

BEFORE THE  
OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
October 19, 1956

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IN THE MATTER OF:

The application of Gunsite Butte Uranium Corporation  
for an unorthodox gas well location in the Tapacito-  
Pictured Cliffs Gas Pool in exception to Paragraph  
(4) of the Sepcial Rules and Regulations for said  
pool as set forth in Order R-794. Applicant, in the  
above-styled cause, seeks an order authorizing an  
unorthodox location for a gas well to be drilled  
by applicant in the NW/4 of Section 3, Township 25  
North, Range 3 West, Rio Arriba County, New Mexico.

CASE NO. 1120

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BEFORE:

Warren W. Mankin, Examiner

TRANSCRIPT OF HEARING

EXAMINER MANKIN: The hearing will come to order. We have only one  
case today, Case 1120.

MR. COOLEY: Application of the Gunsite Butte Uranium Corporation for  
an unorthodox gas well location in the Tapicito Pictured Cliffs Gas Pool in  
exception to Paragraph 4 of the Special Rules and Regulations of said pool, as  
set forth in Order R-794.

MR. KELLAHIN: Jason Kellahim, appearing in behalf of Gunsite Butte  
Uranium Corporation, the apolicant. We will have one witness, Mr. Egan.

J. A. EGAN

having first been duly sworn, testified as follows:

MR. KELLAHIN: I would like to make a little statement to the effect  
that this is an application that calls, as the Docket shows, for an exception  
to the location and requirements named in Order No. R-794. At the inception of  
Order R-794, I believe that three non-standard units were granted wells which had  
previously been drilled. Subsequent to that date, two additional non-standard

locations have been approved by the Commission, one of which is as I recall, a direct offset to a well of Gunsite Butte Uranium Corporation and doesn't affect the application in this case.

BY MR. KELLAHIN:

Q. Will you state your name please?

A. John Egan.

Q. And where do you live?

A. Farmington.

Q. What is your business?

A. I'm a consulting Geologist and an oil and gas producer.

Q. Are you employed by the applicant in this case?

A. I am.

Q. In what capacity?

A. As a Geologist and Engineer for them.

Q. Mr. Egan, have you ever testified before the New Mexico Oil Conservation Commission previous?

A. No.

Q. Would you review for the benefit of this Commission, your education, qualifications and your experience in the oil and gas business?

A. I'm a graduate Geologist from the University of Nebraska. I worked as a Geologist and Reservoir Engineer for the Carter Oil Company, and the Standard of New Jersey, for approximately nine years. Since that time I have been a Consultant and worked for various individuals, companies, and for myself.

EXAMINER MANKIN: Have you had any particular experience in the San Juan Basin?

A. I came up to San Juan Basin in 1949 and drilled the first well for one of my clients in Largo Canyon. Since that time I presume I have drilled approximately a hundred or maybe one hundred and fifty wells for various and sundry clients, including wells for myself.

Q. Are you familiar with the Pictured Cliffs formation when you drilled Pictured Cliffs wells?

A. Well, I would say I am quite familiar with it. I drilled Pictured Cliffs wells almost all over the basin, mostly on the west and south sides.

Q. Are the witness's qualifications acceptable?

EXAMINER MANKIN: They are.

Q. Now, Mr. Egan, are you familiar with the application in Case 1120, the case now being heard?

A. Yes, I am familiar with it.

Q. Have you prepared the plats going with the area in question?

A. Yes.

Q. Referring to what is marked as applicant's Exhibit No. 1 in Case 1120, would you state what that shows?

A. Well, it shows all the wells we have located in four townships, 25, 26, Range 3 and 4 West, Rio Arriba County, specifically the initial productions of the wells in 25 and 26 North of 3 and 4 West, which concern us.

Q. How are these initial potentials shown on this Exhibit?

A. Well, initial potential productions are shown below the well location, and where it is a calculated potential, it has a "c" following it, and where it does not, it means a 2-inch open flow 3-hour test.

Q. And did you prepare Exhibit No. 1 yourself?

A. I prepared this myself.

Q. Now, Mr. Egan, how is the proposed location for which we are seeking an exception shown in that Exhibit?

A. This exception is shown by a location symbol of a red circle shown around it.

Q. And where is it, would you give the legal description?

A. In the NW/4 of Section 3, 25, and 3.

Q. And where would the orthodox location be, under the rule?

A. The orthodox location would be in the NE/4, Section 3, 25, and 3.

Q. Now, referring to the Exhibit again, I see that there is a well circled in green, what is that? And where is it?

A. That was a well drilled by Gunsite Butte in the NW of Section 4, which was drilled before this spacing order was issued.

Q. And that is located to the west of the Pool?

A. That is located a mile west of this subject location which we are discussing.

Q. Mr. Egan, the application is designed to bring that proposed well closer to the rest of the wells?

A. That is correct.

Q. And why do you want to do that?

A. Well, we feel that by moving that location another half mile east, which is the orthodox location, will leave a gap of a mile and a half from the No. 1 Florance Well in the NW of Section 4, we feel that that is an unreasonable distance to have to move because those terms are not too wide and there is too much space between the two wells for Gunsite to get a reasonable share of gas.

Q. On what information do you base that?

A. I base that largely upon the sand thicknesses and condition of the sands, the normal width of these sand lense or trends that extend to this particular area.

Q. Could you describe just briefly the characteristics of the Pictured Cliffs sands in this area? Based on your experience.

A. Well, the Pictured Cliffs Sands, as a general rule, are strand lying sands that are more or less trend NW SE and sometimes they will be five or six miles wide, other times they narrow down to two or three miles. It looks like in this area, it will not be too wide.

Q. Why do you say that?

A. Well, because up in 26-3 you can pretty well define the SW edge of it and you get some light wells to the NE.

Q. Are those shown in the Exhibit?

A. Those are shown in the Exhibit, and the sand looks like, the sand condition continues to SE to this area which we are discussing. Now, in Section 5-3, of course we have some light wells up to the North.

Q. Would you state specifically what wells those are Mr. Egan, please?

A. Well, we have a well down here in the SW of Section 15 which has

a - - - - -

Q. Which Township and Range is it?

A. 25-3, which has extremely poor sections. Unfortunately, that well was spoiled. In fracturing it, they split the pipe, but it looks like that well will practically be a dry hole.

Q. You have the log on that well available for inspection if the Examiner desires to see it?

A. I have the logs if anyone wants to look at them.

MR. UTZ: Would you identify that well?

A. It is the Jackson No. 2 Hall.

MR. UTZ: What part of the Section?

A. In the SW.

MR. KELLAHIN: Are there any other wells which would support your contention on this Mr. Egan?

A. Well, I can recite another well in Section 33, 26-3, NW production in the NW NE quarter, now that is a dual completion. The potential on the Pictured Cliffs on that well is five hundred and two thousands.

Q. Is that a calculative potential?

A. That is a calculative potential. Now, I can also refer to a well in Section 1 of the SW of Section 1, R and G Drilling Company, they drilled a well there to the Pictured Cliffs, set pipe to it, perforated, fractured, and did not get any gas out of it. So it is entirely possible that that location may be on there, if it has been mishandled. I do not know, the fact remains that it does not make any gas.

Q. Mr. Egan, in your opinion would a well located on an orthodox location be less likely to be productive than one located in the NW/4 of the Section.

A. I think it would be less likely to produce, or it would produce less gas than one on the NW/4.

Q. And would a requirement that you drill at an orthodox location rather than at a location applied for result in denying you the right to recover your share of the gas underlined in your acreage? Is it your opinion?

A. That is my opinion, yes. I agree to that.

Q. Do you have anything to appear to help in your testimony?

A. Well, I think that should cover it, that is the primary reason for the application. I think it has been pretty well covered.

EXAMINER MANKIN: Do you have a structure map available Mr. Egan?

A. I do not have a structure map available, I have one but it has such common knowledge of the structure, of the Pictured Cliffs Structure - - - - -

Q. Are you familiar with the structure in this area?

A. Yes, sir.

Q. Could you supply us with more information?

A. What are the contours on the Pictured Cliffs trend southeast and right about the point of Section 4, they start to bend around and trend NE and north again.

Q. Now that is Section 4, of what Township and Range?

A. Of 25-3, that is right about the bottom of the basin for the contours that are turning and swinging around and then going north again.

Q. Mr. Egan, I believe you indicated that the NW productions Well No. 3 -33 was a very light well just northwest of the Pope Well, is that right?

A. That is right.

Q. Was the direct offset of Southern Union's McCroyden in the SW of Section 3, was not it a good well? Direct offset?

A. Yes, that was calculated - - - that is NW Production?

Q. No, sir. Southern Union's McCroyden in the SW of Section 3.

A. O, yes. That was 4-million 280-thousand calculated.

Q. So the direct offset of this well is a pretty good well, where a mile or a mile and a half away, you decided that it was a very poor well, is that correct?

A. Well, two miles east was a temporarily abandoned well and - - - - which well are you referring to, in the NE of 33?

Q. Yes, sir. In other words the NE of 33 is a very light well, whereas a direct offset to this well in question today is a very good one?

A. Well, for a 4-million foot well, calculated about 3-million open flow.

Q. It would certainly be a very commercial venture, would it not?

A. Well, a creeper, I would say.

EXAMINER MANKIN: Mr. Egan, in event gas prpration is put in in some future date in this particular pool where there are 320 acres of temporary spacing, would Gunsite Butte be willing to cut the allowable in half, or at least cut the acreage in half as a result of being - - - of desiring to claim very poor acreage that is not very good on the NE/4 of Section 3?

A. No, because I do not think - - - - it will probably produce, now let me say - - - - for instance, on the Section 32, 26-3, the location was granted to Southern Union to drill a well in the SE/4, well I do not think that Southern Union will agree to cut that allowable of 320-acres in two because possibly section of the SW section might not look so good.

Q. Was'nt the reason that that well was drilled in Section 32 by Southern Union, which was their Jicarilla D3, because there had been a previous well drilled prior to the rules? Therefore, they desired a direct diagonal offsett to it? Rather than one on the same side of the Section?

A. Well, let me tell you something, that well will only make about 3-hundred thousand feet - - - - I don't call that a very profitable venture.

Q. Is it not also true that in that particular area that you are speaking of, that there is four wells around a section line, around a section corner?

A. There is now.

Q. Of which two of the wells are Gunsite Butte and one is NW Production and one is Southern Union?

A. Right.

Q. You feel in that situation that if they had drilled a well in the SW/4 of Section 32 that they would have gotten a dry hole or practically a non-commercial well?

A. I do not know, they might have gotten a producing well.

MR. UTZ: Mr. Egan, which well were you speaking of when you made the statement a moment ago that the well would only make 3-hundred thousand.

A. Well, the NW the 1D on NW of Section 32-26-3.

Q. Alright, again centering our attention around the section corner that was just spoken of in Section 32 and 33, 26-3, Section 4 and 5 of 25-3, where we have four wells around the section corner, which of those wells was drilled first?

A. Gunsite Butte No. 1 Florance, on the NW of Section 4-25-3.

Q. And that was drilled, I believe as you stated, before the Order 794?

A. That was.

Q. Now, which of the wells was drilled next?

A. The Gunsite Butte #2 in the NE of 5, 25-3.

Q. That was also drilled before 794?

A. That was.

Q. The NW Production #1-33 of SW/4 of Section 33, when was that well drilled, do you know?

A. That was drilled this spring.

Q. Was it drilled before - - - -

A. It was drilled after - - - - -



Q. After the order?

A. That is right.

Q. And is an orthodox location?

A. That is right.

Q. Now the Southern Union Jicarilla 3-D in the SE/4 of Section 32, was that completed before or after the order?

A. After the order.

Q. Now supposedly the reason they wanted an unorthodox location there is because of the 1-D in the NW/4 of Section 32? Is that correct?

A. They stated their application and their testimony that they wanted to drain the E/2 of 32.

Q. In your opinion do you think that the fact that the Gunsite #2 of an IP of 7-million and the Gunsite #1 with an IP of 10-million had anything to do with their desire to drill in the SW/4 of Section 32?

A. I do not know, but it may have influenced them to some extent.

Q. The SE/4 of Section 32?

A. That is right.

Q. Directing our attention to the N/2 of Section 3 - - if you drilled an orthodox location there as you have stated, you would be a mile and a half from the nearest producing well.

A. Yes, sir.

Q. It might be - if you drilled there, you might even get a dry hole.

A. One never knows.

Q. Chances are that you would get a smaller well then by drilling in the NW/4?

A. That is always the case, when you drill toward the edge of these trends, the farther you go the lighter you get.

EXAMINER MANKIN: Just a moment, before you continue further Mr. Egan, I think we ought to clarify the way Mr. Utz asked you the question, you said that it would be a mile and a half to production, I think for the well in question that it would be an orthodox location, I do not believe you meant to say that. It is a mile and a half from Gunsite Well, but only half a mile from production, is that not true?

A. Well, it would be diagonal across the section.

Q. Its only really about a half mile from production but a mile and a half from Gunsite Butte's other well?

A. That is right.

Q. O.K., I am sorry, lets go ahead please.

A. Alright.

MR. UTZ: The way the sands run in that area, is not the chances of having more permeability and a better well better in the NW/4 of 3 than it is in the NE/4 of Section 3?

A. I feel that it is better.

Q. Would the permeability of the sand in the N/2 of Section 3 have anything to do with the reserves in place?

A. Well, the permeability always has something to do with the reserves in place.

Q. Does the porosity?

A. Porosity and permeability, both.

Q. Well, assuming that you had the same reserve in the N/2 of Section 3 but that in the NE/4 you drilled a small well, would you be able to recover those reserves due to a formula which had 75% deliverability than you would if you drilled a larger well in the NW/4 of Section 3?

A. I do not believe that you would recover the amount of gas in an area with the porosity and permeability is smaller than you would in an area where there is thicker sands and more permeability and porosity.

Q. In other words, if you drilled a small well in the NE/4 of Section 3 you would not be able to recover your gas as fast and at the same rate, due to the type of deliverability formula, proration formula as the wells which have a large deliverability in Section 4 and 5, is that correct?

A. I think that is true.

Q. Whereas, if you drilled a well in the NW/4 of Section 3, you would still be able to recover your reserves in the NE/4 of that Section?

A. I think we could recover a share of the reserves of the NE corner of the section that was drilled in the NW.

MR. UTZ: I believe that is all I have.

A. I might add, that these four wells, Gunsite Butte No. 1 and 2 and Pacific NW Production and Southern Union, they will tend to drain that local area pretty well. Now if perhaps we would move over a mile and a half from that, we may not get our fair share of the gas in between the No. 1 Gunsite and that location.

MR. UTZ: In other words, what you are saying is that that group of wells has high deliverability there, could drain your NW/4 before you had an opportunity to drain it? Is that correct?

A. Well, nobody knows how far those wells will drain, but I feel that we should be close enough to that group of wells so that we can get a share of that gas.

EXAMINER MANKIN: Mr. Egan, turning again to this grouping of wells, do you feel that the grouping of wells as you have, trying to go west, where you have several wells in a very localized area will be very heavy drawdown in the area and as a result the pressures will drop very fast?

A. I do not think that under the proration conditions it will be imposed before very long that they will take enough gas to materially affect that pool - - - the pool pressure.

Q. You are basing that upon very light withdrawals - - - - -

A. Well, I am basing that upon the general take of the basin as a whole, and other Pictured Cliffs areas, and I assume that the takeout of this field will be on the same ratio as the other area.

Q. Are there any other questions? Mr. Cooley?

MR. COOLEY: Mr. Egan, one of the reasons that you have stated why you feel that the exception should be granted in this case is the fact that the Gunsite Florance #1 which is also an exception, granted by the order itself- - -

A. No, let me correct you in that - - that was'nt an exception, that was drilled prior to this order.

MR. COOLEY: It is mentioned in the order.

A. That is right, it is mentioned in the order.

Q. Your statement was that since it is a mile and a half from the standard location, you feel that it is too far between the two wells, is that correct?

A. I feel that way.

Q. Now, my question is, in that the Commission is trying to establish a uniform spacing pattern in this area, will one exception lead to another, will there be a ripple effect? Will the approval of this application call for another exception?

A. Well, sir, I can not tell you, I'm just going to drill one well at a time.

Q. Well, in your professional opinion, would the approval of this exception call for another one on similar grounds?

A. Well, I do not anticipate it right now, but I could not state what we might want to do in the future, we have some other acreage and conditions may change.

Q. Well, my point is that if one exception leads to another, we completely destroy the spacing pattern established by Order 794, I wondered if there would be a ripple effect caused by the exceptions - - - -

A. I do not think that there will be a accumulated effect or rippled effect, all we are interested in is finding the location to drill this well on Section 3, then after that we will look at our acreage and decide where we could possibly drill another one, were we can get a well, if it is necessary, we can discuss it. We do not want to break up your spacing pattern that is established but still Gunsite has acreage and certain drilling commitments and they want to fulfill those, and the do not feel that they should for instance go out in dry territory just because there is a spacing pattern established.

EXAMINER MANKIN: Mr. Egan, does Gunsite Butte have a lease on the N/2 of Section 2, of 25-3?

A. They have a lease on the NW/4 of Section 2, of 25-3.

Q. Who has the NE/4 Section of Section 2?

A. M. F. Florance.

Q. Does Gunsite Butte expect to, if they make a commercial well in NW Section 3, expect to drill another well in the NW of Section 2 or come in for exception?

A. Well, I do not know about that, because Gunsite Butte only has 160 acres. They would have to communitize another 160 acres, without - well, that is something to be decided later.

Q. Who has the lease on the SW/4 of Section 2?

A. Well, I am not sure about that, - - -

MR. SILVER: Southern Union - - -

MR. EGAN: Southern Union has it?

MR. SILVER: To the best of my knowledge, Southern Union has the S/2 of Section 2, and N/2 of Section 11, the lease was purchased from Mr. Langman of Albuquerque.

EXAMINER MANKIN: Do you have another question for the witness?

MR. EGAN: For the record you may put his name down there.

EXAMINER MANKIN: Who's that?

MR. EGAN: Caswell Silver.

MR. SILVER: And therefore, a jump of more than a half mile across the trends of permeability in this case is an actual fact creating the necessity of drilling a wildcat rather than a field well?

A. Well, you might call it a wildcat, I would. When you are drilling a well to the trend of one of these sand lenses.

Q. I would like to - - - you were asked if you would not get a better well in the NW of 3, I believe that you replied in the affirmative - - - the Commission made a point that this would give more drainage because of the better permeability, perhaps it would create a better sump in the area and therefore better drainage of the entire area, with the well in the NW of 3 instead of NE? It is really repeating your point, it is not necessary entirely, I just have it down, - - excuse me, lets go on to something else. You were asked about a ripple effect, is not that a question that was decided by the Commission when they gave Southern Union an exception to the Rule in the SE of 32?

A. I think, as I remember, there was some discussion about Southern Union asking for more unorthodox locations, and they reserved the right to apply for one if they felt it necessary sometime in the future, or there was some discussion about going into - - - reconditioning some old wells.

EXAMINER MANKIN: Now, before you go ahead Mr. Silver, many of your questions are of testimony nature, if you desire to ask the questions, fine, if not, we would like to put you on the stand if you are going to testify.

MR. SILVER: Well, either way the Commission wants to, I am just trying to bring out the points rather - -

EXAMINER MANKIN: If they are questions, fine, if they are testimony, we would like to have you sworn.

MR. SILVER: You testified that one of the wells of Pacific NW made approximately half a million on potential on Pictured Cliffs, which well was that?

MR. EGAN: Well, the NE of Section 32, 26-3.

MR. SILVER: And if you extended the trend, would you consider that commercial at that depth?

MR. EGAN: Not at 44-hundred feet.

Q. If you extended that trend to the - that well potential, parallel to the trend of sedimentation in the area, could you make a location of approximately the same as that well in the north - in any part of your - - - - -

A. Almost to the NW of 3, I mean in the NE of 3.

Q. Therefore, you would virtually classify the NE of 3 as non-commercial?

A. I would not call it non-commercial, but I would say it was the lighter production.

MR. SILVER: That is all.

EXAMINER MANKIN: Mr. Egan, Mr. Silver asked you a question about the location of the NW Productions 2-33 which was a dual well, very light well, you indicated that it was in the NE of 32, did you not mean 33?

MR. EGAN: 33, I beg your pardon.

Q. Also, Mr. Silver asked some questions in regards to this trend and that the possibility of the NE/4 of Section 3 might not be very productive of gas, did you not in your previous testimony state that the trend was shifting from NW SE to almost North now because the basin is going up in this particular area?

A. No, I referred to the Pictured Cliffs structure, not the trend. The trend of the sands cut right across the contour line.

Q. That is what I wanted to bring out - - - -

A. Yes, that has no reference, relationship to the contour lines of the Pictured Cliffs.

Q. Therefore, in this particular area the structure and the trend are not the same?

A. Not the same, no, definitely not.

EXAMINER MANKIN: Because in this particular area the trend - - the structure is starting to go to the North - - Northeast to go to Southeast.

MR. EGAN: That is right. And the sands cuts right across it - - the structure lines.

Q. And wells to the east of this in the Lindrith and the Gavilan area have experienced the same difficulty? Is that correct?

MR. EGAN: What difficulty?

Q. In that the trend and the structure are not related?

A. That is right, yes.

MR. SILVER: Well, is it not true that the trend and the structure are not related anywhere in the Pictured Cliffs production of the basin? Except in rare coincidence?

MR. EGAN: Well, they coincide all up through Kutz and all through, so many of those pools have to lie right on the contour line.

MR. SILVER: You would not classify the Pictured Cliffs production as a structural - - -

MR. EGAN: But then they will move right on up to the structure line, see? They have no structure and apparently no connection to accumulation - - -

EXAMINER MANKIN: What kind of trap would you say in this particular area of the Pictured Cliffs is layed down in? What kind of - - -

MR. EGAN: Depositional, stratigraphic, it is extremely lenticular, that is why you get some light wells among the large wells, this is not what you would call a blankets sand comparable to the Wilcox sand or the Woodbine sand, you could cover a large area and you can determine some reservoir factors from it. This is extremely difficult, because it is shale and sand and overlaps and its just a mass of sand piled up - - duned sands and shale reworked, you're liable to get anything.

Q. In this particular area, around this applicant well, is there more than one sand present? Or is there just one sand present?



A. Some places in here get a sand up beneath the coal and then you might get 20 - 30 foot of shaley sand or tight sand, then you might get another sand below it, you see. But it all more or less represents the zone, you can pick out the zone, but the productive sand may occur in one sand body in it or maybe two, in many cases it is split up.

Q. In the particular area in question here in the NW or the NE/4 of Section 3 is there more than one productive zone?

A. It looks like the NW of 3, it looks like probably one zone.

EXAMINER MANKIN: Are there any other questions of the witness?

MR. UTZ: Mr. Egan, doesn't this think, whole problem, sum down to the fact that there are other wells drilled in the immediate area have virtually proven in the NW/4 of Section 3 to be productive? And thereby, drilling in the NE/4, you may be deprived to recover these reserves?

A. I think that is true to a large extent, I think that a well in the NW of Section 3 will recover reserves for us more equitably than one in the NE of Section 3.

MR. UTZ: That is all.

EXAMINER MANKIN: Are there any other questions?

MR. SILVER: I would like to put on some testimony.

EXAMINER MANKIN: The testimony which you would want to put on is not for the applicant but would be for yourself and your client?

MR. SILVER: Well, I am interested in that acreage and adjoining acreage,

- - - - -

EXAMINER MANKIN: But I mean't, you would not be for the applicant?

MR. SILVER: Well, I do not oppose the applicant in any way, I approve of his application, I just want to add some additional testimony.

MR. COOLEY: You are not associated with the applicant?

MR. SILVER: No, I do own an interest under the land involved.

MR. KELLAHIN: As far as the applicant is concerned, Mr. Silver owns the interests in the area and he certainly has a right to put on testimony if he wants to.

EXAMINER MANKIN: We are not denying that, we are just wondering whether it should be under the applicant's name or under his - - -

MR. KELLAHIN: Make him an intervener.

EXAMINER MANKIN: Just a moment, before you furnish - - - are there any other questions? You wish to enter Exhibit 1?

MR. KELLAHIN: Yes, we wish to offer Exhibit No. 1 in evidence.

EXAMINER MANKIN: If there is no objection to Exhibit No. 1, the applicant will be entered in the evidence. Is there anything further? Any statements? Or any questions of the witness? If not the witness may be excused.

MR. KELLAHIN: I would like to make a statement at the closing, please.

EXAMINER MANKIN: Yes, we will now swear Mr. Silver in.

CASWELL SILVER

having first been duly sworn, testified as follows:

MR. COOLEY: Please state your full name for the record.

MR. SILVER: Caswell Silver.

Q. Mr. Silver, have you previously testified before the Commission as an expert witness:

A. Yes.

EXAMINER MANKIN: Proceed.

MR. SILVER: I wish to point out to the Commission that there is a general problem involved in this location that is going to affect us more and more on the east side of the Basin and lands immediately joining this application and other lands, in which I am quite a large land owner. It has been largely accepted by the geological profession that one of the reasons for production in the Pictured Cliffs Sands Stone is that it pinches out to the east in the basin before rising to the surface, at least it can be definitely shown on the surface if it is not present along the exposures of the Lewis shale and the overlying rocks through Townships

22, 23, 24 and part of 25 North and as far South - - - the geological survey has appointed pinchout as far South as Township 20 North, 1 West, just SW of Cuba. In line with this geological evidence, which has been well known for years in the basin, as you go SE along of the Pictured Cliffs trends in the basin, they tend to become thinner and narrower and more erratic, that is, one might say, individual productive trends tend to finger out. While, in general, I want to preface this by saying, in general, I approve of the principle of wider spacing - 320-acre spacing, but it appears that there are geologic reasons why in cases of this sort, and in future cases, the Commission should consider that 320 acres spacing may make for rather difficult exploration problems in an area where the sands become narrower and thinner and it may be necessary for conservation reasons to recover the maximum amount of gas, to consider the feasibility that in such marginal areas, spacing be retained to 160 acres so you can get in closer to your control, and that is all I have to say.

MR. COOLEY: Mr. Silver, do you feel that the present Rule 4 of Order R-794 requiring the well to be drilled in the NE/4 and SW/4 is feasible, as a general policy?

A. I feel that it is feasible only in such areas where the width of the Pictured Cliffs trend allows a significant number of wells to be developed across the trend, where the trend becomes narrow, I think that such a fixed rule will leave some gas in the ground because we will be unable to move into marginal locations which might otherwise be productive. I do not know how to solve the problem for the Commission, I just feel that while erratic spacing presents problems to the Commission, it may eventually drain more gas allowing us to create a sump next to marginal drainage area. The important problem in the field is to get sumps or drainage spots, as close to these marginal areas as we can so we can recover some of the gas, and by keeping this Rule for, why we blocked off half of our marginal locations close to, well in some areas, close to marginal locations. It is a problem of course, I don't just know what the solution is.

EXAMINER MANKIN: Are there any other questions? Mr. Kellahin.

MR. KELLAHIN: Mr. Silver, in your opinion, based on the testimony which you have given, do you feel that an exception is justified in the case now before the Commission?

MR. SILVER: Yes, I do. Very much so. I feel that going in this area and further east, and southeast of this trend and adjoining trend, we are going to have an awful lot of problems, the trends are very narrow, about a mile wide and on these same sand lands, as a matter of fact, which I in my opinion would be the same lands 8 miles to the southeast in the Tapicito Area where San Juan Gas Corporation, drilled their 26D Well and A. G. Hill drilled their No. 1. I believe it was 1X White Well in Section 36, that is undoubtedly an extension on the same trend of sedimentation, but there we have a well in Section 16 of 25-2, drilled by the San Juan Gas Corporation and also wells of 5 or 6 dry holes in Section 33, 34 of 25-2, which show very definitely that that trend of sand that produce there is going to be less than a mile wide. Now, we are going to have trouble putting locations in there. I have a feeling that somewhere between there and the area on the testimony this morning, we are going to have to let go of 320-acre spacing, in order to develop that land, but that will be up to the Commission to decide, from the geology where it is necessary.

EXAMINER HANKIN: Now, Mr. Silver, you mentioned - of course we are speaking of the Tapicito Area here today, I think the area you are speaking of San Juan Gas Corporation is the area which has been commonly called Gavilan Area, has it not?

MR. SILVER: Well, Gavilan area is another series of lenses just north of this particular lense. We have called the 1X White in the Gavilan area, but it is actually separate sand lense.

EXAMINER HANKIN: It is pretty close to the Lindrith area and south of the Gavilan area?

MR. SILVER: That is right, it will come right up to this land, and it is very narrow and we are going to have our problems down there, just to get that gas out of the ground, because we have water close by to the south and we have completely no sand to north that isn't over a mile wide.

EXAMINER MANKIN: Is there further questions of Mr. Silver? If there is no further question, Mr. Silver may be excused. Is there any statements to be made in this case?

MR. KELLAHIN: If the Commission please, I don't really have a statement of any great extent, first I would like to preface my remarks with the statement that we did not come here with the purpose of making a direct attack upon the present order of the Tapicito Pool at this time. We are asking merely for an exception based upon the right to recover our just and equitable share of the gas underlying the acreage held by Gunsite Butte and Uranium. During the course of his testimony, Mr. Egan referred to certain drilling commitments and based on those without stating exactly what they are, I would request that we obtain as prompt action as possible on this order in order that those commitments may be met with in the deadline provided in our contract, I am sure the Commission will cooperate in every way possible on that, and that presents our case, and thank you very much.

EXAMINER MANKIN: Is there anything further in this case? If not, we will take the case under advisement and the hearing is adjourned.

STATE OF NEW MEXICO       )  
                                  :  
COUNTY OF SANTA FE       )

I, Gloria Alvarado, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Commission Examiner at Santa Fe, New Mexico, is a true and correct record, to the best of my knowledge, skill and ability.

Dated at Santa Fe, New Mexico this 15th day of November,  
1956.

Gloria Alvarado

## NEW MEXICO OIL CONSERVATION COMMISSION

Mahry Hall, State CapitolSanta Fe, NEW MEXICOREGISTERHEARING DATE October 19, 1956TIME: 10:00 a.m.

| NAME:   | REPRESENTING:  | LOCATION:  |
|---|--|--|
| Jason Kellahin<br>Christ. M.<br>J. & E. C.<br>Caswell - Lemos<br>Silver | Gumate Butte Uranium Corp.<br>N. Mex. O. C. L.<br>Consolidated<br>Myself | Santa Fe.<br>Santa Fe.<br>Farm & Town<br>Albuquerque |