STATE OF NEW MEXICO

OIL CONSERVATION COMMISSION

Status Conference for Case Numbers: 14720, 23463, 23294, 23464

VIDEOCONFERENCE OIL CONSERVATION MEETING/HEARING

DATE: Thursday, May 11, 2023

TIME: 9:00 a.m.

BEFORE: Chair Dylan Fuge

LOCATION: New Mexico State Capital
490 Old Santa Fe Trail
Santa Fe, New Mexico

REPORTED BY: Dana Fulton, Notary Public

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A P P E A R A N C E S

ON BEHALF OF NEW MEXICO OIL CONSERVATION COMMISSION:

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A P P E A R A N C E S (Cont'd.)

ALSO PRESENT:

Dylan Fuge, Chairman
Greg Bloom, Commissioner
William Ampomah, Commissioner
Jesse Tremaine
Brandon Powell
Melissa Troutman
-- Brent
Sophia Jenkins Nieto
Soni Grant
Mary R.
Katherine Akramen
Bianca Sopoci-Belknap
Elizabeth West
Joni Arends
Dana Hardy
Deana Bennett
John Nicholson
David White
Million Gebremichael
Katherine Shera
Jiawei Tu

I N D E X

E X H I B I T S

NO.	DESCRIPTION	ID/EVD
Targa:		
Exhibit 1	Red Hills AGI #1 Data	57/66

NO.	DESCRIPTION	ID/EVD
OCD:		
Exhibit 1	OCD Recommendations	73/74
Exhibit 2	New Mexico AGI Well Activities	77/77
Exhibit 3	Curriculum Vitae	70/72

NO.	DESCRIPTION	ID/EVD
Salt Creek:		
Exhibit A	Case 23294 Extension Request	101/108
Exhibit B	Case 23464 Extension Request	101/108
Exhibit C	Salt Creek Presentation	103/108
Exhibit D	Drafts of Notification Documents and Proof of Delivery	137/141

P R O C E E D I N G S

CHAIRMAN FUGE: Meeting of the New Mexico Oil Conservation Commission. Little after 9 a.m. We're doing it in a hybrid format. Folks are -- folks, including witnesses, are participating online. Commissioner Bloom, reporting for the record -- it was impossible for him to attend in person, so he is participating telephonically. And with that, I'll do a quick roll call.

Commissioner Bloom?

COMMISSIONER BLOOM: Present.

CHAIRMAN FUGE: Commissioner Ampomah?

COMMISSIONER AMPOMAH: Present.

CHAIRMAN FUGE: Okay. We're going to move to the first item on the agenda, which is approval for the agenda of this meeting, May 11, 2023. Unless any of my fellow commissioners have any additions or subtractions, I'm looking for a motion to approve?

COMMISSIONER BLOOM: I so move.

CHAIRMAN FUGE: Any objection? Otherwise, we'll let the record reflect the minutes of the agenda was approved unanimously. In advance of the meeting, the minutes from our April 13, 2023, meeting were circulated. Are there any additions,

comments, from my fellow commissioners? If not, can I get a motion to approve the minutes?

COMMISSIONER BLOOM: Mr. Chair, I so move.

CHAIRMAN FUGE: Seeing no objection, let the record reflect that the minutes were approved unanimously. We're going to move to the first item on the agenda, which is a report from the Oil Conservation Division to the Commission concerning division enforcement activities, and it's my understanding that that presentation will be given by Brandon Powell, Deputy Director Engineering and Environmental, and Jesse Tremaine, Counsel --, that's Counsel to the Oil Conservation Division.

Mr. Powell, Mr. Tremaine; are you ready?

MR. TREMAINE: This is Jesse Tremaine from the Oil Conservation Division. Mr. Chair, I am ready, and Mr. Powell's attending by Webex.

CHAIRMAN FUGE: Mr. Tremaine, you can bend that mic down to level. Yeah. Or you can use the hand cone.

Mr. Powell, you should have the ability to share.

MR. POWELL: Okay. Shared. Can you

see my presentation?

CHAIRMAN FUGE: Not yet.

MR. POWELL: One more button. Sorry about that.

CHAIRMAN FUGE: There we go. We'll make a copy of the slides available after the presentation and the meetings being reported. We can -- so both area available. There's an audio question, so I'm going to pause for a second before you get started and use the polycom here to hopefully connect folks to the meeting to make it a little easier to hear. Bear with me one second.

Okay. That's not going to help. Everyone, we'll speak up, and please make sure you're using the mics that are on -- I'll make sure the mics are on up here at the dais.

Mr. Powell, turning it back over to you.

MR. POWELL: Good morning, Chair and commissioners. Thank you for having us. We put together this slide based on comments that we received. We thought -- felt it would be helpful to provide a more general outline of OCD's authority, and what we do and don't do. We will directly address releases and enforcement actions as we move through

this presentation.

As we get through the presentation, there'll be a few slides that Mr. Tremaine will present and go through, and we'll make that movement through and then take questions from the Commission as you would like. As stated before, I'm Deputy Director Brandon Powell. And we'll get started.

First thing I'd like to show is OCD's authority to, according to the Act -- most of OCD's authority comes from the Oil and Gas Act, although OCD does have some responsibilities under the Water Quality Act. OCD's primary charge under the Act is prevention of waste and protection of correlative rights.

Two of these items that are in the Act are: Waste is prohibited, and then it describes the types of waste as underground waste and as surface waste. While surface waste is something that's commonly understood because you can see it, underground waste is also very important as OCD's rules ensure minerals are produced properly, which includes them being isolated from other formations including freshwater formations.

Freshwater formations are detrimental to production, as they can flood out the production or

have a negative impact on oil formations themselves. This isolation in turn provides protection to the groundwater formations.

So as you'll see through this presentation, there are times when there's going to be direct rule references that effect protection of both the surface and the environment, and then there'll also be indirect things that protect it.

Just an overview of the state and jurisdictional overview, New Mexico has a very diverse land and mineral ownership landscape. Production occurs on the following mineral types. There's federal lands, tribal lands, state lands, and private lands. The map on the right shows the different land ownerships in New Mexico. It's a very diverse state as far as ownership.

For federal lands, OCD has concurrent jurisdiction. That means OCD shares jurisdiction on these wells with the BLM. For these wells, BLM provides initial reviews and OCD performs the subsequent review and approval. OCD can add conditions, but they can't take away or conflict with federal requirements.

For state or private wells, OCD has sole jurisdiction for permitting and operation of the

well. That said, there may be lease conditions imposed by the mineral owner or operations that are not filed or enforced by the OCD.

OCD's operational responsibilities. OCD is responsible for the safe implementation, operation, and development of oil and gas facilities in New Mexico. However, there's some common misconceptions of what OCD does and doesn't do.

OCD does not manage mineral rights or leases. Mineral rights are overseen by the mineral owners. The decision to lease is theirs alone. Private mineral rights are owned by private parties. State mineral rights are leased by the state land office. Federal mineral rights are leased by the Bureau of Land Management.

OCD also does not regulate emissions. That's the New Mexico Environment Department. OCD does not provide protection and enforcements solely through penalties and notices of violations. We have several different enforcement tools that we'll get to and show subsequently in this presentation.

Here's an example of what that means. For illustrative purposes, OCD can be thought of like a building inspector. Building inspectors don't own the homes or create the plans. OCD doesn't own the

minerals or create plans of developments for the operators. Homeowners must have the proper permits for construction with all of the applicable regulations. OCD requires operators to receive permits for their facilities and establishes those operational requirements.

Building inspectors don't dictate a home's design, but they do ensure presented plans are up to code. OCD ensures operators' plans are up to code prior to drilling and during drilling and subsequent production.

In summary, a building inspector doesn't tell you if you can build a house on your property; they just ensure that when you build it, the house is safe. OCD doesn't provide operators with mineral rights or leases; OCD ensures that these property rights are developed safely and reasonably.

A really good example of that is, if you don't build a house properly, the foundation can crack, and it can be extremely detrimental to the building. Similarly, if OCD ensures that wells are constructed properly, so it's got casing integrity, those kind of things, to make sure that resources and the environment are protected.

Types of OCD's enforcement rules. This

is the things that OCD has that may be in excess of just simple violations. OCD has approximately 200 pages of adopted rules through the OCC. Those rules include things that protect -- directly and indirectly protect safety and the environment.

Those can be things such as separation of strata, that we talked about previously, where it doesn't allow fluids to flow from one formation to another.

Submission requirements. OCD currently has 123 form types, which include notice of intent to perform work, subsequent reports, or providing information; all of which help inform our oversight of operations.

Operational requirements. OCD has numerous rules that have general operational requirements. These come with actions, like how an operator must respond to a release; the shape an operator must keep their equipment in; situations where they're allowed to vent or flare; how they've come to conduct specific tests to demonstrate well integrity, both internally and on an -- or, initially and on an ongoing basis. How they are allowed to transport product or waste.

Then we also have field compliances.

OCD inspectors issue field compliances for rule compliance issues they discover during inspections of well sites and facilities.

Response requirements. OCD has various authorities to collect information from operators, both within and outside the enforcement context.

And then the enforcement rules themselves, which can be a mix of the following. Penalties, not allowing permits, revoking authorizations to transport, and requiring wells to be plugged and facilities to be reclaimed.

Enforcement information using 2022 statistics. This, again, gives a general overview of the items the OCD sees within a given year. In 2022, OCD received 105,000 records -- application records. This doesn't include production reports.

OCD rejected a little over 6,000 of these individual applications. OCD approved 91,000 applications, but it should be noted, 46,000 of these were auto-approved as they were informational records only. 6300 were subject to OCD hearing. 52,000 of these applications were handled directly by OCD personnel.

Of the applications that were handled directly by OCD personnel, they added 40,000

conditions of approval on these requests. These type of front-end actions are encouraged to ensure compliance up front, in terms of the project design, construction, and implementation.

I just want to emphasize those 40,000 conditions of approval just a moment longer. Those conditions can include items that protect not only the well, but also the environment. They include things like ensuring proper testing of the well; they include things such as notice to the OCD, and also ensuring the casing design is protecting or isolating certain zones or the surface.

Inspection and field compliance stats. OCD performs roughly 31,000 inspections annually. Our goal is to hit every site at least once every three years. Last year, as a result of those inspections, OCD issued 2500 field compliances. To date, operators have taken 1700 actions to close the required compliances.

The remaining compliances, those that are still open, require additional actions by the operators. Failure to address open compliances can result in subsequent enforcement. Field compliances can include items such as sign issues, contamination discovered and remediation on site, required or

missing integrity testing.

Failure to address or respond to issued field compliances can result in additional enforcement action. If inspections uncover more serious issues, additional enforcement may be pursued beyond field compliances.

At this point, I'm going to turn it over to Mr. Tremaine to go through the next few slides.

MR. TREMAINE: Thank you, Mr. Powell. Chair and commissioners, my task is to provide you with an update of the next few slides for the general -- authority -- notice of violation and --, and the actions that they --

UNIDENTIFIED SPEAKER: Mr. Chair, excuse me. Mr. Tremaine, I'm having a hard time hearing you. Perhaps if you moved the microphone closer, please? Thanks.

MR. TREMAINE: This better, --?

UNIDENTIFIED SPEAKER: That is better. Thank you so much, Mr. Tremaine.

MR. TREMAINE: So, as a brief background, the Oil Conservation Division did historically have -- However, that healthy authority was lost as a result of the -- energy -- case back in

2009. The -- stated the civil penalty authority for the Oil Conservation Division in 2019 as part of the Water Act. As a result of that legislation, the OCD was tasked with and -- the necessary updates to Division rules, and -- complicated updates to 19-15-5-10 -- Division enforcement rule. Those rules became effective on February 25th, 2020, and so, since that date, OCD has -- process and procedure on order to -- to issue -- and assess facilities.

Since that date, the Division -- 75 separate -- violation. In total, those NLVs -- over 11.4 billion dollars in civil penalties, and to date, -- those which have been resolved at assessed a little over 3.5 million in civil penalties. Other than -- civil penalties refer to the general public. I want to make a note here that, you know, OCD tracks, and my job is to track, planned, pending, and resultant -- basis.

So any point in time, if you ask me next week, these numbers are going to have changed, -- different because -- NLVs, so this isn't a good target, but it's a snapshot of when I -- this slide.

According to rule, settlements that resolve NLVs are called "stipulated final orders." Those stipulated final orders, in addition to

resolving civil penalties, typically include some combination of civil penalties, stipulated penalties for future violations, particularly related or similar violations.

UNIDENTIFIED SPEAKER: Mr. Chairman, I'm sorry. I just noticed in the chat that some of the people online are having a hard time hearing. I'm also picking up some background noise, it sounds like cutlery or something. I don't know if we can mute other microphones. The audio improved for a second there, and then it has kind of downgraded, it sounds a little boom-y and distant. Thanks.

MR. TREMAINE: I can't shut off one mic or the other. But what I can do is shut off and pick up there and bring it into the --. That was causing the echo before, but it was inconsistently picking it up.

UNIDENTIFIED SPEAKER: Jesse, can you dial --

CHAIRMAN FUGE: Bear with us for just one second.

(Off the record.)

MR. POWELL: So I'll start at the top of the slide. OCD lost its civil authority for -- civil penalty authority for an extended period as part

of the Marbob Energy versus New Mexico Oil Conservation case. This authority was reinstated in 2019 as part of the Produced Water Act.

OCD sponsored necessary updates to the rules -- the division's enforcement rule, which is adopted by the commission effective February 25th, 2020. Since that date, OCD has formally issued 75 notices of violation, in which -- and a total proposed over 11 million in civil penalties and which, to date, assessed over 3.5 million in civil penalties.

As Jesse mentioned and I'm not sure everybody heard, this is a certain snapshot in time. This could change tomorrow, as these enforcement actions and penalties are an ever-moving target and continue to progress. Settlements resolving NLVs, which are stipulated final orders, include some combination of stipulated penalties for future violations, prospective compliance actions, additional reporting requirements, and specific limitations on operators' future activities.

This ensures that not only are their current actions addressed, but any future actions are also addressed. 26 NLVs are currently pending an informal resolution or hearing, which proposed 5.1 million in civil penalties.

Our annual report to legislature of FY22 penalty enforcement is available at the link below. Prior OCD penalty -- I apologize. Prior OCD penalty reports can be found here.

OCD tracks planned, pending, and resolved NLVs on a rolling basis. Again, these numbers can be subject to change. In FY22, July 1st, 2021, through June 30th, 2022, OCD issued 36 NLVs, proposing over 6 million in civil penalties covering multiple violation types. Waste rule, inactive wells, deficient FA, operating without approval; amongst other things.

OCD resolved 19 NLVs during this fiscal year, collecting over one million in civil penalties, in addition to binding commitments from operators to promptly resolve the issues for which they are cited.

In fiscal year 2023, which is July 1st, 2022, to June 30th, 2023, OCD has so far issued 11 NLVs seeking over 4.3 million in civil penalties. They address the following violation types: Impermissible routine venting and flaring, unreported and/or unremediated releases, operation of an unpermitted SWD, improper flare operations, inactive wells.

OCD resolved 12 NLVs and two

significant self-disclosured violations. These NLVs sought over 2.5 million and ultimately assessed over 2 million in penalties, in addition to binding commitments to resolve the issues.

Enforcement priorities. OCD tracks NLVs according to several priority categories. NLVs include multiple violations and violation types. OCD categorizes these NLVs according to their primary violations. Waste rule violations, which we have 8 NLVs seeking a little over two million in civil penalties; environmental conditions and hazards, we issued 8 NLVs seeking a little over two million in civil penalties.

High priority operational issues, which include significant reporting violations, we issued 25 NLVs seeking 4.4 million in civil penalties. This category includes failure to -- quarterly or monthly report waste rules, production reports, or various critical drilling completion or plugging reports.

Unpermitted activities, which were five NLVs, seeking over two million in civil penalties. Inactive wells, which were 28 NLVs, seeking a little over 700,000 in civil penalties, and the plugging of hundreds of inactive wells.

Going forward, OCD intends to provide

more frequent status updates on pending and resolved NLVs on its website.

Now, moving into the spill information. Again, we're going to continue using 2022 information, but this will be the calendar year information. In 2022, OCD received reports of 1476 incidents. Of those, 642 are currently in closed status. 834 are in a closure non-approved status.

In 2022, OCD received 3652 C141s for releases -- for current and historical releases. Of those, OCD approved 3195 individual C141s. These were a mix of current and historical releases. OCD rejected 652 individual applications. Rejections could be for various reasons, but can include insufficient information provided, insufficient work performed, additional work being required.

Behind the scenes, OCD is also working to improve incidents' reporting status online, so the incident records can more accurately reflect the status of the incidents and what requirements still need to be addressed.

I just want to go back -- the 652 individual rejections, to explain what that requires. That requires an operator to take additional actions and then file subsequent reports. So we get those

actions and make sure they're current and comply with the rules.

Now we're going to go through some LFC reporting metrics that the OCD has, the number of inspections that belong to S wells [ph] and associated facilities. Again, as previously stated, our target's 31,000 per year. These are prior years, and this is our quarterly for this year as we work through it.

Number of abandoned wells properly plugged. I will state, due to the federal infrastructure grant, the FY23 target is expected to be exceeded substantially. Our target is typically 50 per year, based on funding. Our prior two years, we were right at roughly that 50. This year, we're on track to greatly exceed that.

Number of violations issued. As previously stated, these are referred to as field compliances with required actions. And these are how they've stacked up in prior years.

And that concludes the presentation.

CHAIRMAN FUGE: I'm going to allow a little time for questions, but I want to take a pause here for ten minutes to see if we can just improve the audio situation for folks online with a little restructuring. So if folks could reconvene at 9:45,

we'll come back in while we do a little restructuring to improve the audio.

(Off the record.)

CHAIRMAN FUGE: All right. We are resuming at 9:45. Thank you. For folks who were pinging about audio issues, we reconfigured how we are connecting to audio for the meeting. Hopefully that has improved sound quality. We also had to reposition some tech, so again, please keep, you know, letting us know. I am monitoring the chat for issues.

OCD just concluded their presentation. I am going to open it up initially for some questions by commissioners, and I will have a 30-minute public comment period where folks can, you know, provide comments.

There are people in the room and people online, so I ask that you keep your comments to about two minutes so that we can move through it, but I'm also working through the overall agenda and the adjudications we also have on the calendar for today. And I will not start the 30 minutes until the commissioners have concluded their questions.

And with that, I'll turn it over to Commissioner Bloom and Commissioner Ampomah if they have any questions.

COMMISSIONER BLOOM: Mr. Chairman, thank you. Yes, a couple questions. Mr. Powell, if you could go back to the slide with the discussion of the C-141? I just had a couple questions there and thought we could clarify some things for people that are in attendance.

MR. POWELL: Sure. Let me get that pulled back up.

COMMISSIONER BLOOM: I know you all work with these matters every day, they're a little bit more foreign to me. I think folks know I represent the land office, so it's not so much part of our responsibilities. Of course, we do collaborate on many of these things.

MR. POWELL: Commissioner Bloom, can you see it now?

COMMISSIONER BLOOM: Perfect, thank you. That's great. Thank you. My understanding of the C-141 is if there's a spill, operator notifies you, and then would tell you what steps they took to remediate the situation.

So perhaps there's a Produced Water spill, vacuum truck goes out, vacuums up any liquids on the surface, someone else comes out and digs out contaminated soil and takes that to a disposal site.

And then my question for you is, is the next step that they would then ask you if that's enough work, and if it's been done properly, and then you would approve it, and if not you reject it and then hit them with more requirements?

MR. POWELL: Yeah. That's a good overview. There's some details in between where there's a corrective action plan that's, at times, filed with the OCD where we approve their corrective action plan. The closure requirements are actually defined by rule, as far as what they need to meet for individual spills. The only time they would ask for our approval for how they close is if they're asking for exceptions to that rule. So what they'll do is they'll take the necessary steps as they go through, and then file that final C-141 with all of the sampling, all of the closure --

COMMISSIONER BLOOM: Mr. Powell froze there, or perhaps I did.

MR. POWELL: Can you hear me okay now?

CHAIRMAN FUGE: Looks like Mr. Powell froze. Just give him a second.

MR. POWELL: I can hear you all; can you hear me?

COMMISSIONER BLOOM: Yeah, you sound

good now. Yes.

MR. POWELL: Okay. Sorry about that. So what we do when we review is we review all of the operator's proposed action -- or the actions that they took to make sure that it met the rule requirements or their corrective action plan that they had approved.

If it met it, then we approved that remediation portion. If it doesn't meet those requirements, then we would reject it with additional comments or requirements for the operator to take.

COMMISSIONER BLOOM: And then I don't know if this question is properly addressed to you, Mr. Powell, but if you want to hand it off to someone else in attendance, that would be fine. Forward looking, I think I heard that the OCD has received some additional FTEs or full-time employees in the future for enforcement-type work or inspection-type work? I don't know if that's true. Perhaps you could address that?

And then, even if not, sort of, like, what do you see happening in the future in terms of enforcement? Because it seems like, in many ways, that you're trying to up your work levels here, and seeking to engage on some of these things.

MR. POWELL: So I'll really high-level

hit it, because legislation just granted those positions, all of that, that's still in planning as far as getting that in place. We are -- OCD is looking at additional field inspectors, additional positions.

As always, OCD does a lot with the positions it has, so we're always looking at where we can increase our enforcement capabilities, where we can increase our review processes, where we can take those actions. So that's always something that we look at, is we look at those roles, look at our responsibilities, and try to create additional actions in the future.

COMMISSIONER BLOOM: Okay. Thank you.

MR. POWELL: I apologize. Also, there was contract money that OCD did receive, and part of that contract money is earmarked for enforcement. So we'll be looking at what contracts we can put in place for that as well.

COMMISSIONER BLOOM: Excellent. Thank you, Mr. Powell.

Mr. Chairman, no further questions at this time. Thanks.

MR. POWELL: Thank you, Commissioner Bloom.

COMMISSIONER AMPOMAH: Commissioner Ampomah. Mr. Chair, I do have some few questions --. So I want to know if there are repeat violators --

COMMISSIONER BLOOM: Dr. Ampomah -- Mr. Chair, I'm sorry -- Dr. Ampomah, I'm having a hard time hearing you. I don't know if you could get closer to the microphone, or if there might be another issue.

COMMISSIONER AMPOMAH: Is that better? Can you hear me now?

COMMISSIONER BLOOM: Yeah, that sounds better. Keep going and we'll let you know. Thanks.

COMMISSIONER AMPOMAH: Okay. So I just wanted to know if there are, like, repeat violators on specific -- and how the OCD handles that.

COMMISSIONER BLOOM: I'm sorry, I couldn't hear that.

MR. TREMAINE: I think I can repeat the question, Commissioner Bloom. Commissioner Ampomah asked if there were examples of repeat offenders for particular violations or incidents and how the division handles that.

Commissioner Ampomah, I'm not prepared to give you specific examples. I can say that anecdotally, yes, there may be repeat offenders. And

there is a specific structure and rules and civil penalty policy and guidance that OCD has issued that allows OCD to consider repeat violations, particularly established violations. And that increases the maximum penalty -- not the total maximum per violation, but the aggravating factors of a particular violation.

So for instance, if there were a $1,000 daily civil penalty for a particular violation and an operator has a prior history, depending on what that history looks like, that would go from 1,000 to 1200 or 1400, just -- those are not set in stone examples, but there are escalators, and actually, the civil penalty guidance outlines a number of other aggravating and mitigating factors that compute into the civil penalty guidance. So it's something that OCD looks at, but I am not able to and hesitant to point to specific operators that may be in that situation.

COMMISSIONER BLOOM: I would add to that, Mr. Tremaine, the NLVs -- the stipulated final orders that we issue; there are stipulations in those as well, where if an operator that receives an NLV and gets a final order, we do write in stipulated final orders where if they continue to have similar

violations, then we can take actions through that as well.

MR. TREMAINE: And those stipulated penalties are assessed administratively; they're not -- they do not result in additional administrative process, so it's simply a demand issued after the stipulated final order and a continued violation occurs to the operator, and then they pay the stipulated penalty. Those typically occur for a period of time, depending on the situation, so 12 to 18 months.

CHAIRMAN FUGE: Mr. Tremaine or Mr. Powell, about how long would you say it goes from NLV issuance to resolution?

MR. TREMAINE: Mr. Chair, it does depend. For instance, a number of the inactive well NLVs typically take 90 to 180 days to resolve. Depends on if they go to hearing or not. But the rule set, I would say, anywhere from 60 to 120 is pretty normal. We do have some that have extended longer than that due to complexity, ongoing negotiations, and mediolar [ph] compliance actions that are being taken by the operators, so some of them can extend quite long.

But on average, I would say it's in the

three-to-six-month range.

CHAIRMAN FUGE: Thank you. No further questions from me. Seeing no other questions from the commissioners, I'm going to open it up for 30 minutes of public comments. Again, you know, please leave your comments to about two minutes. If you're online and want to send it to the chat, pick it up or raise your hand; I will keep an eye out for that. And we will go from there.

Ms. Troutman?

MS. TROUTMAN: Hello, everyone, and thank you. Can you hear me okay?

CHAIRMAN FUGE: You're clear.

MS. TROUTMAN: Awesome. Well, I'm Melissa Troutman, I'm the climate and energy advocate for WildEarth Guardians. I just wanted to give a little background on the spill rule. In 2021, Guardians and OCD worked together on this rule to prohibit unauthorized releases of oil, gases, produced water, oil-filled waste, and other contaminants.

Initially, Guardians proposed a rule focused on produced water, and OCD actually strengthened it to include oil, gases, and other wastes. And this rule is necessary because, as OCD's Jim Griswold stated in his testimony at the time, that

spills pose potential threats to public and environmental health, can cause soil and groundwater contamination -- we all know this.

But, you know, after hearing OCD's presentation on enforcement today, I got to say, we're really disappointed. You know, since the OCC unanimously voted to approve the spill prohibition that we jointly proposed with OCD, we've been waiting for the agency to use its new enforcement authority to reign in the rampant pollution from spills across the state.

But instead, OCD is undermining the spirit of compromise that led to the adoption of that rule in the first place by only issuing a handful of violations for reporting issues and remediation issues, and issuing zero penalties for actual spills in the 20 months since the rule became effective in August 2021.

And since then, operators have reported a record-setting number of spills. In 2022, the volume of contaminants spilled increased by 16 percent over the previous year. I just want to pause there. This is record-setting spills and volumes of contaminants in 2022. So if the aim is operator compliance, clearly what OCD's doing isn't working

because the problem's getting worse.

And this is, of course, not the result we expected after creating stronger rules which were meant to decrease spills, not increase them. And to be honest, what this looks like is that OCD has pulled one over on the people of New Mexico, agreeing to a rule to prohibit spills that it never intended to enforce. I mean, what good is a spill prohibition, or hundreds of pages of rules for that matter, if the agency can't or won't get operators into compliance?

And while we can empathize with the division's lack of staff and resources, it only took us all of 15 minutes using OCD's database to aggregate a list of the top 10 spillers. And this is to Commissioner Paloma's [sic] question about repeat offenders earlier.

Yes. There are repeat offenders. And it doesn't take long to use the data OCD already has to create a list of those top 10 repeat offenders, none of which have received penalties or violations for their repeated behavior. And so we're just kind of baffled. You know?

If staff time is really the only barrier to enforcing the spill rule and to decreasing spills instead of letting them continue to increase,

then we would like to know exactly what OCD needs to properly enforce this law, in terms of time, staffing, funding. And if there's another barrier outside of staffing and resources, we need to know that too.

That's all. Thank you.

CHAIRMAN FUGE: Not seeing anyone in the room, I will go to Ms. Brent. You're still muted.

MS. BRENT: Okay. There we go. So I'm kind of new to all this. I didn't know the ins and outs of the regulatory agencies, but my question is: Do our tax dollars pay for OCD, for this agency? It's a serious question. Who pays for this agency? The gas companies or us?

CHAIRMAN FUGE: As a state agency of New Mexico, the New Mexico Oil Conservation Commission is funded by tax revenue, which comes from a variety of sources.

MS. BRENT: Thank you.

CHAIRMAN FUGE: For folks in attendance in the room, if you would like to speak, all I would ask is you come up to the lectern there, so you can use the polycom phone there to be heard online.

If you're not muted and not planning to speak, can you please mute yourself? I am looking down the line and will mute/unmute a caller, but I

also don't want to mute the polycom device inadvertently, so. Pardon the interruption.

MS. JENKINS: Is this working? Everyone online can hear me?

CHAIRMAN FUGE: Yes, thank you.

MS. JENKINS: Okay. Hi. My name is Sophia Jenkins Nieto, I'm a representative of Yucca. We're the ones that originally asked all the questions that led to this presentation. So we appreciate the report, and we thank the OCD for providing the information, and we thank the Commission for asking for accountability on the enforcement of the rules -- by the Commission. So we appreciate everything that the OCD does and thank you for the overview.

Given that the OCD has received 1,476 incident reports for spills in 2022, I want to know why there's only eight NLVs and what's happening with the remaining spills. And we're still wondering, how does the Agency answer for its failure to assess penalties for the remaining infractions?

We understand that there's been an average of four spills per day. And as has been said, the lack of enforcement is actually allowing for spills to increase by 16 percent. And it appears that the OCD is not really working to prohibit spills.

So I'm also just a little concerned that a lot of our questions -- we had a very long list of questions -- were kind of not answered or were vaguely answered. I -- personally, this whole process is really new to me, and all of our members are youth from across the state, and a lot of the language is really new to us, so I would just appreciate some more clarity on the questions that we asked. So yeah. Thank you.

UNIDENTIFIED SPEAKER: You want to share with them --

MS. JENKINS: Yeah. The questions. The questions -- so yeah. We thank you for asking one of our original questions about repeat violators. This is extremely relevant information; we're kind of disappointed that there wasn't really an answer; like I said, it was kind of vague.

Why are repeat offenders not being penalized? And according to the rules and penalty calculation method, remediation plans are a way to address the impact of spills, but they don't seem to be doing anything to prevent spills in the first place. And I'm wondering if that's saying that there's no consequence or penalty for spills, even if that was the intention of the rule, which is really

upsetting.

Our organization helped to create the rule, and the prohibition of spills means that when spills happen, there needs to be consequences. For example, one of the original questions was, why are violations that cite regular operations as the cause not being addressed?

Is it illegal to spill, therefore any company whose regular operations are leading to spills should be required to change their practices? So we're just kind of wondering, what's the plan to actually enforce these rules?

I think that was all of the questions. Yeah. Thank you.

CHAIRMAN FUGE: Thank you.

MX. GRANT: Hi. Can you hear me okay?

CHAIRMAN FUGE: Yup. And you're showing up -- and you're projecting out in the room -- on the video feed.

MX. GRANT: Great. Thank you.

Good morning. My name is Soni Grant. I'm a campaigner with the Climate Law Institute at the Center for Biological Diversity. Thanks for the opportunity to speak, and to the Commission for providing this report.

As we've just heard today, there is, you know, over 1400 spills this past year in 2022. That amounts to an average of four spills of toxic liquid waste every single day in New Mexico. And I hope that the Commission -- Division recognize this as an incredible pollution crisis in our state that you have a responsibility to address. And that issuing violations for late reporting of spills -- only eight since you've had that authority is not sufficient to help prevent those spills.

We, in tracking the amount of spills that have occurred since the spill rule's been in place, have also just noticed that there are some problems in how that information is collected from operators. Operators have a lot of discretion in terms of being able to indicate "other" for the cause of their release or the material that's been spilled.

And this poses a huge problem both because you, as a regulating agency, don't always know what's been spilled, and members of the public don't know what's been released into their environment. And so I really urge you to do more to gather better data, analyze it more quickly, and present that to the public in a way that they can understand.

Lastly, I just wanted to remind you

that as a state agency, you have a constitutional duty to guarantee New Mexico's beautiful and healthful environment, to control pollution, to protect -- to prevent the despoilment of New Mexico's air, water, and other natural resources; and that by failing to enforce this rule that you have in the books, you are in violation of that constitutional duty.

So I really hope that we can work together with OCD to, you know, enforce this rule that's on the books, to stop spills and address this pollution crisis. Thank you.

MS. R: My name is Mary R. I was born in Roswell, I'm a fourth-generation New Mexican with friends in Lovington and Carlsbad and Hobbs, and I know that southeastern New Mexico now more resembles Mordor, from the Lord of the Rings, than it does the plains of my childhood. And I think it's clear that financial penalties do not work.

I mean, oil companies are making trillions of dollars around the world, certainly millions in the Permian Basin, and corporations are made up of persons. And I think that until there is a personal liability, until these spills are considered crimes -- which it seems clear to me they are.

They're crimes against my three-year-

old granddaughter. They're crimes against the people who live in the Permian Basin and really, all of us, because they're accelerating climate crisis.

So I would like to see you propose to the legislature that there be an additional penalty, which would be a personal liability, not a fine. Thank you.

CHAIRMAN FUGE: Anyone else in the room or online? Monitoring for --

MS. SHERA: Yes. This is Katherine; can you hear me?

CHAIRMAN FUGE: Yes. Ms. Shera, I've got one person in the room and then I will go to you. Sorry I missed your hand up; I just didn't scroll far enough down.

MS. SHERA: Thank you.

MS. AKRAMEN: Okay. So my name is Ellen Akramen [ph] and I'm a supporter of the Yucca and other climate crisis organizations, and I just want to say that it seems to me that these fines are so low that they are just the cost of doing business for these corporations. And there doesn't really seem to be any teeth in the enforcement, especially considering that the number of spills has increased.

So I don't know what the solution is,

but I think that it might be looking at the licenses of these corporations for what they're doing. But there definitely needs to be more teeth in the enforcement situation. Because nothing's changed, really. The pollution has gotten worse. And that's a serious concern.

CHAIRMAN FUGE: Thank you.

Ms. Shera? Please go ahead.

MS. SHERA: Thank you.

Hi. My name is Katherine Shera, and I'm a resident of Santa Fe. Thank you for the opportunity to speak and for providing this public forum. Director Powell mentioned during his presentation that the department's goal is to visit every site in the state at least once every three years. Clearly, significant harm to the environment and public health can occur during the interim.

Given that the department recognizes the need to increase enforcement capability, I'm just wondering, is there a mechanism for citizens to report suspected violations to the department? And if not, would you be willing to create one? Thank you.

MR. TREMAINE: I can answer that question quickly. We do currently receive reports from citizens and third parties about potential issues

that they observe, and those are investigated and dealt with depending on how the circumstances, you know, warrant.

We were just out at a release the other day that was not oilfield related, but dealing with a waste water system. Not even oilfield related. Municipal waste water system. So we do respond to those reports.

CHAIRMAN FUGE: Any other questions in the room? Or online?

MS. SOPOCI-BELKNAP: Thank you, Chairman, commissioners. My name is Bianca Sopoci-Belknap. I work for Earth Care, we're the mama organization that has the honor of hosting Yucca. I wanted to ask a couple of questions, but first, I actually had a couple of really direct questions about process, if you wouldn't mind, Chairman.

I'm wondering -- I really appreciate that you just answered directly to something that a commenter asked. We still have OCD in the room. There've been several questions posed that have been unanswered from the original request. I'm just wondering if you could clarify for us the process. Like, is OCD going to respond or will the Commission respond, like you just did to that question?

MR. TREMAINE: I think on some of the more detailed questions, we're making note of them and -- not prepared to answer them sort of up here, in terms of how the T-141 process works and other things like that. But as was mentioned on one of the slides, and I'm speaking -- the director here, you know, our intent in the near term is to start providing more regular updates about sort of enforcement activity, and a little bit more wholesale look at those enforcement activities; not just NLVs, field compliances, other things like that. And possibly some explainers about how some of the process works from our perspective, sort of under the applicable rules.

MS. SOPOCI-BELKNAP: Okay.

MR. TREMAINE: So I'm taking note of the questions, OCD team members on the call are taking note of the questions and are thinking about that as we provide more regular information about those activities and efforts.

MS. SOPOCI-BELKNAP: Okay. Thank you so much for that. That's helpful. I'm asking in part because, you know, the way that this request came about was folks were looking at the website and trying to understand just the prevalence of spills continuing

to happen, the increase in spills from the previous year, and then looking to the rules and wondering, what is the meaning of these rules when there is not enforcement?

And we just heard in the report that there have been eight, you know, NLVs out of the over 1400 incidents. And so what we're feeling, I think, is a lack of response to the question of why are there only that many? It's not even a majority that haven't been addressed; it's, like, by just such a huge proportion.

So I guess it feels a little bit like there was a request made in earnest, like in an effort to say, "What does the agency not have; what are the limitations here; how do we understand that as, you know, New Mexican residents, as voters, as people who are active in the legislative process and the rulemaking process; what needs to happen to have rules on the books have meaning?"

And again, when we haven't even had the 1400 remaining spills that don't have NLVs addressed, and we have no answer for that, while we appreciate creating the space in the conversation, it feels like we're not actually having that conversation. So that's what I'm struggling with, and then maybe this

will be a good segue, but that the Commission could answer.

Which is, you know, initially, the conversations between Yucca and the Commission were important around authority because you all clarified that you don't have, like, oversight over the OCD, although it's -- you wear two hats, right? You are literally the Director now; congratulations; and also a commissioner. So that's a little fuzzy, but nonetheless, you explained, the Commission promulgates the rules, and then it's the Division's responsibility to enforce those rules.

As the Commission, I'm just wondering, what does it mean to you to have promulgated rules that you are hearing now are literally not being enforced at all? I'm just wondering because I feel like, again, our question is, how can we help you? How can we help you -- what do we need to do? Is it subsequent rulemaking? That feels hollow to us when we have rules that aren't currently being enforced. So it's confusing. It's confusing, as Sophia expressed.

So if you could give any clarification as a commission, in terms of what the meaning of rulemaking is for you, and the process, then, of

seeing the enforcement not only not happen, but the increases in spills even while you have rules on the books. Thanks.

CHAIRMAN FUGE: So I'll offer a couple of observations while just noting and clarifying the Commission's role. The Commission does establish the rules of operation, and, you know, has oversight responsibilities over the OCD. It is also the administrative appellate body for the Division.

So if you -- if Mr. Tremaine brings an individual enforcement case, it is subject to a whole process largely set by statute. If a party who is subject to enforcement is unhappy with the result, the Commission is who you appeal to, which is part of the reason why the Commission could not do individual enforcement. So just sort of laying out roles and other pieces. I would clarify, because I think it's fair, and like I said in the chat, we will be making the slides available on the OCD Compliance site.

It's not just eight, it'll be -- that was a summary of more recent NLVs and actions. There's actually been 75 since we got our enforcement authority restored. And I would not necessarily look at it as just NLVs, the field compliances are a substantial part of how the OCD regulates activities

in the field.

And of the 1400 spills, I would also note, it was in the slides, 675 of them were responded to and closed up as required by the OCD's rule in a timely manner within the window that we pulled the data, and others are in the process of being closed.

And so we are also working on some IT updates so it is easier to translate where in the process a specific site is. And again, all that information was on the slide decks that were presented, but I just want to flag that for you. And it will be available online, maybe not today, but certainly by the end of the week.

Any other questions in the room or online? We have a couple more minutes. All right. And I see one person who just raised their hand online. We will get to you next.

MS. WEST: Good morning. My name's Elizabeth West, and I live in Santa Fe and I'm very glad to be here. Bit by bit, I'm just a layperson in all this, and probably a good example of people who are vaguely interested, growing more interested, and surprisingly, becoming somewhat more frustrated.

And I was thinking about train wrecks. We could talk about a problem that's immediate and

fast, and that's a train wreck. And nobody likes that. That's happened in the Midwest, and it's gotten a lot of publicity. What I'm seeing here is a slow-motion train wreck in New Mexico, having to do with the environment.

And what you guys are doing -- thank you, you people, sorry. I really appreciate the opportunity to hear what Yucca and other people are bringing into the news, and I'm glad to see that we have people from the news here. Because we want to understand it a little bit more.

When things are not done, train wrecks happen. I think we are seeing something very slow happening here. Or it seems slow to me. So I am really hoping that something very different can happen in relation to, instead of just fixing little problems that come up with small penalties -- relatively small; it would be a lot of money for me, but I'm not digging a well -- they're fairly small punishments, and I think they are, if not dismissed rudely, they're dismissed crudely.

They don't know why. It's too confusing to me to see why there isn't more traction about what's happening in our home state. And this is one particular part of it. When a spill is happening,

and then it happens again, it's just as frustrating to me to read about, to hear about, to know about; and thank you to the groups who have been speaking up on both sides of all of this issue.

Finding out about this is a little similar to finding out that there's a repeat drunk driver who's offended over and over again. And I think we all want more accountability. I don't think money's doing it. I think publicity will do it. And -- I like traveling by train. Let's not have New Mexico be a train wreck. Thank you.

CHAIRMAN FUGE: And looking online, Joni Arends, your hand's up. Please go ahead.

MS. ARENDS: Thank you very much for this opportunity to speak. I also want to acknowledge all the work of Yucca on this issue. I also have never presented to this commission, and I -- my name is Joni Arends. I am a cofounder and executive director of Concerned Citizens for Nuclear Safety. We work -- we're watchdogs of the DOE complex, Department of Energy complex here in New Mexico.

I wanted to find out about the number of staff that are available in OCD in the enforcement department.

CHAIRMAN FUGE: Can you repeat that,

please?

MS. ARENDS: Yes. I was interested in understanding the number of enforcement staffers in OCD.

CHAIRMAN FUGE: We have a head count of roughly 78 FTEs. 16 of them are field inspectors deployed around the state. The majority of the field inspectors are in the Permian Basin, another significant chunk are in the San Juan Basin. Roughly nine, five, and I'm including some compliance officer supervisors. We are making some additional ads with FTEs coming in later this year, so those are our boots-on-the-ground folks.

And then essentially all of our environment -- all of our engineering and environmental teams are responsible for different aspects of compliance and, sort of, rule enforcement.

And that goes from front-end well development and design and other things on the front end, how have you build your well, to end-of-life questions of have you plugged it properly, other things like that. Everything in between. Including when a well has, you know, stopped producing for a period. So that's roughly those OCD head counts.

MS. ARENDS: Thank you very much for

that information. And my final comment is about when the follow-up meeting will happen to answer Yucca's questions. Will it be a similar format to this meeting?

CHAIRMAN FUGE: There is not another informational presentation for the OCD currently set on the docket. But that does not mean that one couldn't occur in the future.

MS. ARENDS: Okay. Is it possible to make a request for a timely response or a timely second informational presentation to answer the Yucca questions?

CHAIRMAN FUGE: You can submit a request to the OCC clerk, Florene Davidson. Her information is on the OCC website. And it'll be given due consideration.

MS. ARENDS: Thank you very much. I, again, appreciate all of the diligent and persistent work of Yucca to protect New Mexico. Thank you.

CHAIRMAN FUGE: There's time for one more comment, and then we need to move on to the other items on the agenda. Anyone else in the room or online?

Scrolling through the participants. Seeing none, thank you for everyone who participated.

I'm going to give everyone a five-minute break to just get some water, maybe use the restroom. Five or ten. Let's resume at 10:40, and we will begin with our first adjudication on the docket. That will give folks an opportunity to -- parties in that case to set up. Thank you.

(Off the record.)

CHAIRMAN FUGE: All right. We are moving on to pending adjudication. First up is case number 14720, Targa Northern Delaware, LLC, operator of Red Hill AGI number one, and this concerns your submission of injection data for the first four years for Red Hill number one, your updated model of the injection plume after 30, and, I believe, though not covered in the agenda, a request to change some submissions in your permit for the facility. Are all the parties who entered an appearance in the matter present?

Mr. Tremaine, are you representing OCD?

MR. TREMAINE: Yes, for the Division.

CHAIRMAN FUGE: Thank you. Do you have any witnesses, either in the room or online?

MR. TREMAINE: We have Mr. Million Gebremichael, who's OCD's sole witness, and he's attending by Webex.

CHAIRMAN FUGE: I see him. Before we get started, and I'm just going back over my notes from the last meeting, Mr. Ampomah, was this the matter you were excused from?

COMMISSIONER AMPOMAH: Yes.

CHAIRMAN FUGE: Thank you. Let's get started. Ms. Hardy, please begin.

MS. HARDY: Thank you. Good morning, Chair and commissioners. Dana Hardy with the Santa Fe Office of Hinkle Shanor, on behalf of Targa Northern Delaware. And I just wanted to give a very brief introduction to explain why we're here.

Targa is the operator of the Red Hills AGI number one well, under order number 13507. Ordering paragraph 2c of that order, which was issued on December 6th of 2012, required the operator to present injection data covering the first four years of injection, and also to provide an updated model of the injection plume.

With respect to timing, the order required this information to be submitted six months to the end of the first five years of injection. And as recognized in the order, this data is relevant to the status of the government L-com number one well, and specifically, whether that well should be plugged.

Injection commenced into the well in 2018, and we timely filed the information required by the order with the Commission on November 30th of 2022. We also submitted updated information on March 31st of 2023.

The data was prepared by New Mexico Tech, and Dr. Jiawei Tu is here to present it to the Commission. And with that, I would call Dr. Tu as our witness.

CHAIRMAN FUGE: Can I get the court reporter to administer an oath for Dr. Tu, please?

THE REPORTER: Yes.

Dr. Tu, please raise your right hand.

WHEREUPON,

DR. JIAWEI TU,

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:

THE REPORTER: Thank you. You may proceed.

CHAIRMAN FUGE: Dr. Tu, please proceed, and you should have authorization to share your screen if you have slides to present.

THE WITNESS: Okay.

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EXAMINATION

BY MS. HARDY:

Q Dr. Tu, I had a couple preliminary questions for you. Can you please state your full name for the record?

A My name is Jiawei, J-I-A-W-E-I, last name is Tu, T-U.

Q And by whom are you employed, and in what capacity?

A I'm currently employed by the New Mexico Institute of Mining and Technology, under the Department of Petroleum Recovery Research Center.

Q Have you previously testified before the Commission?

A No. This will be my first time.

Q Can you, very briefly, summarize your education and experience?

A I acquired my Masters and PhD from Texas Tech in Petrol Engineering. I was conferred with the degree in 2020.

MS. HARDY: I would request that the Commission recognize Dr. Tu as an expert in petroleum engineering.

CHAIRMAN FUGE: So recognized.

MS. HARDY: Thank you.

BY MS. HARDY:

Q Dr. Tu, did you prepare what's been marked as Targa Exhibit 1?

(Targa Exhibit 1 was marked for identification.)

A Yes, I prepared that.

Q And can you please present your evaluation and the findings that are set forth in the exhibit?

A Yes. I'm going to.

THE WITNESS: Good morning, Commissioners. So I will be presenting my finding from the study for the Targa AGI number one injection in the past four years.

So, first of all, I'd like to start it with a little bit of background of the facility. So the Targa Red Hill natural gas processing facility is located at the Lea County, southeast of the New Mexico state. So it was approved by the NMOCC on December 6th, 2012, the authority to inject treated acid gas.

And the ownership of that well was by the Agave Energy back then, at that time, and later on was acquired by Lucid Energy. But currently, the Targa Northern Delaware, LLC, I'll refer to as the Targa later in this presentation, currently holds the ownership of this well.

The reason we're having this hearing today is because by the time the NMOCC approved this well, if you could see on this chart, that in the Red Hill facility, there's -- in 3800 feet eastern of the Red Hill number one, there's the well called Government's L-com number one well. At that time, there was technical difficulty of plugging that well. Therefore, the NMOCC ordered that -- a conditionally waived requirement to plug that well back then.

However, we were required to report the first four years of injection data by the time that -- six months prior to that to report to NMOCC with the updated model as well as the updated projection for the 30 years' injection regarding the treated acid gas plume movement/migration concerning the reservoir.

On this timeline, that is -- shows that in 2012, the permit was approved. However, the AGI number one never started injection until the year of 2018. So on 2022, May 1st, marking the fourth year of the first year injection, that Targa retained New Mexico Tech to initiate a study in compliance with the NMOCC's order.

The New Mexico Tech performed the study and reported to the NMOCC on November 30th, 2022. But because of the hearing, as was scheduled on today,

that we actually updated with the data until -- that data until March of 2023.

So now I'm going to present the study for the five-year injection. On this slide, it shows that -- the model that we -- the boundary of the model that we constructed. So in this red contour, that shows the size of the Red Hill facility, which is about -- the size of our model is about 100 times of the size of the Red Hill facility.

Now, you can see the Red Hill number one and the government's L-com number one injectors are located in these two locations.

MS. HARDY: Dr. Tu, can you identify the slide number? Just for the record.

THE WITNESS: On slide number 6.

MS. HARDY: Thank you.

THE WITNESS: And in the model, geologically, that we're simulating the formations that -- from Lamar about to Bell Canyon to Cherry Canyon and Brush Canyon, which will be our bedrock, caprock, and storage reservoir, respectively.

The AGI number one well is perforated and targeting injecting into the Cherry Canyon formation. In the model, the Cherry Canyon formation is subdivided into five layers, from layers number

three to layer number seven in the later presentation.

The dimension of our model covers -- has the grace number of 429 multiplied by 418 multiplied by eight layers. That brings it to almost 1.5 million grace in total. The average size of each grace is about 100 square feet.

So the model initialization that we have the initial conditions of the Cherry Canyon reservoir set to be 3250 psi in pressure at the Red Hill AGI number one location, and the temperature is about 105.2 Fahrenheit degrees. The fluid saturation that the initial saturation -- the reservoir is saturated was 100 percent of water -- saline water, with irreducible water saturation to be 20 percent. The salinity of the reservoir saline -- brine is set to be 20,000 ppm.

For the entire simulation, we operate the well first from 2018, by the beginning of the AGI number one injection, we used the historical injection rate that -- pulled from the report by Targa as well as on the website of the NMOCD. With roughly 13 percent of H2S and 87 percent of CO2. And the average injection rate during these first four years are about 1.2 million standard cubic feet per day.

And beyond the year of 2023, that we

set the average injection rate to be 1.5 million standard cubic feet per day. That will be the average rate for the past three years -- past one year of injection. And this simulation is stopped injected at the year 2048, and simulation continues about 30 years after the stop injection for post-injection site care and monitoring.

Before we proceed, I have three points that I would like the commissioners to consider and put in mind, is that first, like, although that Targa -- Red Hill AGI number one was permitted to inject under the rate of 13 million standard cubic feet per day, but during the injection test, that we weren't able to inject excess of six million standard cubic feet due to the surface pressure limitation -- injection pressure limitation.

Second of all, that even though it is permit to inject under 13 million standard cubic feet, the actual injection rate in the past five years, that never exceeded two million standard cubic feet per day.

Lastly, the Red Hill number one expected to inject even lower than the rate that was proposed by the time of the two adjacent wells, Red Hill number two and three, are completely in a way

deeper reservoir, so -- information. This chart shows the result of the historical injection --

COMMISSIONER BLOOM: I'm sorry. I'm sorry, Dr. Tu, could you back up to that last slide one moment? If you could just repeat the last third point that you wanted us to take away, I'd appreciate it.

THE WITNESS: Yes. The last point I'd like to say is that the Targa is currently under development plan of drilling two new AGI wells on the path to -- into a deeper formation, so by the completion of these two, that we expect injection through AGI number one will be even further less than the simulation as well as what's permitted.

COMMISSIONER BLOOM: Thank you. I appreciate that.

THE WITNESS: Thank you. This chart, slide number 10, it shows the historical injection of the AGI number one in the past five years. In the green circles that you're shown on this chart are the historical data points that pulled from NMOCD website. And the dashed green line is the simulator results. That we can see that in the past four years, that we have perfectly matched the exact injection rate from the AGI number one.

And this green line -- excuse me, the blue line that shows the cumulative gas injection. So in the past five years, by the time of 2023, that the AGI number one injected 2,000 million standard cubic feet of acid gas into Cherry Canyon formation.

If we convert it to the mass quantity, those injected by the end of the fourth year, that is the CO2 equivalent to about 33,000 tons, and eight and a half thousand pounds of H2S.

On this chart, it shows the aerial view of the plume results at the end of the fourth year. So we can see that, on the chart, that at end of the fourth year, we see the color represents the saturation of acid gas plume in Cherry Canyon formation. So what we're seeing is the diameter of this plume is expected to be around 400 feet, and the front of the plume, the closest point of the plume to the government L-com number one well is about 3600 feet, which is about .68 mile.

Next, we did the prediction phase of the simulation. So we can see that starting from here, before that was the historical injection. And the prediction phase is to complete the 30-year injection that we use the average injection rate in the past one year, which is about one and a half

million standard cubic feet. So we used a similar rate to continue with the injection until the year of 2048. That marking the end of 30 years injection.

And on this -- similarly, on the blue curve, it shows the cumulative injection from the Red Hill number one well will be about 16,000 million standard cubic feet. And also, as I said, that upon the completion of AGI number two and three, -- information that we expect the rates to be even lower than what we simulated. So we are simulating a very conservative -- most extreme scenarios for what could happen.

So here's the plume and the area view of showing at the end of the 30 years injection of 2048. That we're seeing that at the end of the 30 year injection, the diameter of the plume is about 1000 feet. And the closest point of the front of the plume to the government L-com number one is about 3300 feet. Which is about .625 mile.

Therefore, based on the study that New Mexico Tech conducted, that engineers and geologists from the New Mexico Tech Petroleum Recovery Research Center performed first, we developed a new geologic model to delineate from the updated well tops and the structural features.

And second of all, we used these high-fidelity reservoir numeric model, conducted numerical simulation of the first four years of the historical injection, besides that and also the updated prediction for the 30 years total injection to comply with the NMOCC's order.

So, to conclude, it is found that the -- first of all, the treated acid gas injections through Red Hill number one in the past four years, the average rate is about 1.2 million standard cubic feet per day, which is less than ten percent of what it was permitted, 13 million standard cubic feet per day.

And second of all, the distance between the Red Hill number one well -- from the Red Hill number one well to the government L-com number one well is about 38,000 feet, and by the time of January 2023, the front of the plume is estimated to be 3600 feet away from the government L-com number one well, which is 95 percent of the distance between two wells.

And by the end of the 30-year injection, the plume's front is predicted to be 3300 feet away from it, which is about 85 percent of the distance between two wells.

So therefore, it is concluded that the

historical -- injection rate has been drastically under the permitted rate, 13 million standard cubic feet, and the -- plume resultant by the AGI number one well puts a diminutive impact on the government L-com number one well, even at the end of a 30-year permitted injection period.

Therefore, we recommend that the Targa to file a motion to either amend the order R-13507 to the NMOCC to either eliminate or extend the waiver plugging the government L-com number one well. That's the end of my presentation.

MS. HARDY: I have no further questions. I would move the admission of Targa Exhibit 1.

CHAIRMAN FUGE: Into the record?

(Targa Exhibit 1 was received into evidence.)

Mr. Tremaine, do you have any cross for this witness?

MR. TREMAINE: No cross, Mr. Chair.

CHAIRMAN FUGE: Do you have any additional witnesses, Ms. Hardy?

MS. HARDY: No, Mr. Chair, I do not.

CHAIRMAN FUGE: Thank you. Mr. Tremaine?

MR. TREMAINE: Good morning, Mr. Chair, commissioners. This is Jesse Tremaine for the Oil Conservation Division. Very briefly, I'd like to address -- just summarize OCD's presentation today.

And as indicated in the pre-hearing statement, the Division's focus has primarily been on consideration of the content of the milestone reports, and they have prepared, and Mr. Gebremichael will testify as to the recommended content for an update to this report as well as future milestone reports.

One -- I'll call it an oversight -- OCD did not -- and in our filing, we did not respond directly to the recommendation of Targa related to removal of the requirement to plug the government L-com. That was not addressed in the pre-hearing statements. My apologies for that.

However, in summary of OCD's position, I will say that I think the position is that an extension of that waiver and some form of monitoring of that well is appropriate. OCD does not take a position that the well needs to be plugged at this time. And so, with that, I would move on to call the Division's sole witness, Mr. Million Gebremichael.

MR. FUGE: May I ask the court reporter to administer the oath for Mr. Gebremichael, who is

also appearing online?

THE REPORTER: Yes.

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:

THE REPORTER: Thank you. You may proceed.

MR. TREMAINE: Thank you. And just procedurally, Mr. Chair and commissioners, Mr. Gebremichael, if you wish to share exhibits as we walk through, I'll have Mr. Gebremichael do that.

CHAIRMAN FUGE: Okay.

MR. TREMAINE: Okay.

EXAMINATION

BY MR. TREMAINE:

Q Good morning, Mr. Gebremichael. Could you please state your name for the record?

A Good morning. My name is Million Gebremichael.

Q And where do you work?

A I work for the Energy, Minerals, and Natural Resource department as a part of the group responsible

for the oversight of the underground injection control for the Oil Conservation Division.

Q And what is your position with the OCD?

A I work as a petroleum specialist advanced in the underground injection control group.

Q And what are the job responsibilities of your position?

A Well, I review technical aspects of UIC permits, provide recommendations to the district offices for UIC wells, and then I provide input for process of design and rulemaking.

MR. TREMAINE: Can the Commission hear Mr. Gebremichael?

CHAIRMAN FUGE: Sort of, but maybe if he spoke a little bit closer to his mic, that would help.

THE WITNESS: Can you hear me now?

MR. TREMAINE: Yeah. Better.

THE WITNESS: Okay. I can repeat what I said in regard to my responsibilities.

I review technical aspects of UIC permits, and then I provide recommendations to the district offices regarding UIC wells. And also provide inputs to processes of design and rulemaking.

//

BY MR. TREMAINE:

Q Thank you, Mr. Gebremichael. Have you ever testified before the Oil Conservation Commission previously?

A No, I haven't.

Q Have you prepared a curriculum vitae for this hearing?

A Yes. It is the OCD Exhibit Number 3.

(OCD Exhibit 3 was marked for identification.)

Q And could I have you please summarize your educational background, training, and experience for the commissioners?

A Absolutely. I graduated from the Southern Alberta Institute of Technology in 2012. Was a Bachelor of Petroleum Engineering. Also, I have successfully completed various specialized training in exploration and production in the oil and gas field, provided by Shell International, in places the US, Canada, and then the Netherlands.

I have more than ten years' professional experience working both in the oil and gas companies and the provincial government of Alberta Oil and Gas Regulator Department, which is an equivalent organization with the OCD. And then currently, I'm

working for the Energy, Minerals, and Natural Resource Department as a part responsible for the oversight of the underground injection control program for the OCD.

And then I have seven years' experience with Shell International in dealing with production optimization for more than 500 wells. Utilizing artificial lift methods and secondary and tertiary recovery methods, like water flooding and gas injection.

I'm also experienced in the well reservoir facilities and management surveillance work. I have also monitored and mitigated acid gas injection wells and sour-gas-producing wells. And I've made sure that regulatory requirements of mechanical integrity tests of injection wells are adequately met by analyzing subsurface mechanical integrity tests, like sonic, temperature, caliber, magnetic flux, and cement bond lock.

I have also determined the pressure envelope for well by calculating the maximum annual surface pressure, utilizing, like, well testers, like the step rate test and then follow-up testers.

I have also worked for three years with the Alberta Energy Regulator for reserves, and then -- group, dealing with reserve determination, --

delineation, pressure studies. Also determining whether an operator is practicing a good production practice.

Also I was imposing maximum rate limitation orders for violations for instances regarding the producing high GOR wells.

Currently, for the last eight months, I am working for MNRV with the UIC group for the OCD division, reviewing technical aspects of UIC permits, providing recommendations to district offices regarding UIC wells; also providing input for process design and rulemaking.

MR. TREMAINE: Mr. Chair, at this time, I would move admission of Exhibit Number 3, and subsequently ask that Mr. Gebremichael be recognized as an expert in the field of petroleum engineering and underground injection.

CHAIRMAN FUGE: Are there any objections to Mr. Tremaine's motion?

MS. HARDY: No objections.

(OCD Exhibit 3 was received into evidence.)

MR. TREMAINE: Thank you.

BY MR. TREMAINE:

Q Mr. Gebremichael, have you reviewed Targa

Red Hill number one milestone report?

A Yes.

Q And could you please summarize your opinion of that milestone report?

A Well, Targa has furnished OCD with a very elaborate model update and summary of the injection rates over the last four years.

Q And did you hold any concerns with the milestone report?

A Yes. OCD's in the process of implementing new templates of recommended milestone report contents and format. And OCD would like to recommend that Targa provide OCD with comprehensive milestone report updates, as depicted in OCD Exhibit Number 1.

(OCD Exhibit 1 was marked for identification.)

Q And can you please summarize for the Commission the recommendations that you've included in Exhibit 1 for the Commission?

A Yes. OCD prepared this comprehensive content package for milestone for all AGI wells to ensure that well interventions and work order reports conducted to maintain well mechanical integrity and also the impact of AGI wells on offsetting wells that are used to be provided to OCD in a scattered manner,

we would like to be presented in a single and then a comprehensive report.

MR. TREMAINE: At this time, Mr. Chair, I would move admission of Exhibit 1 and, if so admitted, I would ask Mr. Gebremichael to share Exhibit 1 on the screen.

CHAIRMAN FUGE: Any objections, Ms. Hardy?

MS. HARDY: No objections.

CHAIRMAN FUGE: It's admitted.

(OCD Exhibit 1 was received into evidence.)

MR. TREMAINE: Mr. Gebremichael, can you please share Exhibit 1 to the screen for the Commission's review?

THE WITNESS: Absolutely. All right. Can you see it?

MR. TREMAINE: Yes, we can. Thank you.

THE WITNESS: You're welcome.

BY MR. TREMAINE:

Q Can you identify for the Commission the specific information that's contained in Exhibit 1, which OCD recommends be added to Targa's milestone report?

A Absolutely. OCD would like Targa to add

items of Exhibit 1. These items are item number one, item number two, item number three, item number four, item number six, item number seven, item number eight, and item number ten, and also the summary table depicted in page 2 in Exhibit 1.

OCD would like also to recommend that Targa monitor and inspect the government L number one well, which is used as a control well in the plume model, to monitor the extent of the treated acid gas plume from Red Hill number one.

Also, monitoring and inspection would help OCD to validate the accuracy of the plume model. So we would expect them to do that inspection on an annual basis.

Q Thank you. If I could back up to the contents of Exhibit 1, could you please clarify for the Commission, the numbers that you've listed; one, two, three, four, six, seven, eight, and ten; the contents of those items. Are those -- could you characterize for the Commission, please, whether those contain information or reports that, according to your understanding, Targa currently has available, or are those things that Targa would have to create in response to this request?

A Well, we're not reinventing any well here. This information's available and that they used to be

provided to OCD through various portal or outlets. So the intent of our template is to be presented in one comprehensive package. So those reports are readily available.

Q Thank you, Mr. Gebremichael. Could you please move the slide to page 2 of Exhibit 1 for the Commission's review?

A Absolutely. All right. Can you see Exhibit 2?

Q Back up one, please. That's Exhibit 2. I'm looking for page 2 of Exhibit 1.

A There.

Q Thank you. So in the second part of your response to my question, you identified that OCD was requesting a summary table depicted here. I just wanted to clarify that this is the recommended summary table that OCD is requesting from Targa. Is that correct?

A That's correct.

Q All right. Thank you. Moving on, Mr. Gebremichael, does the Division have an exhibit depicting AGI well activities within the state of New Mexico?

A Yes. And it's in OCD Exhibit Number 2.

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(OCD Exhibit 2 was marked for identification.)

Q Okay. And could you please describe for the Commission the purpose of Exhibit 2?

A Let me share it with you first. Yeah. The purpose of this exhibit is to show the Commission the number of active AGI wells in the state of New Mexico that are enabling an economic production of sour gas without flaring H2S and venting CO2 in the atmosphere.

It's kind of designed to give them a bird-eye view of the AGI wells in the state.

MR. TREMAINE: Thank you, Mr. Gebremichael.

At this time, Mr. Chair, I would move admission of OCD Exhibit Number 2.

CHAIRMAN FUGE: Ms. Hardy, any objections?

MS. HARDY: No objections.

CHAIRMAN FUGE: Motion granted.

(OCD Exhibit 2 was received into evidence.)

BY MR. TREMAINE:

Q And my last question, Mr. Gebremichael: In your opinion, will inclusion of the items that you referenced in OCD Exhibit 1 into a single

comprehensive milestone report and the ongoing monitoring of the government L well for the next reporting period assist in the prevention of any waste or harm to correlative rights?

A Yes.

MR. TREMAINE: Thank you. No further questions.

CHAIRMAN FUGE: Any cross, Ms. Hardy?

MS. HARDY: I just have a couple of clarification questions. I might not have heard all of the testimony.

CROSS-EXAMINATION

BY MS. HARDY:

Q I just wanted to clarify OCD's recommendation regarding the government L well. Is it that it continue to be monitored for another five years? I just wasn't clear on the recommendation.

A Well --

THE WITNESS: May I respond to the question?

CHAIRMAN FUGE: Yes.

A So in absence of not re-entry to the well, OCD would like Targa to visit this well on an annual basis to inspect and monitor the impact of the treated acid gas plume in the well. See, the only way you

could validate the accuracy of the model is basically by inspecting an offsetting well; in this case, the government L well is our control well.

And then we would like you to, you know, report to OCD if there is no impact or if there is an impact.

Q Thank you. And then, with respect to the reporting recommendation on Exhibit 1, are those items requested by OCD to be included along with the information Targa's provided here, or would that be for future reports?

A That's a very good question. We're in the process of implementing this new template, and then we're aware of that you're not aware of it as well. OCD would appreciate that if you could resubmit this report by including the items recommended.

MS. HARDY: Thank you. Those were all my questions. Thank you.

CHAIRMAN FUGE: Any other witnesses or testimony?

MR. TREMAINE: No, Mr. Chair.

CHAIRMAN FUGE: Commissioner Bloom, any questions for you with respect to Mr. Gebremichael's testimony?

COMMISSIONER BLOOM: Let me think one second here, Mr. Chair. Thank you. Let me look at my

list of questions.

Backing up a bit, Mr. Gebremichael, and I don't know if you're prepared to answer this today given the lengthy history of these wells, but ultimately, what becomes of the government number one well? It appears that Targa or past operators were not able to re-enter and plug. What's the long-term outlook here?

THE WITNESS: That will depend on the result of our inspection and monitoring. You know, depending on those results, if there is any severe impact, then probably we might start weighing the risk, and we might decide then.

COMMISSIONER BLOOM: Okay. No further questions at this time, Mr. Chair. Thank you.

MR. FUGE: I just had one clarification because I probably wasn't writing it down quickly enough. Mr. Gebremichael, can you please -- and I think if I understood your responses, Ms. Hardy -- can you please repeat the items that you would like included from the list on Exhibit 1 with the resubmission of the report they made initially in November and then updated in March? Just by number?

THE WITNESS: Yes. Absolutely. So those are items number one, item number two, item

number three, item number four, item number six, item number seven, item number eight, and item number ten, and also the summary table depicted in page 2 in Exhibit 1.

The summary table is basically -- they did present the information in the form of a graph, but we would also like it in the, you know, in a table format. So the whole intention for OCD is to have a one-stop-shop for the well, so we can analyze the well's history as a milestone report. So that's the intent from OCD perspective.

CHAIRMAN FUGE: To Mr. Tremaine, to clarify OCD's position on Targa's request, you do not oppose -- just restated about -- that COM-1?

MR. TREMAINE: The government L --

CHAIRMAN FUGE: I'm sorry. Government L.

MR. TREMAINE. Yes. Thank you, Mr. Chair. To summarize OCD's position, it is not necessary or, in fact, prudent for Targa to plug the government L-1 well at this time. It should remain in its current status and, according -- along with Mr. Gebremichael's testimony, OCD's request is that Targa monitor and inspect that well on an annual basis to verify the findings consistent with the plume

modeling.

And ultimately, the decision as to whether the eventual requirement to plug that well or another extension would be determined at the time of the next milestone report.

CHAIRMAN FUGE: Okay. And would both of those requests require amendments to the actual OCC order? Additional conditions?

MR. TREMAINE: I believe that would be appropriate. The -- from memory, from the order, I believe that it indicates that the -- that the existing order indicates that that requirement to plug the well could be removed or extended upon the showing by Targa here today. So I think that, either in the form of an amendment or by adding conditions, would be appropriate mechanisms for that.

CHAIRMAN FUGE: Are they currently required by the order to annual monitoring?

MR. TREMAINE: I would have to review the order, Mr. Chair. Mr. Gebremichael may be able to answer that question.

THE WITNESS: Sorry, I didn't hear the question.

MR. TREMAINE: Is Targa currently required by the existing order to conduct annual

monitoring? I believe that is a new request made by the Division.

THE WITNESS: No, but that's a new request made by the Division.

MR. TREMAINE: Thank you for that clarification.

That is my understanding, Mr. Chair, is that the options in the existing order were that Targa were to plug the well or that the requirement to plug the well could be extended or removed at this meeting. And so OCD is requesting that that requirement to plug the well be extended to the next reporting period, but it is asking for an additional condition, to conduct that monitoring on an annual basis, because the existing order does not contain that mechanism to essentially verify the plume modeling.

CHAIRMAN FUGE: And for the items listed on the OCD Exhibit 1, one, two, three, four, six, seven, eight, and ten; that OCD is requesting Targa report on and utilizing the summary table, which I believe is on the second page of Exhibit 1; is that a one-time request or is that a recurring request for subsequent reporting?

MR. TREMAINE: That is a one-time request in terms of updating the existing report, but

it is an ongoing request for future milestone reports. And OCD expects this to be a standardized template and request for milestone reports for other AGI wells.

CHAIRMAN FUGE: Okay. I have no further questions. Since Commissioner Ampomah is refused, Commissioner Bloom, would you like to go into closed session for deliberation and discuss, or do you think we can make a decision here?

COMMISSIONER BLOOM: Yeah. Mr. Chairman, I guess my still-unanswered question -- it's something I was struggling with here -- is ultimately, will the government 1 well be P&A-ed, plugged and abandoned, at some future point? I guess that's my question, is ultimately, is this plugged? And I don't know if that's something that Mr. Gebremichael can address at this time, or Mr. Tremaine.

CHAIRMAN FUGE: Yeah.

MR. TREMAINE: Commissioner Bloom, regretfully, I am not prepared to speak to whether or not Targa actually did re-enter the well at any point. I know that there were concerns in the -- as you know, in a quite substantial record about the process of re-entering that well.

So at this time, I would say that if

Ms. Hardy's able to answer the question, that's fine. If not, I would suggest that OCD can submit some form of supplemental report detailing or explaining what happened with that well at the time of the last order.

MS. HARDY: And -- may I?

CHAIRMAN FUGE: Yes, Ms. Hardy, please.

MS. HARDY: Thank you.

I can provide some additional information. The government L well -- it's my understanding that it is partially plugged, but it was not able to be completely plugged. And it is operated by another company, it's operated by EOG. So it's not operated by Targa. That's the status of the well right now.

CHAIRMAN FUGE: Okay. And it sounds like we had respect to that, just for my own clarification, that Mr. Tremaine, if I understood your representation, at least with respect to the well, we would be -- at least, from the OCD's perspective, we would be pushing out the obligation to plug it an additional five years, as that -- that's the reporting interval. And then we would revisit it at the time of a subsequent report.

MR. TREMAINE: That is correct, Mr. Chair.

CHAIRMAN FUGE: And in the intervening time, it would be used for monitoring and other things like that? So just -- if I'm understanding it, as -- confirms, we're not modeling this occurring?

MR. TREMAINE: That's correct. On an annual basis, Mr. Chair.

COMMISSIONER BLOOM: A follow-up question then, if you'll permit me, Mr. Chair.

CHAIRMAN FUGE: Yes, please.

COMMISSIONER BLOOM: So does the -- would the plugging of the government number one well endanger somehow operations of the Red Hills AGI number one, Targa's well? I don't understand why that is dependent -- why the status of the government number one well would be dependent on -- or I guess I don't understand why the status of the Red Hills AGI number one well would be dependent on whether government number one well is dealt with.

MR. TREMAINE: I can try to explain, Commissioner Bloom, or if you prefer, the question can be directed to Mr. Gebremichael. But my understanding is at the time of the initial and the amended orders, there were a number of wells that existed in a previously plugged status in proximity to the Red Hills AGIs.

And a concern there, at a very general level, is that those were not plugged with an acid gas plume in mind, and so there was an initial requirement in the orders to re-plug those wells. That did not happen to completion to plug the government L well, and so as Mr. Gebremichael indicated in his direct testimony, OCD feels it's prudent to continue using that government L number one well as a test well.

So the link between the two is that, again, at a very, very high level, if the inspections reveal some indication that the plume has moved that far out to the test well, then that would indicate that there was some issue with the modeling and that some considerations with the operation of the Red Hills AGI would need to be reconsidered.

Did that answer your question?

COMMISSIONER BLOOM: Mr. Tremaine, yes. Thank you. That's helpful. You've painted a better picture for me of the interrelationship between the wells and what we're trying to manage and why we'd be concerned about the plume reaching the government L number one well. No further questions.

CHAIRMAN FUGE: Commissioner Bloom, would you like to go into closed session to deliberate on this, or do you think we can be prepared to kind of

make a decision on the request?

COMMISSIONER BLOOM: Mr. Chair, I think we're probably ready to consider motions. I do not believe that we need to go into closed deliberations here. One other -- with the expectation that I think the recommendations I'm hearing from the OCD are that the five years -- more monitoring take place with annual reports, that Targa should resubmit its report along the lines of the new template that OCD has developed for AGI wells.

That would all seem to make sense to me. And using the new table that was developed as well. If that's what we're looking at, I don't think we need to deliberate in private.

CHAIRMAN FUGE: I think that's what we're looking at. Can someone just -- hazard of not having the right focus on the screen -- give me the order number that we would be amending?

MS. HARDY: Yes. It would be order R-13507.

CHAIRMAN FUGE: 13507.

MS. HARDY: And I believe that it is -- there are several orders, so there are orders after this one that contained the plugging requirements.

CHAIRMAN FUGE: Do you know --

MS. HARDY: It's D. It's 13507-D.

CHAIRMAN FUGE: 13507-D.

MS. HARDY: Yes. That would be amended.

CHAIRMAN FUGE: Okay. All right. I think I'll put it together. Commissioner Bloom, I believe you and I are in alignment, but I think the motion is to amend Commission order number R-13507-D. To extend the plugging obligation on Government L --

MS. HARDY: One. Com.

CHAIRMAN FUGE: -- Government L 001 Com for another reporting period, to require annual monitoring of that well, and to require subsequent report submissions to include the information contributed OCD Exhibit 1, page 1, one, two, three, four, six, seven, eight, and ten, and to be reported in the manner on the template provided in OCD Exhibit 1, page 2. And that that should be for all previously submitted reports and any future reports.

COMMISSIONER BLOOM: If that's our motion, I would so move, Mr. Chair.

CHAIRMAN FUGE: Okay. I second. Since it's just the two of us who are voting, let the record reflect that the motion is approved, and the order will be so amended.

MS. HARDY: Thank you.

CHAIRMAN FUGE: Thank you, everyone. We have one more -- well, we actually have two more matters on the docket, but they concern the same thing. I'm going to -- unless parties would like something different, I appreciate we've been here for a while, but we're going to give another fifteen-minute break for folks to stretch out and go again.

I am also happy to provide a lunch break, but I think we can wrap things up today. I'm just looking out at the crowd and my fellow commissioners. We good to keep moving through?

MS. HARDY: Let me check with my witnesses.

COMMISSIONER BLOOM: Mr. Chair, I would need a lunch break today. Either now, at 11:30, or at noon.

CHAIRMAN FUGE: Why don't we, since we've concluded the case and wrapped this up, why don't we take a lunch break now. And can we resume at 12:30? Does that work for you, Commissioner Bloom? Or thereabouts?

COMMISSIONER BLOOM: Absolutely. I appreciate that. Thank you, Mr. Chair.

CHAIRMAN FUGE: Okay. We'll be back.

Thank you.

MS. HARDY: Thank you.

(Off the record.)

CHAIRMAN FUGE: All right, just a quick check. We're going to resume here. We're going to actually deal with cases 23294 and case 23464, which are related. And actually, despite their placement on the agenda, I think we should actually sort of just hear them jointly, and 23464 first, and, you know, 23294 sort of second, because it's kind of a logical conclusion depending on how we act on 23464.

Looking to counsel for Salt Creek, counsel for OCD, and Ameredev, all -- appearances. Are your witnesses present and available so we can begin?

MS. HARDY: Yes, they are. Thank you.

MR. TREMAINE: Yes. For OCD, Mr. Chair, Mr. Gebremichael is again attending by Webex.

CHAIRMAN FUGE: And I understand there's no witnesses for Ameredev?

MS. HARDY: That's correct. Although I would like to make a brief statement on the record, if possible. Thank you.

CHAIRMAN FUGE: So, given that we have

three parties entered and appearing here, I'm going to go and let everyone do kind of a brief opening statement synopsis, and then we'll let the petitioners put on their witnesses for the matter. But we'll turn it over to you, Ms. Hardy, for your opening.

MS. HARDY: Thank you very much. And I will be --

COMMISSIONER BLOOM: Mr. Chair?

CHAIRMAN FUGE: Yeah?

COMMISSIONER BLOOM: Is Dr. Ampomah joining us for this case, or is he recused again?

COMMISSIONER AMPOMAH: No, I'm here.

CHAIRMAN FUGE: My understanding is Dr. Ampomah was only excused from 14720, so we have a full commission to hear this case.

That's correct, Dr. Ampomah?

COMMISSIONER AMPOMAH: Yes. That is correct.

COMMISSIONER BLOOM: Excellent. Thank you. Just wanted to clarify. Appreciate it.

Sorry, Ms. Hardy. Go ahead.

MS. HARDY: Thank you. The Commission issued order number R-20193C [sic] on January 16th of 2020, approving Salt Creek's application for authorization to inject treated acid gas into the Salt

Creek AGI number one well, which is located in section 21, township 26 South, range 36 East in Lea County.

The order provided that the well be completed in the Bell Canyon and Cherry Canyon formations of the Delaware Mountain Group, with an injection interval from approximately 5,410 feet to 7,000 feet.

The order incorporated permit conditions that were agreed upon by Salt Creek, OCD, and the state land office. On December 28th, 2020, the Commission issued order number R-20913-D, extending the deadline for Salt Creek to commence injection until December 28th, 2022.

And I wanted to mention that that well is on track to be a redundant well. There is a requirement in the order that Salt Creek also drill and complete a Devonian well subsequently to this well. And so that C108 has been submitted for the Devonian well; I just wanted to mention that so that's clear.

Salt Creek did spud this well, the AGI number one, on October 18th of 2022, and commenced drilling, but encountered technical complications that ultimately caused it to plug the well. As a result, on December 6th of 2022, Salt Creek filed an

application seeking to amend the order numbered 20913-D to extend the deadline to commence injection until six months from the date of the amended order. And that application has been assigned case number 23294.

And then on January 6th, 2023, the Commission did issue an order stating that injection deadline, pending a final decision. Subsequently, Salt Creek determined that it needed to revise the well design to add two additional casing strings and move the location of the well approximately 120 feet from its additional location.

As a result of the need for those changes, Salt Creek submitted its application in case number 23464, seeking approval of its amended C108 and an extension of the deadline to commence injection until 24 months from the date of the amended order. The target injection zone for the well will remain in the Bell Canyon and Cherry Canyon formations at depth of approximately 5,580 to 7,040 feet.

The well, as proposed in the C108 -- the amended C108, rather -- will not cause waste, impair correlative rights, or harm public health or the environment. Also, as the Commission previously recognized in its orders, including order R-20913-C, the well will facilitate the sequestration of CO2 and

treated acid gas, which is in the public interest.

Accordingly, Salt Creek's request to relocate and redesign the well is reasonable and consistent with the order and requirements of the Oil and Gas Act, and it will not cause waste, impair correlative rights, or harm public health.

That is all I have for my opening. Thank you.

CHAIRMAN FUGE: Mr. Tremaine?

MR. TREMAINE: Thank you.

Mr. Chair and commissioners, thank you. The Oil Conservation Division has been in regular contact with Salt Creek regarding this amended proposal to update the casing and move the surface location for this particular AGI well. I think that that communication, as I said, has been ongoing, and technically substantive, so partly at the request and recommendation of the OCD, you know, Salt Creek submitted the amended application as a new application and that -- OCD wanted to see that happen in the interest of keeping a really clear record of the cases and orders. So it's -- the case files on the record is clear as to what happened with this particular well.

As part of that, despite the issues

that Salt Creek experienced with the previous drilling activities, and because the OCD has been in regular communication with them, ultimately, the OCD is satisfied that even though there are still risks associated with the drilling of this well and the formations that they're dealing with, the revised plan that's submitted by Salt Creek in conjunction with the conditions recommended by the OCD, OCD believes that this plan is sufficient for the Commission to approve that well.

So today, the OCD and Mr. Gebremichael will testify to the review that he and the rest of the UIC group performed in assessing and reviewing the amended application and give a brief overview of what are now pretty standard conditions of approval that OCD is proposing for this AGI well.

Ultimately, in 23464, OCD will support approval of the well along the lines that will be outlined by Mr. Gebremichael. And once we get to that point in the following case, OCD will not take a position or will not object to extension of that injection authority and the other deadlines associated with it. Thank you.

CHAIRMAN FUGE: Ms. Bennett for Ameredev?

MS. BENNETT: Thank you very much.

Good morning, Chair and commissioners. Deana Bennett from Modrall Sperling on behalf of Ameredev Operating, LLC. Ameredev, as I mentioned in our pre-hearing statement, takes no position on Salt Creek Midstream's applications. Ameredev does have some general concerns, though, with the shallow injection that's proposed for AGI -- excuse me, for acid gas, which I outlined in our pre-hearing statement as well, but which I will briefly summarize for the commissioners.

So the first concern that Ameredev outlined in the pre-hearing statements -- this is just general concerns with shallow injection of acid gas -- that injection into the Delaware Mountain Group may increase cost to operators because the operators will need to implement additional wellbore design features. And so that could lead to increased costs because they will be drilling through an acid gas target zone, or an acid gas injection zone.

Secondly, injection into the Delaware Mountain Group could affect the pressure characterization, which in turn could lead to decreased production. And that would impact correlative rights.

And finally, injection of acid gas into the Delaware Mountain Group may impact the Capitan Reef, if wellbores in the vicinity haven't been properly plugged and abandoned.

Ameredev does support the drilling of the deep -- the Devonian well that Salt Creek Midstream is required to drill, under the conditions of the approved order. And in our pre-hearing statement, we noted that in fact, Ameredev would appreciate or supports expediting the requirements in that order to get the deeper well online and injection started quicker.

And Ameredev also supports the conditions that OCD imposed, or that OCC imposed, on the original order. And it's my understanding, and it seems like it's everyone's understanding today, that those conditions will be part of -- if approved, those conditions will remain in effect in terms of the timing for drilling and injection into the Devonian well and the concomitant requirement to cease injections into the DMG well, leaving that well as a redundant well.

Thank you again for the ability to be here, and I appreciate your time.

CHAIRMAN FUGE: Ms. Hardy, if you'll

please call your first witness?

MS. HARDY: Thank you. Our first witness is John Nicholson.

CHAIRMAN FUGE: And if I might ask the court reporter to swear in the witness?

THE REPORTER: Please raise your right hand.

WHEREUPON,

JOHN NICHOLSON,

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:

THE REPORTER: Thank you.

You may proceed.

MS. HARDY: Thank you.

EXAMINATION

BY MS. HARDY:

Q Can you please state your full name for the record?

A John Nicholson.

Q And, Mr. Nicholson, where do you reside?

A Houston, Texas.

Q By whom are you employed and in what capacity?

A Salt Creek Midstream, and I'm the chief

operating officer.

Q And what are your responsibilities as chief operating officer?

A Responsible for all engineering, capital projects, and operations for the company.

Q Have you previously testified before the Commission?

A No.

Q Given that, would you briefly summarize your educational background and professional experience?

A Sure. I have a bachelor's in petroleum engineering and an MBA from the University of Texas at Austin. And have about 16 years of experience, primarily in operations of upstream and midstream oil and gas assets.

MS. HARDY: Mr. Chair and commissioners, I'd like to tender Mr. Nicholson as an expert in petroleum engineering.

CHAIRMAN FUGE: Do I see any objections?

UNIDENTIFIED SPEAKER: No objection.

CHAIRMAN FUGE: Recognized as an expert.

MS. HARDY: Thank you.

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BY MS. HARDY:

Q Mr. Nicholson, are you familiar with the information contained in Salt Creek Midstream's application for injection authority?

A Yes.

Q Can you please identify the document that has been marked as Salt Creek Exhibit A?

(Salt Creek Exhibit A was marked for identification.)

A It's an application for extension related to case 23294.

Q And is Exhibit A a true and correct copy of the application?

A Yes.

Q What does the application request?

A An extension for injection of six months from the amended order.

Q Can you please identify the document that's been marked as Salt Creek Exhibit B?

(Salt Creek Exhibit B was marked for identification.)

A Another extension request related to case 23464.

Q And is Exhibit B a true and correct copy of the application?

A Yes.
Q And what does that application request?
A An amended C108 as well as a 24-month extension of the injection from the approval of the order.
Q And is Salt Creek's amended C108 attached to that hearing application?
A Yes.
Q Who prepared the amended C108?
A Geolex.
Q And was that David White?
A David White at Geolex. Yes.
Q Will Mr. White also testify?
A Yes.
Q And was the amended C108 prepared at Salt Creek's direction?
A Yes.
Q Okay. Can you please briefly summarize the changes in the amended C108 from a high level?
A Yes. So it's primarily a change in wellbore design to kind of compensate for the issues that we saw in the first well. So we're adding -- requesting an additional two strings as well as a 120-foot relocation of the wellbore.
Q And why is Salt Creek requesting a 24-month

extension of the injection deadline?

A We believe that 24 months is an adequate time for us to prepare and drill the well successfully, as well as stand up the facilities necessary to inject the acid gas. And in addition to that, allow our producing customers time to adjust their drilling plans to drill sour gas wells, which is required in order for us to meet the order.

Q And if the Commission approves Salt Creek's request for a 24-month extension in case number 23464, is it correct that Salt Creek would no longer need the six-month extension requested in case 232294?

A Yes.

Q Mr. Nicholson, can you please identify the documents that have been marked as Salt Creek Exhibit C?

(Salt Creek Exhibit C was marked for identification.)

A That's the presentation.

Q Okay. And I am trying to share this. But I'm not sure if it's -- I don't see it on the screen, so I don't --

CHAIRMAN FUGE: You are a presenter.

MS. HARDY: So if I hit "Share," it should work.

CHAIRMAN FUGE: Just give it a second -- it should work now. There we go.

MS. HARDY: Thank you. Okay. Now we can see it. There's a little lag, I think, in what I'm getting here.

CHAIRMAN FUGE: Yeah.

MS. HARDY: Okay. Okay.

CHAIRMAN FUGE: Give it a second.

MS. HARDY: Yeah.

BY MS. HARDY:

Q Well, can you tell me who prepared the PowerPoint presentation?

A Geolex and Salt Creek.

Q Okay. And are you familiar with the content of the presentation?

A Yes.

MS. HARDY: There's still a lag.

CHAIRMAN FUGE: See if you go down a slide -- there we go.

THE WITNESS: There it is now.

MS. HARDY: There we go. Okay.

BY MS. HARDY:

Q Mr. Nicholson, can you please provide an overview of Salt Creek Midstream's operations?

A Yes, sure. We're a private midstream

company in the Delaware Basin, which spans about eight counties with 400 miles of pipe. We have two cryogenic plants just outside of Pecos, Texas. And we have substantial operations in Eddy and Lea County, New Mexico.

Q And does the slide that's shown on the screen provide an overview of Salt Creek's operations?

A Yes. It's an accurate representation of our operations today.

Q And what is the role of this AGI project in Salt Creek's operations?

A Today, Salt Creek is primarily a sweet gas gathering and processing company, and we view the AGI as a natural extension into Lea County of our assets that will allow us to gather sour gas, treat that sour gas, and then take the sweet gas from that facility through our gathering and processing facility.

Q And can you provide a summary of the history of this AGI well?

A Sure. So we spud AGI 1 in late October. While drilling the production interval, we experienced unstable hole just below the surface casing, as well as significant losses in the Capitan Reef.

While we were trying to run production casing, casing became stuck. After multiple attempts to

retrieve that casing, we ultimately decided with OCD's support in mid-November to plug AGI 1 and sidetrack the well.

We completed the plugging operation in early December, and subsequently sidetracked the well. During drilling operations of sidetrack 1, we experienced the same unstable hole just below the surface casing, as well as more losses in the Capitan Reef.

This time, the drill string became stuck. And again, with OCD's support, we agreed to plug the well. Plugging operations were complete in late December. And then throughout January, we consulted with the OCD on a update to the well design that we thought would put those two challenging areas behind pipe. And we submitted that in February. Submitted the amended 108 in February -- C108 in February.

Q And has Salt Creek worked with OCD to address these issues throughout the time period that you were drilling this well?

A Yes.

Q Has Salt Creek submitted its C108 for the Devonian well?

A Yes. We submitted it prior to spudding the DMG well.

Q And is Salt Creek planning to proceed to drill and complete that well?

A Yes.

Q Has Salt Creek remained in compliance with the requirements of order 20913-D?

A Yes.

Q Have you reviewed the permit conditions that OCD has submitted in this case?

A Yes, I have.

Q And does Salt Creek agree to those conditions?

A Yes, we do.

Q In your opinion, will granting Salt Creek's application prevent waste and protect correlative rights?

A Yes.

Q And will it also protect human health and the environment?

A Yes, it will.

MS. HARDY: I have no further questions for Mr. Nicholson. I would request the admission of Salt Creek Exhibits A, B, and C. And Exhibit B includes the amended C108.

CHAIRMAN FUGE: Any objections?

MR. TREMAINE: No objections.

CHAIRMAN FUGE: Exhibits are admitted.
(Salt Creek Exhibit A, Salt Creek Exhibit B, and Salt Creek Exhibit C were received into evidence.)
MS. HARDY: Thank you.
CHAIRMAN FUGE: Mr. Tremaine, do you have cross?
MR. TREMAINE: We do not have cross, Mr. Chair.
CHAIRMAN FUGE: I just have one defined question -- commissioners first. Commissioner Bloom or Commissioner Ampomah, do you have any questions?
COMMISSIONER BLOOM: No, Mr. Chair.
CHAIRMAN FUGE: A quick one. When you said -- the new -- is going to be --
THE WITNESS: Correct.
CHAIRMAN FUGE: [Unintelligible response.]
UNIDENTIFIED SPEAKER: I'm sorry, we can't hear.
CHAIRMAN FUGE: Can you hear me now?
UNIDENTIFIED SPEAKER: Yes, sir. Thank you.
CHAIRMAN FUGE: Okay. Thank you. Yes. So my question is -- wells that you have problems

with. So I just want to know what happened -- you do not encounter the same problems. Or even if you encounter them, do you have a strategy?

THE WITNESS: Yeah. David White with Geolex will address some of that in his testimony, but we do believe that we will encounter the problems again. But as it relates to the instability below the surface casing, we plan to address that by putting an additional string through that zone, as well as an additional string through the Capitan Reef. And that should, and we believe it will, mitigate those issues.

CHAIRMAN FUGE: And I only had one question. You had mentioned the Devonian well is moving forward, and that being permitted, you're looking forward to drilling and development, or are you moving forward with the approval for it?

THE WITNESS: Moving forward with the approval for it. We have submitted the application.

COMMISSIONER BLOOM: Mr. Chair, I'm sorry, we've got to call on User 15. If that person could mute; we're getting a lot of road noise. Maybe we just mute everybody that's not presenting.

CHAIRMAN FUGE: I just took care of that.

COMMISSIONER BLOOM: Thank you.

CHAIRMAN FUGE: The only ones on are commissioners or people who were just in no-audio mode. Okay?

COMMISSIONER BLOOM: Thank you.

CHAIRMAN FUGE: I don't believe there are any further questions.

Thank you.

THE WITNESS: Thank you.

CHAIRMAN FUGE: You have another witness, Ms. Hardy?

MS. HARDY: I do. Mr. Chair, we would call David White of Geolex.

CHAIRMAN FUGE: May I ask the court reporter to administer an oath for Mr. White?

THE REPORTER: Yes.

Please raise your right hand.

WHEREUPON,

DAVID 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:

THE REPORTER: Thank you.

You may proceed.

MS. HARDY: Thank you.

//

EXAMINATION

BY MS. HARDY:

Q Can you please state your full name for the record?

A David Allan [ph] White.

Q And where do you reside?

A Albuquerque, New Mexico.

Q By whom are you employed, and in what capacity?

A Geolex, Incorporated. I am a senior geologist and vice president.

Q Are you familiar with the matters addressed in Salt Creek's application?

A I am.

Q Have you previously testified at a Commission hearing?

A I have.

Q Can you briefly summarize your educational background and experience?

A I received my bachelor's degree, Bachelor of Science in Earth and Planetary Sciences from the University of Tennessee. I did my master's work, a Master of Science at the University of New Mexico. And -- I'm sorry, could you say the last part again?

Q Just summarize your educational background

and professional experience.

A And I've been working with Geolex, which is an environmental consulting firm that has really developed a specialty in acid gas injection well design, since 2018, where we've focused on permitting and regulatory compliance, design, and construction of acid gas wells, as well as addressing complex environmental matters.

MS. HARDY: Mr. Chair and commissioners, I would request that Mr. White be recognized as an expert in petroleum geology.

CHAIRMAN FUGE: Any objections?

UNIDENTIFIED SPEAKER: No objections.

CHAIRMAN FUGE: Mr. White is recognized as an expert.

MS. HARDY: Thank you.

BY MS. HARDY:

Q Mr. White, I have put up a slide that summarizes Salt Creek's requests. Can you please summarize those, please?

A Yeah. And I think the prior witness, John, also gave a good introduction into what the specific request it was. And that being that Salt Creek is requesting amendment of existing Commission orders 20913-C and -D, as it applies for, first, permission

to redesign Salt Creek AGI number one to specifically address issues and challenges that were faced while Salt Creek was trying to drill via the original design.

Second, to authorize or provide approval for relocation of the new well or the next attempt at that AGI well to a different position on the facility property, such that it makes sense from a facility design standpoint, centralizing AGI operations in one location, as well as giving the ability to be separated from the existing plugged well, which we'll talk about.

And then finally, approval of a 24-month extension to that resultant permit to allow time to prepare for drilling, actually drilling and completing that well, and commercializing and readying the facility.

Q Can you please describe this facility and the well location?

A Sure. So the facility in question is in southern Lea County, New Mexico, and both the gas processing, gas treatment operations and Salt Creek AGI number one are located in section 21, approximately seven and a half miles southwest of Jal. So that would be section 21 of township 26 south,

range 36 east.

The original drilling location, which we'll see in the next slide here specifically where it is, is on kind of the northern margin of the facility. And we'll see the new location -- if you can advance the slide one? You'll see the relationship of the orange well icon showing the as-drilled location, and then where we are proposing the new location to be.

All of this will remain within the bounds of the Salt Creek facility property, and, you know, won't result in any infrastructure moving outside of that facility, which is fenced and secured. And then we show the specific coordinates of those locations, both the as-drilled and the proposed new location.

Q Can you please summarize the permitting and order compliance history for this well?

A Yeah. So Salt Creek and -- I know we've talked about this a little bit, but Salt Creek was initially authorized in 2020 through issuance of order R-20913-C. The specifics of this approval authorized Salt Creek to inject up to eight million standard cubic feet per day at the 2,149 maximum allowable surface injection pressure.

Following that approval, based on actual operations of the facility and as John, the prior

witness, had mentioned, predominantly sweet gas operations. The well was not drilled immediately, and ultimately the order authorizing its operation expired.

So in December -- December 28th of 2020, the Commission issued order R-20913-D, which reinstated that injection authority. And it did have some specific conditions added at that time for -- which were important in Salt Creek's attempt.

Specifically, order version D required, prior to Salt Creek spudding this well, to reevaluate the area of review and submit the results of those findings to the Division, as well as to provide notification to any new interested parties that were new from the time of the original hearing.

Additionally, the order D required the redundant deep Devonian AGI well application be submitted with the spud notice of the AGI number one well. So -- excuse me. To summarize the -- with respect to planning and execution of operations to drill AGI 1, Salt Creek has remained compliant with all actions required to date within those respective orders.

Q Can you describe some of the benefits of the proposed AGI well?

A Yeah. And the -- I mean, in general, the

project has great environmental benefit in that while it may be motivated, or these projects may have a lot of benefit in their ability to handle H2N, hydrogen sulfide, in a safe manner, they also handle and dispose of a lot of carbon dioxide, which ultimately is a great environmental benefit to these types of projects.

In general, these projects reduce waste and air emissions, providing facilities more operational stability, and are ultimately, as we've seen, better systems -- more reliable systems than alternatives such as sulfur recovery units.

Based on the forecasting and Salt Creek's conversations around this facility and what it needs in terms of disposal, this well has benefits in that it will provide acid gas disposal for this area that is likely -- or forecasted to be necessary in the future.

Specifically -- and actually you'll have to forgive me, there's an error in this; but based on its permitted volumes, the eight million standard cubic feet per day, that ultimately results in 380 tons of CO2 and 80 tons of H2S being sequestered each day.

You'll have to forgive me, there's a typo in there. Those are not metric tons, those are tons.

Q Trying to go to the next slide. There we go. Yeah. Okay. Can you please discuss the drilling operation consultation with OCD and the well's current status?

A Absolutely. So in one of the first slides, we had kind of a breakdown of the history of drilling AGI number one, but just to kind of reiterate that again, Salt Creek AGI number one was spudded on October 18th, 2022. The original well design included two casing strings, with the surface casing string being set at the top of the Ressler [ph] formation at about 2,100 feet.

The well was spudded, and that surface casing interval was drilled successfully. Casing was set and cemented successfully by October 22nd. While drilling past that point in the production casing interval, we experienced two really significant things.

In the interval of Ressler [ph] formation, you know, just below 2100 feet or so, we started to see intervals of borehole instability. And this is confirmed to be within the Ressler [ph] formation from caliper logs and things that were run in the original open hole of the production casing interval.

And then, subsequently, we also saw severe lost circulation zones in the interval of the Capitan Reef.

And ultimately combined, those two vertical intervals of lost circulation and then borehole instability above made it very difficult to drill the well.

And ultimately, production casing became stuck while trying to run. The well was drilled to the total depth targeted, and casing became stuck while trying to install that in the well.

Despite multiple attempts being made to remove that casing, whether through, you know, bringing in equipment able to do lift -- provide more lift to the casing, trying to displace mud around the casing and trying to get it free; ultimately, the casing was parted in the original well bore and left in the hole.

In addressing this, Salt Creek, Geolex, and -- had consulted with the NMOCD on the appropriate next steps to plug this, understanding that plugging and sidetracking of the well may be a viable option, and began discussions with the OCD to develop that plan.

And so, after those consultations, plugging of the borehole was approved, a plan was submitted via C103, and plugging of the borehole was approved on November 16th. An important part of those plugging plans is that these operations were to be completed with utilizing corrosion-resistant cement slurries, because of the nature of this being an acid gas

injection well.

So as you can see in the table on this slide, which summarizes generally the plugging operations that were completed, much of that across the lower wellbore section was done so with corrosion-resistant slurries.

And so in the next slide, you'll see, again, a summary of the cement operations that were completed, but this time, alongside a plugging diagram that was produced which shows, basically, the intervals and what materials were utilized for those plugging operations.

So in the shallow sections when we're out of the zones of the Capitan Reef, out of the zones of the proposed and approved injection interval in the Delaware Mountain Group, we have continuous coverage -- or we have cement plugs utilizing house MC [ph] cements in the shallow sections, but everything below a depth of 3,028 was completed utilizing Halliburton corrosive -- corrosion-resistant slurries.

So in this slide, following -- in doing that, as we've stated before, Salt Creek has maintained discussions with the Division to make sure an appropriate plan and operations are completed successfully. And so after the initial plugging of

the wellbore, the original wellbore which had casing lost in it -- stuck casing lost in it, the approved plugging plan was carried out utilizing corrosion-resistant cement.

And then OCD was consulted again to essentially verify that the plan had been conducted successfully prior to considering Salt Creek's subsequent request to sidetrack the well.

So in this slide, you can see the proposed side track diagram, which began in December of 2022, reaching a measured depth of 5,111 feet on December 17th. However, the combined -- as John had mentioned earlier, the prior witness, the combined hazards of wellbore instability above and lost circulation ultimately resulted in the drill string becoming stuck while drilling the side track.

So, you know, this was done ultimately -- the operations that Salt Creek were attempting prior to the drill string becoming stuck were to proactively cement the intervals of loss. And ultimately, the conditions above and -- with wellbore instability and lost circulation, resulted in sticking of the drill string during those cementing operations. So the drill string was hydrostatically stuck and cemented in place.

Q This is Slide 14. Can you describe the proposed redesign of the well?

A Actually, if you can back up -- I'm sorry, I forgot one thing. Apologies. With the information that's provided on here, it's just small. I missed a bit.

So once the drill string was cemented in place, obviously, Salt Creek recognized that the side track wellbore was not going to be something that was salvageable either. So again, reached out and consulted with NMOCD, UIC technical staff, to assure an appropriate plugging plan is in place. So following that, the drill string was cut off, and plugging operations in a similar fashion using corrosion-resistant cements were utilized to plug the side track wellbore.

Q Now let's talk about the redesign of the well.

A So with the conditions that were experienced at this location, obviously it has made it very challenging to drill and complete the AGI number one well as proposed, or as originally approved. However, Salt Creek is still of the opinion that for handling H2S and CO2 at this facility, an AGI well is the most preferable and safest handling method.

The use of these types of wells increases the safety and reliability of operations, has the environmental benefits we've discussed previously, and ultimately, results in significant volumes of CO2 and H2S being disposed of.

But ultimately, Salt Creek has realized that for a well like this in this location, there needs to be some physical changes to the well in order to make drilling and completion operations successful.

So in this slide, you can see a well schematic for the proposed redesign.

Q And this is slide 15; yes?

A Yes. This is slide 15.

And so the -- what Salt Creek is specifically requesting is the addition of two casing strings, which do not augment the two existing strings in any way, but rather, add two larger casing strings to the design that will serve the same -- or allow for the physical isolation of the two intervals in which hazards were encountered.

So the first casing string, much like in the first attempt to drill the well, will be the surface casing protecting shallow groundwater resources. The first intermediate casing string, the 13 3/8-inch casing string that's shown here, will extend to an

approximate depth of 3,100 feet and physically isolate the intervals where wellbore stability issues were encountered.

The second intermediate casing string, the 9 5/8-inch, will specifically isolate the intervals of fluid loss. And then subsequently or lastly, the seven-inch production casing will extend down to the base of the approved injection zone, as originally designed.

It's important to note that while these two additional casing strings are being added to provide those physical barriers, all of the other critical AGI design considerations, such as the use of corrosion-resistant alloy materials, downhole equipment, utilizing corrosion-resistant materials, all remains unchanged. The only change that is occurring is to add larger casing strings -- two additional larger casing strings.

When completing the well in this way, and when attempting the drilling of the first well location, we have and continue to drill the well, perforate the well, and complete it in accordance with prior conditions of approval that required a specific vertical separation between the Capitan Reef and the injection zone.

Q And let's look at slide 16. How will the

well, in its new design and location, avoid interference with the original well?

A So with -- and this really relates to Salt Creek's request to relocate specifically to a location 120 feet southeast in order to both provide separation from the existing plugged wellbore, as well as to maintain surface operations, maintain AGI operations at a location suitable on the facility that keeps facility personnel safest.

So the proposed well location southeast of the existing well provides Salt Creek that, and that all AGI processes can be organized on the property and the lengths of any associated lines can be minimized.

Because there is a plugged wellbore with a plugged side track in close proximity, Salt Creek, in drilling at the new location, will conduct anti-collision surveys and utilize directional tools to make sure that the position of the new well with respect to the old well and the separation from those two wells are maintained.

And so, as it's been expressed by the OCD, and the importance of preserving the well records with respect to this project, in maintaining those accurate records, we wouldn't expect any revision of the Salt Creek AGI number one well. That well would officially

-- and we'll file -- we propose would be officially -- would be maintained, and this new location would be given a new API number. Salt Creek would file appropriate NMOCD forms to get a new well record generated, a new API number.

Q And did you update your evaluation regarding fault lift potential?

A We did. And in preparing the C108 in general, we reached out to OCD to make sure that an amendment application would include all of the additional supplementary materials that are most appropriate for this type of request, and not only the approval to redesign and relocate.

So updating, taking an additional look into the injection operations in the area, ongoing in the Delaware Mountain Group, was one of those materials that we also agreed upon providing.

So with this amendment application, the project area was re-evaluated with respect to the potential for induced seismicity. The components of that assessment involved -- well, for this particular assessment, for the amendment application, it was foundationally based on review of seismic survey data that was completed in 2019 and 2020 for the original permit.

This evaluation of the subsurface was utilized to construct the fault slip probability model, the structures in the area, and ultimately, simulations were ran to assess fault slip probability risk, based on the current wells operating.

So in this slide, we show the -- kind of a high-level view of the project area with two faults that were identified as a result of that seismic review. These faults are northwest striking, and for the purposes of representing them in fault slip probability models, were broken up into six fault segments.

Also shown in this map are the injection wells that are authorized or active within the Delaware Mountain Group in this area. These wells are annotated by their API number, as well as their authorized daily injection volumes. As you can see, there are four active and new DMG wells in the general area with permitted volumes of 5,000 to 35,000 barrels per day.

Q Can you describe the model input and the simulation conditions that you used?

A Yeah. So in assessing fault slip probability and induced seismicity risk, we utilized the Stanford Center for Triggered -- Induced and

Triggered Seismicity's fault slip potential model. This model first uses input parameters that describe local stress, faults in the area, fault geometries, and their orientation to determine how much of a pressure increase at the center of these features would be required to induce motion.

In general, the features that have been identified in the area of the Salt Creek AGI well are nearly vertical to steeply dipping features that generally strike northwest to southeast. And the two -- taking a look at the two tables to the right, we summarize the model input parameters that we utilized for the fault slip probability assessment, as well as all of the wells and specific key details about those wells and their operation.

In our simulations, to assure the results of those simulations are conservative, all of the wells were simulated assuming they would inject at their maximum daily rate day in and day out.

Q What conditions were required to induce fault slip?

A So as I mentioned in the previous slide, from information and details about local stress conditions and fault geometries, the first step that the FSP model takes is utilizing those parameters and

determining what pressure increase, in psi, would be required to induce motion along those features.

And as shown in this table, or for the Salt Creek AGI Well Induced Seismicity Assessment, this table shows those model-calculated pressures for the six fault segments in the project area.

These subsurface features -- and maybe it's -- subsurface features in this area striking northwest are not aligned with directions of maximum horizontal stress, and so it makes sense that these pressures are in the -- as you can see, ranging from 1960 psi upwards of 2350 psi.

The segment 5, as shown in the previous map, exhibits the lowest core pressure increase required to induce slip, but ultimately, it's anticipated that this threshold is still significantly higher than what the current makeup of injection wells in the area would produce.

Q Can you talk about the simulation results?

A Yes. So the next step in the model, or using the fault slip potential model, is to conduct a hydrologic simulation where the operation of those wells in the project area is simulated in order to predict what type of pressure influence they will have. And the results of that hydrologic model are

shown in the various panels, A and B in this slide, slide 21.

And after 30 years of simulated injection, the fault slip potential model estimates for pressure increase along the midpoint of faults ranges between 44 and 93 psi. Each of those fault segments, the pressure conditions at their midpoints is shown in the six trends in panel B, and then ultimately, the pressure map is shown in panel A.

In general, the results of the hydrologic model and their comparison to the pressures required to induce slip, the injection of these six wells as permitted in this conservative simulation of them operating at their maximum pressures; ultimately, what the model predicts as being the actual pressure increase falls significantly short of what the geomechanics of this model determination would suggest would be required to induce slip.

These results, ranging from -- sorry, it's on the next slide. From about 44 psi to 94 represents about two to four percent of the pressure required to induce slip.

And so in this slide, we see another view of the results. We see in panel A, the model's predicted fault slip probability. Because of the minimal

increase that the model predicts along each fault, and the significantly higher core pressure increases required to induce slip, naturally, the model predicts zero probability for the six fault segments that were modeled.

In panel B, to the right, we see kind of an aerial view that summarizes the location of the two faults, represented by six fault segments, the FSP model's prediction of pressure increase following injection by these SWD and AGI wells, and then the location of those wells in map view.

And just to summarize that, the results of this slide and the prior slide, the model under these conditions and for these features which have been identified does not predict any probability of slip for the injection scenario simulated, and it is anticipated that operation of Salt Creek's AGI number one well as proposed does not represent an increased risk for injection-induced seismic events.

Q This is slide 23. Can you describe the relationship of the AGI number one to seismic events -- fault areas?

A That's correct. And here we take kind of the results of those -- making sure we have an understanding that those results are reasonable. So

kind of the next appropriate step is to look into the area with respect to historic seismic events, and also with respect to the Division's seismic response areas, which have been defined based on areas of significant or increased seismic activity.

So in the map, we show the location of the AGI number one well, in township 26 south, range 36 east, kind of towards the base of that map. The NMOCD's induced seismicity response areas are shown by the gray polygons -- circular polygons.

So we can see that the Salt Creek AGI facility and wells are located at a pretty significant distance from those areas in which seismic events have been of concern and response protocols are expected in response to qualifying seismic events.

Additionally, we have plotted on this map the United States Geological Survey records of earthquakes from 1973 to the present, so we can see that not only does the AGI number one location and the Salt Creek facility not exist -- or is not located near areas of problematic or near the seismic response areas, but also does not exhibit any history of repeated seismic events.

Q And what did you conclude as the result of your fault slip analysis?

A That based on the current authorized or active Delaware Mountain Group injection operations in the area, and the results of our investigation of faults in the area, that the operation of those wells as proposed and as permitted will not produce induced seismic events or elevate the risk for induced seismic events in this area.

Q Let's look at slide 24, which talks about the area of review. Did you update the area of review for this well?

A We did. We did. We updated the area of review -- or reinvestigated the area of review to understand operations in the area, to identify new operators, or new interested parties who may not have been contacted in the original application or notified in the original application, as they were not interested parties.

And this map summarizes kind of the one-mile area of review for the Salt Creek AGI number one location that is proposed. Within that one-mile space, there are 58 wells, 22 of which are active, 14 are permitted, and 22 are plugged. This area is generally characterized new production by Bone Springs and Wolfcamp Plays, which underlie the approved Delaware Mountain Group injection zone, but the area does have

some marginal handful shallower -- marginal production from shallow wells.

Within the area of review and shown by the red arrows on the map, there are seven wells that penetrate the Delaware Mountain Group with -- and looking at the map key there, you'll see that many of these are -- that are denoted by the red arrows are Bone Springs or Wolfcamp production, underlying the Delaware Mountain Group.

Q And have you reviewed Ameredev's pre-hearing statement?

A I have.

Q And have additional producing wells been permitted in the area of review since Salt Creek's application was initially heard?

A Yes. There are additional Bone Springs and Wolfcamp permits that have been approved -- I can't point to them. And we can discuss them. So generally, a lot of the oil new shown in this map, may of those are new permits for producing wells in the area, with the exception of the cluster to the southwest corner of section 21, and then some of those just across the section line in section 27.

Q In your opinion, will the proposed AGI well have any impact on wells within this area of review

that penetrate the injection interval?

A So from work we've completed in the past with respect to these proposed operations being -- well, that were included in the original C108 application, you know, part of that investigation involved running some volumetric modeling based on the proposed operation of this well and our understanding of the reservoir properties in this area.

And looking back on those results, it doesn't -- those results are not indicative of the AGI plume interacting or encountering the vertical portions of the wellbores of these underlying Bone Springs and Wolfcamp producers. Additionally, the Commission's prior requirements to transition this to a redundant well will also minimize the amount of volume that goes into this well.

And so, when combined with the original results for 30 years of operation of this well not encountering adjacent wellbores, combined with the fact that a second redundant Devonian well will be -- or a second Devonian well will be installed and the transition of this operation to a redundant -- I don't believe that it poses any risk.

Q And has Salt Creek agreed to comply with OCD's permit conditions?

A Yes. With respect to their proposed permit conditions in this case, yes. Absolutely.

Q And will those permit conditions also help ensure that there is not a detrimental impact to surrounding wells?

A They will.

Q Can you also respond to Ameredev's concerns regarding the Capitan Reef?

A Yes. And so, again, one of the original conditions of approval for this well required that a significant amount, no less than 500 feet, of vertical separation be maintained between the top injection perforation in the well and the bas of the Capitan Reef or reef-equivalent strata.

And so, when drilling the original AGI number one well, prior to having to plug and abandon those wellbores, the well was drilled to total depth, and Salt Creek and OCD discussed the results of those logs to identify those critical intervals; where the base of the Capitan Reef is, where the first perforation could be; and so we think that those conditions of approval will maintain protection of the Capitan Reef, as well as intervals of low porosity, low permeability, that we observed in the lower section of the Capitan Reef, which we believe represent four reef

strata -- four reef sediments that are generally low-permeability and low-porosity.

Q And based on your experience and understanding, has the initial well been appropriately plugged?

A Yes, I believe it has. And -- the original wellbore and the sidetrack wellbore. These operations were completed, you know, with the input of the Division, you know, these plugging operations utilized corrosion-resistant slurries that were appropriate for this and appropriate for isolating the Delaware Mountain Group injection reservoir, where, you know, corrosive conditions may develop.

And these operations were completed, you know, to provide as much coverage behind and within -- behind casing in the well, as well as in the wellbore. So yes, I believe they are adequate.

Q And will the plugging of the initial well and the side track ensure that there is not communication between the injection interval and the Capitan Reef from those wells?

A Yes.

Q Look at slide 25. Did you also update the land and surface ownership information?

A Yes, in addition to re-evaluating oil and

gas operations and injection operations in the project area, Salt Creek and through work completed by the Schoeffler Energy Group, re-evaluated Lea County land records to make sure all surface owners and interested parties were identified such that they could be provided notice and copies of the application, notice of hearing.

In the map, we show, utilizing polygons, the -- within the one-mile area of review, state and private lands where operators and leases -- or federal and state leases are located. And then in the formal C101 application, for which these slides are representing, all of the notification documents and proofs of deliveries -- well, the notification documents are included in the C108 application. Drafts of those, and then the proof of delivery have been submitted for exhibits today.

Q And let's look at those exhibits for a moment. Are those documents included in Exhibit D?

(Salt Creek Exhibit D was marked for identification.)

A Yes, they are.

Q And does Exhibit D include the notice exhibits for both of these cases?

A Yes, they appear to.

Q Based on those exhibits, was notice provided to all affected parties?

A Yes.

Q Okay. Let's look next at slide 26. Can you please summarize Salt Creek's amendment application?

A Yes. so the amendment application -- or, despite challenges in drilling AGI number one, Salt Creek maintains that utilization of an AGI well to dispose of their waste acid gases remains the best handling method -- remains the best solution for their facility.

Summarizing the attempts to drill the well, drilling operations began in October 2022; however, subsurface conditions by way of lost circulation and wellbore instability resulted in the need to plug and abandon the original well location.

Subsequently, these conditions persisted in attempts to sidetrack the wellbore, and ultimately resulted in the need to plug and abandon totally that surface location. To address these subsurface issues and ensure Salt Creek can successfully drill the AGI number one well, we are proposing utilization of two additional casing strings to physically isolate those wellbore instability intervals, as well as the lost circulation zones.

This change, by providing physical isolation of these intervals, allowing one problem at a time to be handled, will significantly improve Salt Creek's ability to drill this well successfully. As we do need to maintain appropriate distance from the plugged well, we also are -- Salt Creek proposes to relocate the AGI well to a new location, about 120 feet to the southeast, where it will remain centralized to related acid gas injection operations like compression, process units, and minimize flowing of high-pressure acid gas across the facility.

In planning to drill and complete AGI number one, as we had discussed before, Salt Creek has remained compliant from a regulatory perspective, and the conditions of approval and former -- in the prior Commission orders.

As we discussed in the previous slide, Salt Creek has also re-evaluated the AGI well area of review with respect to the amended surface location. This includes evaluation of the wells that are in place, which are approved, and then have also re-evaluated land records to ensure all interested parties have been identified and provided notice of the hearing and notice of the application.

And also, re-evaluated induced seismicity risk in

the area, based on the current landscape of injection operations in the Delaware Mountain Group. The results of these additional induced seismicity assessments confirm the findings of the original application, in that the faults and subsurface features in this area do not pose in increased risk for injection-induced slip, based on the injection simulation presented, which includes saltwater disposal wells as well as the proposed AGI well.

Q This is slide 28. Can you please summarize Salt Creek's request of the Commission?

A Yeah. And so Salt Creek specifically requests amendment of the NMOCC order R-20913 in order to provide them the ability to successfully drill and complete the Salt Creek AGI 1 well. The first specific request is approval to redesign the -- to revise the well design to incorporate two additional casing strings, which will physically isolate the intervals of borehole instability and lost circulation that were encountered.

Salt Creek also requests approval to relocate the AGI number one well to a new surface location within the existing plant property. To preserve regulatory records, this new location will be -- a new C101 application for permit to drill will be submitted to

assign a new API number and generate a new well file.

This location will also allow the operations and the design of the surface facility to continue to allow for safe AGI operations on the facility.

And finally, Salt Creek is requesting approval to the deadline to commence injection through AGI 1 until 24 months from the approval date of this application, which will allow them sufficient time to acquire the necessary AGI materials, conduct drilling and completion, and commercialize the facility.

Q In your opinion, will granting Salt Creek's application protect correlative rights, prevent waste, and protect human health and the environment?

A I do.

MS. HARDY: I have no further questions for Mr. White. I would move the admission of Salt Creek Exhibit D, including exhibits D1 through D3.

CHAIRMAN FUGE: Any objections?

UNIDENTIFIED SPEAKER: No objections.

CHAIRMAN FUGE: Exhibits are admitted.

Mr. Tremaine, do you have cross?

(Salt Creek Exhibit D was received into evidence.)

MR. TREMAINE: I do not.

CHAIRMAN FUGE: And Ms. Bennett, with

respect to Ameredev -- do you have any questions for the witness?

MS. BENNETT: No, I do not.

CHAIRMAN FUGE: Commissioner Ampomah, Commissioner Bloom, any questions?

COMMISSIONER BLOOM: Mr. Chair, no questions at this time.

CHAIRMAN FUGE: Okay.

COMMISSIONER AMPOMAH: Yeah, I do have multiple. So the first question -- what of the -- assessment that was done on the well -- that was not successful?

UNIDENTIFIED SPEAKER: I'm sorry. I can't hear Dr. Ampomah again. I'm so sorry. Mr. Chair?

CHAIRMAN FUGE: -- look at it.

COMMISSIONER AMPOMAH: Is that better?

UNIDENTIFIED SPEAKER: Sounds good. Yeah. Just keep talking loudly. Thank you, Dr. Ampomah.

COMMISSIONER AMPOMAH: So I'm more concerned, you know, about -- drilling beneath the new location is successful. Right. So the question is, what kinds of assessment have you done to make sure that that issue is not encountered again?

THE WITNESS: Well, I mean, the -- with respect to drilling the well, there was really only the opportunity to drill or to collect through-bit geophysical logs and the mud logs. And so ultimately, those, you know, down-hole measurements were, you know, led us to looking at, "Okay, here's what caliper logs look like," here's what we were experiencing in loss zones and materials that were becoming problematic and sticking off -- packing off the drill string from above, so the geophysical logs and ultimately, drilling the well, and the conditions experienced is, you know. Has resulted in the decision to isolate those through casing.

COMMISSIONER AMPOMAH: So I'm understanding that you did analysis looking at -- lost from the nearby wells, in divining this particular well? Or is data that you going to collect from this particular well?

UNIDENTIFIED SPEAKER: I didn't catch that --

THE WITNESS: I'm sorry, say again?

COMMISSIONER AMPOMAH: When I talk about the -- analysis, I mean did you look at consistent wells in that area and then look at the well -- the rocks that are below, did you actually

perform, like, something like -- what was -- analysis? To see what -- what should be -- you know, how should we drill this well to avoid facing the same problems that you had --?

THE WITNESS: Well, so, the -- in drilling the well, there was a mud program developed with respect to -- or with service providers, mud service providers. With respect to prior to drilling this well, the wells were certainly evaluated with respect to those penetrating the Delaware Mountain Group. But ultimately, those didn't -- we relied on the input from mud companies, mud engineers whom drill in this area to design the mud program.

COMMISSIONER AMPOMAH: So are you saying that the problem that you encountered was first of its kind? Like no one has drilled in this area that encountered similar problems?

THE WITNESS: Well, I don't know if I would say it's new, but I think it's -- in this particular location, it was something where fluids were being lost in the lower section and sticking was occurring from above. Based on what we see in terms of the way the caliper log looked.

COMMISSIONER AMPOMAH: So then the question that we can ask will be, what -- you know.

So what lessons did we learn from -- well in such a way that the new -- actually go though, because, like, 120 feet, I don't see how it's going to really drill this well successfully. You are -- to really understand what --

THE WITNESS: And I agree. I think we expect that those hazards we encountered will still be there at a location 120 feet. But ultimately, and that is the motivation for the design request. Dealing with them is isolating them.

COMMISSIONER AMPOMAH: So you've done a great job on the new design, where you have two intermediate pieces. Which is -- so you really need -- but what about formation? Do you feel that application's really a quick release, like where you can successfully store acid gas without any compromise of the -- or rest of the formation?

THE WITNESS: So yeah. Based on -- after drilling this well, we expect that -- and in the original application in 2019 and 2020, we expect that, you know, the reservoir displays characteristics suitable for that, both in terms of storage as well as the observation of what we see as four reef type, low porosity, low permeability sediments that can contain acid gas.

The hazardous intervals that we encountered overlie those sections and the Ressler [ph] formation where we saw wash out, wellbore instability, and the interval of the Capitan Reef. Those hazardous zones that we saw were -- are significantly separated from the Delaware Mountain Group injection zone, which we anticipate the top perforation being at about 5500 feet.

COMMISSIONER AMPOMAH: So you're saying that there is enough separation so -- in terms of where you encountered these problems -- interval?

THE WITNESS: So the interval of what we presume to be wellbore instability was beginning right under the surface casing in the Ressler [ph] formation, at about 2100 feet. Caliper logs kind of seemed to indicate a couple hundred feet of pretty significant issue there. The base of the Capitan Reef with -- that we identified and NMODC UIC staff -- actually, let me back up.

We identified and OCD concurred that the base of the Capitan Reef sediments were at 5,008 feet. And both OCD, Salt Creek, and Geolex agreed that the top perf would be no shallower than 5580. So there is -- we see separation. That is what OCD and Geolex and Salt Creek agree the separation should be,

and that we also see at the base of the Capitan Reef, that being characterized by low-permeability, low-porosity four reef. So that seems significant separation suitable for containment.

COMMISSIONER AMPOMAH: So then -- is that you've done the analysis to be really confident that even though we're having these problems in the -- we still have a containment, and then also we -- to prevent the gas -- respective worry -- problems that have been encountered drilling the well.

THE WITNESS: With the separation we see from where losses and wellbore instability -- where those -- with the vertical separation we see, we believe it's appropriate.

COMMISSIONER AMPOMAH: So let's talk a little bit more about --. So you said that you reviewed. So I just want to be clear on this, did you review or interpret seismic -- to get at faults?

THE WITNESS: We viewed seismic survey data.

COMMISSIONER AMPOMAH: But --

THE WITNESS: We interpreted faults from that viewing.

COMMISSIONER AMPOMAH: So then, let me ask you: What mechanism did you use in -- these

faults? Like what -- use in the interpreting of the faults?

THE WITNESS: I was -- I mean, it was observed offset in seismic data.

COMMISSIONER AMPOMAH: Can you clarify that?

THE WITNESS: We were viewing seismic survey data, and in evaluating the area, observed visible offset in seismic --

COMMISSIONER AMPOMAH: Okay. Okay. Okay. Were these locuses well logged?

THE WITNESS: So the -- where these features were observed was, you know, three miles to the east and northeast of the project area. So I don't recall seeing it in well logs or, you know, being clearly identified in structural mapping.

COMMISSIONER AMPOMAH: Let's talk a little bit about the causative analysis that you did. Looking at the parameters that you studied, what was the minimum result of stress that was utilized?

THE WITNESS: So with the Stanford fault slip probability model, in lieu of inputting numeric horizontal stresses, you can also utilize the AC parameter which characterizes it, and the developers of that slip potential model have worked

the Permian Basin in order to inform what AC parameters are appropriate for characterizing the state of stress in different portions. So for this one, the AC parameter utilized was .6.

COMMISSIONER AMPOMAH: And is that equal, more or less, to the fracture pressure gradient to you?

THE WITNESS: No.

COMMISSIONER AMPOMAH: Or do we look at the -- pressure? In this area?

THE WITNESS: Well, I mean, it can vary. I mean, in the Delaware Mountain Group, it can be pretty -- we've seen it in wells we've drilled to the south be pretty high, and we've seen it in wells in which it's lower.

COMMISSIONER AMPOMAH: Well, then, those submissions -- that you did, but actual numerical observation to look at the plume. So I saw that you used one-mile radius for your area of review. Right? But -- actually be able to know the impact of the plume unless the plume -- the pressure build up and all of that -- definite numerical observation should be utilized.

And that can more -- establish a baseline for your five-year review --

THE WITNESS: That's correct, and I think -- I mean, ultimately, one of the things to note is this is, you know, has an approved order from 2020 in which the expectations for what we do now in new AGI well applications were not the same. And certainly, you know, that was one of the reasons for focusing on -- or making sure we reach out to OCD prior to preparing this amendment and abbreviated application, so that those -- what is expected is provided.

COMMISSIONER AMPOMAH: So now and then, now I get it. I get that, clearly. So then, what information are we going to get from this particular well? -- Are we going to get any core data to also have with related -- experiments to be able to -- calibrate our models that we attempt to do in the future?

THE WITNESS: Yes. So in the approval of the original well, you know, the plan as described in the C108 was to conduct and collect all of the data that we typically do for AGI wells that we typically are requested for by the OCD and the commissioners. So the -- we would expect that a revised location would include those things, such as SMI logs or collection of sidewall cores, things like that that

are typical of AGI approvals.

COMMISSIONER AMPOMAH: So my last question will be on the --. So -- do you believe that if OCD continues to give permits in this -- which is -- injection of acid gas into this formation is going to be very difficult to drill through those formations to get -- which should be more -- aquifer that we should -- now.

THE WITNESS: Well, certainly, I mean -- certainly if production is going to be continued, or if production operations are going to continue to develop in this area, then yes, that is an issue. Ultimately, the agency has authorized this interval for acid gas injection, and would be a problem that I don't think is specific only to this project, but, you know, there are other shallow operations which would be similarly needing to address these types of questions.

COMMISSIONER AMPOMAH: Thank you, Mr. Chair.

CHAIRMAN FUGE: No questions from me. Any questions, Ms. Hardy?

MS. HARDY: No, thank you.

CHAIRMAN FUGE: I'm going to give a five-minute break. -- for a five-minute break. We'll

wait a minute. I'm going to give a five-minute break just to get some more water and go, and then we'll proceed with OCD's information. So that means a return at 1:15. Thank you.

THE REPORTER: Thank you.

(Off the record.)

CHAIRMAN FUGE: Sorry for the record, we were muted. We are ready to resume. Mr. Tremaine for the OCD presenting.

Turn it over to you.

MR. TREMAINE: Thank you, Mr. Chair and commissioners. Salt Creek just provided a very substantial background, including many of the points of discussion that OCD engaged in with the operator. So ultimately, OCD determined and you will hear today that OCD feels that the application as revised with the recommended conditions of approval that the Division is recommending is adequate.

So I'm going to move pretty quickly through, really, a summary assessment of OCD's involvement through the testimony of Mr. Gebremichael, but by all means, if there's any questions about that, I don't mean to imply this to be cursory, just -- we're going to look through this pretty quickly. And don't have any particular technical points which OCD

is contesting.

So I would call OCD's witness, Million Gebremichael.

CHAIRMAN FUGE: Since Mr. Gebremichael was sworn in in an earlier proceeding today, I'm not going to have the court reporter swear him in again.

MR. TREMAINE: Thank you.

WHEREUPON,

MILLION GEBREMICHAEL,

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

EXAMINATION

BY MR. TREMAINE:

Q Million, will you please state your name for the record?

A Million Gebremichael.

Q And remind the Commission, where do you work?

A I work for the Energy, Minerals, and Natural Resource department as a part of the group responsible for the oversight of the underground injection control program for the Oil Conservation Division.

Q And what is your position title within that group?

A Petroleum Specialist Advanced in the Underground Injection Control group.

Q And could you please provide a brief summary of your job responsibilities?

A Yes. I review technical aspects of UIC permits, provide recommendations to district offices regarding UIC wells, and provide input and process design and rulemaking.

Q And have you ever testified before the Oil Conservation Commission?

A Not until earlier today.

Q And in that hearing earlier today, is it true that you were recognized as an expert in the field of petroleum engineering and underground injection?

A Yes.

Q And have you prepared a curriculum vitae in preparation for this hearing?

A Yes. It's OCD Exhibit Number 2.

Q And again, for the record, could you just briefly summarize your --

CHAIRMAN FUGE: Mr. Tremaine, because he did testify earlier today, aside from any objection -- recognize Mr. Gebremichael as an expert in petroleum engineering.

MS. HARDY: No objection.

CHAIRMAN FUGE: Okay.

MR. TREMAINE: Excellent. Thank you.

THE WITNESS: Thank you.

BY MR. TREMAINE:

Q Moving on. Mr. Gebremichael, have you reviewed Salt Creek's amended application?

A Yes.

Q And when you are reviewing applications for injection and in particular, acid gas injection wells, can you please briefly outline for the Commission what standard of review you apply when evaluating those applications? What things are you looking for?

A Is your question any opinion on the application, or what are the criterias that we're looking for?

Q When you review applications for such AGI, do you review the application for terms, "necessary to prevent waste"?

A Yes.

Q And how about the protection of correlative rights? Do you review applications for the protection of correlative rights?

A Yes. Prevent waste and -- so it doesn't impair any correlative rights and then prevent any

damage to the environment and health.

Q Thank you. And so in terms of -- with that background of your review and assessment of the application, could you please outline for the Commission your opinion of Salt Creek's amended application?

A Yes. As David White of Geolex extensively described, Salt Creek has unsuccessfully attempted to drill into the same location, which is 120 feet surface location away from the current well location. It has gathered enough information to mitigate the issues encountered during the well construction of now plugged and abandoned well.

OCD believes that Salt Creek new well design will minimize the issues encountered. Those issues are, as they were described, both, you know, borehole instability and loss of circulations. They could reduce the risk if not totally eliminate them.

Q Did OCD have any concerns with the amended application and the proposed location and depth of the AGI well?

A Yes. Given the reoccurring drilling issues and then the possibility of impairing correlative rights, and then fresh water sources, OCD has a general reservation using DMG formation for disposal.

However, OCD believes that with proper well design, the borehole instability and severe loss of circulation in the Capitan Reef could be mitigated and then DMG could be used for disposal with the special conditions in place. And then those conditions are exhibited in Exhibit number 1.

Q Right. And, Mr. Gebremichael, has OCD and Salt Creek agreed to implementation of those conditions you referenced to ensure compliance with your standards of review?

A Yes.

Q And you referenced you have prepared Exhibit 1, listing those conditions; is that correct?

A Yes.

Q And then could you briefly, just very briefly, summarize the conditions for the Commission and whether or not they have been adopted by the Commission in the past?

A Well, those conditions are adopted by the Commission in the past. The conditions, they are the OCD's standard conditions for approval of all AGI wells. So those conditions are specifically tailored for AGI wells in the state.

MR. TREMAINE: Mr. Chair, I would move admission of OCD Exhibit 1 at this time.

CHAIRMAN FUGE: Any objections?

MS. HARDY: No objections.

CHAIRMAN FUGE: Admitted.

MR. TREMAINE: And if the Commission wishes, we can place it on the screen, but I believe everyone in attendance is familiar with the Commission. I do anticipate a question as to the manner in which, and which conditions kind of move through the various orders, so if you'll permit for a second, I'd like to note where the conditions have occurred in the order history.

Because if you look at 20913-D, I believe that the indication in that order is that all prior conditions simply carry over, and if you look at the Exhibit 1, OCD Exhibit 1, you will note that those conditions actually exist in 20913-C, beginning at order paragraph number nine. And so they're essentially listed in the previous order, and imputed through that reference in 20913-D.

So OCD, in terms of the conditions, is really not asking for any substantive change; however, I would note that with the updated template here, there are some slight wording changes, so my recommendation would be, if the Commission does accept these conditions and apply them, to simply reiterate

from -- as the Commission terms it appropriate, from the Exhibit with those recommended language changes, but there are not substantive changes from 20913-D. So I hope that helps clarify that history.

BY MR. TREMAINE:

Q Mr. Gebremichael, my last question for you is that in your opinion, will the conditions outlined in OCD Exhibit 1, in addition to Salt Creek's revised plan, provide adequate assurance that the proposed well will not cause waste or harm correlative rights, in addition to protecting public health and the environment, including underground sources of drinking water?

A Yes.

MR. TREMAINE: Thank you. No further questions.

CHAIRMAN FUGE: Any cross?

MS. HARDY: No, I don't have any questions.

CHAIRMAN FUGE: Commissioners, any questions for the OCD witness?

COMMISSIONER AMPOMAH: A quick one.

COMMISSIONER BLOOM: No, Mr. Chair.

COMMISSIONER AMPOMAH: So I do have a quick one. I just want to ask, based on the -- from

this particular well that have been blocked, will the NMOCD consider conducting wellbore -- analysis to -- reviews of each risk in the future?

THE WITNESS: Can you repeat the question?

COMMISSIONER AMPOMAH: Can you hear me?

THE WITNESS: Now I can hear you, sir.

COMMISSIONER AMPOMAH: Okay. So I'm just saying, my question is that with the lessons that have been learned from the well that was just blocked by --, I'm asking if NMOCD is going to consider a wellbore -- analysis as part of some of these applications, to review some of these risks in the future.

THE WITNESS: Yes. We did have this discussion with the Geolex, with Mr. David, what it comes to -- the DMG, you can only minimize the risks, you can not totally eliminate them. But what we suggested is probably utilize the new technologies called the -- managed pressure drilling, MPD.

OCD believes that overbalance of drilling is as much of a culprit for loss of circulation as the unconsolidated formations as well. So we suggested them to utilize MPD drilling and the response we got from them is they will give it a

serious consideration.

CHAIRMAN AMPOMAH: Thank you.

THE WITNESS: Thank you, sir.

CHAIRMAN FUGE: No questions from the Chair. And after speaking with Ameredev's counsel, you have no affirmative evidence or witnesses to present; correct?

MS. BENNETT: That's correct.

CHAIRMAN FUGE: Okay. Fellow commissioners, do we need to go into closed session to deliberate?

COMMISSIONER BLOOM: Mr. Chair, I don't feel that we need a closed session to deliberate now.

CHAIRMAN FUGE: Okay.

COMMISSIONER AMPOMAH: Yeah. And I do feel that -- carry over. You know, from a -- order, I guess, should be straightforward,

CHAIRMAN FUGE: Okay. So, looking at the motion here, if I'm scratching it out and going back to the notes, and we're in case 23464, if the motion for approval of an alternate design proposed by Salt Creek Midstream, and an amendment to 20913-D, and an extension of the deadline to commence injection to a date 24 months from the date of the amended order; subject to the conditions proposed by OCD in their

Exhibit 1, so I think there's a motion to make that approval and then maybe this is all wrapped up in one as a result of that. If that's the motion, to deny the relief requested in 23294 because it's superseded by the 24 months in 23464. Can I get a motion?

COMMISSIONER BLOOM: Mr. Chair, I so move.

COMMISSIONER AMPOMAH: Seconded.

CHAIRMAN FUGE: Seeing -- and I approve the motion, so motion carries. The OCC will issue an order -- OCD staff directed and in directed Commission orders consistent with the words of the Commission's decision.

Thank you, everyone. We have no pending litigation updates. Walking through the next item on the agenda, any other business? From either commissioner? None from the Chair.

COMMISSIONER BLOOM: No, Mr. Chair.

CHAIRMAN FUGE: Our next meeting will be June 8th. Notice will be going out. We do have another relatively full docket, although that -- and it will be in the same location, same setup, same format. But there will be some lessons learned about the AV. Appreciate everyone's patience with us working through it.

And with that, I adjourn the meeting.

(Whereupon, at 3:31 p.m., the proceeding was concluded.)

CERTIFICATE OF DEPOSITION OFFICER

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

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

CERTIFICATE OF TRANSCRIBER

I, ANDREA HINEGARDNER, 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.

ANDREA HINEGARDNER

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