

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: 21118

APPLICATION OF FAE II OPERATING LLC
FOR APPROVAL OF A WATERFLOOD
PROJECT AND TO QUALIFY THE PROJECT
FOR THE RECOVERED OIL TAX RATE,
LEA COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

March 5, 2020

SANTA FE, NEW MEXICO

This matter came on for hearing before the New Mexico Oil Conservation Division, EXAMINERS FELICIA ORTH, KATHLEEN MURPHY, PHILLIP GOETZE and DYLAN COSS on Thursday, March 5, 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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A P P E A R A N C E S

For the Applicant:

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1 HEARING EXAMINER ORTH: We will turn then to
2 matter 19 on the cases, 21118, FAE Operating, relating to
3 the Arnott Ram.

4 MS. HARDY: Dana Hardy and Andy Blanco with
5 Hinkle Shanor on behalf of FAE II Operating, and I have
6 three witnesses.

7 HEARING EXAMINER ORTH: Three witnesses. Do we
8 need to take a short break to set up?

9 MS. HARDY: That would be great.

10 (Recess taken.)

11 (Oath administered to witnesses.)

12 HEARING EXAMINER ORTH: We are back after a short
13 break, and we are taking up case 21118. This is FAE
14 Operating?

15 MS. HARDY: Yes.

16 HEARING EXAMINER ORTH: Ms. Hardy?

17 MS. HARDY: FAE II call our first witness, Kevin.

18 HEARING EXAMINER ORTH: He has been sworn.

19 KEVIN WOOLLEY

20 (Sworn, testified as follows:)

21 DIRECT EXAMINATION

22 BY MS. HARDY:

23 Q. Could you please state your name for the record?

24 A. My name is Kevin Woolley.

25 Q. And by who are you employed and in what position?

1 A. FAE II Operating. I'm vice president of land and
2 business development.

3 **Q. Are you familiar with the land matters that**
4 **pertain to FAE II's application?**

5 A. Yes, I am.

6 **Q. Have you previously testified at a Division**
7 **hearing?**

8 A. No, I have not.

9 **Q. Given that, would you please summarize your**
10 **educational background and professional experience in the**
11 **oil and gas industry?**

12 A. I hold a BBA in business from the University of
13 Texas at San Antonio, and I practiced for about 12 years as
14 a petroleum landman in courthouse work, research, operations
15 and transactional land capacities. And I have experience in
16 the Rockies, particularly, including New Mexico.

17 MS. HARDY: I tender Mr. Woolley as an expert in
18 petroleum land matters.

19 HEARING EXAMINER ORTH: Thank you. Examiners,
20 are there questions about Mr. Woolley's qualifications?

21 EXAMINER GOETZE: None for me.

22 HEARING EXAMINER ORTH: All right. He so
23 recognized. Thank you.

24 BY MS. HARDY:

25 **Q. Mr. Woolley, let's talk about some background**

1 information on the proposed project.

2 Can you please identify the document in front of
3 you marked as Exhibit 1?

4 A. Exhibit 1 is FAE II Operating's application in
5 this matter.

6 Q. Are you familiar with the content of the
7 application?

8 A. I am.

9 Q. And was the application verified by a
10 representative of FAE II?

11 A. It was.

12 Q. And is Exhibit 1 a true and correct copy of the
13 application?

14 A. It is.

15 Q. Mr. Woolley, what approval is FAE II seeking in
16 this case?

17 A. FAE II is seeking approval to implement the
18 waterflood project and to inject through the Arnott Ramsay
19 NCT-B 11 well to drill six additional injectors, the ability
20 to have subsequent injectors administratively approved and
21 qualification for the oil recovery tax rate.

22 Q. Mr. Woolley, could you please identify the
23 document in front of you that's marked Exhibit 2.

24 A. This is a copy of our presentation of the
25 project.

1 Q. Are you familiar with the content of the
2 presentation?

3 A. I am.

4 Q. Were you involved in its preparation?

5 A. I was.

6 Q. Let's look at slide three, please. This slide
7 includes a project locator map; correct?

8 A. Yes, it does

9 Q. Where is the project located?

10 A. Generally it's located in the southeastern corner
11 of the State of New Mexico, more specifically in the south
12 of Lea County, the Township is 25 South, Range 37 East,
13 Section 32, full section.

14 Q. And what is the total acreage of the project
15 area?

16 A. 640 acres, more or less.

17 Q. How many producing wells does FAE currently
18 operate in the project area?

19 A. Nine producing wells.

20 Q. And what formation does FAE II propose to inject
21 into?

22 A. That is the Jalmat formation.

23 Q. What is the pool name?

24 A. It's -- excuse me -- it's -- the pool name is
25 Jalmat. It's the Seven Rivers that we are injecting into,

1 the code is 33820.

2 Q. You are injecting into the Seven Rivers
3 formation?

4 A. Yes.

5 Q. And which well will be the initial injector?

6 A. The Arnott Ramsay NCT-B Number 11.

7 Q. Can you point out where that well is located on
8 the map?

9 A. Yes. It's is in a location in the NW --
10 southwest, would be this --

11 Q. And --

12 A. Am I blocking it here?

13 Q. And are the additional six injection wells that
14 FAE II proposes to drill also depicted on this map?

15 A. Yes, they are.

16 Q. Has FAE II communicated with the New Mexico State
17 Land Office regarding this project?

18 A. Yes, we have.

19 Q. Is it your understanding that a unit agreement is
20 not required because the project area only involves one
21 lease?

22 A. That's correct. That's my understanding.

23 Q. Can you identify the document in front of you
24 that's marked as Exhibit 3?

25 A. That is our -- a copy of an agreement with the

1 State Land Office.

2 Q. And is this a true and correct copy of the
3 agreement?

4 A. It is.

5 Q. What does the agreement generally provide?

6 A. The agreement generally provides that FAE II is
7 seeking administrative approval of injection wells, not
8 administrative approval to expand the project area, and that
9 the State Land Office supports the project.

10 Q. And does FAE II plan to seek authorization to
11 expand the project area in the future?

12 A. Possibly.

13 Q. And if FAE II does intend to do that, will it
14 seek approval of a unit agreement?

15 A. Yes.

16 Q. Let's look at Slide 5, please, the land plat and
17 summary.

18 A. Okay.

19 Q. What are the percentages of the mineral interests
20 within the unit?

21 A. The State of New Mexico owns 100 percent of the
22 mineral estate. FAE II owns 100 percent of the working
23 interest in the lease. It's, for the record, B0-0229-0001
24 is the state lease number. We are the sole working interest
25 owner. There are no depth severances or variance of

1 interest by depth as to that lease.

2 Q. And that's -- there is only one lease; correct?

3 A. There is one lease.

4 Q. Are there any overriding royalty interests?

5 A. There are no overriding royalty interests.

6 Q. And there is joint operating agreement?

7 A. There is no joint operating agreement. There are
8 no other working interest partners.

9 Q. Let's talk about notice. Look at Slide 4,
10 please. Does this slide identify the offset operators in
11 each section?

12 A. It does.

13 Q. Does it also identify the parties who received
14 notice of FAE's application?

15 A. It does.

16 Q. How many offset operators did FAE II identify
17 within the half mile of the project area?

18 A. Only two.

19 Q. And were those New Mexico and Fulfer Oil &
20 Cattle?

21 A. That's correct.

22 Q. Did FAE II notify those offset operators of this
23 application?

24 A. We did give notice to them, actual timely notice.

25 Q. And were the BLM and State Land Office also

1 notified?

2 A. That's correct.

3 Q. Can you please look at the document in front of
4 you that's marked Exhibit 4.

5 A. Okay.

6 Q. Can you identify that document please?

7 A. That is a copy of our C-108 application in this
8 case.

9 Q. Is that a true and correct copy of the C-108?

10 A. It is.

11 Q. Will FAE II's other witnesses testify about the
12 substance of the C-108?

13 A. Yes, they will.

14 Q. Did FAE II publish notice of the C-108?

15 A. Yes. It's in the Exhibit 4 towards the back of
16 the exhibit just before those longer pages there.

17 Q. That's an affidavit of publication?

18 A. It is.

19 Q. And did FAE also provide notice to the parties,
20 and are the return receipts included?

21 A. Yes, we did provide notice, and the returned
22 receipts are included in the C-108.

23 Q. Did FAE II receive notice of any objections to
24 its form C-108?

25 A. We did not receive any objections to our C-108.

1 Q. Mr. Woolley, can you please look at the document
2 in front of you that's marked as Exhibit 5. Are you there?

3 A. Yes.

4 Q. Can you please identify that document?

5 A. So this is notice of the hearing provided at
6 FAE's direction.

7 Q. And that notice was provided by my office by
8 certified mail; is that correct?

9 A. That's correct.

10 Q. And then would you look at Exhibit 6, please.

11 A. Okay.

12 Q. Can you identify that exhibit?

13 A. That is a publication and an affidavit of
14 publication notice of the hearing.

15 Q. Okay. Is it your understanding that FAE II
16 provided the application and notice of today's hearing to
17 all affected parties within a half mile of the project
18 boundary?

19 A. Yes.

20 Q. Did FAE II also provide notice of this hearing to
21 the surface owner of the location of the injection well?

22 A. Yes, we did.

23 Q. And is that the State Land Office?

24 A. It is.

25 Q. Based on this information is it your

1 understanding that FAE II complied with the Division notice
2 requirements?

3 A. Yes.

4 Q. Mr. Woolley, would you please, in your opinion,
5 will the proposed project serve the interest of
6 conservation, the prevention of waste and the protection of
7 correlative rights?

8 A. Yes, it will.

9 MS. HARDY: Examiners, I move the admission of
10 Exhibits 1 through 6, please.

11 HEARING EXAMINER ORTH: All right. Exhibits 1
12 through 6 are admitted.

13 (Exhibits 1 through 6 admitted.)

14 MS. HARDY: I have no further questions for
15 Mr. Woolley.

16 HEARING EXAMINER ORTH: Mr. Coss, do you have
17 questions for Mr. Woolley?

18 EXAMINER COSS: The only question I have, I see
19 here, maybe it will come later in testimony, but you had
20 pointed out that there was offset wells in the area that
21 have been plugged and abandoned. Are all of the -- are
22 well schematics for all of the plugged and abandoned wells
23 in the area provided?

24 THE WITNESS: I think that's probably a technical
25 question later addressed in other testimony.

1 EXAMINER COSS: We will go get back to that.
2 That was my only question.

3 HEARING EXAMINER ORTH: Thank you. Ms. Murphy?

4 EXAMINER MURPHY: Mr. Woolley, welcome. I think
5 I'm a bad listener, and that's why I'm -- there will be
6 seven injectors?

7 THE WITNESS: Six.

8 EXAMINER MURPHY: Six. And you will convert them
9 from existing wells?

10 THE WITNESS: There is one, the Arnott Ramsay
11 NCT-B 11 will be converted from a producer. The other
12 injectors will be new, new drills. I think probably our
13 technical people would have better, better testimony on that
14 than I would.

15 EXAMINER MURPHY: But you did say there was seven
16 other producing wells in that --

17 THE WITNESS: We currently operate nine --

18 EXAMINER MURPHY: I'm sorry, nine.

19 THE WITNESS: -- producing wells in the section,
20 one of which is proposed to be converted to an injector.

21 EXAMINER MURPHY: Okay, thank you. No more
22 questions.

23 HEARING EXAMINER ORTH: Mr. Goetze?

24 EXAMINER GOETZE: No questions. Thank you.

25 HEARING EXAMINER ORTH: Thank you. Any

1 follow-up?

2 REDIRECT EXAMINATION

3 BY MS. HARDY:

4 Q. On the number of wells that will be injectors, is
5 it correct that there will be one well converted and six
6 additional new wells?

7 A. Yes, I'm sorry, five. It was confusing on that.

8 MS. HARDY: That's all I have.

9 HEARING EXAMINER ORTH: Thank you. Thank you,
10 Mr. Woolley.

11 THE WITNESS: Thank you.

12 MS. HARDY: Our next witness is Ms. Jessica
13 LaMarro.

14 HEARING EXAMINER ORTH: Good morning. Do you
15 swear or affirm that the testimony you are about to give
16 will be the truth, the whole truth and nothing but the
17 truth?

18 THE WITNESS: Yes.

19 JESSICA MARIE LAMARRO

20 (Sworn, testified as follows:)

21 DIRECT EXAMINATION

22 BY MS. HARDY:

23 Q. Ms. LaMarro, could you please state your full
24 name for the record?

25 A. My name is Jessica Marie LaMarro, L-a-M-a-r-r-o.

1 Q. By whom are you employed and in what position?

2 A. I'm employed by FAE II Operating as a geologist.

3 Q. Are you familiar with the geology matters that
4 pertain to FAE II's application?

5 A. Yes.

6 Q. Have you previously testified at a Division
7 hearing?

8 A. Yes.

9 Q. Were your qualifications as an expert in
10 petroleum geology accepted by the Division?

11 A. Yes.

12 MS. HARDY: Examiners, I tender Ms. LaMarro as an
13 expert in petroleum geology.

14 HEARING EXAMINER ORTH: Examiners, questions
15 about Ms. LaMarro's qualifications?

16 EXAMINER MURPHY: None from me.

17 EXAMINER GOETZE: No.

18 HEARING EXAMINER ORTH: She is so recognized.

19 BY MS. HARDY:

20 Q. Ms. LaMarro, you evaluated the geology of the
21 project area; correct?

22 A. Yes.

23 Q. Let's go to Slide 7, please. In that slide is an
24 exhibit structure map?

25 A. Yes, it is.

1 **Q. Can you explain what's shown on the slide.**

2 A. So just a simple structure map on the top of the
3 Seven Rivers Bowers Section, which is in our main waterflood
4 interval.

5 Also point out, because it will be on subsequent
6 maps, the seven injectors, the well that we plan to convert
7 is in yellow, yellow triangle. Also the six other injectors
8 that will be new drill injectors are the blue triangles.

9 And also you will see several circles, the orange
10 circles are future planned producing wells, and a well that
11 we plan to convert to a producer in the future. And the
12 structure map generally has a gentle updip from the west to
13 the east, and that's --

14 **Q. Look at slide 8, please.**

15 A. Slide 8 is -- did you have another question
16 first?

17 **Q. It's a slide show, so --**

18 A. All right. Slide 8 is, a -- I'm sorry -- a type
19 log for the area that we have chosen. A state map can be
20 seen on this slide, and the location of the type log is
21 indicated by the red star and highlights the main
22 waterflooding interval that we plan to flood, and that's
23 between about 3000 feet and 3400 feet deep. That's within
24 the Seven Rivers.

25 **Q. Let's go to slide 9, please. Slide 9 is a gross**

1 **isopach map; correct?**

2 A. Yes.

3 **Q. Can you describe what the map shows?**

4 A. Once again, it has the same wells indicated on it
5 we talked about previously, but it is a gross isopach map of
6 our main waterflood interval, which is relatively similar
7 across the area, between 150 and 180 feet thick, bends a bit
8 to the east.

9 **Q. Okay. So go to the next slide. And this is a**
10 **net pay and Phi-H map; right?**

11 A. Yes.

12 **Q. Can you describe what this slide shows?**

13 A. The one on the left-hand side is a net pay map
14 for our main waterflood interval. However, the net pay in
15 the area is between 10 and 35 feet, and thins a little bit
16 as you go to the east. And then our Phi-h map for the same
17 interval, ranges between 3 and 10 feet of Phi-h and it's in
18 the middle.

19 **Q. Look at the next slide. This slide includes a**
20 **west-east cross section highlighting the waterflood**
21 **intervals; correct?**

22 A. Yes.

23 **Q. Can you explain what the cross section shows?**

24 A. The location map to this cross section down in
25 the lower right-hand corner just shows like a big cross

1 section there. It's hung on the top of our waterflood
2 interval, and the main waterflood interval is highlighted in
3 yellow. I don't know how well you can see that from here.
4 But it highlights that. Our zone is continuous across the
5 whole project area and with good porosity zones across the
6 whole area.

7 **Q. Go to the next slide. And this slide is a**
8 **north-south cross section highlighting waterflood intervals;**
9 **correct?**

10 A. Yes.

11 **Q. What does this cross section show?**

12 A. Very similar to the last slide, another location
13 map showing the north-south cross section. Starting from
14 the north, going to the south, highlighting the same
15 waterflood interval and showing it's also continuous north
16 to south with similar porosity zones.

17 **Q. Ms. LaMarro, are there confining layers both**
18 **below and above the injection interval?**

19 A. Yes, there are.

20 **Q. Describe their components.**

21 A. They are primarily low permeability dolomite and
22 anhydrites.

23 **Q. Are the underlying and overlying formations**
24 **sufficiently impermeable to contain the injection within the**
25 **target interval?**

1 A. Yes.

2 Q. Based on the cross sections, is your assessment
3 that the target interval consistent and persistent --
4 continuous and persistent throughout the unit?

5 A. Yes.

6 Q. Based on your analysis, is it your opinion that
7 the waterflood operation will be contained within the
8 project area?

9 A. Yes.

10 Q. In your opinion, is this project area a good
11 candidate for waterflood?

12 A. Yes.

13 Q. Can you please summarize the reasons why?

14 A. It's bounded above and below by permeable zones,
15 has continuous porous sandstones across the whole area, and
16 it's very oil rich, in our opinion, and it's similar to what
17 we have waterflooded in our West Eumont unit to the north,
18 the zone has similar porosity.

19 Q. Approximately how far to the north is West Eumont
20 unit.

21 A. Something like 60 miles. 50 miles.

22 Q. Just generally?

23 A. Generally.

24 Q. Okay. Thank you. Are there any faults or
25 geologic impediments that would impede your waterflood

1 projects?

2 A. No.

3 Q. Ms. LaMarro, let's talk about protection of fresh
4 water zones. Are there any fresh water zones within the
5 project area?

6 A. Yes.

7 Q. And at what depth?

8 A. Generally shallower than 500 feet.

9 Q. Are there any fresh water zones below the
10 injection interval?

11 A. No.

12 Q. Are there any fresh water wells within one mile
13 of the proposed injector?

14 A. Yes. And they are discussed on Page 34 of the
15 C-108 application.

16 Q. And approximately what distance are those wells
17 located from the injectors?

18 A. There are between 7 and 14 fresh water wells
19 within a mile of the proposed Arnott Ramsay NCT-B Number 11,
20 14, 15, 16, 17, 18 and 19. Also several within a half mile
21 of the Arnott Ramsay NCT-B proposed Number 14, 16, 17, and
22 19.

23 Q. What are the depths of those wells?

24 A. They -- you can find the information on Pages 35
25 through 48 of the C-108, but they range between 90 and 460

1 feet deep.

2 Q. Have you obtained water samples from some of
3 those wells?

4 A. Yes.

5 Q. Are the water samples included in the C-108?

6 A. Yes, they are. You can find the analysis of the
7 the wells on Pages 49 through 51 of the C-108, and they are
8 located between .4 and 1.3 miles from the proposed
9 injectors.

10 Q. In your opinion, will the proposed injection
11 threaten any sources of fresh water?

12 A. No.

13 Q. Ms. LaMarro, can you please look at the document
14 in front of you that's marked as Exhibit 7.

15 A. I don't have Exhibit 7 in front of me.

16 Q. You don't have it?

17 (Document to witness.)

18 Q. Can you please identify that document?

19 A. Yes. It's a certification that I have examined
20 geologic and engineering data and that I find no evidence of
21 open faults or any other hydrologic connection between the
22 injection zone and any underground sources of drinking
23 water.

24 Q. Thank you. In conclusion, Ms. LaMarro, in your
25 opinion is the granting of FAE II application in the

1 interest of conservation and protection of correlative
2 rights and prevention of waste?

3 A. Yes.

4 MS. HARDY: I move admission of Exhibit 7.

5 HEARING EXAMINER ORTH: Exhibit 7 is admitted.
6 (Exhibit 7 admitted.)

7 MS. HARDY: I have no further questions of Ms.
8 LaMarro.

9 HEARING EXAMINER ORTH: Mr. Coss?

10 EXAMINER COSS: Good morning, Ms. LaMarro. How
11 are you?

12 THE WITNESS: Good.

13 EXAMINER COSS: Thanks for joining us today and
14 providing these nice slides. I have a few questions for
15 you. Could you tell me what it is about the Seven Rivers
16 formation, what do you think that a depositional environment
17 of the Seven Rivers was in our -- would that environment --
18 I guess it suggested all of these sand bodies, you are
19 saying it's sandstone and they are all going to be connected
20 in the subsurface and flood well.

21 THE WITNESS: Yes. This particular location of
22 the Seven Rivers formation is sort of a back -- back reef,
23 interbedded dolomites and sandstones in the Delaware basin.

24 EXAMINER COSS: Okay. So these are back reef
25 sandstones then?

1 THE WITNESS: From what I understand.

2 EXAMINER COSS: Okay. And I see here you hung
3 your cross section on the top of the injection interval.
4 How different does the cross section look if you hung it on
5 the surface?

6 THE WITNESS: I have that for you if you would
7 like to see it.

8 (Document to examiners.)

9 THE WITNESS: So the north-south -- this should
10 be the north-south cross section. I don't know how --

11 EXAMINER COSS: Okay.

12 THE WITNESS: So the north-south cross section
13 doesn't look incredibly different. This would be the top of
14 the Seven Rivers here, this blue line. And this darker blue
15 line is the top of our main injection interval, and this
16 would be the base of our main injection interval. So north
17 to south the structure is pretty flat. I don't know if
18 that's the question you are asking.

19 EXAMINER COSS: That is -- I guess that's the
20 question I'm getting at. And whether or not you all are
21 concerned about the sand bodies connecting across the field
22 that you are trying to flood.

23 THE WITNESS: Well, as far as the ones within the
24 injection interval?

25 EXAMINER COSS: Yeah, and outside. I see there

1 is long -- what are the long pink?

2 THE WITNESS: So those are gross perf intervals
3 that were reported to the OCD and input into the well -- the
4 project.

5 EXAMINER COSS: So I suppose my question would
6 be, how do -- these perms don't all seem to line up. Are we
7 worried about injection into one well -- how -- are we
8 going to be assured that it's going to stay in the
9 particular perf zone that we are interested in?

10 THE WITNESS: That might be a better question for
11 the engineer. I know that in the past -- in the past we
12 have added perms to make sure that they all from the same
13 interval, but I think Huxley may be addressing some of those
14 things.

15 EXAMINER COSS: Okay. Well, I will ask Huxley
16 that same question then. And he will have an answer for me
17 then. And the other question would be, so you mentioned you
18 have good porosity zones. What -- what kind of levels of
19 porosity are we talking about?

20 THE WITNESS: Above ten percent is what we
21 consider pay. And it ranges like an average of about 15
22 percent or so in the zones that we would be flooding.

23 EXAMINER COSS: Okay. And the permeabilities
24 are?

25 THE WITNESS: Generally between 1 and 10.

1 EXAMINER COSS: Millidarcies or darcies?

2 THE WITNESS: Darcies -- I'm not sure. Sorry.

3 EXAMINER COSS: I think I have two more questions
4 all of a sudden. Will you provide the Division these maps
5 you just showed us today?

6 HEARING EXAMINER ORTH: Will they be submitted to
7 supplement?

8 THE WITNESS: I can send PDF copies when I return
9 to the office, or if you want to keep those.

10 EXAMINER COSS: Send bigger PDF copies.

11 HEARING EXAMINER ORTH: How will we mark this?
12 How would you like to call -- what would you like to call
13 this first one?

14 MS. HARDY: I think we can mark them Exhibits 8
15 and 9.

16 HEARING EXAMINER ORTH: There is an 8 already.

17 MS. HARDY: Oh, you're correct. It would be 9
18 and 10.

19 HEARING EXAMINER ORTH: And if you would describe
20 them one more time, Ms. LaMarro. How would you describe 9?

21 THE WITNESS: Is that the longer one?

22 HEARING EXAMINER ORTH: Yeah.

23 THE WITNESS: The east-west would be hung on
24 the -- hung on surface and it, I guess, generally shows that
25 the structure generally grades updip from west to east. And

1 it, I guess, zooms in on the Lower Yates to the Upper Queen
2 formation.

3 HEARING EXAMINER ORTH: Thank you. And how would
4 you describe 10?

5 THE WITNESS: Similar north-south cross section,
6 zoomed in on the Lower Yates to the Upper Queen showing
7 generally flat structure but hung on surface.

8 HEARING EXAMINER ORTH: All right. Thank you.
9 Mr. Coss, if you would like to finish your questions, I will
10 admit Exhibits 9 and 10. Please go ahead.

11 (Exhibits 9 and 10 admitted.)

12 EXAMINER COSS: Okay, sure. And in the adjacent
13 areas -- what is -- are other people in the area targeting
14 this Seven Rivers formation, the same interval?

15 THE WITNESS: Yes. There is production from the
16 Yates, the Seven Rivers and the Queen and surrounding areas.

17 EXAMINER COSS: And so it might not have been
18 your analysis, but do you know how many wells penetrate this
19 particular interval in that half mile?

20 THE WITNESS: I -- within the half mile --

21 EXAMINER COSS: Of each well, that will be a
22 subsequent question here, make sure that's included.

23 THE WITNESS: Okay. Nearly all. There are a few
24 wells that stop in the upper Seven Rivers or the Yates,
25 but --

1 EXAMINER COSS: Okay. And none of this -- where
2 are we in relation to the kind of Central Basin platform
3 structure? You don't see evidence for any faulting in
4 the --

5 THE WITNESS: No.

6 EXAMINER COSS: -- in the area?

7 THE WITNESS: No, not within our project area.

8 EXAMINER COSS: Okay. Well, that sums up all of
9 my questions. So thank you.

10 HEARING EXAMINER ORTH: All right. Ms. Murphy?

11 EXAMINER MURPHY: Welcome, Ms. LaMorra. My
12 question is, how do you know that the injected water will be
13 contained laterally?

14 THE WITNESS: Laterally?

15 EXAMINER MURPHY: yes.

16 THE WITNESS: We plan on producing -- I know
17 that Hux -- well, the engineer will speak to this in a
18 further part of the hearing here, but I know that we will be
19 producing -- we plan on new drill producers around where we
20 are going to have the new injectors, so they will be
21 containing any lateral water, but he might be able to
22 explain that better than me.

23 EXAMINER MURPHY: So the, the lithology is
24 sandstone? It's not an algal mound?

25 THE WITNESS: No.

1 EXAMINER MURPHY: And I don't -- I have
2 confusion here because I also wrote one at the same time as
3 another one. Another unit of waterflood unit, and it was a
4 algal mound, and so it was contained laterally.

5 THE WITNESS: I don't think it was --

6 EXAMINER MURPHY: Yours?

7 THE WITNESS: -- an algal mound.

8 EXAMINER MURPHY: Another one was algal mound.
9 Another one, I have it written, was an algal mound. And
10 that's why I'm wondering, because we do have a case where
11 there is a waterflood unit and wells outside. You have
12 water coming up to the, up to them and it's -- we believe
13 it's from the waterflood unit. So I see it's contained on
14 the top and bottom, but I'm a little -- I'm wondering how
15 it's contained laterally in that entire section.

16 THE WITNESS: Well, I know as you go updip sort
17 of away from the basin, eventually you get a facies change
18 from interbedded dolomites and sandstone to more of a, sort
19 of all anhydrite for the most part way updip. And as you go
20 downdip towards the basin, the facies changes into the
21 Capitan Reef system. So it's way far from where we are. I
22 know we will be producing wells around all the injectors, so
23 that's the only -- Huxley will be a better.

24 EXAMINER MURPHY: All righty. Thank you.

25 HEARING EXAMINER ORTH: Mr. Goetze?

1 EXAMINER GOETZE: I have only one request and
2 Exhibit -- we will call it Exhibit 11.

3 It is typical when we split an application for a
4 waterflood unitization that we have a description that is
5 accurate.

6 Now, on your presentation I believe it's Slide 8,
7 we have a reference to Arnott Ramsay NCT-B 5 well, what we
8 will need for you is to give us the specific log and date of
9 that log interval and that becomes your type section. From
10 there we make correlations away, and that's how we describe
11 the unitized interval for the order.

12 So select wisely, and provide that as to what we
13 will reference in that order. Typically we would see this
14 if you were having a BLM fed or state unit agreement
15 unitizing interval described, so I would suggest and
16 recommend strongly that you submit that and so that we have
17 clarity when we write the orders.

18 MS. HARDY: We will do that.

19 EXAMINER GOETZE: Other than that, I have no
20 other questions for this witness.

21 HEARING EXAMINER ORTH: Any follow up?

22 MS. HARDY: I have no follow up.

23 HEARING EXAMINER ORTH: Thank you very much, Ms.
24 LaMarro.

25 MS. HARDY: The next witness is Mr. Huxley Song.

1 HEARING EXAMINER ORTH: Would you raise your
2 right hand. Do you swear or affirm that the testimony you
3 are about to give will be the truth, the whole truth, and,
4 nothing but the truth?

5 THE WITNESS: I do.

6 HUXLEY SONG

7 (Sworn, testified as follows:)

8 DIRECT EXAMINATION

9 BY MS. HARDY:

10 Q. Mr. Song, can you please state your full name for
11 the record?

12 A. Huxley Song.

13 Q. How are you employed and in what position?

14 A. I'm employed by FAE II Operating, and I'm a
15 reservoir engineer by background and CEO of the company.

16 Q. Are you familiar with the engineering matters
17 that pertain to FAE's application?

18 A. Yes.

19 Q. Have you previously testified at a Division
20 hearing?

21 A. Yes.

22 Q. Were your qualifications as an expert in
23 petroleum engineering accepted by the Division?

24 A. Yes.

25 MS. HARDY: Examiners, I tender Mr. Song as an

1 expert in petroleum engineering.

2 HEARING EXAMINER ORTH: Any questions about
3 Mr. Song's qualification?

4 (No audible response.)

5 HEARING EXAMINER ORTH: No? All right. He is so
6 recognized.

7 BY MS. HARDY:

8 Q. Mr. Song, let's talk about the proposed injection
9 operation. Were you involved in preparing the C-108 which
10 has been marked as Exhibit 4?

11 A. Yes.

12 Q. And what injection wells is FAE II proposing in
13 this case?

14 A. We are proposing to convert the Arnott Ramsay
15 NCT-B Number 11 from a producer to an injector and proposing
16 drilling six new wells, which would be Arnott Ramsay NCT-B
17 14 through 19.

18 Q. And what is the injection intervals that you have
19 proposed?

20 A. The injection interval is the Seven Rivers
21 formation as we saw here on this type log, and we are
22 approximately at 3000 to 3400 TVD.

23 Q. And what is the proposed maximum rate of
24 injection?

25 A. We will probably, given the pressure constraints,

1 we will probably have a maximum injection pressure -- we
2 would be lucky to get 1000 barrels a day. On average we
3 would be under 500 barrels a day.

4 **Q. What's the proposed injection pressure?**

5 A. .2 psi per foot as the OCD rule for maximum
6 injection pressure, and we will be able to inject at that
7 rate initially. And over time as the reservoir builds
8 pressure, we will likely not be able to inject or at least
9 not inject very much, so then we will work with the OCD on
10 designing and executing step-rate tests to increase that
11 pressure.

12 **Q. Have you provided wellbore schematics for the**
13 **Arnott Ramsay NCT-B Number 11 which is the well to be**
14 **converted?**

15 A. Yes, we have. In Tab 4 or Exhibit 4, that
16 wellbore diagram is on Pages 2 and 3.

17 **Q. In your opinion, will that well be adequately**
18 **equipped for injection?**

19 A. Yes, it will be.

20 **Q. Have you provided wellbore schematics for the**
21 **proposed new injectors?**

22 A. We have.

23 **Q. And where are those located?**

24 A. Those, on same Exhibit 4, the C-108 application,
25 Pages 4 through 10.

1 Q. And is it your opinion that those wells will be
2 adequately equipped for injection?

3 A. They will be brand new wells, and they will
4 definitely be adequate for injection.

5 Q. Will you run MIT tests prior to commencing
6 injection?

7 A. We will.

8 Q. During injection will you monitor pressure?

9 A. We will.

10 Q. Okay. In your opinion will the construction of
11 the wells protect fresh water and other hydrocarbon bearing
12 zones during waterflood operations?

13 A. Absolutely.

14 Q. Let's look at other wells in the area of review.

15 A. Okay.

16 Q. Are those provided in a map that is on Page 11 of
17 the C-108?

18 A. Go to Page 11 -- yes.

19 Q. And does that map depict all wells within a half
20 mile of the proposed injector?

21 A. It does.

22 Q. And have you provided information regarding those
23 wells in the C-108?

24 A. We have, and those start on Page 12. And for
25 each existing active well, we have subsequent slides after

1 Page 12 showing the list of wells within half a mile, to
2 answer your question.

3 EXAMINER COSS: Perfect.

4 A. All listed out with API numbers, well names,
5 distances, everything.

6 Q. And those are on Pages 12 through --

7 A. I believe, 18.

8 Q. -- 18?

9 A. Yes.

10 Q. Are there any active wells in the project area
11 other than FAE II?

12 A. There are not.

13 Q. Are there plugged wells within the project area?

14 A. Yes.

15 Q. Have you provided the wellbore schematics for the
16 plugged wells?

17 A. Yes. So in Exhibit 4, the C-108 application, the
18 plugged wells will be on Pages 19 through 32. So the
19 plugged wellbore diagrams, all of them will be within Pages
20 19 to 32.

21 Q. Will any remedial work be required in advance of
22 waterflood operations to protect other zones?

23 A. No.

24 Q. Let's talk about water compatibility.

25 A. Okay.

1 **Q. What will the source of the injection fluid?**

2 A. The source of our supply water for our waterflood
3 will come from offsetting SWD wells from which we have taken
4 water samples and compared them against our connate
5 formation water, and that analysis is provided in Exhibit 8.
6 So that is water analysis from our chemical company, and
7 that shows the waters to be pretty similar in salinity and
8 total dissolved solids.

9 **Q. And is Exhibit 8 a true and correct copy of the**
10 **report?**

11 A. It is.

12 **Q. And can you summarize generally what the report**
13 **shows?**

14 A. Yeah. Again, just very similar waters and
15 salinity and total dissolved solids.

16 **Q. Do you expect there to be any unusual issues with**
17 **compatibility?**

18 A. No.

19 **Q. Let's talk about the waterflood response**
20 **analysis. Look at Slide 14 of the presentation. Have you**
21 **analyzed the production history and development plan for the**
22 **waterflood project?**

23 A. We have.

24 **Q. Is it your opinion that the proposed project is a**
25 **good candidate for waterflood?**

1 A. Yes.

2 **Q. Can you please summarize the production history?**

3 A. Sure. So this field was initially developed
4 around 1980, as you see on the production graph here. At
5 peak, initially the field reached about 100 barrels a day
6 from five or six wells, and then over time there was another
7 handful of wells drilled.

8 Kind of over the last 35 there have been eight to
9 nine active wells within the section, and the primary EUR
10 for the section is about 800,000 barrels of oil.

11 **Q. Can you please explain what's shown on the oil**
12 **EUR map with development?**

13 A. Sure. That's the map on the right, and there's a
14 color key legend for the primary EUR, so you can read off
15 the legend. A lot of those colors are orange, which would
16 be in the 80 to 100,000 barrel range, and then a little bit
17 of bearing, you know, green, blue, red, on either side of
18 that 80 to 100,000 barrels.

19 **Q. Let's look at the next slide, the Capital**
20 **Summary. Can you please explain what's shown on that slide?**

21 A. Sure, this would be our first part of the project
22 where we would drill four producers, drill four new
23 injectors, convert the one well to NCT-B 11 to an injector,
24 do some artificial lift upgrade and tie into the offset SWD
25 well, and also some facilities work, and that will cost us

1 about \$7 million.

2 **Q. Look at the next slide. The Injector and Total**
3 **Project Reserves Summary, can you explain what the Phi-H map**
4 **shows?**

5 A. Sure. Yeah. It just shows that we are pretty
6 thick on porosity feet on the western half of the section,
7 which is where we propose the main part of our project.
8 Yeah. That's what the Phi-h map shows.

9 **Q. What does the injector summary show?**

10 A. Just the reserves for the project. I can just
11 give a quick overview. The oil in place is about 8.5
12 million barrels. As I mentioned, the primary EUR will be
13 800,000 barrels which leads to about a 9 or 10 percent
14 recovery factor. So we have significant oil in place
15 remaining to be extracted via other methods besides primary,
16 i.e., waterflooding.

17 So the project will carry about 300,000 barrels
18 of additional primary reserves from the producers that we
19 show on here that would be new drill producers. We look at
20 it base case and low end performance on waterflood, and at
21 the low end range we think we can recover about half a
22 million barrels of oil. And at the base case we recover
23 about 700,000 barrels. So if we talk about the base case
24 only, 300,000 barrels, plus 700,000 barrels so approximately
25 a million barrels for the entire project.

1 **Q. And what's the ratio of secondary recovery to**
2 **primary?**

3 A. So in the base case we expect about a 1.6 ratio.

4 **Q. Can you summarize your conclusion regarding the**
5 **estimated recovery?**

6 A. Yes. So we think we are going to recover about a
7 million barrels for about \$7 million, and that's a pretty
8 economic project.

9 **Q. Can you summarize the waterflood pattern and how**
10 **you intend to operate the waterflood project?**

11 A. Sure. We will develop this on 40 acre and at 20
12 acre well spacing. So we will essentially have four
13 producers surrounding each injector, so basically all the
14 injection will be contained within each pattern.

15 **Q. That was going to be -- can you describe the**
16 **lateral constraints on injection?**

17 A. Sure. As you see here, we have producers, maybe
18 just point to it with my good arm. So we have producers
19 here -- kind of hard to see in the green dot, but then we
20 have injectors surrounding on all sides by producers.

21 **Q. Is it your opinion those constraints will keep**
22 **the waterflood in place?**

23 A. It definitely will.

24 **Q. Will that increase the efficiency of the**
25 **operation?**

1 A. Yeah. They are needed to capture the reserves as
2 we stated here.

3 Q. Is it your opinion that converting to secondary
4 recovery waterflood operations at this time is not
5 premature?

6 A. Yes.

7 Q. And that the project area has been so depleted it
8 is prudent to apply secondary recovery techniques to
9 maximize the recovery of oil?

10 A. Yes.

11 Q. Look at the next slide, the economic analysis.
12 This also relates to the tax rate issue. Has FAE II
13 performed an economic analysis of the proposed project?

14 A. Yes, we have.

15 Q. Did the analysis consider the cost associated
16 with operating the project?

17 A. Yes.

18 Q. What does the analysis show?

19 A. So the analysis shows from an economic
20 standpoint -- so again, low case to base case, I have it in
21 the table there on the upper right-hand corner, in the one
22 S/P case, we think we will recover 7.4 -- we think we will
23 get a \$7.4 million PV-10. In other words, we spent our \$7
24 million, recover that, and in addition get another \$7
25 million discounted at 10 percent. In the base case, we

1 think we'll get about \$13 million of PV-10, and again
2 recover that 1 million barrels of gross oil.

3 Q. And does FAE II's application, which has been
4 marked as an Exhibit 1, contain information regarding the
5 economics of the project?

6 A. Yes.

7 Q. Is that information accurate, to the best of your
8 knowledge?

9 A. Yes.

10 Q. Do you incorporate that information into your
11 testimony today?

12 A. Yes.

13 Q. Based on your analysis, the estimate of costs and
14 the value of additional reserves, is it your opinion this
15 project will be economic?

16 A. Yes.

17 Q. In your opinion, will the value of the oil and
18 gas recovered through waterflood operations exceed the unit
19 cost plus a reasonable profit?

20 A. Yes, as shown on the table.

21 Q. Once you commence waterflood operations and
22 obtain a positive response, will you submit an application
23 to the Division indicating that you received a positive
24 production response in accordance with the Division's rules?

25 A. Yes.

1 Q. Will you also submit reports to the Division on
2 the waterflood operation and status on an annual basis?

3 A. Yes.

4 Q. Does FAE have experience operating other
5 waterflood projects in New Mexico?

6 A. We do.

7 Q. And which project is that?

8 A. It's the West Eumont Unit, which was approved by
9 the Division in 2018.

10 Q. Where is that project located?

11 A. So Jess' guess is probably my guess, it's on the
12 Central Basin platform, but in Central Lea County -- this
13 project is Southern Lea County, but it's probably 40 to 50
14 miles north.

15 Q. Has that project been economic?

16 A. It has.

17 Q. In conclusion, Mr. Song, is it your opinion that
18 at this time conversion to waterflood operations is
19 reasonable and necessary to substantially increase the
20 ultimate recovery of reserves within the area?

21 A. Yes.

22 Q. Is it your opinion that this project is
23 economically and technically feasible?

24 A. Yes.

25 Q. In your opinion is the granting of FAE II's

1 application in the interest of conservation, the prevention
2 of waste, and protection of correlative rights?

3 A. Yes.

4 MS. HARDY: Examiners, I move the admission of
5 Exhibit 8.

6 HEARING EXAMINER ORTH: Exhibit 8 is admitted.
7 (Exhibit 8 admitted.)

8 MS. HARDY: I have no further questions for
9 Mr. Song.

10 HEARING EXAMINER ORTH: Thank you.

11 Mr. Coss, do you have questions?

12 EXAMINER COSS: Yes. Good morning, Mr. Song.
13 Thank you for your testimony, been very informative. Okay.
14 So I guess one of my questions coming up here at the end is
15 kind of a time frame for, for how this will be laid out and
16 the time frame for the recovery.

17 THE WITNESS: Sure.

18 EXAMINER COSS: How long does recovering the one
19 million barrels of oil take?

20 THE WITNESS: So we will probably see initial
21 response within six months. And waterfloods are pretty
22 long-term projects, so two or three decades is not out of
23 line for total, you know, just kind of the end recovery
24 until you have to abandon the field.

25 EXAMINER COSS: I see.

1 THE WITNESS: So we will have higher rates -- so
2 this chart here this is actually the oil rate associated
3 with the secondary response of this project. So you can see
4 it ramping up here, later on here, and then going off to
5 2020 we are about 25 barrels a day -- I'm sorry -- 2040
6 where we are about 25 barrels a day in 2040, a couple of
7 decades. It's not rare for waterfloods to go 50 years.

8 EXAMINER COSS: And so did you run -- I imagine
9 the pressure in the reservoir kind of continued to increase
10 over that period of time, or it's balanced by, by what's
11 released by production.

12 THE WITNESS: Yeah, it will be balanced over
13 time. Initially as we fill up the reservoir, we will be
14 increasing the reservoir pressure, and then ultimately we
15 will have an injection to withdraw ratio of approximately
16 one, meaning each barrel that gets injected in the ground
17 will be produced by the offset producers, so the pressure
18 will be will be flat in the reservoir.

19 EXAMINER COSS: I guess that was one of the
20 reasons we evaluate all of the plugged and abandoned wells
21 in the area. I was wondering if had you done anything, when
22 the pressure is increasing, did you find any problems with
23 any of the wells in the area that might have been plugged
24 and abandoned poorly as possible conduits for some of this
25 injected water to percolate back into the surface of the

1 aquifers.

2 THE WITNESS: We found that we are recovering our
3 production so that injectors are perforated, and maybe back
4 to one of the questions you asked Jessica, our injectors are
5 perforated in the zones that are offset producing in the
6 adjacent producers that surround the injector. So we found
7 out we are basically getting production in our producers,
8 and no evidence of anything disturbing the plugged and
9 abandoned wells.

10 EXAMINER COSS: Okay, perfect. Where is all of
11 that water coming from that you are intending to use?

12 THE WITNESS: So the water will be coming from an
13 offset SWD that is adjacent to our section. And that SWD
14 takes produced water from different wells in the area, and
15 in aggregate that water composition is pretty similar to our
16 connate water composition.

17 EXAMINER COSS: Okay, perfect. And you made me
18 think about it on your kind of financial analysis here, too.
19 Is environmental remediation costs included in capital
20 expenditures?

21 THE WITNESS: It will be as needed. So the
22 capital that we outlined here is just the project, to get
23 the project up and running, and then initial injection
24 facility, flow lines and the wells. But as we abandon the
25 facility, whenever abandonment time comes, that cost isn't

1 included in here, but we will -- whoever operates the field
2 at that time --

3 EXAMINER COSS: Are there any active or open
4 spills or releases from this --

5 THE WITNESS: Active or open, I'm not sure. I
6 would have to go research that, I don't know that off the
7 top of my head.

8 EXAMINER COSS: Okay. Could you provide that
9 analysis to us?

10 THE WITNESS: Sure.

11 EXAMINER COSS: We will be looking for that as an
12 exhibit. Do we call it an exhibit?

13 HEARING EXAMINER ORTH: You can call it 12 if you
14 would like. Mr. Goetze has already identified 11.

15 (Exhibit 12 marked.)

16 THE WITNESS: So --

17 EXAMINER COSS: Open releases on the property.

18 THE WITNESS: Open releases on the properties,
19 sure, we will get that for you ASAP.

20 EXAMINER COSS: Perfect. Those are all my
21 questions.

22 HEARING EXAMINER ORTH: Thank you, Ms. Murphy?

23 EXAMINER MURPHY: Welcome, Mr. Song.

24 THE WITNESS: Thank you.

25 EXAMINER MURPHY: On Page 14 and 15 the EUR map

1 with the intervals, does that correlate on Page 15 with the
2 depth that you will be -- with the perf depth?

3 THE WITNESS: So the larger circles on this map
4 on 514 are the EURs that correspond to the legend on the
5 right-hand side. And then on 515, those are actually what
6 we call completion pie bubbles, so they actually represent
7 pretty detailed stratigraphy of what is open in each well.

8 EXAMINER MURPHY: So it corresponds where you
9 have an injector, you will have a producer in that area, in
10 that perfed area?

11 THE WITNESS: That's correct. That's correct.

12 EXAMINER MURPHY: And what are the black lines
13 across those, some of those?

14 THE WITNESS: Yeah. So the black lines across
15 those are plugged wells. So when you have a P and A'd well,
16 it will look a little this with a black dashed, that's a
17 well that's plugged, and this well would be still an active
18 well.

19 EXAMINER MURPHY: I have no more questions.

20 HEARING EXAMINER ORTH: Thank you. Mr. Goetze?

21 EXAMINER GOETZE: Good morning.

22 THE WITNESS: Good morning. Nice to see you
23 again.

24 EXAMINER GOETZE: Nice to see you again. I have
25 an issue with one of the AOR wells, and in your presentation

1 I believe it's Slide 16. We have a purple well up in the
2 northwest.

3 THE WITNESS: Yes, sir.

4 EXAMINER GOETZE: Is that the Arnott Ramsay NCT-B
5 Number 4?

6 THE WITNESS: It is.

7 EXAMINER GOETZE: Okay. So this was originally a
8 saltwater disposal well, and it has lost its injection
9 authority as best we can see. A bridge plug was placed in
10 there in 2018 as a result of a failed MIT. So in general,
11 what are your plans for this well?

12 THE WITNESS: So we thought about -- and even in
13 in presentation we thought about plugging this well and
14 drilling a new producer. But as we looked at that, it would
15 be more economic for us to run a liner and convert that well
16 to a producer.

17 EXAMINER GOETZE: So in 2008 we had a show of oil
18 up to surface casing so we've got communication. It's
19 some -- it's a well I would rather get rid of and not have
20 alive. If we were to work on some sort of agreement -- I
21 don't know if you are going to be able to shoot casing in
22 this well and seal off what you need to to make sure there
23 is no vertical migration.

24 THE WITNESS: Sure, yeah.

25 EXAMINER GOETZE: Running a liner is great, but

1 it doesn't solve the issues for the angular spacing casing
2 to the formation. Is it that much of an advantage to hold
3 onto this well? And if you were to rehab and fail and we
4 get something in the Braden Head during the inspection, at
5 that point we would tell you to go and ahead and P and A it.

6 THE WITNESS: Yeah, I think both are options, and
7 we actually considered plugging and drilling a new well, but
8 as we looked at it more, we thought it was also an option to
9 run a liner. So we have both options in mind, so we can
10 work with you on how we best approach that one specific
11 well.

12 EXAMINER GOETZE: Given the success and
13 considering the history of this well, I would strongly
14 recommend to that we plug and abandon and get yourself a
15 well that's reliable and one less thing for us to it have to
16 look at.

17 THE WITNESS: Okay.

18 EXAMINER GOETZE: Your previous operator was
19 reporting injection throughout the 17 months after the
20 bridge plug was put in. So for us on this side of the
21 conversion factor, when we report to the EPA, this is
22 something that we would just rather you have a new wellbore.

23 THE WITNESS: Yeah, sure. We haven't actually
24 filed any production because the acquisition is --

25 EXAMINER GOETZE: It just came up, and the more

1 we dug into it -- and it's not yours -- I would suggest you
2 do more due diligence because when you get SWDs, because the
3 other SWD that came in from Intervest has the same number
4 over and over again with no pressure, so that would raise a
5 red flag in my world. But I would make a recommendation
6 that we are going to plug this one and you get yourself a
7 new well that will make this process work better. Okay?

8 THE WITNESS: Okay.

9 EXAMINER GOETZE: Other than that, I would
10 reinforce, so -- so your pattern of producers are such that
11 you won't have impact on correlative rights to the north and
12 south?

13 THE WITNESS: Absolutely.

14 EXAMINER GOETZE: That's part of your plan, you
15 are going to adjust accordingly?

16 THE WITNESS: Absolutely.

17 EXAMINER GOETZE: No more questions. Thank you.

18 HEARING EXAMINER ORTH: Thank you. Any follow
19 up?

20 MS. HARDY: No follow up.

21 HEARING EXAMINER ORTH: Thank you very much,
22 Mr. Song.

23 MS. HARDY: I would ask that the case be taken
24 under advisement.

25 HEARING EXAMINER ORTH: It would just ask the

1 case be taken under advisement. Thank you.

2 MS. HARDY: It will be. Thank you.

3 (Taken under advisement.)

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1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

3

4 REPORTER'S CERTIFICATE

5

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

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

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

19 Dated this 5th day of March 2020.

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

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