000  
18 oil and gas wells for which companies disclosed the  
19 use of fracking chemicals, more than 8,200 wells with  
20 at least -- they injected 8,200 -- more than 8,200  
21 wells with at least one trade-secret chemical per  
22 well.

23 These chemicals could be PFAS or other  
24 toxics, but their identities are kept secret from the  
25 public and regulators as allowed by New Mexico law.

1 The public has a right to know these chemical  
2 identities and a right to be free from forever  
3 chemical pollution. That's why a hearing on this  
4 proposed rule is so important. Thank you for the  
5 opportunity to testify.

6 MR. FUGE: And I -- I misspoke. I  
7 meant one final caller -- Antoinette Reyes.

8 MS. REYES: Hello. Thank you for  
9 letting me speak today. My name is Antoinette Reyes.  
10 I am an organizer with the Sierra Club, Rio Grande  
11 chapter. We are commenting in support of the hybrid  
12 rulemaking happening as soon as possible on behalf of  
13 our 30,000 members and supporters across the state.

14 PFAS is a commonly used surfactant in  
15 oil and gas due to its qualities, and according to  
16 sampling done by NMED in 2021, PFAS is already  
17 contaminating surface water and groundwater across the  
18 state. It's incredibly important that the  
19 concentration of PFAS is kept under control by  
20 removing its use from as many sectors as possible.

21 As previously mentioned, we're talking  
22 about the drinking water of New Mexicans that are  
23 being impacted. According to EPA, PFAS has been  
24 linked to developmental affects or delays in children,  
25 including low birth weight, accelerated puberty, bone

1 variations, behavioral changes, increase of some  
2 cancers, such as prostate, kidney and testicular  
3 cancers, the reduced ability of the body's immune  
4 system to fight infections, as well as interfering  
5 with the body's hormones and increased cholesterol  
6 levels and risks of obesity, among other impacts.

7 We're also supportive of the proposal  
8 to strengthen the disclosure requirements. There is a  
9 way to require the disclosure of chemicals similar to  
10 the food industry, where you list the ingredients but  
11 don't give away the recipe, which is a way that some  
12 states have gotten a way -- gotten around the trade  
13 secret issue. Thank you, again, for letting me speak  
14 today and look forward to the public engagement  
15 opportunities.

16 MR. FUGE: Thank you. I got one last  
17 person. We haven't quite run through the period that  
18 we provided -- to comment. Jozee Zuniga. Apologies  
19 for mispronouncing.

20 MS. ZUNIGA: Good afternoon, Chairman  
21 and members of the commission. My name is Jozee  
22 Zunica. I'm a member of YUCCA and I'm from the  
23 Permian Basin. More specifically, the Eddy County  
24 region. I'm one of those New Mexicans who is under  
25 direct health threats due to my exposure to PFAS

1 chemicals from the oil and gas operations taking place  
2 all around me.

3 I'm speaking in strong support of the  
4 petition before you. The state of New Mexico has a  
5 responsibility to protect citizens and frontline  
6 communities like mine. People living in the Permian  
7 are at a very high risk of disease caused by PFAS  
8 build up in our bodies due to high industry activity.  
9 In Eddy County, people live with extraction sites in  
10 their neighborhood on pipelines running through their  
11 backyards.

12 Protection from PFAS exposure could  
13 mean the difference for so many families in frontline  
14 community. -- communities at this point in time have  
15 no choice but to sit in silence while flares and vents  
16 are allowed outside of their homes. Which chemicals  
17 are in the pollution released into our air, land and  
18 water matters a lot. We cannot continue to allow  
19 industries to -- chemicals given the  
20 longstanding -- they present.

21 For the sake of the children of New  
22 Mexico, this pollution must be taken up. Thank you  
23 for supporting this petition and taking the New  
24 Mexican's health into consideration.

25 MR. FUGE: I have no one -- no one else

1 listed for comment. I am going to circle back and  
2 make one more attempt to see if Ms. Bennett is able  
3 to -- is in a position to speak. She did enter  
4 appearance on behalf of the EOG.

5 MS. BENNETT: Good afternoon, everyone  
6 and thank you for your patience with me as I work  
7 through my technological difficulties in the car. I  
8 really appreciate it. Deana Bennett on behalf of the  
9 EOG resources and I'm from Modrall Sperling in  
10 Albuquerque, New Mexico.

11 And I dropped as the commission was  
12 discussing potential hearing dates for the  
13 EOG -- virtual connectivity interrupted -- and the  
14 procedural order but is neutral on the proposed  
15 changes to the hearing -- to the scheduling order.

16 MR. FUGE: Okay. I think I -- I think  
17 I heard that, but let me just repeat it back to you.  
18 You broke up briefly. EOG is comfortable with the  
19 proposed hearing date, but may have some changes to  
20 work through on the hearing order, but that sounds  
21 consistent to where the commission sort of signal we  
22 want to get it nailed down with a hearing date and  
23 allow some time, possibly, for parties to work the  
24 procedural details, procedural order.

25 I'm going to look at my fellow

1 commissioners. Do you need to go and deliberate  
2 and/or concur with counsel, or we -- you think we're  
3 in a position to make a decision here?

4 MR. BLOOM: Mr. Chairman, I -- what  
5 decisions we're making right now?

6 MR. FUGE: We are making -- and this is  
7 declare for the record, we're making two decisions.  
8 One, are we going to accept the petition and set it  
9 for hearing, and then a hearing date. And then, you  
10 know, in an ideal world, we have not gone to schedule  
11 the order and other pieces, but I think the parties  
12 need some time to sort of work that out.

13 So we'd be sort of -- one of the  
14 hearing date remaining for -- are -- are we going to  
15 take a position, what's the hearing date we're aiming  
16 for, and then probably a direction to the parties to  
17 come back to us in short order with a procedural  
18 order.

19 MR. BLOOM: I think we can, Mr. Chair,  
20 I think we can address those issues now publicly  
21 and --

22 MR. FUGE: I'm going to make a motion  
23 to set Wildearth Guardians' petition for hearing.

24 MR. BLOOM: And I second that.

25 MR. FUGE: And I'm going to do a roll

1 call. Commissioner Ampomah?

2 DR. AMPOMAH: Approved.

3 MR. FUGE: Commissioner Bloom?

4 MR. BLOOM: Approved.

5 MR. FUGE: Let the record reflect  
6 unanimous decision on -- that Wildearth  
7 Guardian -- Guardians' petition for hearing. On  
8 scheduling, Commissioner Bloom raises a good point.  
9 While the legislative session will be done, it is the  
10 last -- it's the first week after and -- that at least  
11 two-thirds of the commission has heavy  
12 responsibilities during legislative session and  
13 immediate after with bill digest.

14 So I would like to propose that we  
15 schedule the hearing. I'd like -- I'd like to propose  
16 we schedule the hearing for the week of February 26th  
17 so it would be the 26th through March 1, 2024. And  
18 that we direct the parties on or before the August  
19 2023 commission meeting to come up with a procedural  
20 order that's either acceptable to all parties or the  
21 parties can come in and present to the commission  
22 where they are stuck and we'll make some final  
23 decisions on the procedural order then.

24 If that works, my commissioners, can I  
25 get a motion?

1 MR. BLOOM: Mr. Chairman, I so move.

2 UNIDENTIFIED SPEAKER: Parties --

3 MR. FUGE: Roll call. Commissioner  
4 Ampomah?

5 DR. AMPOMAH: Approved.

6 MR FUGE: Commissioner Bloom?

7 MR. BLOOM: Approved.

8 MR. FUGE: Let the record reflect  
9 unanimately that we will hold a hearing on Wildearth  
10 Guardians' petition the week of February 26th through  
11 March 1, 2024 and the parties need to either present  
12 to the commission a unanimous scheduling order in  
13 advance of our next meeting or come to the next  
14 scheduled meeting of the Oil Conservation Commission  
15 prepared to discuss areas of disagreement, and the  
16 commission will resolve those areas at that time.

17 Thank you very much, everyone.  
18 Appreciate everyone's time and comments this morning.

19 (Off the record.)

20 MR. FUGE: -- a class acid gas  
21 injection well, Red Hills No. 3, and I'm going to turn  
22 it over to counsel and representatives for Targa. I  
23 believe everyone else who's entered an appearance in  
24 the matter is present in the room.

25 MS. HARDY: Thank you, Mr. Chair and

1 commissioners. Dana Hardy with the Sante Fe Office of  
2 Hinkle Shanor on behalf of Targa Northern Delaware  
3 LLC. And I have spoken with Mr. Moander just a few  
4 moments ago and we have a proposal that we would each  
5 make a brief opening and then we can present our case.

6 UNIDENTIFIED SPEAKER: Okay --

7 MS. HARDY: That would be acceptable.

8 UNIDENTIFIED SPEAKER: That works.

9 MS. HARDY: Okay. And this case, Targa  
10 seeks authorization to inject treated acid gas from  
11 its Red Hills gas processing plant into the Red Hills  
12 AGI No. 3 well. The well is an underground injection  
13 control class two well. It is vertical with an  
14 approximate surface and bottom hole location at  
15 3,116 feet from the north line and 1,159 feet from the  
16 east line, Section 13, Township 24 South, Range 33  
17 East, in Lea County.

18 The well's proposed maximum daily  
19 injection rate is 13,000,000 standard cubic feet per  
20 day and the proposed maximum surface injection  
21 pressure is approximately 1,767 pounds per square inch  
22 gauge. The target injection zone for the well is  
23 within the Bell Canyon and Cherry Canyon formations of  
24 the Delaware mound group at a depth of approximately  
25 5,700 feet to 7,600 feet.

1           The well, as proposed in the C-108 will  
2     cause weight, impair correlative rights or harm public  
3     health or the environment, including through the risk  
4     of induced --. In addition, the wells will facilitate  
5     the sequestration of CO2 and treated acid gas, or TAG,  
6     which is in the public interest.

7           And in support of the application we  
8     will present three witnesses, Mr. Eales will testify  
9     first as a representative of Targa. Then we have  
10    Dr. Dana Ulmer-Scholle, Mr. Paul Ragsdale and  
11    Dr. David Tu. So I will turn it over to Mr. Moander.

12           MR. MOANDER: And I'll just stand up  
13    and speak very loudly here. OCD's position is that it  
14    doesn't oppose the approval of the proposed well in  
15    this instance, but here shortly, I'm going to present  
16    OCD's suggested elements or -- or qualities that the  
17    commission can consider for the well or conditions. I  
18    will run through that with the commission, and then I  
19    think Ms. Hardy will put on her witnesses at that  
20    point.

21           OCD does not have witnesses for  
22    purposes of today's hearing. It'll just be an outline  
23    of what OCD would like to see in the final order.

24           MS. HARDY: Should I --

25           MR. MOANDER: I guess I -- I --

1 MS. HARDY: Do you want --

2 MR. MOANDER: -- still on, aren't I?

3 MS. HARDY: You are. I think that you  
4 are.

5 MR. MOANDER: I was like, wait. All  
6 right. I'm going to read a -- this is the prepared  
7 position from OCD. We conventionally don't read these  
8 positions in, but the circumstances have warranted  
9 that. In Case No. 23649, Targa Northern Delaware LLC,  
10 Targa, has filed a second application for  
11 authorization to inject process waste of hydrogen  
12 sulfide, residual carbon dioxide, referred to as  
13 treated acid gas or TAG, from its Red Hills gas  
14 processing plant into the proposed Red Hills AGI Well  
15 No. 3.

16 The new well -- for second -- the new  
17 well is to be located 3,116 feet from the north line  
18 and 1,159 feet from the east line, in Section 13,  
19 Township 24, Range 33 East, NMPM, Lea County, New  
20 Mexico. Targa seeks approval to inject volume up to  
21 13,000,000 standard cubic feet per day of TAG at a  
22 maximum surface injection pressure of 1,767 pounds per  
23 square inch.

24 The proposed well will inject through  
25 perforated casing into a shallower interval comprising

1 the lower portion of Bell Canyon and Cherry Canyon  
2 formation in the Delaware mountain group from  
3 approximately 5,700 feet to 7,600 feet below surface.  
4 The proposed well will be constructed and monitored in  
5 such a way as to address the unique physical  
6 characteristics of TAG, including special well  
7 designed to address the characteristics of TAG.

8 Currently at the facility, Targa  
9 operates an existing AGI well, Red Hills AGI Well  
10 No. 1, and its temporarily abandoned AGI well, the Red  
11 Hills AGI No. 2, which was approved by the commission  
12 for disposal of TAG in a Silurian-Devonian interval.  
13 The Red Hills AGI Well No. 3 was originally proposed  
14 for a Silurian-Devonian injection interval.

15 However, protest by affected parties,  
16 specifically operators proposed development plans in  
17 the deeper Permian formation, resulted in Targa  
18 withdrawing its original deep injection application  
19 and submitting a new application for shallower  
20 disposal. OCD's position is as follows. Depending  
21 on -- well, after the -- the hearing is done, I can  
22 supply this to commission counsel for use in any order  
23 drafting.

24 Currently, OCD discourages the  
25 utilization of the DMG due to proven impairment of

1 correlation rights. Historically low formation  
2 parting pressure, poor record of injection reporting,  
3 and the potential increase in drilling issues for  
4 hydrocarbon targets located deeper than the DMG.  
5 However, OCD will not oppose the approval of the  
6 proposed well while recognizing necessity for a  
7 redundant AGI well to the Red Hills AGI Well No. 1.

8 A redundant well has become a  
9 recommendation of the OCD in order to avoid flaring  
10 and venting should there be a disruption of injection  
11 into Red Hills AGI Well No. 1. With this position,  
12 OCD seeks the following, and there are six points  
13 here. Like, these are a little complex. Again, I'll  
14 make sure the commission's supplied with this, as well  
15 as Ms. Hardy will -- I'm -- I believe she's already  
16 got a copy, but --

17 Proposal No. 1. Thee new proposed  
18 well, the AGI No. 3 shall be constructed and operated  
19 with the same conditions detailed for the proposed  
20 original AGI well. This includes well construction  
21 with CR material, monitoring requirement and adjusted  
22 operating conditions for the shallower injection  
23 depth.

24 No. 1. Within two years of commencing  
25 injection into to the shallower AGI No. 3 well, Targa

1 shall submit an application to the drill -- to drill  
2 and complete a deep AGI well in the Devonian-Silurian  
3 interval. This application shall be submitted with  
4 the full knowledge and approval of all affected  
5 parties which filed opposition to the original deep  
6 and interval application.

7 No. 3. Within three years of  
8 commencing injection into the shallower AGI No. 3  
9 well, Targa shall spud for the completion of the  
10 Devonian-Silurian AGI well. With the -- and No. 4,  
11 with the completion of the Devonian-Silurian AGI well,  
12 Targa shall place one of the shallower AGI wells in  
13 the DMG into TA status with -- and at the annual MIT,  
14 there should be injection viability testing, designate  
15 the second DMG as the redundant well, and move the  
16 primary TAG disposal to the Devonian-Silurian AGI  
17 well.

18 No. 5. Targa shall also include Red  
19 Hills AGI No. 2 in the assessment efforts for  
20 determining the location of the new Devonian-Silurian  
21 AGI well as to provide the commission current status  
22 on the issue of TAG migration for the AGI No. 2 well.

23 Finally, No. 6. OCD requests the  
24 commission to include the administrative authority for  
25 the director to extend the commission order approving

1 injection for Red Hills AGI Well No. 3 for just cause.  
2 This administrative action should only be applicable  
3 to extensions to commence injection and not to include  
4 later requests by Targa to modify critical operation  
5 or construction --

6 And with that, I will pass the  
7 microphone back to Ms. Hardy.

8 MS. HARDY: Thank you. Targa would  
9 like to call our first witness, which is Mr. Matthew  
10 Eales.

11 MR. FUGE: -- say everything in one  
12 setting. The court reporter, Dana, can you please  
13 swear in the witness?

14 THE REPORTER: Yes. Please raise your  
15 right hand.

16 WHEREUPON,

17 MATTHEW EALES,  
18 called as a witness and having been first duly sworn  
19 to tell the truth, the whole truth, and nothing but  
20 the truth, was examined and testified as follows:

21 THE REPORTER: Thank you. You may  
22 proceed.

23 UNIDENTIFIED SPEAKER: Mr. Chair?

24 MR. FUGE: Yes.

25 UNIDENTIFIED SPEAKER: If I might. So

1 just to be clear, on the --, before we jump in, your  
2 second point was that within two years, it'll be a  
3 deeper well than approved and -- three years that gets  
4 spudded?

5 MR. EALES: That is correct,  
6 commissioner.

7 UNIDENTIFIED SPEAKER: And the  
8 shallower well goes to inactive status?

9 MR. EALES: Temporarily -- yeah.

10 UNIDENTIFIED SPEAKER: And then -- then  
11 Red Hills No. 2 becomes part of the study? Right?  
12 Was that No. 5?

13 MR. EALES: Yes.

14 UNIDENTIFIED SPEAKER: And then No. 6  
15 is AGI No. 3 can be extended by OCD director, so that  
16 would be the OC -- you know how he is, the -- the  
17 director, to extend AGI No. 3's life for just cause?

18 MR. EALES: Correct.

19 UNIDENTIFIED SPEAKER: Commissioner.

20 MR. EALES: That's correct. But only a  
21 certain extension, as I understood it.

22 MR. MOANDER: Yes. Like,  
23 that's -- I -- it's going to be -- the just cause  
24 would have to be established for -- for one, and I  
25 think that -- it's not alone -- it -- it's pretty

1 sufficient to give the director the authority to weigh  
2 what -- what he or she happens to be receiving.

3 UNIDENTIFIED SPEAKER: Okay. Thank  
4 you. No further questions.

5 MR. MOANDER: And I'll stand for any  
6 more questions if the commission happens to have any.

7 DR. AMPOMAH: -- question, I'm  
8 wondering what the -- the extra -- petition is going  
9 to --

10 MR. MOANDER: I -- I -- Dr. Ampomah, I  
11 think we've had some difficulties in our legal office  
12 in the past few weeks. We did not file a pre-hearing  
13 statement. And this is why I'm -- I'm providing the  
14 entire -- the entire -- OCD's position today, which is  
15 admittedly a little unorthodox. But that -- that's  
16 just the flat truth, Dr. Ampomah.

17 DR. AMPOMAH: File -- hearing  
18 statement --

19 MR. MOANDER: Yes.

20 DR. AMPOMAH: Okay. Thank you.

21 MR. MOANDER: Anything else from the  
22 commission before I sit down?

23 MR. FUGE: Not at this time.

24 MR. MOANDER: Thank you.

25 MR. FUGE: And actually -- I -- both

1 parties in appearance -- we both need before we get  
2 into -- presentation?

3 MR. FELDEWERT: Yes. So I'm here  
4 for -- Michael Feldewert, Santa Fe Office of Holland  
5 and Hart -- Resources Inc., Conoco Phillips, and  
6 Matador Production Company. Okay? We have not seen  
7 these new proposals by the division. A couple of them  
8 are troubling. So I'm going to meet with Mr. Moander  
9 at the appropriate time. I'd like to see them. Okay?  
10 And digest what has been discussed here this morning  
11 that apparently, we were not aware of -- aware of  
12 these. Okay? That's -- thank you.

13 EXAMINATION

14 BY MS. HARDY:

15 Q Okay. Mr. Eales?

16 A Yes? Okay.

17 Q Please state your full name.

18 A Robert Matthew Eales.

19 Q By whom are you employed and in what  
20 capacity?

21 A Targa Resources, VP of regulatory.

22 Q What are your responsibilities in that  
23 position?

24 A Responsibilities for our AGI wells and SWD  
25 wells with permitting and compliance.

1 Q Have you ever testified at a commission  
2 hearing?

3 A Yes, I have.

4 Q Can you please briefly summarize your  
5 education and professional background?

6 A I -- I have a masters in environmental  
7 engineering from University of Kansas in '95. Since  
8 1997, I've worked in EH&S in a regulatory capacity  
9 within oil and gas companies, domestic and  
10 internationally, through today.

11 MS. HARDY: Mr. Chair and  
12 commissioners, based on Mr. Eales' education and  
13 professional experience, I move that he be qualified  
14 as an expert in environmental engineering.

15 MR. FUGE: Yes. So recognized.

16 MS. HARDY: Thank you.

17 BY MS. HARDY:

18 Q Mr. Eales, can you please identify the  
19 document that has been marked as Targa Exhibit A?

20 (Targa Exhibit A was marked for  
21 identification.)

22 A Yes. That's our application, our C-108 for  
23 Red Hills No. 3.

24 Q And is Exhibit A, a true and correct copy of  
25 the application and C-108?

1 A Yes, it is.

2 Q Did Targa retain New Mexico Institute of  
3 Mining and Technology to prepare it's C-108?

4 A Yes, we did.

5 Q Were you personally involved in the  
6 preparation of that application?

7 A Yes.

8 Q Will Targa's other witnesses testify in  
9 detail regarding the content of the C-108?

10 A Yes.

11 Q Would you next identify the document that's  
12 been marked as Targa Exhibit B?

13 (Targa Exhibit B was marked for  
14 identification.)

15 A This document is our hearing presentation.

16 Q And was this presentation prepared by you or  
17 under your supervision?

18 A Yes.

19 Q Okay. Let's look at Slide 4. Hopefully  
20 everyone can see that. Can you please provide some  
21 background on Targa's Red Hills facility?

22 A Yes. The intent of this slide is to,  
23 obviously, show at the top the -- this Red Hills  
24 facility is located in Lea County, 20 miles west of  
25 Jal, New Mexico. The graph on the left shows the

1 Targa gathering lines for the CO2/H2S, both sweet and  
2 sour gas, and the yellow star in the image is the  
3 location of the Red Hills plant.

4 The primary purpose was just to show  
5 the -- the volume that we see in that area. And on  
6 the right is a -- an aerial image of our Red Hills gas  
7 plant, and specifically, the AGI processing and  
8 compression facility in the foreground.

9 Q Can you please describe what is shown on  
10 Slide 5?

11 A Yep. This is an overall timeline of the Red  
12 Hills AGI wells. AGI 1 was drilled and began  
13 injection in August 2018, injecting into the Cherry  
14 Canyon formation. AGI 2 is permitted -- as noted  
15 earlier, it's permitted to the Silurian-Devonian. We  
16 began losing returns in the Bell Canyon formation  
17 while drilling through.

18 The fact we were cognizant to the fact that  
19 AGI 2 is 198 feet away from our active injection into  
20 the Cherry Canyon in 1 caused us to, No. 1, understand  
21 that we would be more prudent to drill a third well  
22 which we had already actually applied for in February  
23 of this year, knowing that we would need the volume.

24 So at that point, we temporarily abandoned  
25 AGI 2, again out of an abundance of caution, knowing

1 that we're injecting into 1, and began the permitting  
2 process for AGI 3, which is how we are here today.  
3 The intention would be that once we are injecting into  
4 3, we can stop injecting into No. 1 in the Cherry  
5 Canyon, and relieve the pressure in that area to allow  
6 more movement forward with 2 or other options.

7 Q What is shown on Slide No. 6, please?

8 A So Slide 6 is just a -- a greater, further  
9 back image of both the -- the Midland and Delaware  
10 Basin and just overall of well and gas activity. As  
11 you all know, it's very busy, particularly where Red  
12 Hills sits.

13 Q What is shown on Slide 7?

14 A And this is an overall expectation of our  
15 growth expectations in the Permian Basin. We're  
16 sitting in 2022 at about three billion cubic foot per  
17 day with expectations to get up into six and seven  
18 billion cubic foot per day in the area.

19 Q And does Targa require additional injection  
20 capacity to meet this expected growth?

21 A Yes, we do.

22 Q Let's talk for a minute about the  
23 environmental benefits of the injection of treated  
24 acid gas or TAG. Can you please summarize some of  
25 those benefits?

1           A       Yes.  Historically, when H2S was encountered  
2     in a -- in a gathering system, it would've been  
3     flared, which produces significant amounts of SO2, and  
4     a -- a critical air pollutant with the EPA.  So there  
5     was conversion to AGI wells in order to minimize the  
6     impact on the environment and not burn H2S, converting  
7     it H -- SO2, which is an irritant, basically putting  
8     it back into the ground where it came from.

9           So one of the first benefits, obviously, is  
10    H2S is a very dangerous gas in itself and conversion  
11    to SO2s hazardous, so injecting that back into the  
12    ground, its protective of the environment and -- and  
13    the people in the area.

14           The other part of it, too, is it allows our  
15    plant to process the gas in those gathering lines and  
16    removing water, SO2, H2S from those streams so that it  
17    can be sent down the line and provide our upstream  
18    clients the opportunity to have a viable and  
19    marketable gas that they can send down the  
20    distribution lines.

21           Q       Without an AGI, how would oil and gas  
22    operators treat their sour gas in the field?

23           A       They would flare it.

24           Q       Does the injection of TAG eliminate flaring  
25    at the plant as a control for sulfur derived from the

1 process of sour gas?

2 A Yes.

3 Q Does it reduce the need to vent CO2?

4 A Yes.

5 Q Will the injection of TAG minimize CO2  
6 emissions from the plant?

7 A Yes.

8 Q In your opinion, will there be environmental  
9 benefits if Targa is authorized to inject CO2 into the  
10 Red Hills AGI No. 3?

11 A Absolutely.

12 Q Will Targa complete an H2S contingency plan  
13 before commencing injection into the well?

14 A Yes, we will.

15 Q And will that plan comply with all of the  
16 division's requirements?

17 A Yes.

18 Q Earlier you heard Mr. Moander summarize  
19 OCD's recommended permit conditions. Is that correct?

20 A That's correct.

21 Q And does Targa agree to accept those  
22 conditions?

23 A We agree to it. Yes. We agree to accept  
24 those conditions.

25 Q Mr. Eales, can you please identify Targa

1 Exhibit C?

2 (Targa Exhibit C was marked for  
3 identification.)

4 A So this is a listing of our notices given  
5 prior to this hearing.

6 Q Did Targa provide notice of the hearing to  
7 all affected parties?

8 A Yes, we did.

9 Q Mr. Eales, in your opinion, will the ability  
10 to inject acid gas into the well result in more  
11 efficient operation of the plant?

12 A Yes, it will.

13 Q And in your opinion, will Targa's proposed  
14 method of disposing of treated acid gas protect public  
15 health and the environment?

16 A Yes, it will.

17 Q Will it also prevent waste and protect  
18 perrelative rights?

19 A Yes.

20 MS. HARDY: Mr. Chair and  
21 commissioners, I have no further questions for  
22 Mr. Eales. I would move the admission of Targa's  
23 Exhibits A, B and C.

24 MR. FUGE: Those are accepted in the --

25 //

1 (Targa Exhibit A, Exhibit B, and  
2 Exhibit C were received into evidence.)  
3 MS. HARDY: Targa's next witness is  
4 Dr. Dana Ulmer-Scholle. I believe the witness needs  
5 to be sworn.

6 MR. FUGE: May I ask the court reporter  
7 to swear in the witness?

8 THE REPORTER: Yes. Please raise your  
9 right hand.

10 WHEREUPON,

11 DR. DANA ULMER-SCHOLLE,  
12 called as a witness and having been first duly sworn  
13 to tell the truth, the whole truth, and nothing but  
14 the truth, was examined and testified as follows:

15 THE REPORTER: Thank you. You may  
16 proceed.

17 EXAMINATION

18 BY MS. HARDY:

19 Q Thank you. Can you please state your name  
20 for the record?

21 A It is Dana Shirley-Ann [ph] Ulmer-Scholle.

22 Q By whom are you employed and in what  
23 capacity?

24 A I work for New Mexico Tech at the PRRC, or  
25 the Petroleum Recovery Research Center. And I -- in

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1 the capacity of developing geologic models, doing rock  
2 characterization, as well as proposal writing.

3 Q Have you ever testified at a commission  
4 hearing?

5 A No, I have not.

6 Q Would you please briefly summarize your  
7 education and professional training?

8 A I have a Ph.D. in geology and geochemistry  
9 from Southern Methodist University. I've worked for  
10 more than 30, 40 years with both national and  
11 international petroleum companies. I've taught a  
12 variety of short courses and field courses for  
13 professional organizations, and in particular, I've  
14 led courses to the Permian -- complex for geologic  
15 training of geologists, engineers and geophysicists.

16 MS. HARDY: Based on Dr. Ulmer-  
17 Scholle's education and experience, I would request  
18 that she be recognized as an expert in petroleum  
19 geology.

20 MR. FUGE: Doctor, correct?

21 THE WITNESS: Correct.

22 MR. FUGE: Dr. Ulmer-Scholle is  
23 recognized as an expert.

24 MS. HARDY: Thank you.

25 //

1 BY MS. HARDY:

2 Q Dr. Ulmer-Scholle, let's look at Slide 9 of  
3 the presentation. Can you please describe the  
4 stratigraphy of the proposed injection zone?

5 A Yes. We are looking at the Delaware  
6 Mountain Group in the Delaware Basin, which consists  
7 of a variety of formations that range from, at the  
8 base, the Brushy Canyon formation overlaying by the  
9 Cherry Canyon formation, Bell Canyon formation and  
10 finally, the Lamar Limestone. The Bell and Cherry  
11 Canyon, the upper Bell and -- and the Cherry Canyon  
12 are our primary injection targets.

13 The Lamar part of the Delaware is part of  
14 a -- a seal, but our main seal will be the Castile,  
15 the Salado and maybe the -- the -- part of --.  
16 Between the Castile and Salado, we have almost  
17 4,000 feet of -- of seal in the basin. The Delaware  
18 Mountain Group consists of a variety of lithologies  
19 ranging from sandstone, siltstones, mudstone and  
20 limestone.

21 They were deposited in a submarine fan and  
22 channel complex -- turbidity currents, as well as  
23 debris flows. As I stated earlier, the -- zones with  
24 the best proxy are the upper Bell Canyon and within  
25 the Cherry Canyon.

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1 Q Can you describe what's shown on the next  
2 slide?

3 A This is the location of the Red Hills area  
4 with respect to the paleogeography or the -- the  
5 region of the Delaware Basin, so we're on the eastern  
6 side of the central base and platform. It is like a  
7 green tongue that's coming down into the -- the  
8 diagram. And so, we are truly into the basin  
9 sediments. We're not up on the shelf in the  
10 carbonates. We're -- so we're in deep water  
11 environment.

12 We've constructed a geologic model that is  
13 based both on 3D seismic, as well as traditional well  
14 log correlations.

15 Q And what is shown on the next slide, please?

16 A The next slide shows an idealized diagram of  
17 the depositional environments, as well as  
18 paleogeography. So on the right side of the diagram  
19 is the central basin platform, which is the source of  
20 sediments for that -- this side of the Delaware Basin.  
21 And you had channels that would cut into the platform  
22 and those sediments then were channelized into those  
23 deep ravines, and formed channels, overbank deposits,  
24 splays, during times of storm.

25 And were inter-deposited with periods of

1 calm, hemipelagic sediments like limestone, mudstone.  
2 So it's a complex interplay between all these  
3 depositional environments and sometimes crisscrossing  
4 each other. And I should say this channel and the  
5 splays are the main injection intervals that we're  
6 targeting.

7 Q And what is shown on the cross-section?

8 A This is a -- a southwest to northeast cross  
9 section through the Red Hills site. It's -- level, so  
10 zero represents sea level. Showing, first of all,  
11 there's very little disturbance. There's no faulting.  
12 We -- you have what we would call railroad tracks  
13 where the thickness of the Bell Canyon, Cherry Canyon  
14 and even the Brushy Canyon are relatively uniform  
15 throughout the area.

16 It also shows the -- the seal, that we have  
17 roughly 4,000 feet of seal in this interval.

18 Q And what is shown on the next slide  
19 regarding the petrophysical properties?

20 A The -- the closest well to the proposed  
21 AGI 3 is the AGI 1, and what I've highlighted is the  
22 upper Bell Canyon formation. All the yellow are the  
23 high porosity sand beds that are one of the targets  
24 for injection, followed by a tighter interval in the  
25 lower Bell Canyon. And then by an upper Cherry Canyon

1 injection zone.

2 So in these sands, the maximum porosity is  
3 around 24 percent, but for all the modeling  
4 we've -- we were doing, we took the more conservative  
5 approach and -- and used an estimate of 15 percent  
6 porosity in these rocks. The overlying seal has  
7 negligible porosity or permeability in it, making it  
8 an excellent seal for the area.

9 Q And what is shown on Slide 14?

10 A So this is the -- the horizons from -- there  
11 are 3D seismic, so as I mentioned earlier, we used  
12 both 3D seismic and well log interpretation to create  
13 these surfaces. So the first one shows where the Red  
14 Hills is located on the surfaces. The horizon and  
15 Castile -- the Castile is not the easiest to image and  
16 correlate first, so we took a horizon that we could  
17 pick throughout this -- the area of our 3D seismic  
18 and -- and correlated that. It's about 1,600 feet  
19 above the Bell Canyon. But there's significantly more  
20 seal above that horizon.

21 Then you can see from this, the Bell Canyon  
22 and Cherry Canyon are roughly 1,200-feet thick each  
23 and also show minimal relief bottom indicating there's  
24 no faulting in the area within the Delaware Mountain  
25 Group.

1 Q And what is shown on the next slide?

2 A These are the detailed maps built from both  
3 the seismic and the well log data. And the color on  
4 the maps show the relative thicknesses. So this is  
5 part of the combining zone, so it's not the entire  
6 finding so, but the -- the biggest thing is that the  
7 contour lines indicate the structural elevation.

8 And so, you can see that roughly the  
9 Castile, that -- that surface in the Castile is  
10 dipping slightly to the south, southeast.

11 Q And what's shown on the structure map?

12 A Okay. This is Bell Canyon. This is the  
13 injection zone. One of the injection zones. And it  
14 shows, again, the thicknesses. So we have a thickness  
15 of around 1,000 feet in our area of Bell Canyon  
16 sediment based on the seismic. And at about 1,675  
17 feet sub-shee [ph]. So again, the contours represent  
18 the structural interval.

19 Q And what's shown on this next structure map?

20 A And the Cherry Canyon is -- shows, again,  
21 the -- pack is the colored portion of this map and  
22 shows the thicks and thins within the Cherry Canyon.  
23 So we're sort of on the transition zone. We have good  
24 to moderately good thicknesses of Cherry Canyon,  
25 sandstone and again, it's dipping to the south,

1 southwest in the basin.

2 Q And what is shown on Slide 18 regarding  
3 seismicity?

4 A Yeah. This is a slide that was created by  
5 Mairi Litherland at the Bureau of Geology & Mineral  
6 Resources in -- in Socorro, and she's the state's  
7 seismologist. So since before the drilling of AGI 1,  
8 New Mexico Tech and Targa took a proactive approach of  
9 placing a seismometer in the area. And this  
10 seismometer is not just for the Red Hills area, it  
11 ties into the state-wide network that can be used to  
12 locate both the depth and location of earthquakes  
13 within the state.

14 So, as I said, it started monitoring since  
15 before drilling of AGI 1 and since then, in a ten-mile  
16 radius, there's been several earthquakes. The highest  
17 being a 3.0, which was about 12.4 kilometers from the  
18 site. Probably not related to an injection. There's  
19 another -- a second large one -- largest one is 2.32  
20 and the closest is 3.5 kilometers away had has the  
21 magnitude of 1.49.

22 Mairi wanted me to stress that since they've  
23 been looking at the seismic activity in the -- at the  
24 site, before drilling and after drilling, seismicity  
25 has not increased nor has it decreased. So they see

1 no impact at this point on the potential for induced  
2 seismicity in the area.

3 Q Do you have any concerns regarding impacts  
4 of this injection well to offset production?

5 A No, I do not.

6 Q Why not?

7 A Because currently within the area, there's  
8 no production from the Bell Canyon or Cherry Canyon.  
9 And so I don't see a potential conflict.

10 Q Based on your evaluation, is it your opinion  
11 that the Bell and Cherry Canyon formations are  
12 appropriate to accept the injection of TAG at the  
13 location of the Red Hills IGI [sic] No. 3?

14 A I -- I think it is. Yes.

15 Q Is it your opinion that the TAG will be  
16 safely contained within the injection interval?

17 A Definitely. The -- the Castile-Salado is  
18 probably one of the best fields that you can have out  
19 there. So it -- it's the reason there is oil and gas  
20 in the Permian Basin because otherwise, it would've  
21 migrated out of the Delaware Basin.

22 Q In your opinion, will the injection of TAG  
23 into this injection well result in any increased risk  
24 of seismicity?

25 A I don't believe so. There are no identified

1 faults in the area on seismic. There is no indication  
2 that we would see an increase in seismicity.

3 Q Based on your analysis, will injection into  
4 the well prevent waste, protect relative rights and  
5 protect human health and the environment?

6 A It -- it's -- yes, it should.

7 Q Okay.

8 MS. HARDY: I have no further questions  
9 for Dr. Ulmer-Scholle. She's available if the  
10 commissioners have questions.

11 MR. FUGE: I'm going to look at first  
12 to the either of the parties -- at this time, calls  
13 will be -- forgot to ask.

14 MR. FELDEWERT: -- real --

15 MR. FUGE: Mr. Moander?

16 MR. MOANDER: Nothing from OCD,  
17 Mr. Chair.

18 MR. FELDEWERT: -- to the testimony  
19 I've heard here today, nothing to do with the Devonian  
20 or the Silurian? Do not have any questions.

21 MR. FUGE: Commissioners, do you have  
22 questions for the witness?

23 DR. AMPOMAH: Yeah.

24 MR. FUGE: Go for it --

25 DR. AMPOMAH: So Dr. Ulmer-Scholle, I

1 want to know what is the closest distance and a depth  
2 of a recent well to the well that we're talking about?

3 THE WITNESS: Within the Bell Canyon  
4 and Cherry Canyon?

5 DR. AMPOMAH: Yeah.

6 THE WITNESS: I would have to look  
7 it -- look it up. I'm sorry.

8 DR. AMPOMAH: -- those -- locations.  
9 Do we have any for recent wells --?

10 THE WITNESS: No.

11 DR. AMPOMAH: Okay. So, do you believe  
12 that we could have -- you do have  
13 enough -- commission --?

14 THE WITNESS: I - I do, because while  
15 we don't have a lot of data from the AGI two wells,  
16 because of the issues, there were -- circulation zones  
17 within some of those Bell Canyon sandstones that  
18 indicate there's a lot of porosity and permeability  
19 available for injection. But based on the AGI 1 well,  
20 there is hard data in the Cherry Canyon with porosity  
21 and permeability measurements.

22 Unfortunately, they didn't look at the  
23 upper Bell Canyon. So we're -- we're -- have to rely  
24 on the well log for porosity and -- porosity  
25 measurements.

1 DR. AMPOMAH: So on the slide that  
2 showed -- for the area and you more or less relying  
3 on --

4 THE WITNESS: The -- the channels  
5 and -- the channels, overbank and splays are -- are  
6 the main reservoirs. But yes.

7 DR. AMPOMAH: So I'm curious  
8 about -- extent -- and also --

9 THE WITNESS: Yeah. The -- the lateral  
10 extent with the channels is more constrained than say,  
11 for the splay and overbank deposits. For the splays,  
12 you -- you have a overflow of the channel and it sends  
13 sediment out. And a lot of times it becomes a new  
14 channel because it cuts down enough. So yes, there  
15 might be some constraint laterally within the  
16 channels, but I think the splays and overbank deposits  
17 help compensate for the aerial extent of the injection  
18 reservoirs.

19 DR. AMPOMAH: So you look at AGI No. 1  
20 and AGI No. 3, so -- with a 1,000 -- so my question to  
21 you is that, do you believe that we can drill this  
22 well successfully? You know, looking at the impacts  
23 of the -- injecting into the AGI No. 1? Do you  
24 believe that we can drill -- you can drill this well  
25 successfully without any impression --?

1 THE WITNESS: As best as that I can  
2 say, I believe we can drill it successfully. The  
3 channels do cut across each other. We -- we -- we're  
4 still working on 3D seismic to try to see if we can  
5 constrain this channel. But I think just -- AGI 1 may  
6 be another part of the channel system and we'll be  
7 accessing another compartment, especially since the  
8 AGI 1 does not look at the Bell Canyon.

9 DR. AMPOMAH: Okay. Yeah,  
10 that -- I'm -- I was really interested in that, you  
11 know, to make sure that when you drill this  
12 successfully without -- so you said -- space on AGI  
13 No. 1, so then it don't mean that -- the models that  
14 were -- were utilized in this -- continues?

15 THE WITNESS: I'll let  
16 David -- Dr. David Chu address that, but it's probably  
17 a little more homogeneous. But we took -- since we  
18 took a conservative approach with the porosity and  
19 permeability of much lower than, say, the channel  
20 sands themselves, we felt that at this point, that  
21 with the -- a good way to proceed with the model.

22 DR. AMPOMAH: So you believe the Brushy  
23 Canyon also form a spot of your soil complex?

24 THE WITNESS: I don't -- I think  
25 there's potential, but I -- with your planning

1 stopping before hitting the Brushy Canyon, at the  
2 lower Cherry Canyon, because we don't want to have any  
3 potential interference with any lower horizons. So  
4 we -- we chose to use the -- the siltstones and  
5 mudstones as the -- Brushy Canyon as the -- the  
6 base -- basal seal.

7 DR. AMPOMAH: So what are the Brushy  
8 Canyon actually end up on the -- with the --

9 THE WITNESS: Again, I'll -- I'll  
10 let -- he -- it is in the geologic model. I'll let  
11 Dr. Tu address it in the engineering.

12 DR. AMPOMAH: Yeah. So I'm interested  
13 in that, so hopefully, Dr. Tu can respond to that.

14 THE WITNESS: Yeah.

15 DR. AMPOMAH: Because you do have  
16 the -- the Bone Springs right below that.

17 THE WITNESS: Exactly.

18 DR. AMPOMAH: So, I really -- yeah, I  
19 really want to know if there is any potential  
20 impact --

21 THE WITNESS: Yeah. I -- I would say  
22 it would be extremely unlikely because it -- of  
23 the -- the thickness of the Brushy Canyon to the Bone  
24 Spring, that there would be any impact in -- in the  
25 underlying Bone Spring. And that's why we -- we're

1 choosing to stop before we get to the Brushy Canyon.

2 DR. AMPOMAH: Yeah. This -- it's the  
3 English to one. The -- seismic --

4 MS. HARDY: Which one?

5 THE WITNESS: It's the last one. Nine.

6 DR. AMPOMAH: So, my first question  
7 would be, do we know the ground location of this event  
8 relative to the DMG?

9 THE WITNESS: Dr. Litherland, yes,  
10 knows the depth of all these events.  
11 I -- unfortunately, I don't have her data and she  
12 couldn't be here today.

13 DR. AMPOMAH: But I want to know if  
14 your team -- look into that and make sure that -- are  
15 not apparent, even -- even --

16 THE WITNESS: I believe she did look  
17 into it. I -- I can only state what I -- I -- the  
18 conversation that we had and she said that it was  
19 deeper horizons that she -- she was looking at. So,  
20 like the Silurian-Devonian, up to, into the Wolf  
21 campion.

22 DR. AMPOMAH: So is it -- the -- that  
23 there is no -- micro-seismic events, it should  
24 really -- in the -- zone that --?

25 THE WITNESS: I -- I witnessed it. I

1 would say yes. I would support that.

2 DR. AMPOMAH: Yeah. So, I'll also ask  
3 you about the -- the conflict between -- wells in this  
4 area so that question to -- below, but away --

5 THE WITNESS: Okay. Because I was  
6 going to say, there are -- if there -- there is lower  
7 production. It's -- it's just no production in the  
8 Delaware Mountain.

9 DR. AMPOMAH: -- here --

10 MR. FUGE: Thank you. Before we move  
11 to the next witness, I just want to circle back. Mr.  
12 Moander and Mr. Feldewert, do you have any questions  
13 of Mr. Eales?

14 MR. MOANDER: No, Mr. Chair. OCD does  
15 not.

16 MR. FUGE: You may proceed.

17 MS. HARDY: Thank you. Targa's next  
18 witness is Mr. Paul Ragsdale.

19 THE REPORTER: Can you please raise  
20 your right hand?

21 WHEREUPON,

22 LUTHER PAUL RAGSDALE,  
23 called as a witness and having been first duly sworn  
24 to tell the truth, the whole truth, and nothing but  
25 the truth, was examined and testified as follows:

1 THE REPORTER: Thank you. You may  
2 proceed.

3 EXAMINATION

4 BY MS. HARDY:

5 Q Please state your full name for the record.

6 A Luther Paul Ragsdale.

7 Q By whom are you employed and in what  
8 capacity?

9 A I'm an independent consultant working for  
10 Targa Resources.

11 Q Have you ever testified at a commission  
12 hearing?

13 A I have not.

14 Q Can you please briefly summarize your  
15 education and professional training?

16 A So, I have a BS in industrial engineering  
17 from New Mexico State University in 1977 and I went to  
18 work in southeast New Mexico in the oil fields in  
19 1977, and have worked there ever since.

20 MS. HARDY: Mr. Chair and  
21 commissioners, I would request that Mr. Ragsdale be  
22 recognized as an expert in drilling engineering.

23 MR. FUGE: He's so recognized.

24 MS. HARDY: Thank you.

25 BY MS. HARDY:

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1           Q     Mr. Ragsdale, let's look at Section 3 of our  
2 presentation. Can you please describe what's shown on  
3 Slide 20?

4           A     So Slide 20 is the -- on the left-hand side,  
5 is OCD Form C-102, that gives you the legal locations  
6 of the proposed Red Hills AGI No. 3. The right-hand  
7 side is the surveyor's plat, and it also shows a  
8 certified survey of where AGI No. 3 is. It also shows  
9 there's some hashed line, that is the property line of  
10 the Red Hills plant. So it shows you that it's inside  
11 the property line of the Red Hills plant.

12          Q     Can you describe the well bore schematic  
13 that is shown on Slide 21?

14          A     So, yes. So the -- this is our well bore  
15 schematic that shows the casing strings and the tubing  
16 string of our proposed well. We -- we basically have  
17 designed this well where each string will protect and  
18 isolate each section. As we drill through it, we  
19 designed it to provide the best well bore integrity.  
20 You can see that the surface is a 13 and three-eighths  
21 casing set at 1,307 feet.

22                   That will be 50 feet into the Rustler  
23 formation -- the Rustler formation Above that is your  
24 freshwater section. And so we're going to isolate the  
25 freshwater and cement it. And we will circulate

1 cement. The intermediate is a nine and five-eighths  
2 intermediate and we will drill it down to 5,200 feet.  
3 I think it's 5,205 and we will top the Lamar  
4 limestone.

5 And that is what Dr. Ulmer-Scholle was  
6 talking about, is we're -- we'll drill through the  
7 salt, through the Castile, the Salado, into the Lamar,  
8 and we will set pipe there, in nine and five-eighths,  
9 and we will circulate cement there. We then drill out  
10 through the -- through the Delaware Mountain Group  
11 into the Bell Canyon, and into the Cherry Canyon, and  
12 we're going to -- our proposed total depth is 7,600  
13 feet. So we do not penetrate the Brushy Canyon there.

14 As -- I know OCD asked that we include a CRA  
15 material, a corrosion-resistant material, so we do, in  
16 the bottom part of the 7-inch, you can see that we  
17 have 7-inch, 32-pound G3 CRA VAM top. The G3 is a  
18 nickel alloy. It is a corrosion-resistant material.  
19 Two 2 -- H2S and to TAG. Then the -- we have a tubing  
20 string that we'll run a packer on and the tubing  
21 string also is a corrosion-resistant -- the full  
22 string is a corrosion-resistant material made of a  
23 nickel alloy.

24 Q And will this well design ensure the safety  
25 and integrity of the well?

1 A Yes, ma'am.

2 Q What's shown on Slide 22, please?

3 A Slide 22 is -- is a little more detail of  
4 the actual casing specs. You can see the conductor,  
5 it's a 30-inch conductor, and you just set that so you  
6 can get the rig on it. It's cemented. Then a surface  
7 pod. The surface and the intermediate pipes, those  
8 pipe are carbon steel. They're not CRA material. It  
9 shows you the -- the threads on there. The BTC, the  
10 coupling connection means it's a buttress thread.

11 The production string has both some carbon  
12 steel P110 pipe at the top and then the CR emit -- CRI  
13 material at the bottom. You can see the coupling  
14 connection is a VAM top and a VAM top is a gas pipe  
15 connection tubing. Again, is the CRA material set on  
16 top of the packer. VAM ACE, which -- and it's 3 and a  
17 half inch, and -- to is a -- a gas pipe connection.

18 Q And what's shown on Slide 23?

19 A So -- so, 523 is our casing specifications.  
20 We go through and we look at each string of casing and  
21 we make sure that we meet a certain safety factor as  
22 far as yield, tensile strength, burst, collapse body  
23 and then, of course, we -- we also list connections in  
24 there, too. So all of our pipe strings are designed  
25 with at least 150 percent safety factor.

1 Q And what is shown on Slide 24?

2 A So, Slide 24 is some detail on our cement  
3 designs, the kind of cement we're going to use. I  
4 think the most important thing is here is our  
5 conductor surface and intermediate. We will circulate  
6 cement to surface and then in the production area, not  
7 only are we going to use CRA material in our pipe, but  
8 we're going to use a -- a special cement that has been  
9 developed for acid gas injection wells, call it  
10 corrosion-resistant cement.

11 And we will circulate cement on this, too.  
12 So all four strings will have cement circulated.

13 Q And what is shown on Slide 25?

14 A So -- so this is our drilling fluid design,  
15 which is a fancy word for our mud. And you can see  
16 the -- the first string, the 17-and-a-half-inch hole,  
17 we'll drill with freshwater, because you'll be  
18 drilling through the freshwater sands, although  
19 there's not many freshwater sands out there. We'll  
20 set pipe in the -- in the Rustler.

21 So mud weight is, you know 8, 8.5 to  
22 9 pounds. You're carrying some solids in there. The  
23 second string is through the salt section, so we'll  
24 use a brine mud there and that's to keep from washing  
25 out. If you were to use freshwater muds, you would

1 dissolve the salt, so we use brine and to keep the  
2 hole sides true.

3 And then, the -- the third one is to drill  
4 the Delaware Mountain Group, the Bell and the Cherry,  
5 and -- and we're going to -- we'd use a cut brine with  
6 the mud weight of about 9 pounds. Now, it's really  
7 important in that when we drill the AGI 2 in -- in the  
8 Bell Canyon, we have mud weights much higher than that  
9 and we lost circulation. So we're going to monitor  
10 our mud weights here to try to prevent any lost  
11 circulations.

12 But we have this possibility that we might  
13 have a pressure wave there. We're going to -- the  
14 drilling rig that we're going to use is going to have  
15 a managed pressure drilling system so we can handle if  
16 we take any kind of ticks or anything like that.

17 Q And what is shown on Slide 26?

18 A So, Slide -- Slide 26 shows our logging.  
19 We're going to run a lot more logs than a normal well  
20 does. We will log the surface open hole with a -- a  
21 resistivity log and a gamma ray, and a caliper. Then  
22 we'll set pipe and cement it, and we'll run a cement  
23 bond log in the intermediate casing. We'll -- we'll  
24 do the same thing, but because we -- we're using  
25 brine, we'll have to run a lateral log instead of an

1 induction log.

2 So a resistivity log, a gamma ray and  
3 a -- and a caliper, then case toll will run a sonic  
4 tool and a cement bond log again, and then in the  
5 production casing or the production hole. So this  
6 will be across the -- the Bell Canyon and the Cherry  
7 Canyon. We'll do more. We'll run both resistivity  
8 and porosity logs. We'll -- we'll run the gamma ray.

9 We'll also run -- you can see we listed an  
10 FMI in there. So an FMI is a tool that identifies  
11 small micro-fractures in there. Then once we set  
12 pipe, we'll -- we'll run a bond log and a -- and a BDL  
13 on it, too, and a gamma ray.

14 Q Here, Slide 27, what additional carbon  
15 monitoring will take place?

16 A So -- so, from a -- standpoint, we -- we  
17 plan to core the seal above the Bell Canyon, so we  
18 will probably core down into the top of the Lamar. We  
19 plan to run at least an 80-foot core there. Then, as  
20 we drill into the Bell Canyon, we -- we will take  
21 cores in the porosity zones that we see. And then in  
22 the Cherry Canyon, we plan to take separate cores in  
23 there, too.

24 When we discussed it is, is that because  
25 these sands may come and go, we may not get the real

1 good productive sands, so -- so it's possible that  
2 we'll do sidewall coring, too, in the open hole  
3 after -- after we TD the well. And then, as far as  
4 monitoring, I know, OCD said, I think one of their  
5 requirements was to do monitoring. I -- I think we've  
6 been very proactive in -- in our monitoring system.

7 We're one of the few wells that have fiber  
8 optics. We -- we -- and in this well, we're going to  
9 run a fiber optic line behind the 7-inch casing, so  
10 our behind our production casing, so we can monitor  
11 temperature -- temperature and acoustics in there. So  
12 we should be able to see where the injection is going  
13 into this interval.

14 And -- and I -- and I think it's going to  
15 help us model our plume, where our -- also, we'll  
16 attach fiber optics to the three and a half inch  
17 tubing, and it'll run down and -- and tie-in into the  
18 production packer, which sits right on top of the  
19 injection interval. We'll have a -- a  
20 pressure/temperature gauge inside the tubing, and a  
21 pressure/temperature gauge in the -- this is going to  
22 really give us real-time monitoring of leak detection.  
23 I mean, instantaneous.

24 And so, we -- we have this in our AGI 1. We  
25 have the -- we have it in the tubing, not in the

1 casing. And so, we get a report daily that we can  
2 monitor and mainly for leak detection or any other  
3 anomalies that you might have.

4 Q Mr. Ragsdale, based on your training and  
5 experience, will the well be designed to ensure the  
6 safe injection of TAG?

7 A Yes. Yes.

8 Q And is this well design appropriate for the  
9 injection of TAG at this location in this reservoir?

10 A Yes, it is.

11 Q Thank you.

12 MS. HARDY: I have no further questions  
13 for Mr. Ragsdale.

14 MR. FUGE: Mr. Moander, any questions  
15 for Mr. Ragsdale?

16 MR. MOANDER: No, I do not, Mr. Chair.  
17 Thanks.

18 MR. FUGE: Mr. Feldewert?

19 MR. FELDEWERT: No, sir. Thank you.

20 UNIDENTIFIED SPEAKER: -- like I say.

21 THE WITNESS: I -- I knew it. I  
22 thought I was going to get away.

23 MR. FUGE: Please, the commissioner  
24 will --

25 DR. AMPOMAH: So, the first question is

1 action, by designing the well, do you think  
2 you -- that, you know --?

3 THE WITNESS: Absolutely. Yes.

4 DR. AMPOMAH: You got some of that?

5 THE WITNESS: Well, I think the -- the  
6 main hazard is, is that we're located a little more  
7 than 1,000 feet away from a well that's actively being  
8 injected into. And so, you -- you're going to want to  
9 make sure that if you drill in and you -- and you  
10 encounter -- we don't think that it will based on some  
11 of Dr. Tu's modeling.

12 But we're going to be prepared, and so  
13 the -- the managed-pressure drilling enables us to  
14 hold back if we -- if we do encounter H2S in the mud,  
15 you know, we -- we'll have surface monitors in our mud  
16 pits. We -- and -- and we take extreme caution on the  
17 rig itself. We do daily safety trainings. Actually,  
18 we do twice a day, each crew that comes on. We -- we  
19 make sure that they all have the H2S training.

20 And then -- and then if we do encounter  
21 it, we would see it in our mud first. And if we  
22 get -- we start getting H2S, we will utilize this  
23 managed pressure drilling to hold back. You know, to  
24 overcome that formation pressure there.  
25 That's -- that's the, I think, the biggest concern.

1 Lost circulation is always a problem. We'll have lost  
2 circulation materials on location so.

3 DR. AMPOMAH: So, you said -- right  
4 now --

5 THE WITNESS: Mm-hmm?

6 DR. AMPOMAH: So you do have C10, C110?

7 THE WITNESS: Yes, sir.

8 DR. AMPOMAH: And then also CRA  
9 materials?

10 THE WITNESS: Yes, sir.

11 DR. AMPOMAH: I just want to be sure  
12 that -- you say that the C110 -- or let -- let me ask,  
13 so -- of this strength that you're going to use, the  
14 C110 --

15 THE WITNESS: So -- and so, in  
16 the -- in the hole itself, where the injection  
17 interval is, that will just be carbon steel. Because  
18 you're going to be injective acid gas into it. So  
19 what we're trying to do is prevent that acid gas from  
20 migrating up the hole. So we will set the corrosion-  
21 resistant material right where we're going to set the  
22 packer. So our packer's going to be set -- if our top  
23 perp is at 5,700 feet, our -- our corrosion-resistant  
24 alloy material will be from 5,700 to 5,400, or from  
25 5,650 to 5,350.

1 Kind of depends on our logs where we're going to  
2 perforate. And so, that's where our corrosion-  
3 resistant material will be and we'll set our packer,  
4 which is also a nickel alloy packer, inside that  
5 corrosion-resistant pipe. And then, to add to that,  
6 we will run corrosion-resistant cement behind that  
7 corrosion-resistant pipe.

8 DR. AMPOMAH: And -- cement --

9 THE WITNESS: Yes.

10 DR. AMPOMAH: -- go --

11 THE WITNESS: Yes. Usually that same  
12 place.

13 DR. AMPOMAH: Okay.

14 THE WITNESS: Yeah.

15 DR. AMPOMAH: Okay.

16 THE WITNESS: And then from there on  
17 up, we'll run carbon steel pipe.

18 DR. AMPOMAH: And you run the cement or  
19 the --?

20 THE WITNESS: Yes, sir. Yeah.

21 DR. AMPOMAH: And that's one -- that  
22 one, you have -- so you wouldn't -- the pipe on --?

23 THE WITNESS: Yeah.

24 DR. AMPOMAH: Correct?

25 THE WITNESS: Yes.

1 DR. AMPOMAH: So -- here, that's how  
2 you're going to manage the DV and then you --

3 THE WITNESS: Oh, the DV tool --

4 DR. AMPOMAH: The DV tool and then --

5 THE WITNESS: So, our DV tools  
6 are -- are also made of corrosion-resistant material.  
7 They're not external casing packers because if  
8 you -- if used in external casing packer, you'd crimp  
9 your fiber. So does it say ECP?

10 DR. AMPOMAH: So you run the DV tool  
11 and then you do have -- 'cause I'm going to ask  
12 you -- right? The ECP?

13 THE WITNESS: So we -- we  
14 can't -- we -- to run fiber, we can't use the external  
15 casing packer. You could only use the DV tool.

16 DR. AMPOMAH: That -- that is --

17 THE WITNESS: That's right.

18 DR. AMPOMAH: That is where I was  
19 going.

20 THE WITNESS: Yeah.

21 DR. AMPOMAH: Because --

22 THE WITNESS: You'll -- you'll ruin it.

23 DR. AMPOMAH: Yeah, exactly.

24 THE WITNESS: Yeah.

25 DR. AMPOMAH: So I just wanted to be

1 sure.

2 THE WITNESS: No, you're right.

3

4 DR. AMPOMAH: Yeah. I just wanted --

5 THE WITNESS: If -- if that's in here,  
6 it's wrong. So, I'll change that.

7 DR. AMPOMAH: Okay. I appreciate that.  
8 We are -- okay.

9 THE WITNESS: Yeah.

10 DR. AMPOMAH: I just wanted to make  
11 sure that --

12 THE WITNESS: And we are going to have  
13 that fiber all the way to the bottom of that -- of the  
14 pipe to -- down to TD, to 7,600, but you're going to  
15 perforate that interval. And so we have been told  
16 that when you perforate, you don't perforate that  
17 fire -- fiber. So I still want to see that to --

18 DR. AMPOMAH: Yeah. So you're going to  
19 use the -- to make sure we, you know, that --

20 THE WITNESS: Right. That's -- that's  
21 correct.

22 DR. AMPOMAH: Let me ask, why are you  
23 using --

24 THE WITNESS: DV tools?

25 DR. AMPOMAH: No. The -- the fiber

1 optics. You have one -- and one along the tubing.  
2 Why -- why --

3 THE WITNESS: So this  
4 is -- the -- again, I think this is kind of  
5 innovative -- is -- is that, we -- we want -- if you  
6 have the fiber in your packer, you really can see  
7 pressure/temperature, but you can't -- you -- you  
8 can -- and you can see temperature anomalies above,  
9 you can't see what's going on down below, down in your  
10 injection interval, and that's what we want to try to  
11 do, is monitor that injection interval.

12 DR. AMPOMAH: That's -- thank you.

13 THE WITNESS: Thank you. You're  
14 welcome.

15 MR. BLOOM: -- Mr. Ragsdale, I  
16 have -- I had some questions about the fiber optic  
17 line and those were answered. Thank you. You  
18 mentioned -- lost of circulation materials. Can you  
19 describe those for me?

20 THE WITNESS: Mm-hmm. So -- so when  
21 you -- when you drill, lot -- lost circulation  
22 material usually paper or a granular material. We  
23 were talking earlier today. We -- you can grind up  
24 pecan hulls or walnut hulls, and so when you're  
25 drilling along and you drill into a zone that has a

1 lot of porosity in it, and -- and your mud  
2 weight -- we're going to control our mud weight, but  
3 maybe that porous zone can't support that hydrostatic,  
4 and so it literally takes a drink and -- and your mud  
5 goes away and you quit circulating.

6 MR. BLOOM: Mm-hmm.

7 THE WITNESS: And so you -- you put  
8 lost circulation material, I mean, we -- you say, you  
9 mix a pill and you load it up with this lost  
10 circulation material, and you pump it down, and it  
11 basically, just seals the wall of the well bore -- and  
12 you'll -- and you'll get circulation back. Hopefully.

13 MR. BLOOM: All right. Thank you --.

14 THE WITNESS: Mm-hmm.

15 UNIDENTIFIED SPEAKER: And I -- I only  
16 had one question and I think I understood this from  
17 your testimony, but you seem to be drilling plan and  
18 approaches to address the issues that Targa saw with  
19 AGI 2, drilling through the same, you know --?

20 THE WITNESS: Yes, sir. I do. Mm-hmm.

21 MS. HARDY: Targa's next witness is  
22 Dr. David Tu.

23 MR. FUGE: Ms. Court Reporter, can you  
24 please swear in the witness?

25 THE REPORTER: Yes. Dr. Tu, please

1 raise your right hand.

2 WHEREUPON,

3 JIAWEI "DAVID" TU,

4 called as a witness and having been first duly sworn  
5 to tell the truth, the whole truth, and nothing but  
6 the truth, was examined and testified as follows:

7 THE REPORTER: Thank you. You may  
8 proceed.

9 MS. HARDY: Thank you.

10 EXAMINATION

11 BY MS. HARDY:

12 Q Can you please state your full name?

13 A My first name is Jiawei, J-I-A-W-E-I, last  
14 name is Tu. Also, I was referred as David.

15 Q By whom are you employed and in what  
16 capacity?

17 A I was employed by -- to Petroleum Recovery  
18 Research Center, New Mexico -- mining and technology.  
19 I -- my title is the research associate. I'm special  
20 at the -- in reservoir engineering, modeling  
21 and -- for recovering --.

22 Q Have you ever testified at a commission  
23 hearing?

24 A Yes, I did.

25 Q Can you please briefly summarize your

1 education and professional experience?

2 A I graduated from Texas Tech University in  
3 petroleum engineering with my Ph.D. degree in 2020.  
4 So I've been working at the -- frack engineer in the  
5 Permian Basin, 2019 briefly. And have over 20  
6 publications in the related area.

7 MS. HARDY: Mr. Chair, based on Dr.  
8 Tu's education and experience, I request that he be  
9 qualified as an expert in reservoir engineering.

10 MR. FUGE: Dr. -- Dr. Tu's is so  
11 qualified.

12 MS. HARDY: Thank you.

13 BY MS. HARDY:

14 Q Dr. Tu, let's look at the reservoir dynamic  
15 simulation.

16 A Okay.

17 Q What are the key considerations of Targa's  
18 application for authorization to inject? And I'm  
19 looking here at Slide 30.

20 A So, the reason for the study, the dynamic  
21 simulation study, is that we're -- we're trying to  
22 follow the state rule, that Title 19, Chapter 15, and  
23 the Part 26 for the -- injector wells, to demonstrate  
24 that specific -- the proposed -- the injection  
25 plan -- that's our Red Hill [sic] AGI No. 3 will

1 preventive waste and it will protect their perrelative  
2 rights, and it will not harm no public healths [sic]  
3 or the environment.

4 So, specifically, we will demonstrate that  
5 Bell Canyon and Cherry Canyon formations can receive  
6 this acid treated acid gas or TAG at the proposed  
7 injection rate, 30 million standard cubic feet, and  
8 the formation will safely contain the injected TAG  
9 volume within the proposed said injection timeframe  
10 and the post-injection timeframe.

11 And also, the proposed injection well will  
12 be operated at or below the maximum surface injection  
13 pressure approved by the commission. And lastly, the  
14 proposed injection well will allow for the storage or  
15 sequestration of the TAG, which is in the public  
16 interest because it prevents us -- otherwise, there  
17 will be flaring and admitted to the atmosphere.  
18 So -- or the associated with -- and other associated  
19 environmental impact.

20 Q And what is shown on Slide 31?

21 A On this slide, first of ally, will show the  
22 map of the Red Hill [sic] gas treatment facility that  
23 is within the -- that we have the AGI No. 1 well and  
24 AGI No. -- proposed No. 3 well. And it -- and the  
25 temporary abandoned AGI No. 2 well. And currently,

1 that we have AGI No. 1 well actively injecting in the  
2 past five years, since August 2018, with the average  
3 rate of 1.2 million standard cubic feet. And we just  
4 had a hearing in May that did the five years for  
5 about -- of the injection.

6 Q What is shown on Slide 32?

7 A The slide 32, it shows the reservoir  
8 dynamics simulation model that we built for this  
9 study. That the first on this chart, it shows the 2D  
10 area -- of the domain of the model, that the -- see  
11 that it's -- the sub-property of the Red Hill [sic]  
12 facility. As well, on this chart, it shows the 3D  
13 view of the -- of the model.

14 And our model is with the 3.5 -- 3.3 into  
15 our -- and it can -- more than half a million -- the  
16 average -- size is about 100 square feet, which is the  
17 very fine grade considered in reservoir engineering or  
18 simulation, that is. And also, our model contains the  
19 four core zone that consists of the 18 layers. That's  
20 Salado, Castile and the Lamar will be our cap rock.  
21 Bell canyon, Cherry Canyon will be our --.

22 Q And what is shown on Slide 33 regarding  
23 model initialization?

24 A On the Slide 33, it shows the initial  
25 conditions that we gave to the simulator to mimic the

1 initial conditions of the -- how the reservoir will be  
2 starting prior to injection. So for the pressurize  
3 that we have the testing results from the previous  
4 literatures that average regular pressure at the Bell  
5 Canyon and Cherry Canyon will be 3,400 and there's  
6 this 700 -- respective weight, and the temperature  
7 will be around 116 and 125 Fahrenheit degrees,  
8 respectively.

9 And the -- saturation that we assume it is  
10 the initial 100 percent saturated by saline water and  
11 the -- it would just -- the water saturation will be  
12 55 percent. And we also assume that -- the formation,  
13 brine will be 20,000 ppm. And on the right to this  
14 cart, this shows the relative permeability that we  
15 give -- the simulator to do the two-phase well, which  
16 is gas and the water.

17 And on the bottom chart, that it shows the  
18 initial pressure distribution within our model --.

19 Q And what are the simulated injection  
20 parameters shown on Slide 34?

21 A So on this slide, first the -- is the  
22 timeline chart that we're giving you a very  
23 straightforward view of the -- how it simulates as it  
24 takes. So we started simulation as to August 1, 2018.  
25 That's when the AGI No. 1 started injecting in to a

1 shard canyon information. And after five years, which  
2 is about we presume that the AGI No. 3 will start  
3 injecting on January 1st of 2024.

4 And after 30 years, marking the AGI No. 1  
5 well of the injection, which shall end that well,  
6 because it's a reach of 30 years injection with  
7 authority. And then similarly, 30 years after the AGI  
8 No. 3 injection, we shut it down. And after that, we  
9 continued 30 years of a post-injection to mimic the  
10 approved -- and pressure migrates behaviors.

11 On the table it shows the well control, that  
12 calculated, that we give it to the model. That  
13 first -- the primary control give to the AGI No. 3  
14 well is that it we inject it with the 13 million  
15 standard cubic feet rate for all -- over the 30 years  
16 of active injection. And also, the wellhead pressure  
17 and bottom pressure will be set to the 90 percent of  
18 the maximum allowable injection pressure.

19 And also, the impact of the AGI No. 1 is  
20 considered a -- we probably will abandon AGI No. 1  
21 after the AGI No. 3 turns into access, but we still  
22 want to be on the safe side, so we do consider  
23 the -- this -- injection simultaneously.

24 Q And what is shown on Slide 36?

25 A Yeah. So because, as I mentioned, that we

1 have the AGI No. 1 well had started injecting in  
2 August 2018, so we want to leverage the data by using  
3 the historical injection rate and the pressure  
4 responses to evaluate it, this model that we created  
5 to be most accurately affects the -- what could have  
6 happened in Cherry Canyon and -- and Bell Canyon  
7 information.

8 So on this chart, the green circles show to  
9 the historical injection date that explore -- a  
10 date -- exported from the OCD website. And that the  
11 green-dash line, that is the simulated number that  
12 actually followed the exact -- was the historical rate  
13 was. And on the green mean -- excuse me, the blue  
14 line that it shows the cumulative gas injection in the  
15 past five years.

16 This chart was also showed in the AGI No. 1  
17 five-year re-validation hearing before.

18 Q And what's shown on Slide 36?

19 A Yes. So on this slide, this is -- it's a  
20 counterpart for what's showing in Slide 35. It shows  
21 the wellhead pressure response of the AGI No. well in  
22 the past five years injection. So again, the circle  
23 dates are the realistic data that are recorded from  
24 the field, and the red line that it shows the  
25 simulated data from the injection by setting the

1 injection rate at the primary controls.

2 So we observe how they -- wellhead pressures  
3 responses you -- as you can see, that it is fluctuated  
4 at the -- within the expected range.

5 Q And what is shown on Slide 30 -- Slide 37?

6 A Yes. So on this slide, that is actually  
7 shows the prediction of the AGI No. 3 well, which is  
8 the well that we're proposing right now. Because  
9 after we evaluated -- model is the trustworthy, that  
10 we started injecting it for 30 years with a constant  
11 rate of the 30 million standard cubic feet, that we  
12 can see that the injection rate, it's a very flat and  
13 stands through the entire 30 years from 2024 to 2054.

14 That gives us the -- the confidence that the  
15 pressure limits that hasn't been really exceeded,  
16 that's how we can achieve a very flat and smooth line  
17 of 30 million standard cubic feet through the entire  
18 30 years.

19 Q And what is shown on Slide 38 and 39?

20 A So, on Slide 38 and 39, similarly to what I  
21 showed of the AGI No. 1 well, this one shows the  
22 response of the wellhead pressure of the AGI No. 3  
23 well. So, this red line, that shows that starting  
24 from the 2024, that we're injection, the wellhead  
25 pressure, because we consider the wellbore model that

1 doctor -- I mean, Mr. Ragsdale -- yeah, just  
2 presented, so we considered the tubing data, so we see  
3 that -- simulator, that's why we can get the wellhead  
4 pressure.

5 So as we can see, that the wellhead  
6 pressure, starting around the 1,400 psi and the  
7 gradual increase, and the average value is about  
8 1,450 psi throughout the entire 30 years. Most  
9 importantly, that because the OCD do have the formula  
10 to calculate the maximum allowable wellhead pressure.  
11 So we compared that data with the -- our calculated  
12 data, the maximum allowable pressure, which is 1,767.

13 That is saying that even at the end of the  
14 30-year injection, our wellhead pressure of the Red  
15 Hill [sic] AGI No. 3 is way below what is the -- of  
16 approved to be the maximum pressure. So we'll -- are  
17 confident that the injection can be performed under  
18 the maximum allowable injection pressure.

19 Q And what is shown on Slide 40 regarding the  
20 plume?

21 A On this slide, it shows that TAG's movement  
22 and migration during the 30 years of active injection.  
23 So from the left to right, it shows you four times  
24 depth. So the earliest is the -- on the left is  
25 the -- where the year of January 1, 2030, that shows

1 the -- about six years after we start the injection  
2 between the -- the sides. I would say this is around  
3 .2 -- .4 miles, the diameter.

4 And after another five years, so 2035, that  
5 we can see the plume start to increase gradually and  
6 similarly, for the next ten years, of 2045, till the  
7 end of the 2055, we charge one year after reinjection,  
8 so the well with a shut-in on 2054. That shows at the  
9 end of the 30 years injection, most of the TAG plume  
10 suspend remains stay at the Targa's Red Hills facility  
11 subsurface land and it didn't migrate that much.  
12 Yeah. This is the 2D view of the --

13 Q And then what's shown on Slide 41?

14 A So on Slide 41, that we did a cross-section  
15 of a 3D view of what's happening. So if you see  
16 this -- these two lines, that -- that defines the  
17 interface between the Bell Canyon and the cap rocks,  
18 the Lamar limestone, that you can see that the TAG  
19 flumes was contained under our cap rocks. And  
20 primarily, it is the -- it's based within the Bell  
21 Canyon because the chart can, and first of all, that  
22 we believe the -- across the impermeability are lower.

23 Second of all, as their deeper, that  
24 would -- and we use the same surface pressure to  
25 inject that TAG and will preferentially go to the

1 shallower formation, which is the Bell Canyon. So  
2 that if that's a buffer zone, actually, at the -- at  
3 the Cherry Canyon surface of the upper zone, I would  
4 say, to the -- the Brushy Canyon that -- just as  
5 before 'cause we believe that it will -- a -- a  
6 preferentially, and mainly stay in the Bell Canyon  
7 formation.

8 Q And Dr. Tu, what are your conclusions and  
9 recommendations?

10 A So from our conclusion -- from our study,  
11 after our careful geological review and well design,  
12 as well as the dynamic simulation study, that we found  
13 that the -- first, is the Bell Canyon and Cherry  
14 Canyon formation can receive the TAG at the proposed  
15 injection rate, 13 million standard cubic feet. Not  
16 only that, and also the injected TAG can be safely  
17 contained within the proposed injection zone during  
18 and after the injection timeframe.

19 Next, the proposed injection, we found that  
20 it's also will be operated -- can be operated at below  
21 the maximum surface injection pressure and also, the  
22 proposed injection well. Therefore it will all  
23 the -- TAG to be in the public interest that prevents  
24 the flaring and associated environmental impact. So  
25 therefore, I will conclude that our study demonstrates

1 that the -- the AGI No. 3 will prevent the waste and  
2 protect the perrelative right and will not harm the  
3 public health and the environment. So we believe it  
4 should be approved.

5 Q Thank you.

6 MS. HARDY: I have no further questions  
7 for Dr. Tu.

8 MR. FUGE: Mr. Moander, do you have any  
9 questions for Dr. Tu?

10 MR. MOANDER: Nothing from OCD, Mr.  
11 Chair. Thank you.

12 MR. FUGE: Mr. Feldewert?

13 MR. FELDEWERT: No, sir. Thank you.

14 MR. FUGE: Thank you. -- Dr. Tu. Oh,  
15 sorry. I apologize --

16 DR. AMPOMAH: Dr. Tu, so I just  
17 want -- by saying that once AGI No. 3 comes in -- and  
18 I don't shut the AGI No. 1?

19 THE WITNESS: It - it is likely. I  
20 will like to, Mr. Eales to cover --

21 DR. AMPOMAH: Yeah, I think it's best  
22 for -- okay. Yeah, I think at that point --

23 MS. HARDY: You -- we have to call you  
24 back.

25 DR. AMPOMAH: Sorry.

1 THE WITNESS: It's all right. Okay.

2 MS. HARDY: But we can do that.

3 THE WITNESS: To my -- to my  
4 understanding, that's the case. Yes.

5 DR. AMPOMAH: So we -- we need to be  
6 sure on that.

7 THE WITNESS: Mm-hmm.

8 DR. AMPOMAH: So -- because when I look  
9 at your modeling, you did the issue margin up until  
10 the end, let's say -- yeah, you did the history margin  
11 with -- with historical data from AGI No. 1. But I  
12 did not see a forecasting of AGI No. 1 when the AGI  
13 No. 3 came on screen. So I think that question is  
14 solved.

15 So we know that AGI No. 3 comes on --,  
16 AGI No. 1 is going to be shut-in because you didn't  
17 know, immediate -- that interference of the injection  
18 from AGI No. 1 and AGI No. 3. Which -- as to -- can  
19 convince me, you know, to know that you -- so that  
20 question, I really want to -- that.

21 THE WITNESS: Can --

22 MS. HARDY: We can call Mr. Eales back  
23 to answer that question, if that would be helpful,  
24 which it sounds like it would be.

25 MR. FUGE: Do you have any questions

1 about the cubic --?

2 DR. AMPOMAH: Yeah. I do want hear  
3 that answer.

4 MR. FUGE: Okay.

5 DR. AMPOMAH: So that --

6 MR. FUGE: Okay.

7 DR. AMPOMAH: -- can --

8 MR. BLOOM: Before Mr. Eales comes up,  
9 Dr. Tu, I have one -- I have one question. Did the  
10 modeling of the plume spread that you showed for AGI 3  
11 assume that AGI 1 was operating for the same period,  
12 or shut down?

13 THE WITNESS: Shut down.

14 MR. BLOOM: It -- it assume -- it  
15 assumed that we shut down after getting -- it came on?

16 THE WITNESS: No. It assumed if  
17 the -- excuse me.

18 MR. BLOOM: It -- so --

19 THE WITNESS: This is the timeline.  
20 It - it assumes it's the operate from 2018 to 2048.

21 MR. BLOOM: So in those three slides  
22 that had -- to the -- to the plume model, so this  
23 image here, the TAG plume after 30 years --

24 THE WITNESS: Yeah, that's --

25 MR. BLOOM: It shows the -- assumes

1 that the AGI 1 has been operating for -- not the whole  
2 period, but for it -- this -- for -- and 30-year life,  
3 as well?

4 THE WITNESS: Yes. The reason we don't  
5 see it here because that the AGI No. 1, the past  
6 30 year, even if it's still permitted to inject under  
7 30 million standard cubic feet, but because of the  
8 tight properties in Cherry Canyon, as you can see, in  
9 the past five years the average injection rate is only  
10 about 1.5 -- 1.2 million standard cubic feet. So  
11 that's the rate we use to inject the -- in the next 25  
12 years.

13 So that's why you are seeing the plume  
14 that it shows as the one plume, but it is so -- just  
15 because the AGI No. 1 was the -- covered by the plume  
16 of AGI No. 3. Does that make sense?

17 DR. AMPOMAH: So we don't see AGI No. 1  
18 here?

19 THE WITNESS: That's because this is  
20 showing the top layer of the Bell Canyon and AGI No. 3  
21 injects into the Cherry Canyon. So this slide is  
22 showing the layer of Bell Canyon. Does it make sense?  
23 So it's -- yeah, but I -- but I -- I -- yeah, I agree.  
24 It's -- it's a little confusing, so I should have  
25 combined both plumes from different elevation to the

1 same -- on the 2D view so that we can have a clearer  
2 depiction that -- yeah.

3 DR. AMPOMAH: So based on that  
4 information, then -- I don't -- information, I don't  
5 necessarily need a -- but -- so I -- not 100 percent  
6 agree with that --

7 THE WITNESS: Mm-hmm.

8 DR. AMPOMAH: Because if you look at  
9 the slide way was showing the full -- of the AGI No. 3  
10 for -- the injection rate, go to the --

11 THE WITNESS: Yes.

12 DR. AMPOMAH: Okay. So I want to  
13 see -- for the AGI --

14 THE WITNESS: No. 1.

15 DR. AMPOMAH: -- for AGI No., okay.

16 THE WITNESS: Mm-hmm.

17 DR. AMPOMAH: Now, can see, correct?  
18 See the -- based on the -- of the model, I don't see  
19 where that's in the -- I don't. But --

20 THE WITNESS: Yeah. I agree.

21 DR. AMPOMAH: Even on this last slide,  
22 what it show the rate of AGI No. 1 and AGI No. 3, that  
23 it answers all my concerns, that it's really, really  
24 in the -- where -- like you have it all --

25 THE WITNESS: Okay.

1 DR. AMPOMAH: I do have another  
2 question, too. But those were really the point in  
3 that. So I also have, where it was showing the model  
4 description. I ask Dr. Ulmer-Scholle about  
5 what -- how to you explain, so it's complex, because I  
6 can see you have a --, you have your -- but because  
7 the -- your extension zone.

8 THE WITNESS: That would be the  
9 bedrock.

10 DR. AMPOMAH: But I do not see --

11 THE WITNESS: Yeah, it's -- it was in  
12 the -- just the surface, the Brush basin would just  
13 use at the bottom of the Cherry Canyon. So  
14 they -- Bushy basin was not considered in this model.

15 DR. AMPOMAH: So how then did you  
16 define the -- so the question is, you believe that  
17 Brushy Canyon -- so it's complex or no?

18 THE WITNESS: I don't believe so. We  
19 don't target at it -- at the -- or at least in the  
20 simulation. In that case, we don't -- we don't  
21 consider that as our storage --. In fact, on the 3D  
22 view, you can see that the majority of the plume stays  
23 in the Bell Canyon. So even the Cherry Canyon, we can  
24 say we considered the buffer zone or a sedentary  
25 storage zone, other than --

1 DR. AMPOMAH: How are -- let's  
2 do -- let's do this one -- so you can see that there  
3 is a migration down there. You know, into the -- the  
4 entire -- another question was if we feel like  
5 the -- the -- the Bell Canyon is the most prolific  
6 zone, why are we -- we can be -- entire Cherry Canyon,  
7 because if you do that, then this model, you can see,  
8 there is some sort of a TAG right at -- going -- so --

9 THE WITNESS: Yeah. So in this model,  
10 we did perforated the whole Cherry Canyon and -- and  
11 the Bell Canyon zone.

12 DR. AMPOMAH: Is that --

13 THE WITNESS: Yeah.

14 DR. AMPOMAH: But my concern is -- you  
15 just don't really include the pace cock rock, so I  
16 often said about, are we really -- in the Wolf spring  
17 formation, is it really safe from any potential  
18 migration of the oil TAG interfering in the  
19 production?

20 THE WITNESS: At least, on the  
21 simulation case, we can see that it hasn't touched the  
22 Cherry Canyon yet. But I would agree that we can also  
23 work on the perforation, the wellbore design that we  
24 might not perforate the entire Cherry -- don't have to  
25 cover the entire Cherry Canyon. That's all -- a case

1 is. The color that you are -- the saturation you are  
2 seeing here is not a resulted from migration. It's  
3 just -- it's resulted from direct injection. Because  
4 those don't perforate it. It's not the -- because  
5 it's migrated from upper to -- to this bottom.

6 DR. AMPOMAH: So it is your testimony  
7 that TAG is going to -- across -- to make sure that  
8 the upper -- that the -- are realistic zones that are  
9 breaching the entire zones?

10 THE WITNESS: Yes. Actually,  
11 ultimately, that before any injection, Targa would do  
12 a separate test before any injection.

13 DR. AMPOMAH: Yeah. You would do  
14 separate test, but you -- for how to separate test.  
15 So I just want to know that Targa is going to take  
16 tests and look at the porosity -- 'cause one event  
17 which I -- so --

18 THE WITNESS: Yeah.

19 DR. AMPOMAH: -- you looking at  
20 porosity loss to make sure that -- keep the  
21 Bell -- Bell Canyon the most prolific zone, you TAG it  
22 and that --

23 THE WITNESS: Yeah. That's actually  
24 rate -- get rate -- good suggestion that we  
25 all -- protect the open hole log before any of the -

1 - before any perforation to see the -- we'll review  
2 for the log before -- maybe we'll modify any  
3 perforation zones.

4 DR. AMPOMAH: Yeah. I originally won't  
5 keep you -- the -- the injection rate of AGI No. 1.

6 THE WITNESS: Mm-hmm.

7 DR. AMPOMAH: We're imposing that the  
8 AGI No. 3 --

9 THE WITNESS: Okay.

10 DR. AMPOMAH: When you find out it's  
11 like, because no one -- that you really incorporate  
12 that the model from AGI No. 1 for us to understand  
13 the --. Now, let me ask you, as you did this model,  
14 you know, based on my experience in the Cherry Canyon,  
15 you also mention that it's very -- so, even you can  
16 look at that -- show me with that same -- from the  
17 injection grids, right, that it's not -- target.

18 I want to ask you, what do you feel  
19 like it is the biggest difference between AGI No. 1  
20 and AGI No. 3 -- performance?

21 THE WITNESS: Th biggest difference, we  
22 would say that before we do that, we -- realize Bell  
23 Canyon might have a better porosity -- than Cherry  
24 Canyon, so for AGI No. 1, we did a complete Bell  
25 Canyon build. That's what the -- what resulted in the

1 Cherry Canyon zone of AGI No. 1 didn't inject that  
2 what we expected -- feet, couldn't receive that rate.

3 DR. AMPOMAH: So when you  
4 say -- Ragsdales' testimony, he said that there were  
5 some sort of -- he was referring to AGI -- well?

6 THE WITNESS: Two, No. 2. The drilling  
7 during No. -- AGI No. 2 well. During the drilling of  
8 No. 2 well, that had -- when it had --

9 DR. AMPOMAH: So that was when you  
10 realized that the Bell Canyon is a -- zone when  
11 injection?

12 THE WITNESS: I couldn't speak of that  
13 because AGI No. 1 well was permitted in 2012 and I was  
14 in high school.

15 DR. AMPOMAH: Just so -- no, you are  
16 saying that we didn't know, so when -- I really wanted  
17 to know when did Targa know that -- that -- Canyon is  
18 going to be more better -- canyon?

19 THE WITNESS: Yeah. We -- we were more  
20 certain for that when we -- injecting AGI No. 2 while  
21 when it's tapping through to Bell Canyon and start to  
22 lost circulation.

23 DR. AMPOMAH: So what was  
24 the -- conditions that you model?

25 THE WITNESS: In this model, it's

1 the -- I used the -- the aquifer and the -- aquifer on  
2 the boundaries. So it's the open boundary model.

3 DR. AMPOMAH: So on your slide, you're  
4 talking about a -- saturation, you are -- 100  
5 percent -- are presuming the same -- in  
6 the -- percent?

7 THE WITNESS: It's the -- you  
8 reduceable water.

9 DR. AMPOMAH: So you -- right now?

10 THE WITNESS: Yeah. It should be SWIR.  
11 Thank you.

12 DR. AMPOMAH: Yeah. So you -- percent  
13 for the final?

14 THE WITNESS: Mm-hmm.

15 DR. AMPOMAH: That's right. Now, you  
16 make mention of a -- 20,000 ppm and we -- so my  
17 question to you is why do we assume  
18 when -- commission -- of that -- so why are we  
19 assuming 20,000?

20 THE WITNESS: Because first of all, the  
21 salinity in this case doesn't really affect much of  
22 the injection results. It will affect the solubility.  
23 Yeah. But so --

24 DR. AMPOMAH: And you telling me that  
25 this -- I hope you are telling me that salinity --?

1 THE WITNESS: In this case, I would say  
2 yes. It's common number that should be used  
3 20 million ppm in the Permian Basin.

4 DR. AMPOMAH: -- explanation?

5 THE WITNESS: Yes. Twenty thousand  
6 ppm.

7 DR. AMPOMAH: That is assumed?

8 THE WITNESS: Yeah.

9 DR. AMPOMAH: Now, I'm just -- I'm just  
10 looking for the source of that assumption, though.

11 THE WITNESS: Yes. We can -- yeah. We  
12 can also look into some real sample data collected and  
13 it change our number to actual number. That should be  
14 more close to the reality.

15 DR. AMPOMAH: Yeah. That is  
16 what -- you talking then, about this number? I just  
17 want to make sure that Targa -- this zone that we are  
18 targeting. In those area, you have -- more than  
19 10,000 ppm. That will not be your testing one?

20 THE WITNESS: In the C-108 and we do  
21 have the section of the -- log, so -- the -- attached  
22 from the adjacent wells. But it's not immediately on  
23 Targa's property.

24 DR. AMPOMAH: So I think -- I don't  
25 know -- about that -- because these lines are doing

1 good, but I think -- commission need more  
2 clarity -- especially the AGI -- AGI No. 3. We want  
3 to see those -- that they are -- and of the plume, you  
4 have to show the location of the -- it's not there at  
5 all. So it's a little bit concerning. So is this  
6 possible?

7 MR. FUGE: I have some questions here,  
8 just based on your line of questioning. Mr. Bloom, do  
9 you have any questions for this witness?

10 MR. BLOOM: I do. I think -- I think  
11 they're along the same lines as Dr. Ampomah's  
12 questions about potential communication between AGI  
13 No. 1 and AGI No. 3. Dr. Ampomah, that was where you  
14 were going, correct?

15 DR. AMPOMAH: Yes, sir.

16 MR. BLOOM: And -- and that -- located  
17 or shown on the map. Dr. Ampomah, were your concerns  
18 met with respect --?

19 DR. AMPOMAH: Yeah. So when I look at  
20 the model, I know it was -- I didn't know. Okay.  
21 Based on what I've seen here, but someone who doesn't  
22 have a lot of experience with -- so unfocused. Right  
23 here. I don't see AGI No. 1 location on there, but  
24 based on your response, you're saying that  
25 the -- small, so it's superimposed. But I miss

1 showing those --

2 THE WITNESS: And also, on this 2D  
3 chart, this is plotted -- it's not -- so the -- yeah.  
4 So the No. 1 well we deselected. That's why  
5 it's -- the wellhead is not showing.

6 DR. AMPOMAH: Yeah -- I want -- we want  
7 to see that one location right there, because you want  
8 to see and compare -- right?

9 THE WITNESS: Mm-hmm.

10 DR. AMPOMAH: And also, if AGI  
11 No. 1 -- 3 is really performing better than AGI No. 1,  
12 then that -- that the commission -- or let's say OCD,  
13 they will get an -- 'cause 1 -- correct? But from the  
14 presentation, I do feel like just a small -- to the  
15 presentation or -- will resolve those -- make sense.

16 THE WITNESS: Mm-hmm.

17 MR. FUGE: I mean, where I'm at the  
18 moment, it doesn't sound like there are a -- suggested  
19 the long list, but there's not -- corrections and  
20 additions, at this juncture, that I wonder if  
21 a -- continue this to the next hearing date would be  
22 appropriate, to supplement the record with the  
23 additional information, and some of the additional --?

24 'Cause I -- I guess I'm a little -- I  
25 can't complain -- modeling. I think we want -- you

1 feel like the model was done correctly and -- but that  
2 seems to be adding it -- additional layers of  
3 information into the record. And that a, you know,  
4 formal opportunity to have that introduced would be  
5 better for a final decision on the case is -- is sort  
6 of where I'm personally -- on it -- discussion on it.

7 DR. AMPOMAH: So, what about if they  
8 confide that, you know --

9 MR. MOANDER: Mr. Chair, may I address  
10 the commission real quick?

11 MR. FUGE: Yes.

12 MR. MOANDER: I don't think OCD would  
13 necessarily oppose that. Could counsel have a few  
14 minutes to discuss that before the commission makes a  
15 determination?

16 MR. FUGE: Yes. Before you have  
17 that -- Targa -- witnesses for that?

18 MS. HARDY: I do not have any other  
19 witnesses.

20 MR. FUGE: Did you want to call -- or  
21 recall Mr. Eales?

22 MS. HARDY: Yes, I would like to recall  
23 Mr. Eales, but I --

24 THE WITNESS: Just speak freely?

25 MS. HARDY: Well, Mr. Eales already --

1 MR. FUGE: Meaning he was  
2 already -- got sworn in and recognized in this -- in  
3 the -- so he --

4 MS. HARDY: Yeah, just  
5 some -- question -- question?

6 THE WITNESS: Yeah, so one of the first  
7 questions or comments that was made was that one, I  
8 think the term was would be abandoned. And the intent  
9 is not to -- AGI 1 wouldn't be abandoned as a well,  
10 but it would be there as a redundant well. So I just  
11 want to make sure that that point was made clear, that  
12 it's -- we don't intend to plug and cement in that  
13 well, but it's there as a redundant well. If that  
14 matters in the opinion.

15 MR. FUGE: So -- so, it would be area  
16 redundant well. It is currently  
17 authorized -- injection rate and other things like  
18 that?

19 THE WITNESS: Correct.

20 MR. FUGE: Okay. Are there any  
21 questions?

22 DR. AMPOMAH: Yeah. So -- is that what  
23 they're trying to figure out is -- see, you know,  
24 those plumes, the interactions. We want to see that  
25 for -- show that -- pressure too much? You

1 have -- counsel stated to -- for one -- one is shut  
2 down, because it's just not going to add anything  
3 to --?

4 THE WITNESS: We good -- depending on  
5 the salinity, I was aware that Dana Ulmer-Scholle  
6 was -- is more knowledgeable about that data. So it  
7 may be worthwhile asking her for that data point.

8 DR. AMPOMAH: You know, in you report,  
9 I can see that you did water analysis. Right? I saw  
10 that. But your witness is saying we assume. So I'm  
11 like, okay, so this is what that happens. So what are  
12 you assuming?

13 THE WITNESS: Yeah. And I think the  
14 answer to that was, as Dana Ulmer-Scholle provided  
15 that number to David -- Dr. Tu for the modeling. So  
16 he -- he received that from, you know, another member  
17 of the team.

18 DR. AMPOMAH: Thank you. Okay.

19 THE WITNESS: And that's it.

20 DR. AMPOMAH: And I do not have any  
21 consents with the gas -- number, but just that I'm  
22 pretty sure OCD -- can make sure that there's a --

23 THE WITNESS: Correct.

24 DR. AMPOMAH: -- doctor -- so --

25 THE WITNESS: Yeah. We -- we did take

1 that number from area wells and -- and known -- it's  
2 a -- it's a known number, not an assumed number. So I  
3 just wanted to make sure that was clear, that  
4 it -- but it came from another person other than  
5 Dr. Tu. So when he explained that, he was not aware  
6 the specific, that's true, that it came from someone  
7 else.

8 DR. AMPOMAH: Thank you.

9 THE WITNESS: Thank you.

10 MR. FUGE: -- Hardy, would you like to  
11 confer?

12 MS. HARDY: Sure.

13 MR. MOANDER: I think that'd be a good  
14 idea.

15 MR. FUGE: -- break?

16 MS. HARDY: Five-minute break. Thank  
17 you.

18 (Off the record.)

19 MR. FUGE: -- back from our break, for  
20 the court reporter's benefit. Do you have a report  
21 out from the discussion among counsel?

22 MS. HARDY: I do, Mr. Chair. So, there  
23 are two matters. First, Dr. Tu is -- he can present  
24 the slide that Dr. Ampomah had requested. He has it  
25 on his computer and we can provide that now. And

1 then, also, submit a hard copy to the commission, if  
2 that would be acceptable?

3 MR. FUGE: Yes.

4 MS. HARDY: And then, after he does  
5 that, then we can give you a report on the discussions  
6 among counsel, if that is acceptable?

7 MR. FUGE: That works.

8 MS. HARDY: Okay. Thank you very much  
9 and thank you for your allowance of our discussion.

10 MR. MOANDER: Mr. Chair, if I might.  
11 So it looks to me like more -- I hope to do is get a  
12 little bit more information on the record. Then, if I  
13 could possibly allow us to finish --?

14 MR. FUGE: Yeah.

15 BY MS. HARDY:

16 Q Okay, Dr. Tu. Can you explain what is shown  
17 on the slide that you have put up on the screen?

18 A So, what I'm showing you now is actually a  
19 simulation results of the case that we just presented  
20 and the -- and the exhibit like that. So what you saw  
21 earlier on the slide that is the -- this line of a  
22 13 million standard cubic feet. Does that make sense?  
23 The injection of AGI No. 3 well, and that does stated  
24 that the AGI No. 2 -- No. 1 well continued its  
25 injection till the end of 2048. That's the end of the

1 30-year injection by the first time when it is start  
2 to inject.

3 So, it use the rate of 1.2 million  
4 standard cubic feet, which is the average of what  
5 happened in the past five years. It would never, even  
6 if it's the permit use 13, but because of the pressure  
7 limit, it will never go up to -- that far. So it also  
8 shows AGI No. 1 well in the same case, they inject  
9 this simultaneously, that this -- injection in 2048.

10 MR. BLOOM: So your testimony is that  
11 notwithstanding the higher permitted limit in the AGI  
12 well, AGI 1 permit, is not going to hit those because  
13 of the porosity and observed operation --?

14 THE WITNESS: Yes. And -- yeah. And  
15 even Targa, regardless, it's a redundant well. It's  
16 inject or not, it will not affect what we propose for  
17 AGI No. 3 well. And besides that, for the plume view  
18 that commissioners requested, this is the 3D view of  
19 our model and I will do a filter of where the  
20 saturation -- that's a gas larger than 1 percent, so  
21 that will show you the gas plume from the top field.

22 So we can see that from the top field,  
23 this is basically what you saw on the map, but if we  
24 zoom in from the side, we can see that the AGI No. 1  
25 plume -- resulted plume, that is hiding beneath the

1 AGI No. 3 plume. So that's why it wasn't showing in  
2 the earlier slides when we had the -- view because the  
3 plume created the AGI No. 1 in Cherry Canyon, it was  
4 beneath what the AGI No. 3 created up here.

5 DR. AMPOMAH: Oh, okay. Oh, zoom.  
6 Make it big so I can see.

7 THE WITNESS: Yeah.

8 DR. AMPOMAH: So now you have all the  
9 two wells being injecting?

10 THE WITNESS: Yeah.

11 DR. AMPOMAH: And the AGI No. 3 -- in  
12 the Bell Canyon?

13 THE WITNESS: That's covered the plume  
14 of AGI No. 1 well that's in the Cherry Canyon.

15 DR. AMPOMAH: Yeah, you -- difficult to  
16 figure out -- can you turn off AGI No. 3?

17 THE WITNESS: I can turn off the well,  
18 but not the plume because that's what's what in there.

19 DR. AMPOMAH: Yeah, the way you  
20 presenting the plume, can you show --?

21 THE WITNESS: Yes.

22 DR. AMPOMAH: The way it was showing,  
23 it sounds like the AGI No. 1, so getting some TAG into  
24 the -- into the Bell Canyon?

25 THE WITNESS: And so this is top layer.

1 The -- yeah, AGI No. 3.

2 DR. AMPOMAH: Take it --

3 THE WITNESS: AGI No. 3, you can see  
4 the AGI No. 1 is still -- AGI No. 1 is still had  
5 in -- we're just showing it layer by layer, so --

6 UNIDENTIFIED SPEAKER: -- you zoom  
7 in -- how slowly --

8 THE WITNESS: Okay. Now -- now it  
9 should be better. I'm not going to change the zoom in  
10 and zoom out. So this is Layer No. 9, which is one of  
11 the top layer of Bell Canyon. As we increase the  
12 number, we're going deeper. So it's Bell Canyon, a  
13 second layer, and then, you can see that so far, we  
14 cannot AGI No. 1 well, whatsoever, because we're still  
15 in Bell Canyon. And after that, now here's AGI No. 1.  
16 Yeah.

17 So it's been hiding by the AGI No. 3  
18 zoom that I created on top of it. That's why we  
19 didn't show that and see -- we couldn't see that in  
20 the earlier slide.

21 MR. BLOOM: So -- and I'm interpreting  
22 it correctly, that as you go down into the layer of a  
23 proposed well should be injecting into the same  
24 formation, the Cherry Canyon. Your modeling shows  
25 that there will be no interference.

1 MR. BLOOM: Interference or interaction  
2 at all because even at the end of the life,  
3 the -- does not or it's not projected to propagate  
4 close to the AGI 1's?

5 THE WITNESS: No. No, it won't.

6 MR. BLOOM: Okay. Okay.

7 DR. AMPOMAH: That sounds good. I feel  
8 today.

9 THE WITNESS: -- upgrade somewhere.

10 MR. FUGE: Notwithstanding, obviously,  
11 we're recording it and it is in that record, and as  
12 part of the transcript. It would be helpful for the  
13 commission, it's submitted for the record, information  
14 reflecting that.

15 MS. HARDY: We -- we will do that. We  
16 can print out --

17 THE WITNESS: Yes.

18 MS. HARDY: We can submit PDFs of  
19 the -- of those slides.

20 MR. FUGE: Okay.

21 THE WITNESS: Yes.

22 MS. HARDY: Yes? Okay.

23 THE WITNESS: Yeah.

24 MS. HARDY: We will do that. Okay.

25 And that was all I had for Dr. Tu. Okay.

1 THE WITNESS: Thank you.

2 MS. HARDY: Thank you. And then with  
3 respect to the discussion among counsel. There are  
4 some concerns about OCD's permit condition. So we  
5 would propose that, if this is acceptable to the  
6 commission, that the commission could decide this  
7 matter today and decide whether to, you know, approve  
8 Targa's application for AGI 3.

9 And then Mr. Feldewert, Mr. Moander and  
10 I can work on these permit conditions, and including  
11 them in the order that we would submit to the  
12 commission. And hopefully, we wouldn't need to have  
13 another hearing on that unless there are questions.  
14 That's what we would propose.

15 MR. FUGE: Okay. So, potentially, the  
16 proposal is commission -- commission take a vote on  
17 whether to approve the well, kind of proposed  
18 location, other pieces subject to the party coming  
19 back in with an acceptable order and kind of -- set  
20 conditions?

21 MS. HARDY: Exactly, I believe.

22 MR. MOANDER: And, if I may, Mr. Chair,  
23 I think the reason for this is there -- there is some  
24 question about the Silurian-Devonian formation.  
25 That's really the crux of this. And I think it would

1 be beneficial for the commission and frankly, the  
2 parties to have, in particular, myself, Mr. Tremaine,  
3 iron that out and make sure we're clear.

4 Because I think there -- there is a  
5 question here on whether those conditions should be in  
6 place or -- or how appropriate based on the  
7 application and the testimony.

8 MR. FELDEWERT: -- I think  
9 this -- right. First off, a little history here. A  
10 little history, right? They filed an application for  
11 injection into the Silurian-Devonian, okay? In part  
12 because of the seismic slides you just saw today. My  
13 client's object -- that they're concerned. Strongly  
14 concerned about additional disposal in the Silurian-  
15 Devonian at this location because of the geology in  
16 the area. Okay?

17 So as a result, they withdrew the  
18 application and the only matter before you today is  
19 whether they can dispose in the Delaware Mountain  
20 Group. We are not opposed to that. It's the only  
21 thing that's been noticed here today. There's been no  
22 testimony presented on anything other than disposal in  
23 the -- in these intervals of Delaware Mountain Group.

24 So I do not see -- so A, when we came  
25 in and saw the conditions 2 through 5 that discussed

1 or suggested, or hinted that there may be a future  
2 Devonian-Silurian well that would be drilled, and then  
3 these wells would be -- one of the wells would be a  
4 shut-in, et cetera. That -- complete surprise, number  
5 one. Okay? And this hearing is not noticed for that.  
6 There's been no notice that there's any -- there's  
7 going to be any discussion about potential or  
8 suggested disposal in the Silurian-Devonian formation  
9 in this area.

10 Also, we --

11 MR. MOANDER: -- AGI 2, which is  
12 already authorized, and I know there were technical  
13 issues drilling it, but that's already  
14 authorized -- Devonian and Silurian disposal and I  
15 think there, the commission went on the record about  
16 concerns about -- I mean, the structure that's  
17 contemplated by the petition -- was contemplated in  
18 the authorization for AGI No. 2, wasn't it?

19 MR. FELDEWERT: That well has been  
20 abandoned.

21 MR. MOANDER: Has it been formal, fully  
22 abandoned?

23 MR. FELDEWERT: Has it been fully  
24 abandoned? I thought it had been.

25 MS. HARDY: It's temporary abandonment.

1 MR. FELDEWERT: Okay. That order is --

2 MS. HARDY: But --

3 MR. FELDEWERT: -- that -- but that  
4 order is no longer valid.

5 MS. HARDY: No, I think the order is  
6 still valid, but Targa's evaluating how to proceed  
7 with respect to that well, and that's part of the  
8 reason for the temporary abandonment.

9 MR. FUGE: That -- or that's my  
10 understanding, is that it is not fully abandoned, so  
11 there is still a Silurian-Devonian well and that  
12 leaves the order approving that one, hinted at these  
13 issues --

14 MR. FELDEWERT: Correct.

15 MR. FUGE: -- that were discussed  
16 there, certainly on the OCD side about having a  
17 Silurian-Devonian disposal to reduce the disposal  
18 of -- of -- at least that's how I understood that.  
19 I -- I didn't go -- order -- before, so --

20 MR. FELDEWERT: Okay. So I don't -- I  
21 don't know about that, and I think that's something  
22 that has to be examined because of these concerns.  
23 And if need be, we need to have a hearing on that.  
24 Okay? But the point is there are conditions that they  
25 brought today didn't say anything about that AGI 1.

1 Okay? I talked about a new application --

2 MR. FUGE: Okay.

3 MR. FELDEWERT: -- for a separate  
4 disposal well in the Devonian. I don't have them  
5 right in front of me, right? But the point being that  
6 there's nothing -- there's been no noticed today to  
7 anyone that there's going to be any discussion about  
8 future Silurian-Devonian disposal. So I don't see how  
9 you can have something in your order arising out of  
10 this hearing that even suggests or contemplates a  
11 Silurian-Devonian disposal.

12 And so that's -- we would remain  
13 opposed anything in the order that says that. And if  
14 that's even under consideration, then we need to have  
15 another hearing.

16 MR. FUGE: Okay. Go ahead.

17 MR. FELDEWERT: Thank you.

18 MR. FUGE: Mr. Moander -- concerns  
19 about long-term Delaware Mountain Group -- hole. Is  
20 there an alternative set of conditions?

21 MR. MOANDER: And that's the question I  
22 need to get answered from OCD technical staff, is what  
23 would be the alternative, and that's the -- primarily  
24 what I'm looking to flesh out with them.

25 MR. FELDEWERT: For the question that I

1 need, Mr. Chair, if we would be okay signing off on a  
2 potential agreement. Three parties here?

3 MR. FUGE: Yeah.

4 MR. FELDEWERT: Without coming back  
5 and --

6 MR. FUGE: I mean, so -- well,  
7 first -- legal counsel deliberating on the record  
8 on -- about this?

9 MR. MOANDER: Mr. Chair, if we -- on  
10 the record and --

11 MR. FUGE: Yes.

12 MR. MOANDER: -- and -- no - no --

13 MR. FUGE: Today.

14 MR. MOANDER: -- for that. I'd --  
15 I -- I think it's preferable to close session --

16 MR. FUGE: -- agreed. Just want to  
17 add. My thoughts -- is the conditions that remain  
18 open are significant, in my mind because OCD's  
19 conditions that -- and I'm not dismissing  
20 Mr. Feldewert's point of not notice another piece of  
21 the hearing, but the conditions that clearly signal,  
22 at least in my mind, a desire to not have long-term  
23 Delaware Mountain Group disposals. Right? That would  
24 be -- that fact.

25 And if you did Silurian-Devonian,

1 if -- if you were conditioning development of such a  
2 well, and so, authorizing to say, hey, the proposal  
3 potentially is fine, but -- order that there,  
4 the -- work out seems a little mean and a little  
5 premature. And so I -- I guess I'm falling back to -  
6 - to a continuance for presentation to sort of cure  
7 the recommended conditions.

8 Possibly I'll look to counsel on this,  
9 and possibly OCD may even -- and -- cure because of  
10 other issue that haven't been actually -- here or  
11 other things like that -- offer testimony -- that.

12 MR. BLOOM: Mr. Chair -- the  
13 commission -- so that's enough.

14 MR. FUGE: It takes a lot. And so  
15 that's --

16 MR. BLOOM: I've just learned a new  
17 phrase, temporary abandonment. It sounds like an  
18 oxymoron -- anyway. Given the fact that we don't have  
19 technical staff testifying today is special. And if  
20 notice concerns are being raised, I think it would  
21 be -- it would be -- or just -- the petition would be  
22 to have another go at this and allow the parties to  
23 get together and come up with a consensus or we need  
24 to have more evidence, and the court will then -- and  
25 the commissioner can decide or set it for hearing.

1                   There's too much -- because there's no,  
2 like a -- to -- conditions they just granted that  
3 they -- conditions.

4                   MR. FUGE: Yeah. Yeah. So I move that  
5 we continue this to the next -- to the August 2023  
6 meeting and that the parties continue -- get  
7 additional -- for that -- additional  
8 technical -- certainly, Targa -- the extra information  
9 that's shared here. And we hear your additional  
10 technical testimony from -- or maybe the parties will  
11 come back -- acceptable set of technical conditions  
12 and we can sort of go from there. Mr. Moander?

13                   MR. MOANDER: Mr. Chair, could -- well,  
14 OCD would request leave then to file potentially the  
15 pre-hearing statement within ten calendar days, which  
16 gives the parties a full week, next week, to get  
17 this -- get working on this. And I think, in my mind,  
18 conversations between counsel. They know this is  
19 serious enough and that we want to get working on this  
20 soon.

21                   So if OCD could have ten days, if  
22 needed, of course. If there's not an order supplied,  
23 then obviously that -- or -- or something along those  
24 lines to -- then there wouldn't be a need for a pre-  
25 hearing statement. OCD could get that, it would be

1 greatly appreciated.

2 MR. FUGE: Mr. Feldewert?

3 MR. FELDEWERT: I would suggest, okay,  
4 that the problems that we raised today in terms of the  
5 notice are not cured by having a hearing in August, or  
6 somehow, we're back into discussion and maybe having  
7 expert testimony about the disposal in -- in Devonian-  
8 Silurian formation. Okay?

9 MR. FUGE: Well --

10 MR. FELDEWERT: It's not been noticed  
11 for that.

12 MR. FUGE: So, Mr. Feldewert, taken  
13 back -- difference is they'll file Silurian-Devonian  
14 and it would be properly noticed in there.

15 MR. FELDEWERT: Agreed, agreed. And  
16 what's unclear to me when you say, well, we may have  
17 additional testimony and conditions, is whether you're  
18 contemplating that my client should have witnesses  
19 here to discuss disposal in the Silurian-Devonian. I  
20 don't see how we can do that under these proceedings.

21 MR. FUGE: I --

22 MR. MOANDER: Chair, I would agree  
23 that -- is it -- well, of having another hearing would  
24 not -- would not solve the notice issue. Nor would it  
25 be fair or proper for this -- this third-party to

1 bring experts and/or any -- to the next  
2 hearing -- notice -- I think your point that if we  
3 could have second hearing that is not meander into the  
4 notice of concern. That would -- it would have a  
5 hearing.

6 MR. FUGE: I agree. I agree.

7 MS. HARDY: May I -- thank you. So I  
8 think Mr. Feldewert's correct but this application  
9 does not involve Silurian-Devonian, right? I mean,  
10 the application before the commission is for injection  
11 into the Delaware Mountain Group. So that's what  
12 Targa is asking the commission to approve. That's  
13 what they're planning to do.

14 Targa is in dire need of this well  
15 because they operate their natural gas processing  
16 plant at this location. And there have been delays as  
17 Mr. Feldewert discussed. We filed the initial  
18 application in February for the Silurian-Devonian. We  
19 withdrew that due to these concerns. So now we're  
20 here and in desperate need, really, for injection  
21 capacity.

22 So delay is very problematic for Targa.  
23 I understand that there are these permit conditions  
24 that hopefully, the parties can work out. But from  
25 Targa's perspective, the sooner this can be decided

1 the better. And with respect to bringing in testimony  
2 and experts on Silurian-Devonian, I think that that's  
3 just not within the scope of this application.

4 And I don't think that's fair to Targa  
5 to keep delaying this matter for that reason. And I  
6 think that OCD did have notice of this hearing today  
7 and the pre-hearing statement deadline was last week.  
8 And --

9 MR. FUGE: There was a family  
10 emergency --

11 MS. HARDY: I understand.

12 MR. FUGE: -- that --

13 MS. HARDY: I understand.

14 MR. FUGE: The way that the commission  
15 would be flexible --

16 MS. HARDY: Okay. I understand. It's  
17 just this is difficult for -- for Targa because we  
18 need to get this well approved. So --

19 MR. FUGE: You're modeling -- of  
20 1/1/2024, so would an August hearing interfere with a  
21 1/1/2024 start date?

22 MS. HARDY: I think it takes time to  
23 drill the well, Mr. Chair.

24 MR. FUGE: I -- I'm -- I'm well aware  
25 of it. But the issue here is questions. I mean,

1 either -- to move on site and -- I mean, the modeling  
2 didn't show a start of December, November or other  
3 pieces. I know it takes time to drill and develop,  
4 and other pieces, but -- we're -- here, there are some  
5 concerns about long-term -- disposal that's here.

6 So how do you propose the commission  
7 deals with that, in authorizing it and approving it  
8 today if there's an -- commission staff and attach --  
9 conditions that we can attach?

10 MS. HARDY: I think that if the parties  
11 were unable to reach agreement on the permit  
12 conditions, then I think we would need to have further  
13 presentation to the commission. I mean, I think the  
14 order could be presented at the next meeting for  
15 discussion. And if the parties can't reach an  
16 agreement, then I think that's a separate issue.

17 MR. FUGE: So how does that get around  
18 not giving a continuance -- and I -- I don't  
19 understand what we'd be voting on if -- if there  
20 aren't permanent conditions, because if permit  
21 conditions are still being negotiated and it's there,  
22 how would Targa proceed with drilling or development  
23 of a well that doesn't have approved set of permit  
24 conditions?

25 MS. HARDY: I think that knowing

1 whether the well is approved or not would be helpful  
2 for Targa. But I understand that the commission may  
3 not want to vote on that approval without the permit  
4 conditions. I understand that.

5 MR. FUGE: So it's almost a, we approve  
6 the well today. I mean, it's your proposal that the  
7 commission approve the well today to give Targa  
8 some -- certainty that they need to begin making  
9 drilling and development arrangement, but that does  
10 that approval is subject to presentation of acceptable  
11 permit conditions and -- aside from the standard  
12 permit condition, acceptable permit condition happens  
13 next -- so it goes away if they aren't presented.  
14 Is -- is that the ask?

15 MS. HARDY: That's what I would  
16 propose.

17 MR. MOANDER: Are you okay with, Mr.  
18 Chair?

19 MR. FUGE: I would be okay with that.  
20 I mean, that's not -- what valid concerns Mr.  
21 Feldewert raised about notice. I mean, really, the  
22 next hearing is what are the permit conditions that  
23 are acceptable to, you know, that resolves concerns  
24 raised by OCD. 'Cause I take your point,  
25 Mr. Feldewert, that EOD doesn't have any concerns

1 about the -- disposal? So --

2 MR. FELDEWERT: Chair, members of the  
3 commission who are confident that the end result  
4 will -- regardless of what the conditions are, there's  
5 going to be -- it will be a whole  
6 new -- certain -- with -- that they can start drilling  
7 in the meantime. That any -- any scenario will still  
8 involve -- well -- on site.

9 MR. FUGE: Whether -- that -- that's  
10 where my question is going, is if you're still  
11 negotiating permit conditions, I don't know what  
12 you're drilling. All they would get is certainty that  
13 maybe then could start doing some -- short of drilling  
14 because without a permit conditions that Mr. Moander  
15 is talking about, I'm not aware they've actually have  
16 the permit -- in the ground and -- that --

17 MS. HARDY: That would be my  
18 understanding. Yeah. Yes. We would need the order  
19 to start drilling.

20 MR. FUGE: Oh, that --

21 MR. FELDEWERT: Is -- order and  
22 conditioning about -- I -- I think the -- caution,  
23 that are -- is it -- it is, again, if you feel  
24 like -- the end result is going to be the same with  
25 respect to what they need to know now -- they -- in

1 the next month, then -- we'll direct an order  
2 that -- that protects the rights of the  
3 parties -- now -- they want -- they -- there is no  
4 consensus on conditions. And in fact, that will leave  
5 you -- some risk.

6 That if the hole is dug, it  
7 just -- it's -- conditions -- at least they  
8 were -- satisfactory, we would have their best, that  
9 may not --

10 MR. MOANDER: Mr. Chair, it seems to me  
11 like, it follows six and one, half dozen in another.

12 MR. FUGE: Yeah.

13 MR. MOANDER: You approve the well with  
14 conditions that they don't get to know, you don't vote  
15 on until August, or we still -- I mean, obvious -- I'm  
16 okay, probably either way, but --

17 MR. FUGE: I mean, for me the only  
18 slight balance, Targa has been in twice with  
19 application -- so, I guess I'm comfortable here, since  
20 really, from a notice purpose, all that's really  
21 discuss next week is for a - I mean, not next  
22 week -- at the next commission hearing would  
23 be -- would be -- conditions that would be attached to  
24 the order.

25 You know, I would be okay approving the

1 well location and design, subject to Targa  
2 supplementing the evidentiary record with the issues  
3 we discussed and the parties providing an order  
4 to -- in advance of the August commission hearing that  
5 reflects both standard conditions for these wells and  
6 any special conditions negotiated by the parties.

7 UNIDENTIFIED SPEAKER: Okay.

8 MR. FUGE: Commission? Let the record  
9 reflect that the decision of the commission. Thank  
10 you.

11 MS. HARDY: Thank you.

12 MR. BLOOM: Is there an order?  
13 We'll --

14 MR. FUGE: Yeah.

15 MR. BLOOM: Let the parties --

16 MS. HARDY: I will do that. Thank you.

17 MR. FUGE: Pushing through the agenda,  
18 pending litigation, none or no updates. And then, in  
19 other business, we had no specific items, but I did  
20 want to remind everyone for the record, to accommodate  
21 some scheduling things. We discussed this and  
22 approved it at the last meeting, but August 10th  
23 meeting of the OCC has been adjusted to August 17,  
24 2023 at 9 a.m., Mountain Standard Time.

25 And the September 14, 2023 meeting has

1 changed to September 7, 2023 at 9 a.m., Mountain  
2 Standard Time. I anticipate we will likely be in a  
3 similar location for both of those meetings, but  
4 that'll be covered in a notice. And I'm flagging  
5 those changes again 'cause it does impact timing and  
6 other pieces, and yes, the chair is aware that it does  
7 overlap with Division hearings, but --

8 UNIDENTIFIED SPEAKER: So what.

9 MR. FUGE: The chair is aware.

10 Anything else for the good of the order? All right.  
11 I hope everyone has a good afternoon. Thank you.

12 MS. HARDY: Thank you.

13 MR. MOANDER: Thank you.

14 (Whereupon, the meeting concluded at  
15 4:39 p.m.)  
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CERTIFICATE OF DEPOSITION OFFICER

I, DANA FULTON, the officer before whom the foregoing proceedings were taken, do hereby certify that any witness(es) in the foregoing proceedings, prior to testifying, were duly sworn; that the proceedings were recorded by me and thereafter reduced to typewriting by a qualified transcriptionist; that said digital audio recording of said proceedings are a true and accurate record to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.



DANA FULTON  
Notary Public in and for the  
State of New Mexico

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I, TERRI GREEN, do hereby certify that this transcript was prepared from the digital audio recording of the foregoing proceeding, that said transcript is a true and accurate record of the proceedings to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

*Terri L. Green*

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TERRI GREEN

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[abandoned - affects]

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[afternoon - ampomah]

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[ampomah - assume]

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[assume - bell]

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[negotiating - oh]

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[oil - outside]

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[overall - permian]

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[permian - plume]

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[prevent - protect]

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[protect - ray]

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[reveals - saying]

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[several - sitting]

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[situations - square]

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[suddenly - targa]

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[targa - think]

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[think - tragically]

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[trail - unidentified]

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[unidentified - water]

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[wondering - zuniga]

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New Mexico Rules of Civil Procedure for the  
District Courts

Article 5, Rule 1-030

(e) Review by Witness; Changes; Signing.

If requested by the deponent or a party before completion of the deposition, the deponent shall have thirty (30) days after being notified by the officer that the transcript or recording is available in which to review the transcript or recording and, if there are changes in form or substance, to sign a statement reciting such changes and the reasons given by the deponent for making them. The officer shall indicate in the certificate prescribed by Subparagraph (1) of Paragraph F of this rule whether any review was requested and, if so, shall append any changes made by the deponent during the period allowed.

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ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.  
THE ABOVE RULES ARE CURRENT AS OF APRIL 1,  
2019. PLEASE REFER TO THE APPLICABLE STATE RULES  
OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

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