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STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
VIDEOCONFERENCE OIL CONSERVATION COMMISSION
MEETING/HEARING

DATE: Thursday, September 8, 2022
TIME: 9:02 a.m.
BEFORE: Chair Adrienne Sandoval
LOCATION: Remote Proceeding
Santa Fe, New Mexico 87501
REPORTED BY: Brett Torrence, Notary Public
JOB NO.: 5413759

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A P P E A R A N C E S

ON BEHALF OF NEW MEXICO OIL CONSERVATION COMMISSION:

ADRIENNE SANDOVAL, ESQUIRE (by videoconference)
New Mexico Oil Conservation Commission
Energy Minerals and Natural Resources Department
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
adrienne.sandoval@state.nm.us

ALSO PRESENT:

Adam Rankin, Esquire, on behalf of Pinon
Midstream, LLC (by videoconference)
Steven Green, Pinon Midstream, LLC (by
videoconference)
Dylan Fuge, General Counsel, Energy Minerals
Natural Resources (by videoconference)
Greg Bloom, Designee of Commissioner of Public
Lands (by videoconference)
Dr. William Ampomah, Designee of the Energy
Secretary/Professor, New Mexico Tech (by
videoconference)
Christopher Moander, Commission Counsel (by
videoconference)
Florene Davidson, Commission Clerk (by
videoconference)

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

ALSO PRESENT:

Adam Rankin, on behalf of Pinon Midstream, LLC
(by videoconference)

Jesse Tremaine, Oil Conservation Commission (by
videoconference)

Brett Torrence (by videoconference)

Steven Green, Pinon Midstream, LLC (by
videoconference)

Dylan Rose-Coss (by videoconference)

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E X H I B I T S

NO.	DESCRIPTION	ID/EVD
Pinon Midstream, LLC:		
Exhibit A	Application	23/114
Exhibit B	Commission Order R-21455-A	23/114
Exhibit D	Application for the	
	Independence AGI #2	52/114
Exhibit E	David White, PowerPoint	
	Presentation	53/114
Exhibit F	Notice Regarding Hearing	110/114
Exhibit G	Affidavit of Publication	112/114

(Exhibits retained by counsel.)

NO.	DESCRIPTION	ID/EVD
Oil Conservation Division:		
Exhibit 1	Dylan Rose-Coss Curriculum	
	Vitae	138/141
Exhibit 2	List of Current AGI wells	145/146

(Exhibits retained by counsel.)

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P R O C E E D I N G S

CHAIR SANDOVAL: August 8th at 9:02 a.m. And this is a regularly scheduled meeting of the Oil Conservation Commission.

I'm Adrienne Sandoval, Chair of the Oil Conservation Commission and Director of the Oil Conservation Division.

Would the other two commissioners please introduce themselves for the record?

COMMISSIONER BLOOM: Madam Chair, good morning. My name's Greg Bloom. And I am the designee of the Commissioner of Public Lands.

DR. AMPOMAH: I am Dr. William Ampomah, designee of the Energy Secretary and also professor at New Mexico Tech.

CHAIR SANDOVAL: Also with us is Commission Clerk, Florene Davidson, and Commission Counsel, Chris Moander.

First item is the approval of the Agenda. Is there a motion to adopt the agenda?

COMMISSIONER BLOOM: Madam Chair, I so move.

DR. AMPOMAH: Madam Chair, I second.

CHAIR SANDOVAL: Mr. Moander, would you do a rollcall vote please?

1 MR. MOANDER: Absolutely, Madam Chair.
2 Commissioner Ampomah?

3 DR. AMPOMAH: Approved.

4 MR. MOANDER: Commissioner Bloom?

5 COMMISSIONER BLOOM: Approve.

6 MR. MOANDER: Madam Chair?

7 CHAIR SANDOVAL: Approved.

8 MR. MOANDER: The motion carries.

9 CHAIR SANDOVAL: Next item is approval
10 of the August 11, 2022, meeting minutes. Is there a
11 motion to adopt the meeting minutes?

12 COMMISSIONER BLOOM: Madam Chair, I so
13 move.

14 DR. AMPOMAH: Madam Chair, I second.

15 CHAIR SANDOVAL: Mr. Moander, would you
16 do rollcall please?

17 MR. MOANDER: Yes, Madam Chair.
18 Commissioner, Ampomah?

19 DR. AMPOMAH: Approved.

20 MR. MOANDER: Commissioner Bloom?

21 COMMISSIONER BLOOM: Approve.

22 MR. MOANDER: Madam Chair?

23 CHAIR SANDOVAL: Approve.

24 MR. MOANDER: The motion carries.

25 CHAIR SANDOVAL: All right. Next item

1 on the Agenda is an update on Case Number 21872.
2 Application of Titus Oil and Gas Production for
3 approval of production allocation.

4 And I believe we have Dylan Fuge from
5 the Energy Minerals and Natural Resources Department
6 to provide an update on the status of the MOU between
7 Texas and New Mexico.

8 MR. FUGE: Good morning, Madam Chair,
9 Commission.

10 My name's Dylan Fuge. I'm the general
11 counsel at the Energy, Minerals, and Natural Resources
12 Department.

13 And I can give the Commission the
14 following update on the MOU.

15 Actually, we ended up calling in an MOA
16 with the Texas Railroad Commission. We were able to
17 successfully conclude negotiations with the Railroad
18 Commission in the last week or so.

19 The document was fully executed by both
20 parties, last Friday, September 2nd. And we are
21 currently working on, at least on the New Mexico side,
22 some updates, a Notice to Operator, and some
23 announcements, just to communicate the existence of
24 the MOA, and some of the expectations consistent with
25 my prior reports, and this Commission's Order.

1 The MOA covers allocation of production
2 and the Application of Regulatory -- Variance
3 Regulatory Requirements to cross border facilities.

4 And to be clear of the type of cross
5 border facilities recovered are cross border
6 facilities with producing intervals and take points in
7 both states from the same wellbore.

8 And so I'm happy to dive into a little
9 bit more detail if the Commission has questions. But
10 otherwise, that where things stand.

11 CHAIR SANDOVAL: Are there any
12 questions from the commissioners or counsel? Question
13 counsel or recorder?

14 MR. MOANDER: I have a question.

15 CHAIR SANDOVAL: Go ahead.

16 MR. MOANDER: Mr. Fuge, would it be
17 possible to get a copy of that document sent to me and
18 the commission members? Is that okay?

19 MR. FUGE: Yes.

20 MR. MOANDER: Could you do that?

21 Awesome.

22 MR. FUGE: Absolutely.

23 MR. MOANDER: I think in order to
24 foster discussion, and I hate to suggest we might want
25 to drag you back to a meeting.

1 Having the opportunity to review all
2 that, and then me discuss it with the Commission, and
3 then ask you questions, is probably going to be a bit
4 more fruitful of a discussion.

5 I realize this was all jammed in. So
6 I, by no means, fault you or anything for not having
7 the document out today.

8 But yeah. I think that might be a good
9 idea, Madam Chair. Is if we have questions, or you
10 know, I can speak with you commissioners individually.

11 If there are questions, then you can
12 request that Mr. Fuge reappear next month if we want
13 to ask him any.

14 MR. FUGE: That would be --

15 MR. MOANDER: Or -- I could --

16 MR. FUGE: -- that would be perfectly
17 fine with me. Yep.

18 CHAIR SANDOVAL: I'm muted and just
19 talking to myself.

20 So general question. I believe it was
21 part of the Order we entered into, jeez, eight months
22 ago, six, eight months ago, that it was required for
23 the Division to provide quarterly updates.

24 With the MOA being executed, does that
25 need to continue? Or I think that might be completed.

1 MR. MOANDER: That'll be up to, I think
2 your discretion, Madam Chair. What we could do, is
3 next month, bring this back for review, or revision of
4 that Order.

5 And then we could -- we would modify
6 the Order and alleviate the burden of -- of the
7 Division to appear quarterly.

8 CHAIR SANDOVAL: Okay. You're kind of
9 coming in and out a little bit for me on sound. I
10 don't know if I'm the only one.

11 MR. MOANDER: I think
12 my -- my -- honestly, I think my headset is about to
13 give up the ghost. I noticed some exposed wires this
14 morning I hadn't seen before.

15 So it -- they've served well for over
16 two years, but the end is neigh. So I apologize for
17 that. I don't have any substitutes readily available.

18 CHAIR SANDOVAL: All right. So it
19 sounds like maybe, Ms. Davidson, can we plan to go
20 ahead and put the update on the Docket again, next
21 month?

22 Mr. Fuge will circulate a copy to
23 Mr. Moander, of the MOA, and then we can have any
24 discussion that there may be at that meeting.

25 And potentially modify the Order to

1 alleviate the Commission, or the Division having to
2 appear every quarter for an update.

3 MS. DAVIDSON: Yes.

4 CHAIR SANDOVAL: Thank you.

5 MS. DAVIDSON: You're welcome.

6 CHAIR SANDOVAL: All right. Anything
7 else from Mr. Fuge before we move onto the next Agenda
8 item?

9 All right. Thank you for any update.
10 All right.

11 We will move on to Case Number 22977.
12 Which was Application of Pinon Midstream, LLC to Amend
13 Commission Order Number R-21455-A to increase the
14 maximum daily injection rates for an Independence AGI
15 #1 and #2 in Lea County, New Mexico.

16 All right. Do we have counsel for
17 Pinon and the Division?

18 MR. RANKIN: Good morning, Madam Chair.
19 May it please the Commission.

20 Adam Rankin appearing on behalf of the
21 applicant in this case, Pinon Midstream, LLC.

22 We have two witnesses this morning.
23 And I would like to make a short Opening Statement.

24 CHAIR SANDOVAL: Okay. Let's do a
25 soundcheck with the Division and then we can move to

1 Opening Statements.

2 I think I see Mr. Tremaine. Are you
3 here?

4 MR. TREMAINE: Good morning,
5 Madam Chair. This is Jesse Tremaine for the Oil
6 Conservation Division.

7 Thank you for a soundcheck. We are
8 having -- I am having some issues with the computer
9 audio this morning. So I hope you can hear me.

10 And I am working with the Division's
11 single witness, Mr. Dylan Rose-Coss, to actually get
12 on right now. He is not yet available in the meeting,
13 but I am talking to him offline.

14 CHAIR SANDOVAL: He looks like he's on
15 the attendee list. And I can move him over -- I just
16 moved him over to a panelist.

17 MR. TREMAINE: Excellent.

18 CHAIR SANDOVAL: Mr. Rankin, are your
19 witnesses with you or do I need to move them over to
20 be a panelist?

21 MR. RANKIN: They are going to be
22 needed to move over to be added as a panelist.
23 They're actually in the room with me. But -- so we're
24 going to dance around the sound and muting issues.

25 But they also need to be added as

1 panelists. That would be Mr. Steven Green and
2 Mr. David White.

3 CHAIR SANDOVAL: I see a Steven. I do
4 not see Mr. White.

5 COMMISSIONER BLOOM: I see David White
6 on the -- on the screen in grid layout.

7 CHAIR SANDOVAL: Oh. Okay. Then he
8 was already over. So I think we've got everybody.
9 Thanks Commissioner, Bloom.

10 All right. I think we've got all of
11 the functional pieces done. Go ahead, Mr. Rankin, and
12 begin your Opening Statement.

13 OPENING STATEMENT

14 MR. RANKIN: Thank you very much,
15 Madam Chair. May it please the Commission this
16 morning.

17 Pinon is seeking an amendment of the
18 existing Commission Order R-21455-A, which would
19 authorize it to inject combined daily volume of up
20 20 million standard cubic feet per day for its
21 Independence AGI #1 and #2 wells.

22 The AGI #1, was previously approved by
23 the Commission under the Order I just referenced. And
24 the AGI #2 was separately approved by the
25 Administrative Approval by the Division in SWD Order,

1 SWD2464.

2 However, at the time the Division
3 approved that Administrative Order, it did not believe
4 it had authority to grant an injection rate up to
5 20 million standard cubic feet per day as requested.

6 Therefore, we file this Application
7 with the Commission to amend the underlying Order.

8 And the requested increase in volume is
9 necessary to meet the anticipated acid gas disposal
10 needs of the industry upstream and operations in the
11 area.

12 The requested 20 million standard cubic
13 feet, just -- but for reference, will occupy a volume,
14 approximately 8,200 barrels per day.

15 Which is significantly less than what
16 the Division usually sees in terms of saltwater
17 disposal wells.

18 Which could range, generally, when
19 injecting into Devonian, from anywhere from 10,000
20 barrels per day up to 30 or 40,000 barrels per day or
21 more.

22 So for comparison, the current volume
23 limitation of 12 million standard cubic feet per day,
24 would occupy approximately 4900 barrels of liquid
25 volume at the reservoir pressure and temperature

1 conditions in the injection formation.

2 So it's a relatively modest request for
3 an increase in an injection rate.

4 The request will allow the Pinon
5 facility, and the injection wells, will help avoid
6 flaring and will prevent waste.

7 It will also help prevent the release
8 of atmospheric -- into the atmosphere of CO2, will
9 help assure continued stability and smooth operations
10 at the treatment plant.

11 Today, we will be presenting two
12 witnesses. The first witness is Pinon CEO, Mr. Steven
13 Green.

14 He'll be introducing the company to the
15 Commission. He will review the company's footprint
16 operations in Southeastern New Mexico.

17 And he will provide a short background
18 and explanation for why it is the company is
19 requesting the increased injection rate at this time.

20 And the second witness will be
21 Mr. David White, which he elects. And he's going to
22 provide the technical background necessary for the
23 Commission to make its determination on the request,
24 provide a short history, and to get the new Commission
25 up to date on the prior approvals, and the background

1 on the facility, the geology, and the operations.

2 And then he'll give an overview of the
3 modeling that was done and updated to confirm that the
4 proposed injection rates are suitable for the
5 reservoir conditions.

6 And then he'll also give an update on
7 the fault slip modeling that was done to confirm that
8 there is not an unreasonably increased risk in undue
9 seismicity.

10 With that, Madam Chair, I would ask
11 that our two witnesses be sworn in.

12 CHAIR SANDOVAL: Okay. Let's go ahead
13 and let the Division make their Opening Statements and
14 then we'll swear them in before they each start.

15 Thank you. Mr. Tremaine, do you have
16 any Opening Statements?

17 MR. TREMAINE: Very briefly,
18 Madam Chair. Good morning commissioners and
19 Madam Chair.

20 OPENING STATEMENT

21 MR. TREMAINE: Thank you for this
22 opportunity. The OC entered its appearance in this
23 matter for limited purposes.

24 The Oil Conservation Division wants to
25 ensure that appropriate safeguards are met should the

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1 Commission amend the underlying Order.

2 And the Division also wanted to ensure
3 that the Division's technical reviewers -- reviewer,
4 was available to the Commission for any -- to provide
5 some background information about the Division's
6 review of the Application and to be available for any
7 questions from the commissioners.

8 The Division does not object to the
9 Application after it's had the opportunity to review
10 the final prehearing statements.

11 And so I do not anticipate any
12 significant concerns with the materials that I expect
13 Pinon to present today. Thank you.

14 CHAIR SANDOVAL: Okay. Thank you,
15 Mr. Tremaine. All right.

16 Mr. Rankin, would you like to call your
17 first witness?

18 MR. RANKIN: Thank you, Madam Chair.

19 I'd like to call Pinon's first witness,
20 Mr. Steven Green.

21 UNIDENTIFIED SPEAKER: Madam Chair.
22 Sorry. I hate to interrupt. But did we get everyone
23 sworn in?

24 CHAIR SANDOVAL: I was going to have
25 him call the witness and then swear him in.

1 UNIDENTIFIED SPEAKER: Oh. I didn't
2 know if you were going to do -- okay. That's okay,
3 too. Just making sure we didn't skip over that part.

4 CHAIR SANDOVAL: Okay. Sorry. Go
5 ahead, Mr. Rankin.

6 MR. RANKIN: Thank you, Madam Chair.
7 We'd like to call our first witness, Mr. Steven Green.

8 CHAIR SANDOVAL: Thank you. Mr. --

9 MR. RANKIN: Madam Chair, I guess you
10 can go ahead and swear him. Thank you.

11 CHAIR SANDOVAL: All right. Mr. Green,
12 can we hear you?

13 MR. GREEN: Hello. Can you hear me?

14 CHAIR SANDOVAL: We can. We cannot see
15 you, but we can hear you. Is that possible to be able
16 to see you?

17 MR. GREEN: Sorry. I didn't start my
18 video.

19 CHAIR SANDOVAL: Okay. There you are.
20 All right. Mr. Torrence, would you please swear in
21 the witness?

22 THE REPORTER: Mr. Green, can you
23 please state your name for the record?

24 MR. GREEN: Steven Green.

25 THE REPORTER: Thank you very much.

1 Could you please raise your right hand?

2 WHEREUPON,

3 STEVEN GREEN,

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

7 THE REPORTER: Thank you very much.

8 CHAIR SANDOVAL: All right. Go ahead,
9 Mr. Rankin. Thank you.

10 MR. RANKIN: Thank you, Madam Chair.
11 May I have the ability to share my screen?

12 CHAIR SANDOVAL: Yes. Give me a second
13 and I'll give you permission. Okay. You should be
14 able to now.

15 MR. RANKIN: You all see my screen?

16 CHAIR SANDOVAL: Yes. Yes. This is
17 going to be a little bit small, but.

18 MR. RANKIN: I will make it bigger.

19 CHAIR SANDOVAL: Okay.

20 MR. RANKIN: So that we can see it.

21 CHAIR SANDOVAL: Thank you.

22 DIRECT EXAMINATION

23 BY MR. RANKIN:

24 Q Mr. Green, will you please state your full
25 name for the record?

1 A Steven Green.

2 Q And for whom do you work?

3 A Pinon Midstream, LLC.

4 Q How long have you been employed by Pinon
5 Midstream?

6 CHAIR SANDOVAL: Sorry to interrupt,
7 but it's really hard to hear you. You came across
8 clearer earlier.

9 THE WITNESS: Yes. Is that better?

10 CHAIR SANDOVAL: Yes. Substantially.

11 THE WITNESS: Okay. I've got to -- so
12 I have to turn my volume up. Yeah. I've probably
13 been there for years where --

14 CHAIR SANDOVAL: Now, we're getting a
15 lot of -- I'm getting a lot of feedback. You're kind
16 of like echoey.

17 THE WITNESS: Yeah. Once second. I've
18 got my volume audio down. So just give me two
19 minutes.

20 CHAIR SANDOVAL: No problem.

21 MR. RANKIN: Sorry, Madam Chair. We're
22 just coordinating our protocol here.

23 CHAIR SANDOVAL: Okay.

24 BY MR. RANKIN:

25 Q So, Mr. Green, for whom do you work?

1 A Pinion Midstream, LLC.

2 Q And how long have you been employed by Pinon
3 Midstream?

4 A We formed in December of 2020. So
5 approximately 1 year and 10 months.

6 Q Have you had to talk before the Commission
7 before?

8 A I have not.

9 Q Could you please provide a short summary of
10 your educational background and relevant work
11 experience?

12 A Yes. I've got a Bachelor of Science in
13 Mechanical Engineering from Mississippi State
14 University, graduating in 2001.

15 I entered the Midstream space in 2008. and
16 have pretty substantial experience in working in sour
17 gas assets, including aiming, treating, and H2S to CO2
18 sequestration.

19 Q And what is your current position at Pinon?

20 A I'm currently acting as the CEO.

21 Q And in that role, what do your duties
22 include?

23 A Really overseeing the business strategies
24 of -- of the company, for the most part. I've been
25 heavily involved in the technical design and

1 installation of the facilities.

2 But basically overseeing all of the day to
3 day operations and -- and controls of the company.

4 Q And you're appearing as a fact witness, as a
5 non-expert witness today. Correct?

6 A That's correct.

7 Q And you will be presenting a technical
8 witness, Mr. David White, following your testimony?

9 A That's correct. Yes.

10 Q And you're familiar with the Applications in
11 this case?

12 A Yes.

13 Q Is Exhibit A, which was filed with the
14 Commission previously, is that a correct and accurate
15 copy of the Application that was filed?

16 (Exhibit A was marked for
17 identification.)

18 A Yes.

19 Q And are you familiar with the Commission
20 Order R-21455-A that was entered previously?

21 (Exhibit B was marked for
22 identification.)

23 A Yes.

24 Q And Exhibit B is a hard copy of that
25 Commission Order. Correct?

1 A Yes.

2 Q And then the names, just so for reference,
3 the names of two AGI wells that we're talking about
4 here are the AGI -- Independence AGI #1 and the
5 Independence AGI #2?

6 A That's correct.

7 Q And approximately, where are these wells
8 located?

9 A They're located in Section 20 of Township 25
10 South, Range 36 East, in Lea County.

11 Q And the Independence AGI #1 has been
12 approved. And it has been drilled. And is it
13 currently operating?

14 A Yes.

15 Q Okay. And the AGI #2, it's been approved
16 under an Administrative Order. And it's currently
17 being drilled. Is that correct?

18 A Correct.

19 Q And Mr. Green, you prepared a presentation
20 today to familiarize the Commission with your company,
21 with Pinon Midstream, it's operations, and it's
22 current footprint.

23 And then also, it's request to increase the
24 injection rate in both of these wells.

25 A Correct.

1 Q And just bear with me, the company, Pinon
2 Midstream, is requesting to increase the injection
3 rate from 12 million standard cubic feet per day to a
4 rate of 20 million standard cubic feet per day in both
5 wells?

6 A Correct.

7 Q And what that means is that Pinon could
8 inject a total volume, combined total volume, of 20
9 million in either one, or both, or wells
10 simultaneously, or one or the other. Any combination.
11 Correct?

12 A Correct.

13 Q Let's see. I'm going to go ahead and move
14 my exhibit to the first slide in your presentation.

15 And hopefully we can all see it better this
16 way. And I'm moving to slide number three, Mr. Green.

17 Will you just review for the examiners, give
18 us an overview of the company, it's footprint, it's
19 current operations.

20 And tell us a little bit about how you came
21 to be CEO, and a little bit about the company's
22 background.

23 A Sure. I'm happy to. To provide the
24 background, the idea of Pinon Midstream started
25 with -- actually with Ameredev.

1 Ameredev approached us in -- in early 2020
2 with an issue they were having in the basin of -- of
3 not having a solution for handling both CO2 and H2S.

4 As they approached us, we started
5 investigating really, you know, were they the only
6 ones in the region and how significant of an issue it
7 was.

8 And what we found is that the -- the eastern
9 side of -- of the basin here is heavily laden with H2S
10 and CO2.

11 And given those findings, we -- we'd come up
12 with the idea of Pinon Midstream of just being solely
13 a -- a solution for -- for mitigating CO2 and H2S for
14 the basin.

15 So, you know, Ameredev really had the need.
16 They brought -- they -- they were looking for
17 expertise that had substantial H2S and CO2
18 sequestration expertise.

19 We had a team of engineers that -- that were
20 really, you know, quite a bit of experience in -- in
21 handling such sour gas.

22 And so in 2020 we formed the company. And
23 hit the ground running immediately putting in
24 facilities for -- for mitigating the issues that
25 Ameredev had.

1 They had quite a bit of gas shut in because
2 of the amount of CO₂ and H₂S that -- that they were
3 experiencing within the region.

4 Pinon was formed with partners. Ameredev,
5 who is primarily just a producer within this region.
6 And we also have a partner in Black Bay Energy Capital
7 that's provided the -- the capital for -- for the
8 company to -- to build out.

9 As for the management team, we -- we have
10 got a -- about a combined midstream experience of
11 roughly 55 years of well and gas expertise.

12 Several of us have pretty significant
13 experience in H₂S and CO₂ handling. Particularly
14 around sulfur recovery in sequestration.

15 I personally spent the very first few years
16 of my career in -- in a sour gas treating facility
17 where we were -- we were treating gas that was 32
18 percent H₂S on the inlet and up to 6 percent CO₂.

19 So quite -- quite a bit of experience and
20 understanding of the technical aspects of handling
21 such a sour stream, which is very important for the
22 application we're dealing with.

23 You know, treating natural gas without CO₂
24 and H₂S is -- is a very different technology and
25 expertise.

1 We were fortunate, you know, to have the
2 experience and come in and -- and really, this is
3 pretty second nature in understanding the design
4 criteria for -- for building an asset out with such
5 substantial contaminants.

6 Kind of moving on to towards the -- the map,
7 kind of provided in the -- in the screen here.

8 We'll kind of start off with kind of the hub
9 of our facility, which is the -- the green box, which
10 is our Dark Horse Treating Facility.

11 At this location, is where our two AGIs are
12 located. This is where our two aiming plants are
13 located.

14 We've got two 400 GPM Aiming Units with a
15 combined inlet treating capacity of 170 million cubic
16 feet a day.

17 We're going to talk about the gathering side
18 of -- of gathering the sour gas within the region
19 and -- and directing it towards Dark Horse.

20 If you -- if you look at the blue line that
21 travels from the Dark Horse Facility, all the way down
22 to kind of the maroon box, the White Horse Compressor
23 Station.

24 This blue line is a 16 inch sour gas
25 pipeline that we kind of use as a gathering header.

1 We -- we have low pressure pipes that are behind each
2 of our compressor stations that are owned by the
3 producers.

4 They aggregate their volumes to our
5 centralized compression points. Particularly, the
6 White Horse Compressor Station and the Gila Compressor
7 Station in purple.

8 And we also have compression at the Dark
9 Horse Facility as well. We -- we then take that gas,
10 pressure it up to roughly 11 to 1200 pounds of
11 pressure.

12 We have roughly 45,000 horsepower of
13 compression, and AGI compression, available on the
14 system.

15 And that gathering system directs all the
16 gas up to the Dark Horse Facility. We then treat it.
17 We remove the CO2 and H2S. We inject the CO2 and H2S
18 downhole.

19 And then the sweet gas that is left out on
20 the -- on the discharge side of our plant, is then
21 redelivered into our Grande Pipeline.

22 Which is a 20 inch pipeline that traverses
23 around 20 to 22 miles out into the basin where we
24 provide multiple deliveries to multiple gas processors
25 within the region.

1 As we kind of entered the region, one of the
2 things we heard and listened, you know, from talking
3 with all the producers in this area, is -- is issues
4 of reliability and redundancy were big concerns.

5 So kind of our -- our focus has really been
6 to solve their problem but provide as much optionality
7 and redundancy as we can in doing so.

8 One thing that we're -- we're super proud
9 of, given our -- our infancy as a company, and given
10 the complexity of the things we try to do, is our
11 safety track record. We have zero recordable
12 incidents since we started at the facility.

13 And -- and I'll tell you, as you buildout
14 Greenfield Systems, you're really susceptible to
15 incidents early on, in your company's infancy.

16 So we've been able to -- to maintain a very
17 perfect track record for safety. It's been a huge
18 component of our focus and a big part of our culture
19 as a company, and -- and how we're growing -- growing
20 ourselves.

21 Q And so you are currently the operations of
22 the company. You're limited to Lea County. Is that
23 right?

24 A That is correct.

25 Q Mr. Green, I'd just like to point out, I

1 think your video may be turned off.

2 So if you can turn that back on is possible,
3 but everybody can see you. There you are. There you
4 are. Great.

5 So let's move onto the next slide, which I
6 think, will give us a little more of a timeline.

7 A Yeah. This is kind of the -- this really
8 kind of shows a picture of just how quickly
9 we've -- we've progressed in our -- as a company here.

10 We -- we formed and in 2020, actually
11 December of 2020, and immediately hit the ground
12 running in developing facilities.

13 We started construction in March of '21. We
14 were online in August of '21. And -- and we had
15 constructed a -- a portion of our Grande 20 inch
16 gathering pipeline.

17 We had installed our first amine plant,
18 which is a 40 GP -- or 400 GPM Amine Plant. And I
19 commissioned the AGI Independence #1, by August of
20 2021.

21 So roughly 8 to 10 months, is -- is the
22 timeframe from when the company was formed, to when
23 were actually, physically in operation.

24 Shortly thereafter, after commencing
25 operation, we -- we started commissioning of our sour

1 gas pipeline the Dehondo [ph] 16 inch pipeline. And
2 our White Horse Compressor Station, which was the most
3 southern station on our system.

4 Giving it another month, we are adding
5 another compressor station for aggregating more
6 production that was coming online in kind of the
7 central corridor of our gathering asset, our Gila
8 System.

9 And then in December of '21, we added our
10 second amine training service.

11 Moving into 2022, we extended our 20 inch
12 pipeline further out into the basin, giving us more
13 optionality for redelivery of sweet gas to multiple
14 processors within the region.

15 And then, kind of moving into June of '22,
16 we actually spudded our second AGI well, and we're
17 anticipating of having that well ready for operations
18 come early October of this year.

19 One thing I want to point out is -- is
20 the -- the importance of this AGI in that it provides
21 a very large scalable solution to the basin. Which is
22 very critical for the production in this region.

23 Q Let's talk a little bit about how that
24 looks.

25 A Yep.

1 Q And your operation of the AGI to date. On
2 your next slide, review for the Commission, what each
3 of these graphs represent. And give them a thorough
4 review about the operations.

5 A Sure. Sure. The -- the two graphs on the
6 left are -- are pressure profiles for the subsurface
7 and surface points that we monitor continuously.

8 And so this data on the left-hand side
9 is -- is all of the data that we've aggregated for
10 2022.

11 And the -- the reason that we're showing
12 this is that we're wanting to show the performance of
13 the well as it's performed with varying amounts
14 of -- of disposal for this year.

15 The trends are very smooth, and very
16 constant, and it'd indicate that the well is
17 performing very well, and much as we've model
18 anticipated, the -- the well to perform.

19 You'll notice that the -- the purple line is
20 actually the -- the downhole pressure at the bottom of
21 the well. And that -- that reads over to the
22 right-hand side of the graph.

23 And the blue line is the -- is the surface
24 pressure of the injection, which reads closer to the
25 left-hand side to -- of the graphs. Okay.

1 And -- and things that we're pointing out is
2 that we've had a couple of issues, or instances,
3 in -- in our operation where we've lost power. Or the
4 downstream markets had issues withing their facilities
5 and shut us in.

6 And you can see that we had very minor blips
7 in -- in pressures, particularly at the -- in the
8 downhole injection.

9 You know, you can see we typically operate
10 around 7400 pounds, but as we come off of injection,
11 we -- we lose less than 200 pounds of pressure.

12 Which indicates that the well is
13 really -- can handle quite a bit more injection
14 capacity, is -- is what we're trying the articulate
15 with -- with these graphs here.

16 Moving on to the right-hand side, we wanted
17 you guys -- give an idea of -- of what have we done so
18 far this year?

19 So if -- if you look at the graph on the
20 right-hand side, we've got a chart that shows both in
21 metric tons and in million cubic feet of what we've
22 disposed on and as -- as a per month basis.

23 The blue chart, or the blue graph here,
24 indicates that amount of CO2 in metric tons disposed
25 of per month.

1 The -- the yellow chart that's layered in on
2 top is the amount of H2S disposed of.

3 And the red line, which is paired with the
4 right-hand side of the graph, is the actual million
5 cubic feet of gas or TAG stream that was disposed of
6 in that given month as well.

7 One of the things you'll notice, is that our
8 production has some dips, as in it's getting lowered
9 as -- in the front -- first quarter and second quarter
10 of the year.

11 And you can see it's starting to kind of
12 grow outwards since we've been into May.

13 And what -- what that shows is that
14 the -- the producers in this region, is they come in
15 to produce and drill wells.

16 They actually have to shut-in existing gas
17 in order to not affect those wells, while they're
18 drilling and completing new wells.

19 And so what you're seeing here, in February
20 through April, is quite a bit of gas taken offline in
21 preparation of bringing much more gas online.

22 So right now, we're currently in the ramp.
23 We are seeing gas being added to our system every day.

24 Now, August looks a little deformed for this
25 map because at the time we pulled this together, I

1 only had 23 days of data to kind of show.

2 But if I were to show you all of August and
3 into September, that ramp goes further out to the
4 right.

5 The -- the matrix on bottom here, just
6 really kind of articulates physical values from the
7 graphs that you can easily kind of see the comparison
8 of a million cubic feet to metric tons of CO₂ and H₂S
9 that's been disposed.

10 Q So Mr. Green, looking at that chart, okay,
11 it looks to me like in T-A-G, TAG, is -- means the
12 treated acid gas. Is that correct?

13 A That's correct.

14 Q So I was looking at that chart. By the end
15 of August, you're already approaching 4 1/2, close to
16 5 million standard cubic feet of gas per day.

17 And your limit currently, is 12 million
18 cubic standard feet of gas per day.

19 What are your projections for the company in
20 terms of when you're going to start running up against
21 the injection rate capacity?

22 A Yeah. It's -- that's a great point. And
23 in -- in exactly a year of operation, we've already
24 achieved roughly 50 percent of the capacity of the
25 existing well.

1 And with current production projections,
2 we're anticipating of -- of being completely full in
3 the well by the end of 2023.

4 Q I think in your next slide you're going to
5 talk to us a little bit more about those projections,
6 how you've come to them.

7 And then let the Commission know the
8 timeframes and why you're asking for an increase in
9 the rate now.

10 So let's move on to the next slide. And if
11 you would, just review for the Examiners -- the
12 Commissioners, each of the elements of this next
13 slide.

14 So they can understand how you've come to
15 your projections and what the future production area
16 looks like. Go ahead.

17 A Yep. Will do. So -- so starting off with
18 this slide here, there -- there's a matrix at the top,
19 that we wanted to provide to the Commission, to give
20 you an idea of what does this TAG gas stream capacity
21 equate to from a physical production capacity.

22 So with our current AGI capacity of 12
23 million cubic feet a day, that roughly equates to
24 around 260 million cubic feet a day of gas production.
25 All right.

1 And giving a -- a specific CO2 and H2O -- or
2 H2S composition, equates to roughly 97,000 metric tons
3 of H2S. And a 109,000 metric tons of CO2 annually.
4 All right.

5 What we are requesting, is -- is an increase
6 in that capacity of 20 -- 20 million cubic feet a day,
7 which would provide us the ability to treat upwards of
8 430 million cubic feet a day of produced gas in the
9 region.

10 And you can see the -- the amounts of CO2
11 and H2S that was sequestered as well.

12 Moving further down into the -- to -- of the
13 page here, and -- looking towards the graph,
14 Lea -- Lea and Eddy Counties are probably two of the
15 most prolific regions for oil and gas production in
16 the United States.

17 A substantial amount of growth has occurred
18 and is going to continue to occur over the foreseeable
19 future.

20 What we know about the basin, is that it is
21 going to continue to need more CO2 and H2S solutions
22 in order to realize production in this area of the
23 basin.

24 You can kind of see to the graph here,
25 we -- we do quite a bit of research on kind of

1 understanding the -- the history produced within Lea
2 County.

3 And as well as trying to kind of articulate
4 what we believe the growth is going to look like for
5 the foreseeable future.

6 So if you -- if you look at the graph or the
7 chart to the bottom, the -- the blue portion indicates
8 kind of historical data of what gas physically flowing
9 out of just Lea County has looked like up to 2022.
10 And you can see we've reached over two BCF of gas
11 production.

12 And with the gray line, it indicates the
13 number of completions that have occurred for the
14 history of the region.

15 And the -- and the yellow indicates the
16 number of rigs that are -- that have been running just
17 in this county.

18 So you can -- you can articulate the -- the
19 yellow line and the blue line with the right-hand side
20 of the graph.

21 And the blue and the orange line equate to
22 the left-hand side of the graph for gas production.

23 What we're seeing past '22 and over the next
24 several years of -- of production for this -- just
25 this one county, within 5 years we're going to add a

1 BCF of capacity to this region.

2 And in order for us to be able to do that,
3 we've got to have more solutions for sequestering CO2
4 and H2S.

5 If -- if you move, and look towards the
6 right-hand side of the graph, we've -- we're providing
7 kind of well density for wells completed since 2018,
8 upwards of 2022.

9 And what you see here is that if you move
10 further west into Lea County, and in towards Eddy
11 County, you see a very, very high density of produced
12 gas.

13 Well, in that region, it doesn't have the
14 CO2 and H2S issues that the eastern half of the region
15 does.

16 If you were able to zoom in and look at the
17 green nodes close to the Texas border there, you'll
18 notice that it's not near as dense from producing
19 wells within that region.

20 And the reason is, is that there's been very
21 limited options for mitigating the CO2 and H2S. And
22 primarily, you -- you typically would find a solution
23 for one but not the other.

24 And what we've been able to do to bring to
25 the region is a -- a solution for both, and one that

1 is scalable, and that can handle quite a bit of
2 production.

3 Which we are seeing already. And the
4 projection showed that we're going to be seeing for
5 the near future.

6 Q And Mr. Green, you're not just getting these
7 projections from crystal balls or looking at data
8 service companies.

9 You're actually getting feedback from
10 companies, operators upstream, who are required to
11 submit their gas management plans. And have planning
12 in place in advance of their production.

13 So you're actually getting that
14 communication from these operators directly with the
15 projections for what their development's going to be.

16 And so you have some idea, 18 to 24 months
17 out or so. Is that correct?

18 A That -- that's correct. A big portion of
19 our -- of our business is planning with the producers
20 within this region. There's actually a very critical
21 piece to -- to our existence and the producer's
22 ability to produce the gas.

23 Now, if you -- if you think about this area
24 of the basin, Ameredev was ahead of -- of all the
25 other producers in the region because they had

1 existing production that was shut in.

2 And they knew the amounts of CO2 and H2S.
3 Well, a lot of this area is very untouched. Now, the
4 producers in the region are really figuring out what
5 it is that they're dealing with.

6 And they're looking for solutions and trying
7 to plan for infrastructure that's necessary for them
8 to produce this acreage.

9 And we're working with producers every day
10 in planning for volumes. In planning for facilities.
11 In planning for added treating facilities as well.

12 So we've got projections and -- and a need
13 for ample more gas treating to come in the region. As
14 we said, we're going to be full by the end of 2023
15 with current forecasts.

16 And there's more gas out there that we can
17 aggregate and treat if given more capacity with our
18 existing AGI well.

19 With kind of the way that the -- the markets
20 are set right now, it's a minimum of a 12 month
21 expectancy for being able to approve a project and get
22 it online at this point.

23 So we really need 24 to 18 months of
24 planning to be -- to be safe and assure that we can
25 meet the deadlines the producers are -- are aiming

1 for.

2 Q So in this case, the current status of your
3 operations is that you got the Independence AGI 1
4 currently injecting and disposing of approximately
5 4 1/2 or 5 million standard cubic feet per day.

6 With projections that you're going to max
7 out that capacity in the next 12 months, knowing that
8 you're going to need another 12 to 18 months from
9 today, for planning purposes, to get the
10 infrastructure and capacity in place to meet future
11 demand.

12 So in short, I guess, Mr. Green, that's the
13 reason why you're before the Commission right now,
14 while the AGI #2 is currently being drilled.

15 You're already asking for that increase in
16 capacity in order to meet that demand?

17 A At this time. That's correct.
18 It's -- it's -- we can't go out, and contract, and
19 help plan unless we have the capacity available to us.

20 Q Well, let's just move to your last slide and
21 give the Commission an overview of the location.

22 And just review for them what this is and
23 what we're looking at here in this next slide.

24 A Yeah. So -- so we're looking at a view
25 of -- of the Dark Horse Treating Facility, and we're

1 actually looking from the west east. So back over
2 towards the horizons is the -- is the town of Jal.

3 All right. So if you look over to the
4 left-hand side of -- of the screen here, this is the
5 Independence AGI #1. And it's been in service since
6 August of 2021.

7 You can see there's a rig onsite as we're
8 currently drilling our second AGI well that was
9 spouted in June of this year.

10 And we're currently around 16,000 feet
11 is -- is where we're located. So roughly about
12 another 2,000 feet of drilling remaining, which we're
13 anticipating to be complete within the next two weeks
14 or less.

15 Q And that's under your -- under the current
16 Order you guys are required to have the second
17 redundant well completed the first part of November.
18 Is that right?

19 A That's correct. And we're on pace to be
20 ready for operation come October.

21 MR. RANKIN: With that, Madam Chair, I
22 have no further questions or Mr. Green. And will pass
23 him to the Division and the Commission for
24 questioning.

25 CHAIR SANDOVAL: Thank you.

1 Mr. Tremaine, do you have any questions for the
2 witness?

3 MR. TREMAINE: I do not have any
4 questions for the witness. Thank you.

5 CHAIR SANDOVAL: Thanks. Commissioner
6 next.

7 COMMISSIONER BLOOM: Madam Chair, I
8 have no questions.

9 CHAIR SANDOVAL: Commissioner Ampomah?

10 DR. AMPOMAH: No. There are no
11 questions. No questions at this time.

12 CHAIR SANDOVAL: Okay. I have a couple
13 of questions.

14 Just generally, can you -- so there
15 are -- let's see, a lot of requirements within the
16 Order that you were issued. For example, let's see.

17 You're supposed to send in reports to
18 the OCD. There were some quarterly pieces.

19 Can you just affirm that you have
20 complied with all of those requirements that are
21 currently within your Order?

22 THE WITNESS: We -- we have. Yes. And
23 as a matter of fact, if you -- if you look at one of
24 the slides, it shows some of the data that we've
25 reported to the Commission.

1 CHAIR SANDOVAL: Okay. And prior to
2 operation of AGI #2, are you submitting a modification
3 to your H2S Contingency Plan, or was that already in
4 your H2S Contingency Plan?

5 THE WITNESS: I believe it's already
6 included in our H2S Contingency Plan. But I need to
7 go back and verify that.

8 CHAIR SANDOVAL: Okay. Yeah. I think
9 there was a requirement 8(a) regarding the H2S
10 Contingency Plan just -- I'm sure you -- take note of
11 that.

12 THE WITNESS: Yeah. I'll take note.
13 We'll -- we'll provide an answer.

14 CHAIR SANDOVAL: I guess, when this
15 well was originally permitted, so when you submitted
16 the Application, what's been the change between the
17 original ask of 12 and the 20?

18 Or why did you originally ask for 12
19 and not 20?

20 THE WITNESS: Well, the -- the original
21 12 was -- was very early in the understanding of
22 what -- what are we solving for in the basin? So the
23 original 12 was actually asked by a producer and
24 Ameredev.

25 And -- and mind you, they started the

1 permitting process over 2 years in advance trying to
2 solve their own problem.

3 Now, the thing that Ameredev understood
4 is that they didn't have the technical expertise to
5 understand and -- and really operate and build out.

6 But they knew they needed a scalable
7 solution for the amount of CO2 and H2S they had. So
8 when they stepped into this, their -- their goal was
9 solving their own problem.

10 Well, when we got involved, the permit
11 was already provided for the 12 million cubic feet a
12 day.

13 And so during that time as we're
14 solving Ameredev's issues, we're out looking for third
15 parties and other producers in the region that we know
16 are having the same issue.

17 And as we've started aggregating more
18 volume, and we do have more producers than just
19 Ameredev delivering into the system.

20 And we are disposing of their CO2 and
21 H2S, we -- we quickly understood that we were going to
22 outgrow what we had. And that's what we're trying to
23 solve for today.

24 CHAIR SANDOVAL: Okay. And just to
25 confirm, you're asking for 20 total between the two

1 wells.

2 THE WITNESS: Yes.

3 CHAIR SANDOVAL: So you will never be
4 injecting more than 20 total between the two?

5 THE WITNESS: That's correct.

6 CHAIR SANDOVAL: Okay. Are both of
7 these wells constructed in a manner that you think
8 they can handle 20 as opposed to 12?

9 THE WITNESS: Yeah. Our technical
10 witness, David White's going to give you the details
11 associated with it.

12 CHAIR SANDOVAL: Okay.

13 THE WITNESS: With everything we
14 reviewed, it -- it is. Yes, ma'am.

15 CHAIR SANDOVAL: And then I think
16 Mr. Rankin hit on this briefly, but there is a
17 requirement in the original Order. I think it
18 was -- let's see.

19 I have -- I think you have to begin
20 injection within 24 months after the original Order.
21 The original Order was November 4th of 2020. I think
22 you, in your presentation, show mid-October.

23 I am familiar with how construction
24 deadlines can go. Are you confident that you will be
25 able to meet that 24 month deadline?

1 THE WITNESS: Yes. Very confident.

2 CHAIR SANDOVAL: Okay.

3 THE WITNESS: We've -- we've less than
4 2,000 feet remaining of drilling remaining.

5 So we're really kind of through the
6 more difficult parts of -- of the drilling process
7 right now. So we're -- we're very confident that
8 we'll be ahead of schedule for November 4th.

9 CHAIR SANDOVAL: Okay. I think I have
10 one more question. Oh.

11 This Order also requires that you
12 install a seismic station, or a seismic monitoring
13 station. Have you done that?

14 THE WITNESS: Yes. We have. And it is
15 currently monitoring and communicating with the State
16 where they can see that data real-time.

17 CHAIR SANDOVAL: Okay. Great. Thank
18 you. That was my last question.

19 Mr. Rankin, do you have any follow-up?

20 MR. RANKIN: Just one. Madam Chair, I
21 appreciate it.

22 REDIRECT EXAMINATION

23 BY MR. RANKIN:

24 Q Mr. Green, if there is an issue with getting
25 the well completed within the timeframes required

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1 under the Order, the Order also provides for the
2 Division, in its sole discretion, to grant an
3 extension of up to 6 months.

4 And if that's needed, will Pinon reach out
5 to the Division, and notify them that you need a short
6 extension in order to complete the well, and get
7 operations up?

8 A Absolutely.

9 MR. RANKIN: All right. Madam Chair,
10 no further questions from me. And ask that Mr. Green
11 be dismissed unless you have a follow-up.

12 CHAIR SANDOVAL: Thank you. Thanks,
13 Mr. Green. I think you can be dismissed.

14 THE WITNESS: Thank you.

15 MR. RANKIN: Thank you, Madam Chair.

16 CHAIR SANDOVAL: Mr. Rankin, call your
17 next witness.

18 MR. RANKIN: Yeah. With that, we'll
19 call our next witness, Mr. Steven -- I'm sorry.
20 Mr. David White.

21 CHAIR SANDOVAL: Alright. Mr. White,
22 let's make sure we can hear you.

23 MR. WHITE: Yes. Can you hear me?

24 CHAIR SANDOVAL: There's a little bit
25 of echo, but not terrible.

1 MR. WHITE: Yeah. Yeah. We're
2 coordinating our mute strategies.

3 CHAIR SANDOVAL: Mr. Torrence, would
4 you please swear the witness in?

5 THE REPORTER: Hi. Mr. White, could
6 you please state your name for the record.

7 MR. WHITE: David White.

8 THE REPORTER: Thank you. Could you
9 please raise your right hand?

10 WHEREUPON,

11 DAVID WHITE,
12 called as a witness, and having been first duly sworn
13 to tell the truth, the whole truth, and nothing but
14 the truth, was examined and testified as follows:

15 THE REPORTER: Thank you.

16 CHAIR SANDOVAL: Go ahead and proceed,
17 Mr. Rankin.

18 DIRECT EXAMINATION

19 BY MR. RANKIN:

20 Q Thank you. Mr. White, will you please state
21 your full name for the record?

22 A David Allen White.

23 Q By whom are -- virtual connectivity
24 interruption --

25 A Geolex, Incorporated.

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1 Q Have you previously testified before
2 the -- virtual connectivity interruption --

3 A I have not.

4 Q And were you -- qualified as an expert in
5 petroleum geology, seismic interpretation, and fault
6 slip probability modeling?

7 And were those credentials accepted and made
8 in a manner -- virtual connectivity interruption --

9 A Yes. And yes. They were.

10 Q And did you contribute to the analysis
11 according to CONOA, the Application that was filed and
12 approved administratively, for the Independence
13 AGI #2, and is marked as Exhibit D in the hearing
14 packet?

15 (Exhibit D was marked for
16 identification.)

17 A Yes.

18 Q Okay. And will your testimony and opinions,
19 that you provide today, evaluate and address the basis
20 for Pinon's requested increase in injection rates in
21 both AGI #1 and #2 wells to a combined total of 20
22 million standard cubic feet per day?

23 A Yes.

24 Q And will you also address the potential for
25 induced seismicity as a result of that injection?

1 A Yes.

2 Q Did you prepare a PowerPoint presentation
3 today that will review your analysis, conclusions, and
4 opinions on those topics?

5 A Yes. I did.

6 Q Okay. And you're prepared to review those
7 with the Commission right now?

8 A I am.

9 Q Then with no further ado, I'm going to set
10 up your presentation so that we can all see.

11 And Mr. White, has this been marked as
12 Exhibit E in the exhibit packet?

13 (Exhibit E was marked for
14 identification.)

15 A Yes.

16 Q Okay. And I will put this on the screen so
17 you can see it. And we'll start walking through.

18 Mr. White, will you just briefly summarize
19 what it is that the Application requests? And then
20 just walk through the exhibits.

21 And if I have any questions, or would like
22 to clarify anything, I may briefly interrupt you.

23 But otherwise, Mr. White, please just review
24 and I'll advance the slides as you direct.

25 A Sounds great. And -- and yeah. Hopefully,

1 some of this introduction will be a little bit of a
2 reiteration of things that have been discussed.

3 But in terms of Pinon's request, Pinon is
4 seeking amendment of the existing Commission Order
5 R-21455-A to authorize a combined or shared daily
6 injection volume limitation for the AGI #1, are the
7 Independence AGI #1 and #2 wells, up to 20 million
8 standard cubic feet per day.

9 And as Mr. Green had previously described,
10 you know, meeting the anticipated acid gas disposal
11 needs of oil and gas operators, and production in this
12 area, is -- is kind of the -- the justification for
13 this volume request.

14 As Mr. Rankin described in his Opening
15 Statement, this request -- when this 20 million
16 standard cubic feet per day volume under reservoir
17 temperature and pressure condition, which have been
18 confirmed through drilling and completion of the AGI
19 #1 Well via direct measurement of baseline conditions,
20 would reflect an approximate 8200 barrels per day
21 being injected into the reservoir.

22 And as the Commission and the Division are
23 likely aware, is significantly less than typical SWD
24 disposal operations.

25 The current permit limitations, for another

1 comparison, the current limitation of 12 million
2 standard cubic feet per day would occupy about 4900
3 barrels per day at reservoir conditions.

4 And in utilization of this, of aiming
5 treatment in AGI Wells at the Pinon Facility, are
6 really critical components, as -- as they had been
7 selected as the primary handling methods of acid gas
8 at this facility.

9 And they really have become a preferred
10 method for that purpose, as you know, they're really
11 offered the opportunity to avoid, or minimize flaring,
12 and prevent waste.

13 And they -- they prevent the atmospheric
14 release of CO2, which you know, some other gas
15 handling methods, such as sulfur recovery units, you
16 know, don't -- you know, in those applications, CO2
17 has typically been vented, and historically been
18 vented to the atmosphere.

19 In making their request, you know, in
20 accordance with the requirements of the original
21 Order, Pinon had filed in November of 2021, the Form
22 C-108 Injection Permit Application for the redundant
23 Independence AGI #2 well.

24 And the materials that we will be presenting
25 today with respect to addressing the feasibility of

1 this request were also included in that original
2 redundant well Application.

3 Which was submitted to the Agency late last
4 year in accordance with the -- the Commission's
5 timeline for the redundant well Application.

6 So and if I can give kind of a brief
7 introduction of how the remaining slides are going to
8 go, you know, in -- in past acid gas injection well
9 applications, you know, a complete presentation of all
10 the requirements of the C-108 Application are --

11 CHAIR SANDOVAL: Sorry to interrupt.

12 MR. WHITE: -- are included in this
13 presentation. But seeing as how for this particular
14 case, both the AGI #1 well and AGI #2 well have been
15 authorized for injection.

16 The -- the main meat of this
17 presentation is going to be two-fold. First,
18 providing a general background of the project. The
19 location of the project. The designs of the wells.
20 And the local geology.

21 And then move to focus on tasks more
22 specifically, or items more specifically related to
23 the justification of the amendment to the volume.

24 So we'll begin just with the background
25 information to make sure everybody is aware of some of

1 the basic characteristics of the project. The Pinon
2 Dark Horse Gas Treatment Facility, which -- with which
3 Mr. Green described --

4 MR. MOANDER: Mr. White, I hate to
5 interrupt you.

6 THE WITNESS: -- is located
7 approximately 6 miles west of Jal, New Mexico.

8 MR. MOANDER: Mr. White, can we --

9 THE WITNESS: That location of the
10 service facility and the location of the --

11 MR. MOANDER: Am I not being heard?

12 THE WITNESS: -- AGI wells, are shown
13 on this map, section 20.

14 MR. MOANDER: Hello --

15 THE WITNESS: The Independence AGI #1
16 well --

17 MR. MOANDER: Hello, Mr. White, can
18 you --

19 THE WITNESS: - as Mr. Green
20 described, was completed and brought into service late
21 August of 2021, and it was drilled as a --

22 MR. MOANDER: Can we pause this? Can
23 everyone hear me? Can anyone hear me?

24 THE REPORTER: Yes.

25 THE WITNESS: The Independence AGI #2

1 well --

2 CHAIR SANDOVAL: Yes.

3 MR. MOANDER: Okay.

4 THE WITNESS: -- also shown at this
5 facility location, are determined --

6 MR. MOANDER: Okay. So it sounds
7 like -- in trouble here.

8 THE WITNESS: -- by the two, are the
9 red injection well icon on the map is being
10 constructed as a deviated well.

11 MR. MOANDER: Madam Chair, you might
12 interrupt him again.

13 CHAIR SANDOVAL: Mr. White, or
14 Mr. Rankin, can you hear us?

15 MR. RANKIN: Yes.

16 CHAIR SANDOVAL: Can you guys hear us?

17 THE WITNESS: Yes.

18 MR. MOANDER: Okay. Let's take a
19 second here 'cause I think we're having some technical
20 problems. And not just -- it's not just you,
21 Mr. White. I think there's some other stuff going.

22 THE WITNESS: Okay.

23 MR. MOANDER: Madam Chair, what would
24 you like to do?

25 Do you want to have everyone log in

1 again or something? Because it looks like we're
2 having both audio and visual issues?

3 CHAIR SANDOVAL: Mine has gotten better
4 now. Was he cutting out -- was Mr. White cutting out
5 for everybody else or was it just for me?

6 MR. MOANDER: I did not have an issue
7 after he started his testimony.

8 DR. AMPOMAH: Yeah. I'm good from my
9 end. I heard it clearly. Yeah.

10 CHAIR SANDOVAL: Okay. I was having
11 some issues. But you seem to be okay now. So I think
12 let's just proceed.

13 MR. MOANDER: Okay. I'm going to turn
14 my camera off too to see if that helps. So I'm not
15 drawing a --

16 CHAIR SANDOVAL: I did the same. All
17 right. Thank you. Go ahead.

18 THE WITNESS: Okay. Sure. Thank you.
19 Thank you, guys.

20 Kicking back off. The Independence
21 AGI #2, also approved through -- through the
22 administrative process as Mr. Green had described, is
23 currently being drilled.

24 And -- and on target for completion,
25 or -- or for the completion of drilling activities

1 within the next couple of weeks.

2 In the map shown, we see the surface
3 location for the AGI #2, as well as the bottom hole
4 location, roughly south, southeast of -- of the Dark
5 Horse Facility.

6 The project area, the AGI well surface
7 locations, and the -- the AGI #2 bottom hole location,
8 all stay within the western half of section 20, and
9 that surface is owned wholly by Pinon Midstream.

10 So if we can move to the next slide.
11 And some of this has -- has been discussed.

12 But in this slide, I'm just wanting to
13 briefly discuss the permitting timeline, and the
14 facility construction timeline, in kind of an
15 organized fashion so everyone can see it.

16 As we previously mentioned, the Pinon
17 Midstream Treatment Plant was constructed and put into
18 service in late 2021.

19 The facility again, specifically
20 designed to utilize amine treatment and acid gas
21 injection wells as their method for handling H₂S and
22 carbon dioxide associated with natural gas production
23 and treatment operations.

24 And the Independence AGI #1, which is
25 currently in service, and -- and demonstrating a, you

1 know, well behaved performance record, was originally
2 authorized by Commission as a UIC Class II AGI Well in
3 November of 2020.

4 And was brought into service coincident
5 with the completion and start-up of the treatment
6 facility itself.

7 That original Order, as we've -- we've
8 discussed, has authorized that initial AGI Well to
9 inject up to 12 million standard cubic feet per day.
10 At a maximum allowable surface injection pressure of
11 4,779 psi.

12 And as part of the original Order, in
13 the -- one of -- one special condition required,
14 construction and a specific timeline for bringing into
15 service, a redundant AGI Well.

16 Which while required via the Commission
17 Order, has always been the -- the plan for Pinon to
18 have a redundant injection well system just because it
19 is the primary handling method for acid gas on the
20 site.

21 And with that motivation, Pinon took
22 steps to begin and meet Commission deadlines for
23 submittal of the second AGI Well Application, the
24 Independence AGI #2.

25 Within the Commission required

1 timeline, that application was submitted to the Oil
2 Conservation Division for administrative and technical
3 review on November 4th.

4 And as part of that Application, the
5 request that we're discussing today to increase the
6 rate, the daily injection limitation, to 20 million
7 standard cubic feet, was made as Pinon was, at that
8 time, better aware of the larger disposal needs of the
9 area.

10 Despite those materials being included
11 in that Application, and the approval of the redundant
12 well Application on March 31st of 2021, the Division
13 had made the determination that that revision or
14 amendment to the volume limitation could not be
15 authorized via the administrative process.

16 And you know, we've -- we've discussed
17 about how critical the AGI System is for Pinon's
18 operations, but in general, there's -- there's
19 reasoning that -- that this handling method has kind
20 of become a preferred method for gas treatment and gas
21 processing operations.

22 In that, you know, AGI wells,
23 and -- and this method, provide the opportunity for a
24 substantial amount of greenhouse gases to be
25 sequestered.

1 Which, with other options, chemical
2 scavenging, and sulfur reduction, traditionally, has
3 been vented to the atmosphere, which ultimately leads
4 to, you know, the AGI projects and systems, increase
5 the operational stability of plans, especially when
6 redundant AGI well systems are in place.

7 So that overall, it reduces waste and
8 air emissions, both on -- from flaring on the facility
9 sites, as well as in the field, with that increased
10 operational stability.

11 And as proposed, Pinon's, and the
12 forecasts for development in the area, the proposed 20
13 million standard cubic feet per day limitation
14 would -- would allow Pinon to be able to meet the
15 needs of those operators.

16 And as we see in the last bullet point.
17 When taken on a per day basis at these proposed
18 injection volumes, there's a significant amount of CO2
19 and H2S that is sequestered.

20 Now, to remain compliant, even though
21 the C-10 -- C-108 Application that was submitted and
22 approved by the Division, even though it was unable
23 to -- to make any amendment to the allowable injection
24 volumes, you know, the redundant facility is still
25 very important to Pinon's operations.

1 And as such, they had continued in
2 their effort, to drill and complete that approved
3 well.

4 As previously discussed, this -- the
5 AGI #2 well was spudded in mid-2022, and -- and
6 currently, is fully on track to meet all of the
7 Commission's deadlines for completion and then service
8 that were described in -- in the original commissioned
9 Order.

10 Okay. So moving on a little bit from,
11 kind of the permitting history and the approval
12 history, I want to take a few -- I'll take a few
13 slides to discuss the design of the AGI well.

14 And -- and in this slide, I'm showing a
15 brief schematic of the AGI #2 well as -- as it was
16 proposed and as it's being constructed.

17 And while this is the schematic that
18 I'm showing, the ultimate design, and design
19 standards, are in accordance with -- with those that
20 were implemented for the AGI #1 well.

21 Similar to that well, the -- the
22 redundant well is -- is -- incorporates all AGI best
23 practices, as well as specific input from the NMOCD
24 technical staff that was communicated during the
25 application process of the AGI #1 well.

1 Both wells are also equipped with
2 downhole pressure, and temperature sensors that are
3 installed immediately overlying the permanent
4 injection packer and provide real-time pressure and
5 temperature conditions along that -- at that depth
6 interval.

7 All of the safety equipment and
8 monitoring equipment are also constructed of Inconel
9 95 [sic] or equivalent materials that are fully rated
10 for acid gas injection service.

11 And in this slide, we'll take kind of
12 a -- a more diagrammatic look at a two-well AGI system
13 as the -- the you know, for the current Pinon
14 operations.

15 The acid gas stream is approximately
16 70 percent CO₂ and 30 percent H₂S. And to kind of
17 call back to Commissioner Sandoval's question about
18 the H₂S Contingency Plan, that ratio of gas is -- is
19 in agreement with the current plan.

20 And you know, prior to any injection
21 operations at the elevated rate, that H₂S Plan would
22 be fully updated and approved to be reflective of
23 those operations.

24 But starting from kind of taking a look
25 at the diagram again. And starting kind of from the

1 top right.

2 For the acid gas injection system,
3 coming off of the amine treatment, the stream of CO₂
4 and H₂S, is transmitted to -- or from the amine system
5 to surface compression -- or to a surface compression
6 facility at the well site.

7 Where it is then compressed to
8 approximately 1500 to 2500 psi and then transmitted to
9 the AGI wells via corrosion resistant pipelines that
10 are equipped with automatic safety valves. Again, to
11 provide many isolation points and to prevent backflow
12 of materials.

13 The gas is transmitted to the injection
14 trees, which are specifically designed -- they're
15 specifically constructed dry acid gas injection trees,
16 which like many other components in this system, are
17 made of appropriate corrosion resistant materials.

18 Moving down the wellbores of these two
19 diagrams, we see the placement and annotation for the
20 downhole subsurface safety valve.

21 Which is exceptionally useful in the
22 event of some emergency, or something that may limit
23 the wellhead's ability to contain gas.

24 You've got valves upstream of that.
25 And valves downstream of that that are very -- they

1 can allow for pretty specific isolation of that
2 system.

3 At the lower portions of the well, we
4 see annotated, the permanent injection packer and the
5 placement of the downhole pressure and temperature
6 gauges that provide real-time monitoring of the base
7 of the well conditions.

8 And while it's not pointed out, or
9 described in this slide, I'd also like to give
10 you -- describe a little bit, the complete picture of
11 monitoring that goes with the AGI wells that are
12 constructed at the Pinon Facility.

13 In addition to the continuous
14 monitoring of downhole pressure and temperature
15 conditions, the -- there is also continuous monitoring
16 of surface injection pressure, surface injection
17 temperature, surface annular pressure conditions, and
18 gas flow rates.

19 These are all communicated to the plant
20 control room in real-time, and the combination of
21 these real-time data sources, ultimately allow for the
22 very rapid identification of any issues in the system.

23 Whether it's, you know, an integrity
24 loss in -- in the tubing, or things like that.
25 Those -- those sensors really allow for really rapid

1 identification of those issues.

2 And with a two-well system, you
3 can -- from those -- those indications, make
4 appropriate changes in your operation.

5 And here we have just kind of a another
6 look at the project area. More specifically focusing
7 in on its location relative to the nearby city of Jal.

8 As we discussed previously, the
9 facility is constructed on -- on lands wholly owned by
10 Pinon. Specifically, the west half of Section 20.
11 And it's approximately 6 miles from Jal, New Mexico.

12 And then in the last point of this
13 slide, I just include the specific coordinates for the
14 surface locations of each AGI well.

15 Moving on to give a little bit of the
16 background of the geology of the area, in the top
17 panel, Panel A, we have kind of a generalized map
18 showing the major areas of the Permian Basin.

19 And in the bottom panel, we kind of see
20 a cross-sectional view of -- of the Permian Basin,
21 obviously seeing the significant depths that are
22 reached in the Delaware Basin side of things versus
23 the Midland Basin.

24 In -- for the Independence AGI #1
25 wells, and the Pinon Facility, those -- those

1 operations are -- are located in the eastern margin of
2 the Delaware Basin. You can see in the map, the
3 annotated location of -- of those facilities and
4 wells.

5 In this area, surface deposits are
6 typically aeolian and alluvial with some local
7 exposure of Triassic red beds. And -- and underlying
8 the surface location, are approximately 9,000 feet of
9 Permian strata, which overlie 8,000 feet of older
10 Paleozoic strata.

11 And we'll take a -- a more specific
12 look in the next couple of slides at what overlies and
13 underlies the injection zone and -- and its -- their
14 relationship to production in the area and things like
15 that.

16 But within the area, there's excellent
17 coverage of the you know, the -- the Regional Woodford
18 Shale. Which is a well demonstrated and -- and
19 regional caprock in this area that provides the -- the
20 containment for injected fluids into the -- the
21 reservoir that both of these wells target.

22 In this area specifically, the Woodford
23 Shale is -- is approximately 300 feet thick. So quite
24 a good thickness of -- of that well demonstrated
25 caprock at the Pinon location.

1 Both wells target what is often
2 referred to as the Siluro-Devonian, which is inclusive
3 of the Devonian, Wristen, and Fusselman formation
4 strata.

5 Which are common targets for disposal
6 operations for -- for many SWDs, AGI wells, and -- and
7 has a well demonstrated history of -- of being
8 able -- being productive receptors of injection
9 fluids.

10 In the area, being near the eastern
11 margin of the Delaware Basin, there are instances of
12 normal faulting that typically are oriented, or trend
13 parallel, to the north, northwesterly trend of the
14 Central Basin platform.

15 And we'll take a look at those in a
16 little bit more detail in the -- in the slides to
17 come.

18 Here is just another kind of
19 generalized stratigraphic correlation for the Permian
20 Basin. A lot of the -- the regions of the Permian
21 Basin that were represented in the previous slides
22 map, are -- are included and described in this slide.

23 The highlighted section in the slide
24 shows the Delaware Basin stratigraphy. And obviously
25 highlighted because as the area of the Pinon Project

1 and facilities and within those strata, we have
2 annotated the formations in which historic, or active
3 production has occurred.

4 Not necessarily widespread, but -- but
5 within a reasonable distance from the locations that
6 those are the -- the formations, which is -- had some
7 history of production.

8 So before you -- before you advance,
9 and we can take note of this a little bit more in more
10 detail when we get to the, you know, the data
11 collected from drilling the Independence AGI 1.

12 But ultimately there's a significant
13 vertical package of geologic strata that separate the
14 approved Siluro-Devonian injection zone from overlying
15 producing zones.

16 And here, diving right into that, is
17 kind of, in this slide we're reporting the formation
18 tops that were encountered for drilling the
19 Independence AGI #1 well.

20 And we see again that looking at the
21 most -- or the right portion of -- of the
22 stratigraphic, or of the well log shown there, we see
23 that we've got, you know, between the top of the
24 approved injection zone, where the top of the blue bar
25 marked "Injection Interval" is, and kind of the -- the

1 interval of potential production in the straw anitocca
2 [ph], and marrow section.

3 We've got well over a thousand feet of
4 separation between that, which kind of illustrates
5 the -- the actual data collected and confirms kind of
6 a -- the -- the information shown on the previous
7 slide.

8 Taking another look at -- at some of
9 the background geology info of the area, in this
10 slide, we show a structure contour map generated from
11 sub-C elevations of the top of the Devonian.

12 So it's essentially a structured
13 contour map that illustrates the -- the shape,
14 the -- the dip angles of the top of the Devonian
15 Reservoir there.

16 And we can see the AGI #1 well location
17 annotated at the -- very proximal to -- or at the A
18 point in the A to A prime cross-section trendline,
19 which we'll discuss in -- in the next slide.

20 The AGI #2 being the second node of
21 that trendline. And then finally, another nearby
22 Siluro-Devonian penetration marking the A prime
23 location in that trendline.

24 But we see the AGI 1 and the Pinon
25 Project area being located downdip of a local

1 structural high in the area. And kind of bounded with
2 larger fault features to the north and to the east.

3 And if we can move onto the next slide,
4 we'll take a look at the cross-section that that
5 trendline is -- is illustrating.

6 So we see that cross-section in -- in
7 the figure to the right here. And one thing, it -- it
8 certainly illustrates the -- the porosity of -- of
9 well-logged data in the area.

10 Which from an injection well operation
11 standpoint, you know, it equates to fewer penetrations
12 and fewer potential issues of gas migrating out the
13 reservoir. But it certainly make investigating the
14 deep subsurface a little more challenging to have less
15 control.

16 And so for both the Independence AGI #2
17 Application, the original AGI #1 Application, and
18 those projects, analysis and evaluation of 3D seismic
19 data covering the area was an absolute necessity to
20 make sure that productive intervals of the reservoir
21 where injection operations can be maintained safely,
22 is identified.

23 So we see in -- in the well data that
24 are available and are inclusive of well -- of data
25 collected from drilling and completing the AGI #1, we

1 can see the porosity profile, and certainly see the
2 local coverage of that thick interval of Woodford
3 Shale, which behaves as the caprock material, or the
4 primary containment layer in this area.

5 As -- as secondary containment, you
6 know, this Woodford Shale is also over
7 let -- overlaying and -- and these data were confirmed
8 by drilling the Independence AGI #1 and collecting
9 sidewalk bore data.

10 But overlying the Woodford Shale, is
11 the -- the overlying 950 feet -- approximately 950
12 feet of Mississippi in carbonates of the Osage
13 formation are also characteristically very low -- very
14 low porosity in permeability units.

15 So they could provide additional
16 protection to -- to -- in confidence, that the gases
17 injected in this area, are going to be contained
18 within the target.

19 MR. RANKIN: Madam Chair, are we done
20 with the geology review?

21 THE WITNESS: Yeah.

22 MR. RANKIN: Madam Chair, having
23 completed the background section here on the geology
24 and history, I want to check to make sure the -- about
25 being an hour in, I want to make sure the court

1 reporter is doing okay.

2 And if we want to take a break, we
3 could take a quick break now. Or continue into the
4 modeling, which would be the next topic of testimony.

5 CHAIR SANDOVAL: Okay. Why don't we
6 take a 10 minute break and come back at 10:40?

7 MR. RANKIN: Take a break now till
8 10:40.

9 CHAIR SANDOVAL: Can you hear me?

10 THE REPORTER: Yes.

11 DR. AMPOMAH: Yes.

12 CHAIR SANDOVAL: Okay. All right.
13 We'll be back at 10:40.

14 THE REPORTER: Off the record now at
15 10:30.

16 (Off the record.)

17 THE REPORTER: Back on the record at
18 10:40.

19 MR. WHITE: Okay. So now that we've
20 kind of covered a lot of the background information on
21 the project and the local geology, I want to move into
22 the additional work that's been completed in advance
23 of the submission of the original AGI #2 C-108
24 Application.

25 And there we go. Nope. Nope. Nope.

1 Eighteen. Okay.

2 And so I want to talk about the
3 additional work that's been done that more
4 specifically focuses on the justification and the
5 request to amend the allowable volume to 20 million
6 per day.

7 And -- and this additional work
8 is -- has really -- revolves around two questions.

9 The first being, is the reservoir -- in
10 the injection reservoir, in our understanding of it,
11 currently suitable to support this injection rate
12 being requested.

13 And you know, what impacts will that
14 have on the reservoir? What will the result in plume
15 look like?

16 And then also, what does -- what are
17 the risks of induced seismic events in response to
18 this change in the allowable injection volume?

19 And -- and so this work really started
20 with first updating the existing geologic simulation
21 model that was presented in hearing for the AGI #1.

22 To be inclusive of not only well log
23 data, but the results of reservoir testing that was
24 performed during the drilling and completion of the
25 AGI #1.

1 And to revise that model to -- to
2 better reflect our understanding of the subsurface
3 now, and also build in, and consider the AGI #2, and
4 it's injection contributions into the reservoir.

5 With the ultimate goal of trying to
6 understand, after 30 years, what does the result in
7 acid gas plume look like in terms of its dimensions?

8 What are the concentrations of acid gas
9 within the reservoir when these wells are operated as
10 proposed?

11 And then finally, just re-evaluation of
12 the slip probability and the risk for induced
13 seismicity in response to operation at 20 million
14 standard cubic feet per day for the two wells. Or to
15 be clear, shared by the two wells.

16 And so we have a little bit more
17 background in this, in that in our evaluation of both
18 the original AGI #1 well, and our evaluation and
19 development of the permit application for the AGI #2
20 well, in both of those instances, 3D seismic data were
21 reviewed, in order to site locations.

22 And of course, were revisited and
23 re-evaluated, at the time of permitting and developing
24 the permit for the AGI #2 well.

25 In this map, we showed the faults that

1 were identified in the area, and to confirm, even
2 though re-evaluation during the time of AGI #2, our
3 interpretation of those subsurface features remains
4 the same.

5 So we have -- we've identified eight
6 faults that typically trend in line with the -- the
7 north-northwesterly trend of the central basin
8 platform with a few smaller features that are
9 semi-perpendicular to those.

10 As we described previously in
11 the -- the Devonian -- in the slide where I discuss
12 the Devonian Structure Map, the nearest faults to the
13 location are the large north-south feature to the east
14 of the well locations, and then the northern fault
15 there.

16 And so in updating, or in utilizing a
17 reservoir model, and simulations to understand the
18 resultant plume similar to the AGI #1 application
19 efforts, and similar to what was presented in that
20 associated hearing, we have utilized the Schlumberger
21 PETREL platforms to construct the geologic simulation
22 space.

23 Which effectively can be thought of as
24 the digital container in which injection operations
25 are simulated.

1 And then the associated Schlumberger
2 ECLIPSE platform to conduct those simulations that
3 include both the proposed operation of the AGI wells,
4 as well as the operation of nearby SWD wells.

5 And so in this slide, the map shows
6 the -- the -- it shows a map view of the geologic
7 model that has been constructed.

8 In terms of its dimensions,
9 it's -- it -- it remains the -- the same as the
10 Independence AGI #1 well, in terms of its aerial
11 expanse, covering about 20 square miles in southeast
12 Lea County, New Mexico.

13 The boundaries of the simulation space
14 were not increased for a couple of reasons. One being
15 the number of wells that are included in the
16 simulation did not warrant that those be expanded.

17 And then secondly, the expanding of the
18 model in an area with limited well control, and
19 outside of the -- the coverage area for our seismic,
20 would lead to a lot of assumptions being made about
21 the characteristics of the model in that space.

22 So for this period, and these
23 investigations, it was not warranted to -- to increase
24 that space without knowledge of how to characterize
25 it.

1 While the model -- while the model
2 dimensions have not been changed, the characteristics
3 within the model, so porosity and permeability
4 characteristics.

5 We have gained important data from
6 drilling the AGI #1 and #2, that allow us to better
7 represent the subsurface characteristics for our
8 simulations.

9 And in this slide, we show just a -- a
10 3 dimensional render of the actual model that was
11 produced.

12 While in the image, the color codes are
13 generalized into eight discreet zones that are stacked
14 vertically within the reservoir, the total simulation
15 is -- is comprised of 292 simulation layers.

16 Which are then additionally subdivided
17 into 500 by 500 feet grid cells leading to a rather
18 large area, in which injection operations are
19 simulated with the -- the model size reaching 920,000
20 grid cells.

21 And so in this slide, we provide kind
22 of a summary table of how the eight identified zones
23 are -- are -- the characteristics that -- that are
24 ascribed to them.

25 And these zones are -- are -- were

1 generally delineated based on their -- their porosity
2 and permeability characteristics.

3 And -- and so we see that, you know,
4 upper zones appear, have varying average porosities
5 than lower zones.

6 And -- and those are generally
7 reflected in that -- or -- and this is the summary of
8 how those are reflected in their average values in the
9 modeling.

10 Taking a high level look at it, the
11 average total porosity within the eight zones of the
12 injection interval is 4.2 percent.

13 This is -- is based on our
14 interpretation of well logs and the drilling of the
15 Independence AGI #1. And then the permeability values
16 that were utilized to inform the model again, were
17 based on what drill stem test data are available.

18 Independence AGI 1 injection tests data
19 as a separate injectivity test and a long-term falloff
20 test was performed. And then further refined by the
21 larger or significant studies on dolomite
22 permeability.

23 And so moving to this slide, the panels
24 that are shown in this slide are
25 the -- are -- are -- we're -- we're showing how

1 porosity and permeability is actually distributed
2 within the model.

3 As we discussed, we do have these
4 porosity and permeability estimates are generated from
5 what limited well control we do have.

6 And then further supplemented through
7 analysis of the 3D seismic data and specifically
8 mapping of impedance characteristics in the area.

9 So we see, taking a look at, and -- and
10 you'll have to forgive me if -- if the scale is small.
11 But the -- in the top left chart, we essentially have
12 the distribution of porosity within the model.

13 And you can see that that general
14 population ranges from about, you know, zero, or very
15 near zero. Or maybe even more generally, 1 percent
16 porosity, to about 6 percent porosity for most of the
17 population.

18 And -- and that is essentially how
19 that's distributed in each of those 920,000 grid
20 cells. So that's the total population.

21 And then moving over to the panel to
22 the right, we see how permeability -- for a brief
23 second, we saw permeability was distributed in the
24 model.

25 Yeah. So -- so seeing this

1 distribution in the bar chart with the -- with the
2 blue colors, we see the permeability for most of the
3 population ranges from around .1, .2 millidarcies
4 to -- to about 30 millidarcies.

5 And you see the corresponding frequency
6 of those values shown in the vertical axis of that bar
7 chart.

8 With both permeability and porosity,
9 based on our experience drilling AGI wells and
10 completing AGI wells, testing the Siluro-Devonian
11 reservoir via injectivity tests.

12 These -- these -- the way these
13 characteristics are described in the model is -- is in
14 accordance with -- with what we see -- with what we
15 see in -- in actual wells drilled, completed, and
16 operated.

17 Oh actually, Adam, if you can go back
18 one more. And on the -- the -- sorry. I -- I failed
19 to describe the bottom panel there.

20 And what is shown in the -- the bottom
21 panel is just a cross-plot of the model permeability
22 cross-plotted against the model porosity.

23 And it shows, essentially, you see
24 looking at the data, you can probably pick out that
25 there are eight unique trend lines where, you know,

1 those eight discreet vertical zones, each correspond
2 to a colored trend line in that.

3 So obviously that we can see that there
4 is -- in some zones, the model represents a stronger
5 correlation between porosity and permeability than
6 others.

7 So we can essentially expect that those
8 zones with the stronger increase in permeability, with
9 increases in porosity, will be larger receptors of
10 acid gas.

11 And so in this slide, again, this is
12 describe -- this -- this slide is intended to show you
13 how characteristics are represented in the model.

14 And from those -- and essentially what
15 is being shown here, is a -- a porosity map. So we're
16 looking map view, top down again, at the -- at the
17 simulation space.

18 And we have the porosity distribution
19 within the model Zones 1, and 7, and 8, which based on
20 the way porosity and permeability is distributed, are
21 anticipated.

22 And -- and in fact, the results show
23 that they are the two of -- two primary receptors of
24 acid gas in our simulation. And also, that's in
25 accordance with our experience with Siluro-Devonian

1 acid gas injection wells.

2 So moving on from how the
3 characteristics of the model are setup, the -- with
4 this geologic model constructed, we're able to
5 simulate injection operations and start to get some
6 insight into our initial question of -- of can this
7 reservoir, as we understand it, sustain these
8 operations that we're proposing.

9 And just to recap, the -- in -- well,
10 in this slide, I'll recap the specific conditions of
11 the injections simulations that were reported.

12 The AGI wells were simulated to inject
13 a mixed acid gas stream, again, of 70/30 CO₂ to H₂S in
14 accordance with -- with Pinon's current operations.
15 And the simulation was conducted for a period of
16 30 years.

17 As the gas properties, the density and
18 volume, based on temperature and pressure conditions,
19 were determined utilizing the NIST REFPROP utilities.

20 Which is a comparable utility to
21 Aqualibrium, which has been referenced in -- in many,
22 many acid gas injection well applications. And
23 essentially allows us to understand the acid gas
24 characteristics for a given temperature and pressure.

25 For the injection wells included in the

1 simulation, but the AGIs and SWD were operated at
2 their maximum anticipated injections rates.

3 Which correspond to the permitted
4 injection rates for the entirety of the simulation in
5 order to provide the most conservative results and
6 assurance that the operations are reasonable.

7 The simulation assumes the reservoir is
8 a brine-saturated reservoir in hydrostatic
9 equilibrium. And the boundaries of the simulation,
10 because of our understanding, are -- are kept closed.

11 And we assume that faults are -- are
12 barriers to flow, are non-transmissive, which is
13 a -- a common assumption, and is supported by what we
14 know about a lot of these deeper Paleozoic faults.

15 Which have a long history of -- of
16 trapping productive resources and demonstrating that
17 they're not really transmissive of flow.

18 So in the work presented today, and in
19 the -- the C-108 Application for the AGI #2 well,
20 again, which was submitted at the end of last year,
21 two simulations are presented here.

22 The first being injection via the
23 AGI #1 and #2 well, at an injection rate of 10 million
24 standard cubic feet per day for each well. Which is
25 shown there, would equate to approximately 4100

1 barrels per day for each of those wells.

2 And this scenario was selected while
3 we've explored several scenarios. This scenario was
4 selected as the most reasonable because from an
5 operational standpoint, it's -- it's kind of the ideal
6 way to operate this well and to manage reservoir
7 capacity.

8 It would be not very suitable to -- to
9 plan to inject into one well for long as it -- it
10 strains surface equipment more and ultimately has a
11 greater and more rapid impact on local reservoir
12 conditions.

13 So for what's presented today, that was
14 deemed as the most suitable and most preferable for
15 long-term operation of the wells.

16 The second case being presented is
17 similar in terms of the AGI will operate -- or the
18 operation of the two AGI wells. But then it also
19 considers operation of the nearby West Jal B Deep SWD
20 at its maximum expected rate of 30,000 barrels per
21 day.

22 So now, after a good deal of discussion
23 about the foundation of the model, in the next kind
24 of -- and -- and the simulation conditions, the next
25 couple of slides, we'll be taking a look at the

1 results of that simulation.

2 And this and the next slide will follow
3 the same format in that we see in panels A and B.
4 The -- the maps that show one, the aerial extent of
5 acid gas within two primary -- two zones that are the
6 primary receptors of acid gas, that show the aerial
7 extents as well as map the -- the gas saturation at
8 the end of the 30 year injection simulation.

9 Panel C will show kind of a -- a
10 resultant polygon that amalgamates the
11 district -- the -- the lateral extent of all eight
12 zones, to kind of show and illustrate, the maximum
13 dispersion distance of acid gas at year 30 -- at the
14 end of the injection simulation.

15 And panel D will show a cross-sectional
16 view that illustrates both being a north/south
17 cross-sectional view, that illustrates the
18 distribution of acid gas vertically as a result of
19 these injection operations that are being simulated.

20 So looking at these results, we see
21 that at the 30 year mark, we see acid gas within
22 Zone 1 reaching the farthest from the AGI well
23 location at approximately 2.43 miles from the site.

24 Oh. I think you skipped that. We
25 should be on Case 1. So -- so for Case 1, in which

1 operation is only at the AGI wells, had 10 million per
2 day.

3 The maximum dispersion distance we see,
4 is 2.3 miles and -- and certainly it's not a radial
5 dispersion. But -- but towards the north, we see the
6 greatest migration of that acid gas.

7 Generally, gas -- or acid gas
8 saturation levels are highest near the wellbore, where
9 we see reservoir concentrations within the grid cells
10 ranging between about 30 to 50 percent.

11 And as we reach the margins of the
12 plume, we start to see gas saturation values lower
13 than 25 percent.

14 And in Case 2, again, following a
15 similar pattern in terms of -- of the results being
16 presented, we see -- and this case, just to -- to
17 reiterate, this case would be the same 10 million
18 standard cubic feet per day into each acid gas
19 injection well.

20 But also with operation of the West Jal
21 B Deep at a rate of 30,000 barrels per day.

22 And immediately, the -- one of
23 the -- the first impacts we see, is we start to see a
24 little bit more deflection of the acid gas plume away
25 from the West Jal B Deep. So kind of inhibiting

1 migration to the northeast of the AGI well locations.

2 And we see that deflection resulting in
3 a little bit farther reach from the AGI well bores,
4 with the maximum extent reaching about 2.4 miles from
5 the AGI sites.

6 Again, we kind of see a similar pattern
7 in saturation with the nearest areas to the wells
8 having saturation levels of 30 to 50 percent. And
9 then being reduced towards the margin of each plume.

10 In both case simulations 1 and 2, we
11 see, kind of in accordance with -- with our experience
12 in the Siluro-Devonian, we Zones 1, 5, and then the
13 lower most zones being the most productive receptors
14 of acid gas.

15 And here we take another look at kind
16 of at the results. And -- and what we have plotted
17 here for Cases 1 on the top and Case 2 on the bottom.

18 And -- and you'll have to excuse me,
19 but case 2 at the title of -- of that chart has a
20 typographical error.

21 It says 15,000 barrels per day. But it
22 is actually -- should read, 30,000 barrels per day and
23 the -- this has been confirmed that the data
24 represented on this slide are representative of that
25 30,000.

1 But in both of these charts, we're
2 taking a look at the model's prediction for surface
3 injection pressure required to inject at 20 million
4 standard cubic feet per day, plotted against time.

5 And the two yellow trends, the solid
6 yellow representing the Independence AGI #1, and the
7 dashed yellow trend representing the #2 well.

8 Both show that for the complete 30 year
9 simulation period, that injection can be maintained
10 under the limitations of each respective maximum
11 allowable surface injection pressure for the -- the
12 complete 30 year period of operation.

13 And in this slide, again, this is kind
14 of providing the -- the numerical equivalence of the
15 results shown in the -- the prior cross-sectional
16 view.

17 If you recall a couple of slides back,
18 we looked at cross-sectional views of gas saturation
19 and it was quite apparent that some zones were -- were
20 being occupied by more acid gas than others.

21 This is the numerical breakdown for
22 case simulation one on the left. And case simulation
23 two on the right.

24 And we can see the model predicted
25 volumes of acid gas at each of the eight general zones

1 will have received at the end of the injection -- the
2 30 year injection period.

3 So you see in column two, the
4 cumulative injection reported in million standard
5 cubic feet per day.

6 And in the following, the -- the column
7 to the right of that, the cumulative injection in
8 million barrels equivalent.

9 And then the fraction of the total acid
10 gas injected, that each injection interval, or each
11 reservoir zone has received in this simulation.

12 And lastly, the next couple of slides
13 just show the initial and resultant pressure
14 predictions for again, the two primary, or two of the
15 major receivers of acid gas in -- in our simulations
16 with that.

17 Essentially equating to the upper
18 Devonian section, which is a very -- which is a -- a
19 primary receiver in the existing AGI well.

20 And then the Fusselman interval, which
21 is also a recipient of acid gas in -- in the current
22 injection well.

23 And so here we see the same initial and
24 end of simulation resultant pressure maps for Case
25 Number 2, which should be immediately apparent, has

1 some -- some different results.

2 As that simulation considered also a
3 significant volume being injected by the West Jal B
4 Deep SWD well, at 30,000 barrels per day, for a
5 period, day in and day out, of 30 years.

6 So just to summarize kind of the result
7 of the -- this investigation, the -- based on our
8 current understanding of the reservoir, and our
9 conservative approach to simulating the -- the
10 injection operations within this reservoir, the
11 current model results, and our understanding, support
12 the -- the ability, or confirm the feasibility of the
13 reservoir in this area.

14 And the current injection operations
15 that confirm the feasibility of Pinon operating the
16 two wells at the combined rate of 20 million standard
17 cubic feet per day.

18 And this is predicted to be feasible
19 for the entire -- for a period of at least 30 years,
20 and -- and can -- these operations can be maintained
21 without any modification to the current maximum
22 allowable surface injection pressures.

23 To reiterate, this -- in our
24 simulations in our work was intentionally designed to
25 be conservative just so that we can have as much

1 confidence as we can that the -- the work to actually
2 operate these things, and attain approval, that we
3 have as much confidence in -- in the reservoir's
4 ability to receive these fluids as we can.

5 So as such, you know, injection
6 simulations, all wells, were operated at their maximum
7 anticipated or permitted rate such that -- that those
8 conservative results can be arrived at.

9 In all case studies presented with and
10 without the -- or without the contributions of the
11 West Jal B Deep, all of those proposed operations,
12 splitting 10 million between each well, can be
13 maintained through the entire simulation.

14 When looking at the results -- no,
15 you're fine. When looking at the results with and
16 without the West Jal B Deep operating, we see a
17 maximum dispersion distance between 2.3 and 2.43 miles
18 from the AGI wellbore.

19 The results of the simulation are also
20 in agreement with what we've seen in drilling and
21 operating acid gas injection wells in the
22 Siluro-Devonian Reservoir.

23 And then finally, and -- and quite
24 importantly, is that with the simulation results that
25 consider the increased volume, what we also see is

1 that the plume, while it is naturally larger due to a
2 larger injection volume, we don't see it migrating or
3 advancing into the path of any -- any other
4 penetrations into the SWD well, or into the
5 Siluro-Devonian Reservoir.

6 So we have confidence that -- that no
7 additional pathways out of the reservoir, through
8 a -- through an existing well that may or may not be
9 plugged appropriately, are -- are going to present any
10 issue to this application.

11 And so with an understanding, or
12 confidence, that the injection reservoir can -- can
13 receive the fluids being proposed at -- in a
14 reasonable manner, that can be -- that can be
15 completed within the bounds of the current maximum
16 allowable injection pressures.

17 The next question becomes, does this
18 increased injection volume present any elevated risk
19 or any -- any significant change in the risk for
20 induced seismic events. As there are faults in the
21 area, which have been identified, and -- and need to
22 be considered.

23 And so the second part of our
24 reassessment completed for the C-108 Application for
25 the AGI #2 and in preparation -- or in being presented

1 today, is a re-evaluation of that fault slip
2 probability assessment that was completed both -- for
3 both well applications.

4 Again, just to bring -- to -- to
5 refresh everyone's memory about the local structure,
6 in this map, we show again, the faults that have been
7 identified in the area. Naturally, the area covers a
8 pretty significant distance.

9 So the -- there -- there will naturally
10 be faults that are a bit more relevant to the AGI
11 locations than others.

12 And to -- to kind of reiterate again,
13 these features were identified in review of 3D seismic
14 survey data, which was also re-evaluated at the time
15 of each application.

16 And so again, with modeling fault slip
17 probability, or simulating injection operations to
18 kind of assess fault slip probability, a series
19 of -- of input parameters have to be identified,
20 and -- and defined in the model and subsequent
21 simulations.

22 These parameters, which are shown in
23 the table here for the work completed for the
24 Independence AGI #1 and #2, they essentially, are
25 utilized by the model to describe local stress

1 conditions, the -- the orientations and the attitudes
2 of subsurface features, which the model uses to
3 essentially assign pressure values, or -- or
4 conditions that are going to be necessary to induce
5 slip along features in the area.

6 In the area of the Independence AGI #1
7 and #2 well, as we've seen in previous slides, most of
8 the fault features are trending inline, or parallel
9 to, the trend of the central basin platform, with a
10 few minor fault features trending in -- in subparallel
11 directions.

12 And while we have eight major fault
13 features in the area that we've identified, in order
14 to really accurately represent their kind of
15 non-linear expressions in the fault simulation
16 evaluation, those faults have been, as shown in this
17 map, broken down into 29 fault segments.

18 So that those points along those
19 features that may be more in alignment with regional
20 stress directions, and therefore, more -- having a
21 little bit higher potential for -- for slip, are
22 adequately considered by the simulation.

23 So we'll see in this map, how each of
24 those major fault features are broken down in their
25 corresponding segment numbers that -- that we'll see

1 in the simulation results to come.

2 And one of the first things that the
3 fault slip probability model, which I'm not sure if I
4 referenced this, but the model being utilized is the
5 Stanford Center for Induced Seismicity Fault Slip
6 Potential Model.

7 Which is a pretty -- very quickly,
8 become a widely used model for investigating the
9 potential for slip and response to a variety of
10 injection simulations.

11 And based on the structural data and
12 the assumption -- the reservoir characteristics that
13 are defined in the model, one of the first steps it
14 takes is it tries to identify what the change in
15 pressure for each of the fault segments being
16 represented.

17 What the change in pressure is going to
18 be that's going to be required to induce slip along
19 that feature.

20 And so what we're showing here is for
21 the 29 fault segments in which we've defined in the
22 model. We're seeing the model's prediction of the
23 pressure required to -- to induce slip along those
24 features.

25 So immediately looking at the model's

1 predictions, we do see that the faults 1, 2, 5, and 6,
2 as shown in -- in kind of the previous fault mapping,
3 are the most -- are the features with the most
4 likely -- are -- are the features with the most
5 potential, or lowest pressure thresholds to induce
6 slip.

7 With an -- with a prediction of, or an
8 assessment of the geomechanics and -- and an
9 understanding of the fault features in the area, we
10 then inform the -- the fault slip potential model of
11 the injection simulations that we'd like to simulate.

12 By -- so -- so that it can essentially
13 complete a hydrologic simulation model. And start to
14 make predictions about what the pressure impacts of
15 each of those wells will be over the operation -- or
16 over the periods for which they're being simulated.

17 So in our investigation of the area,
18 where the Pinon Independence wells are located, we
19 included seven additional SWD wells that are
20 operating, or are planned to be operated in the area.

21 And what we'll quickly see is, you
22 know, based on our understanding of the reservoir,
23 some of these SWDs are located pretty far away on the
24 eastern margin of -- of the -- of the study area. And
25 really are anticipated to have some pretty minimal

1 impacts.

2 So similar to the reservoir modeling,
3 we see, you know, West Jal B Deep, and -- and the AGI
4 wells not being particularly affected by those wells
5 much, much further out.

6 So actually, Adam, if you can go back
7 one time.

8 So as we can see in the tabulated data
9 for the seven injection wells that are included in the
10 simulation, we see -- you can see that the injection
11 volumes that we simulate, range from about 4200
12 barrels a day to 30,000 barrels per day.

13 As there are a couple of instances of
14 SDW wells operating, or being at least approved for
15 injection, up to those rates in the area.

16 There is one well at Jal North Ranch
17 SWD that our review of records, it was -- it was not
18 apparent what it's actual permitted injection value
19 was.

20 So for our simulations, we assumed a
21 value of 10,000 barrels per day.

22 As with the injection, the previous
23 plume modeling simulations, all of the injection
24 volumes, or all of the injection operations of these
25 SWD and AGI wells, were -- were completed at their

1 maximum daily injection rate.

2 Again, to provide that conservative
3 estimate of risk. And provide as much confidence
4 that -- that the risk in fault slip in response to
5 this proposed operation, is -- is not -- or -- or
6 is -- is a manageable risk.

7 So in this slide, we see some of the
8 results of the simulation, of the seven injection well
9 simulation, which was operated for the AGI wells,
10 or -- or for the period in which AGI wells were
11 operated, was at least 30 years.

12 However, because some of these SWD
13 wells have been in operation prior to the AGI wells,
14 the total model -- or the total simulation duration
15 was extended to account for those historic operations.

16 So with some wells, I believe beginning
17 their operations circa 2010, we see the ultimate
18 simulation period being in excess of 40 years.

19 And in the top panel, we see the FSP
20 models predicted, or the results of the hydrologic
21 model, where we see the pressure front generated from
22 the operation of these seven wells.

23 And -- and noting immediately
24 that -- that the resultant pressure conditions that
25 the model predicts, falls pretty significantly short

1 of what the model also predicts, would be the pressure
2 thresholds needed to induce slip along any of those
3 features.

4 And we see each of those features, or
5 the pressure conditions, along each fault -- each of
6 the 29 fault segments being plotted in the chart to
7 the bottom there.

8 In general, the results of pressure
9 increase along these features, ranges from less than 1
10 percent to 20 -- 20 percent of what the model predicts
11 is the pressure required to induce slip.

12 And in this slide, we also show some
13 other demonstrations of the fault slip probability
14 results with the top panel illustrating the fault slip
15 potential predicted by the FSP model, through time,
16 with each of those fault trends being plotted in the
17 black trend line.

18 So we immediately see that -- that
19 along all 29 features simulated, there's not really
20 any elevated risk of slip probability for any of these
21 features based on this particular injection scenario.

22 For most of the 29 fault segments, the
23 model predicts a probability of 0.00 probability of
24 slip.

25 However, there are five, or I'm sorry,

1 four segments for which the model does predict
2 non-zero probabilities.

3 And these are shown in the map, the
4 lower map, on this slide. We see segments 4, 5, oh.
5 I'm sorry.

6 It is five segments, 4, 5, 16, 17, and
7 18, having probabilities ranging from .01 to .05,
8 based on, or in response to the seven injection well
9 scenario.

10 So in this slide, we also show again,
11 the same plot of fault -- model predicted fault slip
12 probability plotted against time in the upper panel
13 there.

14 And then the specific model predicted
15 results, or the specific model predicted change in
16 pressure required to induce slip.

17 The model predicted pressure change for
18 the seven well scenario. The associated probability
19 that those conditions will be reached and induce slip.

20 And then the final column representing
21 the probability of slip for those five features for a
22 subsequent simulation in which the AGI wells are not
23 included.

24 So immediately in that comparison, we
25 see that the volume, the approximate 4,000 barrels per

1 day equivalent, that the two AGI wells are
2 contributing, are not producing, well, in this
3 iteration, any noticeable change to the probability of
4 slip.

5 Which would -- which would suggest that
6 any observable risk of slip, is kind of being driven
7 by adjacent SWDs or the higher volume injectors in the
8 area.

9 With that -- even considering that, we
10 observed that generally these features, these fault
11 features, these eight fault features, are generally
12 not predicted to be of significant risk of injection
13 induced slip for this seven well scenario.

14 Again, subsequent simulations that
15 remove the AGI injection contributions, really produce
16 no noticeable result, or no noticeable change in the
17 probability of slip.

18 And ultimately, as proposed, the AGI
19 wells at 20 million standard cubic feet shared between
20 the two wells, can be completed.

21 And those wells can be operated without
22 significantly increasing the risk of injection induced
23 slip in the area.

24 So to just kind of summarize the -- the
25 materials presented, including the background

1 materials, and the request of Pinon.

2 Again, Pinon is requesting approval or
3 amendment, of the existing Commission Order to allow
4 for a combined, or shared, daily injection volume
5 limitation of 20 million standard cubic feet for the
6 AGI wells 1 and 2.

7 These wells, both well #1 and well #2,
8 have been authorized for injection into the
9 Siluro-Devonian interval.

10 One, via the Commission -- or via the
11 hearing process before the Commission. And one, via
12 the administrative route.

13 Independence AGI #2 was authorized
14 earlier this year, in March of 2020 [sic] however, as
15 we discussed before, the -- the request to increase
16 the total volume limitations was not able to be
17 considered through the administrative process.

18 In our additional work to evaluate the
19 reasonableness and the feasibility of maintaining
20 these injection operations, our revised modeling,
21 which is better informed through drilling and
22 completion of the AGI #1 well, and -- and further
23 refined through detailed analysis of 3D seismic data,
24 confirms that -- that this is a reasonable request of
25 volume for this area, and -- and the reservoir.

1 Both log data and well test data
2 support its ability to -- to receive these fluids in a
3 safe manner.

4 Summarizing the -- the conditions of
5 the -- of the modeling and simulation again, to
6 reiterate PETREL, or Schlumberger PETREL and ECLIPSE
7 software platforms were utilized in our investigation.

8 And the results of that indicate that
9 based on the two case studies it simulated, the
10 resultant acid gas injection plume would extend from
11 the AGI wells between 2.3 to 2.4 miles from the
12 current wellbores.

13 Being controlled and deflect -- or
14 being controlled, or with the main difference between
15 those two case studies, being the operation of -- of
16 the West Jal B Deep.

17 The simulation results also confirm
18 that the operation at this rate can be maintained
19 throughout the entire period for which Pinon is -- is
20 requesting.

21 With the results showing that surface
22 injection pressures can be -- can remain under the
23 maximum allowable pressures for the entire period.

24 Additionally, revisiting our assessment
25 of fault slip probability, or fault slip potential,

1 those results as well, confirm that based on our
2 understanding, these -- these wells can be operated as
3 such without any significant risk of -- of producing
4 induced seismic events.

5 So the -- moving back to the ultimate
6 request of Pinon. Pinon would request approval to
7 operate the Independence AGI #1 and #2 at a combined
8 daily injection rate of 20 million standard cubic feet
9 per day.

10 The AGI #2 well is currently being
11 drilled and is currently on target to meet all of the
12 condition of the Commission's requirements with
13 respect to the redundant AGI well.

14 The -- the -- again, to reiterate the
15 ask of 20 million standard cubic feet per day is -- is
16 a reasonable request and -- and really only a moderate
17 increase as under reservoir conditions.

18 Again, the -- the acid gas would equate
19 to approximately 8200 barrels per day within the
20 reservoir. Again, significantly less than many SWD
21 wells operating in the basin.

22 The operation proposed can be
23 maintained without any increase to the
24 maximum -- maximum allowable surface injection
25 pressures. And as such, we're not requesting any

1 modification to those conditions.

2 And ultimately, as proposed, based on
3 our investigation, the operation at this rate, can be
4 done safely. And -- and it will allow Pinon to meet
5 the local needs for -- for acid gas disposal in the
6 region.

7 BY MR. RANKIN:

8 Q Mr. White, in summary then, it's your
9 opinion that the granting of Pinon's Application will
10 protect human health and the environment in this case?

11 A It is.

12 Q And in your opinion, will operation of the
13 two AGIs at the proposed injection rates result in
14 waste or impair any correlative right?

15 A No.

16 Q And in your review and analysis, it's your
17 opinion that the target interval here will have, and
18 does have, the capacity to accept the volumes of the
19 treated acid gas at the rates that are being proposed
20 for the life of the wells?

21 A Yes. I do.

22 MR. RANKIN: Madam Chair, at this time,
23 I would move the admission of Pinon Exhibits A through
24 E.

25 And the last bit of our presentation is

1 to touch on and review the Notice.

2 But I know -- I realize that we have
3 proceeded through a lot of material and the Commission
4 may wish to ask questions now, or the Division may
5 wish to ask questions now, or we can finish up by just
6 reviewing the Notice.

7 CHAIR SANDOVAL: Go ahead and finish
8 up, and then we can enter exhibits, and then proceed
9 with questions.

10 MR. RANKIN: Thank you, Madam Chair.

11 BY MR. RANKIN:

12 Q Mr. White, did Geolex prepare, and issue
13 notice of today's -- this Application? Today's
14 hearing?

15 A Yes. We did.

16 Q And is that Notice reflected in Exhibit F of
17 your exhibit packet?

18 (Exhibit F was marked for
19 identification.)

20 A Yes. It is.

21 Q And does that exhibit packet include a
22 sample notice letter that was sent to each of the
23 parties?

24 A Yes. It does.

25 Q Does it also include all the green card

1 receipts reflecting the status of delivery of each of
2 those notice letters that went out?

3 A For -- yes. For the 14 of the notices sent
4 out, we did receive green cards, return receipts,
5 confirming receipt of those materials.

6 For one certified mailing that was sent,
7 the -- the address was found to be vacant. And we
8 followed-up with a Federal Express overnight shipment
9 to a corrected address for one interested party.

10 And then for two additional certified
11 mailings that went out, those -- those mailings are
12 still in transit according to the USPS tracking
13 system.

14 When that "In transit" status was
15 identified, we reached out via electronic mail, to
16 contacts at those two entities, to provide them
17 immediate electronic versions of all of the materials
18 that were sent in the original certified mailing
19 notice.

20 And -- and those correspondence, via
21 electronic mail, and the subsequent overnight FedEx
22 shipment details, are included in this exhibit as
23 well.

24 Q And the one party that you received
25 notification that the location was vacant, that was

1 for NGL Energy Partners.

2 And that address was the address provided on
3 their corporate website. And it still is provided on
4 their corporate website. Is that right?

5 A At the time. I don't know if it's current.
6 How -- how it -- what -- what it's currently. But at
7 the time, yes.

8 Q And that subsequent attempt to deliver by
9 overnight mail was successful?

10 A Yes. It was.

11 Q And in addition, Mr. White, did we also
12 prepare a Notice of Publication in the newspaper of
13 general circulation in the location where the well is
14 located?

15 A Yes. We did.

16 Q And has that been marked as Exhibit G?

17 (Exhibit G was marked for
18 identification.)

19 Let me get to it. See if I can get to it.

20 Is this a copy of the Affidavit of
21 Publication reflecting that Notice of this Application
22 Hearing was provided in a newspaper of general
23 circulation in the county where the wells are located?

24 A Yes. It is.

25 Q And you identify each of the parties,

1 affected parties required to be noticed by name in
2 this publication?

3 A Yes.

4 Q And these same parties were noticed as well
5 for the C-1 -- Administrative C-108 Application that
6 was approved by the Division. Correct?

7 A Yes.

8 Q And none of those parties --

9 A As well as additional parties that are now
10 of interest at the time of the hearing.

11 Q And included in that list was the State Land
12 Office and the BLM. Correct?

13 A Yes.

14 MR. RANKIN: Thank you, Mr. White. At
15 this time, Madam Chair, I would move the admission of
16 Exhibit A through G into the record if there are no
17 objections.

18 CHAIR SANDOVAL: Mr. Tremaine, any
19 objections?

20 MR. TREMAINE: No objections.

21 CHAIR SANDOVAL: Any objections from
22 any other Commissioners?

23 COMMISSIONER BLOOM: No, Madam Chair.

24 DR. AMPOMAH: No, Madam Chair.

25 CHAIR SANDOVAL: All right. Exhibits A

1 through G are entered into the record.

2 (Exhibit A, Exhibit B, and Exhibit D
3 through Exhibit G, were received into
4 evidence.)

5 MR. RANKIN: Madam Chair, at this time,
6 I have no further questions of Mr. White.

7 And will pass Mr. White for questions
8 by the Division and the Commission. Thank you.

9 CHAIR SANDOVAL: Thank you.
10 Mr. Tremaine, do you have any questions for the
11 witness?

12 MR. TREMAINE: Very briefly. I think I
13 have one question, Madam Chair.

14 CHAIR SANDOVAL: Okay. Go Ahead.

15 CROSS-EXAMINATION

16 BY MR. TREMAINE:

17 Q Mr. White, I think we've heard today, that
18 as Pinon has kind of developed its business, that the
19 need for maximum injection rate has changed from what
20 Ameredev originally -- or projected to be 12, now it's
21 at 20.

22 My question for you is, is there any reason
23 to believe that as Pinon continues to develop this
24 facility, and develop its business, that you would
25 expect any further increase in injection down the

1 road?

2 A So -- so I don't -- I don't know if I would
3 have the -- the, I guess the -- the forecast data,
4 or -- or the demand data that Mr. Green may have, that
5 kind of would be at -- be -- allow me to better -- be
6 better informed in answering that question.

7 What I would suspect is, or -- or what I
8 would say is if that was pursued in the future, then
9 it would be, you know, reasonable.

10 And -- and similar investigations as -- as
11 to the ability of the reservoir to continually either
12 maintain, or -- or to receive those fluids without
13 detrimental effects, would need to be done as well.

14 But whether or not it's forecasted
15 and -- and likely to be requested, I don't think I
16 have -- I -- I don't know if I could speak to that.

17 Q I understand. Thank you. That may have
18 been a better question for the other witness.

19 In terms of that process, if Pinon
20 determines in a year or two that it -- there's 25
21 MMSCF of injection, or 30, would Pinon undergo a
22 similar process of updating the modeling and running
23 these projections?

24 A I would assume so. And -- and I don't -- I
25 don't think it's been discussed.

1 But part of the requirements of the original
2 Order, required a -- a periodic and continual update
3 of that geologic model.

4 Which, to be frank, is -- is going to -- you
5 know, our understanding is going to improve with every
6 iteration of that.

7 Because we can start to see how our model
8 predictions line up with what we're actually
9 experiencing in terms of operating pressures.

10 And essentially take each of those to kind
11 of history match and -- and kind of true up our model
12 and our understanding.

13 So I would assume -- based on my experience
14 with Pinon, pursuing any approval for any additional
15 increase, would -- would be accompanied by a -- a
16 significant investigation into the feasibility.

17 And -- and as well, the -- the ongoing
18 requirements of the Order will help to kind of keep
19 our understanding of -- of the feasibility in check, I
20 think.

21 Q Okay. Thank you.

22 MR. TREMAINE: No further questions.

23 CHAIR SANDOVAL: Thank you.

24 Commissioners, do you have any questions for witness?

25 COMMISSIONER BLOOM: No, Madam Chair.

1 DR. AMPOMAH: Yeah. Madam Chair, I do
2 have questions for the witness.

3 CHAIR SANDOVAL: Okay.

4 DR. AMPOMAH: Okay. Yeah. So
5 Mr. White, so we do have the Woodford Shale being the
6 cap rock for the Devonian that we are -- that Pinon is
7 targeting.

8 So but there has also been a lot of
9 production and more like horizontal wells through the
10 Woodford Shale.

11 So my first question is in the location
12 that Pinon is looking at, are there any activities
13 going on in the Woodford, which can more or less
14 compromise the integrity of the ceiling?

15 THE WITNESS: No. At this time, I am
16 not aware of any Woodford Shale development that would
17 be occurring in the area of the Pinon wells.

18 Overlying production is primarily
19 dominated by Bone Springs and Wolfcamp, which is
20 separated by thousands of feet of strata.

21 DR. AMPOMAH: Yeah. So you talked
22 about how you've used information from the AGI #1 well
23 to update the model that you presented to us today.

24 And also, even now, you have the AGI #2
25 still drilled -- being drilled at this point.

1 Let me ask. Did Pinon take any core
2 from the AGI #1 well?

3 THE WITNESS: Yes. They took sidewall
4 cores.

5 DR. AMPOMAH: So did they measure
6 permeability from this core?

7 THE WITNESS: Yes.

8 DR. AMPOMAH: I didn't see, in the
9 modeling, where you included that kind of probability
10 in your modeling.

11 Aside, you talked about -- and even I
12 didn't see the core measurements being made mention
13 of. You talked about using the DST to calculate, or
14 to, more or less, get the permeability.

15 So would you confirm to the Commission
16 whether you incorporated the core measurements,
17 probability measurements, into the modeling efforts?

18 THE WITNESS: So the core measurements
19 were utilized to inform our revisions to the model.
20 But ultimately, in -- in some of the more productive
21 intervals, where injection or are separate injectivity
22 tests, and falloff tests.

23 Where those -- those test indicated the
24 most volume of fluid was going, such as the upper
25 Devonian and Fusselman intervals.

1 You know those -- those intervals are
2 usually productive because there hasn't been a
3 fractured solution enhanced porosity, or a solution
4 enhanced rock there.

5 And so naturally, for recoveries along
6 those most productive intervals, was not very good.
7 Most of the core recovery that was successful was in
8 the overlying Mississippian section, the Woodford
9 Shale Section.

10 And then some more of the tighter
11 intervals of the Siluro-Devonian kind of in between
12 the Fusselman porosity and the upper Devonian
13 porosity.

14 DR. AMPOMAH: So when you say that
15 probably if Pinon could have recovered a conventional
16 core compared to a sidewall core, probably the
17 recovery rate could have been improved.

18 THE WITNESS: Potentially.

19 DR. AMPOMAH: So in the DST
20 measurement, you also measured reservoir pressure.
21 Right. So I wanted to know if you went back to look
22 at a 4.3 -- 0.43 psi per foot, initial reservoir
23 pressure that you used in the model -- to initialize
24 the model, did you go back to check for consistency?

25 THE WITNESS: Yes. Yes. The

1 geomodelling team would -- would have done that.

2 DR. AMPOMAH: Would have, or probably
3 they did, or you're not sure?

4 THE WITNESS: At this time, I would
5 need to confirm that.

6 DR. AMPOMAH: Okay. Yeah. Because
7 that is very necessary, as you know.

8 THE WITNESS: Yes.

9 DR. AMPOMAH: You know, because we are
10 using .43 psi per foot, which is a good assumption,
11 but you have the opportunity to do deep DSTs, so
12 definitely you measure the reservoir pressure at that
13 point.

14 So you want to make sure that you check
15 the consistency in there. And if not, probably
16 in -- reaching of the models, you probably have to
17 check into that.

18 THE WITNESS: Yeah.

19 DR. AMPOMAH: So you talked about the
20 porosity probability of relationships, and you made
21 mention of the Winland R35 that you used, so I want
22 you to be clear to the Commission, how the
23 permeabilities were modeled.

24 Is it based on just statistics or based
25 on the Winland R35 equations?

1 THE WITNESS: So the -- the way, from
2 my understanding, that the -- the way permeability is
3 populated in the model, was using the Winland R35
4 method.

5 And that was done for the
6 purpose -- or -- or the purpose in utilizing that
7 method was because, I guess, more standard
8 distribution methods really didn't produce any
9 simulation cells that were lower than .1 permeability,
10 so -- or -- or .1 millidarcies permeability.

11 So we didn't find that to be reasonable
12 with respect to how these wells behave. And so
13 it -- the -- it -- it was recommended that
14 those -- that that method be taken to -- to ascribe
15 permeability characteristics within the simulation
16 space.

17 DR. AMPOMAH: That was great. So you
18 talked about how you used a caustic containers
19 inversion for the porosity. Yeah. So you have a big
20 seismic, so at least you're able to -- porosity from
21 the seismic.

22 I didn't see a lot of information on
23 that, so can you clarify that you were able to do
24 inversion on the seismic to get the porosity to help
25 improve the model?

1 THE WITNESS: So impedance data were
2 available to us for review. The -- the inversion was
3 not completed by Geolex.

4 And ultimately, the way that that was
5 incorporated into the model, was such that -- that,
6 you know, we don't -- they all -- the licensing terms
7 of those data are not breached.

8 So while the model was not constructed
9 to -- to directly represent any of that, it was
10 utilized to kind of better inform and make more
11 realistic, those results.

12 DR. AMPOMAH: Thank you. So let's get
13 to the model impact.

14 So you have one saltwater disposal
15 well. And then also the AGI #1 well. So first of
16 all, are they all active, injected now?

17 THE WITNESS: I'm sorry. Can you say
18 that again?

19 DR. AMPOMAH: So the saltwater disposal
20 well and the AGI #1 well, are they all active now?

21 THE WITNESS: Yes.

22 DR. AMPOMAH: So then in your plots,
23 profiles that you show, I didn't see any history match
24 in work done before the forecast.

25 THE WITNESS: Yeah. And -- and

1 ultimately, that's going to be as more AGI #1 and #2
2 well data are -- are yielded from their operation.

3 With the Commission's schedule to
4 revisit this model, those will be the long-term goals
5 of this evaluation.

6 But ultimately, on the initial
7 investigation, it was not part of the scope to -- to
8 include all of those.

9 And but rather to take a conservative
10 approach for operating volume to assure that our
11 confidence in -- in the reservoir's ability to
12 maintain that is in place.

13 DR. AMPOMAH: So what is the distance
14 between AGI #1 and AGI #2?

15 THE WITNESS: Bottom holes are
16 separated by a little over 3,000 feet.

17 DR. AMPOMAH: 3,000 feet. So are they
18 not close enough? Or is it okay?

19 Because I'm thinking about, did you
20 guys do any interference test to make sure that you
21 are maximizing the -- space, you know, to be able to
22 co-inject both wells without any pressure issues?

23 THE WITNESS: Though the -- the main
24 motivation between separating the wellbores was
25 ultimately to take what information we received from

1 drilling the AGI #1 well, and identify what appeared
2 in the seismic data, to be an even better potential
3 location in terms of reservoir characteristics.

4 So that location was cited based on,
5 you know, a better understanding of what the data and
6 the seismic survey really mean.

7 So that was the primary motivation for
8 selecting that location.

9 DR. AMPOMAH: Mr. White, in the fault
10 modeling, so you showed two faults that were
11 incorporated in the model.

12 Now, I saw that these are
13 non-transmissive faults. Or so it means that it has
14 transmissibility zero. There's no fault across.

15 Now, if you look at -- so if you look a
16 slide number, probably 28. So why did you not run
17 another scenario where these faults were okay?

18 Or let me ask it this way. How was the
19 transmissibility calculated for this particular
20 faults?

21 THE WITNESS: So -- so based on
22 our -- the reason it was not explored for this
23 simulation, is that we -- we made the -- or in our
24 experience, these faults that are generally confined
25 to the lower Paleozoic section, don't have a lot of

1 extension vertically, up into other producing zones.

2 You know, most of the population of
3 these faults, have behaved and -- and are demonstrated
4 as -- as competent traps.

5 And -- and so we felt that that was the
6 most reasonable assumption for this area.

7 DR. AMPOMAH: So in that case, you
8 don't believe that there's any chance for the faults
9 to be okay?

10 THE WITNESS: I'm sorry. I -- I
11 believe that either mine or -- or your connection
12 broke up. Could you repeat that?

13 DR. AMPOMAH: So I'm saying that so are
14 you confident, you know, saying to the Commission,
15 that these faults are strictly closed and cannot be
16 opened?

17 THE WITNESS: I'd say that is the most
18 likely scenario. And provides the most conservative
19 estimate of the plume migration in that assuming these
20 faults to be closed, significantly reduces the -- the
21 available reservoir in which acid gas can occupy.

22 And -- and should the -- the open fault
23 simulation be considered, it's likely, based on -- on
24 the well data, or the existing wells, it's not likely
25 to come into contact with any other Devonian

1 penetrations.

2 So having an understanding of the
3 maximum extent that the plume may reach, may be a
4 more, at this time, a more useful investigation for us
5 to assure that -- that we don't reach any penetrations
6 that could be conduits out of the reservoir.

7 DR. AMPOMAH: Mr. White, so let me go
8 back to what I asked about the core measurements.

9 So I presume, based on your testimony,
10 Pinon did routine core analysis on the core -- on
11 the -- let's say the sidewall core that it took.

12 What about special core analysis for
13 relative -- and capillary pressure measurements?

14 THE WITNESS: So I don't have those
15 data, or not familiar with the specifics. But I don't
16 believe that those were -- were completed.

17 DR. AMPOMAH: Yeah. So that is -- if
18 you can bring up the slide number 28. Yeah. One of
19 the plumes that is showed.

20 So my main concern is how did Pinon
21 calculate the irreducible water saturation? You know,
22 so what was the source of the original perm curve that
23 you use in the modeling?

24 THE WITNESS: So the source was -- the
25 source -- well, there were multiple relative perm

1 curves utilized in the models to -- to characterize
2 the behavior within each zone.

3 And those were -- were determined from
4 a collaborative effort of -- of evaluating the well
5 data collected, and reasonable assumptions for our
6 understanding of the reservoir in this area.

7 DR. AMPOMAH: Yeah. But don't you
8 believe that if you want to get the actual data, then
9 get in the core, and then doing the flow to experiment
10 on the core.

11 Like a special core analysis give you.
12 They have data for you to be able to get the test.

13 Because if you look at the plume that
14 you are showing, I want to see, in terms of the what
15 is the maximum saturation of the water that cannot be
16 displaced by the injection that you are putting into
17 the well.

18 And if you do not do the -- planned
19 experiment, how do you account for that irreducible
20 water saturation?

21 THE WITNESS: Well, I certainly do
22 believe that that may be the most suitable approach.
23 But I don't know if -- if the actual core recoveries
24 would've been truly reflective of that.

25 And -- and when you have the -- the

1 disparity, and where injection fluids are going,
2 versus where your core recovery occurs.

3 DR. AMPOMAH: So let me try to wrap it
4 up quickly. And I'm sick today, so it probably is
5 good for you.

6 But let me ask. What was the minimum
7 horizontal stress that you used in calculating the
8 maximum fracture pressure?

9 THE WITNESS: You're referring to the
10 later portion of the -- the presentation where fault
11 slip probability?

12 DR. AMPOMAH: Yeah. But even within
13 the modeling. So let's say you use the minimum
14 horizontal stress to, more or less, know the
15 maximum -- pressure that you can go. Right.

16 So in the current modeling, what was
17 the minimum horizontal stress that you utilized?

18 And I'm sure you used that in the fault
19 slip analysis as well.

20 THE WITNESS: Yes. And -- and that
21 particular variable, or value, is not shown in this.
22 However, you know, it is engrained in the simulation.

23 And we can, if over a break, we can
24 probably grab that number, and let you know what it
25 is. What the model assumption for that is.

1 DR. AMPOMAH: Okay. So it to be good
2 that you include that in the final
3 admission -- that -- the final documentation. And I
4 presume it is a normal -- routine. Right?

5 THE WITNESS: Yes.

6 DR. AMPOMAH: Okay.

7 CHAIR SANDOVAL: I just want to jump in
8 real quick.

9 I think if, Dr. Ampomah, if they
10 haven't provided us with the information previously,
11 they have submitted their prehearing statements, they
12 submitted their exhibits.

13 They can't really provide us with more
14 information if they didn't think to include that in
15 the beginning.

16 THE WITNESS: Okay. And I can provide
17 a little bit of -- more information on that.

18 So the way the Stanford model is
19 constructed, that -- those values that Mr. -- or
20 Commissioner Ampomah is requesting, is represented and
21 defined in that particular model by the eight feet
22 parameter.

23 So what I can do, maybe we can -- I
24 mean, obviously that eight feet parameter can be
25 utilized to see what those -- those stress conditions

1 are if we -- if we cannot provide that.

2 DR. AMPOMAH: Yeah. And, Mr. White,
3 you know, let me be clear that the questions that I'm
4 asking is probably mostly for the regulator to see how
5 they review the models that are presented, you know,
6 to the Commission.

7 So the last one, you use ECLIPSE for
8 the modeling.

9 Did you look at the reaction between
10 the injected fluid, that is the H₂S and the CO₂ with
11 the -- fluid and also the metrics to see how the
12 injection that you are doing, how the fluid is stored?

13 THE WITNESS: You mean in the
14 simulation itself? Does it consider those other
15 sinks? No. It does not.

16 DR. AMPOMAH: Why?

17 THE WITNESS: At this point, I just
18 don't think enough information has been explored
19 to -- in order to pursue that type of investigation.

20 You know, the modeling, we could also,
21 and maybe a longer term goal for this as the model is
22 revisited, is even to produce a dual-porosity model
23 where we start to consider the role of fractures
24 versus matrix porosity.

25 So I think at the point where it

1 becomes, or the data available to us become the
2 operating data to where we can start to further refine
3 that.

4 Some of those things kind of be -- be
5 brought into scope with that.

6 DR. AMPOMAH: Thank you, Mr. White.
7 Madam Chair, I'm going to end here. Thanks so much.

8 CHAIR SANDOVAL: Thank you. I think
9 you very eloquently asked the majority of my
10 questions. So I do not have anything -- actually, I
11 have one question.

12 The only question I have is, I just
13 want to make sure I understand what -- what you guys
14 think is going to be the injection pattern.

15 Like, how are you planning to use the
16 wells? Are you planning to inject in one at a time?

17 Are you planning to inject equally in
18 both? With a total capacity of 20. What is kind of
19 the injection plan?

20 THE WITNESS: So -- yeah. So -- so as
21 we simulated in -- in the plume modeling
22 investigations, we think the long-term average for
23 this is going to 10 and 10 into each.

24 Which represents, you know, with bottom
25 hole locations separated by some distance, it is -- we

1 feel that's the best management of our impact to the
2 reservoir. So long-term, we feel that it's going to
3 average like that.

4 Pinon's intent, if I understand
5 correctly, is that this -- these wells will be
6 operated simultaneously. Maybe with some small
7 fraction going to one well and the majority going to
8 the other well.

9 So maybe -- so maybe 5 and 15 for a
10 period. Or 6 and 14 for a period. And then
11 alternating the -- those conditions between the two
12 wells, such that operational readiness of both systems
13 is maintained at any point.

14 And we don't deal with any scaling,
15 or -- or issues that may result from downtime of the
16 one well completely.

17 But I think over the long haul, the 10
18 and 10 is -- is how it will likely average out.

19 CHAIR SANDOVAL: Okay. And then if for
20 some reason, both wells were to go down, so the point
21 of the redundant wells, if one well goes down, you can
22 shift injection to that one -- or to the other one.

23 If both wells were to go down, what is
24 the operational plan?

25 THE WITNESS: So I think in terms of

1 how that is planned out, may be a question more suited
2 for Pinon.

3 In -- in considering the downtime of
4 one well, the -- they separate injection tests that
5 we've completed on the Independence AGI #1, are
6 currently supported that if, for a period of time, one
7 well had to take all of the flow, then that would be a
8 reasonable operating parameter, for at least a short
9 period.

10 With the -- in the event that both
11 wells go down, I know Pinon does have a -- or the
12 operators that Pinon service, many of those operators
13 have the ability to immediately and remotely shut in a
14 lot of the -- the wells that are contributing to that
15 gathering system.

16 So there -- there is some volume that
17 can be immediately shut in without going to flare.

18 And I think, again from my experience,
19 I think this can be done in a matter of minutes for a
20 lot of their infrastructure.

21 So I think there -- there -- I think,
22 in the event that -- that both wells go down,
23 there -- there's certainly some options for Pinon.

24 CHAIR SANDOVAL: Okay. That's all of
25 the questions that I have. Mr. Rankin, do you have

1 any follow-up?

2 MR. RANKIN: Madam Chair, I do not. I
3 appreciate the Commission's questions.

4 And at this time, we have no further
5 questions or information to present. So we rest our
6 case.

7 And I guess, now being noon, unless you
8 want to proceed with the Division's case, you know, we
9 can proceed as the Commission desires.

10 CHAIR SANDOVAL: Okay. Mr. Tremaine,
11 how long do you expect your presentation to go?

12 I think we're going to take a break,
13 but just for planning afterwards?

14 MR. TREMAINE: Well, I think that ours
15 will be fairly quick. I will say less than half an
16 hour.

17 CHAIR SANDOVAL: Okay.

18 MR. TREMAINE: We were not planning to
19 get into kind of extensive details but are available
20 for additional questions.

21 And I do expect Commission questions.
22 So I'm not sure how long that will go.

23 CHAIR SANDOVAL: Okay. All right.
24 It's 12:05 basically. Let's come back at 1, and we
25 will pick up with the Division.

1 I will leave this going, so you're
2 welcome to either stay on, just turn off your video
3 and mute, or you can drop off and then come back on.
4 Thanks.

5 THE REPORTER: Okay. Going off the
6 record at 12:04.

7 (Off the record.)

8 CHAIR SANDOVAL: It's one o'clock. And
9 we will pick up where we left off, which was I think
10 starting with the Division.

11 But I think we have one maybe a piece
12 of announcement prior to that.

13 MR. MOANDER: That's your cue,
14 Dr. Ampomah.

15 DR. AMPOMAH: Yeah. Thank you, Madam
16 Chair.

17 You know, in the interest of justice, I
18 will ask to recuse myself for the remainder of the
19 proceedings. Thank you.

20 MR. MOANDER: Thank you, Dr. Ampomah.
21 And I think -- well, with that, are any of
22 you -- yeah. Thank you.

23 CHAIR SANDOVAL: Okay. All right. So
24 we will proceed I guess, with just Commissioner Bloom
25 and I. But it is still a quorum. And so we are able

1 to proceed. All right. Mr. Tremaine.

2 MR. TREMAINE: Madam Chair, the
3 Division has one witness, Mr. Dylan Rose-Coss. Call
4 him at this time.

5 CHAIR SANDOVAL: Okay. Mr. Rose-Coss,
6 can we hear you?

7 MR. ROSE-COSS: Can you hear me?

8 CHAIR SANDOVAL: Yes. All right. Will
9 the court reporter please swear in the witness?

10 THE REPORTER: Okay. Can you please
11 state your full name for the record?

12 MR. ROSE-COSS: My full name is Dylan
13 Henry Rose-Coss.

14 THE REPORTER: Thank you very much.
15 Can you please raise your right hand?

16 WHEREUPON,

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

21 THE REPORTER: Thank you very much.

22 THE WITNESS: Thank you.

23 CHAIR SANDOVAL: All right. Go ahead,
24 Mr. Tremaine.

25 //

1 DIRECT EXAMINATION

2 BY MR. TREMAINE:

3 Q Mr. Rose-Coss, where do you work?

4 A You know, I -- I work for the State of
5 New Mexico within the Energy, Minerals, and Natural
6 Resource Department.

7 Specifically, within the Oil Conservation
8 Division, UIC Team.

9 Q And what is your specific position within
10 the Division?

11 A I'm specifically classified as a petroleum
12 specialist advanced.

13 Q And could you please summarize your
14 responsibilities as a petroleum specialist advanced
15 for the Commissioners?

16 A You know, by and large, at the generality of
17 what you would say I do, is review applications for
18 compliance, impose these rules.

19 By regarding the prevention of waste, and
20 the protection of correlative rights, public health in
21 the environment. I also serve as a technical examiner
22 for these hearings at OCD, that level hearings.

23 Specifically as a member of the UIC team,
24 what you would say I do is applications and compliance
25 for Class II disposal wells within the state. UIC

1 Class II disposal wells.

2 Q Thank you. Mr. Rose-Coss, have you prepared
3 a CV for this hearing?

4 A Yes. I have.

5 Q And is that marked as proposed OCD Exhibit
6 Number 1?

7 (OCD Exhibit 1 was marked for
8 identification.)

9 A It is.

10 Q And is that a true and accurate description
11 of your relevant education and experience?

12 A It is.

13 Q And now, would you please summarize for the
14 Commissioners, your education and experience?

15 A Sure. Well, as you can see on the CV, I
16 have over eight years of experience in, kind of
17 public, or resource management.

18 You know, prior to that, or the way I got
19 into the field, again at UNM many moons ago, where I
20 received a bachelor's in science and a distributed
21 science minor in Environmental Science.

22 Which I follow-up with at again, at
23 UN -- University of New Mexico with an Earth and
24 Planetary Science Degree, which is their -- UNM's form
25 of a geology undergraduate.

1 Which I then proceeded to follow-up with at
2 the University of New Mexico Tech, where I received a
3 master's degree in -- in geology.

4 And during that time, you can also see from
5 my CV, that I have three peer review publications and
6 five conference level papers regarding the
7 underground, kind of -- reservoir characterization and
8 underground sequestration of carbon dioxide.

9 So my -- my job was to follow -- master's
10 degree and kind of, New Mexico Tech was with a
11 resource consulting firm, water rights consulting firm
12 in Santa Fe called Glorietta GeoScience.

13 That let me -- that -- which I followed up
14 with by taking position with the Oil Conservation
15 Division as an environmental specialist. Mostly
16 reviewing spills and releases from the oil field.

17 And then I moved into, and I've held the
18 position for three years now, as petroleum specialist
19 advanced with the UIC Team.

20 Q Okay. When you were getting your master's
21 at New Mexico Tech, did you specialize in any
22 particular areas?

23 A Yes. You know, I -- I did specialize
24 with -- at New Mexico Tech, in petroleum geology, and
25 reservoir characterization, and actually earned a lot

1 of experience at my time there in oil reservoir
2 modeling and simulations.

3 Specifically, kind of relating core
4 measurements to reservoir modeling.

5 Q And for what types of cases do you typically
6 or normally appear as a technical examiner for the Oil
7 Conservation Division?

8 A Sure. Yes. You know, so -- so by and
9 large, the cases that I hear as a technical examiner,
10 are for compulsory pulling.

11 But when I'm -- with my
12 specialties -- specialty is called on the most, is
13 during hearings regarding saltwater -- contested
14 saltwater disposal wells.

15 Q Okay. Thank you. Have you ever testified
16 before the Commission before?

17 A I have not.

18 Q All right.

19 MR. TREMAINE: Madam Chair, at this
20 time, I would move admission of OCD Exhibit 1,
21 Mr. Dylan Rose-Coss' CV.

22 And also ask that the Commission
23 qualify Mr. Rose-Coss as an expert in the areas of
24 petroleum geology, petroleum engineering, and
25 underground injection.

1 CHAIR SANDOVAL: Mr. Rankin, any
2 objections?

3 MR. RANKIN: No objection.

4 CHAIR SANDOVAL: Okay. Commissioner
5 Bloom, any objections?

6 COMMISSIONER BLOOM: No, Madam Chair.

7 CHAIR SANDOVAL: Okay. OCD Exhibit 1
8 is entered into the record.

9 (OCD Exhibit 1 was received into
10 evidence.)

11 And Mr. Rose-Coss is certified as an
12 expert.

13 MR. TREMAINE: Thank you, Madam Chair.

14 BY MR. TREMAINE:.

15 Q Mr. Rose-Coss, have you -- I want to refer
16 you to the particular matter at hand.

17 Have you had an opportunity to review
18 Pinon's Application on behalf of the Oil Conservation
19 Division?

20 A I have.

21 Q And when you review an application, such as
22 the one submitted by Pinon in this case, what types of
23 things are you looking for?

24 A You know typically, when an application for
25 injection comes before the Division, we first review

1 it for simple administrative completeness.

2 And the administrative completeness review
3 involves checking notice to affected parties
4 and -- and verifying that all affected parties were
5 noticed.

6 And should the application be clear of any
7 issues of, in terms of general completeness, it moves
8 onto a technical review, where the kind of aspects of
9 geology and engineering related, you know, to
10 correlative rights, and protection of the health in
11 the environment, are evaluated.

12 So mainly, what wellbore design depicts the
13 formation tops such as that and ensuring that the well
14 is going to be constructed in a manner to protect the,
15 really the water rights and correlative rights.

16 And you know, should a application from
17 there, have any issues or be protested, is when it's
18 elevated to a OCD hearing level, which have a more
19 thorough review, is undertaken of the technical
20 aspects of the -- of the application.

21 But mainly, in -- in those instances, by and
22 large, for correlative rights issues, a hearing of
23 affected parties.

24 And in this case at -- for TAG or acid gas
25 injection wells that come before the Commission, you

1 know, if further analysis of the technical, kind of
2 specifics, of -- in terms of the computer simulated
3 modeling, are reviewed, and evaluated for efficacy,
4 and validity.

5 Q Pardon. I muted myself there.

6 And, Mr. Rose-Coss, did you conduct the
7 review that you described of Pinon's Application for
8 this case?

9 A You know, yes. We did. I, and the other
10 members of the UIC technical team, did carry out a
11 thorough review of this application.

12 And since the filing of the prehearing
13 statements, have -- have indeed, reviewed all of the
14 material submitted. And as it stands, do not disagree
15 with the modeling or oppose the Application.

16 However, you know, the Division would like
17 to take the opportunity to reiterate its stance that,
18 you know, it agrees that, AGI wells present a unique
19 oil field opportunity.

20 But they also represent a unique oil field
21 risk. And therefore, we maintain that they be
22 regulated consistent with these elevated concerns, for
23 correlative rights, waste, and public health, in the
24 environment.

25 And believe the future major mods should

1 return to the Commission. And their -- and that their
2 redundant well is still necessary, and that all of the
3 conditions set forth in the existing Order need to be
4 adhered to.

5 Q So, Mr. Rose-Coss, am I understanding
6 correctly that consisting with what you just outlined,
7 and the previous conditions set forth in the Order,
8 that the Division is not recommending any additional,
9 or new conditions of approval for this Application?

10 A No. No. We're not recommending any
11 additional conditions at -- at this time.

12 Q Just a moment ago, you referenced, kind of
13 unique risks associated with acid gas injection wells
14 and the types of things that you, as a technical
15 reviewer, looked at the Application -- reviewed the
16 Application for.

17 Has OCD discussed these general concerns
18 with Pinon directly?

19 A Yes. We have. The OCD, at the Division
20 level, is -- did have a meeting with Pinon Midstream
21 preceding this case, in which these concerns were
22 elaborated on, and basically, Pinon explained how
23 their -- model was generated.

24 And updated with the latest information that was
25 made available to them through the drilling of the

1 Independence AGI #1.

2 And that proof, that presentation, was
3 consistent with the material presented today here.

4 Q Okay. And now we'd like to draw your
5 attention to what's marked as OCD Exhibit 2.

6 (OCD Exhibit 2 was marked for
7 identification.)

8 Mr. Rose-Coss, what is Exhibit 2?

9 A You know, Exhibit 2 is a list of the current
10 AGI wells that are tracked and monitored for the State
11 of New Mexico by the UIC Team.

12 And -- and the list is really just presented
13 to illustrate the current state of AGI wells in the
14 state. And highlight the elevated regulatory lens
15 used to monitor these wells.

16 And we'd also just like to say that we're
17 ready for -- to answer questions that the Commission
18 might have regarding the state of the State's AGI Well
19 Program.

20 Q Okay.

21 MR. TREMAINE: Thank you. Madam Chair,
22 I would move to admit OCD Exhibit 2.

23 CHAIR SANDOVAL: Any objections,
24 Mr. Rankin?

25 MR. RANKIN: None.

1 CHAIR SANDOVAL: And Commissioner
2 Bloom?

3 COMMISSIONER BLOOM: No, Madam Chair.

4 CHAIR SANDOVAL: Okay. OCD Exhibit 2
5 is entered into the record.

6 (OCD Exhibit 2 was received into
7 evidence.)

8 BY MR. TREMAINE:

9 Q Okay. So, Mr. Rose-Coss, I'd just like to
10 ask you directly, at a general level, what are the
11 unique risks that OCD associates with AGI wells?

12 A Well, you know, first and foremost,
13 the -- the general risk of a -- of it being kind of a
14 potentially dangerous gas that's going to be
15 transported, and high-pressures, and concentrated.

16 But in addition, the nature of that
17 injectate poses, kind of engineering considerations,
18 you know, such as corrosivity, at -- and additional
19 correlative rights risks.

20 So -- so it -- based on those facts or
21 aspects of it, it believes that there's those
22 additional consideration and level of scrutiny needed
23 to elevate it to the Commission level of
24 consideration.

25 Q And in conclusion, Mr. Rose-Coss, is in your

1 opinion, the Pinon Application adequate as you
2 reviewed it to address OCD's concerns with waste,
3 correlative rights, and protection of public health in
4 the environment?

5 A It is.

6 Q Thank you.

7 MR. TREMAINE: No further questions.

8 CHAIR SANDOVAL: Mr. Rankin, do you
9 have any questions for the witness?

10 MR. RANKIN: I do not.

11 CHAIR SANDOVAL: Commissioner Bloom?

12 COMMISSIONER BLOOM: No questions,
13 Madam Chair. Thank you.

14 CHAIR SANDOVAL: Okay. I have a
15 handful of questions.

16 Mr. Rose-Coss, are you familiar with,
17 let's see, the Geolex presentation that was presented
18 today?

19 THE WITNESS: Yes, Madam Chair. I am.

20 CHAIR SANDOVAL: On slide 41, so it
21 just calls out the injection wells in the vicinity of
22 the proposed AGI. There are seven wells, I think
23 within eight miles of this proposed AGI.

24 Are there any concerns with
25 interactions between these wells?

1 THE WITNESS: You know, I believe that
2 the concerns that there would be, are addressed
3 in -- in their modeling that they presented today.

4 So the Division appreciates that all of
5 those wells were incorporated into the model. And
6 that the model was generated, running those wells at,
7 you know, the model was generated conservatively.

8 So all of those wells were run at
9 higher rates presumably, potentially than they
10 actually are going to be operated at.

11 And -- and so, the -- the modeling
12 performed puts to rest many of the concerns, if not
13 all of them, regarding those wells in the area.

14 CHAIR SANDOVAL: Okay. Most of them
15 look like they're a ways away. It was, let's see,
16 30-025-25046 that's relatively close by.

17 But the Division, based on the
18 modeling, doesn't have any concerns? I mean, that's
19 the West Jal B Deep Number 1.

20 THE WITNESS: Yeah. You know, the
21 Division would have more concerns -- it would have
22 significant concerns regarding the permitting
23 additional wells in the area.

24 So any applications up for review
25 within a broad AOR, or receive strict scrutiny, the

1 West Jal B Deep is existing.

2 And based on the modeling, the modeling
3 suggests that both of these wells can co-exist
4 at -- at their proposed rates.

5 CHAIR SANDOVAL: Okay. So if the
6 Division were to get -- well, maybe -- so these are
7 the existing wells. Do you know if there are any
8 proposed wells nearby, like that are in application?

9 THE WITNESS: There aren't
10 proposed -- there aren't proposed wells that are near
11 approval. And -- and anything in the
12 area -- it's -- it's not the most popular area for SWD
13 applications.

14 So -- so they have -- they have staked
15 their claim here to -- to this -- this kind of 3
16 miler.

17 CHAIR SANDOVAL: Okay. But so if the
18 Division were to get applications in within the area
19 of review for this AGI, would there be additional
20 scrutiny on those applications for potential
21 interference, or how would that be handled?

22 THE WITNESS: You know, any -- anything
23 within a mile and half of this well, wouldn't be
24 permitted in the radius of this well. And -- and
25 anything within a 3 miles radius, I would say.

1 You know, the -- the other flag that
2 comes up in this instance, is the proximity to faults.
3 And structure in the basin. And so it is on the
4 eastern portion of what's considered like, the major
5 Delaware Basin.

6 So you know, moving east, all of those
7 wells focus -- there was additional kind of, review in
8 regards to any seismicity concerns.

9 So fault slip modeling will be a bare
10 minimum. Anything that's within 3/4 of mile of one of
11 these -- faults, requires a large additional scrutiny.

12 CHAIR SANDOVAL: Okay. So you
13 mentioned a meeting with Pinon and talking through
14 some other divisions' concerns, were there any
15 modifications that came out of the meeting?

16 Was there any change to the
17 Application, or change to conditions, or
18 any -- anything that came as a result of that meeting?

19 THE WITNESS: No. Nothing major came
20 out of that meeting. Just kind of assessing
21 the -- kind of the state of their modeling is -- is
22 really what came out of it.

23 And Pinon and Geolex was just
24 forthcoming with kind of how they put together the
25 model and what they were going to present here today.

1 So I believe, so you know, the only
2 additional things that came up that I believe were
3 addressed by Mr. Ampomah and Mr. White, was the way
4 that the faults were modeled within their simulation.

5 And so -- so those were discussed
6 before the -- the Commission.

7 CHAIR SANDOVAL: Okay. And the
8 Division is not recommending any additional conditions
9 or modifications to the current Order other
10 than -- where you're eventually updating the limit per
11 day, but nothing else?

12 THE WITNESS: You know, the Division
13 was happy to see the additional scrutiny provided by
14 the Commission, and through the modeling, to validate
15 the request for the additional injection.

16 And was happy to see all of the
17 additional information provided to justify their
18 request.

19 And believes that future modifications
20 are, you know, significant. Major modifications to
21 the well, or to this injection limit, should again,
22 come before the Commission.

23 But beyond that, we did not oppose the
24 application. But we -- we would suggest -- it would
25 be nice that because Geolex is going to be updating

1 the model periodically, as per the conditions of
2 approval of the initial Order, that the considerations
3 raised by Dr. Ampomah are considered and incorporated
4 into future models as they gain more information and
5 have more injection history done. History match their
6 modeling.

7 CHAIR SANDOVAL: Okay. So when
8 somebody comes in for a modification of an
9 application, or modification of the existing order
10 with a new application, such as today, does the
11 Division do a compliance review of the well that is
12 being modified?

13 THE WITNESS: Yes, Madam Chair.

14 CHAIR SANDOVAL: And have they complied
15 with all the requirements so far of this well?

16 THE WITNESS: Yes, Madam Chair.
17 As -- as far as the current status of both of the
18 wells, the -- the redundant well as well, Geolex and
19 Pinon have been in compliance.

20 CHAIR SANDOVAL: Okay. For the other,
21 I think it was in Exhibit 2 by the Division, and some
22 of the other AGIs, so it's the Division's practice to
23 require a redundant well.

24 Is kind of the injection patter here,
25 similar to other wells where they're intending to use

1 both wells simultaneously?

2 Or is that unique to this scenario, and
3 most just use one?

4 THE WITNESS: You know, a review of
5 this list -- you know, one of the things that I think
6 it does is illustrates the kind of chronology of the
7 Division's history with these, and they increase in
8 complexity in kind of learning curves that the
9 Division's gone through.

10 And so having a redundant well is a new
11 phenomenon based on previous learnings with the
12 Division.

13 And so the other case that I'm most
14 familiar with in which a redundant wells is used, the
15 redundant well's in the Delaware Mountain Group.

16 And so there's additional concerns
17 regarding the Delaware Mountain Group. And so my
18 understanding was that that well wasn't going to
19 be -- that well was going to be used as a backup in
20 case one goes out of commission.

21 And then only use that to avoid the
22 kind of corelative rights risk associated with
23 creating a large acid gas plume in the Delaware
24 Mountain Group.

25 And so we're -- the Division is -- has

1 less concerns with the redundant wellbeing in the
2 Devonian in this case, and the wells being utilized in
3 that manner.

4 CHAIR SANDOVAL: Okay. So the Division
5 is comfortable with both wells being used at the same
6 time as long as it doesn't exceed the 20 million a
7 day?

8 THE WITNESS: Yes. Yes.

9 CHAIR SANDOVAL: All right. I think
10 that was my last questions. Mr. Tremaine, do you have
11 any follow-up with the witness?

12 MR. TREMAINE: No, Madam Chair. Thank
13 you.

14 CHAIR SANDOVAL: All right. Thank you,
15 Mr. Rose-Coss. You are dismissed.

16 THE WITNESS: Thank you, Madam Chair.
17 Thank you, Commission.

18 CHAIR SANDOVAL: Mr. Rankin, do you
19 have any brief closing statements?

20 MR. RANKIN: Thank you for the
21 opportunity, Madam Chair.

22 CLOSING STATEMENT

23 MR. RANKIN: The only thing I will say
24 is we appreciate the Commission's time and attention
25 during the fairly technical presentation today.

1 And we appreciate the questions, and
2 concerns, and focus on safety, health, and concerns
3 around correlative waste, and -- correlative rights,
4 and prevention of waste.

5 But no additional comments other than
6 to say, you know again, we appreciate the Commission's
7 attention and consideration.

8 And we ask that this Application be
9 approved with the existing conditions under the
10 existing Order.

11 CHAIR SANDOVAL: Thank you, Mr. Rankin.
12 Mr. Tremaine, do you have any closing statements?

13 MR. TREMAINE: Very briefly, Madam
14 Chair.

15 CLOSING STATEMENT

16 MR. TREMAINE: The Division asks that
17 the Commission consider the Petition that the Division
18 outlined today.

19 And should the Commission approve the
20 Application of Pinon, that you do so in a manner
21 that's consistent with the Order to be amended in
22 terms of the other conditions and requirements.

23 Such as leaving in place, deadlines for
24 the completion, and injection deadlines for the
25 redundant well, and the various other requirements.

1 The Commission may consider
2 Mr. Rose-Coss' recommendation of considering updates
3 to the modeling as they're available
4 through -- through Pinon.

5 But other than that, the Division does
6 not have any other objections, or items to raise
7 regarding the Application. Thank you.

8 CHAIR SANDOVAL: Thank you
9 Mr. Tremaine.

10 MR. MOANDER: Madam Chair, before you
11 close up everything --

12 CHAIR SANDOVAL: Yeah.

13 MR. MOANDER: -- just because you've
14 not closed the evidentiary record yet.

15 I just want to clarify with the parties
16 because we heard some pretty hefty technical stuff
17 today.

18 That the focus of this whole hearing,
19 and I'm going to say this and hopefully not screw this
20 up, is purely to address the MMSCFD from
21 Order R-21455-A.

22 And basically changing the language in
23 that Order, modifying from 12 million to 20 million.
24 There's no other changes that are being requested
25 specifically. Is that right?

1 And either party can answer at any
2 point. I just want to make sure we're clear on all
3 the concepts here, so there's no vagueness or errors.

4 MR. RANKIN: Madam Chair, if I may just
5 make one additional clarification from Mr. Moander's
6 statement.

7 CHAIR SANDOVAL: Go ahead.

8 MR. RANKIN: The only, I guess, slight
9 modification there would be that the requested
10 increase in injection rates would be applicable to not
11 just the AGI 1 but would be to both wells.

12 So the way the Order reads now is that
13 it's applicable to the AGI 1. And so we want to make
14 clear that the amendment isn't for allowance of the
15 20 million standard cubic feet per day into both
16 wells. Combined total.

17 CHAIR SANDOVAL: So a maximum
18 between -- just to be explicitly clear. A maximum
19 between the two wells, is 20 total. We're not talking
20 40?

21 MR. RANKIN: Correct.

22 MR. TREMAINE: And, Madam Chair, in
23 response to that. What Mr. Moander outlined is
24 consistent with the Division's perspective.

25 The Division's primary concern here was

1 making sure that the technical basis, primarily the
2 modeling, but the entire technical basis that was the
3 justification for the previous Order, was updated to
4 reflect the additional injection amounts.

5 And so that's why we have very narrowly
6 focused the presentation here today on OCD's review of
7 that modeling and kind of that process.

8 So our understanding is, Mr. Moander,
9 is that yes. That is correct. It is that one change.

10 And that to clarify, OCD's previous
11 statements, or mine, it references to like, major
12 modifications.

13 Should in the future, Pinon ask for an
14 increased injection, you know, the technical basis for
15 this hearing, and any subsequent order, would be a
16 technical basis to justify 20 million standard cubic
17 feet per day, not something in excess.

18 So that's why OCD's drawn that
19 distinction that, you know, future major
20 modifications, such as another increase in injection,
21 OCD asks that, consistent with the existing Order,
22 those changes like that, come back before the
23 Commission.

24 MR. MOANDER: Thank you gentleman.
25 Because nothing will complicate one of these issues

1 more than lawyers and engineers talking to each other.
2 So I appreciate the clarification.

3 CHAIR SANDOVAL: Any other questions,
4 Mr. Moander?

5 MR. MOANDER: No, Madam Chair. Thank
6 you for indulging me.

7 CHAIR SANDOVAL: All right. The record
8 of this hearing is now closed.

9 The Commission will immediately
10 deliberate so as to reach a final decision on the
11 Application.

12 I move that the meeting be closed
13 pursuant to the Administrative Adjudicatory
14 Deliberations Exception to the Open Meetings Act
15 Section 10-15-1(h)(3), to deliberate in this case.

16 Is there a second to my motion?

17 COMMISSIONER BLOOM: Madam Chair, I
18 second.

19 CHAIR SANDOVAL: Mr. Moander, would you
20 please do a rollcall vote?

21 MR. MOANDER: Happily. Commissioner,
22 Bloom?

23 COMMISSIONER BLOOM: Approve.

24 MR. MOANDER: Madam Chair?

25 CHAIR SANDOVAL: Approved.

1 MR. MOANDER: The motion carries. And
2 this hearing is now closed for deliberations.

3 CHAIR SANDOVAL: Okay. Everybody can
4 remain --

5 THE REPORTER: Going off the record at
6 1:34.

7 (Off the record.)

8 CHAIR SANDOVAL: Okay. It is two
9 o'clock. And the -- let's see.

10 The Commission Meeting on the record is
11 now open.

12 And the discussion during the closed
13 session was limited to deliberations in Case Number
14 22977. I move to go back on.

15 MR. MOANDER: Madam Chair, I have, and
16 I think you should probably also note that Dr. Ampomah
17 did not participate in, was not involved in
18 deliberations.

19 CHAIR SANDOVAL: Thank you. And during
20 the session, the conversation was limited to
21 deliberations in Case Number 22977 and the only
22 participants were myself, and Commissioner Bloom, and
23 counsel of the Commission was present.

24 Dr. Ampomah did not participate in
25 deliberations or discussion.

1 And with that, I would move to go back
2 on -- or to reopen the Meeting. Let's see, as it was
3 closed with the deliberations exception to the Open
4 Meetings Act Section 10-15-1(h)(3).

5 Is there a second?

6 COMMISSIONER BLOOM: Madam Chair, I
7 second.

8 CHAIR SANDOVAL: Mr. Moander, would you
9 do rollcall please?

10 MR. MOANDER: Yes, Madam Chair.
11 Commissioner Bloom?

12 COMMISSIONER BLOOM: Approve.

13 MR. MOANDER: Madam Chair?

14 CHAIR SANDOVAL: Approved.

15 MR. MOANDER: Motion carries.

16 CHAIR SANDOVAL: All right. Great.

17 Thank you. All right.

18 So in Case Number 22977, I move to
19 increase the injection rate to a combined total of 20
20 million standard cubic feet per day, that is shared
21 between AGI well #1 and AGI well #2.

22 The Commission is to retain authority
23 for any major modifications to a future application.

24 And then the Commission would also -- I
25 move to also add a condition that has been in some

1 previous AGI Orders prior.

2 Such as AGI Order R-20694, and which
3 shall state,

4 "The Operator shall, every two years,
5 once injection begins, provide the Division with a
6 report that compares the reservoir pressures, volumes
7 injection, and projected TAG plume extent to those
8 estimated in the C-108 Application.

9 Together, with summarizing the AGI
10 wells' performance, including but not limited to,
11 injected volumes by fluid type and reservoir pressure.

12 And potential calibration of models due
13 to information collected during the prior two year
14 period.

15 Ameredev, I think in this case, will
16 use data collected and analysis conducted pursuant to
17 this Order, to prepare the analysis.

18 The report shall include an updated
19 model of current and projected plume migration, and
20 shall use the modeling technology, and standard use at
21 the time of the report, and any available information
22 about plume migration.

23 At the request of the Commission, the
24 Operator shall provide in person presentations of its
25 data and analysis regarding the AGI wells'

1 performance.

2 And the inclusion of this is due to the
3 proximity of several other injection wells within the
4 area and within the potential plume.

5 To determine how those interact with
6 one another over time and if the modeling that was
7 based on these initial parameters remains accurate."

8 And with that motion, is there a
9 second?

10 COMMISSIONER BLOOM: Madam Chair, I
11 think I heard you mention Ameredev in the middle of
12 that. Did you mean Pinon?

13 CHAIR SANDOVAL: I did.

14 COMMISSIONER BLOOM: Okay. And so
15 we'll, yeah. We'll make sure to make that change
16 there.

17 MR. MOANDER: Is the --

18 COMMISSIONER BLOOM: And what is that
19 modification?

20 MR. MOANDER: Is the motion modified,
21 Madam Chair?

22 CHAIR SANDOVAL: Yes.

23 MR. MOANDER: Okay. So now, we're back
24 on track. So back to Commissioner Bloom.

25 COMMISSIONER BLOOM: All right. So we

1 modified to motion to include the mention of Pinon,
2 striking Ameredev.

3 And I second this motion, Madam Chair.

4 CHAIR SANDOVAL: Would you please do a
5 rollcall vote, Mr. Moander?

6 MR. MOANDER: Happy to do so, Madam
7 Chair.

8 Commissioner Bloom?

9 COMMISSIONER BLOOM: Approve.

10 MR. MOANDER: Madam Chair?

11 CHAIR SANDOVAL: Approved.

12 MR. MOANDER: The motion carries.

13 CHAIR SANDOVAL: Okay. Mr. Moander,
14 would you please update the Order, and then provide
15 the Order for final vote at our October 13th
16 Commission meeting?

17 MR. MOANDER: Yes, ma'am.

18 CHAIR SANDOVAL: Thank you. And with
19 that, is there an update on any pending litigation?

20 MR. MOANDER: Believe it or not, there
21 is a little bit.

22 I checked on A1CA39578, which is the
23 Barker appeal. The Court has not taken any action
24 since February. I'm not sure what's going on. I
25 think I'm going to -- I'll take a deeper look at that.

1 The other case is the Ragsdale District
2 Court Rule 70 -- appeal. The reply by Ragsdale was
3 filed late yesterday, which completes the open
4 briefing cycle agreed to by the parties.

5 And Ragsdale should be -- counsel for
6 Mr. Ragsdale should be submitted for hearing in
7 anticipation of briefing today.

8 So I anticipate a hearing of some sort
9 likely to be set probably in the next 30 to 45 days.

10 CHAIR SANDOVAL: Thank you. Is there any
11 other business before the Commission today?

12 All right. Our next meeting is October
13 13th, and we will see many of you there. Thanks
14 everybody. And have a great rest of your day.

15 UNIDENTIFIED SPEAKER: Thank you all.
16 Appreciate it. Take Care.

17 THE REPORTER: Going off the record at
18 2:07 p.m.

19 (Whereupon, at 2:07 p.m., the
20 proceeding was concluded.)
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CERTIFICATE OF DEPOSITION OFFICER

I, BRETT TORRENCE, 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.



BRETT TORRENCE
Notary Public in and for the
State of New Mexico

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CERTIFICATE OF TRANSCRIBER

I, CHRISTINA KNOTE, 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.



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