BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the Application of
Quail Oil & Gas, LC, to authorize
injection of saltwater into the
Arbuckle formation at the Sly 2-6 SWD
well located Section 6, Township 17S,
Range 6E in Morris County, Kansas.

Docket No. 17-CONS-3484
-CUIC
License No. 33185

TRANSCRIPT
OF
EVIDENTIARY HEARING

held on the 16th day of August, 2017, beginning at
9:00 o'clock AM at the Kansas Corporation Commission,
1500 Southwest Arrowhead Road, Topeka, Shawnee County,
Kansas, before Chairman Pat Apple, Commissioner Shari
Feist Albrecht and Commissioner Jay Scott Emler.
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COMMISSIONER FEIST ALBRECHT: Welcome to the Kansas Corporation Commission. I call to order the hearing in the matter of the Application of Quail Oil & Gas, LC, to authorize injection of saltwater into the Arbuckle formation at the Sly 2–6 saltwater disposal well located in Section 6, Township 17 South, Range 6E in Morris County, Kansas, Docket No. 17-CONS-3484-CUIC, License No. 33185. May I have the appearances of counsel, please.

MR. VINCZE: Robert Vincze for Quail Oil Company.

MR. EYE: Good morning. For the Protestants, Robert Eye.

MR. MYERS: Jon Myers on behalf of Commission Staff and the public.

COMMISSIONER FEIST ALBRECHT: Does Staff have a recommendation regarding notice?

MR. MYERS: Yes. Staff has examined notice and believe it would be appropriate to hear this matter at this time and place.

COMMISSIONER FEIST ALBRECHT: Are there any objections to the finding the Commission has jurisdiction to hear this matter at this time and place? Hearing none, the Commission will so find. Are there any preliminary matters that the parties
wish to take up?

MR. EYE: I do have some.

COMMISSIONER FEIST ALBRECHT: Please proceed.

MR. EYE: Thank you. I would like to move that the Commission take administrative notice of two orders and some testimony. The two orders come from the same docket and that's 15-CONS-770-CMSC, and the first order is from March of 2015, March 19, 2015, and I will circulate that. May I approach?

COMMISSIONER FEIST ALBRECHT: You may.

MR. EYE: I would also ask the Commission to take administrative notice of the order in the same docket that was entered on the record on August 9, 2016. I will circulate that order.

COMMISSIONER FEIST ALBRECHT: Thank you.

MR. EYE: And I would ask the Commission to take administrative notice of testimony from Rex Buchanan who was at the time the Interim Director of the Kansas Geological Survey. This is testimony that he provided to the House Standing Committee on Energy and Environment on January 20th, 2016, and I will circulate that. Thank you.

COMMISSIONER FEIST ALBRECHT: Does that conclude your preliminary matters?
MR. EYE: It does.

COMMISSIONER FEIST ALBRECHT: Are there any objections to the Commission taking administrative notice of either of the orders in Docket No. 15-CONS-770-CMSC or to the testimony Rex Buchanan offered to the House Standing Committee on Energy and Environment on January 20, 2016?

MR. VINCZE: Honorable Commissioners, I have no objection to the admission or having that on the administrative record the first and second orders because they are part of what we are doing. They are here and present. I do object to the testimony of Rex Buchanan, Interim Director, and I think that falls in the same category as comments that were not properly submitted within 30 days of the Application date so that they would be barred, but they could be part of the collateral record just as are other testimony from legislators on both sides of this issue.

COMMISSIONER FEIST ALBRECHT: Does Staff wish to be heard?

MR. MYERS: Well, Staff is not entirely sure of the relevance to this particular Application of the saltwater injection orders but doesn't really have any objection to them being added into the record. As for the testimony, I am still reviewing
it. Staff would share Mr. Vincze's comments.

MR. EYE: May I be heard?

COMMISSIONER FEIST ALBRECHT: Yes.

MR. EYE: The testimony in question was pulled off the Commission's website. One of the requirements for administrative notice is that something be easily verifiable. And when I noticed that this was part of the KCC's website and presentation it seemed to me that it had already been thoroughly vetted by the Commission before it had been posted on its website. The purpose of the testimony is to further strengthen the relationship in the administrative and regulatory sense of the presence of UI wells and induced seismicity that was really the underlying purpose of the two orders that I just asked administrative notice be taken and this dovetails with that, this being the testimony from Mr. Buchanan, so I think that it's to the point -- to the extent that the Commission is able to draw the relationship between induced seismicity and UI wells, this testimony is consistent with that conclusion. Thank you.

MR. VINCZE: May I?

COMMISSIONER FEIST ALBRECHT: You may.

MR. VINCZE: I must object just based on
the fact that they had the opportunity to submit this
kind of information with their direct prefilled
testimony, with their rebuttal testimony and they had
an opportunity for the Protestants to put this
information in the formal record within 30 days after
the Application was filed, and they did not do so. We
can move for a voluminous amount of information that
has been submitted to the Commissioners regarding this
Application that has been put in a different category
that will not be part of the formal administrative
record for this case, and I think it's proper for
that. The distinction I made to the first and second
orders is it's something that's prescient, and if you
were in a court of law you would take judicial notice
of those orders because that is part of your
regulatory scheme relating to induced seismicity, one
of the issues in this case, but I must object to the
testimony. Thank you.

(THEREUPON, the Commission
confers off the record.)

COMMISSIONER FEIST ALBRECHT: The
Commission will take administrative notice of both of
the orders in Docket No. 15-CONS-770-CMSC. We will
also take administrative notice of the testimony that
has been presented, Rex Buchanan's testimony that was
presented to the House Standing Committee on Energy and Environment on January 20th of 2016. With regard to the latter piece of testimony, Mr. Buchanan isn't here. This testimony was offered in a legislative proceeding. It is not subject to any cross examination here. It will be given the weight that the Commission deems appropriate. With that, are there any other preliminary matters?

MR. MYERS: None from Staff.

COMMISSIONER FEIST ALBRECHT: You may call your first witness. Oh, opening statements. I'm sorry. Are there opening statements?

MR. VINCZE: Yes.

COMMISSIONER FEIST ALBRECHT: I apologize. You may proceed.

MR. VINCZE: Robert Vincze representing Quail Oil & Gas, LC. Honorable Commissioners, distinguished elected officials, Commission Staff, citizens, I respectfully request approval of the Application of Quail Oil & Gas, LC, to authorize injection of saltwater into the Arbuckle formation as a Sly 2-6 saltwater disposal well. Regarding the Application of Quail Oil, as shown by the facts set forth in the prefiling testimony, there is no, quote, immediate danger to the public health, safety or
welfare requiring immediate state action, end quote, pursuant to Kansas statute 77-536(a). In addition, the facts do not show, quote, that damage may result if immediate remedial action is not taken, end quote pursuant to Kansas statute 55-162(b). The maximum injection rate of 5,000 barrels per day in the subject Sly 2-6 saltwater disposal well application is markedly below the maximum saltwater injection rate of 16,000 barrels per well per day within the 2016 specified area but outside the 2015 specified area under the second order reducing saltwater injection rates, KCC Docket 15-CONS-770-CMSC which you just placed on the record. It's also below the maximum saltwater injection rate of 8,000 barrels per well per day specified in the first order reducing saltwater injection rates entered on March 19, 2015. Under the second order at a maximum injection rate of 5,000 barrels per day into the Arbuckle formation, the Sly 2-6 is not a large volume injection well. Moreover, as stipulated by Quail, the maximum injection pressure of 500 psi for the Sly 2-6 saltwater disposal well complies with the maximum injection pressure specified in the first order reducing saltwater injection rates, even though the Sly 2-6 well is not located in the 2015 specified areas, basically Sumner and Harper
Counties or the 2016 specified area. Of course, Morris County is not included in such areas. Furthermore, the March 31st, 2017, Report and Recommendation of Staff recommended, quote, keeping the current boundaries of the 2016 specified areas, end quote. The Sly 2-6 saltwater disposal well is not located in such areas and Staff did not recommend enlarging such areas. The Applicant has made proper notice of the Application and of this hearing. The Application should be approved based on the permitting factors in Kansas Regulation 82-3-403. One, the maximum injection rate is 500 psi as would apply if the saltwater disposal well was located in the specified areas, even though it is not. Two, the Arbuckle formation has good permeability which makes it an ideal formation to dispose of water in a vacuum. Our geologist has testified to that fact. Three, the chlorides in the saltwater that need to be disposed are approximately 5,000 ppm, very low for produced saltwater. Four, fluids introduced into the proposed injection zone will be confined to that zone as the testimony of Lee Shobe on behalf of Quail shows. The depth of any fresh or usable water within a quarter mile of the proposed injection well is 120 feet from the surface. Usable water formations may exist at
approximately 200 feet below ground surface. Saltwater will be injected at a depth of 2,710 to 2,730 feet. There is more than a thousand feet of impermeable rock between the Lansing formation and the top of the Arbuckle formation. Five, injection will not affect correlative rights of others in the Camp Creek field or any other producing wells within a quarter mile radius of the proposed Sly 2-6 saltwater disposal well. The only wells within such radius are those by Quail, the Sly 1-6 and Sager 1-6. Lastly, approval of the Application for the Sly 2-6 saltwater disposal well will prevent waste by disposing of produced water from the Sager 1-6, Sly 1-6 oil wells at a lower expense than having to haul water by truck from these wells. Having a disposal well will make these oil wells more economic and will extend their production. Thank you for your consideration.

COMMISSIONER FEIST ALBRECHT: Thank you. Mr. Eye.

MR. EYE: Thank you. May it please the Commission, oil and gas development in Kansas and elsewhere has entered a phase that requires a consideration of the effects of UI wells, underground injection wells, on seismic vulnerable -- seismically vulnerable areas. The Commission's orders in
15–CONS–770–CMSC of March 19, 2015, and August 9, 2016, have been admitted into evidence related to the UI wells in Sumner and Harper Counties, but that recognized a relationship between UI wells and induced seismicity. The Protestants in this docket ask that this relationship be again recognized related to the UI application from Quail. However, rather than wait for the induced earthquakes to occur, these Protestants urge that the Commission apply the statutory authority it has under K.S.A. 77–536 Subsection (b) to prevent earthquakes caused by this UI well and avoid the attendant harms. Protestants make this plea based on the analysis of the pertinent geology in the area around the proposed UI well. The geological characteristics of this area are dominated by a series of faults including the Humboldt Fault that is related to the largest earthquake in Kansas history that occurred in the Manhattan–Wamego area in 1867. The entire area of this proposed UI well is riddled with faults as discussed in greater detail by Dr. James Aber in his testimony on behalf of the Protestants. In this docket, only Dr. Aber, Protestants' expert, has characterized the relative substrata for purposes of determining its seismic suitability for a UI well. Dr. Aber's conclusion that
the area is bounded by faults characterized by faults combined with the recognized propensity of UI fluids to lubricate these faults and cause movement and earthquakes make the proposed UI site particularly unsuitable because of this geological vulnerability to induced seismicity. There is no evidence in this docket that proves otherwise. The frequency of earthquakes in Kansas has significantly increased since around 2013, and while these earthquakes have been generally North Central Oklahoma, South Central Kansas, effects are, of course, felt in other areas. The relationship between UI wells and increased seismicity has been established and recognized by this Commission in the orders that we mentioned earlier and by the Kansas Geological Survey and the United States Geological Survey through their scientific work on this issue. This awareness of the relationship between UI wells and induced seismicity compels a detailed examination of the geological characteristics that the proposed UI well will encounter. The rapid increase in earthquakes in North Central Oklahoma and South Central Kansas and a regulatory response thereto no longer allow an assumption that all substrata are suitable for UI wells. Certainly the nature and extent of faults in the area of this proposed well
suggests a cautious regulatory approach. As Dr. Aber explains in his testimony, the injected fluids have the effect of lubricating the faults and reduce the stress required to induce movement of faults that cause earthquakes. This docket is about the proverbial admonition about prevention is — an ounce of prevention is worth a pound of cure. Accordingly, the Protestants urge this Commission to invoke its powers under 77-536(b) and find that the proposed use of the well presents — represents an imminent threat to the public and find that damage may result from induced seismicity and prohibit use of this well. The evidence in this docket justifies this proposed regulatory response. Thank you.

COMMISSIONER FEIST ALBRECHT: Commission Staff?

MR. MYERS: Briefly. Commissioners, this Application complies with all Commission regulations — it complies with all Commission regulations and based upon what is currently present in the record, Staff recommends approval of this Application. Thank you.

COMMISSIONER FEIST ALBRECHT: Thank you. So that completes opening statements. Now, I believe it is time for you to call your first witness.
MR. VINCZE: I call Wray Valentine on behalf of Quail Oil & Gas, LC.

WRAY VALENTINE
called as a witness on behalf of the Applicant, having been duly sworn on his oath by the reporter, testifies as follows:

DIRECT EXAMINATION

BY MR. VINCZE:

Q. Mr. Valentine, could you state your full name for the record?

A. Wray Lee Valentine.

Q. And what is your current position?

A. I am the manager at Quail Oil & Gas.

Q. And how many -- if you could, summarize your work experience just briefly.

A. I've worked in oil fields all my life. My father was an oil field worker, worked during high school, served the company that he had and went to Oklahoma State, got a degree in petroleum energy, worked for Schlumberger for about 5 years and then I came back to Kansas and worked for a drilling company called Cheyenne Drilling until 2005, and then in 2006 I went out on my own and started buying and exploring for oil and gas for Quail Oil & Gas.

Q. Is the prefiled testimony that you submitted
and that you have a copy of before you and has also
been submitted to the court reporter, is that a true
and accurate representation of your testimony?

A. Yes, sir.

Q. You also submitted prefilled rebuttal
testimony on behalf of Quail Oil that has also been
submitted to the Commission and to the court reporter
and you have a copy of that before you. Is that still
ture and correct to the best of your knowledge?

A. Yes, sir.

MR. VINCZE: I have no further
questions.

COMMISSIONER FEIST ALBRECHT: Do you
wish to have the testimony spread upon the record in
this matter?

MR. VINCZE: Yes, I do.

COMMISSIONER FEIST ALBRECHT: Is there
any objection to the admission into this record to
either -- of either the prefilled testimony or the
rebuttal testimony of Mr. Wray Valentine? Hearing
none, it will be so admitted.

MR. VINCZE: Thank you.

COMMISSIONER FEIST ALBRECHT: Are you
tendering the witness now for cross examination?

MR. VINCZE: Yes.
COMMISSIONER FEIST ALBRECHT: Mr. Eye.

CROSS EXAMINATION

BY MR. EYE:

Q. Mr. Valentine, are you -- have you read the testimony of James Aber?

A. Yes, sir.

Q. Now, he identifies a well -- identifies a proposed well as being located over a buried basement uplift known as the Nemaha Ridge. You don't call that out -- that geologic feature out in your testimony, do you?

A. No, sir. I am not a geologist.

Q. Dr. Aber also identifies the Humboldt Fault zone. You don't call that out either, do you?

A. No, sir.

Q. Dr. Aber describes the fault zones that are present in the substrata under the UI well that you are proposing to use. You didn't identify any of those fault zones, did you?

A. No, sir.

Q. Dr. Aber describes the relationship between the Nemaha Ridge and Humboldt Fault zones. Do you remember that testimony?

A. Yes, sir.

Q. Your testimony does not discuss that
relationship, correct?

A. Yes. It does not.

Q. Do you agree that the largest earthquake in history in Kansas took place along the Humboldt Fault zone as discussed by Dr. Aber?

A. I am not familiar with that.

Q. Dr. Aber identifies and discusses the Bourbon Arch faults that cross cut the Nemaha and Humboldt ridge that are in the area of the proposed UI. Your testimony does not consider the presence or geological significance of the relationship between the Bourbon Arch faults?

MR. VINCZE: I object to the form of the question. I think if you are referring to the specific testimony of Dr. Aber, then perhaps you would allow my witness to look at that or point him in that direction. Otherwise, you are making, you know, statements from the record he doesn't have an opportunity to review and admitting something that's in the record that has not yet been admitted formally in the record.

MR. EYE: Two points. One, the witness admitted that he had read Dr. Aber's testimony. Two, this is cross examination and the function of cross examination is to get the witness to agree or disagree
with the points that are being offered and I think
that's exactly what I'm doing here.

COMMISSIONER FEIST ALBRECHT: I will
allow you to proceed.

MR. EYE: Thank you.

Q. (BY MR. EYE) Your testimony does not
consider the geological -- the presence or geological
significance of the relationship between the Bourbon
Arch faults that cross cut the Nemaha-Humboldt ridge
and the proposed UI well, correct?

A. Correct.

Q. Now, you don't have a basis that's been
articulated in your testimony to contest Dr. Aber's
findings that the area of the proposed UI well is
riddled with faults, correct?

A. Correct.

Q. Nor do you have a basis to contest that
these faults offset basement rock and project upward
through sedimentary layers, correct?

A. The testimony that was or the information
that was given by the doctor is very general and it is
hard to relate what he was specifying to the area we
are at because he was talking about tens of miles
instead of a smaller area.

Q. My question was whether you have any basis
to contest Dr. Aber's testimony that these faults
offset basement rock and project upward through
sedimentary layers.

A. I do not. I am not an expert in that.

Q. Now, this well is in the area of Diamond
Creek, correct?

A. Correct.

Q. Dr. Aber finds that some faults were
disposed at the surface in the area of the Diamond
Creek near the UI site, correct?

A. I don't recall that.

Q. Well, on the assumption that he does make
that assertion, you don't have a basis to contest
that, do you?

A. I do not.

Q. Dr. Aber finds that basement rock faults are
tectonic scars that may be reactivated by human
activities or tectonic stress and cause faults to slip
with corresponding seismic activity. Do you have a
basis to contend that assertion by Dr. Aber?

A. No. Again, I am not a geologist.

Q. The United States Geological Survey has
reported that recent increases in earthquakes since
around 2013 is primarily attributed to disposal of
waste water. Do you have a basis to disagree with
that?

A. In what area?

Q. In the area of South Central Kansas and North Central Oklahoma.

A. But not pertaining to our area.

Q. My question is: The United States Geological Survey has reported that recent increases -- recent increase in earthquakes since about 2013 is primarily attributed to disposal of waste water. Do you have a basis to contest that?

A. Again, for what area?

Q. For any area.

A. I don't at the time.

Q. Do you have a basis to disagree with Dr. Aber about the relationship between waste water fluids and geologic faults that they effectively lubricate faults and can cause earthquakes? Do you have a basis to contest that?

A. It is a very general statement and it depends on the formation that the fluid is being put into.

Q. Do you have a basis to contest Dr. Aber's assertion?

A. In that generalized way, yes.

Q. And what is it?
A. It depends upon the formation that the fluid is being put into.

Q. But do you agree that these fluids can lubricate faults?

A. In certain instances, yes.

Q. The United States Geological Survey has found that earthquakes may be triggered as much as 10 miles or more from the location of a UI well. Do you have a basis to contest that finding by the USGS?

A. No, sir.

Q. Do you agree that prior to 2013 there was very little discernible seismic activity in North Central Oklahoma?

A. I didn't keep track of that before then.

Q. Same question for South Central Kansas.

A. I didn't keep track of earthquakes in that time period there.

Q. Have you followed the trend of increasing earthquakes in North Central Oklahoma or South Central Kansas?

A. To some extent.

Q. Now, the United States Geological Survey has reported that recent increases in earthquakes since about 2013 primarily are attributable to disposal of waste water. Did you discuss that in your testimony?
A. No, sir.

Q. So you don't have a basis to disagree with the USGS' finding in that regard, correct?

A. I have done some research on where earthquakes have been and in the area that we are, there have been no earthquakes and there have been injections for a very long period of time.

Q. Now, you are talking about the Morris County area, correct?

A. Yes, sir.

Q. Is it the case that most of the wells in that area are gravity fed injection wells?

A. I don't know that answer. Our well will be on a vacuum.

Q. Is it Quail's assertion that the Arbuckle formation is, generally speaking, a suitable geologic formation in which to inject waste water fluids?

A. Yes, sir.

Q. It's the case that the Arbuckle formation is also present in Harper and Sumner Counties, correct?

A. Yes, but it's a lot thicker in that area and most of the fluids that were injected in those areas were injected into the lower parts of the Arbuckle formation and under extremely high volumes.

Q. Have you made a study of the fault
structures that are associated with the Arbuckle
formation in the area of Harper and Sumner Counties?

A. No, sir.

Q. Now, when you say that there have been no
earthquakes in Morris County, are you differentiating
large earthquakes from microearthquakes?

A. I looked at the USGS website and went back
to 1950 and put in earthquakes with greater magnitude
than 2.0 and there have been no earthquakes.

Q. So my question would be -- well, so you
didn't consider earthquakes below a 2.0 magnitude,
correct?

A. In fact, I tried to put in lower than that.
If I remember right, they wouldn't take it, so I don't
know if they didn't -- if the USGS did just not put
them into their records or not. I do not know that.

Q. And you have made no independent
determination whether there has been an increase in
microearthquakes since the use of UI wells in Morris
County, correct?

A. From the USGS website there was none.

Q. And you have not done any independent
analysis of that question, correct?

A. I don't have the kind of equipment to do
that.
Q. So I think is it fair to say that there's no comparison between the faults that underlie the Arbuckle formation in Harper and Sumner Counties and the faults that underlie the proposed UI well in Morris County as presented by Quail, correct?

A. I am not a geologist so I can't answer that question.

MR. EYE: That concludes our cross examination. Thank you.

COMMISSIONER FEIST ALBRECHT: Staff, any questions?

MR. MYERS: Yes, if I may. Commissioner, should I stand at the podium or is it permissible to remain seated?

COMMISSIONER FEIST ALBRECHT: I think I would prefer if you would take the lectern, please.

MR. MYERS: Certainly.

CROSS EXAMINATION

BY MR. MYERS:

Q. Good morning, Mr. Valentine.

A. Good morning.

Q. The reason you have applied for this injection well is to inject fluids that are produced in Sager 1-6 and Sly 1-6. Is that correct?

A. Yes, sir.
Q. And are those wells currently producing?

A. No, sir.

Q. Do you know what they are capable of producing in terms of barrels of oil per day?

A. They both together could produce probably 10 to 15 barrels of oil per day.

Q. And how many barrels of saltwater do you anticipate that production would result in?

A. Approximately 300 barrels per day.

Q. Let me ask you this: Why is your Application for 5,000 barrels per day if the wells are only capable of 300 barrels per day?

A. If these wells are economical, we may extend the field and do more drilling and ultimately have more water production.

Q. You said that that's the case if these wells are economical. Are you saying you do not know whether these wells are economic at this present time?

A. They were not economical hauling the saltwater, the produced water off, but with the disposable, they should be economical depending upon oil prices.

Q. Right. Let's turn to that for just a moment. You said it was not economical to haul water. If these wells were producing presently, do you have
an estimate on the cost, the amount it would cost to haul the water?

A. It would be -- with wells producing, it would cost about $250 a day to haul the water.

Q. Turning back to the amount of fluid and the pressure that you requested in this Application, your request is for 500 psi of pressure going into this well. How much do you think is truly necessary in order to inject 300 barrels of saltwater per day?

A. The wells -- disposable well would be on a vacuum most certainly when we first start and it probably would be for many years.

Q. So you don't anticipate needing 500 psi for some time?

A. No, sir.

Q. Do you have any time frame on at what point you would start injecting anything more than a vacuum?

A. I do not.

MR. MYERS: Nothing further from Staff.

COMMISSIONER FEIST ALBRECHT:

Commissioners?

COMMISSIONER EMLER: No questions.

CHAIRMAN APPLE: So there is an option to haul the water?

MR. VALENTINE: It is uneconomical to
hall the water at these current oil prices.

    CHAIRMAN APPLE: But you do have someplace to dispose of it? If it was economical, you could haul the water somewhere? Where would you dispose of it I guess is what I'm asking.

    MR. VALENTINE: We use contract companies and I don't know where they dispose of the water at for sure, if they have their own disposal or a commercial disposal in the area. At some point it's going to another disposal well, though.

    CHAIRMAN APPLE: Thank you.

    COMMISSIONER FEIST ALBRECHT: How recently were your two producers drilled?

    MR. VALENTINE: If memory serves me, the Sager in 2014 or '15 and Sly in 2016.

    COMMISSIONER FEIST ALBRECHT: Did they produce at all?

    MR. VALENTINE: For a period of time. The Sly 1-6 has never produced.

    COMMISSIONER FEIST ALBRECHT: So the Application seeks to inject at a pressure of 500 pounds per square inch gauge which if the Commission were to grant that would authorize that from Day 1 of the permit being issued and effective, but if I understand what you just said, you intend to operate
them at vacuum initially and perhaps for some period of time. Is there a reason why the Application didn't pursue gravity initially and then wait until such time as you need pressure to add pressure?

MR. VALENTINE: I asked the KCC what is the maximum pressure I could ask for and that was the maximum so that is what I asked for. You know eventually that you will need some pressure, so --

COMMISSIONER FEIST ALBRECHT: And you know that because?

MR. VALENTINE: At some point, you will -- the formation will not take water very well depending upon damage or if it gets to a certain level it will need some help to overcome the formation pressure.

COMMISSIONER FEIST ALBRECHT: I have a question related to a response you made to Mr. Eye's cross examination. It may be more appropriate for your geologist witness. If it is, just let me know and I will save that question for later, but in a discussion about the Arbuckle, I believe you indicated that for Harper and Sumner Counties, the wells -- the injection wells that are injecting into that area are injecting at the lower part of the Arbuckle and with high volume. How is what you are proposing to do at
the Sly 2-6 different?

MR. VALENTINE: We only perforated the top 20 foot of the Arbuckle formation and that's the only area we are going to be disposing into and we only drilled, if memory serves me, about 50 or 70 foot into the Arbuckle.

COMMISSIONER FEIST ALBRECHT: Do you know what the extent or the depth -- the width of the Arbuckle section is? I mean, if you've drilled 70 feet into it, I mean, what's the full extent of that if you had chosen to drill all the way through it?

MR. VALENTINE: I am not sure on that.

COMMISSIONER FEIST ALBRECHT: Okay, so the depth into which you drilled into the Arbuckle does not come close to drilling all the way through the Arbuckle?

MR. VALENTINE: Not to my knowledge.

COMMISSIONER FEIST ALBRECHT: So that's probably something I will save that question for your geologist. Thank you.

COMMISSIONER EMLER: FM I may.

COMMISSIONER FEIST ALBRECHT: Yes.

COMMISSIONER EMLER: Your response I think to Commissioner Apple was that the wells were not currently economical because of the price of oil,
so, therefore, it wasn't economical to haul water and have others dispose of it somewhere. If the price of oil rises, when do these wells become economical?

MR. VALENTINE: I haven't done that math. I'm not for sure.

COMMISSIONER EMLER: All right. Assuming then the price of oil does rise and you determine that the wells are economical, would you then begin pumping them even though you had to truck water -- I'm sorry -- haul water?

MR. VALENTINE: It would depend if they were still there at that time. If I can't get the disposal well, I may end up having to close the wells because there are lease obligations I have to take care of.

COMMISSIONER EMLER: Well, again, assuming -- leave those factors out. Assuming that the wells become economical to pump based on price and you could begin pumping them, you would begin producing water and hauling it. Is that correct?

MR. VALENTINE: I would, yes.

COMMISSIONER EMLER: And this water would be hauled to some disposal well somewhere?

MR. VALENTINE: Yes, sir.

COMMISSIONER EMLER: So the water that
would be coming from Morris County would be dumped in McPherson County?

MR. VALENTINE: Probably Morris County.

COMMISSIONER EMLER: But somewhere in the region?

MR. VALENTINE: Yes, sir.

COMMISSIONER EMLER: So effectively if the wells were economical, there's no benefit to you hauling the water off other than increased cost to you?

MR. VALENTINE: Correct.

COMMISSIONER EMLER: Thank you.

COMMISSIONER FEIST ALBRECHT: You may inquire based on Commissioner questions.

MR. VINCZE: We have nothing further for this witness.

COMMISSIONER FEIST ALBRECHT: Mr. Eye, do you have any further questions or examination?

MR. EYE: I do not.

COMMISSIONER FEIST ALBRECHT: Staff.

MR. MYERS: Neither does Staff.

COMMISSIONER FEIST ALBRECHT: Thank you very much. Thank you for your testimony.

MR. VINCZE: May it please the Commission, I would like to call Lee Shobe on behalf
of Quail Oil.

**LEE SHOBE**

called as a witness on behalf of the Applicant, having been duly sworn on his oath by the reporter, testifies as follows:

**DIRECT EXAMINATION**

**BY MR. VINCZE:**

**Q.** Mr. Shobe, could you please state your full name for the record?

**A.** Lee Butler Shobe.

**Q.** And what is your occupation?

**A.** I'm a petroleum geologist.

**Q.** Could you summarize your educational background for us?

**A.** I received a bachelor's degree from the University of Tennessee, have worked in oil and gas exploration and development for approximately 35 years.

**Q.** And is that experience primarily in oil and gas exploration in Kansas, Oklahoma and the mid-continent?

**A.** Yes.

**Q.** And you are familiar with the Application filed by Quail Oil & Gas?

**A.** I am.
Q. Have you mapped faults in the Morris County area including the Diamond Creek and Humboldt faults?
   A. Yes, I've mapped the area extensively from Morris County all the way down to Harper and Sumner Counties.

Q. Is the density or distribution of faults in the Morris County area greater or less than areas in Harper and Sumner Counties, Kansas?

   MR. EYE: I object. These are questions that are appropriately for direct examination that apparently were not included in the prefilled direct that is attributable to Mr. Shobe.

   MR. MYERS: Staff would join.

   COMMISSIONER FEIST ALBRECHT: Do you care to respond?

   MR. VINCZE: I will withdraw the question.

   COMMISSIONER FEIST ALBRECHT: Thank you.

   Q. (BY MR. VINCZE) Mr. Shobe, did you submit the prefilled testimony and prefilled rebuttal testimony in this case?

   A. Yes, I did.

   Q. And that testimony has been submitted to the Commission and to the court reporter. Did you review geologic information related to Morris County?
A. Yes, I did.

Q. And what did that information show?

MR. EYE: Objection. This is another question that is appropriate for prefiled direct that apparently was not included. I would object to its presentation now.

MR. MYERS: Join.

MR. VINCZE: I direct the Commission to the prefiled testimony of Lee Shobe, Page 3, Line 3. Have you reviewed publicly available information on the United States Geological Survey National Earthquake Information Center website?

MR. EYE: Then I object on the basis it is already in the record in his prefiled direct testimony and it is now repetitious.

MR. VINCZE: I would direct the witness to answer the question.

MR. EYE: It's been asked and answered in his prefiled direct. I object.

COMMISSIONER FEIST ALBRECHT: I believe the question -- I think the record would reflect that the question you asked prior to referring to the page was a little bit different than the one that you've asked, so if you are asking the question that's here, I will sustain the objection. If you are asking
something different than what appears at Page 3, I will entertain that question subject, of course, to whatever objection may arise.

    MR. VINCZE: I am just asking the witness if he's reviewed publicly available information on the USGS website.

    MR. VALENTINE: Yes, I have.

    Q. (BY MR. VINCZE) And also in your prefilled direct testimony you reviewed the Staff's 2016 proposed area of reduction map?

    MR. MYERS: Staff would object. These questions have been asked and answered, and to the extent they have not, they had the opportunity to have them asked and answered in the prefilled testimony.

    MR. EYE: Join the objection.

    COMMISSIONER FEIST ALBRECHT: I will sustain the objection.

    MR. VINCZE: That's fine.

    Q. (BY MR. VINCZE) Mr. Shobe, is the direct prefilled testimony and the prefilled rebuttal testimony that you submitted in this record true and accurate to the best of your knowledge?

    A. Yes, it is.

    MR. VINCZE: I move for admission of the prefilled direct and prefilled rebuttal testimony of Lee
Shobe.

COMMISSIONER FEIST ALBRECHT: Is there any objection? Hearing none, it will be admitted.

Mr. Eye.

MR. VINCZE: Tender the witness for cross.

COMMISSIONER FEIST ALBRECHT: Thank you.

CROSS EXAMINATION

BY MR. EYE:

Q. Mr. Shobe, have you read -- I'm sorry. Have you read and reviewed Dr. Aber's testimony?

A. I have.

Q. Dr. Aber identifies the proposed UI well as being located over a buried basement uplift known as the Nemaha Ridge. You don't call that particular geological characteristic out in your testimony, do you?

A. No, I do not.

Q. Dr. Aber identifies the Humboldt Fault zone in the area. Your prefilled direct doesn't call this geological feature out, does it?

A. No, I do not.

Q. Dr. Aber describes specific zones that are present in the substrata under the UI, proposed UI well in this case. You didn't identify those fault
zones, did you?

A. Not in my testimony.

Q. Dr. Aber describes the relationship between the Nemaha Ridge and the Humboldt Fault zone. Your testimony does not discuss this relationship, correct?

A. No, sir. It's not in my testimony.

Q. Would you agree that the United States Geological Survey that you apparently reviewed some of their information has reported that recent increases in earthquakes since around 2013 is primarily attributed to disposal of waste water?

A. Yes, that's commensurate with my testimony.

Q. You've done no independent analysis of the faults that underlie the proposed UI well, correct?

A. I've done extensive studies in the area.

Q. You didn't report them in your testimony, correct?

A. No, it was not submitted as part of my testimony.

Q. So as far as your testimony is concerned, you don't have a basis to contest Dr. Aber's finding that the area of the proposed UI well is riddled or characterized by faults?

A. Riddled would be a misleading term. There are faults in the area, absolutely.
Q.  But you have not done an independent
analysis of the nature and extent of those faults that
you reported in your testimony, correct?

A.  No, it's not in my testimony.

Q.  You would not have a basis in your testimony
that you articulated to object or to contest Dr.
Aber's finding that the faults underneath the proposed
well offset basement rock and project upward through
sedimentary layers, correct?

MR. VINCZE: I object to the form of the
question. What he's doing is asking if -- it's kind
of -- he's asking about comparison of the direct
testimony, rebuttal testimony to Dr. Aber's testimony
which will be part of the record that you can review
and have handy, so I don't think this is -- it's kind
of repetitive the same way of him asking whether or
not it's in there or not. It is what it is, and so if
he's asking Mr. Shobe as a geologist have you studied
faults in that area, have you done independent studies
in that area, that's a different question, but asking
if it's in his testimony about what Dr. Aber said, you
have Dr. Aber's testimony. You have Dr. Shobe's
testimony and certainly anything else is just
redundant.

MR. EYE: Cross examination is intended
to probe the particular points that a witness has asserted. I want to make sure that we differentiate Mr. Shobe's testimony from Dr. Aber's in terms of what it covered, what it didn't cover, and I want to stick to the witness' prefiled direct and rebuttal. I don't want to go beyond that because that would be contrary to the rules of practice of this Commission, so that's the reason I am asking him about his prefiled testimony and determining what is in it and what isn't in it.

COMMISSIONER FEIST ALBRECHT: Well, I will sustain the objection because I agree it's repetitious. You just said it's clearly stated and we can read the testimony and have read the testimony, so to the extent we are going to cross-examine, it needs to be based on the direct or the rebuttal that Mr. Shobe has filed, not what Mr. Aber has filed or Dr. Aber has filed.

MR. EYE: Thank you.

Q. (BY MR. EYE) Mr. Shobe, have you found that the faults that -- strike that. Mr. Shobe, in your testimony, you have reported no independent analysis of the faults underneath the proposed UI well, correct?

A. It is not in my testimony.
Q. And you have made no reference to or discussion of the geologic characterization of the strata, of the geologic strata in the area of the UI well, correct?

A. There's no reference to that in my testimony.

Q. Would you agree that waste water injection fluids may have the effect of lubricating faults?

A. The evidence for that is anecdotal. There's very little direct evidence.

Q. So you would dispute that?

A. No, I'm saying there's a lack of evidence that that is the causal effect.

Q. So you don't dispute it, but -- I want to make sure I understand your answer. You accept that that is an assertion that's made by geologists perhaps other than you?

A. That's a theory that has yet to be proven by research or facts that have been generated by rock mechanic studies.

Q. So is it fair then to say that you would not see that there is a relationship between the use of UI wells and induced seismicity?

A. No.

Q. You find there's no relationship?
A. No, that's not what I said. There is some
evidence that there is a relationship.

Q. In your rebuttal testimony at Page 2, Line 7
or the beginning of Line 7, you testify that there was
no evidence of earthquakes since 1950 with an
epicenter in Morris County, Kansas. Do you see that?

A. Yes, I do.

Q. And is that -- does that include
earthquakes of less than a 2.0 magnitude?

A. I searched for earthquakes of any magnitude
that that particular website would return.

Q. So your answer is that would include
microearthquakes?

A. I searched for everything.

MR. EYE: Thank you. That concludes my
cross examination.

COMMISSIONER FEIST ALBRECHT:

Commissioners?

CHAIRMAN APPLE: Staff.

COMMISSIONER FEIST ALBRECHT: I'm sorry.

I apologize.

MR. MYERS: It's quite all right.

CROSS EXAMINATION

BY MR. MYERS:

Q. Mr. Shobe, if Quail Oil injects at the rate
or pressure for which they have applied, is it going to cause an earthquake?

A. No.

Q. Why do you say that?

A. I've studied the areas that have been affected by large volume injection wells and there's nothing in the Application that approaches any of the criteria available from the Kansas Corporation Commission or other studies that have been done. This well does not qualify in any way, shape or form.

Q. And what are some of those criteria you mentioned?

A. That would be high water volumes, high pressures, multiple wells immediately adjacent to each other.

Q. Anything else?

A. Those are the primary criteria.

Q. You mentioned earlier that you had done some independent analyses elsewhere regarding formations. Could you define those for a moment?

A. I am not sure I understand the question. Could you repeat it?

Q. Sure. You were asked on cross examination by Mr. Eye whether you had done any or more or less asked whether you had done any independent analyses
regarding formations and faults in the area.

A. Yeah, I've mapped -- in my experience, I've worked the entire Nemaha uplift from Central Oklahoma all the way up through Northern Kansas and I have mapped the faults associated with that uplift extensively including the main fault, the Humboldt Fault and just a wide variety of other faults associated with that thrust fault.

Q. Based upon your studies, why is it that these formations and faults are unlikely to result in earthquakes when there's injection at the rate applied for?

A. The areas in South Central Kansas and North Central Oklahoma that have experienced faults are in a much more complex structural portion of the Nemaha uplift, so, for example, the fault density per township which would be 36 square miles is much higher. The area in Morris County is a much more benign, simple structural complex part of the Nemaha uplift. There are much fewer faults per square mile.

MR. MYERS: Thank you. I have nothing further from Staff.

COMMISSIONER FEIST ALBRECHT:

Commissioners?

COMMISSIONER EMLER: In response to Mr.
Eye's cross examination, your reply was that is not in my testimony to several questions. Do you recall that?

MR. SHOBE: Yes.

COMMISSIONER EMLER: Is there a reason or can you give me a reason why you don't include the information that he was quizzing you about in your testimony, either your direct or rebuttal?

MR. SHOBE: The only response I can make is I did not think it was pertinent at the time of my testimony.

COMMISSIONER EMLER: Even after you read Dr. Aber?

MR. SHOBE: I don't believe that Dr. Aber's established the critical criteria that there are faults immediately adjacent to the proposed injection well. He talked in very general terms about the Nemaha uplift. The only fault he specifically described was the Diamond Creek fault which is about 18 miles south of the proposed injection well and the fact that it has a surface expression really has little or no bearing on the proposed injection well in the area.

COMMISSIONER EMLER: Nothing further.

COMMISSIONER FEIST ALBRECHT: I believe
I deferred a couple of questions that I was asking of Mr. Valentine to you of a geological nature. What is the scope and extent or the depth, the full thickness of the Arbuckle in the proposed well site?

MR. SHOBE: 265 feet.

COMMISSIONER FEIST ALBRECHT: So the Arbuckle and that well lie directly above basement rock?

MR. SHOBE: Yes.

COMMISSIONER FEIST ALBRECHT: And if I understood Mr. Valentine's testimony, the well as completed drilled through to about the 70-foot mark of that width of Arbuckle with perforations just into the upper 20 feet? Is that correct?

MR. SHOBE: The perforations in the Arbuckle are slightly below the top, about 10 feet below the top of the Arbuckle. The top 10 feet of Arbuckle is non-porous rock, so we drilled an additional 40 feet until we encountered good, clean what we consider porous Arbuckle rock and that's where the perforations were. There were 20 feet of perforations, approximately 20 feet into the Arbuckle.

COMMISSIONER FEIST ALBRECHT: So what is the difference between the lowest perforation and the bottom of the Arbuckle?
MR. SHOBE: 205 feet.

COMMISSIONER FEIST ALBRECHT: Could you distinguish how this well is completed -- well, let me ask you this: First, what is your knowledge regarding the injection wells that are completed in Harper and Sumner Counties that are the subject of the Commission's order in 15-CONS-770-CMSC, if you know?

MR. SHOBE: The Arbuckle disposal wells that I have looked at in South Central Kansas drill through the entire Arbuckle section, so they drill from the top all the way through the Arbuckle to the basement. To complete the Arbuckle as a disposal well, they don't just perforate a small section of the Arbuckle, they perforate all of the Arbuckle so they are putting water in the Arbuckle from the top all the way to the bottom which essentially is right on top of basement rock, so there's a pretty dramatic difference in the type of completion of the well in question at this hearing and the high volume wells that are completed in the south central part of the state.

COMMISSIONER FEIST ALBRECHT: Given the method of completion for the well in question, the Sly 2-6, what is the likelihood of seismic activity related to disposal into the well at the gravity and pressure requested in the Application?
MR. SHOBE: Based on historical evidence, that would be nil. That would be zero.

COMMISSIONER FEIST ALBRECHT: And given the completion, does that affect anything in your mind at all in terms of distinguishing it from the wells that are completed in the Harper, Sumner County areas that are subject to the Commission order?

MR. SHOBE: Absolutely. They are completed totally differently.

COMMISSIONER FEIST ALBRECHT: Thank you. I have no more questions. Anything further?

MR. VINCZE: Nothing further.

COMMISSIONER FEIST ALBRECHT: Anything from Mr. Eye?

MR. EYE: No.

COMMISSIONER FEIST ALBRECHT: Thank you. Thank you for your testimony. You may call your witnesses, Mr. Eye.

MR. EYE: James Aber.

JAMES ABER

called as a witness on behalf of the Protestants, having been duly sworn on his oath by the reporter, testifies as follows:

DIRECT EXAMINATION

BY MR. EYE:
Q. Please state your name.
A. James Sandusky Aber.

Q. And are you the same James Aber that caused to be filed in this docket direct testimony?
A. I am.

Q. Do you have any corrections or changes to the testimony that you prefiled in this case?
A. No.

Q. Is the testimony true and correct to the best of your knowledge?
A. It is.

Q. And if the same questions that are in your prefiled direct testimony were asked of you today, would your answers be the same?
A. They would.

MR. EYE: I would move the admission of Dr. James Aber's prefiled direct testimony into the record.

COMMISSIONER FEIST ALBRECHT: Is there any objection?

MR. VINCZE: No objection.

COMMISSIONER FEIST ALBRECHT: I hear no objections, so it will be admitted.

MR. EYE: Thank you. I tender the witness for cross examination. Thank you.
MR. VINCZE: I have no cross examination.

COMMISSIONER FEIST ALBRECHT: Staff?

**CROSS EXAMINATION**

BY MR. MYERS:

Q. Good morning, Dr. Aber. If the Applicant injects at the rate and pressures that it proposes in its Application, is it going to cause an earthquake?

A. I don't know.

MR. MYERS: Nothing further.

COMMISSIONER FEIST ALBRECHT: Commissioners.

COMMISSIONER EMLER: No questions.

COMMISSIONER FEIST ALBRECHT: Thank you for your testimony.

MR. EYE: May I redirect?

COMMISSIONER FEIST ALBRECHT: Sure. I'm sorry.

**REDIRECT EXAMINATION**

BY MR. EYE:

Q. Dr. Aber, you just testified that you don't know whether it will. What do you know concerning the relationship between the proposed well and induced seismicity?

A. What we are talking about here is
essentially an uncontrolled experiment. We can't predict what the outcome will be. This isn't like predicting river floods where we have long historical records and we can know what the 50-year flood or the 100-year flood might be. We have very short historical records of these induced earthquakes. We don't know what all the parameters and all the thresholds might be in every situation, so it's impossible to make predictions. In my professional opinion, though, I think there is an increased risk for induced earthquakes in this situation.

Q. And is that what you discussed in your testimony?

A. It is.

MR. EYE: Thank you.

COMMISSIONER FEIST ALBRECHT: Anything further for this witness? Hearing none, thank you for your testimony. You may be excused.

DR. ABER: Thank you.

MR. EYE: Cindy Hoedel.

CINDY HOEDEL

called as a witness on behalf of the Protestants, having been duly sworn on her oath by the reporter, testifies as follows:

DIRECT EXAMINATION
BY MR. EYE:

Q. Please state your name.
A. Cindy Hoedel.

Q. Where do you live?
A. Matfield Green in Chase County.

Q. And did you cause to be filed certain testimony, direct testimony in this docket?
A. I did.

Q. And did you -- do you have any corrections or changes to that testimony today?
A. I do not.

Q. If the same questions were asked of you today that were asked in your prefilled direct testimony, would your answers be the same?
A. They would.

Q. And is your testimony true and correct to the best of your knowledge?
A. It is.

MR. EYE: I would move the admission of Cindy Hoedel's testimony into the record.

MR. VINCZE: No objection.

COMMISSIONER FEIST ALBRECHT: Hearing none, it will be admitted.

MR. EYE: Tender the witness for cross examination.
MR. VINCZE: We have no cross examination.

COMMISSIONER FEIST ALBRECHT: Staff.

MR. MYERS: Staff has none either.

Thank you for being present.

COMMISSIONER FEIST ALBRECHT: Commissioners?

MS. HOEDEL: Thank you.

COMMISSIONER FEIST ALBRECHT: Wait. I am waiting for a response.

COMMISSIONER EMLER: No.

CHAIRMAN APPLE: No.

COMMISSIONER FEIST ALBRECHT: Thank you. Thank you very much. Does anybody wish to make closing statements?

COMMISSIONER EMLER: Staff has a witness.

COMMISSIONER FEIST ALBRECHT: I'm sorry. I apologize. Staff, you may call your witness.

MR. MYERS: If Staff may, could we have a few moments?

COMMISSIONER FEIST ALBRECHT: We could take a break at this point. A few moments meaning?

MR. MYERS: Five minutes.

COMMISSIONER FEIST ALBRECHT: Let's
resume at 10:30.

MR. MYERS: Thank you.

(THEREUPON, the hearing is
recessed from 10:17 o'clock AM
until 10:22 o'clock AM.)

COMMISSIONER FEIST ALBRECHT: I believe we are at the point in the proceeding where Staff is ready to call its witness.

MR. MYERS: Yes. Staff would call Rene Stucky to the stand.

RENE STUCKY
called as a witness on behalf of Commission Staff, having been duly sworn on his oath by the reporter, testifies as follows:

MR. MYERS: May I proceed?

COMMISSIONER FEIST ALBRECHT: You may.

DIRECT EXAMINATION

BY MR. MYERS:

Q. Mr. Stucky, are you the same Rene Stucky who prefiled testimony in this docket?

A. Yes, I am.

Q. Now that you are under oath and considering the testimony that was presented in person here today, do you have any corrections or changes to your testimony?
A. I may have some changes. From the testimony that we've heard, I think I would recommend more that -- I would recommend we approve the Application at 2,000 barrels and 250 psi. I believe from what they stated they need, that would give them plenty of room for development but also give them pressure if they need to overcome gravity and I think it would probably last for quite some time. Obviously down the road if they would need to amend the Application, that is always a possibility.

Q. Do you have any other corrections or changes to your testimony?

A. No, I don't.

MR. MYERS: With that, I move for Rene Stucky's prefilled testimony to be admitted into the record taking note of the changes in his recommendation.

COMMISSIONER FEIST ALBRECHT: Is there any objection?

MR. VINCZE: May I have a moment?

COMMISSIONER FEIST ALBRECHT: You may.

(Off the record)

MR. VINCZE: No objection.

COMMISSIONER FEIST ALBRECHT: Mr. Eye?

MR. EYE: No objection. I assume that
that's fair territory for cross examination.

COMMISSIONER FEIST ALBRECHT: Yes.

MR. MYERS: Staff would tender Mr. Stucky for cross examination.

COMMISSIONER FEIST ALBRECHT: And I will make the ruling we will admit the testimony of Mr. Stucky as well as considering the amendment as well.

MR. MYERS: Thank you.

CHAIRMAN APPLE: Could I ask a clarification? Typically when someone amends their testimony, we go to a page and a line and they change their testimony, so we are just having a general statement that Mr. Stucky intends to testify to a new injection volume or are we actually changing the testimony that was submitted?

MR. MYERS: It is not Staff's position that the testimony itself needs to be changed except that on Page 6, Line 14, Mr. Stucky's answer is: Yes, I recommend approval of the Application. Staff would like Mr. Stucky's testimony presented here today to supplement that, yes, I recommend approval of the Application but under the recommendations he just gave.

CHAIRMAN APPLE: Okay, thank you.

COMMISSIONER FEIST ALBRECHT: So that we
are all clear on what that recommendation is, it would be approve the Application with the maximum injection of 2,000 barrels per day at 200 pounds of maximum pressure of 200 pounds?

    MR. STUCKY: 250.

    COMMISSIONER FEIST ALBRECHT: On the pressure?

    MR. STUCKY: Right.

    COMMISSIONER FEIST ALBRECHT: Thank you.

    MR. MYERS: Thank you.

    COMMISSIONER FEIST ALBRECHT: The testimony with that supplementation will be admitted into the record and tender Mr. Stucky for cross. Mr. Eye? Oh, Quail first? I'm sorry. Proceed.

    MR. VINCZE: I just reserve the right to cross after rebuttal.

    COMMISSIONER FEIST ALBRECHT: So you have no examination that you wish to make now?

    MR. VINCZE: No.

    COMMISSIONER FEIST ALBRECHT: Okay. Mr. Eye.

    CROSS EXAMINATION

    BY MR. EYE:

    Q. Mr. Stucky, I want to make sure I understand the basis for the proposed amendment, for the actual
amendment to your testimony that's been recognized by
the Commission. Was that based upon testimony that
you heard this morning from witnesses for the
Applicant?

A. Correct.

Q. Is it -- so it's fair to say that it's
still -- you are not altering any of the conclusions
you reached in your testimony, correct?

A. No, no. I mean, basically I try to keep the
permits, any permit, within a reasonable amount and
not just give, you know, an exorbitant amount over
what is actually needed at the time, just basically
kind of keep a handle on what's going into the wells
for volumes and stuff.

Q. And so the Application -- strike that. So
the permit if approved and consistent with your
recommendation would specify a 2,000 barrel daily
limit?

A. Correct.

Q. You don't know what the threshold is for
volumes that would induce seismicity, do you?

A. No, I don't.

Q. And if the Application, excuse me, the
permit is granted on the basis of Staff's
recommendation, it would reduce the proposed psi to
250 from the present requested rate of 500?

   A. Correct.

   Q. You don't know what the threshold is for pressure that would cause induced seismicity, do you?
   A. No, I don't.

   Q. So is it my understanding then that the amendment to your testimony is tied to economic considerations?
   A. I am not sure I understand the question. Sorry.

   Q. Well, the testimony, as I understood it, from the Applicant talked a good deal about the margins at which the proposed wells would be economic or economical.
   A. Right.

   Q. Is your proposed change in your testimony -- not proposed -- your change in your testimony tied to that part of the Applicant's testimony concerning marginal profitability of the wells in question?
   A. I mean, it's probably tied to numerous things. One of them would be the economics for the operator. I mean, I feel like I am giving enough for development and, you know, if it's a high volume he may want to go to a bigger pump or something and increase his volume to 600 or whatever, but then also,
like I said, I try to keep a permit within a reasonable range of what's actually being disposed or injected in that particular well merely to just kind of keep a handle and, you know, not just let anything go.

Q. I don't remember which witness it was from the Applicant that said that there had been some conversations with KCC Staff about this Application. Did you ever have off the record discussions with Mr. Valentine or Mr. Shobe concerning this Application?

A. Mr. Valentine and I discussed it when he initially filed the Application.

Q. And at that time, the proposal was as it was eventually presented for 500 psi injection pressure, correct?

A. Right.

Q. But that changed today because of testimony concerning the marginal profitability of the wells, correct?

A. No. Basically it changed because, I mean, they admitted that basically vacuum is probably what's -- and from my experience with Arbuckle, vacuum is usually the case.

Q. And was that particular aspect of this Application discussed before the Application was
finalized and filed?
   A. You mean initially?
   Q. Yes.
   A. In our initial conversation? I believe we talked about it a little bit, yes.
   Q. And were you in agreement that the proposed 500 psi was reasonable?
   A. Yes. Yeah, I mean, I didn't -- when we initially discussed it, I didn't have a big problem with the 500.
   Q. And did that take into account the marginal profitability of the wells in question?
   A. Yes.
   Q. But something between that time and now changed?
   A. You know, unfortunately my memory is not that great. I know in our discussion Mr. Valentine, he kind of indicated some development and I don't remember the exact reasoning, but at the time, you know, he really wanted to stick to the 500 and I thought, yeah, that was okay.
   Q. In your prefiled direct testimony you discuss Dr. Aber's testimony, correct?
   A. Correct.
   Q. Over on Page 6 beginning about Line 5?
A. Yes.

Q. And in Dr. Aber's testimony, he discusses detailed analyses of the fault complex that he asserts is in the substrata where the well, the proposed well is located, correct?

A. Correct.

Q. Have you done any sort of extensive analysis of the substrata that is related to the proposed UI well?

A. No, I haven't.

MR. EYE: Thank you. That would conclude my cross examination.

MR. VINCZE: If I may.

COMMISSIONER FEIST ALBRECHT: Well, let me look at my map here. I haven't been following it very well. Commissioners?

MR. EYE: Are we going out of order on cross examination?

COMMISSIONER FEIST ALBRECHT: That's what I am trying -- he waived cross on this one, so we went to you and now we are Staff.

MR. MYERS: I think it's now Commissioners.

COMMISSIONER FEIST ALBRECHT: I think we are ready for Commissioner questions.
MR. EYE: I got a little out of sequence in my own mind.

COMMISSIONER FEIST ALBRECHT: And it's easy to do as I can attest, but I think we are due for Commissioner questions before we begin the --

MR. VINCZE: Surrebuttal type?

COMMISSIONER FEIST ALBRECHT: Yes. COMMISSIONER EMLER: No questions.

CHAIRMAN APPLE: Thank you. Mr. Stucky, the new recommendation of 2,000 barrels, is that based -- what is that based on?

MR. STUCKY: As I said, I like to keep the permits within reason of what's actually going to be used and that's really my sole reasoning for dropping it down to 2,000 cause it doesn't sound like they need it anywhere close to 5,000 at this time.

CHAIRMAN APPLE: So if I remember correctly, they thought maybe 300 barrels per day for two wells.

MR. STUCKY: Correct.

CHAIRMAN APPLE: So if the field was developed and they actually had a need now for 5,000 barrels, would you have a different recommendation?

MR. STUCKY: Yeah, I would stay with 5,000 if I felt it was needed.
CHAIRMAN APPLE: So what would the process be if we were -- say we approved 2,000 barrels per day and then they wanted to do some additional drilling, have some more production. What would be the process, to amend the Application? Would they file a new application, amend the Application?

MR. STUCKY: Basically you can amend an application. There's a particular form for that. If you are increasing rate and pressure or if you would be going to like a different zone, you are required to notice and publish in the paper so there would be a 30-day protest period and, you know, then the permit would either be granted or denied.

CHAIRMAN APPLE: Possibly a hearing such as this?

MR. STUCKY: Possibly.

CHAIRMAN APPLE: I guess the thing that concerns me is that we've gone through witnesses this morning and now we have new information and I suppose we could address any information they want to bring forward in filing briefs later on, but it does kind of put us in an awkward spot to make sure everyone can be heard, but I understand that because of the information this morning you would now recommend the 2,000 not based upon actual well construction or
concerns with a higher volume, more on the need based upon what they need at the present time.

MR. STUCKY: Yes.

CHAIRMAN APPLE: Okay, thank you.

COMMISSIONER FEIST ALBRECHT: I've got a question.

(THEREUPON, the Commission confers off the record.)

COMMISSIONER FEIST ALBRECHT: I have a few questions I think that I would like to develop a little bit, but I also have a procedural option to pursue. Let me speak regarding your responses to Commissioner Apple's questions. You spoke -- I don't know -- actually, never mind. I am going to go to the procedural option first because the questions that I have are better answered by the Applicant. Since this is new information, it seems only appropriate to allow the Applicant to call witnesses if it so chooses to rebut this evidence so that there's an opportunity for cross examination of the witnesses. In my view, we are talking about a factual situation and we need to resolve those facts. They need to be developed in this proceeding rather than through some sort of briefing, so my preference would be to allow you to proceed, proceed on any follow-up that you wish in
response to the cross examination here, and if you
wish to call a witness to make a response to which we
can pursue cross examination, that would be helpful to
know.

MR. VINCZE: Thank you for that
courtesy. We would like to do so.

COMMISSIONER FEIST ALBRECHT: Okay. Do
you have any further examination of Mr. Stucky given
any of the questions that have been asked of him thus
far?

MR. VINCZE: No. Commissioner Apple
asked the questions that I had in my mind very well.
Thank you.

COMMISSIONER FEIST ALBRECHT: All right.
Thank you. I think -- anything further from this
witness from anyone?

MR. MYERS: Nothing.

COMMISSIONER FEIST ALBRECHT: Thank you.
Thank you for your testimony.

MR. VINCZE: I call Wray Valentine to
the stand.

WRAY VALENTINE

recalled as a witness on behalf of the Applicant,
having been previously duly sworn on his oath by the
reporter, testifies further as follows:
COMMISSIONER FEIST ALBRECHT: I would just remind you that you remain under oath.

MR. VALENTINE: Yes, ma'am.

**REDIRECT EXAMINATION**

BY MR. VINCZE:

Q. Mr. Valentine, if you know, what are the typical disposal volumes as far as pressure goes, psi, in Morris County?

A. Volumes are anywhere from 2,000 to I believe up to 4,000, maybe 5,000. I am not exactly sure. That would be a better question for Mr. Stucky.

Q. Are those -- and that would be in barrels --

A. Yes, sir.

Q. -- per day? Did Quail do a design proposal before it submitted this Application?

A. Yes. The KCC --

MR. EYE: I am going to object. That doesn't have anything to do with the proposal to amend Staff's position.

MR. MYERS: Staff would join.

COMMISSIONER FEIST ALBRECHT: I will overrule.

MR. VINCZE: Where we are going here is there were discussions related to 500 psi and
discussions in the Application and material submitted to the Commission relating to the 5,000 barrels per day and I was wanting to explore that with a few questions.

COMMISSIONER FEIST ALBRECHT: I will allow it because we are being asked to amend this, consider amending the permit that was approved, and to the extent that there was a justification for what we have before us that may be altered, I think it's appropriate to inquire.

MR. MYERS: If I may, Staff would like to be clear. Staff is not proposing amending the Application. The Application is the Applicant's Application. Staff's position is based upon the testimony regarding need and it has changed regarding whether the Application as it stands should be granted.

MR. VINCZE: Then let me just stipulate that the record and the Application remains and the Applicant is still seeking 500 psi and 5,000 barrels per day injection limitation, and then with respect to need, we can have a few questions on that.

Q. (BY MR. VINCZE) Mr. Valentine, you earlier testified that the Arbuckle injection will be on vacuum. Is that correct?
A. Yes, sir.

Q. At least initially?

A. Yes, sir.

Q. And you also testified, correct me if I'm wrong, that initial disposal would be about 300 barrels per day of saltwater from the two producing wells?

A. Yes, sir.

Q. Do you have plans for future development of that field?

A. If these wells are economical, we would probably go down to 10 acre spacing to drill these wells, and if all the wells would produce a hundred barrels a day of water in the future, we would need that 5,000 barrels a day. That may be 10 years down the road, but at some point we may need it.

Q. Do you also have the ability to take disposal water from the wells that other people develop?

A. No. No, sir, just our wells.

Q. So it is limited to your two wells and your plans for future development of that field?

A. Yes, sir.

Q. When you were talking about -- did you have discussions about these economics, the 500 and the
5,000 with Mr. Stucky prior to today?

   A. When I started the Application for this disposal well, I called him to ask him what -- how we were to proceed, and one of the things was the KCC has a design proposal that you can put all of your information together and ask for your volumes and your pressures and they will look that over, and if they are okay with it, they will okay that and then you can go ahead and submit your application from there and that's what I had done because I wanted to know what my volumes and my pressures were going to be prior to drilling the well and making sure I could have the disposal for these other two wells.

   Q. And also is it fair to say to accommodate any future development of that field?

   A. Yes, sir.

   Q. Is there anything that you would like to offer to the Commission that I haven't thought to ask?

   MR. EYE: I am going to object. That's not a proper direct question in this context.

   COMMISSIONER FEIST ALBRECHT: I will sustain the objection at this point.

   MR. VINCZE: All right. I have nothing further.

   COMMISSIONER FEIST ALBRECHT: Mr. Eye.
MR. EYE: Thank you.

RECROSS EXAMINATION

BY MR. EYE:

Q. Mr. Valentine, isn't it the case that when this Application was first initiated that the pressure that was being asked for whereas 650 psi?

A. Yes, sir.

Q. But you found that 500 would be an acceptable level of pressure for you to be able to do what you need to do with your waist water?

A. Yes. The design proposal I asked for was 650 and they came back and asked if 500 would be fine and I said yes.

Q. And your testimony today is that actually you don't need any pressure to inject the waste water in the proposed well at all, correct?

A. Not currently.

Q. So you could actually just do a gravity flow for the indefinite future, correct?

A. Yes, sir.

Q. So Mr. Stucky's proposal to go to 250 psi could actually be reduced to zero, correct?

A. For some period of time.

Q. For this period of time?

A. I can't tell you what time frame that would
be.

Q. And you heard the testimony of Mr. Stucky that would allow you to come back into the Commission and seek additional authority for a higher level of pressure if that's what you needed subsequent to operation of the proposed well?

A. He said that and he also said that he didn't have a problem with the 5,000 and the 500 either. It was just a need basis at the time. My contention would be that if there's no difference between 5,000 and 2,000 or 500 and 250 psi, why should I go through the process again of getting another application when they are fine with it now?

Q. But as of today, it's your testimony that you don't need any pressure to use this well, correct?

A. True.

Q. And you don't know when you might need pressure, correct?

A. Correct.

Q. Do you know what level of pressure might be required when you do need it, correct?

A. Correct.

Q. You testified earlier about the wells in Morris County and their pressure levels. How did you -- where did you come up with that information?
A. What specifically are you asking?

Q. Well, you testified about the pressure levels in Morris County -- of the wells in Morris County. I think you said something like 2,000, 3,000. I forget exactly what your testimony was, but you provided a quantitative response in that answer.

A. If you could let me know what that was, I would respond to it, but I am not exactly sure what I responded to.

Q. Do you have a basis to testify about the current pressures of wells used in Morris County?

A. I don't have any other disposal so I don't know.

MR. EYE: Thank you.

COMMISSIONER FEIST ALBRECHT: Staff?

RECROSS EXAMINATION

BY MR. MYERS:

Q. Mr. Valentine, earlier today you testified that you don't know if the two oil wells are economical at the present time. Is that correct?

A. They are not economical with the -- if I have to haul the water. The Sly 1-6 I have not produced because I know I need the disposal to make it economical, so to date I don't know how much oil it is going to produce.
Q. Okay, but if the injection application is granted in some form, you will be producing those wells. Is that correct?

A. That's true.

Q. Turning to the amount of fluid you requested in your Application, you testified earlier that the two wells, two oil wells, presently they are -- you estimate would produce about 300 barrels of saltwater per day. Is that right?

A. Yes, sir.

Q. So how many wells do you think you would have to drill to be in need of 5,000 barrels per day?

A. Thirty.

Q. What's your time frame for drilling those 30 wells?

A. I am not sure currently. I've got to see if the second well is going to be economical first.

Q. And if it is economical, what is your time frame?

A. Again, that's uncertain due to the oil prices and how much money you can make to try to put the capital back into more wells.

Q. If oil was at 60 barrels -- 60 dollars a barrel, how quickly would you drill those wells?

A. Again, I don't know what the one well is
going to produce, so I am uncertain at this time.

Q. Thank you. I understand that it's difficult especially here to be making those calculations.

MR. MYERS: Thank you. Nothing further.

COMMISSIONER FEIST ALBRECHT:

Commissioners?

COMMISSIONER EMLER: I think in response to what I understood your counsel's question to be regarding Morris County, you testified that the average injection was 2,000 to 4,000 barrels per day. Is that correct?

MR. VALENTINE: I did some research on the KCC website and if I recall correctly, that's what I saw were the limits those wells could inject per day into the formations per disposal wells.

COMMISSIONER EMLER: So they weren't the actuals, those were just what the permits averaged?

MR. VALENTINE: Yes, sir. Yes, sir.

COMMISSIONER EMLER: All right, so I believe that clarifies a little bit of what your response was. I am not sure about the pressure issue that Mr. Eye was asking about. Thank you.

COMMISSIONER FEIST ALBRECHT: You mentioned that you would -- it would take 30 wells probably to reach the 5,000 mark. Is that what it
would take to fully develop the leases that you have
on the spacing that you are allowed or is that a
different number?

    MR. VALENTINE: We could drill more
wells than that on the leases we currently have.

    COMMISSIONER FEIST ALBRECHT: Okay. I
don't have anything further. Is there anything
further for this witness?

    MR. VINCZE: Nothing further, thank you.

    COMMISSIONER FEIST ALBRECHT: Nothing
further? Thank you. Thank you for your testimony.
Is there anything further to come before the
Commission before we get to closing statements?

    MR. MYERS: Nothing from Staff.

    COMMISSIONER FEIST ALBRECHT: All right.
We are ready for closing statements then.

    MR. MYERS: If I may inquire into the
order here, what is it?

    COMMISSIONER FEIST ALBRECHT: I don't
have anything written as to the order, but I think
typically the Applicant goes last, right, so I would
suggest that Mr. Eye proceed then Staff or Staff and
then Mr. Eye. We don't have a prescribed order, so if
there's a preference.

    MR. MYERS: Staff will waive its
closing.

MR. VINCZE: And I would prefer to go last. I just jumped up because no one else did.

COMMISSIONER FEIST ALBRECHT: Sure.

MR. EYE: If I may have a moment. I've got enough tabs here that I am trying to find the right one.

COMMISSIONER FEIST ALBRECHT: Certainly.

MR. EYE: The testimony that you have heard today -- may it please the Commission, the testimony that you heard today from the Applicant and from Staff is devoid of the kind of analytical assessment of the substrata of the area of this well. It is necessary to determine whether approving it is actually engaging in the uncontrolled experiment that Dr. Aber referenced during his testimony. This Commission has the statutory authority to do several things in this -- with this Application. You could reject it on the basis that it does produce, I'm sorry, that it does present a threat to the safety and welfare of the people of Kansas. You could undertake an independent investigation to try to determine whether Dr. Aber's assessment of the substrata is accurate and if used as proposed in this Application would present an unreasonable risk of imminent harm as
we've asserted in this proceeding. The Commission can obviously grant the Application, but now you've got multiple options on what that Application or what the permit might ultimately say. We have proceeded along in this docket on the basis that the Application was for a 500 psi limit at 5,000 barrels a day. We come in here today and now we get a shift in that position at least from Staff. Applicant has not amended its Application as of now and based upon the statements of counsel, it doesn't appear that they intend to do so, so really the Commission has got three -- at least three options: Turn the Application down altogether on the basis that I discussed a moment ago, grant it at the Applicant's proposed level or grant it at the Staff's proposed level. The evidence to support the Staff's proposed level is not well-developed. I think I am being charitable in that regard. We've come back from a break and the testimony has changed on a basis that's not well-articulated. It's partly economic. It's partly based upon the sense of the Staff that the limits that they now think are appropriate are what ought to be in the permit, but all these -- all those circumstances were extant before we came in here today and yet we get this shift. Ultimately, though, all of that is not pertinent when it comes to whether this
Application granted at either the Applicant's specified levels of volume and pressure or the Staff's proposed volumes of pressure and volume. The point is that no witness can testify as to what the potential threshold is for pressure or volume that will induce seismicity. What we do know based upon the analysis of Dr. Aber is that this is an area that's vulnerable because of its fault complex in the substrata beneath the proposed well. The idea that we can proceed with this well knowing that it's in an area with complex faults does begin to broach that uncontrolled experiment territory. There's no rush here for the Commission to make a decision that will have long range effects. It's more important to make a reasoned determination based upon the evidence that's come before you, and that evidence is that if this proposed well is used, it will be in an area that is vulnerable to seismic activity. If this proposed well is used, it will introduce the variables that we know induce seismicity, pressurized fluids that lubricate faults that slip, cause earthquakes. This Application should be denied in order to prevent what the evidence has shown today to be the likely outcome and result of injecting waste water under pressure into this formation as proposed either by Staff or by the
Applicant. There's no reason to undertake an uncontrolled experiment here. The Applicant has testified that while it may not be particularly economic right now -- we don't really have any economic analysis other than what we heard from the Applicant, while it may not be particularly economic now to haul water, we know that those economics change with the price of oil. Well, a fungible product does tend to fluctuate a fair amount in price that can be obtained by the Applicant, but the concern that ought to dominate the Commission's analysis of this is less about the marginal rates of return on a particular well and more about what can be done to assure that we are not engaging in an uncontrolled experiment that based upon the evidence you heard today will be done in a very vulnerable area seismically speaking.

Certainly life is full of risk. There's no way to avoid all risk, but Dr. Aber's testimony describes a risk that's not necessary for us to take in order for this Applicant to pump oil out of his proposed wells. It doesn't have to have this well to dispose of its waste water. I would urge that there be a very cautious approach to granting this Application and as Mr. Valentine conceded, he could operate that well with no pressure. An unpressurized well at least has
the benefit of less likelihood of fluids being pressurized and moving to points where they may cause slippage in the faults, so as long as we are -- as long as we are amending positions and advancing new proposals here, I think the Commission should also consider if you are going to grant this permit specifying a zero pressure because that's something that can be accepted based upon the testimony of Mr. Valentine this morning. Ultimately, a pressurized well in this area is an uncontrolled experiment and there's no reason to engage in uncontrolled experiments in the regulatory aspect of this particular business. As in the prefiled testimony of Ms. Hoedel, the Protestants are taking a categorical opposition to underground injection, but it's like a lot of other things. It's acceptable and appropriate to some locations and not in others. The evidence in this proceeding weighs in favor of finding that this area is too seismically fragile, too prone to earthquakes to take a chance by allowing an injection well to operate. Thank you.

MR. VINCZE: May it please the Commission, the Applicant, Quail Oil, still respectfully requests 500 psi and 5,000 barrels per day to accommodate future development and I think what
we are looking at here from the testimony of Mr. Stucky was that he wants to have a handle in the questions and answers to Commissioner Apple's questions and inquiry to have a handle on this Application in that it's not necessary right now. The nature of the Application is that you are asking for a not to exceed number. That's your permit, and this kind of proceeding is an expense in itself and it's probably attributed into overhead in some fashion to the producing wells you have, so that would be an unnecessary administrative burden we feel to put Quail under especially when the answers had nothing to do with induced seismicity but only convenience. The Protestants have failed to show how the subject injection well would induce seismicity. I congratulate Dr. Aber on a very long and distinguished career, but his answer was I don't know. The testimony shows that injection wells have been used in Morris County since the 1920s with no record of seismic activity in the area. We have gleaned the records. Our geologist testified, and it's in the direct testimony and rebuttal testimony, that there is no significant or recorded seismic activity by the USGS at least since 1950. The experiment, if you will, has been going on for quite some time without
any evidence of induced seismicity in Morris County. Mr. Shobe's testimony in answer to the Commission and Staff's questions state that he looked at Diamond Creek faults. He looked at the other faults. He is very familiar with that geology in the region. He's done well borings in his direct prefiled testimony and none of it was relevant. He didn't feel like it presented any risk. In fact, he said zero risk of induced seismicity. With respect to the Protestants' concerns, the economics of the Flint Hills, the scenic beauty of the Flint Hills, if you haul water as presented in Dr. Shobe's rebuttal testimony and also Mr. Valentine's rebuttal testimony, you are using trucks. You are using it on, you know, dirt, gravel roads. You are coming in. You are coming out. It's a lot more intrusive certainly than using a low volume injection well. Also, as I showed -- as I stated in my opening argument and we have admitted the first and second orders on the record and I think that's a good thing because it shows that this is not an uncontrolled experiment, that a great deal of thought, energy and discussion has gone into the development of that first and second order and there have been reports and the Commission Staff has reported if that area should be expanded and they said no, and it
doesn't include Morris County, and just by way of recollection, 500 psi, 5,000 barrels per day outside of any area of induced seismicity as found in the first and second orders, and it's way below the 16,000 barrels per day in the 2016 specified area and 8,000 per day in the first 2015 specified areas and it's below the maximum injection rate of 5,000 barrels per day into the Arbuckle. It's not a large volume well by all of those criteria. So what we have here is an Application that meets all of the criteria. It's below all of the criteria studied ad nauseum in the first and second orders and as reported by Commission Staff in their report. It is below all of those things. It complies with the maximum injection pressures. It's not located in those specified areas and the other areas wherein designated, so it's not an uncontrolled experiment. There's been a great deal of thought and process behind here and this Application meets by design all of those criteria. I respectfully request on behalf of Quail Oil & Gas approval of its Application to authorize the injection of saltwater into the Arbuckle at the Sly 2-6 saltwater disposal well at 500 -- a maximum pressure of 500 psi and a maximum injection volume of 5,000 barrels per day. Thank you.
COMMISSIONER FEIST ALBRECHT: Thank you.

Do the parties wish to engage in briefing any of the issues that are before us today or is closing the record and submitting the evidence for decision appropriate at this time? Has there been any discussion about a need for briefing in anyone's view?

MR. VINCZE: No, Your Honor. We have been waiting for quite some time for a decision. We await the decision.

COMMISSIONER FEIST ALBRECHT: Hearing no indication that there is a desire for briefs, we will conclude the matter here today and it will be submitted to the Commission as soon as the transcript is ready for decision. Thank you very much for your consideration.

CHAIRMAN APPLE: Can I say something? I want to thank the parties for the work that they have put into this. I think we had a really good discussion here today and I also want to thank everyone that's driven quite a ways to come here today and I see some friendly eyes I haven't seen for awhile. I'm glad to see you and we work hard to make sure people feel welcome at the KCC. One of the reasons we moved it from Wichita up to Topeka was so that we would have the space to accommodate in case we
had a little bit of a larger crowd. We also have another room that this is being broadcast into if we
had an overflow crowd, so we are very glad that you are here, that you are able to spend some time with us. I just want you to know that we are very concerned that everyone has a chance to be heard and that when there is new information that pops up that we make sure that we go through the right process so that we don't jump out of order or somebody gets stepped over and that they haven't been treated I hate to use the word fairly, but we don't want to have people feel like they haven't been treated fairly. I'm glad Commissioner Albrecht brought things up so we could discuss them some more, but it's been a good day and we're glad everyone has been with us today.

COMMISSIONER FEIST ALBRECHT: Thank you.

(THEREUPON, the hearing is concluded at 11:25 o'clock AM.)
CERTIFICATE

STATE OF KANSAS )
COUNTY OF SHAWNEE ) ss.

I, Sherri Hedberg, Certified Shorthand Reporter commissioned as such by the Supreme Court of the State of Kansas and authorized to administer oaths to witnesses pursuant to K.S.A. 20-913, certify that at 1500 Southwest Arrowhead Road, Topeka, Shawnee County, Kansas, on the 16th day of August, 2017, beginning at 9:00 o'clock AM, that the proceedings as herein set forth were taken by me in shorthand in the presence of said witnesses and afterwards reduced to written form by me; that I am not a relative or representative of any party or any attorney or otherwise interested in the elements of the actions of proceeding.

IN TESTIMONY WHEREOF, I have hereunto set my hand and Official Seal at Topeka, Kansas, this 21st day of August, 2017.

SHERRI HEDBERG
Certified Shorthand Reporter