OIL CONSERVATION COMMISSION PUBLIC MEETING

C O N T E N T S

E X H I B I T S

OCD'S

P R O C E E D I N G S

COURT REPORTER: Yes, we're ready.

COMMISSIONER ROZATOS: Awesome. Good morning, everybody, happy Friday Eve. It's Thursday, March the 20, 2025. This is the Oil Conservation Commission Meeting. I'm Gerasmos Rozatos, I go by Gerry, I'm the acting Director for the Oil Conservation Division. I'm also the acting Chair for the Oil Conservation Commission. We'll start our meeting now. We'll do a roll call. As I mentioned, I am Gerasimos Rozatos, and I'm the acting chair, and I'm -- move it over to my right.

COMMISSIONER BLOOM: Morning. I'm Greg Bloom, I'm the designee of the Commissioner of Public Lands.

COMMISSIONER AMPOMAH: Good morning. I'm Dr. William Ampomah, Professor at New Mexico Tech, designee of the Energy secretary.

COMMISSIONER ROZATOS: Thank you, gentlemen. So we got our roll call out of the way. Now we need to approve our March 20th agenda. If I could get a motion for the approval of the agenda.

COMMISSIONER BLOOM: I so move.

COMMISSIONER AMPOMAH: I second.

COMMISSIONER ROZATOS: Excellent. So our

agenda is approved. Our agenda stated that our third topic is the approval of the February 20th through the 28, 2025 and the March 11, 2025 meeting notes. We do need to augment that a little bit. The March 11th meeting notes are not complete yet, so we will move those to our next meeting. So right now, if I could get a motion to approve the February 20th through 28, 2025 meeting notes, please.

COMMISSIONER BLOOM: MR. Chair, I believe those first minutes are the Empire Goodnight case.

COMMISSIONER ROZATOS: Correct.

COMMISSIONER BLOOM: So I will set out the vote on that as I'm not a commissioner there.

COMMISSIONER ROZATOS: Okay. Thank you.

COMMISSIONER AMPOMAH: I move and I will second it, okay.

COMMISSIONER ROZATOS: So our meeting notes for February 2020 -- 20th through the 28th of 2025 are approved. Okay. We'll move on to our pending cases. Our first case is Case Number 25237. It's a de novo appeal of an order of the Division Case 24517. Are all parties present? This is a status conference. Let's start with the OCD.

MR. TREMAINE: Good morning, Mr. Chair, Commissioners. This is Jesse Tremain for the Oil

Conservation Division.

COMMISSIONER ROZATOS: Thank you, Mr. Tremaine.

MR. HOLIDAY: Good morning, Mr. Commissioner. This is Ben Holiday (ph) on behalf of Silverback (ph) Operating Team.

COMMISSIONER ROZATOS: Mr. Holiday, thank you. Anybody else?

MR. SAMANIEGO: Good morning, Mr. Examiner. This is Jonathan Samaniego, representing American Energy -- representative of American Energy.

COMMISSIONER ROZATOS: Excellent. Thank you, Mr. Samaniego. Appreciate it. So we've got all three parties here. Mr. Samaniego, you are appealing the Division order, so have you start for us this morning on our status. Just this -- as I've mentioned, this is a status conference, so we're not hearing it de novo right now.

MR. SAMANIEGO: Okay. Silverbacks claim of ownership in the chapter of lease, American denies that. Silverbacks claim that American interests were quiet titles, American denies that. Silverbacks claim through the quiet title that interest in the chapter of lease were quiet titled, American denies that. Silverbacks presented list of their notifications.

And then the list of the quiet title, American finds that very -- that needs to be cautiously looked at by the Commission and the Division. I mean, American denies the notifications that they submitted out.

It's very precarious that the claimants through the quiet title, Silverback is claiming through they didn't notify nobody there, which is -- it's -- it just -- I mean, that really needs to be cautiously looked through. American denies all Silverbacks claims. American should have or is required to notice because American is an operator and an interest holder in the chapter of lease. And because notification was not proper, therefore the applications of Silverback must be dismissed under state law and statutes.

COMMISSIONER ROZATOS: Okay. So Mr. Samaniego are -- if -- would you -- are you ready to be able to schedule a setting on your side?

MR. SAMANIEGO: Yes.

COMMISSIONER ROZATOS: Okay. Thank you. I'll move over to Mr. Holiday. Mr. Holiday?

MR. HOLIDAY: Where to begin here? So Silverback and case number – gosh. I have to go back and find the Case Number 24517, Silverback is the operator under a two-section unit that was established

by order number R23045. All but 2.25 net mineral acres in that entire two section area were subject to a JOA. So it was a very, very small cleanup pooling. We disagree with Mr. Samaniego's characterization of the title. We also disagree that this is the proper forum to try anything. And then the NMOCD and the OCC doesn't have jurisdiction. This is not the proper place to litigate a title dispute, if he has one.

COMMISSIONER ROZATOS: Okay.

MR. HOLIDAY: And we're happy to set this for a hearing as soon as it pleases the Commission.

COMMISSIONER ROZATOS: Excellent. Thank you, Mr. Holiday. Mr. Tremain?

MR. TREMAINE: Good morning, Mr. Chair. There's -- two things I want to address here. First is the OCD's entry of appearance and notice of intervention --

COMMISSIONER ROZATOS: Mr. Tremain, I'm going to interrupt you. Can you bring the microphone a little closer?

MR. TREMAINE: Sorry.

COMMISSIONER ROZATOS: Thank you.

MR. TREMAINE: I expect OCD's involvement in this case to be likely minimal. The chief question here is a title question as Mr. Holiday indicated.

And dispute between the parties as to whether Mr. Samaniego and American Energy Resources was entitled to notice, or in compulsory pooling claim. I will venture -- my suspicion is that the Commission will and should rule based on pleadings associated with those claims. The reason that OCD entered appearance here, based on the record, is that the leasehold interest purported by Mr. Samaniego includes and is arguably held by a particular well, the Rio Penasco.

That well is out of compliance and subject to a stipulated final order with another party who is a registered operator at the time of OCDs enforcement action. We're taking additional investigative steps and enforcement actions related to that, and other wells.

But to the extent that this Commission considers any rights or permissions associated with that well, OCD needs to reserve its ability to participate to the extent that the Commission is going to consider the title claims, the quiet title arguments, et cetera, between Mr. Samaniego and Silverback. We will abstain from that argument and we're available to schedule either motions or hearing on this at the pleasure of the Commission.

The second issue is that Mr. Samaniego's

filed a motion to strike my appearance as Commission -- as a Division counsel. I sent a rather strongly worded response to commission clerk regarding that. I don't think we're going to get into the merits of that today, but I urge this Commission to deny that motion. It is true that Mr. Samaniego's filed numerous complaints to any -- essentially any email -- OCD email that he can identify regarding me doing my job. He's exceedingly unhappy with the enforcement practices regarding an act of wells.

They're frivolous and unsupported claims, no actions have been taken. I haven't heard back from the U.S. Department of Justice, for instance, about any concerns with my actions. And it's important that the Division has the opportunity to address its interest in its -- in enforcing its rules regarding that well. Again, I don't think we're going to get to that issue in the case. Thank you.

COMMISSIONER ROZATOS: Thank you. Mr. Tremaine. As far as the motions to strike Mr. Holiday and to strike Mr. Tremaine, the both motions have come up. Commissioners, I motion that we do strike it. I think that both Mr. Holiday and Mr. Tremain have the ability to be able to discuss on part of both entities. And if you agree, I would need someone to

second that.

COMMISSIONER BLOOM: I concurrent and I second.

COMMISSIONER AMPOMAH: I also agree to that.

COMMISSIONER ROZATOS: Okay. So I think unanimously we're going to agree to strike --

COMMISSIONER BLOOM: To deny.

COMMISSIONER ROZATOS: -- to deny the motion to strike the two. So let's -- we'll let the record reflect that for now. As far as being ready to take this -- to bring it in front of -- to the Commission, as you all know, the Commission schedule is pretty busy, we are pretty packed. So as far as availabilities, I believe April is out because April has just a massive case going on, in two full weeks in the month of April for that. Sheila (ph), what does May look like right now?

MS. SHEILA: The May meeting is May 15th, and there's room on that docket.

COMMISSIONER ROZATOS: I'm sorry. can you repeat that?

MS. SHEILA: Sure. The meeting is set for May 15th, and there is room on that docket for a case.

COMMISSIONER ROZATOS: You say there is or there isn't?

MS. SHEILA: Oh, there is. We could schedule it --

COMMISSIONER ROZATOS: (Crosstalk), okay.

MS. SHEILA: -- on May 15 there.

COMMISSIONER ROZATOS: I apologize. I'm in a weird echo in the room and I didn't hear it, so my apologies. Okay. So as soon as we probably could get to this case is June. I know that that's almost three months out, but as I said, the Commission's pretty packed and the calendars are getting pretty full. Does that work for all three parties, Mr. Tremaine?

MR. TREMAINE: (crosstalk).

COMMISSIONER ROZATOS: I'm sorry, Mr. Tremaine?

MR. TREMAINE: Yes, for the Division.

COMMISSIONER ROZATOS: Okay. Mr. Samaniengo?

MR. SAMANIEGO: Yes.

COMMISSIONER ROZATOS: Okay. Mr. Holiday?

MR. HOLIDAY: Yes, sir.

COMMISSIONER ROZATOS: Okay. Excellent. So we can set this for the June hearing for that instance. Anything else anybody would like to bring up regarding the status conference? The –- yeah. the status conference for this particular case.

MR. SAMANIEGO: I would like to make on the

record that Jesse Tremaine's statements regarding American, it was out of line. It was patently incorrect.

MR. ROZATOS: Okay.

MR. SAMANIEGO: For the fact that the topics that he brought up were irrelevant to the matter at hand. The matters he brought forth, those are matters to be brought forward for a matter for violation hearing. This is a matter regarding notice of pulling. For the fact that Tremaine brings up violations whenever we're simply talking about proper notification, is in plain sight of his maliciousness. I reported that I told -- I reported him to the Department of Justice -- the New Mexico Department of Justice, and today here he is maliciously coming into a hearing with irrelevant topics --

COMMISSIONER ROZATOS: Mr. --

MR. SAMANIEGO: -- with assault --

COMMISSIONER ROZATOS: Mr. Samaniego?

MR. SAMANIEGO: -- of hurting (inaudible) him.

COMMISSIONER ROZATOS: Mr. Samaniego? Mr. Samaniego, I'm going to interrupt you. One second. We're not here to discuss the merits of Mr. Tremaine, and I would appreciate it if we use some decorum and

we used respect when we're talking about individuals, just like Mr. Tremaine calls you Mr. Samaniego, I would appreciate it if you also use the same with Mr. Tremaine. Don't just say Tremaine. And second of all, we will be hearing this case. So why don't we -- I understand your frustration, and I note it, the Commission definitely understands that there is frustration here. We will -- are happy to discuss the merits of that in June. But let's keep some respect and some decorum, please.

MR. SAMANIEGO: If I may just add one more thing. There was two other qualified attorneys, Christopher Moger (ph) and Christie Travo (ph). And those are two qualified attorneys that can hear this matter. The fact that Jesse Tremaine feels it's under his sole obligation to hear American and be involved in American's hearing is erroneous. And for the Commission to allow that, to proceed with him being involved is negligent.

COMMISSIONER ROZATOS: Mr. Samaniego?

MR. SAMANIEGO: (Crosstalk).

COMMISSIONER ROZATOS: Mr. Samaniego, I appreciate it, and we definitely, as I stated, noted that you have your concerns, and that is on the record as well. In June, we will definitely hash all that

out, okay?

MR. SAMANIEGO: Okay. And can I just get the hearing date one more time? I can write it down.

COMMISSIONER ROZATOS: Yeah. It'll be June, 2025. And what's the exact date, Sheila, for June?

MS. SHEILA: It'll be June 15th.

COMMISSIONER ROZATOS: June 15, 2025.

MR. SAMANIEGO: Yes, sir.

COMMISSIONER BLOOM: Or May 15th?

COMMISSIONER ROZATOS: Nope, not May.

COMMISSIONER AMPOMAH: It's Sunday.

COMMISSIONER ROZATOS: June 15th is Sunday, Sheila.

MS. SHEILA: Oh, is that a Sunday? Right now it's scheduled for June 19th, but that is a federal holiday, so I'm going have to move the hearing, and I'm going to move it to the Monday of that week. And I thought it was the 15th, but if it's the 16th --

COMMISSIONER ROZATOS: So the 16th. June 16th, Mr. Samaniego.

MR. SAMANIEGO: Mr. Chair?

COMMISSIONER ROZATOS: Yes.

MR. SAMANIEGO: I'm not available.

COMMISSIONER ROZATOS: You are not available --

MR. SAMANIEGO: Yeah.

COMMISSIONER ROZATOS: -- on the 16th.

MR. SAMANIEGO: Yeah.

COMMISSIONER ROZATOS: It'll be that week of June 16th, at some point, Mr. Samaniego. Will have a date solidified and we'll get it to you, okay?

MR. SAMANIEGO: Yes, sir.

COMMISSIONER ROZATOS: Thank you. Anything else? Excellent. Thank you, everybody. We'll move on to our next case. Our next case is case number 24683. It's the application for rulemaking to amend 19.15.2, 19.15.5, 19.15.8 19.15.9, and 19.15.25 of the New Mexico administrative code. This is the Status Conference. Are all parties present? We'll start with you.

MS. FOX: Thank you Mr. Chair. Tana Fox (ph) representing applicants in this matter. And I'm here today with Morgan O'Grady (ph) from our office and online are Kyle Tisdale (ph) and Matt Niel (ph).

MR. ROZATOS: Excellent. Thank you, Ms. Fox.

MR. FELDERWORK: Good morning, Mr. Chair. Members of the Commission, Michael Felderwork (ph) with the Santa Fe, Office of Holland and Hart on behalf of (inaudible), USA.

COMMISSIONER ROZATOS: Thank you, Mr.

Felderwork.

MR. TERMAIN: Jesse Tremain on behalf of the Oil Conservation Division.

COMMISSIONER ROZATOS: Thank you, Mr. Tremaine. Okay, Ms. Fox, we'll start with you.

MR. SUAZO: Good morning, Mr. Chair. Can you hear me?

COMMISSIONER ROZATOS: I apologize. Yes, Mr. Suazo, my apologies.

MR. SUAZO: All right. Good morning Mr. Chair and Commissioners, Miguel Suazo with Beatty & Wozniak, appearing on behalf of the New Mexico Oil and Gas Association this morning.

COMMISSIONER ROZATOS: Excellent. Thank you. I see Mr. Tisdale. Is there anybody else on the platform?

MS. TRIPP: Yes, Commissioner. This is Ann Tripp with Hinkle Shanor on behalf of the Independent Petroleum Association of New Mexico.

MR. ROZATOS: Thank you, Ms. Tripp. Anybody else?

MR. SAYER: Yeah, Mr. Chairman. This is Matthias Sayer on behalf of EOG.

MR. ROZATOS: Mr. Sayer, thank you. Anybody else? My apologies. As I always say on these

meetings, I haven't had enough coffee by 9:00 a.m. so I slip up sometimes. Ms. Fox, will now start with you.

MS. FOX: Thank you. Thank you, Mr. Chair. You might recall at the last status conference last month all the parties concurred that the April hearing that had been set by this Commission should be vacated. And the reason for that was that the parties met in October to discuss applicant's proposals. At that point in time, OCD stated that it would have a red line that would have alternate proposals for the parties. So we were all very interested to know what those were.

Those proposals were anticipated to be submitted to the parties before the end of the year, but because of workload issues, they were not, and they were submitted, as you might recall, in the middle of February. And so the industry at that point in time asked for 30 days to try to figure out a new hearing date.

Last week, OCD circulated a proposed hearing schedule for the parties and the proposed hearing schedule had dates for applicant's filing a -- an amended petition for the filing of direct testimony and exhibits for the filing of rebuttal testimony and

the exhibits. And then a hearing date of about approximately two weeks, maybe two plus weeks starting October 14th. With flexibility within those dates we wrote back to OCD, we concur with its proposed schedule.

We haven't heard from industry parties, although I did have a conversation with Mr. Felderwork and Mr. Rankin this morning. We're amenable to -- in terms of the dates that UCD has proposed, were amenable to flexibility within the dates for filing the amended petition, the direct testimony, the rebuttal. The one, I guess, request we have is that for the hearing, that it not extend beyond the first or second week of November that it not bleed over into the holiday season. Because we've got a lot of council, a lot of experts, many of whom are going to be flying in from out of state.

We have Commission members, we have the hearing officer. It's a -- these hearings as you know, are a lot of work. And we would like to have this hearing ended before the holiday season get started, and without having the hearing hanging over us. That's our one request.

COMMISSIONER ROZATOS: Okay.

MS. FOX: Other than that, we're -- we have

flexibility between now and the hearing.

COMMISSIONER ROZATOS: Okay. Excellent. Mr. Felderwork, we'll go to you next.

MR. FELDERWORK: Ms. Fox did a good job of summarizing, I think where we are. The only thing is I am -- I don't see a date on here for filing a -- any kind of an amended petition. But I'm -- I suppose that's something that we can discuss and agree upon in formulating any scheduling order. But we don't have a problem with the proposed October hearing date. I do note that the filing of full testimony and exhibits is June 13th, which if we hold in October would be four months before the hearing. Seems like an awfully long time, but --

COMMISSIONER ROZATOS: Four months go fast.

MR. FELDERWORK: Yeah. I guess they do go fast, yeah. And then there's provision in here for filing rebuttal testimony. In my experience, the only thing I'd want to reserve is the ability to actually challenge whether it's rebuttal testimony or whether it's something that should have been filed initially.

COMMISSIONER ROZATOS: Okay. Mr. Tremaine?

MR. TREMAINE: Thank you, Mr. Chair and Commission. I think we've summarized the situation well waiting on feedback on specific dates from the

parties. I know Mr. Suazo is traveling, and so I'm hopeful that we can get a joint stipulated order in. I did not put in or propose yet a amended petition deadline, I think that's something we can and should talk about with the parties. But we're discussing the scheduling of additional stakeholder meetings in April. So I was leaving that open-ended for now to allow what we hope and expect will be feedback from the Morgan and other industry partners.

But that's something that we can fill in in the next couple weeks. I do think that we want to take the time to hammer out any areas of necessary flexibility with the filing dates, but that the most important thing is the hearing date that we get that scheduled.

We share the concern that going into the holidays, this is going to be difficult for all parties in the Commission. And I propose two plus weeks at this point because I think if it's structured that way, we can always pull that back rather than extending it out as we've seen with some other cases that have gone on beyond the current schedule period. So if we could schedule 2 to 3 weeks and then hopefully we can whittle it down from there.

COMMISSIONER ROZATOS: Okay. Thank you, Mr.

Tremaine. Mr. Suazo?

MR. SUAZO: Sure. I think MR. Felderwork and Ms. Fox did a good job summarizing where we are. I did confer with LA MOGA (ph) and I think, you know, there's no issues with the October date per se. I think the better question and maybe the place we should start is to learn whether or not the Commission is available on those dates. And if not, hopefully we can push it back a bit, but in such a way that it won't interfere with the holidays.

With respect to the earlier dates I think LA MOGA is still kind of waiting to see what results from the legislative session is. You all can imagine they've been pretty focused on that. There are some pieces of legislation that could impact this rule making. We'll know the outcome of that, I think fairly soon, but we don't know it yet. And so once we have some clarity with respect to how the session ends and what impacts it might have on this rule making, I think that LA MOGA will be prepared to sit down with the parties and agree upon some firm dates. I just don't think that we can do that today, but I do expect we'll be able to do that in the next few weeks.

COMMISSIONER ROZATOS: Excellent. Thank you. Ms. Tripp?

MS. TRIPP: Yes. Thank you, Commissioner. IPNM is in much a similar situation LA MOGA. We don't have a problem with the October 14, two plus week hearing dates as long as it does accord with the Commission schedule, and we could push a week or two beyond as well. And so I don't have anything additional to add, I think we'll be available in a better position after the legislature close.

COMMISSIONER ROZATOS: Okay.

MS TRIPP: And I'm aware that there's several parties that may have amendments or revisions, and so I think those interim deadlines, which are discussed right now, are open for conferral between the parties.

COMMISSIONER ROZATOS: Excellent. Thank you. Mr. Sayer.

MR. SAYER: Thank you, Mr. Chairman. Nothing to add. We generally are supportive of the Division's proposed schedule.

COMMISSIONER ROZATOS: Okay. Excellent. And Ms. Fox, you were speaking on behalf of the other two gentlemen on the platform, correct?

MS. FOX: (No audible response.)

COMMISSIONER ROZATOS: Okay. The -- I believe that this is all fine and done with the Commission as well. The only caveat to it is the

Commission Chair is going to be out of the country the first two and a half weeks of October. So it would have to be the week of the 20th instead of the week of the 14th -- 13th. So it would just be moved by one week, if at all possible. As I mentioned, I'll be out of the country. So I just moved it by one week. It'd still be for the holidays but it would just probably be the week of the 20th of October. If that's okay with all the parties. We could tentatively schedule it for that.

MS. FOX: That's fine with the applicants.

COMMISSIONER ROZATOS: Okay.

MR. FELDERWORK: Fine with OXY.

MR. TREMAINE: Agreed.

COMMISSIONER ROZATOS: Ms. -- I'm going to just go Mr. Suazo.

MR. SUAZO: That's fine with LA MOGA, Mr. Chair.

COMMISSIONER ROZATOS: Okay. Ms. Tripp?

MS. TRIPP: That's fine with IPNM.

COMMISSIONER ROZATOS: Okay, Mr. Sayer.

MR. SAYER: It's good.

COMMISSIONER ROZATOS: Okay. So we can set it for the week of starting Monday the 20th of October. So Commission, does Commissioners still do

that work for you all?

COMMISSIONER BLOOM: Let me check the third week there.

COMMISSIONER ROZATOS: Okay.

COMMISSIONER BLOOM: Works for me, Mr. Chair.

COMMISSIONER ROZATOS: Okay.

COMMISSIONER AMPOMAH: How long will this go for?

COMMISSIONER ROZATOS: Third -- they just said two weeks, possibly a little more.

COMMISSIONER AMPOMAH: So I ask that when it getting in closer, because I do teach.

COMMISSIONER ROZATOS: Right.

COMMISSIONER AMPOMAH: You know, and I cannot miss classes for two straight weeks. So -- but I teach only one class so we can work it out in such a way that I can be relieved to go teach at some point.

COMMISSIONER ROZATOS: Yeah. I think all parties could take that into account for a day during the week so the Commission -- Commissioner can teach his class. We can work that schedule out and work with that. But it -- does the 20th of October starting this work for you, Commissioner?

COMMISSIONER AMPOMAH: Yes.

COMMISSIONER ROZATOS: Okay. Then let's plan

on that. We'll get -- we'll set it on the books for the week of the 20th of October. We just need another status hearing here. When do you all -- when would you all like another status hearing?

MS. FOX: Mr. Chair, I think next month would be good because we should be able to have decided among ourselves the -- you know, sort of these interim dates between now and the hearing October 20th.

COMMISSIONER ROZATOS: So the Commission meeting date was canceled for next month because we've got the two weeks for the Goodnight Empire case. We're unhappy to hear it at the beginning of that, but that's April 7th. That gives you less than two weeks to meet.

MS. FOX: Whatever the pleasure of the Commission.

COMMISSIONER ROZATOS: I mean, even May.

MS. FOX: Two –- huh?

COMMISSIONER ROZATOS: Should we just do May? Just -- Ms. Fox, I'm just going to interrupt. Being that legislative session is ending this weekend, you all may need a little extra time just to regroup with what comes out of the legislature. So maybe the May hearing would be best for everyone, because as I said, the April one starts right off April 7th. So -- but I

leave that up to you. That's just my suggestion.

MS. FOX: That's fine. May's fine.

COMMISSIONER. ROZATOS: The (inaudible) --

MS. FOX: I would like -- I mean, I hope that we can get agreement among the parties in the next, say, two weeks. Because I heard session will end.

COMMISSIONER ROZATOS: Sure.

MS. FOX: Saturday at noon.

COMMISSIONER ROZATOS: Right.

MR. TREMAINE: Mr. Chair, I would echo that. I think it would benefit all parties to have this sorted out -- the schedule sorted out in the next couple weeks. I know that session creates a lot of open-ended questions, but tracking what's happening there with the various bills that would potentially impact this particular rule making. I think we're looking at kind of a Hail Mary for any of that to pass at this point.

So the particular bills are still on committee, so the likelihood that the statutory foundation upon which the -- this petition is based substantially changes in the next week is exceedingly low. And I think we don't want to push decisions on these filing deadlines out all the way to May because that's going to give all of the parties, as currently

proposed, only 30 days to turn around for direct testimony.

So we're all preparing for this based on the current red lines with that expectation that there's going to be a direct testimony filing deadline sometime in the middle of the summer and it's -- it doesn't benefit any party to wait to make that decision until the middle of May. So I would say I will encourage the parties to work with us and we'll try to get something filed with the Commission in advance for the next status conference and the Commission can schedule the next status at -- whenever it chooses. But I think we need to get something submitted as soon as possible.

COMMISSIONER ROZATOS: Okay. Mr. Felderwork, you still sticking with me?

MR. FELDERWORK: It's not a strong opinion, no.

COMMISSIONER ROZATOS: Okay. You could go either way.

MR FELDERWORK: I'd go either way.

COMMISSIONER ROZATOS: Okay. I'll go onto the platform. Mr. Suazo?

MR. SUAZO: Yeah. Mr. Chair, I tend to agree with, you know, Mr. Tremaine's position. You know,

that being said, the chances of this legislation passing, I think at this point are low, but they're also not zero. And so I would like to, you know, be in the position to work with the parties and agree to a procedural schedule before May, I am hopeful that we can do that. We'll definitely endeavor to do that, but, you know, until we kind of have some clarity, we can't do that just yet.

But I agree, given the dates that the parties have proposed, that LA MOGA still needs to assess, you know, we just need a little bit more time. But if we stick to those dates, it's going to be kind of tight in terms of time. You know, if we wait all the way until May to agree to a schedule. So I propose that we put a status conference for May on the schedule, but also, you know, commit to the parties that we'll do our utmost to work with them to try and pin down the actual dates before the May status conference.

COMMISSIONER ROZATOS: Okay. Ms. Tripp.

MS. TRIPP: Commissioner, I agree that having a -- that May status conference as a backstop, but that IPNM is agreeable to working with everyone well ahead of that.

COMMISSIONER ROZATOS: Okay. Thank you. Mr. Sayer?

MR: SAYER: Yeah. We agree with them Mr. Tremaine.

COMMISSIONER ROZATOS: Okay. So let's do it this way. We'll put a status conference for April the th 7 , we'll begin the day with the status conference, April 7th. And if we need more time, we need more time, we can regroup at that point. How does that sound for everybody?

MS. FOX: Mr. Chair, that’s perfect.

COMMISSIONER ROZATOS: Excellent. Mr. Felderwork, you're okay with that?

MR. FELDERWORK: That's fine. Thank you.

COMMISSIONER ROZATOS: Okay. Mr. Tremaine?

MR. TREMAINE: Excellent. Thank you.

COMMISSIONER ROZATOS: Excellent. Mr. Suazo?

MR. SUAZO: That's fine with LA MOGA.

COMMISSIONER ROZATOS: Ms. Tripp? Thank you, MR. Suaza.

Ms. TRIPP: Yes, that's fine. Thank you.

COMMISSIONER ROZATOS: Excellent. Thank you. Mr. Sayer?

MR. SAYER: Yep. Thank you, Mr. Chairman.

COMMISSIONER ROZATOS: Okay. We'll see you all in two weeks. Appreciate it. Thank you.

MR. FELDERWORK: Thank you.

MS. TRIPP: Thank you.

COMMISSIONER ROZATOS: Moving on to our next case. And actually, you know, what we'll do, let's take a 10-minute break just so everybody can regroup, get chairs, et cetera, and we'll meet back here at 9:42. Thank you.

(Off the record.)

COMMISSIONER ROZATOS: Okay. We're back from break. We'll go on to our next case for today. This is an evidentiary hearing before the Oil Conservation Commission. This is case number 24881, it's the application of Northwind Midstream Partners, LLC, for approval of an additional redundant acid gas injection oil. And to amend order number R20913 as amended and SWD 2622 to authorize an increased shared maximum daily injection rate in Lee County, New Mexico. Are all parties present? I'll start from my right and we'll move across. MR. Rankin?

MR. RANKIN: Chair Rozatos, Commissioners, may it please the Commission. Adam Rankin appearing this morning on behalf of the applicant in this case with Santa Fe, Office of Holland & Hart.

COMMISSIONER ROZATOS: Thank you, Mr. Rankin.

MR. MARBLE: Chairman and Commissioners on behalf of Desert Ram South Ranch, Inc. and intervener.

I'm Reagan Marble, along with my co-counsel and colleague Ms. Caitlin Locke.

COMMISSIONER ROZATOS: Thank you, Mr. Marble. Appreciate it.

MR. TREMAINE: Thank you. Chair and Commissioners Jesse Tremaine for the Oil Conservation Division.

COMMISSIONER ROZATOS: Excellent. Thank you. Okay. Are we ready to proceed? We'll start with you Mr. Rankin. Okay. Yeah. I'm sorry. We'll do preliminary matters and any motions. So Mr. Marble, I believe you had a motion.

MR. MARBLE: We do have a motion to stay. Mr. Chairman, if you'd like us to take that up at this time.

COMMISSIONER ROZATOS: Yes, let's take it up please.

MR. MARBLE: Good morning again. For the record, my name is Reagan Marble and along with my colleague, Ms. Caitlin Locke, I represent Desert Ram South Ranch Inc. And adjoining surface owner to the Titan facility that's at issue in this application today. This motion to stay and this case from our perspective, is about whether a company can succeed on its application for a permit to inject acid gas

beneath land that it does not own an interest in.

We ask the Commission to stay the application presented today for a myriad of reasons, but three of which I'll discuss with you this morning. The first is that Northwind does not have a good faith basis as required by this Commission to drill and operate the AGI well. The second is that Northwind's reliance in their response to our motion to stay on the Snyder Ranch's case is misplaced.

The third is that this issue is not an issue new to this Commission. And then I'll finally address standing, which we should dispose of rather quickly. Turning to my first point, Northwind does not have a good faith basis to drill and operate the Titan for AGI well. I believe Case Number 13492 by this Commission in the early two thousands states the principles that should form the basis of our analysis and why this Commission should stay the application. 13492 involved Chesapeake. Chesapeake had applied for a permit to drill an oil and gas well on the southwest quarter of section 4. It had actually obtained the permit.

After the permit was issued, Kaiser Francis (ph) Sampson (ph) and Newburn (ph) came back to the Commission and filed a motion to cancel the permit on

the basis that Chesapeake did not own any interest in the Southwest quarter of Section 4. The Commission ended up canceling Chesapeake's permit and they laid forth the analysis in that order, and I believe the analysis that this Commission should follow in the motion to stay today.

The first question the Commission presented in its order, that should be part of the analysis that they said the Commission should approach is does the applicant have a good faith claim to both drill and operate the well they are applying for? Then this Commission stated it another way. They said, "Do they have a good faith claim to title for the property?" They then went on to discuss that title is simply a person transferring its interest or a interest in real property to another.

Then Chesapeake responded to both Kaiser, Francis and Sampson about this Commission's jurisdiction on title disputes. And Commissioners and Chairman, I understand, I don't want to create any more work for you. I don't want to create any more work for Mr. Tremaine. We should not have title disputes in this tribunal. In Texas, my home state, our neighbor to the east, we approach the title matters very similarly, so does the state of Oklahoma.

But there is some preliminary piece that an applicant must show in order to obtain a permit. And that's because both New Mexico, Texas, and Oklahoma have premised their jurisdiction that has been established in this Commission on the premise that an applicant has some scope within property rights to do the thing they are asking the Commission to give them.

So in this instance, the Chesapeake applicant said the Commission has no jurisdiction to hear title matters. Even if we don't own an interest in this piece of property, the Commission can't cancel the application on that basis. In its order. This Commission said, "They're right and does not have jurisdiction to determine title or the right to occupy." However, prudence dictates that the Commission ought not to issue a permit where the party applicant clearly does not have the right to conduct the activity contemplated.

You will see without a doubt today from their application and from the testimony that will be presented, that Northwind does not have the right to conduct the contemplated activity. The activity contemplated by their application is the injection of acid gas being primarily carbon dioxide with 20 percent of the stream being H2S. That acid gas, under

any case model presented by Northwind occupies my client, Desert Ram South Ranch Inc's subsurface. It also occupies the State of New Mexico's subsurface under every model.

Turning to my next point, Commissioners and Mr. Chairman, this is not a new concept for this Commission. Last year, and actually the predecessor to Northwind, Salt Creek had filed an application for another AGI well. The State of New Mexico, the largest landowner in the state, intervened on the basis that the plume would migrate under state owned lands and there was no real property instrument or deal in place between Salt Creek and the State of New Mexico to compensate the State of New Mexico for that subsurface.

They intervened on the same basis that Desert Ram North Ranch Inc. intervenes on today. There was an agreement struck between the applicant and the state of New Mexico at that time. That is one of the reasons we are asking for the stay, to give Northwind and Desert Ram a chance to negotiate an agreement for occupation of pore space. But that has not happened to date.

Turning to my next point. Northwind's reliance on the Snyder Ranch case is misplaced. If

you read the response to our motion to stay, it is primarily on two basis. One, that there is no standing and I'll address that here in just a moment. The primary point though is that they wrap themselves in the cloak of the Snyder Ranch's case. If the Commissioners and the Chairman recall the Snyder Ranch case, in Snyder Ranch, the issue was a salt water disposal injection well. And the primary question before this Commission was whether that salt water was going to migrate underneath the ranch known as Snyder Ranch.

And there was some discussion in that case about a fault line that ran between the property owned by the applicant and the property owned by Snyder Ranch and whether it would actually migrate across. The Commission and their findings of fact noted that they did not believe the salt water would migrate across underneath Snyder Ranche's. That's important and dispositive for the position that Mr. Rankin and Northwind take today.

That is not the issue before this Commission today. There is a clear admittance by Northwind in their application under any plume model that they have submitted that the acid gas injected through the proposed well will cross over onto my client's

property and will occupy its pore space. That's important for a couple of reasons because that takes the application from the question of will the substance occupy the pore space of another to we are telling the Commission the substance will occupy the pore space of another.

And if this Commission's jurisdiction is premised on a good faith right to conduct the activity that they are asking to do in the application, and they admit that they don't have any property rights to do so, then the Snyder Ranch case doesn't apply because that was a case without the substance crossing over the property line.

The last issue that I'll address is part of this motion to stay is the second part of Northwind's response to our motion to stay, which was standing. Northwind argues that Desert Ram does not have standing to intervene in this matter for two reasons. Because one, it isn't the surface owner of the actual tract where the well is drilled, and then two, that they don't fall under the definition of an affected person. And they talk about the definition of the affected person being an operator or working interest owner or a mineral owner.

We disagree wholeheartedly and Northwind has

presented an argument that is in opposite of the rules. The rules in the State of New Mexico, specifically 1915410A2 state that, "A party to an adjudicatory proceeding –- " excuse me, and in layman's terms, that is a party withstanding, "Shall include a person to whom a statute, rule or order requires notice." 1915412A7 is the rule that required notice to Northwind. And that is to notify a surface owner within one half mile of the site.

You can see simply from the application that the surface hole location, if that qualifies as the site or the bottom hole location, if that qualifies as the site or the total track that's being injected into, if that qualifies as a site that Desert Ram South Ranch Inc. is a surface owner within a mile. In fact, they surround the entire site that Northwind has applied with.

And we have a witness today that will discuss some of those issues. So because Desert Ram is a surface owner within a half mile of the site, they undoubtedly have standing to intervene in this proceeding. To quickly recap Mr. Commissioners and Mr. Chairman, we ask that this Commission stay the application of Northwind because Northwind does not have a good faith basis to conduct the activity which

they're seeking because they have no right to the pole space. That their reliance on Snyder ranches is misplaced. That this is not a new issue for this Commission, and in fact, it is an ever increasing and more important one in the legislature pending right now is a pore space bill. And finally, that we have standing under 1915412A7. I'm happy to answer any questions that the Commission may have. Thank you.

COMMISSIONER ROZATOS: Thank you, Mr. Marble. Commissioners, did you have any questions?

COMMISSIONER AMPOMAH: Mr. Chair, I want to hear from the other parties, you know, with regards to whether there could be a trespass or not, yeah.

COMMISSIONER BLOOM: I would like to hear that as well, but anything specific from Mr. Marble?

MR. MARBLE: No, Mr. Chair.

MR. RANKIN: No, we'll stay.

COMMISSIONER ROZATOS: Excellent. Thank you, Mr. Marble. Appreciate it. Mr. Rankin, we'll turn to you.

MR. RANKIN: Thank you. Good morning, Chair Rozatos, Commissioners. May it please the Commission. Desert Ram in this case moves the Commission to see its legislative -- the delegated authority to determine whether or not Northwind's application meets

the technical qualifications for approval pending the outcome of what is purely a contractual dispute over private property interest in district court. The Commission should reject Deserts Ram's invitation to abdicate its authority as the Commission has repeatedly done in prior similar circumstances.

Desert Ram is already seeking to redress its alleged injuries through a lawsuit filed in district court. That is the form where its claims about potential future subsurface pore-based trespass should be adjudicated, not here. The Commission has long made it clear that where parties have a dispute over property rights or private interests, it's a matter for district court. This includes instances where there may even be, "Some evidence that fluids injected pursuant to the license granted by the Commission's order might migrate beyond the lateral limits of the particular tract on which the injection facility will be located."

The Commission nonetheless has concluded that, "It is unnecessary that the Commission make a finding with respect to that possibility." I'm quoting there from Commission order number R12546 at paragraph 26, it's cited in our papers. Now citing the Snyder Ranch's Supreme Court case, the Commission

explained in that order that I just cited to that if, "Activity conducted within the scope of the permit exceeds those property rights, this would be a matter for adjudication in the courts and not within the jurisdiction or competence of the Commission". In this case Commissioners, we have clear authority to inject on the property where the well is located, where the bottom hole is located, Northwind owns a hundred -- more than 200 acres where the well's is located and where the bottom hole is located.

And so it has clear authority to inject on the location and in the bottom hole where its well is located. And I'll get into the additional arguments shortly. Now, in earlier cases -- in an earlier case, the Commission, again citing Snyder Ranch, has made clear that it does not determine whether an applicant can validly claim property interests in the property subject to the application. And therefore, whether the applicant is duly authorized to manage the operation of the -- injection or operations on that property.

That issue is, "Exclusive jurisdiction of the courts". Again, I'm quoting here from another case before the Commission, R -- it's order number R11855B. Again, that's cited in our papers. Now here, Desert

Ram contends the Commission cannot issue injection permits that would exceed the limits of the applicant's property rights. And they cite Snyder Ranch's -- the Supreme Court case in support of their position. But if that were a correct interpretation of the law, the Commission would necessarily be required to determine whether the applicant can validly claim the property rights.

They'd have to do an assessment and determination of whether or not those property rights are valid. And the Commission has repeatedly said, "That's not our -- it's not in our jurisdiction, it's not within the scope of our authority." It would need to make that determination and it has repeatedly indicated properly that it is not within its legislative authority to do so.

Note, nothing the Commission would do here today within its proper authority to determine whether the injection is appropriate or not based on the technical merits of the case, would impede with Desert Ram's ability to seek relief or redress any purported injury in district court. And Desert Ram makes abundantly clear that its objections and claims are entirely related solely to a potential future subsurface, pore spaces dispute, which claims belong

only in district court.

Now, Desert Ram owns no mineral rights that if only formation in this area has already been determined to be non-hydrocarbon bearing. There's no dispute over corral of rights, there's no dispute over waste. Those are the jurisdiction and the authority over which the Commission has reign, not whether that there's a subsurface trespass or there's impairment of pore space rights. The dispute is that Desert Ram raises here is simply over pore space, plain and simple.

Desert Ram makes that unabashedly clear through the evidence it seeks to admit and the permit conditions it's improperly requesting the Commission to impose. 2 of the 4 exhibits it's identified in its pre-hearing statement are the purchase of sale agreement, a contract between the parties and the first amendment to that agreement. They're asking the Commission now to make interpretations of a private contractual agreement between the parties. That's not within the Commission's expertise, it's not within the Commission's jurisdiction, it's something that belongs before the district court, and they have already proceeded down that path.

Each permit condition that they've now

proposed, it's designed to use the Commission's statutory powers, which is intended to prevent waste and protect corral rights to instead monitor their private property interests. That is an improper use and application of the statutory authority of the Commission and it should be rejected.

Desert Ram's objections are based on alleged subsurface pore space trespass that might arise sometime in the future. Those claims implicate property rights that are not legally recognizable before the Commission, as the Commission has long recognized. Not only are Desert Rams claims not proper for commit -- consideration before the Commission, but because their objections are entirely based on a property dispute over private interests, they also cannot set out a proper procedural basis for a -- to stay at this hearing.

There's simply no reason to stay when the objections they've raised are not legally cognizable before the Commission. But in support of their motion to stay, they cite and rely on a procedure and authority that governs stays of orders pending appeal only. That procedure has no application here. Now is important, the Commission should deny the motion because Desert Ram is not even a proper party to this

proceeding as we -- as Mr. Marble has attempted to refute.

The Commission should deny the stay to avoid undermining the Commission's authority to function within its administrative domain. Granting Desert Ram stay would signal to other entities with private contractual property right disputes that they can use the Commission to leverage their position in their private disputes that are unrelated to the Commission's authority. That's a terrible outcome and should be rejected. The motion should be denied and the hearing should be permitted to proceed. Now I want to make a couple of points before I relinquish my time.

Desert Ram is making the argument that Northwind has no good faith basis to believe that it has the right to inject on the location and in the property that is -- that has been currently -- that is proposing to inject. As I mentioned, Northwind owns approximately 210 acres of surface estate under two separate warranty deeds that cover all of its surface facilities and the bottom hole locations for all of its existing and proposed AGI wells.

We have submitted those as part of the evidence in this case, there are file deeds -- filed

of record with the county -- in Lea County, and we'll be presenting that as part of our case. Now, establish now -- Desert Ram and its motion for stay cites to a provision in the purchase and sale agreement between the parties, which is subject to a confidentiality agreement.

But they cite to this provision in their motion for stay that they -- that actually provides that Northwind has the express agreement and consent from Hydrosource to inject treated acid gas through multiple AGI wells. Except for limited circumstances that are not applicable here, okay, that provision expressly grants Northwind the right and consents to Northwind's right to inject into the properties, except for limited circumstances that are not applicable here. Hydrosource, to be clear, okay, and to demonstrate the good faith basis to inject Hydrosource and Desert Ram did not object to the most recent Northwind application to amend the AGI number two, which is a Devonian well as well, with a projected plume extending out about two miles into Hydrosource's properties.

That application was filed back in June of 2024 before Hydrosource sold 140 acres of property to Northwind knowing -- Hydrosource got out -- got notice

of that application, knowing that the plume was going to extend more than two miles out into Hydrosource's property.

Hydrosource nonetheless made the sale, did not object to the application and conveyed its property interest to Northwind. Now that Northwind is filing a second application with an -- slightly incremental increase in the extent of that plume, Hydrosource is objecting claiming that they had no notion or didn't understand that the plume has been extend onto their property.

They're making a claim here that is a private property interest claim, they're asking the Commission to review and interpret private contractual rights and interest between the party that the Commission has no authority to do. All we need to do at this point, Mr. Chair and Commissioners, is demonstrate that Northwind has a good faith basis to make the injection that it proposes to do. It has done that through the special warranty deed and through the express provision that Hydrosource itself relies on.

Which indicates clearly that they have the consent and agreement of Hydrosource to inject through multiple AGI wells, except for these limited circumstances that are not applicable here. With

that, we ask that the Commission deny the motion for stay, allow the parties to present their -- Northwind to present its evidence and take the matter under consideration.

COMMISSIONER ROZATOS: Thank you, Mr. Rankin. Appreciate it. Mr. Marble, I saw your finger over the microphone. I'd like to hear from OCD and then we can circle back.

MR. TREMAINE: Mr. Chair and Commissioners, thank you. I'd like to provide a couple observations to hopefully help establish the lay of the land here. The Division does agree that in various matters, OCD and OCC need to rely upon and verify limited access -- limited aspects of ownership, mineral rights, operating rights, et cetera. The way that happens is typically in reliance on certification and representation of the parties. Those are not mineral rights and ownership are not things that OCD or OCC in my knowledge have ever affirmatively adjudicated where there's a dispute.

So these cases do involve aspects and representations of ownership. However, where there are property disputes, those properly belong in district court or subsequent appeal. The second issue in this case is the issue of pore space. And I will

note that this is not, in my opinion, definitively settled law.

There are indications in all New Mexico case file that New Mexico is likely to adopt the American rule, i.e. that pore space belongs to the surface owner. OCD agrees with that interpretation and would advocate for that interpretation as a general matter, but I can't point to a case that says that. This -- contrary to my comments in the last case, this is something that hopefully we may see some resolution on in the legislative session and OCD has provided comments consistent with my statements here today.

So issues of pore space ownership and severability are central to dispute between Northwind and Desert Ram. OCD has a position that we advocate for regarding who owns that and whether pore space is severable, but it's not entirely settled. So absent that clarity that -- may be an issue that is appropriate for this record as well.

I think it's -- there's clear Division and Commission authority to pool minerals, I don't believe that is disputed. I would argue that under existing authorities that it also extends to pooling of pore space. Again, we haven't tested that to my knowledge. So I think that when approving injection into pore

space such as salt water disposal wells, AGI wells, I believe that already exists under OCD Authority. Ultimately, where I land is that I have to agree in certain respects with Mr. Rankin that the issue here is a property and valuation dispute.

I think that the Division and the Commission have the authority to essentially pool their space and to authorize the injection of the AGI. That's been the practice in the past for various different forms of injection. I think we -- what's important to the Division in this matter is that we get to the technical merits. And that the central question is, let's examine this plume modeling in the various filings between the parties. There are discrepancies between what the plume modeling says and what it doesn't say. I think that technical question is central to how their Commission should view aspects of the motions and we need to get to that through the technical testimony.

So with those observations and statements regarding arguably unsettled law, I think that ultimately to the extent that the motions are related to a dispute between -- about property and valuations, OCD does not take a position. But we do take the position that the Commission has the authority to

authorize the AGI and that's regardless of its projected impact on pore space, and we need to examine the modeling relative to previous models submitted for the other AGI wells injecting into the same formation.

COMMISSIONER ROZATOS: Thank you, Mr. Rankin. Mr. Marble.

MR. MARBLE: Thank you Mr. Chairman and Commissioners. Short rebuttal. First to answer Dr. Ampomah's question earlier about whether this is a trespass, it is undoubtedly a trespass is the occupation of space not owned by a person. However, I want to be clear that this Commission does not have jurisdiction over trespass. As much as I want you guys to decide issues like that, that is exclusive jurisdiction within the district court. But I think the question is relevant for purposes of determining whether someone has a good faith basis to conduct the activity that they seek from this Commission.

Turning to a point that Mr. Rankin made, he stated that I and Desert Ram are requesting that this Commission interpret a contract. We are not. There is no way, shape, or form we are asking this Commission to interpret a contract or a deed.

We have filed, confidentially, the purchase and sale agreement between my client and Northwind in

the event that Northwind raised the no interference clause so that we could discuss why the no interference clause does not apply. But we are not asking this Commission to interpret the status of an oil and gas lease, right? You hear that all the time in applications for permit to drill, just like Texas and Oklahoma do. That lease terminated, that's not within the jurisdiction of this court. That's not the property rights analysis we're asking this Commission to do.

In fact, we're not asking this Commission to do any property rights analysis. The sole question we are asking this Commission to ask Northwind is the same question that this Commission asked Chesapeake in the 13,492 matter. And that question that the Commission asked Chesapeake was, do you have any evidence of a claim to title?

And here Northwind does not. They can't point to a deed, they can't point to a lease, they can't point to a license that gives them the right to conduct the activity that they ask this Commission to give them. And that activity Northwind is asking you to look just at a portion, the portion of pore space that they own. But that's not the activity that they seek permission to do here today. They're asking you

for permission to inject a plume that over 30 years occupies multiple miles.

And whether it's a condition at the end of this proceeding that addresses that issue or a temporary stay, so the parties in the OCD can go work this out, I'm not sure what the answer is. But I can tell you that there's no good faith basis for that portion of the activity that they seek permission to do today. A few more brief points on rebuttal.

I appreciated Mr. Tremaine's OCD position that pore space may not be a settled issue in the state of New Mexico. I disagree slightly. I believe that it's all but settled. And in fact, I rely on a very important paper been written by a very smart lawyer named Mr. Rankin back in 2007 that says that pore space should be an attribute of the surface that he prepared with two other lawyers for the state of New Mexico. I don't think there is any legal position in this room where any of us would disagree that pore space would belong to the surface owner, which is what Desert Ram is to today.

The point that I do want to raise in response to Mr. Tremaine's rebuttal, is he talks about authority that an applicant may have to force pool in the context of a disposal well. He says that that has

not been done in this context yet, but that they may have that authority. I want to be very clear that authority has not been exercised in this case. It has not been exercised in this case, despite multiple case models that talk about impacting property that is not owned by Northwind. And a solution may be a temporary stay and a request to file a force pooling application in the context of an AGI well. But that has not happened today. It's for these reasons, Commissioners and Mr. Chairman, that we ask this Commission to stay this application. Thank you.

COMMISSIONER ROZATOS: Thank you, Mr. Marble. Commissioners?

COMMISSIONER AMPOMAH: Mr. Jud (ph), this seems to be a matter of law in this argument, so I want to hear from the Commission Council if he has any advice.

COMMISSIONER ROZATOS: Agreed.

COMMISSIONER CHANDLER: Mr. Chair, good morning. This revolves around commission rule 1915423B, stays of commission orders. It has two elements. First, a party, and then it's the stay is necessary to prevent waste, protect qualitative rights, protect public health or the environment, or prevent gross negative consequences to an affected

party. So two elements, a party, and then the ramifications. I think what you've heard today, and from the papers, there is a dispute on the first element of whether Desert Ram is a party. I think Desert Ram's argument is they are a party because they are a successor and in interest or a business of Hydro soil (sic. I think the record reflects that Hydro soil did receive notice from Northwind.

So the first question is, if Hydro Soil is a party, then does that extend to Desert Ram? There's dispute about that. And then the second element is, is it necessary to prevent waste...? And that goes to your question, professor. Again, there seems to be dispute from the papers and from the argument that Desert Ram says it's undisputed where Northwind says issue of the plume is not -- well, he had some precise language, but he disputed that it was going to go across property.

So it's possible that you may want to hear more technical testimony. It may be, at this point you feel like there is enough information to prove that second element, that there are gross negative consequences to affected party. Or you may say, "I'm not ready to reach that conclusion. I'd like to hear from the experts, since there seems to be some

technical dispute about the plumes potential." So reiterate two elements; a party, and then the negative consequences.

You may reach those conclusions now or you may say, "There's just not enough evidence right now for me to make those determinations. I'll deny the motion, let's hear the technical evidence, see where the facts take us." And then you may deny the permit, grant the permit, grant the permit with conditions. At that point you may say, "We're going to not make a decision today and let the parties enter to negotiations." There's a universe of different options, but I'm speaking too much. Again, the rule has two elements of party and whether there's been proof of negative consequence.

COMMISSIONER AMPOMAH: Counsel, I thought Mr. Rankin then made a statement that there is a possibility of plume moving to, let's say, the opposing party's property. But you said it is a matter of dispute.

COMMISSIONER CHANDLER: Well, don't let me answer the factual question. Why didn't you ask Mr. Rankin if he disputes that?

COMMISSIONER AMPOMAH: Yeah. I want some clarification on that.

COMMISSIONER CHANDLER: Sure.

MR. RANKIN: Let me address that. And if I may, Mr. Chandler and Mr. Chair, I think there's a little question around the party issue, and I can -- if I may, I'd like to address that as well. Mr. Clarity -- and Mr. Marble can respond as well. But on the question that Mr. -- Dr. Ampomah is asking about whether or not there's a dispute over whether the projected plume will extend onto Desert Ram or Hydrosource's property. And I think one of the questions I have as well is what is the relationship between Hydrosource and Desert Ram?

I'll talk about that briefly when I address the party status question. But in the plume modeling, Dr. Ampomah, that has been presented to the Commission over time from the beginning, prior even to Northwind's acquisition of these interests, its predecessor and interest, has always demonstrated -- has projected that based on the volumes expected to be injected, that the plumes would extend anywhere from 2.6 miles to around two miles, in this case, about 1.8 miles from the Desert -- from the Titan treating facility.

So the plume modeling has indicated, based on -- as it's been refined over time, based on additional

data, 3D seismic information, additional information on the porosity and permeability, the plume modeling has been -- has changed over time. But currently, based on the best information we have today, as presented in the testimony and evidence, the plume modeling is suggests that during maximum injection rates over 30 years that the plume is likely to extend or may extend out to about two miles, which would go into offsetting property owned by Hydrosource and/or Desert Ram.

Now, the point on that I made in the opening -- in the legal argument is that Northwind believes that it has the consent in agreement of Hydrosource to inject through multiple AGIs into the pore space. And that is a -- an issue of dispute. And that in our view is a matter for the district court to determine. But as for purposes of the Commission today, what we will show and what the evidence shows is that we have over -- more than 200 acres of property rights that include the bottom hole locations, the surface locations of the facilities, and the AGI wells.

And that Northwind has previously presented testimony and evidence showing that the plume is going to extend beyond that distance prior to acquiring additional property from Hydrosource. And Hydrosource

has never objected strongly indicating that they understood and had consented to and agreed to the injection as has been proposed for many years.

So that's the plume issue. The party issue, just to clarify, is the following; under the Commission's rules, parties and division or commission hearings are limited to those persons who are required to receive notice under the Division's regulations. In this instance, for purposes of injection, parties -- persons are required to receive notice if they are an owner of the land surface on which the injection well is to be located. In this instance, the location of the surface where the injection well is to be located is Northwind itself, not Hydrosource, not Desert Ram, okay?

So the first group of part -- of parties who are required to receive notice is the surface owner on the wells location. That is Northwind, it is not -- and the bottom hole location as well. It is not Hydrosource or Desert Ram. The next group of people who are required to receive notice for an application to inject are other affected persons within any tract, wholly or partially contained within one half mile of the well. Under the definition of affected persons is the following, a -- an operator as shown in division

records.

So a division designated operator, somebody who has a mineral right, or is an operator of a -- of an -- of a well. In the absence of an operator, each working interest owner who has a mineral interest, whose interest is evidenced by a conveyance or a document record. And if there's no working interest owner, then any lessee -- or a lease or any mineral interest owner of a lease within one of those tracks. Again, it's limited to the mineral interests or mineral rights.

Under the Divisions and Commissions express regulations, the only parties who are required to receive notice, therefore, are parties who have a ownership interest at the location of the surface of the well. And this case, that's Northwind, who also owns at the bottom hole location or any other operator under the Division's records or owner over a mineral interest right.

That excludes Hydrosource and Desert Ram, they inadvertently received notice in this case. They did -- weren't required to receive notice. And then may be an all fact that of their prior ownership of the surface where the well was located. But in this instance, they were not required to receive notice,

but they did. So under the Division's regulations, they're not a proper party to this proceeding.

The other alternative for them is to have intervened in this matter and intervention requires them to show standing, okay? Standing in this context requires them to show some injury that is legally cognizable or relevant to the proceeding before the Commission. Here, the proceeding before the Commission is the technical question of whether or not Northwind's application for an AGI well should be approved. That -- the arguments -- the technical merits around that case do not extend to or include or implicate pores space rights concerns about subsurface trespass.

Therefore, the alleged injuries, the gross negative consequences that they're alleging, okay, are not within or not relevant to the proceeding currently before the Commission. And they do not confer on Hydrosource or Desert Ram standing necessary to be a proper intervener. Not only that, but Desert Ram and Hydrosource did not properly intervene in the case. They did not file a motion. They have not established any basis for standing relevant to the claims before the Commission in this case.

So for that reason the first element that Mr.

Chandler has articulated to you, they have not met -- they're not a party, and so therefore, they have no basis to seek a stay. Second -- the second elements is whether or not it's necessary to prevent waste or protect for all of rights. Again, they have no mineral interests, there's no waste allegations because there are no mineral interests or minerals at risk here in the Devonian. The Commission and the Division have already determined that there are no mineral rights or minerals at risk in the Devonian because they've already approved previously in the same exact location AGI disposal.

And then finally, on the last element about gross negative consequences. Again, gross negative consequences must be read to be understood in the terms of whether there's some aspect implicated by the Commission's authority, which relates solely to protecting waste, corral rights, human health or the environment. None of those issues have been raised or articulated as a basis for stay by Desert Ram. So for that reason the motion for stay in our view should be denied.

COMMISSIONER ROZATOS: Mr. Marble, please.

MR. MARBLE: Brief, sir, rebuttal. Mr. Chair and Commissioners. To address what council discussed

earlier as the two elements being a party and then a party who has suffered gross negative consequences. I'll admit, I'm happy to play dumbest guy in the room very often, but I'm very confused by Mr. Rankin's argument that we do not have standing. It is very clear from the Commission's rules that a party to an adjudicatory proceeding shall include -- that is a party with standing to the proceeding, shall include a person to whom statute rule or order requires notice. 1915412A7 requires notice to any surface owner within a half mile of the site.

There is zero factual question here that Desert Ram North Ranch Inc is a surface owner within a half mile of the site. And under the rule that I mentioned just a moment ago, that is a statute requiring notice, thus they're a party. So we satisfy the first element of what counsel mentioned a moment ago. The second element is that if a stay is necessary to protect gross negative consequences. And let me divert just for a moment about a question that Dr. Ampomah had a second ago about the deviations between plume models.

We are not offering, as Desert Ram, any alternative plume model because every plume model offered by Northwind shows that it encroaches on the

property of Desert Ram. You'll see here in a moment when we begin to present evidence, but the land that was sold by Desert Ram to Northwind has a U-shape around it. That is land that was retained by Desert Ram. And then there is more land to the northeast, more land to the southeast, and then Desert Ram is also the lessor of -- excuse me, the lessee of state lands on the other borders.

So almost the entire tract is surrounded by Desert Ram, either a surface owner or as the State's lessee. Another question to address that I believe Mr. Chairman, might have mentioned a moment ago, and Mr. Rankin addressed was the relationship -- or excuse me, council addressed a moment ago, was the relationship between Hydrosource and Desert Ram. Hydrosource is merely an operating entity with common ownership from Desert Ram. Desert Ram is actually the entity that owns the surface.

Now, I'll tell you that when you look at Northwind's application figure B1, page 81 of 88, you'll see that Northwind provided notice to Hydrosource, most likely because they read the requirement that they have to provide notice to a surface owner within a half mile. That was incorrect. We could have filed an objection in this on what might

ranch -- New Mexico ranching grandfather would've called chicken scratch, that they didn't qualify properly under notice to any of the parties.

But we received notice Hydrosource and Desert Ram South Ranch, Inc. office out of the same offices. So we received notice of the application after we had sold the property to Northwind and that's when we decided to properly intervene in this proceeding. That's all I have on, sir, on rebuttal, Mr. Chair.

COMMISSIONER ROZATOS: Thank you. Commissioner Bloom?

COMMISSIONER BLOOM: Mr. Tremaine, any input on standing or a --

COMMISSIONER ROZATOS: I was going to ask that too. If you lead (crosstalk).

COMMISSIONER BLOOM: I guess part, yeah, standing and topic of gross negative consequences or things along those lines.

MR. TREMAINE: This -- Commissioner, I have some questions about -- I think from a technical basis, how that's being calculated, but it has been my understanding that every plume model has indicated encroachment on what's currently referenced as affected pore space from the prior applications. But again, whether Desert Ram or Hydrosource transacted

into the nuisance, so to speak, is a question for the district court. And I'm not going -- I don't think that the Division has any further position on standing, I think the notice to affected interest within a half surface mile may require some clarification.

That's not an issue that I've looked into, but I don't know if they're calculating that from the edge of the modeled plume or if they are calculating that from the well site. That's not at all clear to me and I think that may be in dispute. So I'm answering your question with the question. If they are within a half mile of the affected, you know, the area as the Commission chooses to define it then I would have to concede that they would have standing in the case. But I'm not clear on how that's being calculated.

COMMISSIONER BLOOM: So Mr. Tremaine, following-up a little bit. Northwind makes an application to the OCD, correct?

MR. TREMAIM: Correct. Because it is in AGI, those applications automatically come to the Oil Conservation Commission, but yes.

COMMISSIONER BLOOM: And potential loss of use of pore space or economic damages are not

something the OCD looks at currently?

MR. TREMAINE: In the injection context, there is no current rule establishing how pooling of those resources occur. And I have not done an exhaustive analysis of whether any previous SWD or AGI has affected a pore space of differing ownership. That would be something we would have to look into. My concern here is that it has been the accepted practice for both salt water injection and AGIs for decades that the Division and the Commission have that authority.

But I can't possibly today speak exhaustively as to whether or not there's differing ownership in those previous cases. We agree that pore space attaches to the surface and that is interest of some value to be determined by the parties or the courts. Did that answer your question, Commissioner?

COMMISSIONER BLOOM: I think so. More directly, do you believe that this potential threat to pore space damages -- loss of pore space rises to the occasion of gross negative consequences?

MR. TREMAINE: I would have to revisit case law on that point, Commissioner, because I don't know what economic value attaches to gross economic consequences or -- yeah, gross negative consequences,

pardon me. I think it's undisputed that if you inject treated acid gas into a pore space that that will conflict with other alternative uses. I don't believe that there's any technical basis to argue with that unless there's an argument that you can combine different forms of injection. I'm not aware of that argument. So I would say, "Yes," if you're filling pore space that is going to affect a party's economic interest in that pore space.

COMMISSIONER BLOOM: Might have further questions on some of this for everybody, but I'll leave it there for now. Thank you.

COMMISSIONER CHANDLER: So I have questions as well. I think the questions just can keep coming with this. Because this is very gray area and as was mentioned, there's certain parts that have to go in front of the district court and let the courts figure that out. And then there's the questions that this Commission is required to kind of fill out as well. I think as was brought out by Commission Council there are some aspects to 10 -- what was it 1915423B, especially with, you know, who is the actual party and then the consequences that go therein.

And I think that potentially this Commission would want to potentially hear what's going on, at

least to see where this gross negative consequence would be. My concern though is, that Desert Ram -- and it's not necessarily concern it's a thought I'd like everybody to think about. Desert Ram suggested as of last night some conditions that they would like to see in an eventual order at the end that they would want this Commission to potentially add on to any decision that they would make.

Now some of these, and I'm not going to go into details you all -- everybody got it, you read it, you know, what's going on with it. But it seems to me, and Commissioners I'd like your position on this as well, that some of these sound reasonable and maybe it -- you go back to the drawing table outside of this Commission and come to some conclusion with potentially these in mind, they're an option. I don't know if it's an option that has been considered as of such, they were submitted late yesterday afternoon, so I don't know how much time Northwind had to review them and I'm not going to try to force anything down anybody's throat.

But my suggestion is potentially going back to the drawing table and seeing if there's something that could be written up between a consensus between the two parties -- three parties, including the OC D

and getting the OCDs opinion in on this as well, to see if there could be some kind of amicable conclusion that can come up between the parties.

Because either way -- anyway this Commission goes, the parties will not be happy, though there is an option here to be able to provide a path. Commissioners, I don't know how you feel about that, but my suggestion is that the parties kind of go back to the drawing table and see if they can find an amicable solution with the potential of these conditions to be added. I'm not saying that they're right, I'm not saying that they're wrong. I'm just saying they provide a path that as of last night was not possible. That's my decision -- not decision, that's my opinion.

Commissioners, I'm happy to entertain questions and I will open it up as well, if you get -- Commissioners, if you want a moment to think, I'll open it up to the other parties and we go from there.

COMMISSIONER AMPOMAH: Mr. Chair. So, you know, Mr. Rankin made some points, you know, with -- I just want to know that, let's say, if we're injected into your pore space and you move into someone's pore space, is Mr. Rankin saying that –- or is it the position of the petitioner that the -- let's say, if

you inject into someone's -- you know, more or less move into someone's space, they do not have the right to, more or less question why you put in the -- that gas into my space because I could use it for something else. So Hydrosource did not oppose to your earlier applications. They knew that there was more or less a movement of the CO2 or let's say, attack moving into their space, they decided not to oppose.

But now here comes another owner who says, "No, I'll oppose to that." So I find it so confusing that you say that they do not have a stay, like, they do not have any position on this with regards to there's no oil and gas there, you know, to be impacted, but it is in the pore space. So I do support the Chair that I feel like they have to go back and talk through this. I mean, can we -- I don't think we should neglect the fact that, let's say tag moving into someone's space, we should neglect that.

COMMISSIONER CHANDLER: I agree. Let's throw it back as an option so that they can --

COMMISSIONER AMPOMAH: But --

COMMISSIONER CHANDLER: -- give us their ideas and then we go from there. But please, Commissioner.

COMMISSIONER AMPOMAH: Yeah. So you talked

about if these conditions could be accepted, you know, or let's say could be discussed and then come to a consensus. But when I look at these conditions, I mean, why would you -- how would you say that, "Permit limited to 50 years." I mean, Northwind is required to report to OCD, the status of monitoring wells result. This should be OCDs conditions, not an opposing party's condition. So I do not -- I don't know. I would not agree that, let's say, Northwind should not more or less agree to these conditions without evidential evidence to substantiate why these conditions, you know, should even come into play.

COMMISSIONER RAZATOS: And I'm -- and I just want to clarify, one more time. I'm not saying that these conditions are right or wrong. I'm not saying that we have to adopt these conditions or anybody has to adopt the conditions. I'm saying it opened the means for some more dialogue outside of this Commission. That's what I'm saying. And I think it would be more amicable to everybody if there was -- not amicable, it would be more favorable to everybody if there was an amicable consensus. That's what I am throwing out.

I'm happy to hear this. I'm -- I get paid, you know, either way. My job is to sit here and to do

this, and so is the other two Commissioners. I just think that you're not, "Oh, well, no you're on your own, right?" We love you anyway. But I'm just saying that it opens the door that was not open up until yesterday afternoon, Mr. Marble.

MR. MARBLE: Understood, Mr. Chairman. And to make sure that we're all on the same page. There has been no meaningful conferral on these conditions. Partly because of time, partly because of what was going on earlier this morning and other involvement of counsel. I do think it's worth a shot for meaningful conferral. I know in some other jurisdictions at this point in the hearing, it would not be unorthodox to say, "let's take a 30-minute break so that you can confer."

I'm happy to state on the record that if we could get these conditions or some version of these conditions, we would be happy to withdraw our intervention and protest subject to no prejudice of our district court filing and you guys can go on with your day as normal. So if it pleases the Commission, I would love the opportunity for meaningful conferral with opposing counsel.

COMMISSIONER ROZATOS: Mr. Rankin?

MR. RANKIN: Well, whether or not to even

confer, I need to confer with my client. You know, my position at the outset is that many of these are problematic. Not least because it's in inappropriate to even concede that they're appropriate for inclusion within a commission order. We're the motivation and the purpose behind them is to protect -- the protection of private property interests that unrelated to mineral rights or corral rights or any of the underlying authority of jurisdiction that underlies the Commission's powers.

So I have grave concerns about even agreeing to allow these to be included in a Commission order issued under the auspices or -- and premature of the Commission, okay, number one. To address Dr. Ampomah concerns, I'm not saying -- we're not saying that they don't have a right to make a claim, that the plume intruding into their alleged property rights or pore space is something that they have a right to bring forward, okay?

They absolutely do, but not here, not -- and not at the Division or Commission. They have a right to do it, and they've done so as they recognize before the district court, they filed a complaint, and they're pursuing that action in district court. And that's the venue through which they have the right and

the proper proceeding to pursue those claims.

As to the Commission, you know, whether or not this results in a gross negative consequence to them to -- does Desert Ram or Hydrosource requires the Commission to make a determination about ownership ultimately. They have to make some -- you'll have to make some determination about whether there's a valid claim as between Northwind or Desert Ram or Hydrosource about whether or whose interests are being impaired or not. That -- at some level, that's a requirement that you're going to have to make based on what Desert Ram or Hydrosource is asking you to do.

And our point simply is, all we need to do is show that there's a good faith basis, and we have that based on the deeds that are of record and we have that based on the consent and acknowledgement of Hydrosource from the prior applications and approvals that have gone forward in the language that they put forward before the Commission and their motion to stay. So I've got -- I do have grave concerns about even acknowledging or putting these conditions in an order.

You know, if -- at the Commission's pleasure, I would happily take a, you know, 15-minute break to confer with my clients to see if they would like to

say, (inaudible). Yeah. Whether they would like to, you know, engage on discussions about this. But I think the answer is probably going to be no, just given the -- this -- the nature of the requests and the venue here. Parties have been having some discussions, and that's haven't been fruitful, which is why we're here, and which is why they've filed a lawsuit.

And so I -- you know, I'd love to be able to tell you that there's a way -- a path forward for resolution but at this point in time there isn't. And my sense is that I think some of these -- to Dr. Ampomah's point, whether these conditions are appropriate, should be heard. There's some evidentiary issues that need to be addressed. Is it appropriate to put additional penetrations into an acid gas plume providing additional potential pathways for acid gas for CO2 to escape into shallow reformations? That's a concern. The expense of it is a concern.

Drilling monitoring wells into the Devonian is an expensive undertaking and does to the costs outweigh the benefits. There's a number of issues I think that would need to be addressed, not least of, which is whether or not this even falls within the

authority of the Commission to require.

COMMISSIONER ROZATOS: Thank you, Mr. Rankin. I do want to hear from the OCD first, MR. Tremaine.

MR. TREMAINE: Mr. Chair, Commissioners on the topic to limit my comments to the topic of the additional conditions. I think that the -- notwithstanding the relative position statements of the other parties, I think getting an adequate, factual basis and OCDs review of the additional conditions requiring monitoring -- Devonian monitoring wells, is going to take more than 15 to 30 minutes. We're going to need some time to do that.

We saw these last night. There are some very legitimate concerns with those conditions. I'm not coming out with a strong position that they should or should not be included in the Commission order. Except for, I would note that, you know, in prior monitoring, whether surface monitoring or wells requested by the Division and imposed by this Commission have always been, in our opinion, for the purposes of alerting the Division and the Commission if something went wrong right?

We have surface monitoring near potential points of egress or migration of treated acid gas from neighboring well bores, there's a concern related to

previously plugged well bores, et cetera. So we ask for surface monitoring in those locations. I believe we have requested downhole monitoring or other surface monitoring at existing well bores at the perimeter of the projected plume.

So in every case that I can think of and that we've discussed with the tech -- OCDs monitoring whether it's a well or surface location, have been for the purposes of either verifying the accuracy of the plume modeling or early detection in the case there is migration of treated acid gas, or CO2 as a precursor to the migration of treated acid gas. So those are safety -- human health and safety environmental concerns that are addressed.

The wells that are proposed here, one, are a set of wells that I believe will necessarily be placed in the middle of the projected plume. They are not for the purpose of determining whether the plume modeling's accurate. They're not for the purpose of determining whether treated acid gas is migrating out of -- outside of the containing zone. So they're not a typical monitoring purpose that OCD has requested. With -- I do understand and respect that as part of the Commission's duties to protect relative rights.

So there may be some need to consider such

monitoring wells here, but the purpose seems to be for identifying, for the neighboring property when, not if, their pore space is encroached, right? And that ultimately comes down to a question of when can they start billing the opposing party for that encroachment. That financial consideration or that dispute, I do agree is not necessarily for the Commission.

And so I think -- or not appropriately before the Commission. So there's that, there's also additional technical basis. OCD does have a generalized concern that additional perforations from surface to the Devonian cause potential migration pathways for treated acid gas. Those wells as you can see with all the other wells that are referenced in OCDs, conditions of approval, et cetera, we're asking for corrosion resistant alloys, corrosion resistant cement, addition -- surface monitoring, et cetera.

So I don't know how many wells they want, I don't know where they're located, they're not pled in the conditions with, I think, reasonable specificity. So OCD would need to know how many they are, where they are, what those well bore schematics are going to look like. Are they using appropriate corrosion resistant materials, et cetera. And, you know, again

pushing back on whether those financial considerations are appropriately before the Division, I would acknowledge Mr. Rankin's comment that those wells are expensive, and that is going to weigh into the consideration of the parties.

But if they are determined to be appropriate safeguards, that question is really not before -- I think that economic analysis is similar to my comments related to Desert Ram. Those considerations by Northwind are not before the Commission either. I think the question is -- before the Commission is, are these wells necessary for the protection of correlative rights? And then are there appropriate safeguards in place to protect those correlative rights, public health, in the environment, underground sources of drinking water, et cetera.

And because of the way that the plume is currently modeled, I think the area that we're talking about for monitoring is known or expected to be impacted by treated acid gas in terms of the pore space. So poking more holes there, it's hard to justify from the Division's perspective as safe and appropriate. It really gets to the question of the gross negative consequences that may or may not be experienced by Desert Ram.

So we need to know what they actually want those to look like, where they are, how many they are, et cetera, before Mr. Gebremichael can actually perform an analysis of whether those are one necessary and appropriate, and two, have appropriate safeguards.

COMMISSIONER AMPOMAH: Mr. Tremaine, you know, to say that, let's say, even these monitor -- requested monitoring wells are appropriate or not, I mean, are these typical conditions that are ever, ever, you know, attached to any AGI, let's say, wells?

MR. TREMAINE: No. I believe I can try to pull the order, Commissioner Ampomah, but I believe that we have requested well bore monitoring at neighboring existing wells. But again, those are whether that's surface or down hole monitoring, those were always requested for the purpose of verifying, did the plume go farther than it was projected to go there? There we're going to say, "This is the perimeter, if you get to this point, something's gone wrong." If you trigger a surface monitor at a neighboring well bore of a previously plugged well, for instance, like we're requesting, and I believe OCD condition of approval, either 11 or 13, I can pull it up.

But we are requesting surface monitoring and

neighboring plugged and abandoned well pores because there's a potential that there could be corrosive reaction and CO2 or treated as gas migrate to the surface at those locations. Again, public health safety, verifying the science and the plume modeling in place, we've never used or advocated for additional perforations to see when treated acid gas gets to a certain point. And I do agree with Mr. Rankin that the purpose of those monitoring wells is to alert Desert Ram to -- when their pore space is impacted. And that's a money dispute between the parties -- a timing and a money dispute.

COMMISSIONER AMPOMAH: Mr. Chair, you know, I don't know, let's say, how you want us to proceed with this, but I will require that probably we go in a close session to just look at this quickly and probably return because I do have some questions for the council.

COMMISSIONER ROZATOS: Before we entertain that Commissioner, Mr. Marble, you wanted to state something?

MR. MARBLE: I do. A couple of small points to the doctor's point about the appropriateness of these conditions on the permit, I understand that they are unique and different. Two things that I'd like to

say to that regard. One, my client does operate water wells within the area that could theoretically be impacted by this plume. In fact, in the application from Northwind, you'll see that they got notice in the context of being a water well owner that they could be impacted by the application.

The second piece of that is I'd like to point you back to Snyder Ranch. Snyder Ranch is kind of been the seminal case on describing the function of this Commission. When it issues a permit, they go on to describe it as a license. And then the Snyder Ranch case goes on to say that license is limited to bestow upon someone their right to engage in activities within their property rights.

And here, I believe it would be appropriate for the condition that the Commission places on the permit in the context of that Snyder Ranch's dictate on what the Commission's power is, to make sure that the applicant is engaging in activities within the scope of their property rights. And one thing I want to say in response to something Mr. Rankin said in his last statement. He mentioned that it is inappropriate for this Commission to make interpretations or to determine who has a valid claim to property. I agree with him. I agree that that's inappropriate for this

Commission, but the difference here is that there is no claim to property that Northwind is making. There's not one document that they can put in front of this Commission saying they have the right to do what they want to do on Desert Ram's land. Those are the only small points I'd like to make.

COMMISSIONER ROZATOS: Thank you, Mr. Marble. Mr. -- Commissioner Bloom, did you have any questions, thoughts?

COMMISSIONER BLOOM: So I -- Mr. Chair, I think we did hear from Mr. Rankin that he could use 15 minutes to confer with his client. If nothing else, that'll give us a bathroom break. I was --

COMMISSIONER RAZATOS: I was coming up to that one. You're just a step ahead of me today.

COMMISSIONER BLOOM: Okay. Okay. And then, you know, after that there might be some potential for the parties to talk and then I guess, I'm trying to think where we're at. I think my allergies are just killing me today. My eyes are bothering me, I feel sluggish. but the -- that's --

COMMISSIONER RAZATOS: Yeah.

COMMISSIONER BLOOM: -- like a -- We need to figure out -- yeah. We need to figure out the ruling on the -- potentially on the motion. And then I think

then potentially hear a permit discussion. Is that right, evidentiary hearing?

COMMISSIONER RAZATOS: So correct. I think we do need to go to a break and allow for stuff, all of us to stand up and maybe get some fresh air. I – please.

MR. CHANDLER: Hi, Mr. Chair. In the consideration of the entire universe is Northwind have they had a chance to review the OCD conditions? And do we just -- can you proffer whether they're going to be contested or not?

MR. TREMAINE: Thank you, Mr. Chandler. No, no. The conditions that the Division has proposed, which were filed at the time of its pre-hearing statement, and its exhibits have been reviewed by Northwind. And as we will testify, those conditions are acceptable to Northwind.

COMMISSIONER RAZATOS: So I still throw it out there to pose potentially for discussion. I'm not saying and I don't think this Commission is saying that what Desert Ram has proposed is what needs to be done by any means. I think it just, as I mentioned, opens the door for conversation for them and for Northwind to be able to potentially find some type of middle ground. I realize, Mr. Rankin, the

conversation has been going on and that's why we're here, where we're at. But it did look like an 11th hour effort to potentially open up the discussions.

And so I would urge you and your client just to look at it. I'm not saying be open to the thought, I'm not saying that you have to, and I'm not saying you don't have to. Be open to the thought and do that. So why don't we take -- let's take a good -- what time is it? Would a half hour be good for you? Okay. Let's take a half-hour break and we'll reconvene at 11:30. Thank you.

(Off the record.)

COMMISSIONER RAZATOS: Good morning to everybody that's on the platform. The parties needed 15 more minutes, so we will reconvene at 11:45.

(Off the record.)

MR. TREMAINE: Now they have more votes.

COMMISSIONER RAZATOS: Okay. Thank you for -- everybody for holding on the platform. We need about five more minutes, they think they have a decision, so we'll get back in five minutes.

(Off the record.)

COMMISSIONER RAZATOS: Okay, Sheila. On the platform, thank you. We're back on the record. It was an extended period of time, the half hour took an

hour, but that's okay. Is there a resolution to what we have? I'll start with you Mr. Marble, if you'll turn on your microphone, please.

MR. MARBLE: There is -- Mr. Chairman, if it's okay with Mr. Rankin, I will -- would you like me to walk through it on the record? In exchange for withdrawing our notice of intervention to the application pending today, the applicant will accept all the conditions imposed by the OCD.

COMMISSIONER RAZATOS: Okay.

MR. MARBLE: And specifically as to condition 18, which is relating to plume modeling. The applicant has agreed that instead of every five years, it will be every two years. And as it relates to condition 13, there will be -- did you want to read this one onto the record or did you want to address it?

MR. RANKIN: Yeah. I guess one thing, just to be clear. So in the Division's conditions, it's condition number 13, the Division has proposed that Northwind implement surface monitoring at certain plugged in abandoned wells that penetrate the Devonian. And what we've agreed to do is have a side agreement between the parties, where Northwind will put a surface monitoring device on one of hydrosources

water wells, in section 29. So we would do that outside of the permit conditions, but have an agreement separate between the parties to implement additional monitoring on one of their water wells in section 29.

MR. MARBLE: And then I think the only other thing to be addressed in the site agreement was as updated plume modeling information relating to the permit condition on 13, all becomes available, that would be simultaneously provided to Desert Ram at the same time as provided to the Commission.

COMMISSIONER RAZATOS: Okay. Mr. Stewart?

MR. STEWART: So thank you, Mr. Marble. Mr. Rankin, you're good with what was stated?

MR. RANKIN: Yeah. So just to reiterate, just for purposes of the record and to confirm my understanding. That what we've agreed to do in exchange for Hydrosource, Desert Rams withdrawal of their objection to the proceeding in this case is that we would agree, as a condition of approval, to increase the updating of the modeling and data provision under condition 18 to two years instead of five. And we would -- separately on a separate site agreement, we would agree to give Desert Ram and Hydrosource all the information that we provide to the

Division and Commission at the same time as part of the conditions of approval of the permit. That would be a separate site agreement.

And then the third item is also under separate site agreement that we would agree to put a monitoring device on one of their water wells in section 29. And then we just would need to be authorized to get access to do it. Because I think we have to check the equipment and update the data every month or so, whatever the frequency is. But those would be addressed through the site agreement. The only thing that would go into the conditions of approval here would be to increase the cycling of the modeling in the condition 18 to every two years.

COMMISSIONER RAZATOS: Excellent. Thank you.

MR. RANKIN: Uh-huh.

COMMISSIONER RAZATOS: Appreciate it. Mr. Tremaine?

MR. TREMAINE: More plume modeling updates is probably more better, no objections.

COMMISSIONER RAZATOS: More better. Your English grammar is awesome there, Mr. Tremaine. Okay. Commissioners, any questions on what was stated?

COMMISSIONER BLOOM: Not from my side. Thank you.

COMMISSIONER AMPOMAH: No questions, Mr. Chair.

COMMISSIONER RAZATOS: Excellent. Mr. Marble, we'll ask if you could write up all of the conditions and submit them for the record so we could have it all ready to go and then get every party to sign off on it and then submit it to the Commission.

MR. MARBLE: Absolutely, Mr. Chairman.

COMMISSIONER RAZATOS: Mr. Tremaine, did you have something? Oh, okay. Go ahead, Mr. Chandler.

MR. CHANDLER: So what needs to be memorialized? Are parties looking for a motion from the Commission today?

MR. RANKIN: I'm not sure that anything needs to be memorialized other than, I guess, that the Desert Ram will submit a -- maybe a formal withdrawal of their objection at -- as and when we've -- when they're satisfied that we have entered into the site agreement. And then the only other element would be, which I think is sufficient for the statement of the record, maybe the Division can submit a revised Exhibit 1, which would be simply just to update the frequency of the flow modeling and data to two years instead of five.

COMMISSIONER RAZATOS: Mr. Tremaine?

MR. TREMAINE: I think at the close of the factual record to come, it'll need to be memorialized that condition 18 is -- has been modified. But I think we can do that either in writing, submit an updated condition 18 or -- on the record. It's a simple correction. I don't think any of the site agreement settlement between the parties needs to be memorialized by motion or order of the Commission.

MR. CHANDLER: Okay.

COMMISSIONER RAZATOS: Mr. Chandler, did that suffice for your question?

MR. CHANDLER: I beg your forgiveness and I'm so new. Did you say Mr. Counsel, that you needed some technical testimony put on the record?

MR. TREMAINE: Well, I think I was operating counsel under the assumption that the Commission was going to still want to hear the underlying application by Northwind because there isn't yet a -- it wasn't submitted by affidavit, and so there is not a record upon which the Commission may approve the -- I thought we still had to have a hearing, yeah.

COMMISSIONER RAZATOS: Commissioners?

MR. TREMAINE: So we'll still have a quick hearing.

COMMISSIONER AMPOMAH: When you say a quick

hearing, I mean, there's a -- probably not quick, but yes.

MR. TREMAINE: It won't be quick, but I don't think it will be as long as it was slated to be.

COMMISSIONER AMPOMAH: When will we be doing that, Mr. Chair?

COMMISSIONER RAZATOS: How long do the parties need?

MR. TREMAINE: I think we have lunch waiting for us at our office, so probably just an hour. If we can be back here at 1:00, maybe 1:15, that we can start. I think probably we can walk through, depending on Dr. Ampomah's questions or the Commission's questions, I think it might be in maybe just a little more than an hour, hour and a half maybe to complete the record. And with Mr. -- with the Division's witness, maybe another 20 minutes, hour and a half maybe to complete the presentation of the case.

COMMISSIONER RAZATOS: Commissioners?

COMMISSIONER BLOOM: That works for me.

COMMISSIONER AMPOMAH: That works for me too, and I promise we'll get it done today.

COMMISSIONER RAZATOS: You're limiting factor with questions. Okay. So it is 12:03, we'll give ourselves a little bit of a longer lunch. Let's come

back at about 1:15. We'll proceed with the case but at least we won't have it as controversial. So thank you all, we'll see you at 1:15. Thank you.

(Off the record.)

COMMISSIONER RAZATOS: Okay. We'll get back on record. This is the continuation of when we were hearing Case Number 24881, regarding Midstream Wind -- I'm sorry, Northwind Midstream Partners for approval of an additional redundant acid gas injection well, and to amend Order Number R20903 as amended and SWD 2622 to authorize an increased shared maximum daily injection rate in Lea County, New Mexico. Mr. Rankin, we turn it over to you.

MR. RANKIN: Thank you, Mr. Chair and Commissioners. May it please the Commission. We have one witness today to present the testimony on the request for approval of this additional redundant AGI in the Devonian. So at this time unless the Commission has any questions of me, I would ask that Mr. David White take the stand and so we can present our case on request for approval.

COMMISSIONER RAZATOS: Sure. Mr. White, if you'll come have a seat here. And when you take a seat, if you'll just make sure that the microphone is on, it'll be the little person with a half circle

right up around them. There you go. And Mr. Chandler, will you swear in the witness for us, please?

MR. CHANDLER: Sure. Please raise your right hand.

WHEREUPON,

DAVID ALLEN WHITE,

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

MR. CHANDLER: Please state your name for the record.

MR. WHITE: David Allen White.

DIRECT EXAMINATION BY COUNSEL FOR NORTHWIND MIDSTREAM PARTNERS

BY MR. RANKIN:

Q Good afternoon, Mr. White. Will you please let us know by whom you're employed and in what capacity?

A I'm employed by Geo-Lakes Incorporated and I'm the vice president.

Q And have you previously testified before the Commission?

A I have, yes.

Q And have you been recognized as an expert in

geology, hydrogeology, seismic interpretation and Fault Slip modeling and acid-gas injection while permitting and operations?

A Yes.

Q Are you familiar with the application that's filed in this case?

A Yes, I am.

Q Did you also prepare or oversee the preparation of the C-108 that was submitted as part of this application, in fact, Exhibit A?

A Yes, I did.

Q And do your duties include project -- well, I'll skip over all that. Now let me -- since we're not -- no longer contesting it, I think that there's no objection. Let me skip forward here. Rather than reviewing your background and testimony -- background and your history of education and experience, I'm just going to ask you, have you conducted a study of the geology and hydrogeology of the lands in the area of the application?

A Yes, I have.

Q And have you conducted analysis and modeled the potential plume that would result from injection of the proposed treated acid gas?

A Yes, I have.

Q And have you also prepared a model analyzing the Fault Slip probability based on the proposed injection?

A Yes, I have.

Q And were Exhibits A and B that were submitted as part of the hearing packet, prepared by you or compiled under your direction and supervision?

A Yes.

Q Any corrections or changes at this time to Exhibits A or B?

A Not at this time, no.

Q Okay.

MR. RANKIN: Mr. Chair, I would tend -- retend Mr. White as an expert witness in geology, hydrogeology seismic interpretation and Fault Slip modeling and acid gas injection and well permitting an operation.

COMMISSIONER RAZATOS: Okay. Mr. Germaine?

MR. GERMAINE: No objection.

COMMISSIONER RAZATOS: Okay. He shall be entered.

MR. RANKIN: All right. Mr. Chair, at this time, I'll share my screen.

BY MR. RANKIN:

Q And Mr. White, let me know when you can see

the images before you. This is a copy of the application that was --

A Uh-huh.

Q -- or exhibit packet that was filed as part of this case. On the table of contents, you'll see that there's a -- the application with the C-108 -- exhibit A to the application was a C-108. Is that correct?

A That's correct.

Q And is all the information required for approval of the proposed Titan AGI number 4, included in the application and in the C-108?

A Yes, it is.

Q And the application for hearing was filed back on September 17, 2024, correct?

A That's correct.

COMMISSIONER RAZATOS: Mr. Rankin, I'm just going to stop you one second. Can we just move your microphone a little closer to you just to make sure that the Court reporters can hear?

MR. RANKIN: Thank you.

BY MR. RANKIN:

Q And have you prepared a slide presentation reviewing the details of the C-108 and the application filed with the Commission and the basis for approval?

A Yes, I have.

Q And that's marked as Exhibit B. Is that correct?

A Yes.

Q Here's the tick of contents. Let's go ahead and I'll skip down to your overview of the application. And if you would just give us a -- an overview of what's being requested in this application by Northwind.

A Yeah. So it's been previously kind of mentioned Northwind is seeking approval of an additional acid gas injection well at their Titan treatment facility. That will serve both the purposes of improving the redundancy in their processes at that facility, as well as allow for an incremental increase -- or an increase in the total allowable action -- injection volume shared between those wells.

Specifically, Northwind is requesting approval of up to 28.8 million standard cubic feet per day in preparation for their anticipated asset gas disposal needs of the area. As you had previously mentioned, the form C-108 does include all relevant sections and supporting materials necessary to substantiate that request and to allow for approval of that application. And as many of you all are likely

aware, these types of wells are really becoming the preferred method for midstream operators in terms of sour gas handling and the Northwind facility itself, the Titan treatment facility has been designed such that it does rely and incorporate those preferred methods.

Q So in order to speed this along Mr. White, I'm not going to ask you questions directly. You've prepared this presentation, and if it's okay with the Commission and Mr. Chair, I'm just going to ask you to go ahead and review each slide and go through the supporting materials that support approval in this case. And I may interject here, there for clarification or to make sure something is clear for the Commission.

But with that, I'll just go ahead and ask you to walk through your slides and then I may interject here and there until you're complete.

A Okay. Sure. So in this first slide, as some of you may be aware, the history and the planning for acid gas injection wells at this facility is -- has a bit of a history when the original application and project development began in 2018. So I think it's a good idea and what I wanted to show in this map is give everyone kind of a general layout of what the

facility looks like in terms of its well placement proposed and active.

The facility itself is located approximately 7.5 miles Southwest of the City of Jail, New Mexico, specifically in Section 21 of Township, 26 South, range 36 East. The well as you can see and unfortunately the ArcGIS base map layers show -- do not show the absolute current configuration of the surface facility. It's showing only the facility as it was prior or around the time of Northwind's acquisition of it.

So currently, the surface layout and disturbance does extend to the south -- to the lease road that's kind of slightly inclined northeast and to the north of that facility across that east-west pipeline disturbance that you see there. But on the disturbance of the property that's shown here, the red injection well symbol was the originally permitted Salt Creek AGI number 1 location permitted back in 2019. That well was ultimately plugged and abandoned due to some downhole difficulties. And as part of the history of it, we came back seeking the approval to relocate and redesign that well to accommodate for those downhole difficulties.

The new location is shown by the blue

injection well symbol to the southeast labeled as Salt Creek AGI number 3. Now that change in the numeric sequence is ultimately because at the time that that relocation request was being made, application for Salt Creek AGI number 2, the Commissions required redundant deep AGI well had already been submitted. So that numeric sequence is a little bit abnormal because of that.

So to the north of that pipeline track, the black injection well shown is Salt Creek AGI number 2, which was approved administratively as the Commission had remanded it back to the Division for decision and subsequently amended from a vertical injection well to a deviated injection well. So that well was drilled and recently completed from the surface location shown to a bottom hole location to the Southeast.

The final marker on that map shows the proposed Titan AGI number 4, which is the well relating to the matter we're discussing today. So as I briefly mentioned, AGI wells in general, and what we'll talk about for a couple slides here, is just the key elements of Northwind's application and some of the benefits of AGI wells.

As I mentioned, AGI wells have become a preferred sour gas handling method for these types of

facilities, not only because it simplifies treatment processes a bit and reduces potential downtime associated with alternative sulfur control measures, but it has a strong environmental benefit that along with handling the more -- the dangerous hydrogen sulfide, it also results in the permanent sequestration of significant amounts of CO2.

With respect to Northwind's application, our review of the project area has shown that oil and gas wells, water wells, and surface waters in the area of the proposed AGI number 4, are all protected via design considerations for the proposed well. Which includes adequate surface casing installation to protect groundwater sources, as well as multiple additional strings that provide physical barriers between the injection string and adjacent geologic strata.

Throughout the long history of the project, the ability -- the access to data and the depth of our geologic investigation, has also continued. And as a result of that, our geologic analysis, which most recently incorporates utilization of 3D seismic data, has really allowed for a good delineation and good characterization of the injection reservoir in this zone.

Furthermore, Fault Slip probability modeling based on those geologic analysis, shows that, as proposed and the volumes proposed and operating conditions, the wells, the series of wells in the Devonian do not produce any elevated risk for injection induced seismic events.

With respect to reservoir modeling and characterization of the reservoir, as I mentioned, the -- this project does have a bit of a long history and the product of reservoir modeling and simulation that you're seeing today, and that has been provided in the C-108 application and in the exhibits, is really a refined version that has begun initially with well control in 2019 and 2020 to incorporating 3D seismic data and derivative analyses of those data to really generate a reservoir characterization model and plume forecast that we think are adequately supportive of Northwind's operations and adequately prepares Northwind to understand the impacts of their plume and their injection activities.

In general, the C-108 application, includes all relevant subsections for approval as is required of these facilities and these types of operations. Northwind does have an existing hydrogen sulfide contingency plan, which upon approval of this well and

construction of this well, will of course be incorporated and submitted to an MED and relevant parties to ensure that all -- that plan reflects all of the proposed operations and as approved conditions.

All interested parties requiring notification have been provided copies of Northwind's application and have received notice. And as of today, no parties are intervening on the matter.

And so just to kind of reiterate a little bit of the history. We'll talk mostly about the kind of flow chart shown on the right here. But just to make sure everyone has some perspective about the evolution of this project and the current status of the facility. The original application for a acid gas injection well at this facility was submitted in 2019, with the approval of that application and the first order being issued in January of 2020. Now that owing to the sour gas disposal needs of that facility, that drilling activities for that well did not occur until Q4 of 2022, when those sour gas disposal volumes were -- became required at that facility.

So the drilling of that well ultimately began at the end of 2022. When drilling that well, as I mentioned, there were some down hole issues that prevented completion of that well. And so Salt Creek,

Northwind's predecessor -- operator prior to Northwind's acquisition, sought amendment to relocate and redesign that well to address those issues. And the NMOCC issued order 20913F approving that redesign in June of 2023. After that Northwind did acquire the facility and proceeded to drill the Salt Creek AGI number 3, in Q4 of 2023, after which the redundant Salt Creek AGI number 2 was authorized via the administrative process.

And I'm sorry. The associated order on this is incorrect. Rather than being SWD 2622, it should be SWD 2580 which was issued to Northwind. However, they did not drill the well based on that order. That order in -- was planned for a vertical well, at that time, however, upon acquisition of 3D seismic data and additional geologic analysis, it was determined that a deviated well to a more higher quality interval of Siluro-Devonian injection zone, would be more preferable.

So there was an amendment application submitted requesting that change of plans, which was ultimately approved in August of 2024. And Salt Creek AGI number 2, was drilled and most recently completed in early 2025. And I recognize that's a very complicated history, so feel free to ask any

questions, if anything doesn't make sense.

So here we take -- in this slide, we're taking a look at the general project area, both from a more regional perspective, where in the map shown to the left, you see the city of Jal to the northeast, and the position of the general position of the proposed Titan AGI number 4 and the Salt Creek facility in the Southwest of Jal, New Mexico. And again, in the panel to the right, we just see, again, the kind of arrangement of AGI wells at the facility currently.

In accordance with the normal C-108 development processes for determining a maximum allowable operating pressure, this slide includes the calculations and the assumptions we made in determining the requested maximum allowable operating pressure. Which for acid gas wells, utilizes an NMOCD approved method in which the specific gravity or average density of the acid gas is utilized to determine and calculate the maximum allowable operating pressure.

Of course, with -- oh, sorry. Can you hold there one more --

Q Yeah.

A -- one second. Of course, with -- you know,

as is stipulated by, you know, most orders that are issued with respect to AGI Wells and SWD Wells, the intent will be that once the well is constructed step rate injection testing will be completed to confirm the adequacy of that requested allowable operating pressure.

So in this slide, we're summarizing a little bit of the general design of the acid gas injection well system in the proposed operations as in accordance with Northwind's current gas inlet compositions, the Titan AGI number 4 is anticipated to inject mixed acid gas stream, predominantly containing carbon dioxide, H2S and trace amounts of nitrogen and hydrocarbons.

The tag is transmitted from the amine treatment system at low pressure. And for this description, we can begin looking at the kind of schematic diagram on the right there. But tag is transmitted from the amine system to a compression process unit where it is, through successive stages of compression, compressed and dehydrated through inner stage cooling, and then transmitted to each of the AGI wells via high pressure NACE compliant lines.

In the well profile shown to the right, we do have some annotations of key design standards that are

in characteristic of all of Northwind's well and most AGI wells currently. Specifically, in that the AGI wells are constructed with, not only surface safety valves that are automated and tied into plant control systems, but as well downhole subsurface safety valves that allow for integrated control through the plant control systems.

The AGI Wells in general are designed to be robust in potentially corrosive conditions, where they incorporate corrosion resistant alloy materials, constructed with acid resistant cements and ultimately are designed such that they are suitable for the dry acid gas injection conditions proposed. In addition, they -- Northwind’s wells and many AGI wells, incorporate continuous bottom hole monitoring of pressure and temperature. Which are important to understanding reservoir pressure evolution, informing geologic characterization models and injection simulations. And these have been incorporated in all of Northwind's AGI wells.

In this slide, we show the proposed design of the Titan AGI number 4, which is very consistent with AGI wells constructed in this area of New Mexico. And in accordance with the needs of the specific geology that you encounter in this area, just kind of at a

high-level summarizing that, you can see from the diagram that five casing strings are proposed for the design of this well. The first of which includes surface casing down to a depth of approximately 2,100 feet, with the ultimate purpose of isolating and protecting groundwater resources in the area.

Secondly, the first intermediate casing would be proposed to be installed down to an approximate depth of 3,660 feet, ultimately isolating intervals, which may contain salt and hydrides in this particular part of the basin that overly the Capitan Reef, which is expected in this area.

The second intermediate casing proposed would be drill -- would be set at a depth of 5,590 feet, utilizing DV tools to ensure adequate cementation, isolating the Capitan, which in this area has been observed as a potential loss circulation zone. Following the second intermediate, the third intermediate casing interval would be proposed to be drilled down to approximately 11,820 feet, ultimately isolating an interval of potentially lower pressure across the Delaware Mountain Group and Bone Springs interval. Because we do have an existing acid gas injection well that injects into the shallow Delaware Mountain Group.

Along this interval, we would incorporate and utilize acid resistant cements to make sure that this well is protected from any formation fluids containing acid gas that might be detrimental to the integrity of Titan AGI number 4. The production casing would be set at approximately 17,570 feet, ultimately isolating the high-pressure gas intervals of geologic formation such as the stranatocamaro (ph). And within this string, we would utilize corrosion resistant alloy and cements, again, in the overlying caprock intervals to ultimately protect downhole AGI well components.

The plan is that all strings will be cemented to the surface, and those cement operations will be verified via wire line cement bond logging. In terms of data acquisition, well logging and reservoir testing and monitoring for this well, while drilling activities are ongoing, mud logging is -- we would propose to commence below the 24-inch surface casing and be continued throughout the total depth of the well. In terms of wire line geophysical logs, we would -- our intent is to collect, you know, normal routine gamma density resistivity, neutron porosity and sonic tools.

And for the purposes of understanding potential fracture, gradients and fracture pressures,

we would also incorporate dipole sonic logs, which have been collected for the offsetting Salt Creek AGI number 2 well, but would continue to collect those data in the Titan AGI number 4. In addition to this, with respect to the caprock, the primary and secondary caprock intervals, as well as the injection zone, those intervals would be imaged using Full Bore Formation Micro Imaging tools or similar tools based on the drilling fluids program for that particular interval.

As is normal with AGI wells, we would also collect rotary sidewall cores for analysis in the caprock intervals, secondary caprock intervals, and as well as the injection zone proper. In addition to the logging activities, the well would also be injection tested via separate injection test and pressure falloff tests, to inform model simulations, get a better understanding of the injectivity potential for these wells or this well, and to ultimately confirm any preliminary analysis with respect to fracture pressures and things like that.

Once completed drilling the well, the well will be outfitted with all of its permanent downhole pressure and temperature sensors, corrosion resistant alloy tubulars and subsurface safety valves and other

AGI equipment.

Now in this slide, we overview the general geology of the project area. In the map shown to the left, we have a map probably seen many times around this -- in this setting with the proposed AGI well denoted as the red square in Southeastern New Mexico. As we can see from this map, the proposed well location is in the Eastern margin of the Delaware Basin, where surface sediments are generally characterized by aeolian and fluvial units with local exposures of red beds.

Approximately 11,000 feet of Permian strata, which at -- in places, contain producing intervals overly the lower Paleozoic strata. Which are intervals of gas, you know, the stranatocamaro, Pennsylvanian section, being gas bearing intervals and gas producing intervals. Overlying the proposed injection interval, the Woodford Shale, a well-known and well demonstrated confining unit in this area, is greater than 370 feet thick and makes up the primary confining strata for this injection well.

In addition to this, the overlying Mississippian carbonates provide secondary caprock intervals and shales of the Barnett, that in this area are expected to be about 800 feet of secondary

confining strata. As we'll talk a little bit later, we do have access to 3D seismic survey data, with respect to this project location which has allowed us to get a good characterization of the geology and identify faults in the area such that they can adequately be evaluated with respect to induced seismicity risk.

In this slide, we're just putting into perspective the project location with respect to the producing intervals in the area and the geologic strata that are -- that comprise the section. The highlighted section of this chart indicates or shows the Delaware Basin units, with red stars showing commonly producing intervals, whether that's oil or natural gas.

In this particular area, we are towards the Delaware Basin margin, so depending on where you at -- where you're at, you may see some other productive intervals, which would be listed in the Central Basin Platform section, inclusive of things like the Tansill, Yates, Seven Rivers, depending on where you're at in the project area.

Again, with respect to what geology we expect to encounter, as I mentioned, the Salt Creek AGI number 2 well, which is of very similar design and

deviates towards the southeast was just recently completed. Not in operation, but was recently completed, and so that has been able to give us a good sense of where and what formations we're going to see drilling Titan AGI number 4. So as you can see in the tabulated summary there, the geologic formations we expect, and the current prognosis for measured depths that we find those formation tops.

In this slide, we can see in the map shown to the right, a structure contour map, which was derived from the seismic data that were acquired and reflect the top of the Siluro-Devonian. So the top of the proposed injection zone. As we can see from this structure, contour map, where cooler colors reflect increased depth to the top, and warmer colors would reflect shallower depths to the top.

That in general, the top of the Siluro-Devonian section is dipping towards the southwest, in the -- kind of the center of the map where those well locations are annotated, we see the two locations of Salt Creek AGI number 2, the existing well, as well as the proposed Titan AGI number 4, existing down dip of a structural high to the approximate northeast.

In this slide, we're taking a look at a cross section of wells across that project area, which shows

a couple things -- a couple key things. The brown shaded interval that is shown in those wells from a prime, show the continuous-- the continuity of the Woodford Shale across the project area. In addition to this, the highlighted sections that underlie that brown shaded area, show intervals of the Siluro-Devonian, the proposed injection zone, which we identify porosity development within those zones.

And as I mentioned briefly, the thickness of the Woodford Shale at the Titan AGI number 4 location, is significant in the offset -- well, we see it as approximately 370 feet thick and overlaying by tight carbonates and shales of the Barnett and Osage Formation. Next one -- next slide.

Q Yeah.

A Yeah.

Q Sorry.

A That works. And so with this slide, what I wanted to provide the Commission with is, you know, part of the -- this was not included in the original C-108 application, as it reflects well logs that were collected from the recently completed Salt Creek AGI number 2. And so these are -- in these slides and what I wanted to highlight is the level of porosity development that we are seeing in this well. You

know, we ultimately made requests prior to deviate the well, based on concerns that the -- a current -- a vertical well would not access quality reservoir. And ultimately, I think that came down to be a good decision.

And for comparison, you know, in the upper Devonian section, we see porosity development that's very similar to very to analog AGI wells in this area. However, in the Fussman section, we do see porosity development being substantially better than we've seen in some other analog wells. And so ultimately, we just wanted to highlight that the methodology used to determine a bottom hole location for AGI number 2, was a similar methodology for Titan AGI number 4. And so we hope to -- hope that that methodology will produce a similarly productive well.

As part of the supporting material requirements for the C-108 application, we've also looked at groundwater conditions in the area and reviewed the wells area of review for existing groundwater wells, points of diversion. And when we -- just to be clear, when we're -- when I'm referring to the area of review for this project, because we are proposing a deviated well, we do not -- we've kind of modified the area of review to go beyond one mile.

So rather than just being a one-mile radius, it is the composite shape of a one-mile radius at the surface hole location, a one-mile radius at the bottom hole location, and a one-mile buffer along the deviated well path. So it actually is a larger area of review than just a standard one mile.

In this modified area of review, we find 14 water wells. The nearest of which being just over a half mile from the Titan AGI number 4 locations. And in reviewing those well records, all of these wells are shallow, not extending beyond a thousand feet in total depth. And ultimately, the design of the Titan AGI number 4, considers those wells in order to provide adequate casing protection and cementing protection.

As I mentioned in a previous slide, surface casing for this well will extend down beyond 2,000 feet to ultimately isolate those intervals of potential groundwater resources. In characterizing oil and gas activities or injection activities within the area of review, our review of records and records analysis, shows that there are 83 wells within the total area of review which is the one-mile buffer area. 22 of which are active with 32 permitted locations and 29 plugged wells.

Reviewing the records for those wells, many of them are shallow wells, which would have total depths significantly overlying the proposed interval of injection, commonly producing or previously producing from the Tansill, Yates, Seven Rivers. And with some newer wells, producing from the Bone Springs and Wolfcamp Formations. Again, overlying the -- targets that overly the proposed injection zone by thousands of feet.

In the one-mile area of review, there is one well that was drilled and penetrated, the Siluro-Devonian proposed injection zone, that being the South Lea Federal number 1. And it is shown in the northwestern extent of that area of review circular area, and it is 23197. The well was drilled to a total depth within the injection zone, but was ultimately found to be not productive and was isolated with cast iron bridge plugs and cement plugs and recompleted shallow, and then ultimately, fully plugged back to the surface and -- in 2015.

So in confirming a location to be suitable for acid gas injection, there's really some major components that we're looking to satisfy with any particular location. And I think for this location and our understanding of the subsurface, the Titan AGI

number 4 project does meet all of the requirements. Which include very critical characteristics such as geologic seals, that permanently contain the injected fluid, that pose no risk to fresh groundwater or groundwater resources. They don't impact -- or the project area doesn't have significant history of production. And the reservoir both is confined, laterally, but also is characterized by porosity and permeability attributes laterally.

And then ultimately, identifying reservoir suitable for your proposed operations with respect to capacity and with respect to formation fluid chemistry.

Q Mr. White, does the C 1 -- you talk about fresh water and geologic seals. Does the C-108 also contain in affirmative statement by you that you've prepared confirming that there are no communication between the injection zone and any known sources of drinking water?

A Yes, it does.

Q Just to point out for the Commission, that's on PDF page 40 of the exhibit packet. Is that correct?

A Yes, it is.

Q Thank you. I know that Division cares to

make sure you've got the signed statement confirming that there are no communication pathways. I'll return you back to where you were, I believe it was -- you're going to get into your Fault Slip analysis. Is that right?

A Yeah. So as we mentioned at the beginning of my testimony or as it -- in accordance with Mr. Rankin's introduction to the testimony, in evaluating this location in the proposed well, we did evaluate the potential for Fault Slip or injection induced seismic events, which I'm sure most are aware of is a point of concern in many areas of the world right now.

The -- ultimately, for our analysis, the major components included review and interpretation of seismic survey data to under -- to make sure we have a clear understanding as best we can of the subsurface features in the area of our proposed well. And subsequent -- or additionally, that modeling and that or that assessment, included modeling of injection well scenarios. In this case, a five well injection scenario, in which acid gas injection is simulated and in a model simulation capable in -- of considering fault structures in the area and calculating or projecting and associated risk with that scenario.

Specifically for this work, as most are

probably familiar with, we utilize the Stanford Center for Induced and Triggered Seismicity Fault Slip Potential model.

And in this slide, we show kind of the general results of our analysis of seismic data where we have plotted generally the faults that we see in the area of the proposed well. These faults were utilized for the Fault Slip probability simulations. And as you can see, in order to express those faults in the model, some of those were broken up into fault segments in order to accurately characterize their non-linear expression.

In general, looking at these, we see 13 faults in the area, which we've subdivided for modeling purposes into 23 fault segments. Most of these, you see a couple different populations of either north, south to east -- or east-west trending faults. In general, these faults in our analysis of seismic survey data, the offset along these faults or the fault throw, does not exceed from what we've seen the thickness of the Woodford Shale. So we don't see any evidence that the primary confining layer of the Woodford Shale would be offset in any way that compromises its containment.

Now for this work, like I mentioned, we

included five injection wells in the Fault Slip probability simulations. This particular part of Southeastern New Mexico, is not really inundated with disposal activities at the moment. In the map shown, you see the two Northwind AGI wells at the facility Titan AGI 4, and the Salt Creek AGI number 2, ss well as north of the facility, there are two existing AGI wells about six miles north. The independence AGI number -- AGI wells, those were included in the slip probability assessment. And to the northeast of the facility, one salt water disposal well, the Kimberly SWD Well.

So with modeling injection and the evaluating the risk for induced seismicity, this particular Stanford model requires input parameters and some assumptions with respect to fault orientations, local stress conditions in order to evaluate and determine pressures required to induce slip in this simulation. And so the table here shows the modeling assumptions or the stress conditions that were assumed for these simulations.

And in this slide, we show the model's initial kind of assessment of what pressures are required to induce slip. So we see -- with a range of fault orientations, we see that the model predicts

that -- of these 24 fault segments, the anticipated pore-pressure increase to induce slip ranging between approximately 1,080 to 6,930 PSI. In this area of the world, maximum horizontal stress is oriented approximately North 75 East.

And that's in accordance with stress characterization of folks like Losni (ph) and Zobacka and utilizing their state of stress maps. With respect to this project area, there is some faults segments that we identify as having the increased risk of slip which are shown or annotated here as fault segments 1, 2, 9, 10, and 21. Which are those that are identified as having less than 1,500 PSI to induce slip.

In this slide, we summarize the injection wells that are included in this simulation, the five injection wells, two of which being AGI wells operated and proposed by Northwind, as well as the reservoir barrel equivalent volumes that the simulation assumes, as well as the total duration of the simulation period. So the objective with this modeling and simulation is to consider at least the proposed AGI wells for a period of 30 years.

However, often there are wells that have been operating from -- before that time. And so for those

wells, the simulation period would've been extended to history match, and ultimately, include prior contributions of those wells. So you'll see some, like the Kimberly SWD, where the simulation begins in 2019. In accordance with the limitations of the Stanford model, one conservative approach we take with these simulations is that that model can only account for one fluid type at a time.

So for all of these wells, we do assume the fluid characteristics of produced water rather than acid gas. Which provides us a little bit more conservative estimates with respect to result in pressure increase, as the water is greater density and greater viscosity than what would be seen in a pure acid gas injection alone.

Here we see the hydrologic results of that simulation. Where in panel A, we see a kind of generalized map that shows, from cooler to warmer colors, the model's prediction for pore-pressure increase in association with that injection scenario. So this would be the point 30 years or 30 plus years, depending on what the level of history match was and the anticipated pore-pressure increase after the full simulation.

So as you can see around the AGI wells,

which, you know, both the Northwind proposed and existing AGI wells, as well as the offsetting AGI wells to the north, the ultimate pressure impacts are a little bit -- are less than a higher volume SWD. Ultimately, owing to the smaller volumes that actually are placed in the reservoir in association with acid gas wells.

With the hydrologic simulation results, the model also then calculates utilizing a range of uncertainty and various model parameters such as fault orientation or density of fluids. It calculates utilizing a Monte Carlo simulation, the ultimate Fault Slip probability associated with this. So in panel A to the left, we see a cross plot of time versus Fault Slip potential.

And were there any potential for Fault Slip? In this injection scenario, you would see a series of trend lines that go up or move with time. However -- for each fault segment, however, owing to the minimal amount of injection that is actually going on in this area and the geomechanical risk for slip, all fault segments within this simulation are shown to be at zero probability for slip.

In the panel to the right, we show a similar results where the Fault Slip probability is

graphically displayed in association with the various AGI or the injection wells in the project area. Again, all of those fault segments colored green, as the model predicts zero probability.

As I mentioned before, a critical point of identifying a suitable location for acid gas injection well is confirmation that your confining strata are adequate for containing injected acid gas. And as I mentioned, in terms of subsurface review and fault identification, we don't see any offset and faults that allow for the lateral continuity of the Woodford Shale to be offset. But we also want to take that a step further and look at pressure conditions as best we can in the Siluro-Devonian versus overlying strata.

And so what we've -- what we commonly do is look at drilling fluid records and confirm that, you know, the pressure conditions we expect to anticipate are such that injected gas will remain in the reservoir. Could you move to the next slide. So this will make a little bit more sense now.

So in the interval overlying the proposed injection zone, we see gas containing units of the stranatocamaro, which have been studied, and an interval of over pressure has been identified in the Eastern Delaware Basin across this interval. And so

the maps shown in this slide, is from Rittenhouse et al, who evaluated as you can see there, 23,000 mud weight records and greater than 4,000 drill stem tests to kind of characterize this interval of over pressure.

And so this pore-pressure increase has been identified, you know, beginning in the Bone Springs down through the Woodford Shale. And commonly within the proposed injection zone, we see relatively under pressured conditions. So what we want to ultimately confirm is that this same circumstance will be present in our project area. Because ultimately, if you have this pressure isolation, then you can assume you're not going to be losing acid gas out of the reservoir.

And so this is just another diagram that shows the results of Rittenhouse work, where in the tracks to the right, this diagram is showing essentially stratigraphy and log data from the Delaware down through the Bone Springs, Wolfcamp, all the way down to the injection zone, and then the Siluro-Devonian. And when you look at the tracks to the right, you see the two red traces, where within the Bone Springs, Rittenhouse compilation of data shows increases in pore-pressure all the way down through the Woodford, and then returning to normally

pressured conditions below that.

And so now we ultimately want to kind of take that high level interpretation of the Eastern Delaware Basin and see if local drilling fluid records are supportive of that. Because ultimately, we want to be prepared to understand if while drilling the well, we need to deal with high pressure gas from those intervals, construct the well in such a way that those intervals can be isolated and understand what conditions we're going to encounter.

And so what we see in the map shown to the right here, is drilling fluid records, scout tickets and things like that, for wells in the area. Ultimately, see -- we see in those intervals anticipated to contain higher pressures, we see drilling mud densities that were utilized, ranging from just under 12 pounds per gallon to up to 15 pounds per gallon in this project area. That corresponds to an average density of 13.4 and those drilling fluid records also do indicate and confirm once moving into the Siluro-Devonian, we see more normally pressured depth intervals.

And this is all consistent with what was observed in the recent drilling of Salt Creek AGI number 2. So in reviewing these data and, you know,

kind of premised on the work of more regional data and identification of an over pressured Eastern Delaware Basin, we don't expect that -- and confirming that those over-pressured conditions are present within the project area, we don't expect that there's going to be any risk for vertical migration or any pressure drive out of the intended reservoir.

This is supported by the drilling fluid characteristics that we see in records, supported by the -- our experiences drilling the Salt Creek AGI number 2, and ultimately, we think maintaining this pressure differential in this project area will help to contain fluids in the zone. And that's really only complimenting the fact that we have physical competent Woodford Shale caprock laterally extensive across the area.

Now in these next few slides, we'll talk, I'm guessing, pretty extensively about the reservoir characterization and injection simulations that were completed to support this application. As AGI Well, applications have evolved so has the kind of assessments and evaluations that are utilized to forecast where these plumes are going and what the results and impacts to the subsurface are going to be.

As I mentioned previously, this particular

project has had all -- a good amount of history. And what we will look at today are kind of the most recent evolution and refinement of those plume estimates. Following the original AGI number 1 well, all of the plume forecasts have been completed utilizing Schlumberger's Petrel and eclipse platforms for geologic characterization modeling and injection simulation respectively. However, they have been refined over time in that -- and rebuilt completely to incorporate things like the additional data provided by 3D seismic survey.

And so in this slide, the figure to the right shows just a three-dimensional render of the existing geologic characterization model. Which as I mentioned was, you know, really leverages the recent acquisition of 3D seismic survey data. Having those data available to us, recently we were able to characterize the reservoir utilizing seismic inversion analysis methods. Ultimately, where you're able to transform seismic data to rock properties, a method that's been very well demonstrated and successful for identifying quality reservoirs within carbonate injection zones.

These data were incorporated into this model, so porosity attributes within the model are derived from those inversion data. In evaluating the

potential impacts to the project area, we did conduct multiple simulations under conditions in which, you know, faults were transmissive to fluids, faults were non transmissive to fluids, to ultimately make sure all of the stones were turned over and ensure we understood where the potential directions of this plume could go.

Comprising the geologic characterization model that was shown in the previous slide, the model was built out to generally be subdivided into eight zones, generally based on the porosity and permeability characteristics observed. However, the model itself does contain 151 kind of sliced horizontal layers that are all informed through the seismic impedance data. The model in total is three -- almost 3.4 million cells with dimensions of approximately 165 by 165 by 10 feet.

The table to the right shows kind of the summary of characteristics of those zones, their numeric sequence, their thickness, and then the average porosity and permeability within those zones. The total model itself has an average permeability or an average porosity of 2.1 percent and average permeability of 5.1 millidarcys. And ultimately, these are based on both published literature with

respect to carbonate and dolomite permeability, available test data as well as sidewall core data and data -- history-match data from other analog AGI wells.

In this slide, we're communicating and summarizing what the distribution of that porosity and permeability looks like within the model. These two charts, panels A and B, are essentially bar charts showing a range of porosity and the percentage of cells within the model that see those porosity attributes. The same thing with permeability shown in panel B to the right, we see the permeability range -- the permeability values within the model and the percentage of sales that -- within the model that attribute those permeability values.

And just to summarize, that was -- can you go back up one more, Adam or Mr. Rankin? Up one more slide. That -- just to reiterate, that would be 2.1 percent average porosity in the model. So as I summarized, when in the earlier portions of the slide presentation, in accordance with Northwinds anticipated operating conditions, the simulation does consider a mixed acid gas stream of approximately 80 percent CO2 and 20 percent H2S. And the simulation was completed for 30 years of the Northwind activities

for those wells -- I'm sorry. Excuse me.

The model leverages ultimately has to be a little bit informed by -- with respect to acid gas density and fluid characteristics. And for determining those for this mixed acid gas stream and anticipated reservoir conditions, we utilize the NIST REFPROP software, which if you've seen other acid gas injection applications would be comparable or similar software to something like equilibrium.

For all of our simulations, wells were operated at the maximum allowable or the maximum proposed inject -- daily injection volume, ultimately, to make sure we have a most conservative estimate of the plume footprint such that we can identify all wells that may be in its path or potentially impacted by it.

This reservoir -- or this simulation also assumes the reservoir is fully saturated with brine, it doesn't consider any prior production history in accordance with the records and activities in this area. And as I mentioned earlier, we do present multiple case simulations in which faults are both transmissive or alternatively non transmissive to fluid. Ultimately, with the aims of identifying the maximum area that could be impacted.

In this slide, just summarizes those case studies where we have Titan AGI number 4 and Salt Creek AGI number 2, splitting the proposed volume with 14.4 million standard cubic feet per day being injected into each well and under fault flow conditions of both transmissive and non-transmissive. And for perspective, you know, the 28.8 million standard cubic feet, it may be a little bit difficult to envision exactly what that is. So with respect to that under reservoir conditions, that would typically equate to about 13,760 barrels per day.

So in the next two slides, we show the results of those case simulations. And you'll have to forgive me, but I believe that panel B on this slide, is switched with the panel B that should be on the next slide. But we can talk about that as we work through it. But in the panel shown to the left, the -- we show a contour map which is ultimately displaying the resultant gas saturation that we anticipate at the end of the 30-year injection scenario.

So under transmissive fault conditions, the outermost contour line would reflect the total footprint of the injection plume. And so -- and this is specifically showing concentration for the zone, the vertical interval of injection that has the

greatest aerial footprint. So these contours and concentrations of gas that we are showing do not necessarily mean that, you know, that's the concentration from top to bottom. It's just for this particular zone, which has the greatest aerial extent.

So with respect to the aerial footprint across the project area, we see -- in this simulation, we see gas extending approximately 1.8 miles from the Titan facility. In the panel to the right, we are showing a cross-sectional view of the geologic model where, again, colors from warm to cool, correspond to higher to lower resultant gas saturations. So towards looking at either map -- the map to the left or the cross section to the right, we see the highest concentrations of acid gas, of course, being towards the point of injection at the well bores and becoming more diffuse with respect to saturation as we move outwards towards the plume.

Here we see the results from the case 2 simulation, in which faults are considered to be non-transmissive to flow. So ultimately, in the immediate project area, the Salt Creek wells are not bounded in close proximity by any faults that we've seen. And so we don't really see too much restriction or fault control on the ultimate expression of the plume. We

do see a little bit of the fault impact to the north with the kind of little knot shown in the contour map where acid gases not being able to cross -- flow across that boundary, but rather has to kind of move around it. But ultimately, we see a very similar footprint.

Now for -- just for reference, the contour intervals that are shown on both of these maps, correspond to about 4 to 5 percent gas saturation. Ultimately, the model -- the simulation, we kicks out 1 percent contour intervals, but then that makes for a quite a messy little diagram to look at, so we did simplify that with displaying these.

In addition to giving us some perspective on where the injection plumes might migrate or what the ultimate impact to the subsurface is, we also want to ensure with these simulations that the operations that we propose can be completed within reasonable surface operating pressures and make sure we have the consistent ability to inject as we propose.

So in these two cross plots, we show -- which are cross plots of pressure injection rate versus time, we see that for both scenarios, fault transmissive and non-transmissive, each case injection can be maintained at 28.8 million standard cubic feet

per day all within surface injection pressures, well below the proposed maximum allowable operating pressure.

So in summary, with respect to the reservoir simulations as we -- as modeled, the proposed injection reservoir is -- appears fully capable of receiving the quantities of treated acid gas that is being proposed or specifically at a rate of up to 28.8 million standard cubic feet per day. This simulation did include a complete 30-year simulation period. Ultimately, under conservative conditions where the maximum injection volume is maintained day in and day out for 30 years, ultimately, giving us a good conservative footprint that we can ultimately ensure we know which wells these could potentially encounter.

In accordance with normal application practices, we both -- we did multiple case studies under various fault flow conditions. And in all cases, the proposed activities can be maintained within the allowable operating pressures expected. In general, the plume in both cases, because of a lack of particular restriction from any faults, we see the plume extending approximately 1.8 miles from the treatment facility.

Moving back to some of the more required

supporting materials for a C-108 application, this application and complete copies of the C-108, and as well as a letter notifying the recipient of Northwind's application, were sent via certified mail for all interested parties per the normal scheduling processes. The public notice of this hearing was issued by the Commission, as well as instructions on how to participate.

In general, the AGI Well is supportive to local oil and gas operations as it allows for increased capacity of sour gas resources, ultimately increasing royalties potentially paid to the State of New Mexico. And the proposed design of the well is fully protective of groundwater and the project's protective of correlative rights.

Just to recap and summarize some of the application. Northwind specifically requests approval to drill and operate an additional redundant Siluro-Devonian acid gas injection well as well as they seek approval for an increase in the allowable injection volume for those wells. The wells currently completed and the surface facilities have all been designed such that they can safely accommodate an injection system of this type.

All relevant interested parties have been

properly notified, there is no production within the proposed injection zone, within at least two miles of this area. And in our analysis of the low -- the subsurface and greater project area we've confirmed that the well has sufficient caprock both primary through the Woodford Shale, which is extensive in this area, as well as secondary caprock, overlying that.

The well design is fully protective of groundwater resources that are utilized in this area, and in addition to that, the total well design, which includes multiple telescoping strings of casing, provides numerous redundant physical barriers of cement and steel casing between any adjacent strata and the injection stream

Within the one-mile area of review, we do know there's one plugged and abandoned well that penetrated the injection zone. We discussed that briefly, the South Lea Federal number 1. But we have reviewed the records for that well. Seeing its kind of completion and recompletion history and understand that well to be properly plugged in a state -- in an adequate state. Within -- and I'm sure we'll talk about this and we've talked about it already, but within two miles and within the plume, there are additional penetrations that have been identified and

we have plans to monitor and ensure those wells are not risk.

Fault Slip probability, modeling and injection modeling has been completed for the proposed activities, ultimately resulting in a determination that the proposed operations are not going to contribute to an elevated risk for induced seismicity. And ultimately, our characterization and our expectations about where this plume will go, show that we'll -- we anticipate the plume extending about 1.8 miles from the Titan facility.

So ultimately, in breaking it down, Northwind seeks the Commission's approval to drill, test and operate Titan AGI number 4, as specified in their C-108 application. Which will also include approval of an increase to the combined daily injection volume for Siluro-Devonian Wells. The Silurian -- or the proposed 28.8 million as I mentioned previously, equates to approximately 13,760 barrels under reservoir conditions. Which is commonly very much lower than what we see in some salt water disposal wells, just for kind of perspective.

Northway is requesting permission to operate the well with a maximum allowable operating pressure of 5,811 PSI, which is both determined utilizing OCDs

approved methods and in accordance with the MAOP that was approved for the offsetting Salt Creek AGI number 2. In general, approval of this well will increase overall treating capacity at this area, is preventative of waste and significantly reduces the potential for flaring both at this facility and in the field.

And ultimately, prevent any atmospheric release or minimize the atmospheric release potential for any production related CO2. These wells can be operated as proposed in accordance with the results of geologic modeling and as well without producing seismicity risk. And ultimately, we'll be fully protective of groundwater and correlative rights.

Q Mr. White, just in summary in your opinion, will the granting of this application prevent waste?

A Yes.

Q And protect correlative rights?

A Yes.

Q And in your opinion, will it be protective of human health and the environment and sources of fresh water?

A Yes.

Q Thank you very much, Mr. White.

MR. RANKIN: At this time, I have no further

questions for Mr. White. It would move the admission of Exhibits A and B, and I can come back at the end -- actually, Mr. Chair, I think at this point I may just go ahead and move the admission of all the exhibits that we have -- that we've been intending to submit with the -- to the Commission. If that's acceptable, I would move the admission of Exhibits A and B which are the application and the C-108, and then the presentation that Mr. White just presented.

(NORTHWIND'S Exhibit A and B was marked for identification.)

COMMISSIONER RAZATOS: Exhibit C is a copy of the special warranty deeds that represent Northwind's -- at least part of Northwind's good faith basis for its rights to inject.

(NORTHWIND'S Exhibit C was marked for identification.)

MR. RANKIN: Exhibit D is a copy of the notice letter that went out providing notice of the application and hearing today.

(NORTHWIND'S Exhibit D was marked for identification.)

MR. RANKIN: And then Exhibit E is a copy of the notice of our affidavit and publication reflecting that we have provided notification of the hearing and

application in the newspaper, identifying each of the parties required to receive notice by name.

(NORTHWIND'S Exhibit E was marked for identification.)

MR. RANKIN: So those are exhibits D and E as well. So I would move the admission of Exhibits A, B, C, D, and E to the record.

COMMISSIONER RAZATOS: Mr. Tremaine?

MR. TREMAINE: No objection.

COMMISSIONER RAZATOS: They shall be entered.

MR. RANKIN: Thank you, Mr. Chair. I have no further questions of the witness and make him available for cross-examination.

COMMISSIONER RAZATOS: Mr. Tremaine, do you have cross-examination?

MR. TREMAINE: I do have a few questions.

COMMISSIONER RAZATOS: Could we take a break then?

MR. TREMAINE: Certainly.

COMMISSIONER RAZATOS: Okay. Let's take a 10-minute break --

MR. TREMAINE: Okay.

COMMISSIONER RAZATOS: -- and then we'll be back. Thank you.

(Off the record.)

COMMISSIONER RAZATOS: On to track here. Mr. Tremaine, you were at the cusp of cross-examining Mr. White.

MR. TREMAINE: Thank you Mr. Chair, Commission.

CROSS-EXAMINATION BY COUNSEL FOR THE DIVISION

BY MR. TREMAINE:

Q Good afternoon, Mr. White. I just have a few clarifying questions for you. So first, as a general matter, I want to ask if you agree to adopt a position stated earlier that Northwind stipulates to the conditions of release outlined in OCD Exhibit Number 2 as amended by the agreement discussed on the record earlier?

A Yes.

Q Okay. Thank you. I want to ask you a couple clarifying questions about the tag plume expansion. OCD reviewed prior records and there was a reference in Salt Creek AGI number 2 to a plume area of 138 acres. That reference -- we want to reconcile that reference with later plume modeling because it didn't appear to comport with the plume depiction. So I think the best way to do that is to have you explain to us and the Commission, exactly how and how much the plume expansion or the modeling has changed from the

Salt Creek AGI number 2, to inclusion of the Salt Creek -- or sorry, the Titan AGI number 4. What was it before and how much bigger did it get? Does that make sense?

A Yeah, absolutely. And as I mentioned previously, the history of this particular facility and acid gas injection is a long one. Going back to 2018 project development, 2019 application submitted, and so there is a long history of evaluating this site. And at the time, the application that you're referencing, was the original Salt Creek AGI number 2 application, which was originally filed on -- by Salt Creek Midstream in accordance with the Commission's requirements for the redundant well.

That original order required an application be submitted within 12 months of approval, and then construction of that well along another commission defined schedule. At that time the history of characterizing acid gas plumes was a little diverse. The reference to 138 acres is based on simply a volumetric determination where average anticipated reservoir porosity is utilized to calculate a volumetric footprint. Ultimately a scenario in which perfect displacement of water is occurring and is ultimately just a one earlier method in describing

those plumes.

That being said and recognizing that there are more sophisticated tools for characterizing acid gas plumes, that application, as well as all subsequent applications, did include also reservoir characterization and injection simulation modeling via the patrell and eclipse platforms (ph). So while that reference was in there, a complete application section also described the additional reservoir modeling and simulation.

And with respect to that, I can't recall -- I think Adam may -- Mr. Rankin may have those materials available. But the plume has increased in size from that initial as additional wells are being proposed up to the Titan AGI 4, and ultimately, the combined impacts of Salt Creek AGI number 2 and Titan AGI 4.

Q Okay. Thank you for that clarification. I want to move on to kind of reiterate questions about the additional wells. So we've heard today some discussion and some testimony about the four plugged and abandoned wells that are within the model plume. These are -- I want to clarify, these are the wells that are referenced on page 38 of Northwind's pre-hearing statement exhibits, correct? And so I just want to clarify that in discussion with the parties in

the Division that Northwind is going to comply with condition of approval number 13 in placing surface CO2 and H2S monitors at each of those locations, not inclusive of any that may be installed by agreement with Desert Ram.

A Yes, that's correct.

Q Okay. Thank you. I have one question on faults. So you testified a little while ago about the 13 observed faults and subdivided into 24 fault portions. Do you recall that?

A Yes, sir.

Q Okay. I'm referring if we need to reference to pages 30 and 51 of the exhibits, and also to figure on page 113 that you referenced earlier. The question I have is about fault number 9 listed on that sheet. And if I can pull that up -- if I can share, if that's helpful. Pardon. Oh, boy. Okay.

A (Inaudible).

Q No, it's the -- sorry. Apologize. The banners get in my way. All right. So scrolling down to the bottom here, do you see the fault listed as number 9?

A Uh-huh.

Q Okay. That particular fault is the orientation of that fault fail -- favorable for

failure?

A So with respect to the group of faults that are north to south trending, it would be more likely to slip based on the assumption of maximum horizontal stress in a North 75 East orientation.

Q Okay. And what is the extent of the fault?

A The extent -- do you mean the offset or the lateral extent?

Q Is it -- what is the length of the fault and is it a closed or open fault?

A So the -- with the -- as shown in the scale here, I mean, the length of that particular fault segment would probably be about a 10th of a mile utilizing the scale on this particular map. And I'm sorry. What was the -- is it an open or closed?

Q Is it closed or open?

A So in many cases, what we -- obviously, we haven't drilled through it or seen this fault, but in many cases where we have these deep faults, you know, these are often locations where oil and gas resources are preserved in three-way closures and things like that. So while we don't have any direct evidence of whether this is transmissive or non-transmissive, if it's isolating pressure across it or anything like that, it -- a lot of these deeper faults are often

unhealed and non-transmissive.

Q And are you confident that it is as limited laterally as is portrayed on the map?

A In accordance with our evaluation of the seismic data and the ability to identify it across those seismic volumes.

Q Okay. And apologies if you've already answered this, but was that specific fault observed in 3D seismic data or gravity maps?

A The -- these traces are reflective of our interpretation of the 3D seismic.

Q Okay. And for all of the questions that I just asked you about that particular fault, did you -- and did you include all -- consideration of all of those factors in your assessment?

A Yes.

Q Okay. Thank you. I'm going to ask you couple -- one question about the Delaware Mounting Group. So being as Salt Creek agent number 3 is currently injecting into the Delaware Mountain Group and the Titan number 4 extends through the Delaware Mountain Group zones, is it Northwind's intention that the portion of the subject well will be cemented and encased with H2S and CO2 resistant or otherwise corrosive resistant cement and string?

A Yes. And that's included in your proposed -- or the OCDs proposed conditions of approval. We have no objection to those conditions.

Q Okay. Condition number 11. Thank you. I'm going to ask you a question referring back to the Salt Creek AGI number 2. As I think you've outlined in some detail during the drilling of Salt Creek AGI number 2 well, there was a loss of circulation of drilling mud and weak cement bonds encountered during cementation during the -- in the DMG Jones and Pennsylvania Group including specific other formations. But what is Northwind's strategy for adjusting drilling mud density to avoid overbalanced drilling?

A So with respect to the down hole issues that were difficult in cementing, are -- we are currently evaluating the log data that (inaudible) sonic data to really get some well specific information about potential breakdowns and see if we need to ultimately isolate those problematic intervals with an extension of casing or whatnot. Additionally, we will plan to work with cementers to ensure that an appropriate plan is developed for that particular interval, the majority of which was observed in the third intermediate -- or the production casing interval from

the lower Wolfcamp and below.

Q Okay. Are you planning to employ managed pressure drilling while drilling through the DMG and Pennsylvanian Group sections?

A I think we would be receptive to that.

Q Okay. Thank you. All right. I have a question about Step Rate Test. So following Step Rate Test, it's our understanding that Northwind intends to stimulate reserve bound fractures, secondary porosity zones, and dissolve any natural carbonate cement. What stimulation surface pressure do you plan to utilize?

A I mean, I think it would be ultimately in accordance with what the Step Rate Test could -- would show as being within fracture pressure boundaries.

Q Thank you. One more question. Has Northwind observed any hydrate formation in the subsurface safety valves in Salt Creek AGI number 3 or any other AGI Wells operated by Northwind?

A Not that's observable. I mean, those components were installed and haven't been, you know, removed from the well. But any operating conditions that would be indicative of potential hydrate formation and perforation plugging has not been observed.

Q Okay. And -- okay. So just to clarify. Do you agree that hydrate formation can potentially occur in subsurface valves due to the (inaudible) effect?

A I haven't observed that happening.

Q Has not observed, okay. Thank you. No further questions.

COMMISSIONER RAZATOS: Mr. Rankin, did you have anything to redirect?

MR. RANKIN: Just a one small series.

REDIRECT EXAMINATION BY COUNSEL FOR THE NORTHWIND MIDSTREAM PARTNERS

BY MR. RANKIN:

Q Mr. White, Mr. Tremaine asked you a couple questions about some of the earlier volumetric simplified approaches that you undertook or GLX (ph) undertook to evaluate the plume extent for the AGI number 2. Do you recall those questions?

A Yes, I do.

Q I just want to understand the -- make sure the record is clear about the timing of when that was last presented to the Commission and what the current model for the AGI 2 is that was last presented to the Commission, just so we're clear on the timeline. So the last time that the GLX submitted that simplified volumetric approach, that was part of the analysis --

or first pass analysis of the plume extent was -- was that -- that was back in October of 2023 under Case Number 23943 involving the AGI number 2, correct?

A That's correct. And ultimately as I mentioned, that was just another method in characterizing a plume. And at -- to be clear, at that time in 2023, that characterization and that description was no longer utilized. It was included in that resubmittal of that application only because that application had previously been submitted to the OCD for technical review by Salt Creek Midstream in 2020. So we ultimately, in resubmitting that on behalf of Northwind Midstream at the NMOCD's request, we didn't want to muddy the waters by taking something they'd seen, reviewed and start changing things, you know, and ultimately muddy the water.

Q So that -- based on that application back in October, 2023, the Commission remanded that application to the Division and that was approved under SWD 2580, correct?

A That's correct.

Q But that -- but Northwind never drilled that well under that approved order and instead submitted a -- an application to amend 2580, correct?

A That is correct.

Q And in that application to amend 2580, did GLX include the simplified volumetric analysis of the plume extent?

A No, that description was not included.

Q Okay. And so in that second application to amend the AGI number 2, only the more detailed, robust plume modeling using the most up-to-date geologic data was submitted to the Division, correct?

A That's correct.

Q Okay. And then that was submitted to the Division in June of 2024, correct?

A That's correct.

Q And then it was approved by the Division under SWD 2622, correct?

A That's correct.

Q Okay. And so the most -- the current ballot order that that under which AGI number 2 operates has no reference to -- or reliance on any plume model that references 138 acres or anything on that order, correct?

A That's correct.

Q Okay. Just want to make sure the record was clear about that. No further questions.

MR. RANKIN: Excellent. Thank you. Can this witness be excused unless the Commission has

questions?

COMMISSIONER RAZATOS: Oh, sorry. Forgot. Do you have -- I -- it was a part I was forgetting about, my apologies. All right. Thank you. Commissioners. Sorry, Mr. White. Mr. Commissioner Bloom, we'll start with you.

MR. BLOOM: We'll let Dr. Ampomah go first here.

COMMISSIONER RAZATOS: Okay.

COMMISSIONER AMPOMAH: Okay. Mr. White, thanks so much for being here today. I do have a couple of questions for you, I guess probably you might have anticipated that, but hopefully we'll be quick. So I'm going to go through -- I do have questions on some of your slides. So you mentioned that the new well that has been proposed, that is AGI number 4, is going to be a deviated well. Why a deviated well?

MR. WHITE: So with Northwind's acquisition of the facility, they -- one of their ultimate goals was to better understand the subsurface and make sure prior to constructing any of these that they understood that they had the best chance of a good performing well. And so that ultimately led to their acquisition of 3D seismic data. Which both improved

our characterization of the structure as well as allowed us the opportunity to better characterize porosity and porosity interconnectivity through seismic impedance analysis.

That -- the results of that analysis showed very little porosity development directly underlying the facility. So a vertical well was a greater risk to not being able to meet the injection volumes that they desired. So Salt Creek AGI number 2, we submitted that amendment application that Mr. Rankin referenced to change from a vertical well to a deviated well. And the subsequent development of the Titan AGI 4 application also proposed a deviated well for the same anticipated problems of low porosity in a vertical well. However, another porosity anomaly to the northwest was targeted ultimately to reduce any potential interference between the two wells and separate the points of injection.

COMMISSIONER AMPOMAH: So is the -- let's say the bottom hole location, is it still on Northwind facility or land?

MR. WHITE: Yes.

COMMISSIONER AMPOMAH: Okay. Then why did -- why you -- why was it not -- like, why was the well not proposed to be drilled at that location?

MR. WHITE: At a -- as a vertical well?

COMMISSIONER AMPOMAH: Yes.

MR. WHITE: Ultimately, because the design of the Titan facility now, Northwind's facility, does centralize acid gas injection and compression and process units there. So we could -- that could be a valid move, but it's -- it tips the scales a little bit. Then you have to transmit treated acid gas at the surface where personnel are and poses a little bit more environmental risk.

COMMISSIONER AMPOMAH: Oh, so that is mostly to protect the environment and also the health of the people --

MR. WHITE: Correct.

COMMISSIONER AMPOMAH: -- that are working -- okay. Thank you.

COMMISSIONER BROOM: Okay. So Mr. Tremaine tried to discuss with you a little bit about some of the lessons learned --

MR. WHITE: Uh-huh.

COMMISSIONER BROOM: -- you know, with regards to how are you going to be able to drill through DMG Group that already do have, let's say, acid gas already in there. Do you have -- based on your responses back and forth, it sounds to me that

there's not more like a written documentation as to the process as to how Northwind is going to -- the measures that you're going to take to make sure that this world is not junk. Is there a documentation that really lays that out?

MR. WHITE: I'm sorry. Can you repeat that?

COMMISSIONER BROOM: Is the documentation that lays out the procedure to be able to incorporate all the lessons learned from the previous well to make sure --

MR. WHITE: Uh-huh.

COMMISSIONER BROOM: -- that this well is not junked?

MR. WHITE: So, so there's not any documentation at the moment. In planning the drilling activities for a Titan AGI 4, drilling plans will be developed that are -- the vehicle for submitting those to the agency would be the C-102, C-10 – C-101 application for permit to drill. So that will be a document of how we plan to address those potential hazard zones.

And as I mentioned, if we will be continuing to review the recently collected log data from AGI number 2 to see if we can better suss out exactly where those intervals of greater risk are. And if we

need to coordinate any slight change in casing setting depths or anything that -- to be able to better account for that, then we would coordinate that with the agencies and make sure that an appropriate plan is determined.

COMMISSIONER BROOM: Is it your testimony that analyst pressure is going to be utilized or considered?

MR. WHITE: In the form of MPD?

COMMISSIONER BROOM: Uh-huh.

MR. WHITE: I mean, I think I may not be the one drilling the well. So I think my testimony as to what will be utilized, you know, I may not have the ability to say, "Yes, we will utilize that."

COMMISSIONER BROOM: So would that be part of the drilling prognosis that will be discussed with NMOCD? Because there has to be a plan to make sure that, you know, we are protecting the environment --

MR. WHITE: Uh-huh.

COMMISSIONER BROOM: -- the people that are also drilling. And from the previous experience, I mean, this could be very dangerous --

MR. WHITE: Uh-huh.

COMMISSIONER BROOM: -- right? So I want to see that Northwind is committing, you know, to more or

less document the approach that they are going to utilize to make sure they minimize the risk and that needs to be more or less discussed with the Division for their approval. You know, I want to see something like that.

MR. WHITE: Yeah. And my thoughts and my testimony would be in my interactions with Northwind, my suspicion is they probably would not have any issues making that commitment and that planning and drilling this next well. However, like I said, I may not be the one involved with it, so.

COMMISSIONER BROOM: Okay. And then you talked about the maximum allowable operating pressure, just based on the information that is available today and after the Step Rate Test, that number is going to be more or less updated if necessary. Is that your testimony?

MR. WHITE: Yeah, if necessary. Obviously, if we see the results of injection testing that make that proposed pressure not a feasible or realistic, then yes. And that's -- I think the -- that language and that expectation is also included in NMOCDs conditions of approval and guidance.

COMMISSIONER BROOM: So AGI number 2 and AGI number 4, which one is the main well and which one

would be a redundant well or they are all main wells?

MR. WHITE: Well, so I think between AGI 2 and number 4, they're deep Siluro-Devonian wells, both targeting similar porosity anomalies. So I think -- ideally, I think they're run at the same time in order to maintain their operational readiness. But I think based on our results simulation and hopefully supported by operating press -- operating conditions, that either one of them could be the redundant.

COMMISSIONER BROOM: Okay. So what is the distance between AGI number 2 and AGI number 4, possibly on the bottom holes?

MR. WHITE: From the two bottom holes?

COMMISSIONER BROOM: Yeah. From the -- yeah.

MR. WHITE: This is purely from memory, but the AGI number 2 was deviated approximately 1,200 feet to the southeast. A similar deviation is anticipated, I think it might be a little longer for the Titan AGI 4. So you're probably looking at, you know, 20 -- or somewhere just shy of 3,000 feet.

COMMISSIONER BROOM: Oh, 3000 feet between them?

MR. WHITE: Between the two. Or maybe a little -- actually a little more because their surface locations are separated as well, so greater than 3,000

feet. It's probably very comparable to the separation distance between the independence AGI wells to the north.

COMMISSIONER BROOM: So the reason why -- I'm sure probably you know where I'm going with the distance between them. So when those locations were identified, was there discussion whether to more or less utilize these well separately or one is going to be dependent or more or less one is going to be redundant?

MR. WHITE: At this time, I don't think any of those discussions have been had. I think it would be, you know, ultimately based on the reservoir characteristics and their ability to receive gas rather than having something preliminary as one versus the other.

COMMISSIONER BROOM: Yeah. So let's say -- and if you can specify in your application specifically on the summary side -- specifically the distance between them, I'm more concern about the pressure interference, you know, in your simulation models, you didn't show any pressure between the two wells --

MR. WHITE: Uh-huh.

COMMISSIONER BROOM: -- from the two, let's

say, scenarios that you provided. So I don't know how that pressure is evolving, you only showed bottom low pressures, which gets to about, let's say, 9,000. But if you do the calculation for what the fracture pressure will be, you're probably around like, let's say, 11,000 PSI, but I didn't see any pressure maps to show the evolution of the pressure compared to, let's say, how you showed the CO2 or the tag gas.

MR. WHITE: Uh-huh. Yeah. And those bottom holes are reflective of, you know, point of injection. You know, just like, you know, where we might expect those pressures to be the highest at the end of the 30-year simulation.

COMMISSIONER BROOM: Let me run quickly to the simulation side, so I can at least check and go home soon. You know, and you also showed the pressure conditions using the resistivity logs and then also the sonic log. On your slide 32, you know, I really do like that pressure profile -- pressure profiles based on the logs. But my question is, which log was that? Which log did you use for that?

MR. WHITE: Mr. Rankin, could you get me the slide he's referencing?

COMMISSIONER BROOM: Slide 32.

MR. WHITE: So this -- these logs are -- this

is an excerpt from that Rittenhouse publication where he's summarizing pore-pressure and over-pressured conditions based on his analysis of those data. So this is more generally representative of the Eastern Delaware Basin.

COMMISSIONER BROOM: But not your, let's say, information from the AGI number 2, or was it 3?

MR. WHITE: Well, yeah. But AGI 2 at this time, the application was put together, was not drilled.

COMMISSIONER BROOM: I got you. I got you.

MR. WHITE: We just recently drilled it.

COMMISSIONER BROOM: I got you. I got you.

MR. WHITE: Yeah.

COMMISSIONER BROOM: I got you.

MR. WHITE: But yes. And not part of this application, so it would be something else brought in in the 11th hour, but we did just file the reservoir evaluation and some of the final documents for that well, that do have the preliminary fracture gradient analysis and things like that.

COMMISSIONER BROOM: Okay. I got you. Now on your slide number 37, you showed the averages of the porosity permeability that were utilized on the eight layers. Is this a heterogeneous model or

homogeneous model?

MR. WHITE: With respect to -- I mean, it's not homogeneous. I mean, it is the -- these are the average values for those layers, but that is heterogeneous in that it is guided by the impedance attributes

COMMISSIONER BROOM: On slide 38, quick one. So which formation are you representing here?

MR. WHITE: This is the model -- total model.

COMMISSIONER BROOM: It includes all the injection zones?

MR. WHITE: That's correct.

COMMISSIONER BROOM: And which of these target zones was taking most of the fluid -- most of the tack?

MR. WHITE: The fussman.

COMMISSIONER BROOM: The fussman. Now on slide 40, so you showed the two scenarios that you run transmissive and non-transmissive faults. Now -- so Mr. Tremaine asks about the faults that were shown, whether these are transmissive or not. You know, you present this scenario to more or less show either case scenario, it either be the worst case scenario or more promising scenario. But, you know, I know that geologists do have another way to calculate the

transmissibility. So why did you not use that, especially if you have wells within that area?

MR. WHITE: Ultimately, it's in accordance with the kind of end member conditions that are conservative that these applications are commonly presenting.

COMMISSIONER BROOM: So you don't believe that we have to use more robust approach, like, let's say using the shield guard ratio (ph), the shield stavic models (ph) to be able to get a more representative for transmissibility?

MR. WHITE: No, I'm not saying I don't -- I'm not on board with that. But it's ultimately, the question of where do you want to be able to have -- get to both end members versus are you trying to history match and get to, you know, replicate the exact, right?

COMMISSIONER BROOM: So let's use one of your maps case -- so probably slide 41. You know, if we could have superimposed the thoughts on this, you know, could have been really great. Because your case 1 and case 2, you are predicting almost the same thing --

MR. WHITE: Uh-huh.

COMMISSIONER BROOM: -- and I just want to

see that superimposed on the fault, so I can more or less visualize and be able to more or less ask more in-depth questions on that. But it's okay. How is this map that you're showing us, how is it going to change post injection?

MR. WHITE: So this would be speculative, but I mean, I would think, you know, in terms of acid gas injecting into saline fluids, there will be a buoyancy components. So structure will likely exert some control on what this does. In this area where we do see the injections are dipping to the southwest, we might expect that as it kind of reaches a stabilization point, that that does move slightly towards the east -- northeast. But ultimately, I mean, that's just kind of speculating, you know, based on the geometries of the reservoir.

COMMISSIONER BROOM: So is there no requirement with regards to post-injection monitoring for AGI wells?

MR. WHITE: Not under the UIC program in terms of --

COMMISSIONER BROOM: So once the injection is done, no monitoring will take place after that?

MR. WHITE: I mean, I think it's in -- that's going to be in accordance with the plugging and

abandonment procedures when these things are ready. Which I'm -- when ready to be brought offline. I think realistically, during those activities and appropriate monitoring plan will be in place for these types of wells.

COMMISSIONER BROOM: Okay. I think probably that would be a question for OCD, since you said it's not really a requirement. And then I like the simulation that was done, but I read through the document. So I do know that you initialized the model with 0.433 PSI per foot as a normal pressure for the reservoir pressure, right? But aside that, and then also the policy permeability, you don't have any information with regards to the initial -- initialization, how you initialize the model? I did not see any relative firm in your -- let's say, in anywhere in your document, I didn't see any of that.

MR. WHITE: Okay. I mean, those materials are available, just not included in the package of C-108 application and these presentation materials.

COMMISSIONER BROOM: Then let me ask you, what was the residual water saturation?

MR. WHITE: I mean, I don't have those values handy at the moment. I think we could probably find those, but it would be speculative for me to tell you

what the residual water saturation is.

COMMISSIONER BROOM: So on your slide 43, like I said earlier on, you showed the injection profile, you showed the BHP, that is the bottom hole pressure, you've shown the surface pressure, and then also you've shown the maximum allowable pressure. But what I do not see here is the actual reservoir pressure.

MR. WHITE: (Crosstalk).

COMMISSIONER BROOM: So can you -- yeah. Can you superimpose the actual reservoir pressure on this particular plan?

MR. WHITE: I mean, at what point? I mean, we can provide ultimately the outputs of the model. I mean, we can provide mapped reservoir pressure, but I mean, where would be the appropriate place to report reservoir pressure, upgradient (ph)?

COMMISSIONER BROOM: No, no, no. I mean, you run Eccles (ph), Eccles can show you what is the average of reservoir pressure.

MR. WHITE: Uh-huh.

COMMISSIONER BROOM: That would be the pressure for the entire model.

MR. WHITE: Okay.

COMMISSIONER BROOM: Because, you know, as I

did the calculation, your fracture pressure, and I -- let me ask. What was the fracture pressure though? What was the fracture pressure?

MR. WHITE: (Crosstalk).

COMMISSIONER BROOM: Yeah.

MR. WHITE: So in Salt Creek AGI number 2 injections testing, which went up to 10 barrels per minute, we did not identify a clear fracture pressure. And utilizing -- we didn't reach it in terms of those data. And utilizing the dipole sonic, well, we could show those curves -- or those curves are available in the final reservoir evaluation. But if I'm recalling correctly, for average fracture pressures in the Devonian basin or Fussman, they were upwards of 0.65 PSI per foot. There was a minimal point observed potentially in the top of the Devonian that went down to 0.59 according to that fracture gradient analysis. But for this particular well, that ended up behind casing.

COMMISSIONER BROOM: Yeah. Then if we did not reach the fracture pressure, what was the purpose of the step test in the first place?

MR. WHITE: Well ultimately, I mean, the purpose would be to see if we can flow volumes that we think -- that the well is being designed for through

the well under what we have approved as a maximum allowable operating pressure.

COMMISSIONER BROOM: So then was it more like -- you utilize that as more like as an injection test? More than a Step Rate Test?

MR. WHITE: Well, I mean, ultimately, we'd like to do both --

COMMISSIONER BROOM: Uh-huh.

MR. WHITE: -- but eventually, you know, within those limits of testing tubing, you know, we're -- we end up getting a lot of friction for another rate in the Step Rate Test when we start reaching 9, 10, 11 barrels per minute. And so ultimately, the objective of the test would be to try and identify exactly what that fracture pressure is, but it doesn't always happen.

COMMISSIONER BROOM: You know, definitely, in the future when you are presenting this, definitely I want to see what you are showing here, unless maybe you labeled the pressure as a BHP, probably -- that was a BHP at that particular well --

MR. WHITE: Uh-huh.

COMMISSIONER BROOM: -- that, let's say -- but which of these wells are you showing for case 1 and case 2 though?

MR. WHITE: So this would be Titan, the well (crosstalk) --

COMMISSIONER BROOM: And that (crosstalk).

MR. WHITE: -- subject of today.

COMMISSIONER BROOM: Okay. So definitely, a reservoir pressure, you know, if you go to your table, you looked at -- you showed -- now on this particular model, did you also include any additional wells in the area?

MR. WHITE: So we did not for this ultimately because the nearest wells are AGI wells about seven miles away. The one SWD well that was included in Fault Slip probability simulations is even significantly farther. So ultimately, we don't expect to have much impact on dispersion directions and -- or anything like that.

COMMISSIONER BROOM: So is it your testimony that after reviewing all the pressure profiles, the pressure at the bottom hole -- the average of reservoir pressure at the bottom hole did not exceed the 0.65 PSI per (inaudible)?

MR. WHITE: That's correct.

COMMISSIONER BROOM: But it would be great if you can show some evidence of that, you know, to, let's say, the Commission. Like I said, I do

appreciate the simulation that was done, but certainly, giving more information about how the model was set up, you know, help us to be able to fully understand. But Chair, I yield to you. I don't want to continue. I'm good.

COMMISSIONER RAZATOS: Thank you, Commissioner Broom.

MR. CHANDLER: Thank you very much for your testimony today and your time in the chair there. Just a couple quick questions. Looking at page 110 in the presentation, you mentioned the South Lea Federal number 1, noting that it's about 1.1 miles from proposed AGI well. It's the only one that goes down to that same depth into the Siluro-Devonian, it was plugged in 2015. You know, in many ways, and I think this has been mentioned here before, that AGI is also function as a carbon capture. And we've had some carbon capture legislation recently in the state, and I know there's been at least one place in the U.S. where there was communication between carbon capture well and some water wells.

Clearly the water wells here are, you know, I don't know, 16,000 feet higher or something like that. But how do we know that -- I mean, I guess two questions. One, do we anticipate, and I think we

would, that the plume will reach the South Lea Federal number 1? And then how do we know that the plugs are sufficient to be protective?

MR. WHITE: Well, I think we ultimately want to review those well documents to see what exactly was in place there. I don't think you're going to find a lot of instances where a well is plugged with some very modern acid resistance cement that's going to make you very comfortable with it. But we ultimately want to identify which wells are potentially in the path of the plume and make sure we have a good understanding of what's been put in there.

So we look for -- in evaluating those well documents, we look to see what the production history of the well was, what was done after that. In this particular well, we know that it was perforated in the Devonian, that those perforations were squeezed and that that interval was isolated via cement plugs in a cast iron bridge plug, pretty much directly overlying the Devonian. Where it was then recompleted to the Mississippian section, stranatocamaro, I think it was the Toka and ultimately served its operational life there.

From that point, we know that multiple plugs were placed in that well as it was fully completed.

So at least from that perspective, we know that, you know, this didn't just get one, what plug in a cast iron bridge plug and then it's put to bed. We know that the level of plugging was substantial. Outside of that, I think identifying it as a potential well with risk to encountering the plume, having that understanding upfront and knowing it is something that needs -- you know, we need to keep an eye on or is potentially in that path, is also what we do.

And then most recently, you know, this particular well, as we've kind of discussed here and there throughout today, we'll have surface monitoring as well that kind of help to close the loop on that. This will be one of the four penetrating wells that is referenced by the Division's conditions regarding monitoring of that well site.

MR. CHANDLER: How -- and so this -- the South Lea Federal number 1, that will be part of the monitoring program?

MR. WHITE: Yes.

MR. CHANDLER: Okay.

MR. WHITE: The four wells included in it.

MR. CHANDLER: Okay. And can you say a little bit more about what that monitoring program looks like with respect to this well?

MR. WHITE: So the monitoring program, and this is something that the Division has been helping with lately, with respect to AGI wells, but it ultimately involves around a plugged well installing soiled CO2 flux monitors. And those monitors are positioned around the wells, ultimately because they're the direct conduit, should those cement plugs fail to the zone that's being utilized for acid gas. And so ultimately, if there is issues with those wells from an integrity standpoint where they are transmitting, pass acid gas to the surface, then it would be detectable in those types of monitoring programs or identifiable.

MR. CHANDLER: So is it the hydrogen sulfide that would trigger an alarm and then there's a shutdown or how does that work?

MR. WHITE: So in this case, the monitoring that is proposed is -- would -- or those soil monitors would be carbon dioxide. Those hydrogen sulfide detectors are commonly utilized at gas facilities and could also be a component of that monitoring system.

MR. CHANDLER: Okay. Thank you.

COMMISSIONER RAZATOS: And that just leaves me. I -- Commissioner Bloom actually kind of hit the questions that I had regarding the Lea Federal, so

thank you for that also, and thank you for your testimony today. Mr. Rankin, do you mind bringing up, I believe it was slide 40 and 41 or 41 and 42, which were the plume models? Nope, that's okay. I apologize. I may have the wrong number. Perfect.

So between these two case simulation results, on case number 1, you stated that the approximate predicted plume would be about 1.8 miles from the Titan treating a facility --

MR. WHITE: Uh-huh.

COMMISSIONER RAZATOS: -- and I understood that one. In number 2, the part I didn't quite catch in the testimony is that case number 2 also 1.8 miles from the treating facility as a plume?

MR. WHITE: Yeah, ultimately. And, you know, measuring it more precisely, it may differ, it may not be exact. But ultimately, there -- while there are faults in the area, they're not, you know, significantly continuous big walls that are going to significantly deflect which way the plume is going. So there are faults in the area, but none of them are particularly restricted or restrictive of flow at the location of the well.

So we see the morphology or the shape of the footprint of the plume looking very similar between

the two of them. Where it does encounter with what Mr. Rankin has up showing right now, where this simulation, which is under faults being non transmissive to fluids, we do see some deflection of the plume a little bit --

COMMISSIONER RAZATOS: Uh-huh.

MR. WHITE: -- where it does get in in proximity to those faults. But in general, the immediate area doesn't really have any big walls that would prevent, you know, normal kind of displacement of those gases.

COMMISSIONER RAZATOS: Okay. Thank you. That's the only question I had.

COMMISSIONER BROOM: Mr. Chair?

COMMISSIONER RAZATOS: Yes, Commissioner?

COMMISSIONER BROOM: I do have one. So looking at this and then also the faults, can you tell us, you know, how you set the fault in your model? What was the vertical displacement of your fault in your model?

MR. WHITE: So you can see, if you were to go back -- Mr. Rankin, if you could go back to the 3D render of the model. So the top layer is essentially informed by -- oh, can you keep going back? So there was one slide, I don't know what figure it is, but it

shows a screen capture of the model -- the 3D -- yeah. So you can see how the seismic data you can see kind of faults in the area and how those seismic surfaces are character -- showing those faults.

COMMISSIONER BROOM: Well, so what is the top layer though, the one blue? What is that?

MR. WHITE: So that would be the zone one of the model. So from the structural grid, the model was just built down evenly based on those thicknesses.

COMMISSIONER BROOM: So the Devonian -- the Woodford is now shown here.

MR. WHITE: Yeah. This shows the top -- this is an -- render showing the top of the Siluro-Devonian. So the Woodford Devonian interface.

COMMISSIONER BROOM: But I remember Mr. Tremaine asked you about the lateral -- or let's say the extent of the fault you -- and even in your testimony you're saying that the fault does not go through the Devonian -- the Woodford, right? You said it doesn't go to the top rock. So where does it get to?

MR. WHITE: No, I said it doesn't displace it. It's not offsetting strata greater than the thickness of the Woodford. So it's not --

COMMISSIONER BROOM: I thought I heard that -

- no even I read that -- and I don't want to delay, but essentially, based on the exchange between you and Mr. Tremaine, it was more like the fault doesn't go through the Devonian -- the Woodford. That was my understanding. Because if you look at this, and then you're saying that that is the top of the Devonian, then right there you can see the displacement right there. So there's a high possibility that some of the faults are cutting through the Woodford.

MR. WHITE: Yeah. And that's kind of characteristic of many of these deep faults, often go through the Woodford and die out in the Mississippian or something like that. But what -- what's critical is -- or one thing that we want to make sure of is that the throw on that fault doesn't exceed the thickness of the Woodford, so that over the project area you're not in replacing, you know, porous Devonian strata, you know, next to your -- offsetting your caprock.

COMMISSIONER BROOM: But you didn't show any testimony to show us, in terms of vertical sense, where there's the plume -- I think you had one plot that was showing the extent vertically of the plume. Would that be correct? I think you had --

MR. WHITE: Yeah. There's cross-section of

the (crosstalk).

COMMISSIONER BROOM: Yeah. There's cross-section. So let's go to one of the cross-sections. So definitely, you'll see the CO2, right? Assuming that is the top of the Devonian or which one?

MR. WHITE: (Crosstalk) zone. Uh-huh.

COMMISSIONER BROOM: No, on the right. So the top will be what?

MR. WHITE: The top of the injection zone (crosstalk).

COMMISSIONER BROOM: But you see right at the top, so I wanted to see if you can superimpose the Woodford right on there so we can see whether there is any vertical migration of your plume into the Woodford and at what point does it stop? Is it going above the Woodford?

MR. WHITE: Well, I think for this particular model, that wasn't incorporated into it. We -- you know, the Woodford itself is a, you know, well demonstrated in terms of confinement. But this particular model did not include the overlying Woodford.

COMMISSIONER BROOM: Then you are making -- so then that is where you're confusing me. Because your model, you just built it right from the Devonian

without any caprock on top of it. And then we say that there is a fault that can probably penetrate through the Woodford, and we want to know whether that's -- that tag is going to be contained or not. But this model is not really showing. That right at the top, you'll see that right at the Woodford interface, assuming the Woodford is there, you just build a model based on the injection zone without any caprock in there. So you are not showing us the extent of the vertical migration of your plume. So how does this model help us with containment?

MR. WHITE: Well, I think the primary objective of the model being to understand tag -- or tag displacement within the injection zone, I think it's not -- it -- in this form, it doesn't consider variabilities in the caprock, but rather relies on the demonstrated nature of -- or the demonstrated performance of the Woodford in the Permian.

COMMISSIONER BROOM: So in this area, is there any activity in the Woodford that you know of?

MR. WHITE: In terms of production?

COMMISSIONER BROOM: Yeah.

MR. WHITE: No.

COMMISSIONER BROOM: No. But no horizontal wells --

MR. WHITE: No.

COMMISSIONER BROOM: -- in this area? Well, I don't know how an NMOCD looked at this, but I mean, if you look at right on top, and it's good that the Chair brought it up, you see right top here you have the tag saturation, and we do have faults that can penetrate through that. And we are not seeing how those faults in the -- on the Woodford, how is shaping up the plume. So I don't know how this model shows us the containment of the tag.

Especially right on top, you'll see that it is of higher saturation, you know, above 30 percent, so I'm not sure how this model helps us with containment. But let me say that in subsequent updates, definitely you need to add a caprock to it and show us, you know, the faults, how the plume of the tag, you know, is responding to that of the faults.

MR. WHITE: Yeah.

COMMISSIONER BROOM: Thank you.

COMMISSIONER RAZATOS: Okay. It's been a long one. I have no other questions, I think from the Commission for Mr. White. Can Mr. White be excused now?

MR. RANKIN: No questions for me.

COMMISSIONER RAZATOS: Okay.

MR. TREMAINE: Yes.

COMMISSIONER RAZATOS: Excellent. Mr. White, thank you. Appreciate it. Let's take a five-minute break and then we'll get with the OCD. We'll be back at 3:51.

(Off the record.)

COMMISSIONER RAZATOS: Okay. We'll get back on the record. Mr. Rankin, were there any other witnesses that you had for today?

MR. RANKIN: We had no other witnesses Mr. Chair. So we close our case and I'll allow for other parties to present their cases.

COMMISSIONER RAZATOS: Excellent. Thank you. Mr. Tremaine?

MR. TREMAINE: Thank you, Mr. Chair. The Division would call Mr. Million Gebremichael.

COMMISSIONER RAZATOS: Excellent. Mr. Gebremichael, if you'll come up, please.

MR. GEBREMICHAEL: Yes, sir.

COMMISSIONER RAZATOS: You can take your (inaudible). Please don't forget to turn on the microphone. Excellent. And Mr. Chandler will swear you in.

MR. CHANDLER: Please raise your right hand.

WHEREUPON,

MILLION GEBREMICHAEL,

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

MR. CHANDLER: Can you state your name and spell your name?

MR. GEBREMICHAEL: My name is Million Gebremichael. Spelled M-I-L-L-I-O-N. And last name is G-E-B-R-E-M-I-C-H-A-E-L.

MR. CHANDLER: Thank you.

COMMISSIONER RAZATOS: Mr. Germaine, he's been sworn in.

MR. TREMAINE: Thank you, Mr. Chair, Commissioners.

DIRECT EXAMINATION BY COUNSEL FOR THE DIVISION

BY MR. TREMAINE:

Q Good afternoon, Mr. Gebremichael. Mr. Gebremichael, where do you work and what is your position?

A I work for the Energy Minerals and the Natural Resource Department, as part of the group responsible oversight for the Underground Ejection Control Program for Oil and Gas Conservation Division.

Q And did you prepare a curriculum vitae in

preparation for this hearing?

A Yes, I did.

Q Is that OCD Exhibit Number 3?

A Yes, sir.

Q Have you testified before the Commission before?

A Yes, I did.

Q And have you been tendered and -- as -- and admitted as an expert in the areas of petroleum engineering previously by the Commission?

A Yes.

MR. TREMAINE: If there's no objection, I would move admission of OCD Exhibit Number 3 and tender Mr. Gebremichael as an expert in the area of petroleum engineering.

MR. RANKIN: No objection.

COMMISSIONER RAZATOS: Okay. It -- now it shall be entered.

(OCD'S Exhibit 3 was marked for identification.)

COMMISSIONER RAZATOS: Mr. Gebremichael, can we just have your microphone just a little lower so it'll be closer to your mouth? Thank you.

BY MR. TREMAINE:

Q Mr. Gebremichael, have you reviewed the

application and submission by Northwind related to the Titan AGI number 4 application?

A Yes.

Q And what is your summary opinion of the application?

A The Northwind Midstream Partners application to the injection -- the tag into the Siluro-Devonian formation through Titan Number 4, is designed to ensure safe and effective injection. The acquisition of well -- tailored 3D seismic data for the injection project area, addresses concern regarding the presence of faults that would be impacted by the injection pressure and then lead to the induced seismicity.

Additionally, Northwind's proposed use of managed pressure drilling will significantly reduce the likelihood of the weather under balance or over balance conditions while drilling. Constructing the well with premium H2S, CO2 resistant cement and strings will ensure that the well will inject safe in an efficient manner.

Q Mr. Gebremichael, were there -- did OCD have any concerns with the application and the proposed location and depth of the proposed AGI well the Titan number 4?

A Yes. Part of our concern was addressed

during the testimony, but the plume model constructed by Northwind for Salt Creek AGI number 2, covers an area of 138 acres, while the resultant plume expansion for both Salty Creek AGI number 2 and the Titan AGI number 4, is estimated to be 5.22 square miles, which is e equivalent to 3,328 acres.

The 24-fold expansion of the plume upon adding the new subject well requires a detailed explanation, but I am afraid it was explained adequately. Furthermore, there are four plagued wells that penetrate the Devonian or the injection zone of the subject well. These wells are located between 1 to 2 miles from the bottom hole subject well were constructed and abandoned using non H2S and then non CO2 resistant strings and cement. So OCD believes that the tag eventually would migrate through those wells. So as a condition of approval, OCD will require Northwind to regularly monitor those wells for any presence of tag plume at the surface.

Also, the OCD would like them to integrate those into their H2S contingency plan. Both the Northwind, also the owners of the abandoned wells, it has to be integrated in their H2S contingency plan.

Q Thank you. Mr. Gebremichael, did you prepare OCD Exhibit Number 1, a summary of USC Class II acid

gas injection wells?

A Yes, I did.

Q And what was the purpose of preparing OCD's Exhibit Number 1?

A Well, the purpose is it reflects -- it mirrors what the Northwind expert explained, the timeline between the wells to avoid any confusion with the sequence of numerical numbers, AGI 1, AGI 2, AGI 3. Basically, AGI 3 is AGI -- the abandoned AGI number 1 once got abandoned. So they had to drill AGI number 3, 120 feet away from the abandoned well, so they have to change the name to AGI number 3.

So the reason we prepared that timeline is to clarify to the Commission, which well is plugged and abandoned, which is AGI number 1, and then which well is actively injecting, which is AGI number 3, which is the Delaware Mountain Group 1, right. Which is the shallowest one. And then AGI number 2, just got -- it went through the MIT and then it just got completed. And then AGI Titan number 4, is the subject we're discussing, and then the authority to inject hasn't been granted yet. So the whole purpose is to clarify to the Commission what those sequence numbers are.

Q Mr. Gebremichael, you heard the testimony earlier today of Mr. David White. Is there any part

of his testimony or explanation that needs to be clarified or -- in terms of what you just explained or any other content on that slide that you need to bring to the attention of the Commission?

A Yeah. There are quite a few of them. For instance, the one that was requested by the Commission Member, Dr. Ampomah, is the nature of the fault number 9 that we discussed. We -- OCD would like to know the full nature of that fault in terms of its extent, in terms of its orientation, to address the question, whether it cuts through the Woodford or not. We really need to know a full detail nature of that fault.

Q Okay. Thank you for that, Mr. Gebremichael. I think I asked a poorly constructed question. In terms of the timeline and understanding of the process of the permitting of these wells, the content of OCD Exhibit Number 1, do you have any discrepancies between your understanding and what was presented earlier?

A No.

Q Do we need to go over that?

A No.

Q Okay.

A Sorry.

Q Thank you. Did you also prepare for this exhibit OCD -- or for this hearing OCD Exhibit Number 2?

A Yes.

Q And what is the content of OCD Exhibit Number 2?

A Well, the content number 2 is the condition of approval for AGI wells. The Commission is aware of our regular condition of approvals for AGI wells. Except for this subject well, we added three new conditions, which are condition number 3. Condition number 3 is about the assignment of the maximum surface injection pressure will be determined after the operator conducts a Step Rate Test. And then we also going to subtract at 10 percent of safety factor as depicted in the Step Rate Test graph pressure versus rate.

So the other also we added is also the injection rate will be depending on the outcome of the Step Rate pressure. So if you go to the graph, once you locate the pressure, the corresponding rate is going to be the maximum injection rate. If you would like me to clarify this. What I meant is the operator is requesting a 28.8 million per day, right? However, it will be determined based on the Step Rate Test.

Once you find your fracture gradient determine the maximum pressure, the corresponding rate is going to be the rate.

Q So, Mr. Gebremichael, let me clarify for a second. So the Exhibit Number 2, in general, are conditions of approval that OCD has recommended before and that the Commission has reviewed before in prior AGI applications, correct?

A Exactly.

Q Okay. And condition number 3, as you just outlined, that's a new condition, and you just explained that, correct?

A Yes, sir.

Q Okay. Are there -- is condition number 11 is that a new condition?

A It is a new condition given the situation that we have a shallower well, the AGI Number 3, which is injecting into a Delaware Mountain Group. And also, we have a subject well, that goes through the Delaware Mountain Group. So the subject well will be subjected by that active injections zone at the Delaware Mountain Group, and then OCD is recommending that part of the well covered with corrosion resistance alloys and then corrosion resistance cement.

Q Okay. Thank you. Are there any other -- I believe you referenced three. What's the other new or modified condition?

A Well, there is condition number 13 as well.

Q Could you please explain that one for the Commission?

A So the condition number 13 is given the nature of the project area. As we mentioned earlier, we have four plugged wells. And then the Commission -- the Division is requesting that a surface monitoring of CO2, H2S being deployed, and then also this procedure integrated in their H2S contingency platform.

Q Okay. Mr. Gebremichael, I believe that you heard -- would've heard earlier today the discussion of the party's agreement to modify the monitoring plan and condition number 18. In terms of the rate – actually, I should split those up. So I believe, did you hear the testimony or discussion about modifying the placement of additional surface monitoring?

A Yes, I did. And then we concur with that increasing the frequency of updating the plume model. Traditionally, we have it every five years, but given the situation in lieu of having a monitoring well by updating the plume model every two years, would help

us to monitor the plume gross.

Q Great. Thank you. So that's in respect to condition number 18 modification?

A Yes.

Q And does OCD have any concerns with the placement of an -- any additional surface monitoring equipment at the water wells that were discussed earlier?

A No, we don't. We don't. It an abundance of precaution and then we agree with that one.

Q Okay. Is there anything else in OCDs conditions of approval, OCD Exhibit Number 2, that you need to bring to the attention of the Commission?

A No.

MR. TREMAINE: Okay. At this time, Mr. Chair, I would move admission of OCD Exhibit Number 1 and OCD Exhibit Number 2.

COMMISSIONER RAZATOS: Mr. Rankin?

MR. RANKIN: No objection.

COMMISSIONER RAZATOS: Okay. It shall be admitted.

(OCD'S Exhibits 1 and 2 was marked for identification.)

MR. TREMAINE: One moment, Mr. Chair.

BY MR. TREMAINE:

Q Mr. Gebremichael, what -- when you review an application such as the AGI application for the Titan AGI number 4, what standard of review do you apply and what -- in your role, what are you evaluating the application for?

A So we review the application that it protects, you know, the correlative rights and then protects, you know, health and property, and then the natural resources. Those are the standards that we put.

Q Okay. And we've talked through the exhibits already. In OCD Exhibit Number 2., so you -- and those have been admitted. Do you believe that the -- after your review, the content of the application and including the conditions of approval listed in OCD Exhibit Number 2 that an order and permit will be protective of correlative rights, public health in the environment, including underground sources of drinking water?

A Yes.

MR. TREMAINE: And those are my questions in direct. Nothing further.

COMMISSIONER RAZATOS: Excellent. Mr. Rankin?

MR. RANKIN: I have no questions of Mr.

Gebremichael.

COMMISSIONER RAZATOS: Okay. Thank you. Commissioners?

COMMISSIONER AMPOMAH: Mr. Chair, I do have a few. Thank you so much for your testimony. So I just want to start with the condition number 3. And you've explained to us with regards to after the Step Rate Test, you're going to make that is when the maximum surface injection pressure, and even the rate is going to be more or less settled. Not necessarily what is being proposed today.

MR. GEBREMICHAEL: Yes, sir.

COMMISSIONER AMPOMAH: Now based on Mr. White's testimony, he talked about the -- just the well that they just drilled, right? When they did a Step Rate Test, they did not get to the fracture pressure. So when that instance happens --

MR. GEBREMICHAEL: What we --

COMMISSIONER AMPOMAH: -- what happens to number 3?

MR. GEBREMICHAEL: Yeah. So what we did with Salt Creek number 2 is it does happen sometimes. You could reach a maximum pressure and then you don't notice the breakdown of the formation. So what we did is we asked them to provide us with a poisons ratio.

Based on the poisons ratio, and then offsetting well fracture grading in the past. Actually, the Salt Creek AGI number 2, the fractured gradient was in par with the historical offsetting wells and then it agree also with the poisonous ratio. So 0.67 is an acceptable fracture gradient.

So what makes it different to this one is, so now once you have that fracture gradient and then you calculate your maximum pressure, the corresponding rate on the X axis is going to be your rate. And then our experience from AGI number 2 -- Salt Creek number 2, is that rate is actually, is even higher than what they are requesting.

COMMISSIONER AMPOMAH: There's more room there, okay.

MR. GEBREMICHAEL: There's more room there to wiggle. That's why we take that 10 percent safety factor. You know we deducted 10 percent safety factor always.

COMMISSIONER AMPOMAH: Okay. So you -- I believe you reviewed the model. Do you believe this model is sufficient, you know, to be able to answer questions like the faults --

MR. GEBREMICHAEL: Faults.

COMMISSIONER AMPOMAH: -- the plume movement,

and more or less like the containment?

MR. GEBREMICHAEL: I do agree with your assessment, Mr. Commissioner, in terms of including the Woodford or integrating in part of the model. The reason why we ask that fault number 9 that we mentioned, is we really want to know the extent, you know, its orientation, its lengths, whether it's sealed fault or an open fault. If we know the extent of that fault, we would have a good idea whether it's going to cut through the 370 feet of Woodford confining or not. So that was the question that we asked. So in the future, it would be prudent to add the confining zone part of the modeling.

COMMISSIONER AMPOMAH: Okay. So is your testimony that for today it is not a concern, but we can push it to next two years when they do the update on the model?

MR. GEBREMICHAEL: Yes, I would. It's not a concern because of what we have seen with Salt Creek number 2, other AGI wells. We believe the Woodford provides sufficient, but that changes with your 3D seismicity. When new 3D seismics come, and then they identify new faults, you really want to learn the nature of those faults. And this scenario, the question that we posed, OCD would like to really know

the nature of that fault.

COMMISSIONER AMPOMAH: Okay. So I went back and forth with Mr. White about the plume extent, you know, that he showed with transmissive and the non-transmissive faults. Now this is at the end of 30 years, but it's generally a concern, you know, like in terms of the monitoring. So as part of the AGIs, NMOCD doesn't require the monitoring post injection.

MR. GEBREMICHAEL: Yeah. That -- basically, a post injection to us is when they cease injecting the well is being plugged and abandoned.

COMMISSIONER AMPOMAH: But, you know, in the model, it's not shown when the tag is going to stop moving even after the injection.

MR. GEBREMICHAEL: It doesn't. That is something we really need to implement in our future requirements, yeah.

COMMISSIONER AMPOMAH: So would you -- is this something that you're more or less telling the Commission that you're going to look into it?

MR. GEBREMICHAEL: Yes. Our understanding in the past was the, you know, tagging and abandoning the well would sequester it and then stop it moving. But it's something that we can consider, yeah.

COMMISSIONER AMPOMAH: Okay. And then I will

also suggest that in future applications, at least, they have -- let's say you plug the well at the end of the injection, but the plume, they need to show us when is the plume going to stop? You know, because if the plume is still moving after, let's say, you've shut the well and everything is all, let's say, plugged, where is that plume going? Is it --

MR. GEBREMICHAEL: Yes. Even the nature of the CO2 buoyancy nature, it's not going to be an easy fit, but it's something that we could ask the operators and then the Division to come up with some kind of monitoring and post injection, yeah.

COMMISSIONER AMPOMAH: Okay. Thank you, sir. Thank you.

MR. GEBREMICHAEL: Yeah.

COMMISSIONER RAZATOS: Thank you, Commissioner. Commissioner Bloom?

COMMISSIONER BROOM: No questions. Thank you.

COMMISSIONER RAZATOS: Okay. Thank you, Commissioner. Mr. Gebremichael, just so, like, the Commission understands, just to solidify it. With the proposed injection rates and with the components of -- that the OCD has put into place to make sure that this works out, you think that public safety is maintained

-- correlative rights are maintained, that this model will suffice and provide what this Commission would be concerned with from now and potentially into the future?

MR. GEBREMICHAEL: Yes.

COMMISSIONER RAZATOS: Okay. That's my only question as well. There's no other -- Mr. Tremaine, no other questions. Mr. Rankin?

MR. RANKIN: No. I appreciate the opportunity.

COMMISSIONER RAZATOS: Excellent. May Mr. Gebremichael be excused?

MR. TREMAINE: Yes.

COMMISSIONER RAZATOS: Okay. Excellent. So now Commissioners, we just need to decide what we want to do, correct? You may step down. Sorry, Mr. Gebremichael, my apologies. Okay. Commissioners, I guess, do we -- the question is, is there a motion to approve the way it was provided to us? And if so, can I get a motion for it?

COMMISSIONER BROOM: Mr. Chair, I move to approve the permit in this case.

COMMISSIONER RAZATOS: Okay.

COMMISSIONER AMPOMAH: Mr. Chair, I second.

COMMISSIONER RAZATOS: Okay. So the permit

will be approved with the conditions that were set out by the OCD. Mr. Tremaine?

MR. TREMAINE: Point of information. I think the Commission may want to consider a motion to approve with the conditions, but as -- but with condition number eight, modified to reflect a two-year modeling. We have not during the day modified condition number 18 as far as the submission and that's the five years. The agreement of the other parties was to modify condition number 18 to reflect the two-year modeling period.

COMMISSIONER RAZATOS: My apologies. I thought we did that this morning. So okay. With modified -- we can modify in number 8 or number 18?

MR. TREMAINE: Eighteen.

COMMISSIONER RAZATOS: Okay.

MR. TREMAINE: I may have misunderstood. I just wanted to be clear for the record, Mr. Chair. Because when you referenced the exhibit as submitted, it still says five years.

COMMISSIONER RAZATOS: Okay. So with the modification for number 18, so we will do with -- what the OCD submitted with the modification for number 18 to two years instead of five years. Just to make sure that we're all on the same page. Mr. Termaine, did I

say that correctly?

MR. TREMAINE: I believe so.

COMMISSIONER RAZATOS: Okay. Mr. Rankin, you agree?

MR. RANKIN: I do.

COMMISSIONER RAZATOS: Okay. Commissioners?

MR. CHANDLER: Mr. Chair, I'm wondering if we want to see a draft order and then perhaps approve it at the next meeting and sign after? Or perhaps trying to think of another way to do this -- to finish the business today. Perhaps an order is drafted and we review. Sheila could typically send it to us to sign, if we want to do it that way. I'm not quite sure what your preference is.

COMMISSIONER RAZATOS: Suggestion from the parties.

MR. RANKIN: Well, in the old days Mr. Chair, we would draft a proposed order for the Commission to consider after sharing it with the parties and getting their input. And in order to facilitate the work of the Commission and Commission Council, I'm more than happy to work with Mr. Tremaine and get a draft proposed order submitted in advance of the next commission meeting so that the Commission may consider the proposed order and adopt -- or adopt with

modifications at the next regular scheduled commission meeting.

COMMISSIONER RAZATOS: Thank you. Mr. Tremaine?

MR. TREMAINE: We concur.

COMMISSIONER RAZATOS: Okay. Excellent. Mr. Rankin, if you don't mind doing that, that would be great. Did you want us -- did you want the Commission to hear it at the April 7th at the beginning of that or -- because then there is no other April ones, it would go out to May, so it depends. I want to just make sure we solidify that.

MR. RANKIN: Yeah. I know. I guess --

COMMISSIONER RAZATOS: And you're in the April 7th one as well?

MR. RANKIN: I am. There's a lot going on between now and then.

COMMISSIONER RAZATOS: No stress.

MR. RANKIN: Yeah. I wonder, you know, there is a second week in April.

COMMISSIONER RAZATOS: I'm happy to tack it onto the second week as well, if you want the beginning of the second week in April.

MR. RANKIN: And I'm sure the -- I'm sure Northwind wouldn't mind have an order sooner than

later. And so I -- if possible, just to give a little bit of breathing room if we would be authorized or permitted to submit a draft proposal order in advance for consideration during one of the mornings of the April 21st week of the Commission's meeting --

COMMISSIONER RAZATOS: Mr. --

MR. RANKIN: -- (crosstalk) ideal.

COMMISSIONER RAZATOS: Mr. Tremaine?

MR. TREMAINE: No objection.

COMMISSIONER RAZATOS: So let's do it for that Monday the 21st. We can start it off -- we'll consider this one right off the that.

MR. RANKIN: I appreciate the consideration. Thank you.

COMMISSIONER RAZATOS: No problem. I realize you have a lot on your plate right at the moment, so. If there's nothing else for this particular case, Mr. Tremaine, you had the finger on the button, so I'm just looking.

MR. TREMAINE: Nothing else.

COMMISSIONER RAZATOS: Okay. Mr. Rankin?

MR. RANKIN: Appreciate the Commission's attention and engagement in this case and consideration of the application, and we look forward to getting you guys a draft proposed order.

COMMISSIONER RAZATOS: Excellent. Thank you. Okay. So we're done with that part of this meeting. There's no -- Mr. Chandler, is there any pending litigation right at the moment?

MR. CHANDLER: No.

COMMISSIONER RAZATOS: Okay. There's no other business. Our next meeting is April the 7th through the 11th of 2025. So if there's nothing else to bring up, this meeting is adjourned for today. Thank you, everybody. We appreciate it. Have a good rest of the day. And those on the platform, we thank you as well.

(Whereupon, the proceeding was concluded.)

CERTIFICATE OF TRANSCRIBER

I, LLOYD BASS, 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.

May 27, 2025

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