STATE OF NEW MEXICO

ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:

CASE NOS: 20586

APPLICATION OF 3BEAR FIELD SERVICES, LLC
FOR APPROVAL OF A SALT WATER DISPOSAL WELL,
LEA COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

JANUARY 23, 2020

SANTA FE, NEW MEXICO

This matter came on for hearing before the New Mexico Oil Conservation Division, EXAMINERS FELICIA ORTH, LEONARD LOWE, PHILLIP GOETZE, LEGAL EXAMINER AMES on Thursday, January 23, 2020 at the New Mexico Energy, Minerals, and Natural Resources Department, Wendell Chino Building, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.

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I N D E X

W I T N E S S E S

E X H I B I T I N D E X

HEARING EXAMINER ORTH: Matter Number 20586. This is 3Bear. Call for appearances, please.

MS. CALLAHAN: Candace Callahan with Beaty & Wozniak appearing on behalf of the applicant 3Bear Field Services LLC.

MS. ANTILLON: Andrea Antillon on behalf of the State Land Office.

MS. BENNETT: Deana Bennett on behalf of NGL Water Solutions Permian LLC.

MS. HARDY: Dana Hardy with Santa Fe office of the Hinkle Shanor on behalf of V-F Petroleum.

HEARING EXAMINER ORTH: Okay, thank you.

So, Ms. Callahan, this won't be an affidavit matter?

MS. CALLAHAN: No, this is with witnesses.

HEARING EXAMINER ORTH: Are there numerous witnesses?

MS. CALLAHAN: There are four.

HEARING EXAMINER ORTH: There are four witnesses. All right. So let me ask a question, all right. Of the other folks, in the event there is another affidavit matter, we would actually take that before we went to one with witnesses.

MS. CALLAHAN: Okay.

HEARING EXAMINER ORTH: So hold on one second.

In matter 20596 and 20597, this is Tap Rock. Mr. Bruce, would that be an affidavit matter?

MR. BRUCE: Those would be affidavit matters, but again, I'm missing the pooling checklist. If there is going to be four witnesses, rather than continue them, could you move them to the end of the hearing date so that --

MS. CALLAHAN: It looks like we are going to run through everything today. They just kind of plan -- so as long as we can get through today, I don't have a problem today.

MR. BRUCE: No, no. I'm asking how long.

MS. CALLAHAN: About an hour, I'm guessing.

MR. BRUCE: If we wait until the end of the day, perhaps I can cure the defect in my affidavit packages in the interim, but --

(Pause in proceeding.)

HEARING EXAMINER ORTH: So Ms. Callahan, I believe we are to you.

MS. CALLAHAN: Are we up?

HEARING EXAMINER ORTH: I think you are up now. Thank you for your patience.

MS. CALLAHAN: Oh, of course. Thank you.

HEARING EXAMINER ORTH: So to orient us again, this is Case Number 20586. We have appearances by Ms. Callahan, with Ms. Antillon, Ms. Bennett and Ms. Hardy.

Ms. Callahan?

MS. CALLAHAN: I have four witnesses that need to be sworn.

HEARING EXAMINER ORTH: Okay. Where are they?

(Witnesses standing.)

HEARING EXAMINER ORTH: If you would each give your names.

MR. SOLOMON: Michael Solomon.

MR. JESSEE: Parker Jessee.

MS. HOVEY: Ramona Hovey.

MR. WHITE: David White.

HEARING EXAMINER ORTH: Okay. If you would raise your right hand. Do you and each of you swear or affirm that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth?

COLLECTIVELY: I do.

HEARING EXAMINER ORTH: Thank you. That was all four of you. Ms. Callahan.

MS. CALLAHAN: I would like to call my first witness, Ramona Hovey.

RAMONA K. HOVEY

(Sworn, testified as follows:)

DIRECT EXAMINATION

BY MS. CALLAHAN:

Q. Ms. Hovey, would you please state your full name

for the record?

A. Ramona K. Hovey.

Q. Where do you reside?

A. Austin, Texas.

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

A. I'm a senior petroleum engineer with Lonquist & Company LLC.

Q. What services does Lonquist provide in New Mexico?

A. We provide geological, engineering, regulatory support, as well as acid evaluation, due diligence and business development support.

Q. Have you previously testified before the Division?

A. Yes.

Q. And were you qualified as an expert petroleum engineer?

A. Yes.

Q. Was Lonquist retained by 3Bear Field Services LLC for the purposes of preparing the C-108 applications in this case?

A. Yes.

Q. Are you familiar with the C-108 application?

A. Yes.

Q. Was the C-108 prepared by you or under your

direction and supervision?

A. Yes.

MS. CALLAHAN: I tender Ms. Hovey as an expert petroleum engineer.

HEARING EXAMINER ORTH: Are there objections?

MS. BENNETT: No objection.

MS. ANTILLON: No objection.

MS. HARDY: No objection.

HEARING EXAMINER ORTH: She is so recognized.

BY MS. CALLAHAN:

Q. Ms. Hovey, was this case first filed as an administrative application?

A. Yes, it was.

Q. And were there objections filed to the administrative application?

A. Yes. There were objections by the State Land Office and V-F Petroleum.

Q. Since the filing of this case for hearing there have been three parties who have entered their appearance; is that right?

A. Yes, that is correct.

Q. And they are?

A. V-F Petroleum, State Land Office, and NGL.

Q. Of those three entries and appearances, do any of them still oppose the application?

A. My understanding it's the State Land Office.

Q. Do you have an understanding of what the basis of that -- of their opposition?

A. My understanding is that they have voiced concern about the proximity of this drill site to the proposed -- the proposed well to the state trust land.

Q. The surface location; is that right?

A. That's correct.

Q. All right. Let's look at Exhibit 1, which is the C-108; is that right?

A. Yes, that is.

Q. Can you briefly summarize what 3Bear is seeking in this application? Can you find it? It's Exhibit 1.

A. This?

Q. Did some of it fall out? Some of it did fall out of there. Sorry. Here.

A. Yes. So 3Bear in this application is looking for approval for -- to permit a saltwater injection well into the Devonian and Fusselman formation, the Field SWD Devonian Silurian Pool Number 97869.

We are looking to inject between an interval of 14,400 feet and 15,500 feet, and it would be an open hole completion. Looking for a maximum injection rate of 30,000 barrels a day, and looking at average injection pressure of approximately 2,160 psi, and a maximum injection pressure of

2,880 psi surface pressure.

We are looking to, 3Bear is looking to dispose fluids from oil and gas wells in the area, from various formations, including Yates, Bone Spring, Wolfcamp, Strawn and Morrow.

Q. Where is this well going to be located?

A. This well is in Section 2, Township 22 South, Range 34 East.

Q. That's in Lea County?

A. Yes, that is in Lea County.

Q. Do you have a footage location for it?

A. Yes. We are 351 feet from the north line, 215 feet from the west line.

Q. And what is that productive zone in the one mile area of review above the Devonian?

A. There are producing wells in the Yates, Bone Spring, Wolfcamp, Strawn and Morrow formation.

Q. Is there any producers, oil or gas, down below the Devonian?

A. No.

Q. And will this be a new well?

A. This will be a new well, yes.

Q. Okay. Let's look at Page 19. Is this a map of the existing wells within a two-mile radius of the proposed well?

Q. Yes, it is. And if you look at the back of Exhibit 1, there are a large version of the two-mile area of review and the listing of the wells.

How many existing wells are within the two-mile radius of the proposed well?

A. Within two miles we determined there are 92 active wells, one is that is temporarily abandoned, 39 that's been plugged, and 64 wells that have been permitted but not yet drilled .

Q. How many existing wells within the one-mile radius?

A. In one mile there are 11 active, one was temporarily abandoned, four that have been plugged, and six that have permitted but not yet drilled.

Q. And then on Page 20 of the Exhibit 1, is this a list of the existing wells within a one-mile radius?

A. Yes.

Q. How many existing disposal wells are within this one-mile radius?

A. There is one saltwater disposal well, the State AAA001.

Q. And who operates that?

A. Marathon.

Q. Okay. Does it dispose into the target zone for this well?

A. No, it does not. It disposes into the Yates formation.

Q. So do any of the wells within the one- or two-mile radius penetrate the Devonian?

A. No.

Q. Is it your understanding that there are concerns about the proposed wells that have been -- I'm sorry, V-F no longer opposes this.

What is the surface ownership within the one-mile area of review.

A. Merchant Livestock owns the surface in Section 2, the property on which the Grama State Number 2 is proposed.

Q. Does the state own all the minerals underlying the four sections of minerals in the area of review?

A. Yes, that is correct.

Q. If we look at Page 21 of Exhibit 1, what does this tell us. If you can find it.

A. So this shows that there are a number of horizontal wells in the area, and the operators, most of the leaseholds are owned by Chisholm Energy, Marathon Oil Permian, Mewbourne Oil Company and Centennial Resources Production. And then as well there is a sliver on the east side of the area of review that is owned by Centennial and V-F Petroleum.

Q. Let's look at water issues next. What will the

source of the water to be injected into the Grama SWD be?

A. It will be produced water from the local area.

Q. Do you have any reviews of water quality of those?

A. Yes, I have.

Q. Can this be found at Page 24 of the C-108?

A. That is correct.

Q. And what kind of water quality are we looking at?

A. It is salty. It's got total dissolved solids that range from 8800 milligrams per liter up to over 300,000 milligrams per liter.

Q. Did you identify any compatibility issues with the Devonian?

A. The disposal interval is not productive in this area so there were no water samples available from the Devonian and the surrounding area.

Q. Are there any water wells within the one-mile radius of the proposed well?

A. There are four now. There was originally at the time of the application there was only one water well, but three more have been permitted, and some -- we have had some with three more.

Q. Summaries, you weren't able to get any more information than that?

A. That is correct.

Q. That's on Page 25?

A. The original well was. We did the other search and that they did not produce.

Q. And to what depth was that water well drilled?

A. 109 feet.

Q. Did you obtain a chemical analysis from this fresh water well?

A. Yes, we did. Cardinal Laboratories provided an analysis of the water from this well.

Q. That's found at Pages 36 -- starting at Page 36 of the C-108?

A. Actually it starts on Page 27.

Q. 26?

A. Or Page 27.

Q. 27, okay. And then Page 18 of the C-108, can you explain this exhibit?

A. Yes. We are proposing to set the surface casing just below the Rustler to protect the fresh water zones that occur in those zones that will be set with 20-inch casing at a depth of 1750 feet and will be cemented to surface. There will be an intermediate string of 13 3/8s inch casing set at a depth of 5,660 feet, and that is to ensure we have protected the Capitan Reef. Again, that will be fully cemented to surface. We will be running a diversion tool, a DV tool at 3700 feet to ensure we have sufficient cement

across the entire zone.

There will be a production line -- production casing set at a depth of 11,175 feet. It will be 9 5/8 inch casing, again cemented to surface. And finally a liner will be set from a depth of 10,950 feet to 14,400 feet, this will be a 9 -- or 7 and 5/8 inch casing cemented fully behind the liner.

And then finally, as we said, there would be an open hole completion to a total depth of 15,500 feet, and they will be installing 5.5 inch tubing at a depth of 14,350 feet.

Q. Thank you. Are you confident that you had enough data available for you to determine accurately the casing depth and cement tops and bottoms?

A. There was sufficient well control to determine the geological zones in the area, and then this design is very compatible with offset saltwater disposal wells in the area.

Q. What is the average and maximum daily rate of volume to be injected?

A. We are looking for -- we expect an average of 20,000 barrels a day and looking for -- 25,000 a day.

Q. 25,000 per maximum; is that right?

A. That is correct, yes.

Q. Okay. And the maximum pressure you said before?

A. Is the 2,880, which is a .2 psi per foot gradient.

Q. Okay. Do you see any need to reassess the higher injection pressure in the future?

A. No.

Q. Will the well design protect producing zones from this area?

A. Yes. With the cement designs and the multiple strings, we believe that the producing zones will be adequately protected.

Q. As will the water zones?

A. Yes.

Q. Okay. Does the C-108 include an affirmative statement regarding there being no evidence of open faults or any other hydrologic between the disposal zone and any underground source of drinking water?

A. Yes. I believe Mr. Steve Poe provided the affirmative statement.

Q. Is that found at Page 17 of the C-108?

A. Yes, it is.

Q. And let's see. Did you provide the proof of notice that we find beginning at Page 37?

A. Yes.

Q. Okay. And was Exhibit 1 prepared by you or at your direction?

A. At my direction.

Q. Will the granting of this application prevent waste, protect correlative rights and promote the interest of conservation?

A. Yes.

MS. CALLAHAN: All right. The C-108 is part of the record as well, but we are including it again as Exhibit 1 here. I would like to tender this into the record.

HEARING EXAMINER ORTH: Are there objections?

MS. ANTILLON: No objection.

MS. BENNETT: No.

HEARING EXAMINER ORTH: Exhibit 1 admitted.

MS. CALLAHAN: I have no other questions of this witness.

HEARING EXAMINER ORTH: Exhibit 1 will be admitted.

(Exhibit 1 admitted.)

HEARING EXAMINER ORTH: Ms. Bennett, do you have any questions?

MS. BENNETT: I do.

CROSS-EXAMINATION

BY MS. BENNETT:

Q. Good morning.

A. Good morning.

Q. Nice to see you again. So a moment ago you mentioned that you were under the impression it was only the State Land Office that was protesting the application.

And for the record, NGL does have concerns and is taking the opportunity to review the materials now and reserves this right to have further discussions with the Division or with OCD, just for the record.

I have a few questions about your -- about the C-108. First, how many applications or C-108s have you prepared for 3Bear?

A. I can't give an exact number off the top of my head, but we have done a number for 3Bear, probably 10 to 15.

Q. Do you know how many disposal wells 3Bear is operating in New Mexico?

A. I do not.

Q. Okay. Do you know if 3Bear is proposing any kind of backup system for this well if it were to go out?

A. I believe that there is a representative from 3Bear who will be able to testify to that. I do not.

Q. Okay. So on Page 1 of your materials, of the materials, that's the cover page to the C-108; is that right?

A. Yes.

Q. And that was prepared on May 21, 2019?

A. Yes.

Q. A moment ago we were looking at the AOR map. Did you update those AOR maps in advance of the hearing today?

A. Yes, we did.

Q. Where are those updated maps?

A. Page 19, and then the the larger version in the back, that is the updated AOR map for the wells. We did take a look at the leaseholds, but there was no significant change, so we did not update those in the package.

Q. So in other words, Page 19 is a new page? It wasn't in the original C-108?

A. Correct.

Q. And same with Page 20?

A. That is correct.

Q. When you updated the AOR map, did that change the parties to whom notice was or to whom notice was required?

A. No.

Q. So even though there were new -- even though there were changes to the AOR, there were no additional parties required for notice?

A. Correct.

Q. A moment ago you testified there was only one SWD that penetrates or in this area of review?

A. Correct.

Q. Is that on Page 20?

A. Yes, which would be difficult to see. It was in the, in the back. I should have left this -- you can see it better in the one-mile area of review list, in the back of Exhibit 1, that's the large one, that State AA.

MS. CALLAHAN: In the very back of Exhibit 1 folded up. So it's larger and easier to read.

A. That first -- that well is listed as the first line item.

Q. So that's the only SWD that you found in the one-mile area of review?

A. Yes.

Q. Did you look at whether there are any proposed SWDs within the one-mile area of review?

A. As much as I was able to find, I did not see any.

Q. So you didn't see any proposed SWDs within the one-mile area of review?

A. I did not.

Q. On Page 4 -- and maybe this is corrected by a later exhibit in your materials -- so Page 4 does not have a wellbore diagram. It's blank for the wellbore schematic; is that corrected by Page 67?

A. Page 18.

Q. Page 18. Is there a difference between Page 18 and Page 67?

A. No.

Q. Okay. A minute ago you were talking about the affirmative statements of Mr. Steven Poe. Do you know Steve Poe?

A. Not personally.

Q. Do you know if he has ever testified before the Division?

A. I do not know that, no.

Q. Is there anything in the materials that you have seen that includes his qualifications?

A. Not that I have.

Q. Do you know if he -- it appears he works for Chisholm Operating LLC. Do you know the relationship between Chisholm and 3Bear?

A. I know that they have an association, but I think the representative from 3Bear could better describe that relationship.

Q. As far as you know, is this the only affirmative statement that you prepared or that was provided with the C-108?

A. Yes.

Q. And Mr. Poe isn't here today to be --

MS. CALLAHAN: Our geologist is here, and he can speak to the question.

MS. BENNETT: But Mr. Poe isn't here?

MS. CALLAHAN: No, he isn't.

BY MS. BENNETT:

Q. Okay. A moment ago you mentioned that there were three other wells that you found, fresh water wells?

A. Water right summaries. We did find yesterday in a search three new ones, but there was no data that indicated they have yet been drilled.

Q. Okay. Is that information in your materials?

A. No.

Q. Those are all the questions I have. Thank you.

HEARING EXAMINER ORTH: Ms. Hardy, anything?

MS. HARDY: No, thank you.

HEARING EXAMINER ORTH: Mr. Goetze?

EXAMINER GOETZE: Welcome back, I guess.

THE WITNESS: Thank you.

EXAMINER GOETZE: Did you prepare the well diagram?

THE WITNESS: An engineer under my direction prepared that.

EXAMINER GOETZE: I have some concerns. First of all, we have -- how I was raised was just a surface, non-engineered casing, usually conduit with concrete around it. So number one would probably be your surface casing landing in the Rustler.

Then we have the Number 2. Number 2 goes both through the Salado and the Reef together. Since you will be

going through the Salado, I assume it would be extremely heavy brine drilling fluid to keep it from caving and washing out. At the same time you are going to be bouncing into something that is extremely low TDS even though drilling through pure salt.

This is going to have to change. It's going to have to either redesign this to isolate Salado. It's not good. That's going to make for a mess. I will give you further information with regards to whether we can combine it with the Delaware Mountain Group.

We have in this area concerns. It is still considered an underground source of drinking water until such time that someone wishes to come forth and make it an exemption, but we don't want the Reef and Salado to be mixing.

And, to this end, I have been in contact with Enstor. And Enstor are the folks who hold the gas storage facility next door. It is one of two in New Mexico.

The other one being at Washington Ranch. Because the well design has proposed a liner, and we have had issues with liners, that if this well were to go forward, we will give you notice now that you will be running casing to surface. There will be no liner hung. There will be a completed, full pipe such that if we have issues down the road we can see them, plus it gives us a better sense of how

that well is completed.

And if such, if this application does go forward with a permit, the Division will probably also require, as a result of our conversation, put Enstor at a higher frequency of MIT because of the fact that, having worked in the gas field in Kansas on similar projects on larger scales, as best as engineers are, but their calculations, the rocks sometimes give us a different answer.

And if you are going to have something in such close proximity to a gas storage facility, it would be prudent to design the well to make sure we don't have monitoring issues with well completion issues over Salado. With that -- so we did a one-mile review and one-mile notice?

THE WITNESS: Yes, sir.

MS. CALLAHAN: Yes, that's correct.

EXAMINER GOETZE: That's all I have as far as comments and questions. Thank you.

HEARING EXAMINER ORTH: Thank you. Ms. Callahan, any follow-up?

MS. CALLAHAN: Yes. I just wanted to point out that NGL is not an affected party, although they may have concerns, they are not an affected party. I didn't realize that. I think that's it.

HEARING EXAMINER ORTH: All right. Thank you

very much, Ms. Hovey.

MS. CALLAHAN: I would like to call Parker Jessee at this time.

MS. MURPHY: Wait. Wait. Wait. Where's the --

HEARING EXAMINER ORTH: This? (Indicating remote.)

MS. MURPHY: Yes.

PARKER JESSEE

(Sworn, testified as follows:)

DIRECT EXAMINATION

BY MS. CALLAHAN:

Q. Good morning.

A. Good morning.

Q. Mr. Jessee, please state your full name for the record.

A. Parker Jessee.

Q. And where do you reside?

A. Houston, Texas.

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

A. I'm a geologist for Lonquist.

Q. All right. And I guess we have already heard what Lonquist does in New Mexico, so I won't ask you to repeat it. Have you previously testified before the Division?

A. Yes, I have.

Q. Were you qualified as an expert geologist?

A. Yes, I was.

Q. Are you familiar with the C-108 application filed in this case?

A. Yes, I am.

Q. Have you reviewed the geologic analysis found in the C-108?

A. Yes, I have.

Q. Have you also prepared a separate geologic analysis on the proposed location?

A. Yes, I have.

Q. And you have prepared geologic exhibits reflecting your analysis in support of this application, have you not?

A. Yes, I have.

MS. CALLAHAN: Okay. I tender Mr. Jessee as an expert petroleum geologist.

HEARING EXAMINER ORTH: Any objection?

MS. BENNETT: No objection.

MS. ANTILLON: No objection.

MS. HARDY: No objection.

HEARING EXAMINER ORTH: He is so recognized.

BY MS. CALLAHAN:

Q. In this case the proposed well is to inject into

the Silurian-Devonian Formation; is that right?

A. Yes.

Q. Can you look at Exhibit 5 and can you let us know what you can tell us about this?

A. Exhibit 5 is a regional structure map of the top of Devonian. General dip is you are dipping -- going updip to northeast, dipping down into the southwest.

Q. All right. Is this, in your opinion, does this structure map give a good depiction of where the 3Bear well will encounter the Devonian?

A. Yes, I do, through the offset wells. There weren't a lot of Devonian penetrators, but what I was able to do was get more penetrators and assumed thicknesses to get the depth of the Devonian.

So a lot of these are estimated tops, but we do have some Devonian tops, along with Chisholm provided a 3-D map of the top of the Devonian of their interpretation, which I also overlaid and used to coincide with my subsurface tops.

Q. And if we look at Exhibits 6 and 7, the cross-sections, what can you tell us about the porosity and permeability of the Devonian?

A. From these cross-sections you can see the stratigraphy in the area. As we all know, the Devonian is rather tight from a log perspective, but most of your

porosity is coming from secondary porosity and micro fractures in Karst terrain. And from the log analysis of the few Devonian penetrators in the area, they look to be similar to industry standards of what offset SWDs in the area are looking like and hopefully will yield similar injection rates.

Q. And what is the upper confining formation?

A. The Woodford Shale.

Q. And the lower confining formation?

A. The Montoya and Simpson.

Q. Are you satisfied that these confining formations will keep the injection fluids within the disposal interval?

A. Yes, I do.

Q. Okay. In your opinion, is the Devonian in the area surrounding the proposed saltwater disposal well location suitable for saltwater disposal?

A. Yes, I do.

Q. In your analysis you presented in your exhibits, is that consistent with the geological analysis that's found in the C-108?

A. Yes, it is.

Q. Does the -- and you're aware of the affirmative statement in the C-108 regarding there being no evidence of open faults or any other hydrologic connection between the disposal zone or any other source of ground drinking water?

A. Yes, I am.

Q. Mr. Poe did this that you can find on Page 17, and based on your geologic review, can you confirm this affirmative statement is accurate?

A. Yes, it is.

Q. All right. In your opinion is the granting of this application in the interest of conservation, prevention of waste and protection of correlative rights?

A. Yes.

Q. Were Exhibits 6 through 8 prepared by you or under your supervision?

A. Yes. Or 5 through 7.

HEARING EXAMINER ORTH: 5 through 7.

Q. I'm sorry, 5 through 7?

A. Yes.

MS. CALLAHAN: I would like to tender Exhibits 5 through 7.

HEARING EXAMINER ORTH: Any objection?

MS. BENNETT: No objection.

MS. ANTILLON: No objection.

MS. HARDY: No objection.

HEARING EXAMINER ORTH: 5 through 7 are admitted.

(Exhibits 5 through 7 admitted.)

MS. CALLAHAN: I have no further questions.

HEARING EXAMINER ORTH: Ms. Antillon, do you have

any questions?

MS. ANTILLON: No questions.

HEARING EXAMINER ORTH: Ms. Bennett?

MS. BENNETT: No questions.

MS. HARDY: No questions.

HEARING EXAMINER ORTH: Mr. Goetze?

EXAMINER GOETZE: I have no questions for this witness.

EXAMINER LOWE: I don't have any questions.

HEARING EXAMINER ORTH: Thank you very much, Ms. Callahan and Mr. Jessee.

THE WITNESS: Thank you.

MS. CALLAHAN: I would like to call Mr. David White at this time.

DAVID ALLEN WHITE

(Sworn, testified as follows:)

DIRECT EXAMINATION

BY MS. CALLAHAN:

Q. Mr. White, please state your full name for the record.

A. David Allen white.

Q. And where do you reside?

A. I reside in Albuquerque.

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

A. I'm a geologist and project manager for Geolex Incorporated.

Q. What services does Geolex provide New Mexico?

A. Geolex provides geological consulting services, and we specialize, or a large portion of our business is specialty in providing support for design and permitting and regulatory support, compliance support for acid gas injection wells and saltwater disposal wells.

Q. And have you previously testified before the Division?

A. I have not testified before at a Division Examiner Hearing. However, I have testified in front of the Oil Conservation Commission hearing.

Q. And because you haven't testified before the Division, did we provide your curriculum vitae?

A. Yes.

Q. Is that reflected as Exhibit 8, I believe?

A. It is.

Q. All right. And you were previously qualified as an expert geologist before the Conservation Commission?

A. Yes.

Q. And are you familiar with the C-108 application filed in this case?

A. I am.

Q. Have you prepared a seismic survey review and

analysis relating to induced seismicity for this?

A. I have.

MS. CALLAHAN: I tender Mr. White as an expert petroleum geologist.

HEARING EXAMINER ORTH: Objections?

MS. BENNETT: No objection.

MS. ANTILLON: No objection.

MS. HARDY: No objection.

HEARING EXAMINER ORTH: He is so recognized.

BY MS. CALLAHAN:

Q. So we just stated you prepared seismic risk analysis for this proposed well. For your analysis did you update the data available at the time of the initial preparation of this C-108?

A. I did.

Q. Is Exhibit 9 a copy of the PowerPoint that you have prepared for your presentation?

A. It is.

Q. Okay. Can you run us through this --

A. Absolutely.

Q. -- exhibit, please.

A. The Geolex was hired by 3Bear Energy to address or provide an induced seismicity risk assessment that covers the area of the proposed Grama State SWD Well, and go ahead and start here.

The evaluation was comprised of two main components. The first being an initial review of the area to identify subsurface features that have the potential for induced seismic events. And this was done in cooperation with Chisholm Energy to evaluate 3-D seismic covering the area.

And then once those initial findings were identified, those initial structures were identified, we utilized the sub-center for induced and triggered seismicity fault slip potential model to estimate the -- or to generate an estimation of the potential for induced seismicity based on the structures we identified present in the area, as well as the proposed and active SWDs operating in the Devonian in the area.

So this is, on this first slide -- and I apologize, I forgot a pointer -- but in the first slide we see a time structure map of the Woodford that is a result of that initial review of 3-D seismic data covering the area, and we see -- and I'm sorry, I'm going to stand up -- we see, as a result of that review, we see two large faults located to the west of the proposed well, as well as a few smaller features to the northeast, a small -- small potential fault with minimal offsets.

The structure to the west are more significant offsets and represents the structures of most concern in the

area. And those structures identified west of the proposed well are about a mile and a half, mile -- 1.6 miles from the proposed site.

Here is another look at the structures we identified, noting that those two Devonian faults, Faults Number 1 and 2, exhibited greater than 1000 feet displacement and really caught our eye as being potentially problematic based on our initial observation and drove us to incorporate those into the modeling simulation.

But all five of these structures were incorporated into the model simulation, and as well as, as I stated before, we, in our initial generation of this report, as well as prior to this hearing, we identified all injection wells proposed and active that would be operating in the area of our proposed well.

So in order -- and the next slide we kind of -- I'm moving to show, show how the model actually evaluates an injection scenario. And the first thing that the model is going to do is it's going to evaluate the structures that you have input into -- or it's going to consider the orientation and the attitudes and the length and such of the structures that you have put into the simulation, and it's going to calculate what types of pressure increases are going to be necessary to induce slip along those features.

And what I'm showing in the first slide is the

model prediction of those conditions necessary to induce slip. To accurately characterize the non-linear nature of these features, the faults were broken up into 15 fault segments so that they are more accurately represented in the model.

And then the next thing the model does, it's going to evaluate the impact of injection in the area, and as shown in this map by the green labeled points are all of the injection wells that are operating in the Devonian in the area.

Q. For the record we are looking at Page 6 of Exhibit 9?

A. Oh, yes, I'm sorry. And the first thing to note despite the popularity of the Devonian for injection is that proposed well actually fits in a very favorable area being pretty well isolated from operation or at least secluded a bit from areas that are much more strongly populated with Devonian injection.

The closest of those Devonian is the Ojo Chiso SWD that's approximately 3.3 miles to the south of our proposed location. The additional groups of SWD typically lie between about six to ten miles away or greater.

Also shown to the south we have -- there is -- I'm sorry, it's labeled by its API number, but the nearest Devonian production in the area that -- that we have seen

with the API3002536359. In the area of the proposed well -- and I'm going to jump back just a little bit.

Q. Now we are looking at Page 3?

A. Yes, Page 3 of the exhibit. There was one Devonian well drilled and completed about 1.6 miles west of the proposed site that tested wet and was not commercially productive.

Okay. Turning back to Page 6, once again I will just reiterate that the nearest production that we see, according to NMOCD records, is approximately six miles south of the proposed location.

So now the next thing the model considers or in this portion where the model is considering injection into the target reservoir, I have shown in this table the eight-well injection scenario that was incorporated into the model.

The model was run for a period of at least 30 years. However, if you look at the model details you will see that some of those wells are not just proposed or permitted, but they have been operating for several years as far back as 2013.

So the model was run an additional time duration to be able to characterize the impact that those wells have already imparted on the target reservoir.

Q. And this has been discussing what's on Page 7

of --

A. Yes. Yes.

Q. And in order to, you know, anyone who has worked with a model understands very heavily that it is -- or understands that it is heavily dependent on what you put into it.

So with the objective of ensuring that operation of our proposed well will not result in induced seismic events, we chose for the model to incorporate the injection rate, or the injection rates for these wells to be modeled would be representative of their maximum anticipated volumes as reported in their C-108s, which, if you were to look at their actual reported injection volumes is often -- the actual injected volumes is often significantly less than what they are planning. So we think this offers a conservative estimate to give us confidence that we will not contribute to any detrimental events or --

Q. Seismic events?

A. Yes. So this is, in these two figures, Figures 4 and 5.

Q. On Page 8?

A. On Page 8 we see the results of those modeling simulations from an injection perspective. Figure 4 on the left shows the resultant pressure from or resultant pressure conditions that are expected at the end of the model's

injection period, so essentially at year 2050.

And we see in roughly the center of the figure labeled as Well Number 1, that is the proposed 3Bear well, and these results confirm our initial observation that the proposed location is more or less isolated from the effective other injection wells. There are some finer effects that are felt, but in general it seems like this location is -- is in a good location for avoiding compounding effects of multiple injection wells.

Additionally, I show the models' estimation of the pressure solution for each well showing that, you know, once you -- once you get a distance away from the wells, such as, you know, four kilometers away from the wellbore, the effects that each well is imparting on the reservoir in terms of pressure drops off pretty quickly.

The final step the model is going to take is it's going to take all of your inputs on structures present in the area and your injection volumes, and it's going to probabilistically determine the potential for induced seismicity along each feature you have included in the model.

Q. Now we are looking at Page 9; is that right?

A. Yes.

Q. And based on this scenario, the injection wells that were included in the simulations and faults that were

identified and included in the simulation, the model predicts zero probability along all features included for induced seismic events in response to injection.

And if we look at the model's predicted -- or the model's estimated pressure increase required to induce slip versus the model's prediction of what types of pressure increases, we will actually see, they are significantly lower and don't come close to what the model estimates it being required to induce slip, and as well as assigns fault slip potential possibilities of zero in agreement with that.

So just to summarize, based on the operating conditions and the injection wells currently present and operating or proposed and approved permitted, under these conditions, it -- there is -- there doesn't appear to be concern that operation of the Grama State SWD will result in any induced seismic events.

Q. Thank you for that. And then to conclude, in your opinion will the granting of 3Bear's application promote the interest of conservation and prevention of waste?

A. Yes.

Q. Were Exhibits 8 and 9 prepared by you or at your direction?

A. Yes, they were.

MS. CALLAHAN: I would like to tender Exhibits 8

and 9 into the record.

HEARING EXAMINER ORTH: Any objection?

MS. BENNETT: No objection.

MS. ANTILLON: No objection.

MS. HARDY: No objection.

HEARING EXAMINER ORTH: Exhibits 8 and 9 are admitted.

(Exhibits 8 and 9 admitted.)

MS. CALLAHAN: I have no other questions for this witness.

HEARING EXAMINER ORTH: Thank you. Ms. Antillon, do you have questions?

MS. ANTILLON: No questions.

HEARING EXAMINER ORTH: Ms. Bennett?

MS. BENNETT: Thank you.

CROSS-EXAMINATION

BY MS. BENNETT:

Q. Good morning, still. Thanks for being here. I have a few questions for you. When you first started talking with or speaking with Ms. Callahan earlier, she asked you a question about whether you updated materials from what was prepared or presented in the C-108, or something along those lines. I'm definitely paraphrasing the question, but I was wondering if you were involved in preparation of the C-108, did you assist Lonquist in

preparing the C-108?

A. No. We were -- Geolex was hired to evaluate this induced seismicity assessment.

Q. When was 3Bear -- I'm sorry, when was Geolex retained by 3Bear to prepare the seismic study?

A. This is an estimate, but I believe in May 2019.

Q. And was Geolex contacted to prepare a reservoir engineering study, by any chance?

A. No.

Q. So there -- as far as you have been here this morning listening to the testimony, have you heard any testimony about a reservoir engineering study that was done to support this application?

A. No.

Q. Okay. On Page 5 of your PowerPoint, you list the different segments that you assign to each fault.

A. Uh-huh.

Q. And I understand that's an, you know, an accepted way to make sure you do have some quality control over the input.

A. Uh-huh.

Q. But I didn't see anything in your materials that correlates the segment number to the faults themselves. Is there anything -- like which segment is Segment Number 1 on Page 4, for example?

A. Oh, I'm sorry, yes, that was in the instance of, of not having a complicated map, but so for all segments, for example, Fault 1 is made up of 5 segments. Segments would always start at the top and work their way to the base. So in all instances, even 5, whatever the upper segment is would be the first in that sequence.

Q. So like Fault 2, the northern most part of the Fault 2 would be Segment 5?

A. Yes.

Q. Okay.

A. In the interest of clean figures, it was not shown.

Q. Okay. On Page 6 you talked about the proposed Grama State Well which we see in the middle of the slide, and then you talked about some other wells, SWDs?

A. Uh-huh.

Q. When you did your modeling, did you include active and proposed wells, proposed SWDs other than the Grama State Well?

A. Yes, everything that was reflected in NMOCD's records. If an application had been submitted and it was not something that was available in NMOCD's records, then I would not have found it.

Q. When you research NMOCD's records, was that in May when you were retained or in advance of the hearing

today?

A. It was done when we were initially retained, and it was also done two days ago.

Q. Okay. And so this, the eight wells that you included on Page 7 in your model, those are the proposed Grama State Wells and then the active or proposed wells that you were able to find on the NMOCD website?

A. Yes. So -- so they are -- the model is limited to a total evaluation of eight injection wells. So they are the seven closest wells to the proposed site, and those listed as a start year of 2020 are typically those proposed.

Q. So are you saying that SD model is limited to eight injection wells, that in fact the program only allows you to input eight wells?

A. I believe so.

Q. On Number 5 on Page 7, you have an asterisk besides 10,000, but there is no explanation of what that asterisk means. What is that asterisk for?

A. So that asterisk is identifying -- I'm sorry, I should have footnoted this, but at the time of resurveying which injection wells a couple of days ago are operating in the area, this injection well, I could not at the time access the NMOCD records to identify their reported or their requested maximum volume, so I made an estimation on that based on their -- I could see their reported injection

volumes.

So let me show you here. So, for instance, the Rio -- shown on this is Rio Blanco 4 Federal Number 3, I estimated they would have a model or a maximum injection rate of 10,000 barrels per day. Their actual reported volumes to the NMOCD and on the NMOCD website equates to 2,942 barrels per day. So it was an estimation due to not being able to access the NMOCD C-108, but it's reflective of what they are actually reporting they're injecting.

Q. So for setting Number 5 aside and Number 1 aside, on the rest that you have listed there on Page 7, those, the maximum or the model injection rate is the maximum that the operator was requesting under the C-108?

A. Yes.

Q. And as shown in this table, in the red text I have shown for each well that is in operation, I have included what they are actually reporting there in what they are injecting. So in all cases -- and this highlights one of the reasons that we choose to use the maximum potential injection volume to provide a conservative estimate is because oftentimes, very frequently they are actually injecting much less volume than they intend to or expect to.

HEARING EXAMINER ORTH: You are looking at Page 11 now of your PowerPoint, not 7?

THE WITNESS: Yes. But I believe 7 included

the -- is nearly identical, minus the addition of the actual rates.

BY MS. BENNETT:

Q. I'm looking at Page 11. You note that the Okeanos SWD 1 already reported 13,000, even though it only came on line in 2020.

A. I would assume that 2020 is just a typo. I can certainly verify that in just a -- very quickly, if needed.

Q. That's all the questions I have. Thank you.

HEARING EXAMINER ORTH: Ms. Hardy?

MS. HARDY: No questions.

HEARING EXAMINER ORTH: Mr. Goetze?

EXAMINER GOETZE: Glad to see you down at our level. Two questions.

THE WITNESS: Yes, sir.

EXAMINER GOETZE: So the 3-D seismic was provided by Chisholm for your --

THE WITNESS: Yes, we reviewed with Chisholm.

EXAMINER GOETZE: With Chisholm, so essentially it's proprietary, so -- it's accuracy --

THE WITNESS: Uh-huh.

EXAMINER GOETZE: Very good. The two faults that were identified, any indications as to a vertical -- their vertical limits? Do they go --

THE WITNESS: The two western-most faults extend

up into the Atoka, I believe, however, I would need to confirm that, but I believe.

EXAMINER GOETZE: They do come up through the Devonian and extend farther?

THE WITNESS: I believe so.

EXAMINER GOETZE: And is their depth known?

THE WITNESS: I don't -- I'm not --

EXAMINER GOETZE: That's fine. Don't put yourself out if you don't know.

With regards to Ms. Bennett's comment, when you ran the model, did you save your parameters as to how you broke up your segments and describe each of these runs on the FSP model as far as how you entered it?

THE WITNESS: Uh-huh.

EXAMINER GOETZE: Could you make at least that, those parameters available?

THE WITNESS: Yes. So all the -- I'm sorry, so I'm in the habit of bringing more slides for discussion points than I am --

EXAMINER GOETZE: We are cheaper down here. It's not commission, so --

THE WITNESS: So on Slide Number 10, I have all the input parameters.

EXAMINER GOETZE: Do you have the screen saved as to how the -- to see what the segments were?

THE WITNESS: I do. I have the model simulation as it is represented in this presentation.

EXAMINER GOETZE: Could you provide a copy of that?

THE WITNESS: Absolutely.

EXAMINER GOETZE: For a part of the record through your attorney?

THE WITNESS: Absolutely.

EXAMINER GOETZE: We will make it available for us, as well as anybody who has appeared here.

THE WITNESS: Absolutely.

EXAMINER GOETZE: Other than that, no more further questions.

HEARING EXAMINER ORTH: Thank you. Mr. Lowe?

EXAMINER LOWE: I have one question. I believe you said on Page 6 you indicated there is a well that is wet or is producing on the west area. Is there an API number that's stated?

THE WITNESS: No. So in this map I'm just showing Devonian injection, as well as the nearest producing well. I -- the well that was wet, and I'm sorry I did not include the API number, additionally I can find that in a few minutes given some internet, but this well is about 1.6 miles or so west of the proposed site along these that tested wet.

EXAMINER LOWE: And what kind of well is that, do you know?

THE WITNESS: I think it was completed in the Devonian.

EXAMINER LOWE: Would you happen to know who owns that well?

THE WITNESS: Not off the top of my head.

EXAMINER LOWE: Okay. So what was the well in Page 6 that indicated -- is that the nearest Devonian production well?

THE WITNESS: Yes. The red icon shows a Devonian gas well that is active. It's amazing, I brought their production numbers, but I don't have the well name on it. But, yes, that is the nearest Devonian active injection well. It was or it is operated by Devon Energy.

I'm unsure -- actually, I'm pretty sure it's -- yes, I remember now. The well name is Rio Blanco 32 or 33 Federal Number 1. The well to the north of it, the Rio Blanco Federal Number 32, was also completed in the Devonian and was hoping to be a productive well. However, it produced, I believe, 2.1 BCF and then was watered out and converted to an SWD.

EXAMINER LOWE: Okay.

THE WITNESS: The active well, the active Devonian well over its lifetime, and this might be an

estimation of its number, but it's not an exact number, but it produced approximately 8.1 BCF, with 6.5 BCF of that production occurring between 2004 and 2006, and then production declining down to 823,000 cubic feet in the most recent year.

EXAMINER LOWE: Okay. Thank you for that. That's all I have.

HEARING EXAMINER ORTH: All right. Any follow-up, Ms. Callahan?

MS. CALLAHAN: No, I don't have anything.

HEARING EXAMINER ORTH: All right. Is there any reason not to excuse this witness?

(No response.)

HEARING EXAMINER ORTH: No? Thank you very much. Ms. Callahan, we have been going a little more that two than two hours. Can we take a short break before your next witness?

MS. CALLAHAN: Of course.

HEARING EXAMINER ORTH: Let's take ten minutes.

(Recess taken.)

HEARING EXAMINER ORTH: Let's go back on the record and let Ms. Callahan finish her case.

MS. CALLAHAN: Apologize for keeping everybody so long. Before I call my last witness, I would like to, before I forget, point out that Exhibit 2 is a copy of the

notice letter for this hearing, along with the return receipt cards, and the very last page of that exhibit you will see a listing of the names of the people to whom we sent notice and indicated their receipt and everybody was served and actually received notice.

HEARING EXAMINER ORTH: So are you offering Exhibit 2?

MS. CALLAHAN: I am offering Exhibit 2 into the record. And then Exhibit 3, which is an affidavit of publication, I would like to offer Exhibit 3 into the record. And then Exhibit 4 is my affidavit of notice, I would also like to offer that into the record.

HEARING EXAMINER ORTH: All right. Any objections to Exhibits 2, 3 or 4?

MS. BENNETT: No.

MS. ANTILLON: No objection.

MS. HARDY: No objection.

HEARING EXAMINER ORTH: Exhibits 2, 3 and 4 admitted.

(Exhibits 2, 3 and 4 admitted.)

MS. CALLAHAN: Thank you. And then I would like to call my last witness, Mr. Mike Solomon.

MIKE SOLOMON

(Sworn, testified as follows:)

DIRECT EXAMINATION

BY MS. CALLAHAN:

Q. Good morning.

A. Good morning.

Q. Will you please state your full name for the record?

A. Michael Solomon.

Q. Where do you reside?

A. 3Bear Energy.

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

A. I reside in Denver, Colorado, employed by 3Bear Energy as a VP of engineering operations.

Q. Okay. And how long have you been employed by 3Bear?

A. Been with 3Bear for about two and a half years.

Q. What are your responsibilities at 3Bear Energy?

A. I'm responsible for managing the engineering, construction and operations groups at 3Bear.

Q. Does your area of responsibility for 3Bear include the Permian Basin?

A. It does.

Q. In New Mexico?

A. In New Mexico.

Q. Okay. And are you familiar with the C-108 filed by 3Bear in this case?

A. Yes, I am.

Q. Okay. And although you are not an engineer -- although you are an engineer, you are not here to testify as an expert; you are here as a fact witness. Is that true?

A. That's correct. We are relying on the expert testimony of previous witnesses.

Q. In your position as senior VP of engineering and operations of 3Bear, you are familiar with the operations of 3Bear in the Permian Basin of New Mexico?

A. Yes, I am.

Q. And all the matters today involve a single application for a saltwater disposal well. Can you briefly summarize what other operations and services 3Bear provides in southeast New Mexico?

A. In addition to salt water, to disposing of salt water, we do a lot of recycled water, so we treat waters and we have multiple producers that reuse water from our system of both treated and produced for frac operations.

We also have a pretty substantial gas gathering system, a processing plant in Lea County, about 30 miles southwest of Hobbs, and a substantial crude gathering system and oil terminal. We have 120,000 barrels of storage right now.

Q. So 3Bear is primarily a midstream company providing pipeline and gathering system?

A. That's correct.

Q. And gas pipe?

A. Yes.

Q. And let's see. Are there other saltwater disposal wells in the area of the proposed well capable of serving the producers seeking 3Bear's services?

A. Yes. Our footprint covers about a dozen townships, so there is additional wells obviously in that area, some of them are full, some aren't.

I think generally, and we feel pretty strongly there is not adequate disposal capacity in that area right now, so there is definitely a need for additional wells.

Q. So the drilling of this well would provide economic benefit?

A. That's correct.

Q. In terms of royalties to the state and --

A. That's correct. You know, a lot of producers right now in that area are forced to truck their water to disposals that are farther away, which drives up their operating expenses. In some cases I believe that water is trucked to Texas in some cases.

Q. All right. Let's look at Exhibit 10. Are these support letters that you have received?

A. Yeah. We received a couple of support letters from some producers. Some were unsolicited. Frankly we have contracts with a lot of producers in the area, probably over a dozen, and they are relying on us to be able to get these wells drilled in this area so they can then go in, and you know, drill wells and have an economic solution for water.

Q. Okay. Thank you. So just summarizing, you think this application is in the interest of --

A. Absolutely. Yes.

Q. Okay. Prevention of waste and protection of correlative rights?

A. Yes.

Q. Okay.

MS. CALLAHAN: I have no further questions of this witness.

HEARING EXAMINER ORTH: All right, thank you. Ms. Antillon?

MS. ANTILLON: No questions.

HEARING EXAMINER ORTH: Ms. Bennett?

MS. BENNETT: I just have a couple of questions.

CROSS-EXAMINATION

BY MS. BENNETT:

Q. A minute ago you testified that there is a capacity for this well because there is a need for saltwater

disposal wells in the area.

How would this well be supplied with produced water, from pipelines or trucking?

A. Pipeline. So we receive -- 100 percent of water that we receive are via pipes.

Q. Do you have pipeline infrastructure, the right-of-way to build the pipeline to get to this well?

A. I believe we do. It's possible -- so we have, we have over 100 miles of water pipe in the ground right now in this area. It's networked to a couple of our disposals. The majority of the pipe to get to this well is on fee land. I believe there is a small section of state. I'm positive we've applied for it. I would have to double check if we received that grant or not.

Q. Thanks.

HEARING EXAMINER ORTH: Ms. Hardy?

MS. HARDY: No questions.

HEARING EXAMINER ORTH: Are there any objections to the admission of Exhibit 10?

MS. ANTILLON: No objection.

MS. BENNETT: No objection.

MS. HARDY: No objection.

HEARING EXAMINER ORTH: Exhibit 10 is admitted.

(Exhibit 10 admitted.)

HEARING EXAMINER ORTH: Mr. Goetze, do you have

questions?

EXAMINER GOETZE: Just one comment. If an order is issued for this well approving its injection authority, as a representative of 3Bear, would you be opposed to having a clause in there which would require you to notify Enstor of critical milestones at the well, namely, if you were going to go in and do a workover, that you would be supplying the Division a sundry notice, that you would provide to them a copy of that sundry notice so that they are aware of what's happening at the well?

THE WITNESS: So the same thing that would trigger sundry to the state would also trigger notification to Enstor.

EXAMINER GOETZE: So they would have knowledge of what's going on at the well?

THE WITNESS: I would be open to that.

EXAMINER GOETZE: No other questions or comments.

HEARING EXAMINER ORTH: Thank you. Mr. Lowe?

EXAMINER LOWE: Processing plant, what kind of processing plant.

THE WITNESS: It's cryo. It's a 60 million a day cryo and fed by three compressor stations in Lea County.

EXAMINER LOWE: And does 3Bear have any other wells in the vicinity, in that area?

THE WITNESS: Yes, sir. So in that particular

area we have three operating saltwater disposals right now, and we have two disposals in Eddy County.

EXAMINER LOWE: Okay.

THE WITNESS: Five total.

EXAMINER LOWE: Thank you.

HEARING EXAMINER ORTH: Mr. Ames, any questions?

MR. AMES: No, Your Honor.

HEARING EXAMINER ORTH: Ms. Callahan, any follow-up?

MS. CALLAHAN: I'm sorry?

HEARING EXAMINER ORTH: Do you have any follow-up?

MS. CALLAHAN: No, I do not.

HEARING EXAMINER ORTH: All right. Thank you very much. Mr. Solomon is excused.

Ms. Callahan, anything further?

MS. CALLAHAN: No, there is nothing further. I'm done.

HEARING EXAMINER ORTH: Is there anything further from any of the others who entered appearances? Ms. Antillon?

MS. ANTILLON: Just on behalf of the State Land Office, I want to make a comment on the record that we are reviewing this application, and we do have concerns with this saltwater disposal well due to its close proximity to

state trust land.

HEARING EXAMINER ORTH: Ms. Bennett?

MS. BENNETT: I would also just ask that any exhibits that you are, supplemental exhibits, like the wellbore design be submitted to the other parties in this case as well with an opportunity to review and comment as appropriate.

HEARING EXAMINER ORTH: Ms. Callahan, would you be sure to do that?

MS. CALLAHAN: I can offer her a copy of exhibits that we supply, but I don't know about comments. I mean, I don't know whether she'll want to make comments -- I don't plan another hearing, so I don't know at what point she would make comments.

HEARING EXAMINER ORTH: All right. Ms. Hardy?

MS. HARDY: Nothing.

HEARING EXAMINER ORTH: Anything further? All right? Anything from the table?

(No verbal response.)

HEARING EXAMINER ORTH: No? All right, thank you very much. We will take it under advisement.

MS. CALLAHAN: Yes, thank you.

(Case 20586 taken under advisement.)

(Adjourned.)

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

REPORTER'S CERTIFICATE

I, IRENE DELGADO, New Mexico Certified Court Reporter, CCR 253, do hereby certify that I reported the foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings that were reduced to printed form by me to the best of my ability.

I FURTHER CERTIFY that the Reporter's Record of the proceedings truly and accurately reflects the exhibits, if any, offered by the respective parties.

I FURTHER CERTIFY that I am neither employed by nor related to any of the parties of attorneys in this case and that I have no interest in the final disposition of this case.

Dated this 23rd day of January 2020.

_____
Irene Delgado, NMCCR 253
License Expires: 12-31-20