Case Number

4503

Application

Transcripts.

SmaLL Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
June 16, 1971

REGULAR HEARING

IN THE MATTER OF:

The hearing called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole-location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom hole location over other producers.

Case No. 4503
De Novo

BEFORE: A. L. "PETE" PORTER, SECRETARY DIRECTOR

TRANSCRIPT OF HEARING

MR. PORTER: The Commission will call Case 4503.

MR. HATCH: Case 4503. De Novo. In the matter of the hearing called by the Oil Conversation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation state well number two, having a surface location 360 feet from the south line and 330 feet from the east line of section twenty-eight, township seventeen south, range twenty-eight east, empire-abo pool, Eddy County, New Mexico, to a bottom hole location 120 feet from the south line and 149 feet from the east line of said section twenty-eight should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom hole location over other producers.

MR. PORTER: At this time the Commission would like to call for appearances in Case 4503.

MR. KELLAHIN: If the Commissioner please, Jason Kellahin, Kellahin & Fox, Santa Fe, appearing for Penroc Oil Corporation.

MR. BUELL: For Amoco Production Company, Guy Buell.

MR. KELLAHIN: If the Commissioner please, at this time --

MR. PORTER: Mr. Morris, did you intend to make an appearance in this case?

MR. MORRIS: No, sir, I did not.

MR. PORTER: Let me say at the outset here for the benefit of the other commissioners, this is a case which was heard some time ago on the Commission's own motion. We called this case ourselves, and rendered a decision, and under our procedures, anyone or any -- I believe the rule or the law states -- and the adversely effected party may ask for a De Novo hearing within a certain time.

And under the provisions of this rule, Pan America has applied for a De Novo hearing, which requires at least two members of the Commission to be present at the hearing, so that is the reason we are here today.

Mr. Kellahin, you may proceed.

MR. KELLAHIN: If the Commissioner please, on behalf of Penroc Oil Corporation, we want to interpose an objection to proceeding with this hearing, and in order to lay the foundation for our objection, it will be necessary to briefly review what occurred at the prior hearing.

As the director has stated, the hearing originally came on the motion of the Oil Conversation Commission as Case 4503 and was heard on February the 24th, 1971, before Elvis A. Utz, Examiner.

And an order was entered March the 23rd, 1971 based on a finding that no advantage had been gained by the location of the bottom hole perforation, and approved the location -- the

deviation of the well.

Now, at the time of the hearing on February the 24th, Penroc appeared with its witnesses, ready to proceed, and the Commission read a telegram into the record from Amoco signed by Mr. Guy Buell.

MR. PORTER: What was the date of that hearing, Mr. Kellahin?

MR. KELLAHIN: February 24th.

MR. PORTER: 24th?

MR. KELLAHIN: 1971. The telegram asked that the case be continued for the reason that Mr. Buell found it necessary to be in Austin, Texas on that date.

We, of course, objected to any continuance, having gone to the expense of appearing before the Commission and had no advance notice of any request for a continuance.

The examiner denied any continuance and proceeded with the hearing. Now, we are before the Commission on a letter, I guess, application -- I don't know what you might call it, from Amoco, not signed by an attorney, but signed by one of their engineers, not served upon opposing parties.

We have never received a copy of this application as is required by the Commission rules. We take the position that if Amoco has any standing, this is a pleading that should have been signed by an attorney for the company, and it certainly has attorneys available, and it should have been served as

required by the Commission rules and regulations on the other interested parties, if Amoco is a party. We take the position, further, that Amoco is not a party.

The statute provides in connection with hearing De Novos that when any matter of a proceeding is referred to an examiner and a decision is rendered thereon any parties adversely affected shall have the right to have said matter heard De Novo before the Commission upon application filed with the Commission within thirty days from the time such decision is rendered.

Now, we are confronted here with the question of whether Amoco was a party. They did not appear. They did not participate. It was certainly not the intention of the examiner, and the law providing for examiner hearings that the examiner hearings could be ignored and then the party who disliked the order that was entered following the hearing De Novo.

It was incumbent upon them to appear at the examiner hearing and state their case and give the examiner the opportunity to pass on it, which they did not do.

Just one further thing. Black's Law Dictionary, revised, fourth edition, defines party as a person concerned or having or taking part in any affair of matter, transaction or proceeding considered individually.

The party is a technical order, and has a precise

meeting in legal parts. It is understood he or they or by against whom a suit is brought whether in law or equity, party plaintiff or defendant, whether composed of one or more individuals, and all others who may be affected by the suit and -- I'm sorry. I skipped a line there. Whether composed of one or more individuals, and whether natural or legal persons, they are parties in the written parties on the records, and all others who may be affected by the suit indirectly, consequentially are persons interested but are not parties.

We take the position that Amoco today has no standing to proceed in this case.

MR. PORTER: Mr. Buell?

MR. BUELL: May it please the Commission, I am not going to argue Black's Dictionary, but I would like to argue the New Mexico Statutes and the rules and regulations and policies of the Commission.

I had hoped I wouldn't have to burden the record with the legislative history of the Commission's examiner-type hearings and De Novo hearings, but in view of Mr. Kellahin's argument, I am afraid I will have to.

It might be a little hard, for Governor King, and Commissioner Armijo, for you to realize that not too many years ago both the Governor and the Land Commissioner and Mr. Porter's predecessors were sometimes tied up as long as two weeks out of every month hearing these dockets.

Prior to 1955 this Commission had no examiner hearings at all, and as government got more complex and the Governor's job, the Land Commissioner's job and the Secretary Director's jobs got more complex, it was just impossible to proceed, so in 1955 the New Mexico Legislature enacted a new bill, a new law giving this Commission authority to set up an examiner system.

In that 1955 law, it had two safeguards in it. It had safeguards for the simple reason that a lot of operators were apprehensive over losing their rights to have the full Commission hear their case, so the law that authorized setting up the examiner system put in two safeguards.

One was that any party affected -- anytime three days prior to the day that an examiner case was going to be heard could notify the Commission that he objected. Then it would completely circumvent the examiner. The examiner would not hear it. The full Commission would hear it.

Out of that statute -- use the word party. At that time there has been no proceedings. There has been no case heard before an examiner, but yet, the legislature said any affected party has this right, so the Commission operated under that, and also at that time when they adopted their rules setting up their examiner's system, the Commission retained to its exclusive jurisdiction over certain matters.

If my memory serves me correctly, it was mainly items

of stated wide scope. For instance, between 1955 and 1961, an examiner could not hear an application that affected the state-wide rule.

The Commission found that time this time was still being taken up to a great extent, so back to the legislature we go in 1961, and amend section 65-311.1, which is a codified portion of the statute that sets up the examiner system.

And all the legislature did there was eliminate that provision that said any affected party could object prior to examiner hearing, and the Commission would have to hear it.

The legislature was very careful to preserve the rights of any party adversely affected by an order to be heard before the full Commission, so I think an examination of the legislative history of our examiner statute and our De Novo statute shows that it was a legislative intent to give any party the right to be heard before the Commission.

Now, he said we can't be adversely affected because we weren't there. Mr. Kellahin, by his words, is trying to paint this Commission into a corner.

Let's assume for the purpose of this argument that we did appear, that we made our points, yet the decision of the Commission was what the decision was without us being there.

Then, in that event, an identical order, identical to the one that was issued, would have been issued, finding that Penroc had no advantage, that in order to protect

correlative rights and prevent waste, they should be allowed to produce their wells.

There would not be a finding in that order that Amoco had been adversely affected. I have never seen an order of this Commission that resulted from a contested hearing that said any party was adversely affected by the order.

All the order says, just the open site, so if this Commission has to make a finding that a party was adversely affected by their order, in order to have a De Novo hearing, it will be a paradox. You will have to contravene the only order that you issue.

It has always been the policy of this Commission following the intent of the legislature to let the party decide whether or not he was adversely affected. There is nothing in your statutes or your rules that says the party to be adversely affected must have made an appearance.

We tried to make an appearance. We asked for the case to continue so we could appear.

We have faith in the examiner system, and we are happy to work under it, but we do believe that we should have our right that the legislature granted us to have you gentlemen hear this case so that we will have our day before this Commission.

Another point that he made, that our letter requesting the De Novo hearing was signed by an engineer and not a lawyer,

it doesn't take any legal skill to sign a letter requesting a hearing. The Commission rules and regulations provide for a representative to sign a letter of application for a hearing, and that's all this was.

Your rule 1203 says applications shall be signed by the person seeking the hearing or his attorney. The New Mexico Statutes at 65-3-29, a little later in parentheses, and your own rules at section A of your general rule define a person to mean any actual person, corporation, etc.

And even aside from that, as Mr. Porter, I'm sure, you recall, in 1958 the Attorney General issued its opinions saying that for a layman or an attorney to be an advocate at a Commission hearing that he must be joined by local counsel. In fact, if you will look in your files following that, you will see that we have a letter from New Mexico Counsel appearing with me.

The Commission, of course, initiated that policy and required local counsel to appear with foreign attorney or a layman. Then about two years after that memorandum, the Commission -- I mean after that Attorney General opinion, the Commission issued a memorandum number 9-60, and in that memorandum, this memorandum is discussing the Attorney General's opinion on the necessity for local counsel to be present, and in the third paragraph of this memorandum, the Commission says application for hearing signed by any company representative

will be accepted.

Well, under our company's instructions and policies, Don Ray, our division engineer, is the authorized representative to initiate application for hearing before this Commission, so I submit that we have followed New Mexico law.

We have followed the Commission's rules and regulations. We have followed our policies, and for us to be denied our day before you, in my opinion, would be a tragedy.

MR. PORTER: Mr. Kellahin?

MR. KELLAHIN: I would like to very briefly point out -- Mr. Buell has rather twisted our statement a bit. Our position is that the law afforded Amoco a remedy of which they did not avail themselves in the hearing before the examiner.

It could have, as he pointed out, asked for a hearing before the Commission at that time if they wanted to, had they filed it three days before the hearing.

They didn't avail themselves of that, either, and so we submit they have no standing to ask for a hearing De Novo having failed to appear at the regular hearing.

MR. PORTER: Does this conclude your arguments on this particular point?

MR. BUELL: Yes, sir.

MR. KELLAHIN: Yes, sir.

MR. PORTER: The Commission will recognize counsel, Mr. George Hatch at this time.

MR. HATCH: Mr. Buell, was there a letter from a local attorney in the record at the time of the original hearing?

MR. BUELL: You mean back in February?

MR. HATCH: Yes.

MR. BUELL: No, sir. There was not. I did not request one, because I knew I could not be present, and that is the reason that I did not, Mr. Hatch.

MR. HATCH: The letter now is from Mr. Charles Malone?

MR. BUELL: Yes, sir.

MR. HATCH: Are you assisting Mr. Malone today?

MR. BUELL: Am I assisting Mr. Malone?

MR. HATCH: Yes.

MR. BUELL: No. I would say just the reverse is true. Mr. Malone is assisting me by entering his appearance as local counsel with me as a foreign lawyer, so I can be an applicant before this Commission.

MR. HATCH: You said that Mr. Ray has been authorized to submit applications --

MR. BUELL: Yes, sir.

MR. HATCH: -- for Amoco?

MR. BUELL: Yes, sir.

MR. HATCH: Is that a written authorization or some formal proceeding?

MR. BUELL: Yes, sir. It is in our formal instructions

and policy book.

MR. HATCH: Could you furnish the Commission --

MR. BUELL: Yes, sir.

MR. HATCH: -- with that?

MR. BUELL: Yes, sir.

MR. HATCH: All right.

MR. BUELL: Now, that holds true, not only from New Mexico, but all the states in which we operate.

MR. HATCH: If I wanted to have a personal service on Amoco, would service upon Mr. Ray constitute a personal service on an Amoco Corporation?

MR. BUELL: Mr. Ray is not an officer of the company. He would accept service for the company. Any of we Amoco people would accept service, but he is not an officer of the company.

We should have, and I'm sure we do, a designated agent in New Mexico for service.

MR. HATCH: Mr. Ray is not that designated --

MR. BUELL: It is not Mr. Ray. It will be some local person, Mr. Hatch, that the court service can reach without any difficulty.

we never try to avoid service.

MR. HATCH: Mr Kellahin brought up the problem that no papers, supplemental papers, were served on Penroc or mailed to Penroc concerning your --

MR. BUELL: No, sir. He was complaining of just the opposite. He said that we did not furnish him a copy of the letter, of application for this hearing.

MR. HATCH: Yes. That is what I am saying. And you did not?

MR. BUELL: To my knowledge, we did not, and to my knowlege, Mr. Hatch, we have never done that.

We have asked for several De Novo hearings and have never done that.

MR. HATCH: Do you think the rules require that?

MR. BUELL: I don't know of any rule that does require it, Mr. Hatch. I have studied them very carefully, and I can certainly overlook.

I think Mr. Kellahin was thinking mainly as a courtesy, and in that light, I am sorry that I did not send it to him, because as you know, I think the world of him both personally and professionally, and I do not want to be discourteous in any way to Mr. Kellahin.

MR. HATCH: I think rule 308 does require any pleading other than an application to be served upon the adverse party.

MR. BUELL: 308?

MR. HATCH: 1208.

MR. BUELL: 1208?

MR. HATCH: Yes. And 1208 also describes how an appearance is made before the Commission, I think. Would you

consider this?

MR. BUELL: Yes, sir. I read it, Mr. Hatch, and I just wonder if it is applicable. When any party to a hearing files any pleading, plea or motion, any character perhaps other than an application for hearing.

I consider this as purely an application for hearing.

MR. HATCH: Not a supplemental hearing pleading in the original case?

MR. BUELL: No, sir. This is just an application for hearing that Mr. Ray signed. I could have just as easily signed it, but I didn't.

Under the Commission rules and regulations, and their policy, I just didn't see any necessity for us going outside of our channels. Mr. Ray signs all of our applications and probably for a hearing application of this type, requires less skill than any type of application we file.

It doesn't require as much skill as filing a form C103 for an application to deviate a well.

MR. HATCH: Did Mr. Ray, then, allege any facts that would tend to show that they had been adversely affected?

MR. BUELL: No, sir. We did not do that, because in my opinion, and I hope I am not wrong, but in my opinion, the statute does not require it.

The Commission rules and regulations and policies do not require it, and it is my opinion that under the statute

and under your rule, all you have to say is that, "I am adversely affected and want a De Novo hearing."

MR. HATCH: But you did not allege that right?

MR. BUELL: No, sir.

MR. HATCH: Would you --

MR. BUELL: I believe if we had the opportunity --

MR. HATCH: Would you, had you filed it, rather than Mr. Ray?

MR. BUELL: Sir?

MR. HATCH: Would you have alleged any facts --

MR. BUELL: No, sir. Actually --

MR. HATCH: -- if you had filed it rather than Mr. Ray?

MR. BUELL: This letter that was filed and signed by Mr. Ray was patterned over a letter that I dictated at our last previous De Novo hearing.

MR. HATCH: That's all the questions I have.

MR. PORTER: Gentlemen, the Commission frankly is not absolutely sure that it has jurisdiction to hear the case.

However, we are going to proceed in order to build as good a record as possible, and, Mr. Buell, since you are going to have to make a showing for any change in order that your company is adversely affected, Commission directs you to proceed with your testimony at this time.

MR. BUELL: All right, sir. I am happy to proceed. I would like to --

MR. KELLAHIN: May I say something just a minute?

MR. PORTER: Oh, sure. Sure.

MR. KELLAHIN: I would like to note an objection to the Commission ruling in this record and the fact that we continue to participate in this hearing under these circumstances does not waive that objection.

MR. PORTER: Your objection will be noted in the record, Mr. Kellahin.

MR. BUELL: May it please the Commission, that by us proceeding, this is a very peculiarly worded notice, as most show cause notices are.

The notices were to show cause why it should be allowed to produce. The thrust of our evidence is actually in the opposite direction.

We are going to contend that it should not be allowed to produce, so with that understanding, we are happy to assume the burden of proceeding.

MR. KELLAHIN: We would be happy to proceed first if the Commissioner wishes.

GOVERNOR KING: What is that?

MR. KELLAHIN: I say we would be happy to proceed if it doesn't make any difference.

MR. PORTER: Is there any objection?

MR. HATCH: If Mr. Kellahin is willing, why, I think the Commission --

MR. KELLAHIN: This being a hearing De Novo, we would have to put our testimony on a new --

MR. BUELL: If Mr. Kellahin is willing, I am willing to incorporate the record of the examiner hearing and the exhibits of the examiner hearing in this hearing, just as they were presented.

MR. KELLAHIN: We would want them supplemented.

MR. BUELL: Yes, sir. Say, in the interest of saving time.

MR. PORTER: Would the Commission Legal Department have any objection to this?

MR. HATCH: As long as Mr. Kellahin and Mr. Buell agree.

MR. PORTER: Well, suppose we proceed on that basis, then.

MR. KELLAHIN: We would want to supplement the testimony, Your Honor.

MR. KELLAHIN: I would need a moment with my witness, because we have prepared to present both cases.

MR. BUELL: Would you like for us to go ahead and then you supplement and handle on to direct your counsel to our case? I believe it will save time.

MR. PORTER: We would like to save time.

MR. BUELL: We will try in every way possible, Mr. Porter, to save time. We have one witness, Mr. Dan Nutter.

MR. PORTER: You may be corrected, Mr. Buell.

MR. BUELL: I mean Dan Currens.

MR. HATCH: Mr. Kellahin might object to it.

MR. BUELL: The last time I was before Mr. Nutter, I had Eddy County in Texas.

MR. PORTER: I missed that. I didn't know what was taking place. What I was about to say is that technically, you may be correct in referring to yourself as a foreign attorney, Mr. Buell, but we don't look on Texas as a foreign country, I think.

MR. BUELL: Thank you, sir. Could we have about five minutes to put our exhibits on the wall?

MR. PORTER: We will have a five-minute recess, and incidentally, let's notice at this time that Governor King will go. He would much prefer to stay with us. He feels that his presence is needed, perhaps, also more acutely at another place right now, so he will have to excuse himself.

MR. BUELL: Your Honor, we certainly understand.

GOVERNOR KING: Okay. Thank you.

(Whereupon, a brief recess was held.)

MR. PORTER: This hearing will come to order. Because of a meeting, a rather large number of right-of-way people, we are going to recess the hearing down here and move

up to the Oil Conservation Commission Hearing Room on the second floor in order to accommodate the larger crowd in this auditorium for the other meeting, so when we reconvene immediately following this recess, it will be in the OCC Conference Room upstairs, and we will send all of the right-of-way people down here.

(Whereupon, a brief recess was held.)

MR. PORTER: The hearing will come to order, please. Mr. Buell, would you proceed with the testimony of Amoco?

MR. BUELL: Yes, sir. May it please the Commission, Amoco has one witness, Mr. Currens, who has not been sworn.

(Witness sworn)

DAN CURRENS

having been first duly sworn, testified upon his oath, as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Currens, would you please state your complete name, by whom you are employed, and in what capacity and what location, please.

A Daniel R. Currens, Staff Engineer, Amoco Production Company, Fort Worth, Texas.

Q Mr. Currens, you have testified at previous Commission hearings, and your qualifications as a Petroleum Engineer are a matter of record before this Commission, are they not?

A Yes, sir.

MR. BUELL: Is there any question?

MR. PORTER: No, sir. His qualifications are acceptable.

Q (Mr. Buell continuing) All right, sir. Now, during the course of your testimony, Mr. Currens, you will discuss, I believe, the nine exhibits? Is that right?

A Yes.

Q Now, some of those are work that you have had done, but a lot of them are exhibits that were introduced by Penroc at the February examiner hearing or portion of it, that were introduced by Penroc; is that correct?

A Yes, sir, or redrafted from theirs.

Q Did you adopt these as your own?

A Yes, sir. Well, the data that is shown on the exhibits, I am simply accepting as the information shown by Penroc.

Q All right, sir. Now, with respect to the other exhibits, were they all made by you or under your direct supervision?

A May it please the Commission, what we have done, we are going to rely on Penroc's geological exhibits. We are doing it this one way. From the first of our case, we feel that we can show this well has an advantage based on their own geological work.

Also we feel it will greatly shorten this record if we can avoid a long cross examination and bickering over

minor geological niceties, and that is the reason that we have used this approach.

Q All right, sir. Would you look first at what has been identified as Pan Am Exhibit Number I and state for the record what that exhibit is, please.

A Well, let me move to these larger copies we have hanging on the wall here.

Exhibit I is simply a map of the general area that shows the Penroc forty acre tract where the Penroc State Number II was drilled, and the old Delhi State Fourteen was drilled.

That forty acres is outlined in red on this exhibit. It shows the surface locations of those two wells, as well as the bottom hole location of those two wells.

Q All right, sir. Now, with regard to the surface location, those black dots on that scale map, they overlap, do they not?

A Yes, sir. They do. The two wells that we are talking about here are the Delhi State Fourteen, which was 330 from the south line and 330 from the east line of section twenty-eight, township seventeen south, range twenty-eight east, and the Penroc State Number II, which is north of it by thirty feet, being 360 from the south line, 330 from the east line of that same section.

Q All right, sir. Is Amoco a direct off-set to this forty

acre unit of Penroc's?

A Right here to the direct east of this Penroc forty acre tract is Pan Am's BW Lease.

Q Will the word Pan Am appear on a lot of your exhibits instead of Amoco?

A We have rather recently become Amoco, and some of these will say Pan Am, and some will say Pan American.

Q Will you and I also frequently inadvertently say Pan Am instead of Amoco?

A I don't doubt it in the least.

Q Will Mr. Porter do that also?

A I don't know.

MR. BUELL: Well, may we state right now that Pan America and Amoco are one and the same, and Amoco is the survivor, if word survivor is appropriate.

MR. NUTTER: I still say Stanolon.

Q (Mr. Buell continuing) All right, sir. Now, I noticed on Exhibit I you showed a bottom hole location for Hole Well Number Fourteen; is that correct?

A Yes, sir.

Q So obviously, a directional survey must have been run on that well.

A Yes, sir. Directional survey, according to the testimony in the February hearing, had been run on that, I believe, in November of 1970.

Q All right, sir. Now, you have read the transcript of the examiner hearing which has been incorporated in this record.

A Yes, sir, I have.

Q All right, sir. And you have also, since you are using some of Penroc's exhibits, I am sure, looked at all of their exhibits.

A Yes, sir, I have.

Q All right, sir. Was the directional survey on Old Well Number Fourteen run prior to the spudding of Penroc's Number II?

A Yes, sir, according to the record.

Q All right, sir. Did I ask you when the Number II was spudded, about when it was spudded?

A It was in December, mid-December of 1970.

Q All right, sir. Do you have any other comments on Exhibit Number I?

A No, sir. I think not.

Q Let's go, then, to Exhibit Number II. What is that exhibit?

A Well, Exhibit Number II simply shows the surface location of the Delhi State Fourteen, and the surface location of the Penroc State Number II, and the rules of the directional survey that were run on the Delhi State Fourteen that was in the record of the last hearing.

Q Now, that is a copy of Penroc Exhibit Number Four in the last hearing, except you have drafted it to a larger scale so that the Commission could see it from a distance.

A Yes, sir. That is true.

Q You have added one thing to the old Exhibit Four. What was that?

A Well, I have added the location of the Penroc State II to their exhibit.

Q But you use the same horizontal and vertical scale that they used on their Exhibit Four?

A Yes, sir. On the exhbits in the record this oversize, of course, is blown up by -- the exhibit in the record is on the same scale.

Q All right, sir. Would you comment very generally on the path the Old Fourteen took from surface to bottom hole?

A Well, as depicted on Exhibit II here, Fourteen started out, oh, barely in a southeasterly direction, turning around and going to, oh, pretty near straight westerly direction, and then going in a southwesterly direction, and then coming out on roughly west from, say, five thousand feet to TD.

Q Well, was the Old Number Fourteen intentionally deviated?

A Not that I know of.

Q So that represents the path of that hole due to random deviations, just the deviations from drilling in this

particular area?

A Yes, sir.

Q All right, sir. So even though its bottom hole location is near to the south lease line, then 330 feet, under the Commission rules and regulations, it is still an orthodox bottom hole location?

A Yes, sir. I would think it would be.

Q All right, sir. Are you familiar with the form C103, dated December 21, 1970 that was filed by Penroc?

A Yes, sir.

Q What is the purpose of that form?

A The form C103 was an application to deviate to vertical or to 330 from south and east of the section line, to straighten the old hole, apparently, or to hit a specific target from a well that had been drifting.

Q By the word vertical, you don't mean, though, whether he meant vertical from its present sub-surface or bottom hole location or vertical under the surface location at 360 from the south and 330 from the east line of the unit?

A No. I don't know which was really meant there.

Q All right, sir. Did Amoco receive a copy of that?

A Yes, sir.

Q Did we make any kind of objection?

A No, sir.

Q Why didn't we?

A Well, the purpose of the application was to obtain authority to correct the hole to vertical, or to a point 330 from the south line and 330 from the east line, and these are legal locations.

Q All right, sir. Now, Number II was studied December 14th, I believe you said, and this application was filed December the 21st, so they had made some hole on the well?

A Yes, sir.

Q Based on the transcript of the prior hearing, did they have any deviation data at the time they made this application?

A Yes, sir. Shown on this form C103, which is from the district office file of the Conservation Commission, there were some pencil notations showing various depths, various angles of deviation, and various directions of those deviations.

Q And the copy of the form C103 from the Commission's district office has been identified as Amoco's Exhibit Number III, has it not?

A Yes, sir.

Q And Penroc also submitted a copy of the C103 at the prior hearing. Is there any difference between our Exhibit III and their prior exhibit?

A Well, this particular copy has the information that was noted on it in pencil at the district office, as I

understand it, at the time the application was filed.

Q All right, sir. Now, do you recall, based on reading the transcript, where these deviation data came from that are written on our Exhibit Number III?

A The deviation data that are shown on here were said to be the deviations that were supplied by the driller to Penroc.

Q And Penroc, in turn, furnished it to Mr. Gresset of the Commission's office who put it on?

A Yes. That is what I understand.

Q All right, sir. As I recall from reading the transcript, and see if your memory corresponds with mine, the reason given by Penroc for the filing of the C103 was that these deviations data indicated that New Well Number II was striking the deviation of Old Well Number Fourteen, and they wanted to be assured they were bottomed away from Old Well Number Fourteen.

A Yes, sir. That is the way I read it.

Q As a matter of fact, at the top of page fourteen of the old transcript, where counsel and the witness for Penroc were discussing the deviation data that this question was asked. It is the top of page fourteen, Mr. Currens.

A Okay.

Q Now, would that have brought it closer to the old well? Would you read the answer?

A The answer was, "Yes. It was following almost exactly the

old deviation."

Q All right, sir. Now, is it possible to take the deviation data which are on our Exhibit III and plot that and ascertain where the bottom hole location of the well was at that time, based on that data?

A Yes, sir. We can plot those data.

Q Do you recall from the transcript whether or not Penroc furnished the Commission a lot of these deviations data?

A No, sir. There was none furnished.

Q Have you taken these deviations data and made a plot of the random deviations? That is, the deviations unintentionally of New Well Number II?

A Yes, sir.

Q In that connection, let me direct your attention to Exhibit Number IV. What is that exhibit?

A Well, Exhibit Number IV is a comparison of the known bottom hole locations or the bottom hole locations of the Penroc State II, and the Delhi State Fourteen at the time of the request for approval of the form C103.

Q All right, sir. What other data are on that exhibit?

A The directional survey that was used in a prior exhibit for the Delhi State Fourteen is plotted on here, showing that the well is tending to the west southwest, and the data or plot for the information supplied in support of the form C103 request.

Q And all of these data were available at the time your application to intentionally deviate were filed?

A Yes, sir.

Q Do these data, when you are plotting as you have on Exhibit IV, do they show that the new well was striking the random deviations of the Old Well Number Fourteen?

A No, sir. The data indicated on this exhibit, the plot of the data that were supplied show that the Penroc State Number II was going in a northwesterly direction, and the data from the Delhi State Fourteen was west southwest.

Q Would you take this red pencil and mark on the lower curve -- that is a directional survey on Old Well Fourteen, its bottom hole location at the approximate depth of 3275 feet, which is the random deviations data on our Exhibit Number III.

A It should be right in this area. (Indicating)

Q And by "this area" you are pointing at a red "X" you have put on the directional survey of Old Well Fourteen?

A Yes. Between the 3200 and 3400 foot points.

Q All right, sir. Approximately how far apart were those holes at the time the request to intentionally deviate was made?

A The location at 3275 up higher on the Penroc State Number II and a similar depth location of the Delhi State Fourteen would be about eighty-five feet apart.

Q So actually, the holes were further apart, and by holes, I mean the hole of State Number II and Old Number Fourteen were actually further apart at the time they filed their application to intentionally deviate then was the case when they spudded?

A Yes, sir. The two surface locations are only thirty feet apart. These were about eighty-five feet apart, so it is almost three times as far away.

Q So at this time, do these data, when you compare them, show any danger of the New Well Number II drilling into the old hole or bottoming in an area near the bottom hole of Old Well Number Fourteen?

A No, sir. I don't see how they could.

Q All right, sir. You recall Penroc's structure map and Isopach, the random deviations of New Well Number II. What was it doing with respect to structure and the Isopach? Do you recall?

A The random deviations of Well Number II, with respect to the structure map was, oh, essentially no change.

Q Flat?

A Yes, about flat.

Q What about the Isopach?

A About the Isopach, it would be showing a loss in pay interval.

Q All right, sir. According to the transcript, did Penroc

run a directional survey to total depth when they finally completed the drilling of their Number II?

A Yes, sir.

Q In that connection, let me direct your attention to what has been identified as Exhibit Number V, Amoco's Exhibit Number V. What is that exhibit?

A Well, Exhibit Number V is another comparison of directional surveys of bottom hole location showing the directional survey that was available on the Delhi State Number Fourteen prior to the drilling of the Penroc State Number II Well, and the directional survey that was entered in the hearing in February for the Penroc State Number II Well.

Q Well, this exhibit is actually a composite of Penroc's Exhibits IV and V at the examiner hearing.

A Except in that I have put them on the same scale of so many inches per foot.

Q In their Exhibits IV and V, which were the directional surveys of Old Well Fourteen and on Well Number II, they were different scales, and you simply --

A Yes. It was two different exhibits, one for Number Fourteen, one for Number II, and the scale on those two exhibits for the amount of deviation was --

Q So you could have an accurate comparison, you wanted them brought to the same scale?

A Yes, sir.

Q All right, sir. Do you want to comment briefly on the directional survey on New Well Number II?

A On New Well Number II, the directional survey run by the surveying company showed the well to be going to the northwest generally, and the several stages of the hole, then the directional control tool, dyna-drill, was used, I understand, and the well was deviated to return it in accordance with the application to the vertical or to a point 330 330 from the south and east lines.

The directional survey from the last survey point prior to the setting of the dyna-drill shows below that point that the well started in a southerly direction, and then in a southeasterly direction with deviations of, oh, up to nine, nine and a half degrees, and coming to a bottom hole location over here in the extreme southeast quadrant of the exhibit.

Q All right, sir. Does the directional survey run on New Well Number II generally confirm the deviations data that was presented to the Commission by Penroc?

A Well, yes. It shows that it was going in a northwesterly direction, and that it was pulling away from the Delhi State Fourteen.

Q Instead of getting closer to it or tracking it?

A Yes, sir.

Q All right, sir. Now, the Commission's approval on setting

the directional tool to intentionally deviate authorized them two targets. One was vertical from where it was in location or under their surface location.

The other was located under the surface of Old Well Number Fourteen, which was 330 from the south line and 330 from the east line of the forty acre unit; is that correct?

A Yes, sir.

Q Let me ask you this: Is drilling technology so advanced that you can control the direction of a well and hit at or near a precise target such as the Commission gave them?

A Oh, yes, sir.

Q What control measures do you have to exercise generally speaking? I don't want you to give us a lecture on directional drilling, but just generally speaking, what control devices do you use?

A Well, to begin with, you have to know where you are when you start, and then you have to orient your deviation device to be pointing in the direction that you want the well to go, and then you would have to keep up with the progress of the drilling after having started that deviation.

Q According to the transcript of the examiner hearing, did Penroc exercise any control of the type you have just discussed in the drilling to total depth after the deviation tool was set on their Well Number II?

A In the transcript there was no mention made of any directional points taken after the deviation survey started until the final directional survey was run after the well was completed.

Q Assuming that no control was exercised in the state of the record, I think that is a fair assumption to make.

Would it have been possible for them to hit the targets the Commission gave them without exercising it?

A Oh, I guess all things are possible, but it would be very highly improbable, and it would be most fortuitous if you just started drilling in a deviated hole and hit a specific point if you didn't control it.

Q Well, when you consider the degree of deviation that the well experienced under random drilling, where there was no intention to deviate, and then the intentional deviation -- even fortuitously, they couldn't have hit the target, could they?

A Well, not with the kind of angle that they achieved later on in the drilling of the hole. Now, if they had come back to zero, it would have been to vertical or on probably something on the order of five, six degrees, something like that, to put them to one of their two target locati

Q All right, sir. We have introduced Penroc's structure map which was presented at the examiner hearing as their

Exhibit VI. Our Exhibit VI at this hearing is also their structure map.

Have any changes been made of that structure map by you, or is that just as exact a duplication as you can duplicate?

A That is simply a duplication of that portion of that exhibit.

Q Now, they did have some other data on that. I recall a cross section.

A There was a cross section, and I think that is all the other data that were on this.

Q All right, sir. Penroc testified at the examiner hearing that the bottom hole location in New Well Number II is eighteen feet lower structurally than the bottom hole location of Old Well Number Fourteen.

Is my memory correct on that?

A Yes, sir, you did. The Old Fourteen minus 2216, and the New Number II was 2234, eighteen feet lower.

Q And the Commission in their order in this case, Order R4122, recited in their finding number nine, did they not, that fact that the subject well encountered the pay lower than it would have at its surface location or a bottom hole location 330 from the south and 330 from the east; is that right?

A Yes, sir.

Q All right, sir. Do you interpret that structure map to conform to the Commission's finding number nine?
A Yes, sir.
Q Do you have any other comments to make on that?
A No, sir.
Q All right, sir. We have also mentioned the Isopach there was their Exhibit VII at the examiner hearing, and is likewise our Exhibit Number VII at this hearing.

As far as a reproduction of that exhibit is concerned, would the same factors applied to Number VI apply to our Number VII?

A Yes, sir.
Q All right, sir. Now, there was some testimony in the hearing that they did gain a minor additional amount of pay, but not enough to worry about. Let me ask you this: What additional footage of pay did they gain from their bottom hole location in the southeast corner of that proration unit over the pay at the bottom hole location of Old Well Number Fourteen?
A Well, according to this exhibit, they gained eighteen feet.
Q Oh, they gained as much in pay as they lost in structure?
A Yes, sir, they did. They lost eighteen feet in structure, gained eighteen feet in pay.
Q As the Reservoir Engineer, what would you rather see in a

well of Amoco's? Additional structure or additional pay?

A I would rather have additional pay.

Q If you had to lose structure at the expense of gaining pay, you would be happy to do it?

A Yes, sir. Be glad to.

Q All right, sir. Now, let's make the same comparison on an additional pay with regard to the surface location of the Number II Well.

Let's assume the well had been drilled vertical and was bottomed right under its surface location, and then compare the pay there with the pay that they encountered deviating the well to the southeast corner of the unit, how many additional feet of pay did they gain over that?

A Well, looking at this structure map, or this Isopach map, which is, oh, twenty-five foot interval, oh, it looks like they probably gained on the order of thirty feet or so.

Q All right, sir. Now, finding number ten in the Commission's order that we previously mentioned, said that no advantage was gained by the above described bottom hole location over other producers in the pool. Would you consider a gain of thirty feet in additional pay an advantage?

A Yes, sir.

Q All right, sir. Do you have any other comments on your

Isopach?

A No, sir.

Q Look now, if you will, at what has been identified as our Exhibit Number VIII. What is that exhibit?

A This Exhibit Number VIII is simply a 160 acre area showing the forty acres on the Penroc and Delhi Wells, and Amoco and two other forty acre offsets to the east, southeast and south of that Penroc unit.

Q All right, sir. Now, our Exhibit Number V shows graphically or by plotting the bottom hole location of New Well Number II compared to the surface location. Have you shown that same information on this exhibit looking at the surface?

A Yes. Here is the Delhi Fourteen. Thirty feet north of that is the Penroc II.

Bottom hole location of the Penroc II is the red dot that is shown over here in the southeast corner.

Q So if the authority given to Penroc by the Commission was to locate the well, bottom of the well, 330 from the south and 330 from the east, about how far are they off their target?

A About 270 feet.

Q So that would make them approximately 300 feet from their surface locations?

A Yes, sir.

Q And it is in the corner of the unit in the direction of other production, is it not?
A Yes, sir.
Q All right, sir. Look back for a minute, if you will, at their Exhibit Number VII. In all their geological exhibits they covered about a two-mile spread of the east-west axis of the Empire-ABO Oil Pool, did they not?
A Yes, sir.
Q I realize we are not quarreling with them. I think they showed sufficient data for the purpose of their hearing, but in truth, and in fact, the Empire-ABO along the east-west axis is much longer, is it not?
A Oh, it is on the order of twelve, thirteen, fourteen miles long east and west.
Q All right, sir. Now, I am going to jump you back to Exhibit Number VIII. What is the precise bottom hole location based on the bottom perforations in their well from the south line of their unit and the east line of their unit?
A The actual base of the perforations that was entered in the February hearing for this well is 153.41 feet from the east line and 129.70 feet from the south line.
Q All right, sir. Now, if the Commission does after this hearing, as they did after the examiner hearing and authorizes this well to be produced, they are, in effect,

authorizing a location a little over 153 feet from one line and 129 feet from another line?

A Yes, sir.

Q All right, sir. Just looking at the two-mile area of the pool that they presented on there, and using their Isopach, can you find, according to their geological character interpretation other areas where corner shooting or locating a well within the distances that this one is located, you could result in a producing well?

A Yes, sir.

Q Have you plotted on an exhibit those locations that you did so find?

A Yes, sir.

Q Has that been identified as your Exhibit Number IX?

A Yes, sir.

Q Would you now go to Exhibit Number IX and briefly comment on this?

A Yes, sir. Exhibit Number IX is the Isopach map that was used as Exhibit Number VII, Penroc Isopach that was entered in the February hearing, and on this map I have simply taken the places where an undeveloped proration unit would be indicated to have reef pay in it from the map, and show them with some red arrows.

In other words, there is some Isopach that comes into these forty acre proration units that those units

being undeveloped units.

Q How many such cases did you find in this two-mile area?

A Well, there would be six indicated by this Isopach map.

Q It would follow, would it not, in the thirteen or fourteen-mile east-west spread of this field? There would probably be many such corners that you could shoot?

A I would think so.

Q All right, sir. Mr. Currens, based on your data that you have presented in your study and analysis of these data, what is your recommendation with regard to the show cause feature of the notices for this hearing, and that is whether or not Penroc's Number II should be allowed to produce from its existing bottom hole location in the southeast corner of that unit.

A Well, my recommendation would be that the bottom hole location not be approved and the Penroc be required to comply with the authorization they obtained on the form C103 to return the well to the vertical or to get a bottom hole location 330 from the south and east lines of that unit.

Q Do you have anything else you would care to add, Mr. Currens?

A No, sir.

MR. BUELL: May it please the Commission, I would like to formally offer our Exhibits One through Nine.

MR. PORTER: Any objections? Exhibits will be

admitted. Any questions of Mr. Currens?

MR. KELLAHIN: I have a couple.

MR. PORTER: Mr. Kellahin?

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Currens, on your Exhibit Number IX, you have indicated a number of locations you say would be productive, and new corners; is that correct?

A Is that what that was intended to be? No, sir. That is not what I said there, and it is not what I intended to say.

What I was trying to say here, if I didn't, was that based on the Isopach map that was used in the prior hearing, there are places where pay would exist shown on that Isopach that are undeveloped forty acre tracts with a small portion of that tract showing this Isopach pay.

Q Well, actually, you do indicate that a very small section of pay would be sufficient to produce in the Empire-ABO Pool, do you not?

A No, sir. I didn't.

Q Well, will you agree with that?

A Well, the old Penroc or the old Delhi well here produced about 12,000 barrels during its lifetime, and I am sure that there may be some wells in this section that are productive. I don't know. I haven't made a study of that.

Q Have you had any experience with it yourself?
A No. I haven't made any study of the amount of pay required to have a commercial well.
Q Well, in that case, maybe those locations you are talking about with the red arrows wouldn't produce.
A That might be possible. I don't know.
Q That might be possible?
A I simply show that there is some Isopach present there.
Q Now, getting back to your Exhibit Number III, which was the form C103, was penciled notations. Do you know who put those on there?
A The way I understand the transcript of the record, they were put on by Mr. Gressett.
Q And do you know what they were based on?
A The way I read the transcript, it was information that was furnished by Penroc when they requested the approval of the form C103.
Q And was it not represented that that was information supplied by the driller?
A Oh, yes, sir. Yes, sir. The driller supplied the data, as I understood the record. The driller supplied the data to Penroc, and he simply furnished the data to Mr. Gressett at the time of the application.
Q And that was the only information available at that time?
A As far as I know, yes, sir.

Q Now, referring to your Exhibits IV and V, I believe it is, Exhibits IV and V, IV is the plot on the Penroc State Number II based on the information shown on the form C103; is that correct?

A Yes.

Q And not the actual deviation?

A Yes, sir. That is correct.

Q And that was what is believed to have occurred at the time?

A Yes, sir. That is my understanding.

Q Now, at what point did the Delhi State Well start to swing to the south?

A Well, according to the directional survey on this that is plotted here, it started, oh, sort of southeast probably 200 foot point, and continued there to about a 400 foot point, and then south to the 600, and then started moving, say, west, southwest from there.

Q At the 3000 foot mark it made a decided swing toward the south, did it not?

A Yes, sir.

Q What causes the well to deviate from the vertical like that, Mr. Currens?

A Oh, the formations that are encountered in drilling, depth, angle of the formation, drilling speed, bit weight, many things.

Q It would be reasonable to expect that a well located thirty

feet from a well that had deviated in that fashion would follow somewhat the same pattern, would it not?

A Yes, sir. Except that the data that the driller had supplied showed it going in another direction, to the northwest, in the easterly portion of the hole.

Q Yes, sir. And what depth was that?

A Well, the last point was 3275.

Q And that was about the point at which Delhi State started to swing south?

A Yes, sir. And that is the point they were about eighty-five feet apart at that time, yes, sir.

MR. KELLAHIN: Thank you, Mr. Currens.

MR. PORTER: Any further questions? Mr. Nutter?

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Currens, you stated that it was your suggestion that Penroc be held to their stated objective on the C103, that is, to set the whipstock and deviate the well toward the vertical or to a 330 330 foot location bottom hole.

A Yes, sir.

Q You haven't made any recommendations as to how you will handle this or what your recommendations would be if Penroc had been in here seeking approval to directionally drill on the bottom a hole, say, 129 feet from the east line or south line and 150 feet from the east line of the

quarter quarter section. What would your recommendation be in an event like that?

A Well, I haven't made no recommendation. That is an entirely different matter.

Q That is where the bottom of the hole is now, and if we were considering the bottom of the hole as it is now, what would be your recommendation?

A Well, if he were in here to ask to deviate that well to that point that is 150 and 130 feet from the section lines, he would be in here to, say, protest that he be granted that authority, my recommendation would be that he not be allowed to do it.

Q Well, it often happens among all companies, including Pan Am. Of course, we are talking about Amoco here, but Pan Am has been in here on occasion seeking an unorthodox location --

A Yes, sir.

Q -- and the Commission approved the unorthodox location with the provision that the well would be penalized -- in some manner, so if we would be considering the bottom hole location of this well, where it is, and looking at a penalty for such a location, do you have any thoughts on that?

A I haven't really given that a lot of thought.

MR. BUELL: May it please the Commission, that is a completely different case. That is not what you have before you now.

You have before you an applicant who said, "I want to intentionally deviate my well. Will you give me the authority," and you gave him the authority, and he didn't follow that authority.

And from the state of the record, that exists now, he made no attempt to even follow it, so we have got a completely different situation from a person coming to you and saying, "I want to bottom this well here. Let me do it."

MR. KELLAHIN: If the Commissioner please, the call of the hearing says in part, why it should be approved, and why the allowable should not be reduced. I think that is what Mr. Nutter is talking about. Offset any advantage gained, if any.

MR. BUELL: If you get to bridge number two, you have first got to cross bridge number one, and we have crossed that and recommended that that well comply with the authority that the Commission gave.

MR. PORTER: In other words, Mr. Buell, your witness has recommended that the well be required to be drilled on the vertical or to comply with the 330 330 location, I believe, and he has not recommended any suggested deviation from a normal allowable for this location; is that right?

MR. BUELL: Yes, sir. That is correct.

MR. PORTER: Mr. Nutter, I believe, what he was trying to arrive at, is if he had his recommendation concerning this --

MR. NUTTER: I believe as Mr. Kellahin pointed out that when the Commission wrote the ad and billed it as a show cause hearing, it did state the two alternatives why the well should be approved at all or if it were to be approved if it should be penalized in some manner.

MR. PORTER: Well, Mr. Buell, do you have any objection to your witness making any recommendations concerning a penalized allowable in the event the Commission should see fit to do so?

MR. BUELL: No, sir. If he has a recommendation, I certainly have no objections to him making it. Of course, as everyone in this room is aware, normally when we are looking at an unorthodox well location, we base our opinion on the amount of productive acreage in the unit, in this unit.

The entire unit is productive, and we are not quarreling with that, so we have lost our normal means of assessing the penalty, but if the witness has one, I will be happy for him to say.

MR. PORTER: Is this what you are trying to arrive at Mr. Nutter?

MR. NUTTER: Yes. Because I think that the provision

of the state-wide rule where it says the Commission shall take such action as to offset any advantage that is gained by the unorthodox location is what we should be looking at here.

We have got the well. The well has been drilled, and is bottomed now. You can't pull it up and push it back down in a straighter manner.

MR. BUELL: No, sir. But you can certainly come up the hole about 2000 feet and deviate as they did before and put it where you told them that they ought to put it to begin with.

MR. NUTTER: I realize this could be done. It could also be left where it is and penalized to offset the advantage.

MR. PORTER: Mr. Currens, do you have an answer to Mr. Nutter's question as far as any recommendation is concerned, or just say whether you do or don't.

THE WITNESS: Well, it would perhaps seem appropriate to me that if I recall the Tennaco or Delhi well that was there before, it produced, oh, 12,000 barrels or so, probably the last five or six years of its life.

It produced something less than ten barrels a day. Perhaps that would be a proper number.

MR. PORTER: In other words, to establish the amount of production that this well could withdraw from the reservoir?

THE WITNESS: Yes, sir.

MR. PORTER: Do you have any further questions, Mr.

Nutter?

MR. NUTTER: No, sir.

MR. PORTER: Anyone else have a question?

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Currens, have you ever participated in the drilling of a well using a dyna-drill?

A No, sir.

Q You have not? Yet, you have given some testimony as to the proper use of dyna-drill.

A Drill. Yes, sir. I have discussed that thoroughly with our drilling superintendent and with people that have participated in this, and in addition to the things that they tell me, which is what I have related to you, I don't see how you can hit a target if you don't know where you start from and you don't keep up with where you are while you are going down.

Q In other words, your testimony is that you would have to -- let me not put these words in your mouth. Let me back up.

If you were to deviate a well to a specific point, would you run any sort of a survey to determine the starting point?

A If I had a specific target location, in order to achieve that location, I feel like I would have to know where I was starting from so that I would not road map to follow

to get there.

Q In a case like this, would you have run a number of surveys as you went along to determine where the bottom of the hole was?

A Yes, sir. You would have to do that.

Q After you had put the dyna-drill in the hole?

A Yes, sir.

Q In your opinion, if you drilled this well, set the dyna-drill one time, and did not survey it, did not run the dyna-drill again, what would likely happen to the deviation in this hole, in your opinion?

A One oriented dyna-drill setting, and you are aimed in a direction, and you make one dyna-drill run, this would depend, of course, on how much weight you put on it and what your pump speed was in rotating the bit, because this is similar to a turbine sort of arrangement.

It would normally kick off, as I understand the thing, somewhere on the order of three degrees or so for a hundred feet, depending on how limber your hook-up was, how stiff your hook-up was, and so on.

I mean, I don't know any way I can get to where I am going unless I keep finding out where I am all along the line.

Q What I was getting at, on your Exhibit V, it shows a rather long line trending to the southeast from the point

where the Penroc State Number II was deviated.

Would you anticipate that long southeast trending line, or would you anticipate that the line would deviate in some other direction if the dyna-drill was run only one time, and no other surveys were run in this hole?

A Well, if you made one dyna-drill run and got the thing to vertical, or very close to vertical, which that doesn't really indicate happening, then you might expect random deviations that was beyond that point.

Having established a direction, you might expect a random deviation to tend to bring the hole in perspective with the other deviations you would normally get from random deviations.

For example, you might expect that hole at the point 3852 to then start out in a westerly direction.

Q In your opinion, does the deviation shown on Exhibit Number V indicate a random deviation?

A Well, it certainly -- for the Penroc State II does not show the same direction of random deviation that the Delhi State Fourteen had.

MR. PORTER: Anyone else have a question of Mr. Currens? Witness may be excused.

MR. BUELL: May it please the Commission, that's all we have.

MR. PORTER: Mr. Kellahin?

MR. KELLAHIN: If it please the Commission, could we have about five minutes to --

MR. PORTER: Yes, sir.

MR. KELLAHIN: We have prepared to present our entire case, and we don't want to leave out some of these exhibits which have been presented here.

MR. PORTER: The hearing will recess for five minutes.

(Whereupon, a brief recess was held.)

MR. PORTER: The hearing will come to order, please. The Commission will recognize Mr. Kellahin.

MR. KELLAHIN: If the Commission please, before we put on our testimony, at the discussion downstairs we agreed that the record in the hearing in February would be entered in this case, and with that in mind, we have curtailed our testimony considerably, but we do so with the feeling of assurance that the Commission will review the testimony and the exhibits that were offered in the previous case, although many of them are here.

I think by the time we get through, probably all the exhibits will be duplicated.

MR. PORTER: And I believe the Commission ruled on that earlier, too, and the Commission will review the exhibits in the transcript.

MR. KELLAHIN: That will considerably reduce our testimony. We have one witiness I would like to have sworn,

please.

(Witness sworn)

JOHN B. CASTLE

having been first duly sworn, testified upon his oath as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A John B. Castle.

Q By whom are you employed and in what position, Mr. Castle?

A I am a geologist and president of Penroc Oil Corporation.

Q Have you testified before the Oil Conservation Commission and made your qualifications as a geologist a matter of record?

A Yes.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. PORTER: Yes, they are.

Q (Mr. Kellahin continuing) Mr. Castle, are you the same John Castle who testified in the original hearing in the case now before this Commission, that hearing being in Case Number 4503 heard February 24th of this year?

A Yes.

Q Do you recollect the testimony you offered there? Do you reaffirm that testimony?

A Yes.

Q Now, Mr. Castle, referring to what has been marked as Penroc's Exhibit Number I in the hearing De Novo, would you identify that, please?

A Yes. This is an exhibit which was presented in a hearing before, and it is Exhibit A out of the drilling contract with Roderick Corporation who drilled the well.

Q Now, what is the significance of that, Mr. Castle?

A We had already run a deviation survey on the State Fourteen. We knew where the bottom of the hole was, and the idea was to stay away from that old hole, so we required that the drilling contractor not be more than three degrees off vertical.

Q And that is stated in the contract?

A That is stated in this, yes.

Q And for the purpose of offering this as an exhibit --

A Yes.

Q -- that was entered into prior to the drilling of the well?

A Yes.

Q Now, referring to what has been marked as Exhibit Number II, would you identify that exhibit?

A This is a copy of Sperry Sons' deviation survey of the Penroc State Number II well.

It shows on there that we set two dyna-drills. I believe Dick was asking about that earlier. We set the

first one at 3552 and did time the direction of the hole backward to the south southeast, but it seemed that we were probably at the angle we had picked up that we were going to overrun our target, so at 3972 we set another one to decrease the angle and turn it more toward a 330 location.

Q Now, were you successful in turning the direction of the well?

A Yes.

Q But not to the extent you anticipated?

A Well, no. We didn't. We turned it really, to the 330 location, but actually, we did overshoot the 330 location. We agree with that.

Q And that is reflected, of course, by the surveys which have been submitted in this case?

A Yes.

Q Now, did you make any other checks on the direction that well was taking during the course of drilling?

A Not after we set the second dyna-drill, because we believed at that time we were going in the right direction, at the right angle.

Q And on what did you base your assumption that that would be in the right direction?

A We had a Sperry Son engineer out there, and we were going on his recommendations.

Q And were you making a comparison with the Delhi State Number Fourteen and what occurred in that well?
A Yes.
Q Did you anticipate the same thing would occur?
A We anticipated the same thing would occur before we set the whipstock. Actually, we had an idea from experience in the area that we would deviate toward the west northwest.
Q Now, Mr. Castle, would it be reasonable to anticipate that after you had set the whipstock, the same sub-surface influences would come into play and correct the direction of your well?
A Yes.
Q But that didn't occur, did it?
A Well, actually, it did occur. There was a difference in the structure. The shallow beds dip to the east and the lower beds of the reef dip toward the north, so actually, you would expect a little difference in a deviation as you become deeper in the hole.
Q Do you have anything further to add to that exhibit?
A No.
Q Now, referring to Exhibit Number III, would you identify that exhibit?
A Exhibit Number III is a two-piece exhibit. It is the invoice from Roderick Corporation to us for drilling a hole, and the back page is a credit memo which they gave

us for correcting a hole.

They paid for correcting the deviation.

Q Because that was in their contract?

A Because that was in the contract.

Q And you did anticipate it would deviate, and that is the reason you contracted for that?

A Yes.

Q Do you consider them a competent drilling company?

A Yes.

Q Have you used them before?

A Yes.

Q And had good experiences with them?

A Yes.

Q Now, referring to Exhibit Number IV, would you identify that exhibit, please?

MR. PORTER: Mr. Kellahin, I think we noted Mr. Armijo had to excuse himself for a moment. Maybe we should wait.

MR. KELLAHIN: Okay. A minute ago you said whipstock. You meant dyna-drill?

THE WITNESS: Dyna-drill. It's like Amoco and Pan Am. It's the same thing.

MR. PORTER: You may proceed now.

A Penroc's Exhibit Number IV is a structure map contoured on top of the ABO reef formation, and it is the same exhibit as Exhibit VI on the wall, except for some minor

differences, one being a cross section on the bottom.

Q Actually, we are just offering that so that the cross section will be available in this case; is that correct?

A Yes.

Q You have nothing to add?

A Well, I might add while they have already agreed that by moving southeast in the direction that we did move, we were hurting ourselves structurally.

Q You were structurally lower?

A Yes.

Q And that exhibit reflects that?

A Yes.

Q Now, Exhibit Number V, would you identify that, please?

A Exhibit Number V is Penroc's Isopach of the ABO reef formation with Penroc's forty acre tract outlined in red, and it is the same as the one they are using here as Exhibit VII, except for the cross section on the bottom.

Q Now, Exhibit Number VI, would you identify that exhibit, please?

A Number VI is Penroc's exhibit showing the relationship of the ABO reef perforations, total depth and so forth to the lease lines.

Q Now, actually, the perforations are above the total depth, are they not?

A Yes.

Q So the total depth is closer to the lease lines than the perforations?
A That's right.
Q By how much total depth?
A Total depth is 148.74 feet from the east line, 123.20 feet from the south line.

Base of the perforations are 153.41 feet from the east line, 129.70 feet from the south line.

Q And that shows the location in the well of the various other points, does it not?
A Yes. It shows the top of the reef, the base of the reef, plug-back TV, top of the perforation, base of the perforation and total depth.
Q Do you have anything to add in connection with that exhibit?
A No.
Q Now, Mr. Castle, you heard the testimony of Mr. Currens this morning in regard to a structural situation, and his testimony was to the effect that he would rather have net pay than structural position.

Do you agree with that?

A Well, it would depend on where it was. In ABO reef I would just as soon have two feet if it is structurally located favorably as fifty feet.
Q Now, you are talking about a pay?
A Yes.

Q Now, what is the disadvantage of being lower structurally in this pool?

A Well, as I mentioned a few minutes ago, and as they mentioned, we are structurally low, and the disadvantage of that on this being structurally low is water encroachment, of course, from the east, and some of the wells to the east does make water, and the low wells, of course, will be the first ones to make water.

Q Now, would that reduce the ultimate production from that well?

A I would say it would reduce the life of the well.

Q And there is no way you can correct that in this well bore; is that correct?

A No. I can't see how we can correct this well bore. No. We are perforated in the top of the reef now, and there is no way that we could, as they were talking, ever go to a 330.

We have a four and a half inch casing in the hole, and it is almost impossible to whipstock out of that.

Q Now, what pay section would you have at the location of this well? Do you know?

A Which well?

Q The bottom of your Penroc State Number II.

A State Number II? The pay section?

Q Yes, sir.

A I don't remember exactly. It is, I would say, somewhere in the neighborhood of 150 feet.

Q Would there have been more pay section at an orthodox well location?

A Let me refer back to the Isopach. State Number II has approximately 189 feet of reef section, I believe it is. I can hardly see it.

And should we have below hole, they will have fourteen -- 171 feet.

Q Is there enough difference in the ABO reef formation to make a significant difference in your well?

A We don't think it would make any difference at all. We think even if we were up toward the north part of the forty acre tract that it would still be up that well.

Q Well, some of your tests, Mr. Castle, did you gain any advantage by bottoming the well where it was bottomed?

A No. Actually, if anything, we lost advantage.

Q And will this cause any unfair drainage against offsetting wells?

A We don't believe so. We think probably for the last eight or ten years we have been drained on this forty acre tract by the offset operators.

Q Do you have anything further, Mr. Castle?

A No.

Q Were Exhibits One through Six prepared by you or under

your supervision?

A Yes.

MR. KELLAHIN: At this time I would like to offer in evidence Exhibits One through Six.

MR. PORTER: If there are no objections, Exhibits One through Six will be admitted. Mr. Kellahin, we have some exhibits here that are numbered, I believe, a little different.

MR. KELLAHIN: If the Commission please, those were the originals. We were going to present the full set, and we went through and renumbered.

MR. PORTER: So you renumbered?

MR. KELLAHIN: Yes, sir. So please ignore those numbers.

MR. PORTER: Thank you. We will go by the one that was identified by --

MR. KELLAHIN: We have two sets marked.

MR. PORTER: -- Mr. Castle in the record. Mr. Buell, do you have some questions?

MR. BUELL: Yes, sir. I have just a very few.

CROSS EXAMINATION

BY MR. BUELL:

Q Mr. Castle, do I understand your testimony correctly that you did not exercise any control on your deviated well after you deviated to assure you that you would be in your target area that the Commission authorized you to?

A Well, after we set the second dyna-drill, we didn't run any other surveys.

We knew we were going to run a survey after we got the total depth.

Q So you did not exercise control?

A No.

Q I tried to follow your testimony pretty carefully, and as I understand, you said when you set your second dyna-drill you kicked the well back towards the 330 location.

That doesn't show up on your Exhibit Number II, though, does it?

A Yes, it does.

Q Well, let me get my glasses on. As I understand it, 3972 is the second little circle after your well had started to the south southeast --

A That's right.

Q -- going back to approximately the 330 location?

A Well, if you will notice there, the line that follows the dots moved more to the east after that, and if you will also notice the heavy line running perpendicular is the 330 line.

Q The line that I see connecting point number two, which is your 3972 feet with point number three, which is at a datum of 4705 or total depth, true depth, 4705, that line to me is not in an easterly direction. It is southeast.

A That's right. That's right, yes, sir. It is moved more east than at 3972.

Q But it is still going south?

A Right.

Q All right, sir. I have just got to ask you this. As I understand, you have testified at the prior hearing and this one that you felt that your new well would follow the random deviations of Old Fourteen, and under no conditions did you want to drill into it or bottom close to it so that you would treat into that well, because it wasn't completed properly.

Have I fairly summarized your testimony so far?

A Yes.

Q Then why did you spud it only thirty feet north of Old Fourteen?

A I thought you might ask that.

Q I've got to know.

A The reason for that, we are not Amoco. We don't have lots of money. We are a small company, so we try to save all the money we can, and that road location was already built, so we used that location.

Otherwise, we would have had to build new roads and locations.

Q All right, sir. And you also testified that you had been just as content with a well bottomed in the northwest

portion of your forty acre unit; is that correct?

A Yes.

Q Well, then, why didn't you just let it go ahead under its random deviations? You have been way away from Old Fourteen, and up in the northwest portion of your forty acre section where you would like to be.

A No. I don't think that's right. If you will notice on the testimony earlier, that a little below 3000 feet on the old hole, you see it turns south, so we expected that one to turn south about that same time.

Q But you didn't have any data that showed you that turned south?

A No.

Q Your data really showed you just the opposite, didn't it?

A No. The old hole down there shows going south.

Q Well, why didn't you wait til you had some data from your driller showing you that it had turned south before you asked to intentionally deviate it?

A Because the longer we waited, the further away toward the old hole we were getting, and had less time to correct it.

Q He was giving you pretty frequent readings here, 3133, then another one here that is not footage depth on it, and 3275.

He had, under the contract, to take a reading every 500 feet, didn't he?

A Yes. And if you will notice, we are getting deeper and deeper all the time, and if we had waited until we turned south and got close to that old hole, we would not have had time to correct it.

Q Why wouldn't you?

A Well, it takes a little while to deviate a hole. You can't do it in the last couple of hundred feet.

Q Didn't take you very long up here.

A Took us from 3346 to total depth.

Q All right, sir. And by the time you deviated there, you were headed south towards the old hole, and you still weren't anywhere near it, were you?

A What's that?

Q I am now referring to our Exhibit Number V at this hearing today, and the directional survey on the State Number II.

You said it took you 200 feet to affect your deviation to the south. Right?

A No. I don't remember saying that, but you can turn the direction almost immediately, but whether or not you can hold it is something else.

Q But the point I am making, you had completely reversed the direction of this well way away from the Old Hole Fourteen. You were still further away than your surface location.

A When was that?

Q Right here.

A At the time we corrected it?
Q Point 3599?
A Yes.
Q You were headed due south?
A Right. That is what we are trying to do.
Q So it didn't take you long to change the direction, did it?
A I said it didn't take long to change the direction. You can do that almost immediately.
Q Then my point, I will have to ask you again, because it is obvious I don't understand you.

Why were you so afraid of waiting for a deviation from your driller that would show you that this well was headed south when you had no fear at all about setting a dyna-drill and intentionally running south as fast as you could?

A That was the idea. We were going southeast, if you will notice the line up there, instead of south, and we wanted to get it back to where it was supposed to be as soon as we could.
Q Your testimony, if you are going south, if you want to is all right, but if you are going south at random, it isn't all right?
A If we are going south southwest it is not all right.
Q All right, sir. Now, you do agree with the testimony of

Mr. Currens, that your location in the southeast corner of your unit did, according to your Isopach, pick up additional pay?

A Small amount, yes.

Q And you say you would rather have structure in this reservoir than additional pay?

A Yes. Well, I didn't say I would. I would just as soon have structure.

Q Oh, just as soon? I thought you said you would rather.

A Well, I will say that, then, because that depends on which part of the structure you are on.

Q What reservoir mechanism do we have here to the Empire-ABO? Do you have any idea?

A No, I don't.

Q Assume for the purposes of this question that it was gravity segregation. Would you rather be high on the structure or low on the structure?

A I am not an engineer, so I couldn't answer that.

Q Well, then, you don't know whether losing structure in this reservoir is an advantage or disadvantage, do you?

A To me it is an advantage. I would rather have it, even though I am not an engineer.

Q Well, if you are not an engineer, you couldn't have made any drainage or migration studies, could you?

A I didn't.

Q Well, then, how do you support your testimony that this forty acre tract has been drained?

A I said that is what I believe.

Q Without the base of a study?

A Right.

Q And do you support your testimony that this well wouldn't drain from the offsetting unit the same way, just the fact that you haven't studied it? You just believe it?

A Yes.

MR. BUELL: I believe that's all.

MR. PORTER: Any further questions of Mr. Castle?

MR. RAMEY: I would like to ask him some, Mr. Porter.

MR. PORTER: Mr. Ramey?

CROSS EXAMINATION

BY MR. RAMEY:

Q I am still kind of confused here. Now, you say you set your second dyna-drill to bring the hole back toward the 330 line, and not necessarily the 330 point. Right? Is that correct?

A Well, yes.

Q What were you --

A Mr. Ramey, we were turning back toward the 330 line. We didn't expect to hit the 330 point exactly.

Q You were --

A We were trying to get as close to it as we could.

Q You were going to let the well deviate on to the south?
A We were intending to get back as close to the 330 location as we could.
Q Well, looks like you would have had to point it back to the northeast to get towards the 330 point.
A No, no. Mr. Ramey, see, our surface location was north of the 330 location, so we would have to go southeast to get back to --
Q Well, when you set your dyna-drill, you were already south of your surface location, were you not?
A No, sir. We were not. West.
Q Well, where is the 330 location on this in relation to your --
A 330 location would be thirty feet south of that location which is spotted on there.
Q Which would be --
A Which would be somewhere --
Q -- approximately --
A -- in here.
Q -- at the point you set your dyna-drill? Okay. Didn't the driller take deviation surveys at all during the drilling of this?
A In the beginning they did, but after that, we didn't.
Q You didn't take any? You didn't take a Totco at any point?

A Not after that.
Q You didn't the angle that you were deviating?
A No. I haven't seen them if they did.
Q Isn't that kind of unusual?
A No, sir. As I mentioned a few minutes ago, we knew we were going to run a survey on it anyway when we got to total depth.
Q It looks like if you were striving for a certain point you would want to know how the well was deflecting during the drilling process, wouldn't you?
A And at our last dyna-drill setting we were headed toward that target.

MR. RAMEY: I think that's all.

MR. PORTER: Any further questions?

CROSS EXAMINATION

BY MR. STAMETS:

Q Under whose direct control was this dyna-drill run?
A Penroc's.
Q Was a deviation survey run prior to setting the dyna-drill?
A No.
Q It was not?
A No.
Q The only deviation test run was after the hole was completed?
A That's right.

MR. STAMETS: That's all the questions I have.

MR. PORTER: Anyone else?

RECROSS EXAMINATION

BY MR. RAMEY:

Q You set the dyna-drill at random, you thought you were deviating?

A No. No. We knew we were deviating back toward a 330 location.

Q But you knew you were deviating to the northwest, so there was a directional survey of sorts taken, wasn't there?

A Yes. We were running surveys, yes, as we were drilling, and we knew that we were going in a westerly direction.

Q Okay. So you did know which way to set the dyna-drill to?

A Oh, yes.

MR. PORTER: If there are no further questions, the witness may be excused.

MR. KELLAHIN: We have nothing further.

MR. PORTER: Would you gentlemen like to make a closing statement of any kind?

MR. KELLAHIN: I'll waive it if you will.

MR. BUELL: May I make a suggestion, Mr. Porter? It is almost noon, and due to the lateness of the hour and the crowded docket, I know this is an unusual request, but could we submit written closing statements in this case?

MR. PORTER: Are there any objections to that, Mr.

Kellahin?

MR. KELLAHIN: Not if I can receive a copy.

MR. BUELL: I will send you a copy, yes, sir. I am going to send you a copy of everything.

MR. PORTER: Mr. Buell, how much time would you like to have? Ten days?

MR. BUELL: Could I have fifteen, Mr. Porter? If there was any sanction being applied to this, well, I would understand the need for haste, but it has been producing at capacity ever since it was completed.

They are not operating under any kind of a sanction whatever, any kind of a penalty, and it is certainly not to their detriment, so I would like fifteen days.

I have got it in my head. I could say it, but it would take a while.

MR. PORTER: Fifteen days will be all right, and I believe you agreed to furnish counsel for Penroc copies.

MR. BUELL: Yes, sir. I will furnish Mr. Kellahin.

MR. KELLAHIN: Will we have an opportunity to file one subsequent to his? In other words --

MR. BUELL: I wouldn't quibble about that. We took the burden of proving. Normally, I would be allowed to close last, but I would be happy to furnish mine, and then would five days after you received mine be enough?

MR. KELLAHIN: Five days? In other words, ours will

be due in twenty days?

MR. PORTER: The Commission will so rule, and take the case under advisement.

MR. BUELL: Thank you, sir.

MR. KELLAHIN: Thank you.

MR. PORTER: The regular hearing of the Commission is adjourned at this time. The examiner hearing will be called by Mr. Nutter at what time, Mr. Nutter?

MR. NUTTER: I think we are going to try and run a couple of cases before lunch.

MR. PORTER: At this time we will turn the gavel over to Mr. Nutter and let him go ahead with the examiner hearing.

I N D E X

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, LINDA MALONE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Linda Malone
Court Reporter

X 3

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NEW MEXICO OIL CONSERVATION COMMISSION

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DEC 21 1970

O. C. C.

ARTESIA, OFFICE

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease State [X] Fee [ ]

5. State Oil & Gas Lease No. B-4575

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [ ] GAS WELL [ ] OTHER- Drilling well

7. Unit Agreement Name

2. Name of Operator: Penroc Oil Corporation

8. Farm or Lease Name: State

3. Address of Operator: P. O. Drawer 831, Midland, Texas 79701

9. Well No. 2

4. Location of Well: UNIT LETTER P, 360 FEET FROM THE South LINE AND 330 FEET FROM THE East LINE, SECTION 28 TOWNSHIP 17 South RANGE 28 East NMPM.

10. Field and Pool, or Wildcat

15. Elevation (Show whether DF, RT, GR, etc.): 3679 GR

12. County: Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER Deviate to verticle or to 330' S & ~~E~~W of section [X]		OTHER [ ]	

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

12-21-70: Propose to set deviation tool at approximately 3500' and correct hole to verticle or to 330' FSL and 330' FEL of Sec. 28, T-17-S, R-28-E.

1118' - 1½°
1624' - 1¾° - N-80°W
2122' - 2¼° - W
2628' - 2¾° - N. 42° W
3133' - 3¼° - N 70° W
3225 - 4° - N 45' W
3275 - 5° - N 45 W

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

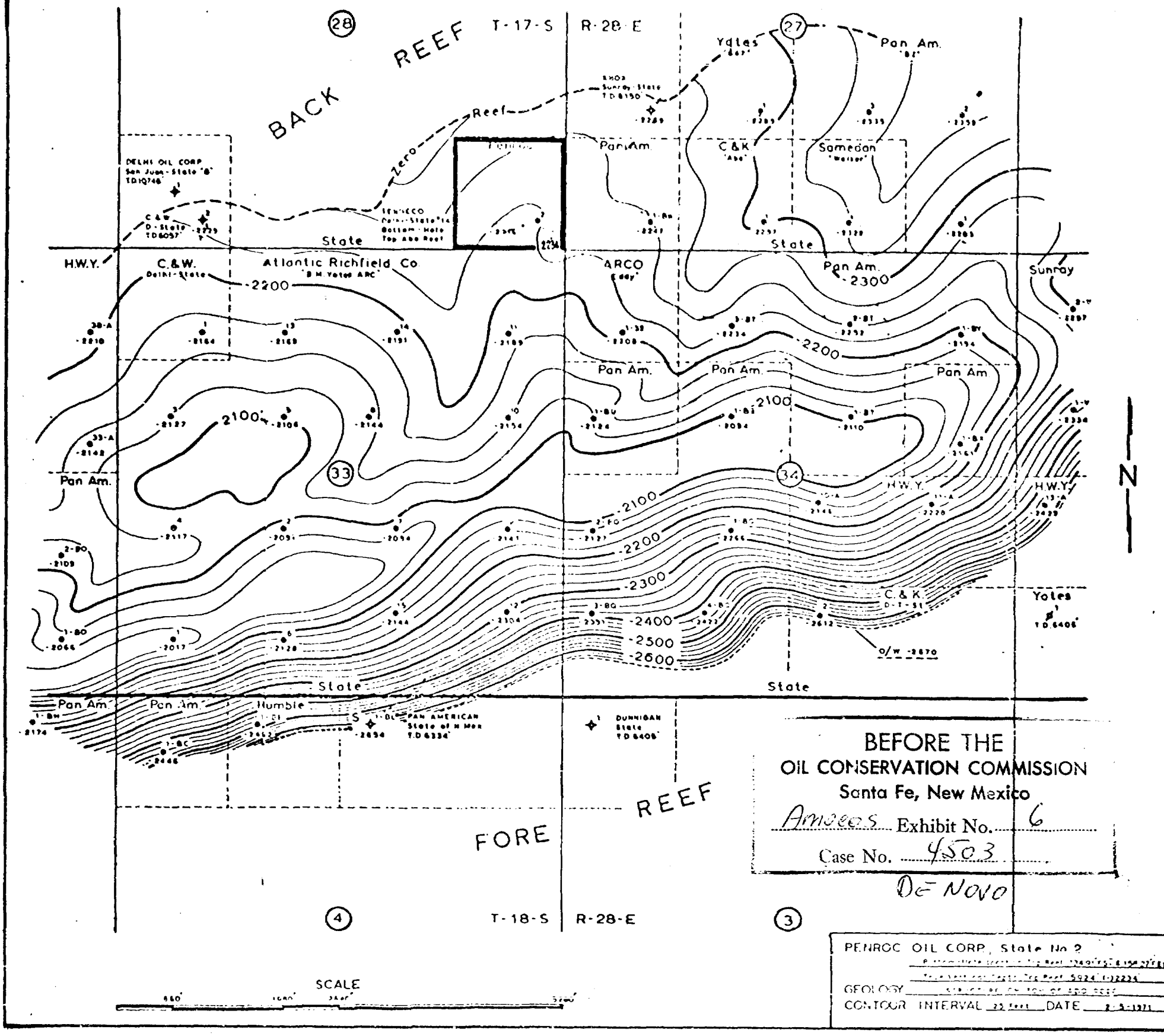
SIGNED L. B. Castle TITLE President DATE 12-21-70

APPROVED BY W. A. Gressett TITLE OIL AND GAS INSPECTOR DATE DEC 22 1970

CONDITIONS OF APPROVAL, IF ANY:

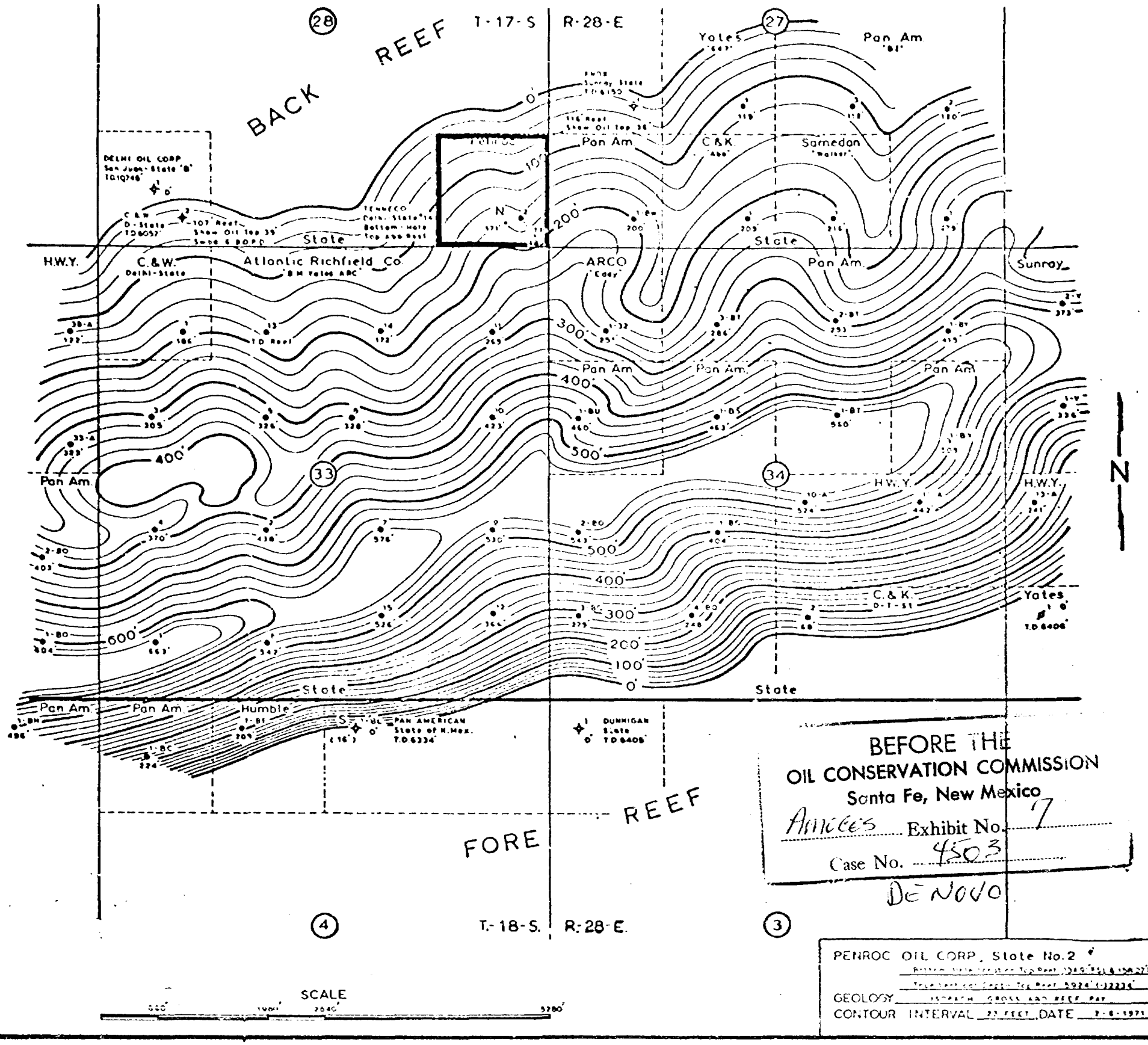
BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Applicants Exhibit No. 3
Case No. 4356

DC NCC



BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Amoco's Exhibit No. 6
Case No. 4503
De Novo

PENROC OIL CORP., State No. 2
GEOLOGY
CONTOUR INTERVAL 25 Feet DATE


28
T-17-S
R-28-E
27
BACK REEF
Yates
Pan Am
Penroc
Pan Am
C&K
Samedan
DELNI OIL CORP
San Juan-State 'B'
TD 10748'
TENNECO
Delhi-State 'A'
Bottom Hole
Top Abo Reef
C & W
D-State
TD 6052'
107' Reef
Show Oil Top 35'
Slope 6 DOPD
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H.W.Y.
C & W
Delhi-State
Atlantic Richfield Co.
B M Yates ABC
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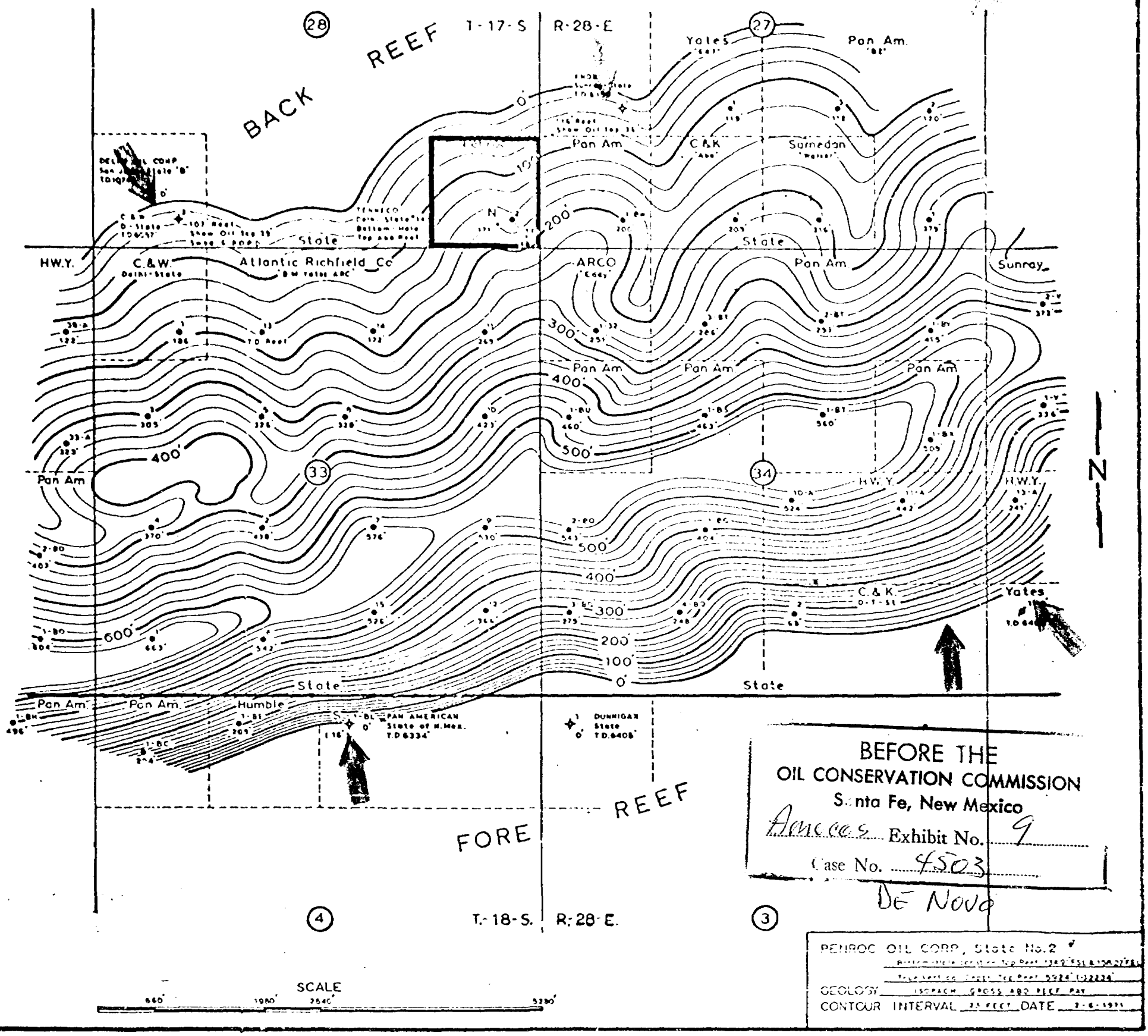
BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Amoco's Exhibit No. 7
Case No. 4503
DE NOVO
PENROC OIL CORP., State No. 2
GEOLOGY ISOPACH GROSS AND REEF PAY
CONTOUR INTERVAL 25 FEET DATE 2-6-1971


BACK REEF
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C.&W.
Atlantic Richfield Co
ARCO
Sunray
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BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Amoco Exhibit No. 9
Case No. 4503
DE Novo
PENROC OIL CORP., State No.2
GEOLOGY ISOPACH GROSS ABO REEF PAY
CONTOUR INTERVAL 25 FEET DATE 2-6-1971

EXHIBIT "A"

To Drilling Contract dated December 1st, 19 70.

Owner Pennzoil Oil Corporation Contractor Rod Ric Corporation

Well Name and Number Abernathy #1

SPECIFICATIONS AND SPECIAL PROVISIONS

1. CASING PROGRAM (See Par. 5)

	Size	Weight	Approx. Setting Depth	To Be Set By	Allowed Cement Time
Conductor	____ in.	____ lbs./ft.	____ ft.	____	____ hours
Surface	8 5/8" in.	____ lbs./ft.	600 each ft.	as required	hours
Protection	____ in.	____ lbs./ft.	____ ft.	____	____ hours
Oil String	5 1/2" in.	____ lbs./ft.	6200 ft.	as required	hours
Liner	____ in.	____ lbs./ft.	____ ft.		
Tubing	____ in.	____ lbs./ft.	____ ft.		

2. MUD CONTROL PROGRAM (See Par. 10.5)

Depth Interval (ft.) From	To	Type Mud	Weight (lbs./gal.)	Viscosity (Secs)	Water Loss (cc)
0'	T. D.	As required.			

It is understood that in the event it becomes necessary to discontinue drilling operations and to suddenly raise the mud weight - - - lb. per gallon above the weight currently being used OR to raise the mud weight at any time to - - - lbs. per gallon, it will conclusively constitute "Abnormal Pressure" as that term is employed in Paragraph 13.2 of the Contract. Operations will thereafter go forward under the terms of such provision (13.2) until such condition has been overcome; the well is under control and the mud system stabilized, so as to permit normal drilling operations to be resumed.

Other mud specifications: None.

3. STRAIGHT HOLE SPECIFICATIONS (See Par. 10.5)

Well Depth From	To	Maximum Distance Between Surveys, Feet	Maximum Deviation from Vertical, Degrees	Maximum Change of Angle (or Over-All Angle) Between Any Two Surveys, Degrees(1)
600'	T. D.	500'	3°	- - -

Location of well bore at - - - feet shall be - - -

(1) a. Reduce proportionately for survey intervals less than 100 feet, but do not use intervals shorter than 30 feet.
b. If these limits are exceeded and the distance between surveys is more than 100 feet, Contractor shall take intermediate surveys no more than 100 feet apart. If such intermediate surveys show that above limits for any interval have been exceeded, Contractor shall correct hole deviation to within limits of above specifications.
c. When directional surveys are required, the change of angle shall be the change of over-all angle.

4. INSURANCE (See Par. 10)

4.1 Adequate Workmen's Compensation Insurance complying with State Laws applicable or Employers' Liability Insurance covering all of Contractor's employees working under this agreement.

4.2 Comprehensive Public Liability Insurance or Public Liability Insurance with limits not less than $ 100,000 for the death or injury of any one person and $ 300,000, for each accident.

4.3 Comprehensive Public Liability Property Damage Insurance or Public Liability Property Damage Insurance with limits of not less than $ 100,000 for each accident and $ 300,000 aggregate per policy.

4.4 Automobile Public Liability Insurance with limits of $ 100,000 for the death or injury of each person and $ 300,000 for each accident; and Automobile Public Liability Property Damage Insurance with limits of $ 50,000 for each accident.

4.5 ____

4.6 ____

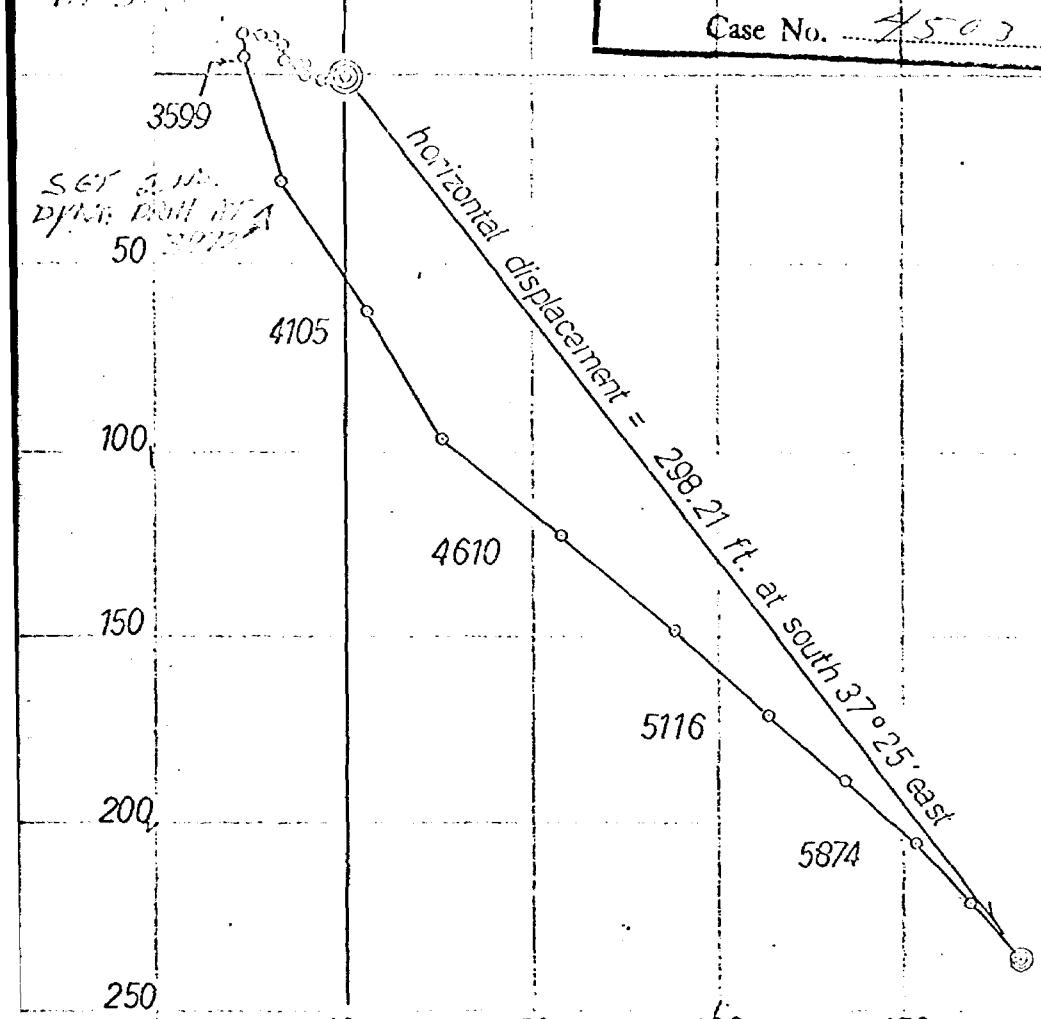
#8

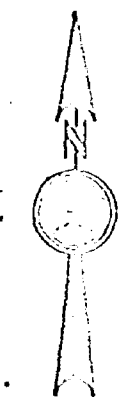
BEFORE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Pennzoil Exhibit No. 1
Case No. 1563

(Exhibit Page 1)

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Exhibit No. 5
Case No. 4503

Penroc Oil Corporation
State Lease Well no. 2
Empire Abo Field
Eddy County New Mexico
Magnetic Multishot mis-6971





SPERRY-SUN WELL SURVEYING COMPANY
HORIZONTAL PROJECTION

Scale 1" = 50'

#5

INVOICE

No. #83-831

[redacted] CORPORATION

MIDLAND, TEXAS
P. O. Box 1767

Abo State #1, 360' FSL & 330' FEL, Sec. 28, T-17-S, R-28-E, East Empire Field, Eddy County, New Mexico.

Penroc Oil Corporation
Drawer 831
Midland, Texas 79701

Date December 31, 1970

Your Purchase Order No.

Ordered by Mr. Brace Wigzell

DESCRIPTION	AMOUNT
To invoice you as follows:	
Daywork to 6200' on subject well ----------	$35,380 00
Move in, rig up, rig down, and move rig off location ----------	5,850 00
SUBTOTAL	$41,230 00
4% New Mexico State Tax	1,649 20
TOTAL	$42,879 20

Penroc

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
Penroc Exhibit No. 3
Case No. 4503

THANK YOU ! !

Pay Last Amount in This Column →

Note: All Bills Due and Payable 30 days after date of invoice. 7% Interest Charged on Past due Accounts.

INVOICE

No. #831 CM

CORPORATION

MIDLAND, TEXAS
P. O. Box 1767

Abo State #1, 330' FSL & 330' FEL, Sec. 28, T-17-S, R-28-E, East Empire Field, Eddy County, New Mexico.

To PENROC OIL CORPORATION
Drawer 831
Midland, Texas 79701

Date January 5, 1971

Your Purchase Order No.

Ordered by Mr. Brace Wigzell

DATE	DESCRIPTION	AMOUNT
	Credit due on Rod Ric Invoice #831, dated 12/31/70 to Penroc Oil Corporation on subject well as follows:	
	Daywork to 6158' on subject well:	($3,469 34)
	4% New Mexico Tax	(138 77)
	Total Credit Due	($3,608 11)

Pay Last Amount in This Column →

Note: All Bills Due and Payable 30 days after date of invoice. 7% Interest Charged on Past due Accounts

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 24, 1971

IN THE MATTER OF:

Hearing called by the Oil Conservation Commission in its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

Case No. 4503

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Call 4503 and hear the arguments as to the continuance of the case and we will hear the case in the proper order.

MR. HATCH: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, Santa Fe, appearing for Penroc Oil Corporation. You have a telegram, as I understand it, requesting a continuance in this case.

MR. HATCH: If the Examiner please, George Hatch, appearing on behalf of the Commission and staff and the Commission has received a telegram which I will read into the record at this time.

Addressed to the Oil Commission and dated February

23rd. Re: Case 4503, Oil Conservation Commission Examiner Hearing scheduled February 24th, 1971. Amaco Production Company as an operator in the Empire-Abo Pool respectfully request Case 4503 be continued. Our attorney is not available to be present at the hearing as now scheduled due to his presence being required in another matter which was scheduled prior to the issuance of the docket 5-'71 calling Case 4503.

Amaco Production Company is an offset operator to the well covered in this case and is vitally interested in the matter. Amaco Production Company respectfully request that Case 4503 be continued to the next regularly scheduled examiner hearing or to such subsequent time as soon thereafter as would be practical. Due to our vital interest in this case, if it's not continued, Amaco will be forced to file a motion to reopen. D. L. Ray, Division Engineer, Amaco Production Company, Fort Worth, Texas.

MR. KELLAHIN: If the Examiner please, as I understand, Atlantic Richfield neither opposes nor requested a continuance, is that correct?

MR. HINKLE: No, we are not going to enter an appearance in it.

MR. KELLAHIN: The Amaco Production Company, as we will later show, was advised of the well deviation as required by the Commission's Rules and Regulations prior to the time the well was deviated, so they have been aware of this situation

for sometime prior to the calling of this case.

They have had the same notice of this case as Penroc Oil Corporation had, received it at the same time, and in the same manner. I would observe that Amaco Production Company is not a small oil company. It's one of the larger companies. If they are limited to only one attorney, I would say they are in a difficult situation.

They are represented by local counsel in Roswell and there's no reason in my opinion that they could not have been represented at this case, although the attorney who intended to appear may be tied up in Texas. Our witnesses are present. We are ready to proceed.

I take their statement that they would be forced to reopen the case by a motion at a later date as something of avail to threat, which we don't appreciate and we are prepared to go ahead. We do resist any continuance of this case and don't think it would be proper under these circumstances.

MR. UTZ: Mr. Kellahin, where is their acreage in relation to this?

MR. KELLAHIN: They are an offset operator.

MR. UTZ: Directly south?

MR. KELLAHIN: East offset and Atlantic Richfield offsets to the south.

MR. UTZ: Who's the diagonal offset? Is that Atlantic Richfield?

MR. CASTLE: Atlantic Richfield is direct south offset and southeast diagonal and Pan Am and Amaco is direct east offset; no other offsets.

MR. UTZ: I would say that Amaco certainly has an interest in this case. I would also say Atlantic has an interest in this case.

MR. KELLAHIN: We don't deny that.

MR. HATCH: I think that Amaco has presented a valid point and that we should give them an opportunity to appear in this case at a later date. I think that the case should be continued. I believe that no allowable has been cut on this well --

MR. KELLAHIN: That's correct.

MR. HATCH: -- so it would not, during the meantime, be penalized any manner on that ground. Penroc has appeared here and if they have a valid reason to go on with their testimony today, would be willing to appear at another time, make themselves available for cross examination, I think we could --

MR. KELLAHIN: If the Examiner please, Mr. Castle advises me that it would not be possible for them to be here next month, which is another reason they want to go ahead today but we certainly do not want to put on our testimony today and then come back a month from now for an additional hearing.

If it is going to be continued, we would continue the

whole thing. We do not agree that there's been a valid case made for continuing this case in that the Commission well knows that Amaco has more than one lawyer and just the fact that one of them has to be in Texas and gives priority to Texas over New Mexico is not a valid ground for continuing this case. And, if the Commission elects to continue it, however, what date would it be continued to?

MR. HATCH: If it's not convenient for Mr. Castle next month, do you have a suggested date here?

MR. CASTLE: Of course, we would rather it be now since we are here. We have taken the time and expense to be here now. We think Pan Am or Amaco has had as much notice as we have and they should be here, but if it's going to be continued, any time after next month.

MR. HATCH: Any time in April?

MR. CASTLE: Yes.

MR. HATCH: I believe the first thing we have in April now is the hearing for Hobbs the middle of April.

MR. PORTER: What's your latest hearing in March?

MR. HATCH: The latest hearing in March is the 24th, I believe. There's one for the 31st of March rather than the 24th and then April 14th.

MR. CASTLE: If it's going to be continued, we would much rather have April 14th.

MR. UTZ: Can you handle it on the Hobbs hearing?

MR. PORTER: We will, if necessary.

MR. HATCH: That would be in Hobbs.

MR. KELLAHIN: April 14th?

MR. HATCH: Yes.

MR. UTZ: Well, obviously, the reason that Amaco is interested in this case is that they want to argue about how much allowable the well should have or whether it should have any, would be my supposition.

MR. CASTLE: Of course, we understand that but what we can't understand is why they are not here now.

MR. KELLAHIN: This is our position. They have had ample notice, and we feel they should be here. They are not a small company and are not being abused or put upon by the hearing today. They had an opportunity to be here and they should be here.

MR. CASTLE: We wonder if we will have the same consideration, too, if it should be postponed until -- we know it would be hard for us to be here next month, but if it's postponed to April and we find out that we can't make that, would you also give us a continuance?

MR. UTZ: Well, speaking frankly, ordinarily the Commission is quite lenient in that respect. We usually bend over backwards to try to give everybody a chance to have their say. I hate to inquire into your testimony but is it your contention that this well should have top allowable or are

you willing to testify to the fact that there should be some decrease?

MR. CASTLE: No, we think we should have top allowable.

MR. UTZ: So, you are not willing at this point to accept any curtailment of the well?

MR. CASTLE: No.

MR. HATCH: I think that's your decision to make at this point.

MR. UTZ: I think we ought to hear the case. Like you say, you are here. They have had time and they ought to have other lawyers besides Guy. I just think it's an imposition on you. You made the trip here and I think we ought to hear the case.

If they want to come back and call another case, I think they have that opportunity. I don't think the thing is shut to them, after a decision is made at this time. Am I right; they can call another case on the same subject, can't they?

MR. HATCH: That's a different legal question. I think it's not to be answered at this moment. There was some question raised in some discussion yesterday about the right of somebody to ask for denovo and I am not going to express my opinion on that right now.

We will face that later. I think Mr. Kellahin pointed out some problems on that yesterday. I think it should

be made on the decision of what Mr. Kellahin argued a minute ago and what the telegram stated rather than the possibility of reopening or not being able to reopen the case later.

MR. UTZ: Well, I think I will rule that the case will be heard today, present your testimony, however right or however wrong; at least I will write a recommendation.

MR. UTZ: The hearing will come to order, please. We'll hear Case 4503 first, and then 4502.

MR. HATCH: Case 4503. We've covered that this morning, and we skipped over it a while.

MR. UTZ: Yes. That was called, and the previous reporter took an argument as to continuance, so the case has been well and properly called.

MR. KELLAHIN: If the Examiner please, we'll have one witness in Case 4503 I'd like to have sworn.

(Witness sworn)

MR. UTZ: Are there other appearances?

JOHN B. CASTLE

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A John Castle.

Q By whom are you employed, and in what position, Mr. Castle?

A Penroc Oil Corporation. I'm a geologist and president of Penroc Oil Corporation.

Q Have you testified before the Oil Conservation Commission and one of its examiners and made your qualifications as a geologist a matter of record?

A Yes, I have.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q (By Mr. Kellahin) Mr. Castle, are you familiar with the case that has been called by the Oil Conservation Commission in Case Number 4503?

A Yes, I am.

Q What prompted that case, do you know?

A Penroc Corporation drilled a well -- it's Penroc Number Two State in the Empire ABO Field, Eddy County, New Mexico -- and intentionally deviated the hole from a surface location of 360 from the south, 330 from the east off the section, and the Commission called a hearing to see whether Penroc should have a full allowable or not.

Q Now, referring to what has been marked as Penroc Exhibit Number 1, would you identify that, please?

A Exhibit Number 1 is a location plat and offset ownership plat showing the Penroc State Number 2 location and offset operator.

Q Now, at the time this well was deviated from the vertical, did you send notices to the offset operators?

A Yes, we did. Exhibit Number 2 is our proposal to deviate, and this was sent to the offset operators.

Q And that was in Pan American, Atlantic Richfield, Depco, Sun Oil Company and Petroleum Corporation of Texas?

A Yes. I might make a statement here now that Petroleum Corporation of Texas is now Petrofina.

Q Petrofina?

A Yes, which was forwarded to them.

Q And those are all the offsets required to be notified under Order of the Commission; is that correct?

A Yes.

Q Now, referring to what has been marked as Exhibit Number 3, would you identify that exhibit?

A Exhibit Number 3, I might have made a mistake there with the Commission a few minutes ago. There may be nine exhibits. I have that one missing from my files here, one which they may have, but, yes, that is the one that I have, is Exhibit Number 2, but Number 3, that is where we did apply to the Commission to deviate the hole.

Q And this was filed prior to the deviation of the well?

A Yes. Filed and approved before the deviation.

Q Now --

MR. UTZ: Now, excuse me just a moment. This says deviate to vertical, right?

THE WITNESS: The proposed -- the one I have here -- I think we have the same exhibit -- proposed to deviate to approximately 3500 feet and correct holes to vertical or to a

330 from the south and 330 from the east of Section 28?

MR. UTZ: So this would be notice that you're going to deviate to vertical, but not to where you are?

THE WITNESS: Yes.

Q (By Mr. Kellahin) Now, did you have a deviation survey run after completion of the well?

A Yes, we did.

Q And prior to turning to that exhibit, what occasioned your application to the Commission for permission to deviate this well to the vertical as is stated in the Form C103?

A The Penroc Number 2 State is a twin to an old hole drilled by Delhi-Taylor Oil Corporation, and we ran a deviation survey on the old hole, and we knew where the bottom of the old hole was, and our idea was, then, to stay far enough away with our Penroc State Number 2 not to treat into the old hole.

Q Now, at the time you were drilling your twin well, did the driller advise you that it was deviating from the vertical?

A Yes. We had a contract with the drilling contractor who was Roderick Corporation, and our contract with them was for a maximum of three degrees from vertical.

They reported to us that during the early stages of the drilling that the deviation was up to five degrees.

going in a west northwest direction, following the old hole drilled by Delhi.

Q Now, would that have brought it closer to the old well?

A Yes. It was following almost exactly the old deviation.

Q And is that what occasioned, then, your application for permission to deviate the hole?

A Yes.

Q Now, turning to Exhibit Number 4, would you identify that exhibit, please?

A Well, this is -- Is that the one of our State Number 2, or is that the Delhi well?

MR. UTZ: It's the Delhi 14 I've got.

MR. KELLAHIN: The Delhi well.

A Okay. The Delhi 14, then. It's the deviation survey which we ran of the old Delhi State Number 14 well, showing that the well did deviate from vertical to the west approximately 166 feet.

Q And then you ran a survey on the new well, too, did you not?

A Yes.

Q And is that Exhibit Number 5?

A Yes, sir.

Q And what information is shown on this exhibit?

A This exhibit shows that our new hole, the Penroc State

Number 2, was deviating from vertical to the west along the same direction as the Delhi State 14.

MR. UTZ: Excuse me just a moment. What is the location of this hole in relation to the 14 again?

THE WITNESS: The 14 was located 330 from the south and east of Section 281728. The Penroc State Number 2 is located 360 from the south and 330 from the east of the same section.

MR. UTZ: Thirty feet north?

THE WITNESS: Yes.

Q (By Mr. Kellahin) Now, the exhibit shows at what point the bottom of the well was located at the time you set your whipstock or dynodrill?

A Yes. We set a dynodrill, which is similar to a whipstock. We set the dynodrill at 3552, and at that depth we were going west northwest.

Q And did that cause the direction of the deviation from the vertical to reverse as shown on the exhibit?

A When we set the dynodrill, yes, we did turn it back toward vertical, or what we were trying to do was set it -- turn it toward vertical or to a regular 330 location.

Q Now, there are two designations next to the bottom location of the well. What is the meaning of those two, MD and TVD?

A MD is measured depth at TD. Measured depth is 6158, and true vertical depth is 6135.61.

Q So that accounted for the additional distance on the deviation?

A Yes.

Q Now, as shown on this exhibit, the bottom of your well is located 123 feet from the south line and 149 feet from the east line of Section 28; is that correct?

MR. UTZ: 149, and from south --

THE WITNESS: We have that on an exhibit which will come up a little later, which will give the exact --

MR. UTZ: Okay.

Q (By Mr. Kellahin) Now, turning to what has been marked as Exhibit Number 6, would you identify that exhibit?

A Exhibit Number 6 is a structure contour map on top of the ABO reef, which is the pay formation of the field.

Q And what does this indicate, Mr. Castle?

A It indicates that by deviating our hole, we did not gain any structural advantage. Actually, we came in structurally lower than the old hole was.

Q Did you encounter any additional pay section on account of the deviation?

A A minor amount.

Q Appreciable?

A Not enough really to make any difference.
Q It wouldn't have been something you would have deviated in order to achieve, would it?
A No.
Q In your opinion, insofar as structural position is concerned, you gained no advantage; is that correct?
A We actually have less advantage.
Q Now, referring to what has been marked as Exhibit Number --
A Number 7.
Q -- 7, would you identify that exhibit, please?
A Number 7 is an Isopach of the Empire ABO Reef.
Q What information is shown on this exhibit?
A It shows the thickness of the reef at the old Delhi State 14 bottom hole location, and the thickness of the reef at the Penroc Number 2 deviated location. And this shows that we had a minor amount of reef thickness at our deviated location.
Q Now, on both of these exhibits there is a dotted line. Is that the cross section shown at the bottom of the exhibit?
A Yes. At the bottom of each exhibit it shows a cross section across the field from south to north.
Q And that basically is the information available --
A Yes.

Q -- on which you based these two exhibits; is that right?
A Yes. It just shows a reef thickness across the reef.
MR. UTZ: Now, this is total reef?
THE WITNESS: Yes.
MR. UTZ: Not just the pay zone?
THE WITNESS: Right.
Q (By Mr. Kellahin) Now, referring to both Exhibit 6 and Exhibit 7, do these indicate that the entire tract which you have dedicated to your well is productive from the ABO reef section?
A Yes, it does. The structural plat, which is Exhibit Number 6, does show that reef covers the entire forty acre proration unit, and Exhibit Number 7 shows that we do have reef across the entire unit.
Q In your opinion, is the entire forty acres productive from the ABO?
A Yes.
Q And would a well located as yours has been located and bottomed as it is, adequately drain the forty acre tract dedicated to the well?
A Yes, I think it will drain. I think they also show that we do not have any advantage from a deviated hole, and all we were doing when we deviated was stay away from the old hole so we would not treat into it.
Q Now, referring to what has been marked as Exhibit

Number 8, would you identify that exhibit?

A Exhibit Number 8 is a plat showing the relationship of several different levels of the lower portion of the Penroc State Number 2 well to the lease lines.

Q And the lease line is the solid line on the right and bottom of the exhibit; is that correct?

A That's right.

Q Is there anything you want to point out on that, in particular?

A I could point out that we show the top of the reef at 5946, which is 134.91 feet from the south line and 158 feet -- 158.27 feet from the east line. And the top of the perforation is 5952 or 134.54 feet from the south line and 157.93 feet from the east line.

The base of the perforation, it is 6,032 or 129.70 feet from the south line, 153.41 feet from the east line.

Q And that is the interval that is open in your Number 2 well --

A Yes.

Q -- in the ABO?

A Yes.

Q So the bottom of the well, for all practical purposes, would be considered the bottom of the perforation; is that correct?

A Yes.

Q Do you have anything to add to that, Mr. Castle?

A No. I think the rest of it explains itself.

Q Now, you stated that your drilling contract called for a deviation of not to exceed three degrees. Did your drilling contractor make a refund to you on account of the deviation on that well?

A Yes. Our contract with Roderick Corporation was for a maximum of three degrees, and the reason we had that in there is because we are familiar with the area, and we did know that most of the holes on the north side of the reef would deviate toward the west northwest.

We didn't want to follow the old hole, because we knew that our acidizing and fract would get in the old holes, which we think had a bad completion.

So for that reason we had a three degree contract with them. They reported to us that there were as much as five degrees of vertical. We told them that they would either have to drill us a new hole or correct this one.

Well, they decided that it would be to their advantage to correct this hole, so then is when we asked for permission to deviate. And they paid for deviating the hole.

Q And this is shown by your Exhibit Number 9?
A Exhibit Number 9 shows that they did bill us for drilling the well and gave us credit, then, for deviating the hole.
Q Now, Mr. Castle, would the assignment of a full allowable to this well in any way impair the rights of your offset operators, in your opinion?
A We don't think so. We think for ten years that the offset operators have been draining this location, and should we have less than a full allowable, they would continue to drain our forty acre location, so we think that we should have a full forty acre allowable.
Q Now, roughly how close is the nearest production to you?
A It is approximately 1200 feet.
A So the assignment of a full allowable would not impair the production from that well, in your opinion?
A We don't think so, no.
Q Now, will your well make a full allowable?
A Yes. We are making right now -- it's still -- our well hasn't cleaned up and still hasn't settled down to what we think will be normal after another -- say, another month's production, but now we are making

anywhere from 110 barrels of oil per day to 160 barrels of oil per day. The allowable is 142 barrels.

Q And you think it will stabalize, then, of sufficient amount to produce the full allowable?

A Yes, we think it will.

Q Were Exhibits 1 through 9 prepared by you or under your supervision?

A Yes.

MR. KELLAHIN: At this time I'd like to offer in evidence Exhibits 1 through 9, inclusive.

MR. UTZ: Without objection, Exhibits 1 through 9 will be entered in the record of this case.

MR. KELLAHIN: That completes the examination of the witness, Mr. Utz.

MR. UTZ: Are there questions of the witness? Any questions, Bill?

CROSS EXAMINATION

BY MR. GRISSETT:

Q Mr. Castle, you did take a G.O.R. test recently, didn't you?

A Yes, Mr. Grissett. We have had more than one G.O.R. test. First, one run by Penroc January 8th, 1971, tested 190 barrels of oil, G.O.R. of 1168 to 1, with twelve barrels of water.

Phillips Petroleum Company, our gas purchaser, ran one on January 20th, 1971, tested 142 barrels of oil, no reported water, gas oil ratio, 1401.

We ran a -- Penroc ran another gas oil ratio test at the request of the Commission on February 11th, 1971,128 barrels of oil, six barrels of water, 786 G.O.R. All of these were twenty-four hour tests.

Q Well, what I was getting at, this one is the required G.O.R. by the Commission, and the allowable will be produced unless another test is taken.

A Are you asking me a question or making a statement?

Q Well, I guess it's a statement. You are aware of the fact that this G.O.R., this latest one that the Commission received, is the one that the allowable will be assigned on effective the first of next month?

A No, I wasn't familiar with that.

Q Well, it will be reduced to that test effective the first of next month unless it is re-tested and makes more.

A Am I supposed to make a remark? Am I supposed to say something?

Q Well, I just was wanting to make sure that you were aware of that.

A Then I might make a statement that we will make another

test, then.

MR. UTZ: I presumed you would. Anything further?

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Castle, referring to your Exhibit Number 7, what is the top of the pay zone on this? While you're digging that out, let me ask you another one.

The contour here is for the entire section, as I understood.

A Which exhibit are you referring to now?

Q Referring to 7.

A Number 7?

Q Yes.

A The Number 7 is an Isopach.

Q That's right.

A And it shows zero reef north of our forty acre unit.

Q Yes.

A Now, your first question is top of pay. We consider the top of the pay the top of the reef at 5946.

Q On --

A On our State Number 2, yes.

Q Well, you don't have it on here, do you?

A No.

Q But you have got the old Delhi 14?

A I've got it on Exhibit Number 6, which is contoured on top of the reef, which shows the top of the reef, I believe, to be at a minus 2334, with an elevation, I believe, of -- let me see what that is. Of an elevation of 3690.

Q Minus 2334 and 3690?

A 2234 minus 2234 elevation. I may be wrong on elevation, but I believe it's 3690.

Q That would be 5924?

A What I am using us -- I don't have an elevation of our State Number --

MR. JOHN RYAN: May I interrupt just a moment? The subsea datums are based on true vertical depth, rather than the 5946, if there is any difference, and that's the reason.

A Well, I'm using the elevation on the Delhi State Number 14. I don't have available the elevation of our State Number 2, which should be very close.

Q Well, the zigzag line that is across this cross section, you consider it the top of the pay?

A The zigzag line across Exhibit Number 7, which is just above the Penroc lease, marked in yellow, which shows zero, is the north edge of the Empire ABO reef.

Q Well, I'm talking about the cross section.

A Oh, you're down on the cross section?

Q Yes.
A Oh, yes. Well, the line then --
Q The reason I asked that is that it appears the top of that line is the top of pay, as you described it here, at about 15 -- 5924, so, now, I'm asking you is that the top of the pay.
A Yes. The top of the reef is the top of the pay, and this cross section, as Mr. Ryan just pointed out, is made on true vertical depth.
Q And that is the contouring point -- well, no. This is an Isopach. I'm sorry. We'd better get on this one.
A Well, the structure map has the same cross section at the bottom.
Q Well, let's see, 5924 here should be minus -- that was minus 2234, right?
A Yes.
Q So this is contoured on the top of the reef, then, right?
A Yes.
Q And the Tenneco Number 14, the top of the reef is a minus 2234, which passes through -- almost through your well?
A No. The minus 2234 is our well. The Tenneco 14 is a minus 2216.

Q 2216? Okay. In other words, it --

A Which shows that we are approximately eighteen feet low to the old hole.

Q Yes. Now, does the contour of the structure have anything to do with the producing qualities of this reservoir?

A Well, yes, we think it -- of course, the higher that you come in structurally on the reef, the better pay section you'll have. The thicker reef section you'll have. The best wells with the thickest reef section are to the south.

Q Now, these wells I see up in Section 27, I believe it is, isn't it, the section immediately east of the section in which you are in, which is Section 28 --

A Yes.

Q Are those wells -- and I count on your Exhibit Number 6 one, two, three, four, five, six producing wells. Are they all producing in the Empire Zone?

A Which exhibit are you looking at now?

Q I'm looking at Number 6 and the --

A The structure map?

Q -- structure map, yes.

A Well, immediately to the east --

Q All right.

A -- there are seven Empire ABO Reef wells.

Q And the offset well?
A Offset well is Anco Number 1, BT.
Q Now, what kind of a well is it?
A It's a full allowable well.
Q Now, the well immediately north of that, which is the Knox Sunray Number 1, Sunray State Number 1, was a dry hole; is that right?
A It was a dry hole, and -- or, it was plugged and abandoned. I'll put it like that. I don't believe it was a dry hole. It had thirty-six feet of reef show with a total reef thickness of 116 feet.
We believe it will make a well.
Q These are twenty-five foot intervals on your contour; correct?
A Yes.
Q So the 2250 contour virtually runs through the Pan American well to the east of you?
A That's correct.
Q Now, is that the last control you had for that contour, where you curve it over in through your proration unit?
A No. We have control for that contour further to the east southeast in the Pan American Number 2, BT State, which is a minus 2252, and our control for that, if you will notice to the north, we have other contours up there for minus 2300, which goes through the chambers

in Kennedy. Number 1 ABO State, minus 2297, and then to the south we have the Pan Am or the Amco Number 3, BT State, a minus 2234. We have control on both sides of that contour.

Q Well, but your control north is -- well, the only control you have north is that Sunray well, right, dry hole?

A The Knox Sunray State immediately north, yes, but we have other control to the northeast.

Q Yes. Well, I noted that the 2225 to 2250 contour spread out pretty wide after you left the Pan American well at 2247, minus 2247, and I just wondered what is your reason for widening the interval between those two contours.

A We have very good control. We have the Knox Sunray State minus 2269.

Q Yes.

A We have the Yates Number 1, minus 2289.

Q Now, where is that?

A That's immediately east of the dry hole that you have mentioned, the Sunray Knox well.

Q Yes.

A And we have the Pan Am-Amco Number 3, BZ State to the east, still a minus 2335. Very good control, every forty acres, every location, we have control.

Q And how about the Delhi wells over to the west?
A Well, the old Delhi -
Q That will offer you some control?
A The old Delhi 14, which we have control minus 2216, and then straight west we have the Castle and Wigzell Number 2 State, a minus 2229, and then to the south, of course, we have Atlantic Richfield. We don't think you could have any more control.
Q Now, referring back again to Number 7, it's your statement that the top of the reef is the top of the pay zone?
A Yes.
Q Now, how far down into the reef does the pay zone penetrate?
A We think there is pay through the entire section of the reef. The base of the reef is 6135 measured depth.
Q So it's your contention, then, that where your contour reaches zero is the end of the productive area?
A Yes. We think if we are inside the zero line, we have a very good chance of making a well, probably an allowable well.
Q How do you explain the old Delhi Number 14 not being a very good well?
A Okay. I said on the Delhi 14, when it was drilled -- I'm an ex-employee of Delhi. However, at the time they

drilled the well I had left them, and they hired me to watch the well. and we did core the well. The core looked very good, and they perforated in the lower section of the reef in a zone which I did not recommend, and they had the well making approximately fifty barrels a day, flowing fifty barrels a day, out of the lower section of the reef, which wasn't very good.

Then they came on up to a higher section in the reef, reperforated and treated it and got communications with the lower zone, and still making somewhere around fifty barrels a day.

Then they came on up to where I recommended that they perforate and perforated that and treated it and got communications, then, with all three zones.

And it is my belief that they never did treat the main section of the reef. All the oil they ever got out of it was on the lower perforations, about fifty barrels a day.

And then about that time they sold out to Tenneco and Continental, and they shut the well in and never did produce it.

So it's my belief that the production department made a sorry completion. And that was about ten years ago.

And I think that our Number 2 State proves that, since we didn't improve ourself any structurally or thickness wise on the reef, and we're making a good well. I think that proves that.

Q Well, the bottom of your well, then, in your opinion, is eighteen feet higher than their well? Was that the figure?

A What did you say?

Q The pay zone of your well, what is the relationship --

A It's approximately eighteen feet low to their well.

Q Low, yes. So you gained eighteen feet of structure?

A We lost -- structurewise, we lost.

Q I'm sorry. All right. All right.

MR. KELLAHIN: You didn't perforate the lower zone as it was perforated in the --

THE WITNESS: No, I didn't. We did not -- we perforated the section which I tried to get Delhi to perforate.

MR. UTZ: Are there other questions of the witness?

Q (By Mr. Utz) Mr. Castle, we have here your well file and your 103, which I imagine you are familiar with. It's dated 12-21-70, where you request permission to deviate, and I believe this is one of your exhibits, isn't it?

A Yes, it's Exhibit Number 3.

Q But in addition to the exhibit, you have some figures here showing where the well deviated. Now, these figures are what, Totco?

A No, no.

Q Or what?

A No. They didn't have Totco. We had an idea that the well would deviate to the west northwest as the old Delhi 14 did, and for that reason, the Totco only shows, you know, the amount of deviation off of vertical. It doesn't show the direction. So for that reason --

Q Yes.

A -- we had a Monelle collar and another type of deviation tool, which they ran, so we could also tell the direction of deviation. And we had that there at all times.

Q And this showed you where five degrees to the north northwest --

A This exhibit doesn't show that.

Q Well, these notations here do. Are these yours or --

MR. GRISSETT: Yes.

A Those are the notations which I gave Mr. Grissett at the time I requested to deviate the hole. Those deviations were given to me by the drilling contractor.

Q I see.

A And it was -- they had no reason to -- actually, it

would have been better for them if they had told me that it was less than three degrees, because when it was more than three degrees, they had to correct it.

And as one of our exhibits shows, they did pay for correcting the holes. Those are not my figures. That's the drilling contractor's figure --

Q This is Sperry Son --

A -- which was reported to me.

Q Excuse me. Are you finished?

A Yes.

Q And this Sperry Son survey, though, at that same depth shows less than one degree?

A Well, yes, and I tend to agree with Sperry Son. However, I think you will notice that we don't have any deviations from Sperry Son at those exact intervals, so we're not quite sure about that.

But I tend to agree with Sperry Son.

Q Well, now, it's from 3346, 3345.78, and then the next interval is 3599, and you deviated at 5551, so that was in the neighborhood of close to fifty feet a hole with the claim 3345 and 3599, there was, well, less than two degrees, according to your Sperry Son. Now, you say you're going to agree with Sperry Son, but you didn't have that available --

A No, we didn't.

Q -- at the time you --

A No. We didn't have that available until we got it to the depth.

Q So to the best of your knowledge, the figures you gave the district office, and which are on the 103 and the well file,are correct, according to your contractor?

A I gave the deviations as reported to me by the drilling contractor, and they didn't have any reason to tell me something that wasn't true, because it was costing them almost $4,000 to give me those deviations.

MR. UTZ: Does that answer your question?

MR. GRISSETT: Yes.

MR. UTZ: Are there other questions? Witness may be excused.

Statements in the case?

Case will be taken under advisement.

I N D E X

E X H I B I T S

Applicant's Exhibits 1 through 9

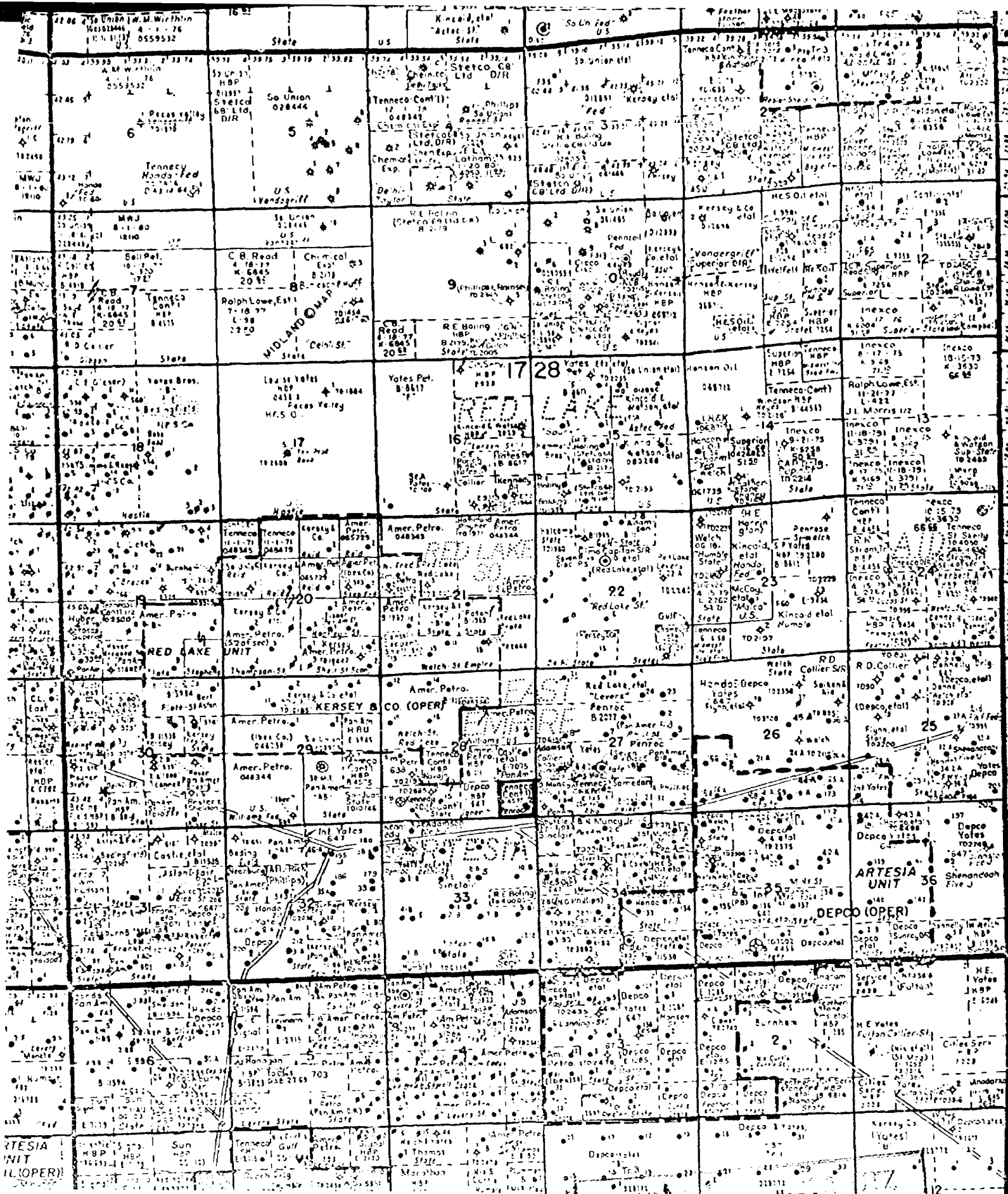
STATE OF NEW MEXICO)
) SS
COUNTY OF BERNALILLO)

We, Glenda Burks and Linda Malone, Court Reporters in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by us and that the same is a true and correct record of the said proceedings, to the best of our knowledge, skill and ability.

Glenda Burks

Linda Malone

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 4503
heard by me on Feb 24 1971.
, Examiner
New Mexico Oil Conservation Commission



OWNERSHIP PLAT

PENROC STATE #2
SE/4 SE/4 Section 28-17S-28E
Empire Abo Reef Field
Eddy County, New Mexico

Exhibit No.:

December 23, 1970

Gentlemen:

Enclosed is a copy of our C-103 (Request for Permission to Deviate Toward Vertical) as required under Paragraph (B), Rule 111, State of New Mexico Oil Conservation Commission Rules and Regulations.

Very truly yours,

PENROC OIL CORPORATION

John B. Castle

JBC:mlm

Enclosure 1

cc: Pan Am, Box 1410, Fort Worth 76101
Atlantic Richfield, Box 1610, Midland
Depco, 800 Central, Odessa 79760
Sun Oil Co., Box 1861, Midland
Petroleum Corp. of Texas, Box 911, Breckenridge 76024

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OPERATOR		

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DEC [illegible] 1970
O. C. C.
ARTESIA, OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: B-4575

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [ ] GAS WELL [ ] OTHER- Drilling well

7. Unit Agreement Name:

2. Name of Operator: Penroc Oil Corporation

8. Farm or Lease Name: State

3. Address of Operator: P. O. Drawer 831, Midland, Texas 79701

9. Well No.: 2

4. Location of Well: UNIT LETTER P, 360 FEET FROM THE South LINE AND 330 FEET FROM THE East LINE, SECTION 28 TOWNSHIP 17 South RANGE 28 East NMPM.

10. Field and Pool, or Wildcat:

15. Elevation *(Show whether DF, RT, GR, etc.)*: 3679 GR

12. County: Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER Deviate to verticle or to 330' S & W of section [X]		OTHER [ ]	

17. Describe Proposed or Completed Operations *(Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work)* SEE RULE 1103.

12-21-70: Propose to set deviation tool at approximately 3500' and correct hole to verticle or to 330' FSL and 330' FEL of Sec. 28, T-17-S, R-28-E.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Penroc EXHIBIT NO. 3
CASE NO. 4503

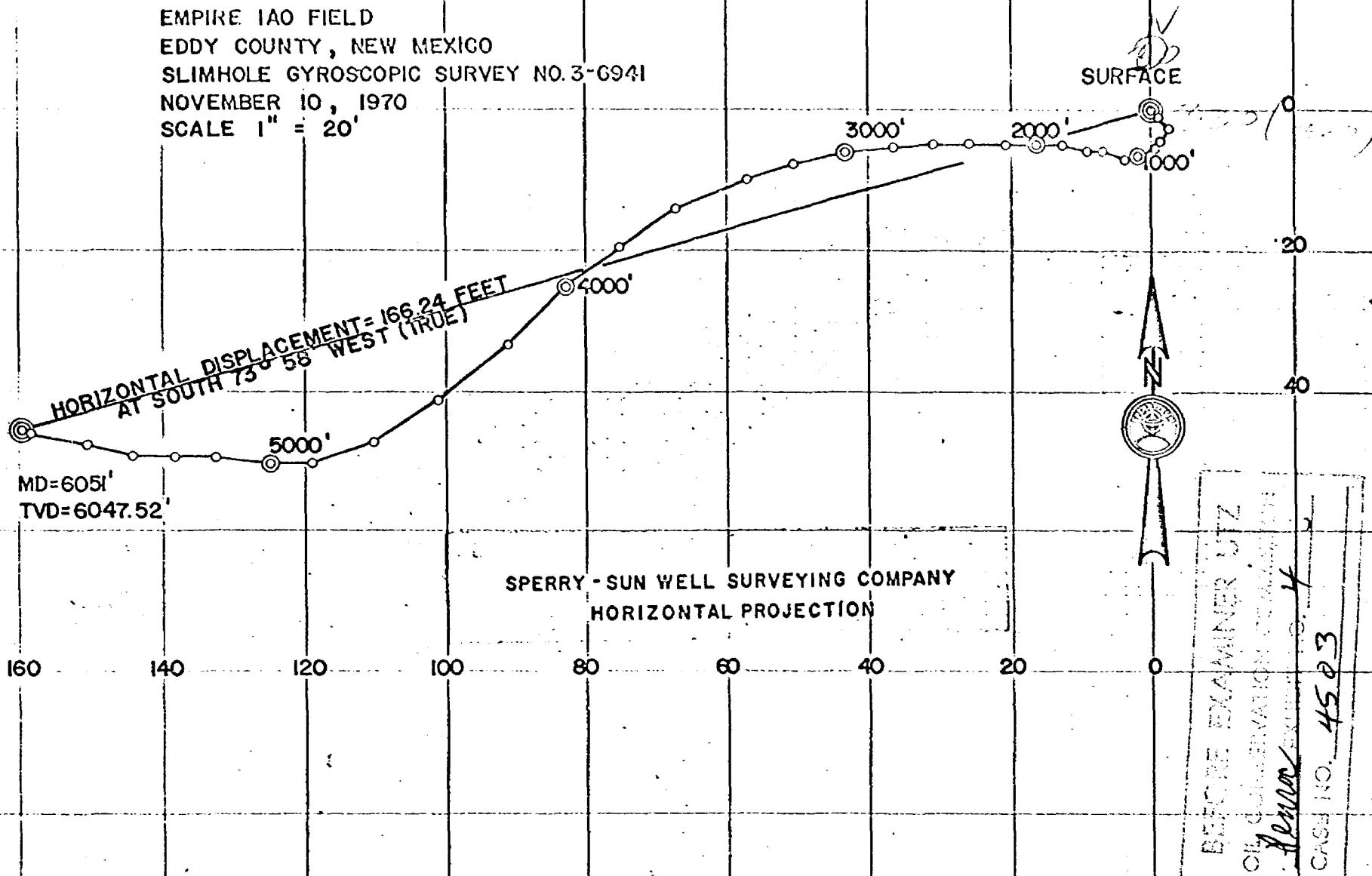
18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED L. B. Castle TITLE President DATE 12-21-70

APPROVED BY W. A. Gressett TITLE OIL AND GAS INSPECTOR DATE DEC 22 1970

CONDITIONS OF APPROVAL, IF ANY:

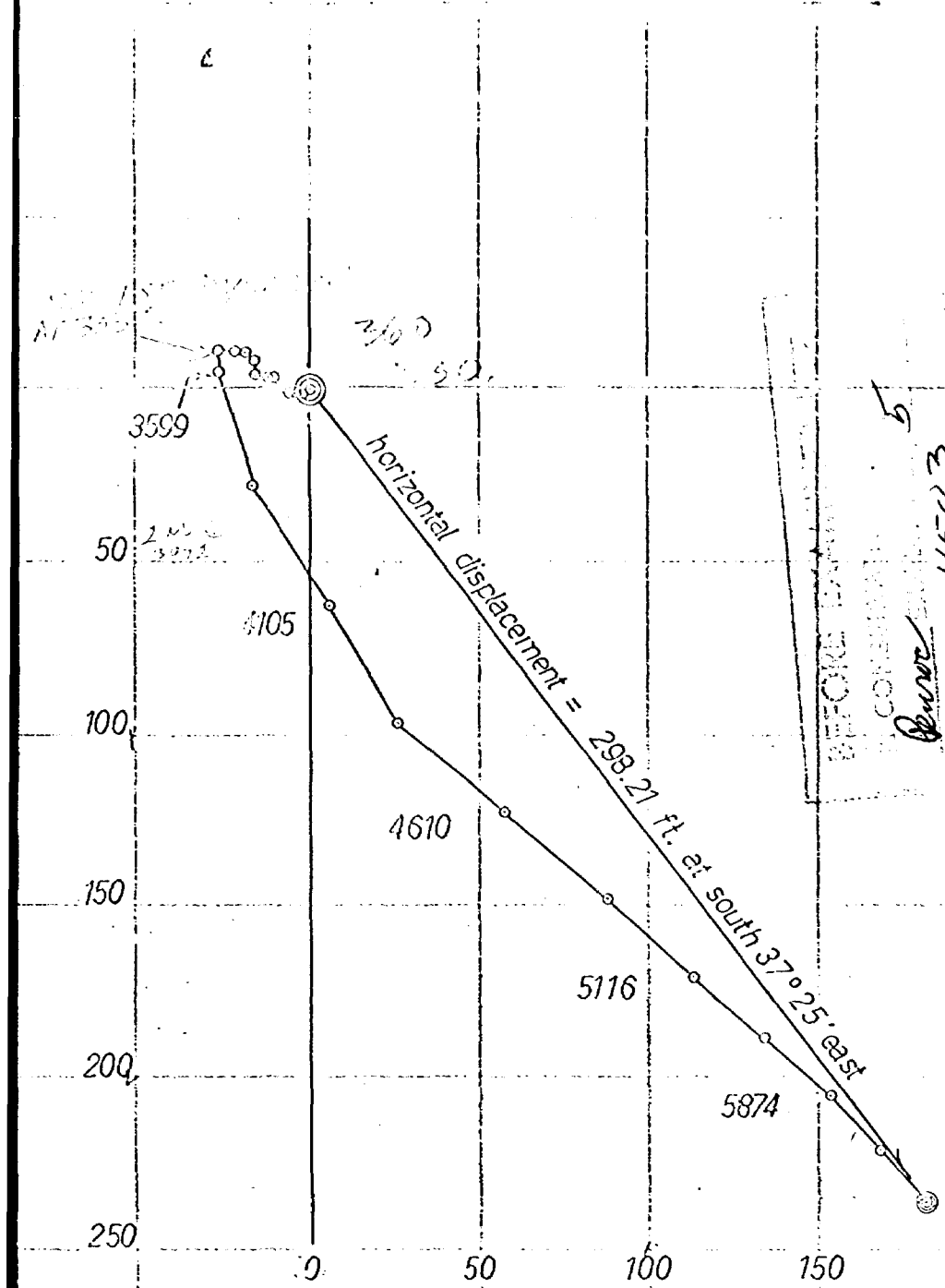
PENROC OIL CORPORATION
DELHI STATE WELL NO. 14
EMPIRE IAO FIELD
EDDY COUNTY, NEW MEXICO
SLIMHOLE GYROSCOPIC SURVEY NO. 3-6941
NOVEMBER 10, 1970
SCALE 1" = 20'

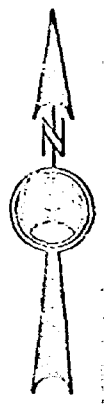


SPERRY-SUN WELL SURVEYING COMPANY
HORIZONTAL PROJECTION

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 4503

Penroc Oil Corporation
State Lease Well no. 2
Empire Abo Field
Eddy County New Mexico
Magnetic Multishot ms - 6971





SPERRY-SUN WELL SURVEYING COMPANY
HORIZONTAL PROJECTION

149'
md 6158
tvd 6135.61

Scale 1" = 50'

SPERRY-SUN

DIRECTIONAL SURVEY REPORT

FOR

PENROC OIL CORPORATION

TYPE OF SURVEY: MAGNETIC MULTISHOT

SURVEY DEPTH: FROM 615 FT. TO 6158 FT.

LEASE: STATE WELL NO. 2

FIELD: [illegible]

COUNTY/PARISH: EDDY STATE NEW MEXICO

DATE OF SURVEY Jan. 1, 1971 JOB NO. [illegible]

OFFICE: ODESSA, TEXAS

LC-3-1106

SP 135C

STATE OF TEXAS
COUNTY/PARISH OF LUBOCK

I/We, Gary D. Benson

_____

_____

_____, in the employ of the Directional Surveying Department of Sperry-Sun Well Surveying Company, did on the 4th day of January 19 71
and the _____ day of _____ 19____
and the _____ day of _____ 19____
and the _____ day of _____ 19____
respectively conduct or supervise the taking of a Multi-shot/Single Shot Directional survey by method indicated:
from a depth of 615 feet to 6158 feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
depth of _____ feet to _____ feet by Gyroscopic/Magnetic/Oriented Survey
with records of inclination and direction of inclination being taken at approximately every _____ feet.

This survey was conducted at the request of PENROC OIL CORP.,

for their STATE LEASE Well No. 2,

Unit Letter P Sec. 28 T17S R28E Survey, EDDY County/Parish,
360 ft. FSL & 330 ft. FEL
State of NEW MEXICO, in the EMPIRE ABO Field.

I/We certify that this is a true and correct report of such survey and that it affords a true and correct representation of our findings as to the nature and conditions of the well at the time the survey was/surveys were made.

Gary D. Benson

_____

_____

_____

STATE OF _____
COUNTY/PARISH OF _____

Before me the undersigned authority/authorities, on this day personally appeared _____,
_____, _____, _____, _____,
known to me to be the person/persons whose name is/names are subscribed to this instrument, who after being by me duly sworn on oath, states that he has/they have knowledge of all the facts stated above and that the same is a true and correct statement of the facts therein recited.

Subscribed and sworn to before me this the _____ day of _____ 19____

_____

Notary Public in and for _____

FORM SP-220 (REV. 8)

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Penroc Oil Corporation	State	2

Unit Letter	Section	Township	Range	County
J	28	17S	28E	Eddy

Actual Footage Location of Well: 360 feet from the South line and 330 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage
3680	Abo	Empire abo	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

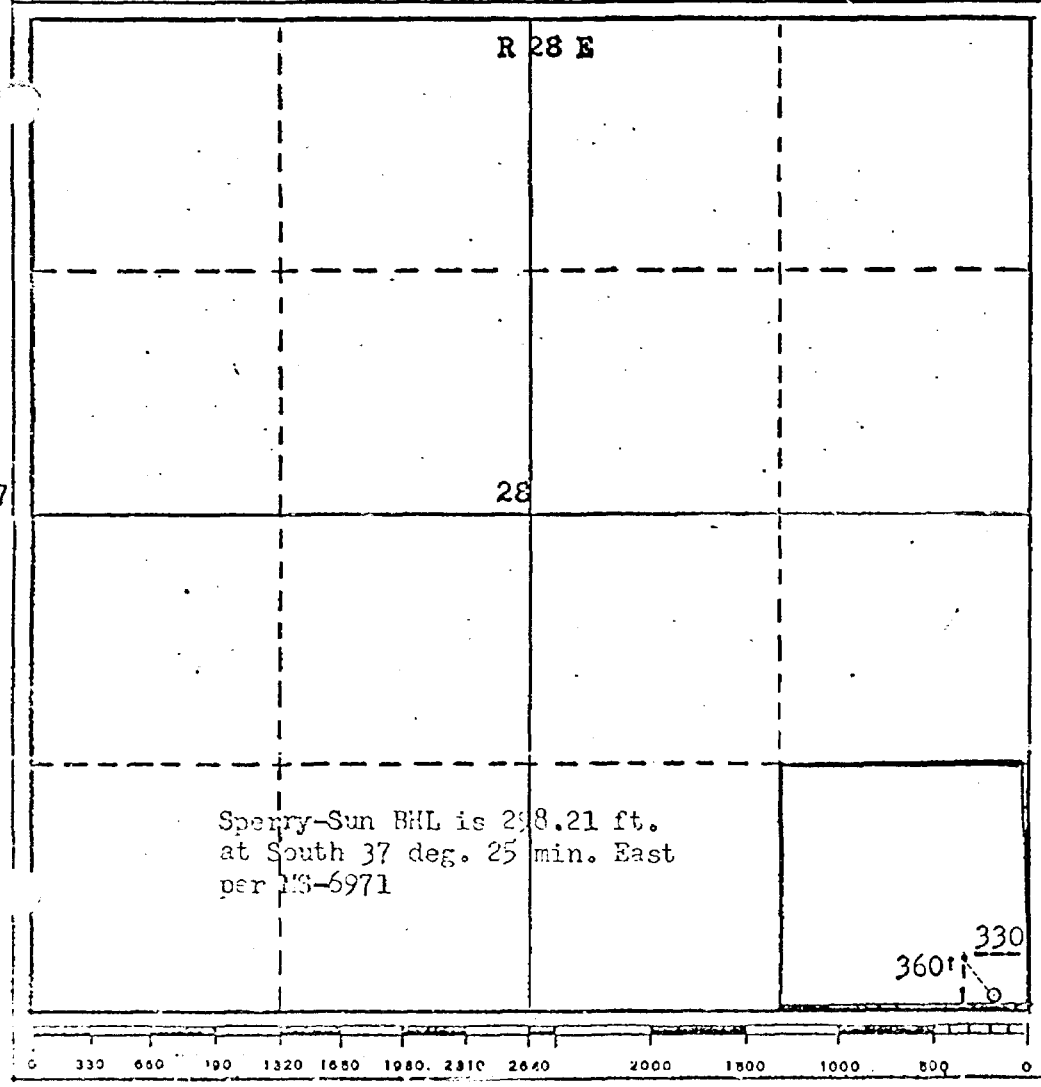
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: John B. Castle

Position: President

Company: Penroc Oil Corp.

Date: 12/3/70

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

REGISTERED LAND SURVEYOR
NEW MEXICO
5412
JAMES H. BROWN

Date Surveyed: November 24 1970

Registered Professional Engineer and/or Land Surveyor

James H. Brown

Certificate No. 542

33001

PENROC OIL CORPORATION
STATE LEASE WELL NO 2
EMPIRE ABO FIELD
EDDY COUNTY NEW MEXICO
MAGNETIC MULTISHOT SURVEY

DATE OF SURVEY JANUARY 4 1971
VERTICAL SECTION COMPUTED ALONG CLOSURE
11 DEG EAST MAGNETIC CORRECTION APPLIED
MS-6971

SPERRY-SUN WELL SURVEYING COMPANY
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
615.	615.00	COORDINATES FURNISHED BY CUSTOMER					.00		.00	
819.	818.98	0	45	S 73 W	.07	-.93		.78		2.55
1071.	1070.97	0	30	N 81 W	.15	-2.53		.44		4.73
1324.	1323.96	0	30	S 77 W	.08	-3.44		.93		6.88
1577.	1576.94	0	45	N 76 W	.15	-6.03		.13		10.09
1830.	1829.93	0	30	N 9 W	.28	-7.97	2.05			10.44
2083.	2082.92	0	30	N 57 W	.16	-10.05	3.25			12.29
2335.	2334.90	0	45	N 70 W	.11	-12.83	4.38			15.39
2588.	2587.86	1	0	N 15 W	.33	-16.91	8.64			16.53
2841.	2840.84	0	45	N 45 W	.20	-20.19	10.99			18.87
3094.	3093.82	0	45	N 73 W	.14	-22.89	11.95			22.04
3346.	3345.78	1	0	N 80 W	.11	-26.13	12.72			26.37
3599.	3598.66	1	45	S 8 E	.90	-19.40	5.07			25.29
3852.	3849.35	7	45	S 13 E	2.37	11.66		28.18		17.62
4105.	4098.88	9	30	S 33 E	1.36	53.30		63.20	5.12	
4357.	4347.77	9	0	S 34 E	.21	92.65		95.88	27.17	
4610.	4597.48	9	15	S 50 E	1.00	132.34		122.02	58.32	
4863.	4847.36	9	0	S 49 E	.12	171.11		147.98	88.19	
5116.	5098.05	7	45	S 49 E	.49	204.54		170.37	113.94	
5368.	5348.43	6	30	S 47 E	.51	232.67		189.82	134.80	
5621.	5600.26	5	30	S 50 E	.41	256.34		205.41	153.38	

33003

PENROC OIL CORPORATION
STATE LEASE WELL NO 2
EMPIRE ABO FIELD
EDDY COUNTY NEW MEXICO
MAGNETIC MULTISHOT SURVEY

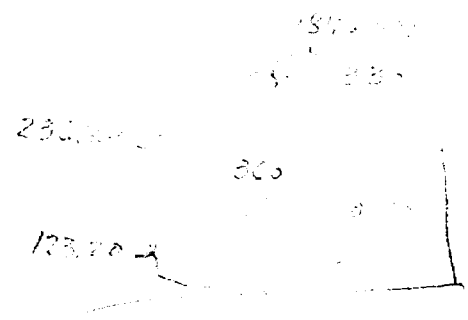
DATE OF SURVEY JANUARY 4 1971
VERTICAL SECTION COMPUTED ALONG CLOSURE
11 DEG EAST MAGNETIC CORRECTION APPLIED
MS-6971

SPERRY-SUN WELL SURVEYING COMPANY
RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION DEG	INCLINATION MIN	DIRECTION DEG	DOG-LEG SEVERITY DEG/100	VERTICAL SECTION	RECTANGULAR COORDINATES NORTH	SOUTH	EAST	WEST
5874.	5852.39	4	45	S 43 E	.39	277.19		220.73	167.67	
6127.	6104.69	4	15	S 40 E	.22	295.92		235.10	179.72	
6158.	6135.61	4	15	S 42 E	.48	298.21		236.80	181.26	

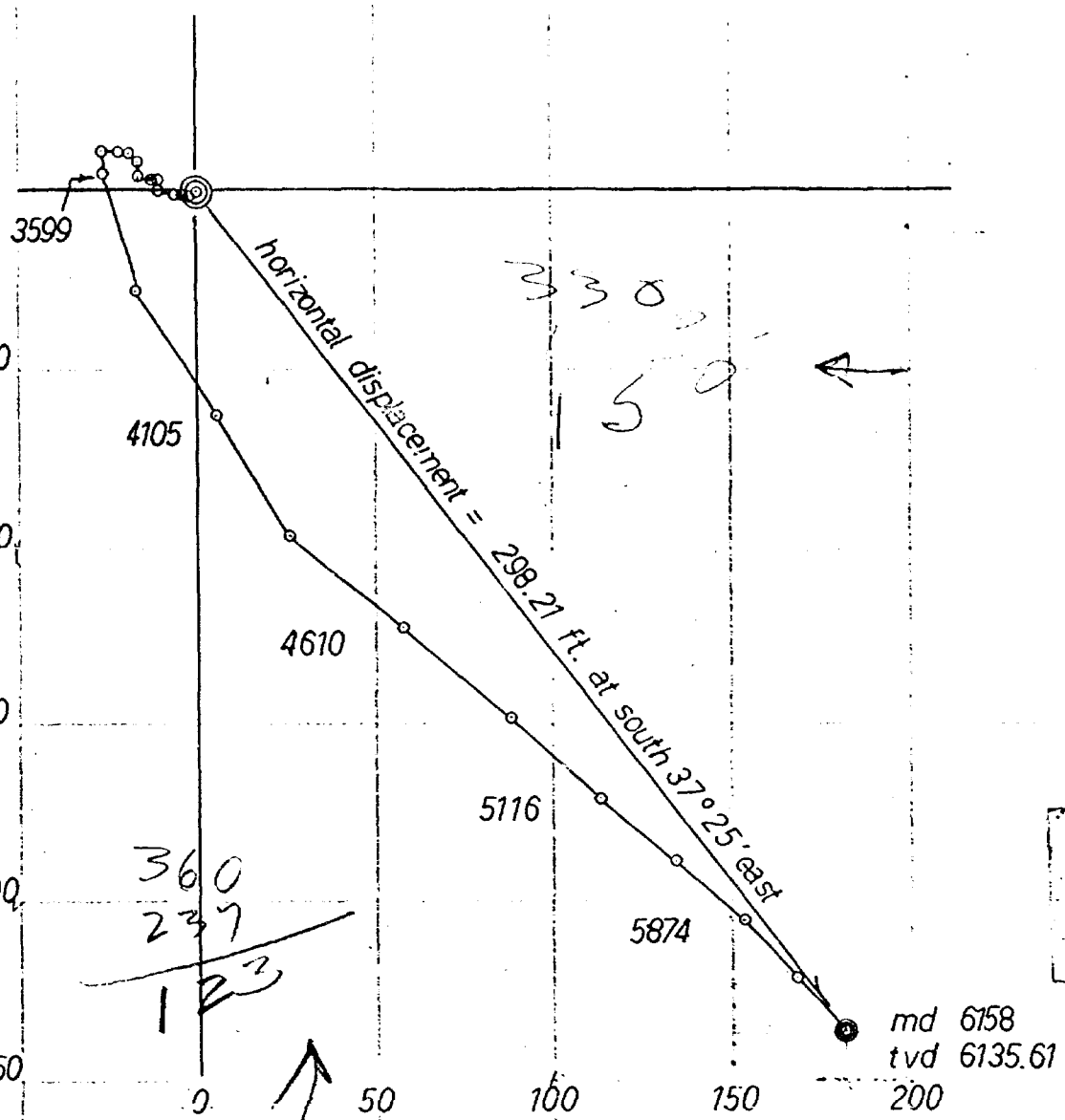
THE CALCULATION PROCEDURES ARE BASED ON THE USE OF THE TANGENTIAL OR CHORD METHOD

HORIZONTAL DISPLACEMENT = 298.21 FEET AT SOUTH 37 DEG. 25 MIN. EAST (TRUE)



SD 417

Penroc Oil Corporation
State Lease Well no. 2
Empire Abo Field
Eddy County New Mexico
Magnetic Multishot ms - 6971



SPERRY - SUN WELL SURVEYING COMPANY
HORIZONTAL PROJECTION

Scale 1" = 50'

SPERRY-SUN WELL SURVEYING COMPANY

CHARLES E. HAWK
PRESIDENT

P.O. Box 2133
Odessa, Texas

JOS. T. WILSON, JR.
SECRETARY-TREASURER

January 7, 1970

Case 4503

PENNCO OIL CORP.
P.O. Box 831
Midland, Texas

Gentlemen:

The enclosed film and six folders show the results of our Magnetic Multishot survey job no. MS-6971, performed on the State lease, well no. 2, in the Empire Abo field, Eddy County, New Mexico, on January 4th, 1971. This survey was run from a depth of 615 ft. to a depth of 6158 ft.

One of these folders contains the original of the computation sheets, field data sheets, horizontal projection, and certification. Bottom hole location has been plotted in relation to surface location on the certified plat furnished by you and copies of same have been included in all folders.

All copies have been certified and a copy is being sent by Registered Mail to the State of New Mexico, Oil Conservation Commission, Box 2088, Santa Fe, New Mexico 87501, and Drawer DD, Artesia, New Mexico 88210.

It has been a pleasure to perform this service for you.

Very truly yours,

SPERRY-SUN WELL SURVEYING COMPANY

Gary D. Benson

Gary D. Benson
District Manager

gb
Enclosures
BY HAND

cc: New Mexico Oil Conservation Commission-Santa Fe (w/encl.)
New Mexico Oil Conservation Commission- Artesia (w/encl.)
REGISTERED MAIL

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT PENROC OIL CORPORATION AND ALL OTHER INTERESTED PERSONS TO APPEAR AND SHOW CAUSE WHY THE INTENTIONAL DEVIATION OF PENROC OIL CORPORATION STATE WELL NO. 2, HAVING A SURFACE LOCATION 360 FEET FROM THE SOUTH LINE AND 330 FEET FROM THE EAST LINE OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 28 EAST, EMPIRE-ABO POOL, EDDY COUNTY, NEW MEXICO, TO A BOTTOM HOLE LOCATION 123 FEET FROM THE SOUTH LINE AND 149 FEET FROM THE EAST LINE OF SAID SECTION 28 SHOULD BE APPROVED AND WHY THE ALLOWABLE ASSIGNED TO SAID WELL SHOULD NOT BE REDUCED TO OFFSET ANY ADVANTAGE GAINED BY SAID BOTTOM-HOLE LOCATION OVER OTHER PRODUCERS.

CASE NO. 4503
Order No. R-4122

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 24, 1971, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 23rd day of March, 1971, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That Penroc Oil Corporation is the owner and operator of the Penroc Oil Corporation State Well No. 2 having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico.

(3) That the above-described well has its lowermost perforations at a bottom-hole location 129.70 feet from the South line and 153.41 feet from the East line of said Section 28.

(4) That the subject case was called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of the subject well should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

(5) That on December 22, 1970, Penroc Oil Corporation requested and was granted authority to set a deviation tool at approximately 3500 feet and deviate the well to the vertical or to a bottom-hole location 330 feet from the South line and 330 feet from the East line of said Section 28.

(6) That at the time the request to deviate was made, the operator of the subject well had reason to believe the well had deviated as much as 5 degrees in a west northwest direction.

(7) That the request to deviate as described above was made to keep the bottom-hole location of the subject well away from the bottom-hole location of a well previously drilled to the same formation in the same quarter-quarter section.

(8) That a misapprehension of the true subsurface location of the subject well at the time the request was made was the cause of the well being deviated to a location nearer the lease line than that requested.

(9) That the subject well encountered the pay section at a structurally lower position than it would have had it been bottomed at the vertical from its surface location or at a bottom-hole location 330 feet from the South and 330 feet from the East line of said Section 28.

(10) That no advantage was gained by the above-described bottom-hole location over other producers in the pool.

(11) That in order to afford Penroc Oil Corporation the opportunity to produce its just and equitable share of the oil in the Empire-Abo Pool, prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and to otherwise prevent waste and protect correlative rights, the intentional deviation of the subject well should

be approved and no adjustment should be made to the allowable assigned to the well on account of said deviation.

IT IS THEREFORE ORDERED:

(1) That the intentional deviation of the Penroc Oil Corporation State Well No. 2 from a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico, to a bottom-hole location having its lowermost perforations at 129.70 feet from the South line and 153.41 feet from the East line of said 28 is hereby approved.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

BRUCE KING, Chairman

ALEX J. ARMIJO, Member

A. L. PORTER, Jr., Member & Secretary

dr/

BEFORE THE
OIL CONSERVATION COMMISSION
OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT PENROC OIL CORPORATION AND ALL OTHER INTERESTED PERSONS TO APPEAR AND SHOW CAUSE WHY THE INTENTIONAL DEVIATION OF PENROC OIL CORPORATION STATE WELL NO. 2, HAVING A SURFACE LOCATION OF 360 FEET FROM THE SOUTH LINE AND 330 FEET FROM THE EAST LINE OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 28 EAST, EMPIRE-ABO POOL, EDDY COUNTY, NEW MEXICO, TO A BOTTOM HOLE LOCATION 123 FEET FROM THE SOUTH LINE AND 149 FEET FROM THE EAST LINE OF SAID SECTION 28 SHOULD BE APPROVED AND WHY THE ALLOWABLE ASSIGNED TO SAID WELL SHOULD NOT BE REDUCED TO OFFSET ANY ADVANTAGE GAINED BY SAID BOTTOM-HOLE LOCATION OVER OTHER PRODUCERS.

CASE NO. 4503
Order No. R-4122

STATEMENT OF PENROC OIL CORPORATION

To the Honorable Oil Conservation Commission of New Mexico:

Penroc Oil Corporation applied to the Oil Conservation Commission of New Mexico for permission to intentionally deviate its State Well No. 2, filing its application on Form C-103 under date of December 21, 1970. The application was approvec by the Commission the following day.

Upon completion of the well, as is the usual custom of the Commission, a directional survey was required, whereupon it was discovered that the well was actually bottomed at a point 123 feet from the South line, and 149 feet from the East line of Section 28, Township 17 South, Range 28 East, N.M.P.M., Eddy County, New Mexico. On the basis of this bottom-hole location, the Commission on its own motion, called a hearing, as Case No. 4503.

Following a hearing on February 24, 1971, the Commission entered its order No. R-4122 approving the bottom-hole well location, basing its order on findings that the application to deviate the well was made upon a misapprehension of the true subsurface location at the time the request was made, and on the further finding that the subject well encountered the pay section at a structurally lower position that it would have had it been bottomed at the vertical

from its surface location, and that no advantage was gained by the actual bottom-hole location over other producers in the field. These finding are supported by ample testimony and evidence in the record of both of the hearings.

Amoco Production Company, which did not participate in the hearing before the Commission's examiner on February 24, 1971, asked for, and over the protest of Penroc Oil Corporation, was granted a hearing de novo before the Commission.

Amoco Has No Standing to Seek a Hearing De Novo

Penroc does not waive its objection that Amoco has no standing to seek a hearing de novo before the Commission, and the hearing should not have been granted since Amoco was not a party to the original hearing before the Commission's examiner.

Sec. 65-3-11.1, New Mexico Statutes, Annotated, 1953 Comp., as amended, provides in part: "When any matter or proceeding is referred to an examiner and a decision is rendered thereon, any party adversely affected shall have the right to have said matter heard de novo before the Commission upon application filed with the Commission within thirty (30) days from the time any such decision is rendered." (Emphasis added).

It appears significant that the legislature shose to use the word "party" in this section, whereas a broader form of relief was provided on rehearings. Sec. 65-3-22 provides that "Within twenty days after entry of any order or decision of the commission, any person affected thereby may file with the commission an application for rehearing * * *", but the same section, sub-section (b) provides that "Any party to such rehearing proceeding, dissatisfied with the disposition of the application for rehearing, may appeal therefrom to the district court * * *". (Emphasis added).

Thus it becomes abundantly clear that the legislature intended to draw a distinction between a "party" and a "person" as used in the various sections. Add to this the fact that the statutes (Sec. 65-3-29) contained a definition of the word "person" at the time

the hearing de novo provisions were adopted, and the distinction had already been drawn in the statute covering rehearings and appeals, the conclusion that the legislature intended to limit application for hearing de novo to those who were parties to the original hearing becomes increasingly clear. It was never intended that an operator who deemed himself affected could ignore the hearing before the examiner and preserve all of his remedies for a later hearing before the Commission.

As we have previously pointed out to the Commission, Black's Law Dictionary defines "party" as a technical word, by which is understood he or they by or against whom a suit is brought, a party plaintiff, or defendant, or parties on the record. Others affected by the action may be interested persons, but they are not parties.

Only a party to the record can appeal under a statute providing that "any party agrieved" may appeal. Braun v. Brown, 87 P. 2d 1009 (Calif.). "Party affected" means only such persons as are technically parties to the action or their representatives. Martin v. Kanouse, N.Y. 2 Abb. Proc. 390, 393; and Corpus Juris Secundum points out (73 C.J.S. Public Administrative Bodies and Procedure, Sec. 119) "It has been held that any one who claims to be interested (in an administrative proceeding) and has notice of the proceeding, should intervene."

We take the position that these rules apply to one seeking a hearing de novo as a "party adversely affected" and Amoco had notice of the original hearing, should have availed themselves of the opportunity to present their case at that time, and failed to do so.

Penroc Should Not Be Penalized for Deviating Its Well With Permission of the Commission

Amoco, in its statement in this case, would appear to question the good faith of Penroc Oil Corporation in deviating its well. We feel that the evidence presented at the original hearing in February and in the hearing de novo before the Commission amply refutes this contention. It shows Penroc's reasons for taking the action it did, and the basis for its belief as to the direction the well was taking.

Penroc entered into a drilling contract which required a deviation survey because the anticipated that the well would not drill true, as shown by the other hole on the lease. They did not want to drill into the old hole, and on the basis of the deviation survey of that hole, they logically believed that the new well would move toward it. Even Amoco's witness admitted it would be logical to assume that wells in the same area would deviate in the same direction. If this is logical, there was ample base for Penroc's concern, and for their request to deviate the well from the direction they firmly believed it was taking -- all of which was done according to the Commission's rules and regulations.

The Penroc State No. 2 well was deviating in a west-northwest direction at the time the Dyna-Drill was set at 3552 feet. This is typical random deviation for wells in this area at this depth. The evidence shows that the upper or shallower formations dip to the east-southeast and under normal drilling conditions the drill bit tends to dig into the formation or deviate up dip. This is reflected by the surveys on both Penroc State No. 2, and Delhi State No. 14.

At the 3,000 to 4,000 foot depth in this area the beds begin to reflect the Abo Reef formation and start to dip to the north. This change in dip to the north causes the bit to swing south as it continues to dig up dip. This again is typical of wells in the area as shown by the survey of the old hole (Delhi State No. 14).

Had Penroc waited until its State No. 2 had deviated to the southwest, and closer to the old hole, as it would surely have been, then it would have taken too great an angle to correct before reaching the pay horizon. Too great an angle would cause key seats resulting in stuck drill pipe while drilling and excessive wear on rods and tubing after the well was put on production.

Penroc and Amoco both agree that Penroc's entire 40-acre unit is productive and than an oil well could be made in drilled anywhere thereon.

Had Amoco had any serious concern as to any advantave Penroc

might have gained by the bottom-hole location of the well, they had full opportunity to state just what that advantage was. It was within the call of the hearing to show why the allowable assigned to the well should not be reduced to offset any advantage gained by the bottom-hole location over other producers. At the hearing they were invited, by questioning by the Commission staff, to offer evidence on this question, but declined to do so.

Historically the Commission has used the method of curtailed allowables to offset any advantage an operator has gained over another by reason of the location of his well. The same would apply with equal force to a bottom-hole location. Amoco, however, refused to assume the burdon of assessing the advantage they allege Penroc has received. Instead they demand that the hole be re-drilled! This is a penalty unheard of in the Commission's history.

The reason Amoco refused to offer evidence directed toward laying a basis for curtailed allowable was because they had no such evidence.

We submit that the Commission was correct in its first order wherein it found "That no advantage was gained by the above-described bottom-hole location over other producers in the pool." Amoco apprently recognized the truth of this finding and refused to refute it.

At the present state of the record, there is no evidence to show that the allowable assigned to the State Well No. 2 should be curtailed. There is no evidence to support any finding that this well has gained an advantage over its offsets. There is no evidence in the record upon which a reduction of allowable could be based.

We respectfully request that Order No. R-4122 be reaffirmed in all respects.

Respectfully submitted,

PENROC OIL CORPORATION

By _____
KELLAHIN & FOX, Attorneys for Penroc
P. O. Box 1769
Santa Fe, New Mexico

I hereby certify that a true copy of the foregoing instrument was mailed to opposing counsel of record this 6th day of July, 1971.

_____

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom hole location over other producers.

CASE NO. 4503

CLOSING STATEMENT OF AMOCO PRODUCTION COMPANY

TO THE HONORABLE OIL CONSERVATION COMMISSION OF NEW MEXICO:

This case resulted from an application by Penroc to intentionally deviate their State Well No. 2 to a precise bottom hole location to the vertical or to a location 330 feet from the South line and 330 feet from the East line of their 40-acre unit. When this well was completed, this Commission followed its usual policy of requiring a directional survey. This survey revealed that instead of returning the well to the approved vertical or to the 330-foot location, Penroc had intentionally deviated the well to a bottom hole location in the extreme Southeast corner of their unit only 129.7 feet from the South line and 153.4 feet from the East line. This Commission then called this show cause hearing. The Penroc well has been producing at capacity without any type penalty since its completion in the extreme Southeast corner of the unit.

Amoco strongly recommends that Penroc be required to live up to the terms of the authority they were granted by the Commission and return this well to the vertical or to the 330-foot location.

This recommendation is made for the following reasons:

1. Penroc Claim: Penroc claimed at the Examiner Hearing on February 24, 1971, that No. 2 Well was closely tracking the hole of the old No. 14 well and that unless they intentionally deviated their No. 2

Well, they would track into the hole of the old No. 14.

Fact: Data available to Penroc at this time conclusively show (Amoco's Exhibit 4) that instead of tracking the hole of old No. 14, the Penroc No. 2 was rapidly pulling away, and at the time Penroc intentionally deviated (alledgedly to avoid the old hole), the No. 2 was actually farther away from the hole of old No. 14 than it was at the time it was spudded.

We submit that it was not the hole of old No. 14 that concerned Penroc but, instead, it was the fact their No. 2 Well was drifting to the Northwest away from established pool production.

2. Penroc Claim: Penroc claimed that their corner shot was a few feet down structure from the orthodox 330-foot location and this was a disadvantage.

Fact: According to Penroc's structural interpretation, they are down structure from an orthodox 330-foot location. However, in an oil reservoir with a gravity drainage mechanism, being down structure is an advantage not a disadvantage.

Also, based on Penroc's exhibits, their Southeast corner bottom hole location picked up over thirty feet more pay than it would have encountered at the orthodox 330-foot location. Evidence presented by Amoco's reservoir engineering witness conclusively proved that Penroc gained a distinct advantage over other wells in the pool by violating the terms of their authority.

3. Penroc Claim: Penroc claimed that other pool wells had drained their 40-acre unit.

Fact: Penroc's only witness admitted he had not made a drainage study and, in fact, was not qualified to do so.

4. Penroc Claim: Penroc claimed their well bottomed at 129.7 feet from the South line and 153.4 feet from the East line would not drain offsetting tracts although the nearest offset well to Penroc's unit is about 1,000 feet away.

Fact: Penroc's only witness admitted he had not made a drainage study and, in fact, was not qualified to do so.

It is to Penroc's credit that they did not claim any attempt

to comply with the terms of their permit to intentionally deviate. Testimony presented by Amoco's witness showed that drilling technology is available to intentionally deviate to a precise target area but to do so you must exercise control and continue to run surveys during the directional drilling.

What did Penroc do to control their intentional deviation? According to their testimony, not one thing. Penroc set their dyno-drill to deviate and from then on exercised no control whatsoever. As a matter of fact, after intentionally deviating, they even stopped running the inclination surveys required under their drilling contract.

The record is absolutely clear than Penroc made no attempt at all to comply with the terms of their permit to intentionally deviate and they had to know at the time they were deviating that they were not, and could not be, in compliance. There is not a scintilla of evidence that will justify or excuse this bottom hole location, such as a mathematical mistake, faulty data from directional surveys----nothing.

I recognize that it is sometimes quite difficult for this Commission to tell an operator of a well that is already drilled and in existence that it should not be produced. However, in this case the facts demand this decision. Here on the part of Penroc we have a flagrant abuse of a Commission permit with a callous and total disregard of any attempt at compliance.

This Commission has always insisted on strict compliance with their rules, regulations, orders and permits. Those of us who practice before you have always with complete confidence told our clients that there is no winking at the rules and regulations in New Mexico. A permit issued by this Commission or any other authority issued by this Commission means just what it says, no more, no less. If the Penroc bottom hole location in the extreme Southeast corner of their unit is approved under the facts of this record, it is my sincere opinion that the integrity of a Commission permit will suffer.

Therefore, Amoco recommends that in order to protect the correlative rights of other interest owners in the pool and to reaffirm the sanctity and force of the Commission permit, this Commission issue its order requiring Penroc to comply with its Form C-103 and return the bottom hole location of

its No. 2 Well to the vertical or to an orthodox location at 330 feet from the South and East lines of the unit.

Respectfully submitted,

GUY T. BUELL,
Attorney

Amoco Production Company
Oil and Gas Building
P.O. Box 5410
Fort Worth, Texas 76101

July 2, 1971

file - Case 4503 (de Novo)

Mr. Geo. Hatch
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico, 87501

Dear George:

Attached is a copy of our company instruction letter which gives the Division Engineer authority over proration hearings. Under this authority our Division Engineer signs all letters of application for hearings as well as waivers and other such proration instruments.

If you have any questions in regard to this, I would be happy to discuss them with you.

I hope to see you soon.

Very truly yours,

GUY T. BUELL,
Attorney

GTB:mc
Enclosure

PAN AMERICAN PETROLEUM CORPORATION
INSTRUCTION LETTER

Effective: May 21, 1970
Temporary Letter 1545

FW-722

OIL AND GAS PRORATION

Contents

Supplements

1. Form 663, Gas Production Record
2. Reporting Average Net Calendar Day Allowable - Texas and New Mexico

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A. Proration Hearings

Division Engineer	1. Under direction of Division Production Manager coordinates proration activities and, after obtaining proper authorization, supervises the planning of presentations made on the Company's behalf at any hearings at which representatives of the Company make an appearance.

B. Preparing Kansas Hugoton Field Ratable Take File

Computer Operations Manager	1. Prepares Kansas Hugoton Field Ratable Take File printouts. (Computer User Instructions Control No. 0360.)
	2. Distributes printouts to Division Computer Supervisor, as follows:
	a. Monthly Ratable Take Print - four copies.
	b. Change Update Routine for Master - one copy.
Division Computer Supervisor	3. Reviews update routine and handles debugging as necessary by data link.
	4. Verifies Monthly Ratable Take Print totals with proration schedule.
	5. Distributes Monthly Ratable Take Print as follows:
	Original and Two Copies — Gas Sales Supervisor.
	Copy — File.

OIL CONSERVATION COMMISSION

P. O. Box 871
Santa Fe, New Mexico

MEMO NO. 9-60

MEMORANDUM

TO: ALL OPERATORS

FROM: A. L. PORTER, Jr., Secretary-Director

SUBJECT: ENTRY OF APPEARANCE OF RESIDENT COUNSEL

The Opinion of the Attorney General of New Mexico issued on September 30, 1958, and numbered 58-200 requires resident counsel to appear in any case before the Oil Conservation Commission except when an individual is representing himself.

This Opinion does not require that resident counsel appear personally. It is permissible for resident counsel to file a written Entry of Appearance prior to the time a particular case is to be heard, naming the company he represents and the case or docket number. It is also desirable that the non-resident company attorney or attorneys who will participate in the case be named in the Entry of Appearance. And it should be noted that since company personnel appear in a representative capacity as advocates, only attorneys are permitted to examine and cross-examine witnesses.

Applications for hearing signed by any company representative will be accepted. In addition, any company representative may make a statement of his company's position at the close of a case.

Any questions concerning the procedures set out above should be directed to the Legal Department of the Commission.

Case 4504
Finds

(1)

(2) That Pennzoil Oil Corporation is the owner and operator of the Pennzoil Oil Corporation State Well No. 2 having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire Abo Pool, Eddy County, New Mexico.

(3) That the above-described well has its ~~perforate~~ lowermost perforation at a bottom-hole location 129.70 feet from the South line and 153.41 feet from the East line of said Section 28.

(4) That the subject case was called by the Oil Conservation Commission on its own motion to permit Pennzoil Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of the subject well ~~to the above described~~ should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

(5) That on December 22, 1970, requested and was granted authority to set a deviation tool at approximately 3500 feet and deviate the well to the

vertical or to a bottom-hole location 330 feet from the South line and 330 feet from the East line of said Section 28.

(6) That at the time the request, to deviate was made, ~~Petro Oil~~ the Operator of the subject well ~~thought that~~ the had reason to believe the well had deviated as much as 5 degrees in a west northwest direction.

(7) That the request to deviate as described above was made to keep the bottom hole location of the subject well away from the bottom hole location of a well previously drilled to the same formation in the same quarter-quarter section.

(8) That a misapprehension of ~~of~~ the true ~~facts~~ ~~true position of the well~~ surface location of the well at the time the request was made was the cause of the well being deviated ~~beyond~~ to a location nearer the lease line than that requested.

(9) That the subject well encountered the pay section at a structurally lower position than it would have had it been bottomed at ~~the~~ the vertical ~~location~~ from its surface location or at a bottom-hole location 330 feet from the South and East lines of Section 28.

(10) That ~~the subject~~ no advantage was gained by the above-described bottom hole location over other operators producers in the pool.

(11) That ~~the~~ intentional deviation of the ~~subject~~ well should be approved and

(11) That in order to afford Pennzoil Corporation the opportunity to produce its just and equitable share of the oil in the Empire-Abo Pool, prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and to otherwise prevent waste and protect correlative rights, the intentional deviation of the subject well should be approved and the no adjustment should be made to the allowable assigned to the well on account of said deviation.

Ordered:

(1) That the intentional deviation of the Pennzoil Corporation State Well No. 2 from a surface location 360 feet from the South line and 330 feet from the East line of Section 28 Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom-hole location having its bottom-most perforation

129.70 feet from the South line and
153.41 feet from the East line of
said Section 28 is hereby approved.

(2) Jerri —

D. L. Ray
Division Engineer

Amoco Production Company
Oil and Gas Building
P.O. Box 1410
Fort Worth, Texas 76101

Producing Department

April 16, 1971

File: DRC-217-986.510.1

Subject: de novo Hearing Request
Order No. R-4122

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

Amoco Production Company, as a party adversely affected by Order No. R-4122 of March 23, 1971 concerning Case No. 4503, the Intentional Deviation of Penroc Oil Corporation's State Well No. 2, Empire Abo Pool, Eddy County, New Mexico, respectfully requests this matter be heard de novo before the Commission.

Yours very truly,

D. L. Ray

LBVR:jn

would be an certain burden on all parties present. I ruled to hear the case. Contestee made appearance by telegram only.

The case was heard and I can find no evidence of any drainage in the SE SE 07 28 ~~and~~ the bottom of the hole is bottomed on the lease partably ~~the~~ caither from the lease line than many other wells on this and other pools. The explaination as to why the well was deviated was reasonable. I therefore see no reason to curtail Penrod's allowable for the unit.

I recommend and order be issued granting the location and full 40 Ac. allowable.

Case 4503
Rec'd 2-24-71
Rec. 2-24-71.

This case was called on the commissions motion to obtain an explanation as the necessity for the deviation of the well to a bottomed location. 1232' from the So. line and 1487' from the East line of sec. 28-17S-28E. The surface location being 360/S, 330/E. of sec. 28.

Cenco requested a continuance on this case 2-22-71 & were informed by a Commission spokesman to attempt to get an agreement to continuance from Pennzoil. Since Pennzoil was ready able & willing to proceed & the Commission call they couldn't & were to continue & made appearance at the hearing on the 24th. & ~~ordered~~ to be Heard. Since the call was by the commission to Pennzoil and they as well as Atlantic and Commission personnel from Santa Fe & Artesia were ready & willing to hear the case and further since Cenco ~~had~~ as much time as other interested parties to prepare it seemed to the examiner that to continue the case

DOCKET: REGULAR HEARING - WEDNESDAY - JULY 14, 1971

OIL CONSERVATION COMMISSION - 9 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

ALLOWABLE: (1) Consideration of the oil allowable for July and August, 1971;

(2) Consideration of the allowable production of gas for July, 1971, from fifteen prorated pools in Lea, Eddy, Roosevelt and Chaves Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico for July, 1971; also presentation of purchaser's nominations for the six-month period beginning August 1, 1971, for that area.

CASE 4487: (De Novo) This case will be continued to the August 18, 1971, Regular Hearing.

Application of Pennzoil United, Inc., for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Strawn formation underlying the W/2 of Section 6, Township 23 South, Range 27 East, South Carlsbad-Strawn Gas Pool, Eddy County, New Mexico, said acreage to be dedicated to the Morris R. Antwell Joell Well No. 1 located 660 feet from the North line and 1980 feet from the West line of said Section 6. Also to be considered will be the cost of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

Upon application of Pennzoil United, Inc., this case will be heard De Novo under the provisions of Rule 1220.

CASE 4503: (De Novo)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole-location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom hole location over other producers.

Upon application of Amoco Production Company, this case will be heard de Novo under the provisions of Rule 1220.

THE FOLLOWING CASES WILL BE HEARD BEFORE DANIEL S. NUTTER, EXAMINER, OR ELVIS A. UTZ, ALTERNATE EXAMINER, IN THE OIL CONSERVATION COMMISSION CONFERENCE ROOM ON THE SECOND FLOOR OF THE LAND OFFICE BUILDING AT 10:30 a.m.:

CASE 4547: Application of Hanson Oil Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Seven Rivers formation in the perforated interval from 4009 feet to 4036 feet in its Mescalero Ridge Unit "35" Well No. 17 located in Unit G of Section 35, Township 19 South, Range 34 East, Pearl-Seven Rivers Pool, Lea County, New Mexico.

CASE 4548: Application of Hanagan Petroleum Corporation for creation of a new gas pool and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Morrow gas pool for its Catclaw Draw Unit Well No. 1-Y located in Unit F of Section 26, Township 21 South, Range 25 East, Eddy County, New Mexico. Applicant further seeks the promulgation of special rules therefor, including a provision for 640-acre spacing units.

CASE 4549: Application of Tom L. Ingram for unorthodox gas well location, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location for his Light Well No. 1 located 1980 feet from the South line and 660 feet from the East line of Section 15, Township 8 South, Range 37 East, Bluitt-San Andres Associated Pool, Roosevelt County, New Mexico, the S/2 of said Section 15 to be dedicated to the well.

CASE 4550: Application of Roger C. Hanks for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation at approximately 10,500 feet in a well located 660 feet from the North and West lines of Section 5, Township 20 South, Range 25 East, Eddy County, New Mexico.

CASE 4551: Application of Roger C. Hanks for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 104 of the Commission Rules and Regulations to drill a well at an unorthodox gas well location 1900 feet from the South line

ATWOOD, MALONE, MANN & COOTER
LAWYERS

JEFF D ATWOOD 1883-1960

CHARLES F MALONE
RUSSELL D. MANN
PAUL A. COOTER
BOB F. TURNER
ROBERT A JOHNSON
JOHN W. BASSETT
ROBERT E. SABIN
RUFUS E. THOMPSON

P. O. DRAWER 700
SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO 88201
(505) 622-6221

JUNE
10th
1 9 7 1

Mr. A. L. Porter, Jr.
Executive Director
Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico 87501

Re: Case No. 4503, Examiner Hearing June 16

Dear Mr. Porter:

I would appreciate your filing the enclosed Entry of Appearance in behalf of Amoco Production Company.

With best regards,

Very truly yours,

Charles F. Malone

C
F
M

*

v

Encls.

Cc: Guy Buell, Esquire w/encls.
Harry O. Hickman, Esquire w/encls.

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION TO PERMIT PENROC OIL CORPORATION TO SHOW CAUSE RE THE INTENTIONAL DEVIATION OF ITS STATE WELL NO. 2	)))))	CASE NO. 4503

ENTRY OF APPEARANCE

The undersigned, Atwood, Malone, Mann & Cooter, Post Office Drawer 700, Roswell, New Mexico 88201, hereby enter their appearance herein in behalf of Amoco Production Company with Guy Buell, Esquire, Amoco Production Company, Fort Worth, Texas.

ATWOOD, MALONE, MANN & COOTER

By _____

Attorneys for Amoco Production Company
Post Office Drawer 700
Roswell, New Mexico 88201

Case 4503

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
BRUCE KING
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

March 23, 1971

Re: Case No. 4503
Order No. R-4122
Applicant:
Penroc Oil Corporation

Mr. Jason W. Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

DOCUMENT MAILED
Date

Dear Sir:

Enclosed herewith is a copy of the above-referenced Commission order recently entered in the subject case. Letter pertaining to conditions of approval and maximum allowable to follow.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC
State Engineer

Other Mr. Guy Buell, Amoco Production Company

INVOICE

No. #831 CM

R C CORPORATION

MIDLAND, TEXAS

P. O. Box 1767

Abo State #1, 360' FSL & 330' FEL, Sec. 28, T-17-S, R-28-E, East Empire Field, Eddy County, New Mexico.

To PENROC OIL CORPORATION
Drawer 831
Midland, Texas 79701

Date January 5, 1971

Your Purchase Order No.

Ordered by Mr. Brace Wigzell

DATE	DESCRIPTION	AMOUNT
	Credit due on Rod Ric Invoice #831, dated 12/31/70 to Penroc Oil Corporation on subject well as follows:	
	Daywork to 6158' on subject well:	($3,469 34)
	4% New Mexico Tax	(138 77)
	Total Credit Due	($3,608 11)

EXAMINER UTZ
OIL CONSERVATION COMMISSION
Penroc EXHIBIT NO. 9
CASE NO. 4503

Thank You!

Pay Last Amount in This Column →

Note: All Bills Due and Payable 30 days after date of invoice. 7% Interest Charged on Past due Accounts

EXHIBIT "A"

To Drilling Contract dated December 1st, , 19 70.

Owner Pearce Oil Corporation Contractor Rod Ric Corporation

Well Name and Number Abo Structure

SPECIFICATIONS AND SPECIAL PROVISIONS

1. CASING PROGRAM (See Par. 8)

	Size		Weight		Approx. Setting Depth		To Be Set By	Allowed Cement Time
Conductor		in.		lbs./ft.		ft.		hours
Surface	8 5/8"	in.		lbs./ft.	600 each	ft.	as required	hours
Protection		in.		lbs./ft.		ft.		hours
Oil String	5 1/2"	in.		lbs./ft.	6200	ft.	as required	hours
Liner		in.		lbs./ft.		ft.		
Tubing		in.		lbs./ft.		ft.		

2. MUD CONTROL PROGRAM (See Par. 10.3)

Depth Interval (ft.) From	To	Type Mud	Weight (lbs./gal.)	Viscosity (Secs)	Water Loss (cc)
0'	T.D.	As required.			

It is understood that in the event it becomes necessary to discontinue drilling operations and to suddenly raise the mud weight - - - lb. per gallon above the weight currently being used OR to raise the mud weight at any time to - - - lbs. per gallon, it will conclusively constitute "Abnormal Pressure" as that term is employed in Paragraph 13.2 of the Contract. Operations will thereafter go forward under the terms of such provision (13.2) until such condition has been overcome; the well is under control and the mud system stabilized, so as to permit normal drilling operations to be resumed.

Other mud specifications: None.

3. STRAIGHT HOLE SPECIFICATIONS (See Par. 10.5)

Well Depth From	To	Maximum Distance Between Surveys, Feet	Maximum Deviation from Vertical, Degrees	Maximum Change of Angle (or Over-All Angle) Between Any Two Surveys, Degrees(1)
600'	T.D.	500'	3°	- - -

Location of well bore at - - - feet shall be - - -

(1) a. Reduce proportionately for survey intervals less than 100 feet, but do not use intervals shorter than 30 feet.
b. If these limits are exceeded and the distance between surveys is more than 100 feet, Contractor shall take intermediate surveys no more than 100 feet apart. If such intermediate surveys show that above limits for any interval have been exceeded, Contractor shall correct hole deviation to within limits of above specifications.
c. When directional surveys are required, the change of angle shall be the change of over-all angle.

4. INSURANCE (See Par. 7.6)

4.1 Adequate Workmen's Compensation Insurance complying with State Laws applicable or Employers' Liability Insurance covering all of Contractor's employees working under this agreement.

4.2 Comprehensive Public Liability Insurance or Public Liability Insurance with limits not less than $ 100,000 for the death or injury of any one person and $ 300,000, for each accident.

4.3 Comprehensive Public Liability Property Damage Insurance or Public Liability Property Damage Insurance with limits of not less than $ 100,000 for each accident and $ 300,000 aggregate per policy.

4.4 Automobile Public Liability Insurance with limits of $ 100,000 for the death or injury of each person and $ 300,000 for each accident; and Automobile Public Liability Property Damage Insurance with limits of $ 50,000 for each accident.

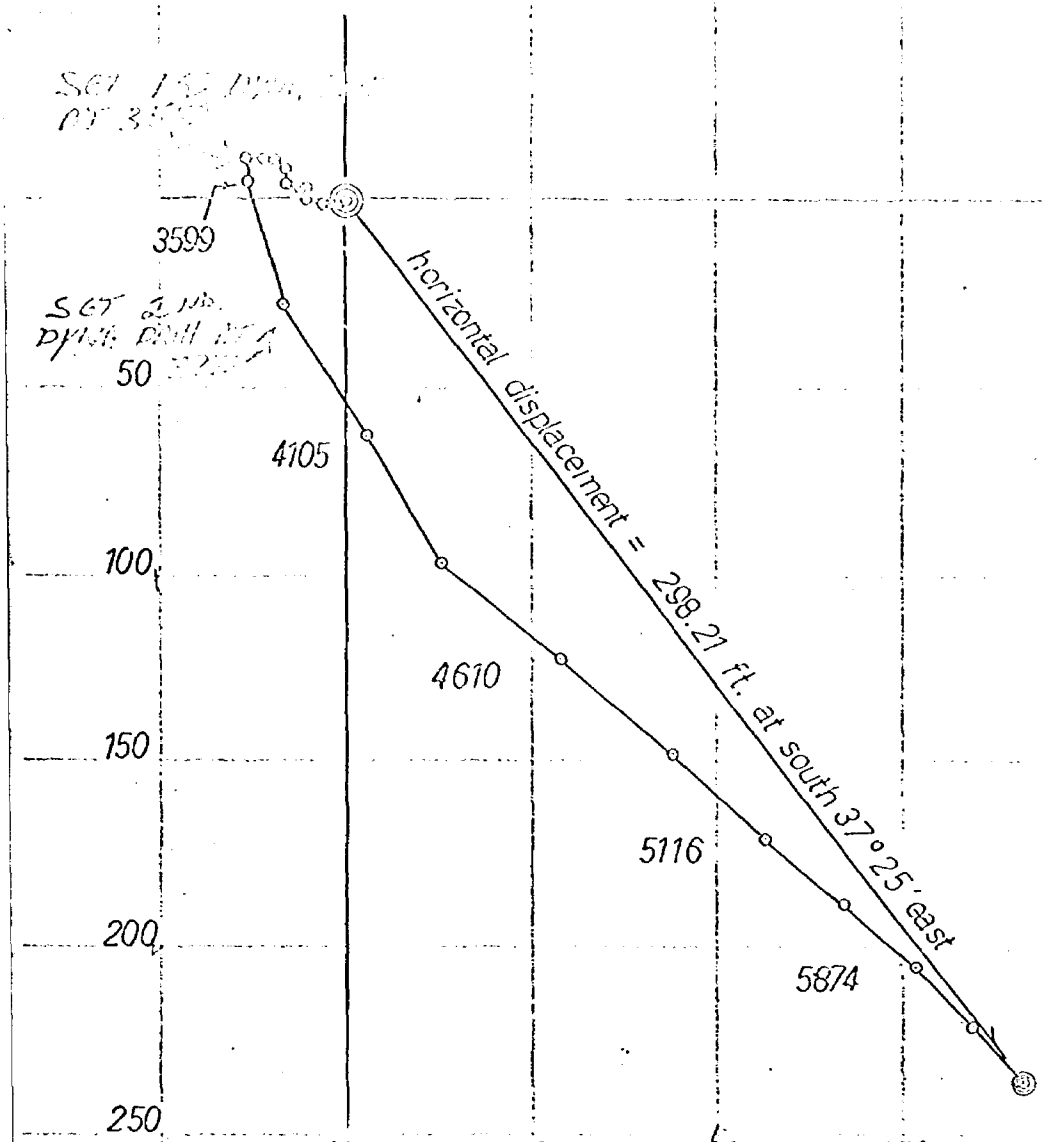
4.5

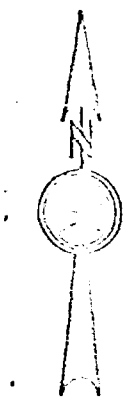
4.6

3

(Exhibit A - 2)

Penroc Oil Corporation
State Lease Well no. 2
Empire Abo Field
Eddy County New Mexico
Magnetic Multishot ms-6971





SPERRY-SUN WELL SURVEYING COMPANY
HORIZONTAL PROJECTION

Scale 1" = 50'

#5

INVOICE

No. [illegible] 881

[illegible] CORPORATION

MIDLAND, TEXAS
P. O. Box 1707

Lbo State #1, 330' FSL & 330' FWL, Sec. 20, T-17-S, R-28-E, Maljamar Field, Eddy County, New Mexico.

Perroc Oil Corporation
Drawer 831
Midland, Texas 79701

Date December 31, 1970

Your Purchase Order No.

Ordered by Mr. Bruce Wignell

DESCRIPTION	AMOUNT
To invoice you as follows:	
Daywork to 6200' on subject well ----------	$35,380 00
Move in, rig up, rig down, and move rig off location ----------	5,850 00
SUBTOTAL	$41,230 00
4% New Mexico State Tax	1,649 20
TOTAL	$42,879 20

#6

THANK YOU ! !

Pay Last Amount in This Column ⟶

Note: All Bills Due and Payable 30 days after date of invoice. 7% Interest Charged on Past due Accounts.

INVOICE

No. #831 CM

CORPORATION

MIDLAND, TEXAS

P. O. Box 1767

Abo State #1, 360' FSL & 330' FEL, Sec. 20, T-17-S, R-28-E, East Empire Field, Eddy County, New Mexico.

To PENROC OIL CORPORATION
Drawer 831
Midland, Texas 79701

Date January 5, 1971

Your Purchase Order No.

Ordered by Mr. Bruce Wigzell

DATE	DESCRIPTION	AMOUNT
	Credit due on Rod Ric Invoice #831, dated 12/31/70 to Penroc Oil Corporation on subject well as follows:	
	Daywork to 6158' on subject well:	($3,469 34)
	4% New Mexico Tax	(138 77)
	Total Credit Due	($3,608 11)

Pay Last Amount in This Column →

Note: All Bills Due and Payable 30 days after date of invoice. 7% Interest Charged on Past due Accounts

OIL CONSERVATION COMMISSION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

February 25, 1971

COPY

Mr. Guy Buell
Amoco Production Company
Post Office Box 1410
Fort Worth, Texas 76101

Dear Guy:

With reference to Case No. 4503, the application of Penroc Oil Corporation on the February 24th docket, the examiner denied your telegraphed request for a continuance and heard testimony by the applicant. The case was taken under advisement and we expect that an order will be issued within the near future.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

western union **Telegram**

KA123 NSA391 1971 FEB 23 PM 4 07

NS FWB219 MB PD 4 EXTRA=FAX FORT WORTH TEX 23 430P CST=
A L PORTER JR SECY=DIRECTOR=
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE BLDG SANTA FE NMEX 87501=
RE CASE 4503 OIL CONSERVATION COMMISSION EXAMINER 71 FEB 23 PM 4 24
HEARING SCHEDULED FEBRUARY 24, 1971.=
AMOCO PRODUCTION COMPANY, AS AN OPERATOR IN THE EMPIRE ABO POOL, RESPECTFULLY REQUESTS CASE 4503 BE CONTINUED. OUR ATTORNEY IS NOT AVAILABLE TO BE PRESENT AT THE HEARING AS NOW SCHEDULED DUE TO HIS PRESENCE BEING REQUIRED IN ANOTHER MATTER WHICH WAS SCHEDULED PRIOR TO THE ISSUANCE OF DOCKET 5-71, CALLING CASE 4503. AMOCO

WU 1201 (R 5-69)

western union **Telegram**

(445)

PRODUCTION COMPANY IS AN OFFSET OPERATOR TO THE WELL COVERED IN THIS CASE AND IS VITALLY INTERESTED IN THE MATTER. AMOCO PRODUCTION COMPANY RESPECTFULLY REQUESTS THAT CASE 4503 BE CONTINUED TO THE NEXT REGULARLY SCHEDULED EXAMINER HEARING OR TO SUCH SUBSEQUENT TIME AS SOON THEREAFTER AS WOULD BE PRACTICAL. DUE TO OUR VITAL INTEREST IN THIS CASE, IF IT IS NOT CONTINUED, AMOCO WILL BE FORCED TO FILE A MOTION TO REOPEN=
D L RAY DIVISION ENGINEER=
AMOCO PRODUCTION COMPANY FORT WORTH TEXAS 76112.==

WU 1201 (R 5-69)

INVOICE

No. #831 831

R C CORPORATION

MIDLAND, TEXAS

P. O. Box 1767

Abo State #1, 360' FSL & 330' FEL, Sec. 28, T-17-S, R-28-E, East Empire Field, Eddy County, New Mexico.

To
Penroc Oil Corporation
Drawer 831
Midland, Texas 79701

Date December 31, 1970

Your Purchase Order No.

Ordered by Mr. Brace Wigzell

DATE	DESCRIPTION	AMOUNT	
	To invoice you as follows:		
	Daywork to 6200' on subject well ----------	$35,380	00
	Move in, rig up, rig down, and move rig off location ----------	5,850	00
	SUBTOTAL	$41,230	00
	4% New Mexico State Tax	1,649	20
	TOTAL	$42,879	20

THANK YOU ! !

Pay Last Amount in This Column →

Note: All Bills Due and Payable 30 days after date of invoice. 7% Interest Charged on Past due Accounts.

SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
TRANSPORTER	OIL	
	GAS	
OPERATOR		
PRORATION OFFICE		

RECEIVED
JAN 25 1971
O. C. D.
ARTESIA, OFFICE

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Supersedes Old C-104 and C-110
Effective 1-1-65

I. Operator: Penroc Oil Corporation

Address: P. O. Drawer 831, Midland, Texas 79701

Reason(s) for filing (Check proper box)
- New Well [X]
- Recompletion [ ]
- Change in Ownership [ ]
- Change in Transporter of: Oil [ ] Dry Gas [ ] Casinghead Gas [ ] Condensate [ ]
- Other (Please explain)

If change of ownership give name and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
State	2	Empire Abo	State, Federal or Fee State	B-4575

Location: Unit Letter P : 360 Feet From The South Line and 330 Feet From The East

Line of Section 28 Township 17S Range 28E , NMPM, Eddy County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil [X] or Condensate [ ]	Address (Give address to which approved copy of this form is to be sent)
The Permian Corporation	P. O. Drawer 831, Midland, Texas 79701
Name of Authorized Transporter of Casinghead Gas [X] or Dry Gas [ ]	Address (Give address to which approved copy of this form is to be sent)
Phillips Petroleum Co.	Bartlesville, Oklahoma

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	P	28	17S	28E	No	Waiting on connection

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
	X		X					

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
12/14/70	1/12/71	6158'	6140'
Elevations (DF, RKB, RT, GR, etc.)	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
3680 G. L.	Abo	5946'	5897'
Perforations			**Depth Casing Shoe**
5952'-6032'			6157'

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
11"	8-5/8" casing	614'	425 sacks
7-7/8"	4-1/2" casing	6157'	500 sacks
	2-3/8" O. D. tubing	5897'	

V. TEST DATA AND REQUEST FOR ALLOWABLE

(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas lift, etc.)	
1/8/71	1/19/71	Pump	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
24 hours	25 PSI	25 PSI	Open
Actual Prod. During Test	**Oil-Bbls.**	**Water-Bbls.**	**Gas-MCF**
202	190	12	222 MCF

GAS WELL

Actual Prod. Test-MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method (pitot, back pr.)	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

M. L. Roberts (Signature)

DOCKET MAILED

V. P. Production (Title)

Date 1-11-71

1/21/71 (Date)

OIL CONSERVATION COMMISSION

APPROVED _____, 19____

BY _____

TITLE _____

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

Case 45-03 Artesia

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FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

RECEIVED
JAN 25 1971
O. C. C.
ARTESIA, OFFICE

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease State [X] Fee [ ]

5. State Oil & Gas Lease No. B-4575

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name

2. Name of Operator: Penroc Oil Corporation

8. Farm or Lease Name: State

3. Address of Operator: P. O. Drawer 831, Midland, Texas

9. Well No.: 2

4. Location of Well: UNIT LETTER P, 360 FEET FROM THE South LINE AND 330 FEET FROM THE East LINE, SECTION 28 TOWNSHIP 17 south RANGE 28 east NMPM.

10. Field and Pool, or Wildcat: Empire Abo

15. Elevation (Show whether DF, RT, GR, etc.): 3680 G. L.

12. County: Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER Completion [X]	

17. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

Drilled 7-7/8" hole to 6158' T. D.
Ran Sperry Sun Survey and Welex Gamma-Neutron log.
Ran 3800' 9.5# J-55 casing and 2357' 10.5# J-55 casing.
Perforated four shots per foot 5952' to 6032'.
1/8/71 Acidized w/5,000 gal. 15% N. E. acid and dropped 200 rubber balls.
1/11/71 Fractured formation w/40,000 gal. Mod Brine and 30,000# 20/40 mesh sand
1/12/71 Ran 5897', 2-3/8" O. D., 8 rd. Thd., J-55 tubing and put well on pump.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED W. M. Kabuto TITLE V. P. Production DATE 1/21/71

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Case 4503

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.

Unit Letter	Section	Township	Range	County

Actual Footage Location of Well:
feet from the line and feet from the line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
			Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

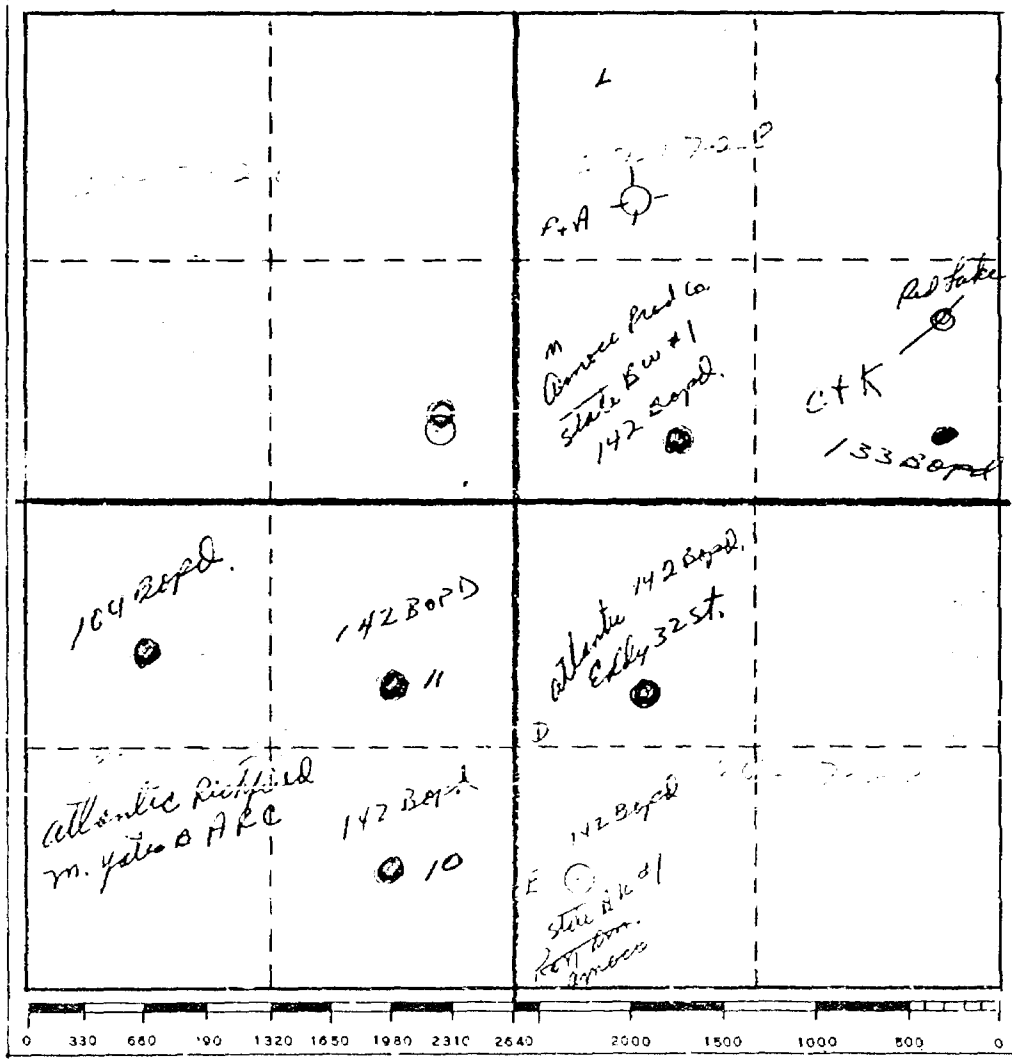
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name

Position

Company

Date

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

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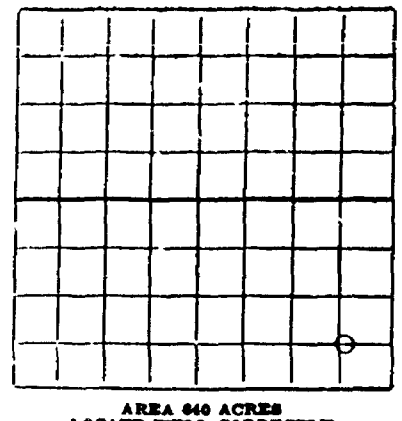
LAND OFFICE			
TRANSPORTER	OIL		
	GAS		
PRODUCTION OFFICE			
OPERATOR			

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

N.



AREA 640 ACRES
LOCATE WELL CORRECTLY.

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPLICATE If State Land submit 6 Copies

Penroc Oil Corporation (Company or Operator) (Lease)

Well No. 2, in SE ¼ of SE ¼, of Sec. 28, T. 17 South, R. 28 East, NMPM.

Empire Abo Pool, Eddy County.

Well is 260 feet from South line and 330 feet from East line

of Section 28. If State Land the Oil and Gas Lease No. is B-4575

Drilling Commenced 12-14, 19 70 Drilling was Completed 1-5, 19 71

Name of Drilling Contractor Rod Ric Corporation

Address Midland, Texas 79701

Elevation above sea level at Top of Tubing Head 3680' G. L. The information given is to be kept confidential until ....., 19.....

OIL SANDS OR ZONES

No. 1, from 1990' to 2025' No. 4, from .....

No. 2, from ..... to ..... No. 5, from ..... to .....

No. 3, from ..... to ..... No. 6, from ..... to .....

RECEIVED
JAN 25 1971
O. C. C.
ARTESIA, OFFICE

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from ..... to ..... feet. .....

No. 2, from ..... to ..... feet. .....

No. 3, from ..... to ..... feet. .....

No. 4, from ..... to ..... feet. .....

CASING RECORD

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
8-5/8	24#	New	614'	Halliburton			Surface
4-1/2	9.5+10.5	New	6157'	Halliburton		5952'-6032'	Production

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
11"	8-5/8	614'	425 sacks	Pump	9#	
7-7/8"	4-1/2"	6157'	500 sacks	Pump	9#	

RECORD OF PRODUCTION AND STIMULATION

(Record the Process used, No. of Qts. or Gals. used, interval treated or shot.)

Perforated 4 shots per foot 5952' - 6032'

Acidized w/5000 gal. 15% NE acid

Fractured formation 40,000 gal. Mod Brine and 30,000# 20/40 mesh sand

Result of Production Stimulation Well pumping 190 bbls. oil and 12 bbls water.

Depth Cleaned Out 6140'

RECORD OF DRILL-STEM AND SPECIAL TESTS

Case 4503

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto

TOOLS USED

Rotary tools were used from 0 feet to 6158T. D feet, and from ..... feet to ..... feet.

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet.

PRODUCTION

Put to Producing 1-12, 19 71

OIL WELL: The production during the first 24 hours was 202 barrels of liquid of which 90 % was was oil; ..... % was emulsion; 10 % water; and ..... % was sediment. A.P.I. Gravity 43

GAS WELL: The production during the first 24 hours was ..... M.C.F. plus ..... barrels of liquid Hydrocarbon. Shut in Pressure ..... lbs.

Length of Time Shut in .....

PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):

Southeastern New Mexico		Northwestern New Mexico		Northwestern New Mexico	
T. Anhy		T. Devonian		T. Ojo Alamo	
T. Salt		T. Silurian		T. Kirtland-Fruitland	
B. Salt		T. Montoya		T. Farmington	
T. Yates		T. Simpson		T. Pictured Cliffs	
T. 7 Rivers		T. McKee		T. Menefee	
T. Queen		T. Ellenburger		T. Point Lookout	
T. Grayburg		T. Gr. Wash		T. Mancos	
T. San Andres		T. Granite		T. Dakota	
T. Glorieta		T.		T. Morrison	
T. Drinkard		T.		T. Penn	
T. Tubbs		T.		T.	
T. Abo	Reef 5946	T.		T.	
T. Penn		T.		T.	
T. Miss		T.		T.	

FORMATION RECORD

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	1700	1700	Red sh, anhy., dol.				
1700	T. D.	4458	Dol., some ss. and sh.				

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

DOCKET MAILED

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

John B. Castle 1/21/71
(Date)

Company or Operator Penroc Oil Corporation Address P. O. Drawer 831, Midland, Texas 79701

Name John B. Castle Position or Title President

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Operator	
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NEW MEXICO OIL CONSERVATION COMMISSION

REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

RECEIVED

FEB 11 1971

O. C. D.
ARTESIA, OFFICE

Form C-104
Supersedes Old C-104 and C-110
Effective 1-1-65

I.

Operator: Penroc Oil Corporation

Address: P. O. Drawer 831, Midland, Texas 79701

Reason(s) for filing *(Check proper box)*

New Well [ ]
Recompletion [ ]
Change in Ownership [ ]

Change in Transporter of:
Oil [X] Dry Gas [ ]
Casinghead Gas [ ] Condensate [ ]

Other *(Please explain)*: from the Permian Corp.

If change of ownership give name and address of previous owner _____

II. DESCRIPTION OF WELL AND LEASE

Lease Name	Well No.	Pool Name, Including Formation	Kind of Lease	Lease No.
State	2	Empire Abo	State, Federal or Fee State	B-4575

Location: Unit Letter P ; 360 Feet From The South Line and 330 Feet From The East

Line of Section 28 Township 17S Range 28E , NMPM, Eddy County

III. DESIGNATION OF TRANSPORTER OF OIL AND NATURAL GAS

Name of Authorized Transporter of Oil [X] or Condensate [ ]	Address *(Give address to which approved copy of this form is to be sent)*
Navajo ~~Pipe Line~~ Refining Co., Pipeline Division	~~P. O. Box 159~~, N. Freeman Ave, Artesia, New Mexico 28210
Name of Authorized Transporter of Casinghead Gas [X] or Dry Gas [ ]	Address *(Give address to which approved copy of this form is to be sent)*
Phillips Petroleum Company	Bartlesville, Oklahoma

If well produces oil or liquids, give location of tanks.	Unit	Sec.	Twp.	Rge.	Is gas actually connected?	When
	P	28	17S	28E	No	Waiting on connection

If this production is commingled with that from any other lease or pool, give commingling order number: _____

IV. COMPLETION DATA

Designate Type of Completion – (X)	Oil Well	Gas Well	New Well	Workover	Deepen	Plug Back	Same Res'v.	Diff. Res'v.
	X		X					

Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
12/14/70	1/12/71	6158'	6140'
Elevations *(DF, RKB, RT, GR, etc.)*	**Name of Producing Formation**	**Top Oil/Gas Pay**	**Tubing Depth**
3680 G. L.	Abo	5946'	5897'
Perforations			**Depth Casing Shoe**
5952' - 6032'			6157'

TUBING, CASING, AND CEMENTING RECORD

HOLE SIZE	CASING & TUBING SIZE	DEPTH SET	SACKS CEMENT
11"	8-5/8" casing	614'	425 sacks
7-7/8"	4-1/2" casing	6157'	500 sacks
	2-3/8" O. D. tubing	5897'	

V. TEST DATA AND REQUEST FOR ALLOWABLE *(Test must be after recovery of total volume of load oil and must be equal to or exceed top allowable for this depth or be for full 24 hours)*

OIL WELL

Date First New Oil Run To Tanks	Date of Test	Producing Method *(Flow, pump, gas lift, etc.)*	
1/8/71	1/19/71	Pump	
Length of Test	**Tubing Pressure**	**Casing Pressure**	**Choke Size**
24 hours	25 PSI	25 PSI	Open
Actual Prod. During Test	**Oil - Bbls.**	**Water - Bbls.**	**Gas - MCF**
202	190	12	222 MCF

GAS WELL

Actual Prod. Test - MCF/D	Length of Test	Bbls. Condensate/MMCF	Gravity of Condensate
Testing Method *(pitot, back pr.)*	**Tubing Pressure (Shut-in)**	**Casing Pressure (Shut-in)**	**Choke Size**

VI. CERTIFICATE OF COMPLIANCE

I hereby certify that the rules and regulations of the Oil Conservation Commission have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

John B. Coffee
(Signature)

President
(Title)

2/11/71
(Date)

OIL CONSERVATION COMMISSION

APPROVED FEB 11 1971, 19____

BY W. A. Gressett

TITLE OIL AND GAS INSPECTOR

This form is to be filed in compliance with RULE 1104.

If this is a request for allowable for a newly drilled or deepened well, this form must be accompanied by a tabulation of the deviation tests taken on the well in accordance with RULE 111.

All sections of this form must be filled out completely for allowable on new and recompleted wells.

Fill out only Sections I, II, III, and VI for changes of owner, well name or number, or transporter, or other such change of condition.

Separate Forms C-104 must be filed for each pool in multiply completed wells.

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Form C-105
Revised 1-1-65

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FEB 1 1971

O. C. C.
ARTESIA, OFFICE

5a. Indicate Type of Lease: State [x] Fee [ ]

5. State Oil & Gas Lease No.: B-4575

1a. TYPE OF WELL
OIL WELL [x] GAS WELL [ ] DRY [ ] OTHER

b. TYPE OF COMPLETION
NEW WELL [x] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name:

8. Farm or Lease Name: State

2. Name of Operator: Penroc Oil Corporation

9. Well No.: 2

3. Address of Operator: P. O. Drawer 831, Midland, Texas 79701

10. Field and Pool, or Wildcat: Empire Abo

4. Location of Well
UNIT LETTER P LOCATED 360 FEET FROM THE South LINE AND 330 FEET FROM THE East LINE OF SEC. 28 TWP. ~~16S~~ 17S RGE. 28E NMPM

12. County: Eddy

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
12/14/70	1/5/71	1/12/71	3680 G. L.	3682

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
6158	6140		→	0' - T. D.	None

24. Producing Interval(s), of this completion — Top, Bottom, Name: Perf. 5952' - 6032' Abo Reef

25. Was Directional Survey Made: Yes

26. Type Electric and Other Logs Run: Welex GR-N

27. Was Well Cored: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24	614	11"	Halliburton 425 sacks	None
4-1/2"	9.5 & 10.60	6157'	7-7/8"	Halliburton 500 sacks	None

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

30. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-3/8	5897'	None

31. Perforation Record (Interval, size and number)
5952' - 6032', 3/8", 4 shots per foot

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
5952' - 6032'	A/5000 15% NE
5952' - 6032'	Frac 40,000 Gal & 30,000# 20/40 sand

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping — Size and type pump)	Well Status (Prod. or Shut-in)
1/12/71	Pumping 2" x 1-1/2" x 16' H. F.	Producing

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas—Oil Ratio
1/19/71	24	Open		190	222	12	1156 - 1

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API (Corr.)
25	25	→	190	222	12	43

34. Disposition of Gas (Sold, used for fuel, vented, etc.): Waiting on Connection (Phillips)

Test Witnessed By: M. V. Roberts

35. List of Attachments

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED M. V. Roberts TITLE V. P. Production DATE 1/29/71

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Commission not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy		T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn		T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka		T. Pictured Cliffs		T. Penn. "D"	
T. Yates		T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen		T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg	1710	T. Montoya		T. Mancos		T. McCracken	
T. San Andres	2025	T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry		T. Gr. Wash		T. Morrison		T.	
T. Tubb		T. Granite		T. Todilto		T.	
T. Drinkard		T. Delaware Sand		T. Entrada		T.	
T. Abo	Reef 5946	T. Bone Springs		T. Wingate		T.	
T. Wolfcamp		T.		T. Chinle		T.	
T. Penn.		T.		T. Permian		T.	
T Cisco (Bough C)		T.		T. Penn. "A"		T.	

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
Surface	1710	1710	Caliche, Red. sh. & sand, some dolomite.				
1710	1985	275	Dolomite				
1985	2025	40	Sand				
2025	5946	3921	Dolomite, some shale				
5946	6158	212	Dolomite, some anhy. and shale.				

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NEW MEXICO OIL CONSERVATION COMMISSION

RECEIVED
FEB 1 1971
O. C. C.
ARTESIA, OFFICE

Form C-103
Supersedes Old C-102 and C-103
Effective 1-1-65

5a. Indicate Type of Lease: State [X] Fee [ ]

5b. State Oil & Gas Lease No.: B-4575

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT —" (FORM C-101) FOR SUCH PROPOSALS.)

1. OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name:

2. Name of Operator: Penroc Oil Corporation

8. Farm or Lease Name: State

3. Address of Operator: P. O. Drawer 831, Midland, Texas

9. Well No.: 2

4. Location of Well: UNIT LETTER P, 360 FEET FROM THE South LINE AND 330 FEET FROM THE East LINE, SECTION 28 TOWNSHIP 17South RANGE 28 East NMPM.

10. Field and Pool, or Wildcat: Empire Abo

15. Elevation (Show whether DF, RT, GR, etc.): 3680 G. L.

12. County: Eddy

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [ ]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
OTHER [ ]		OTHER Completion [X]	

17. Describe Proposed or Completed Operations (*Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work*) SEE RULE 1103.

Set Dyna Drill at 3552' and 3972'.
Drilled 7-7/8" hole to 6158' T. D.
Ran Sperry Sun Directional Survey and Welex Gamma-Neutron log to 6158 T. D.
Ran 3800' 9.5# J-55 casing and 2357' 10.5# J-55 casing to 6157'.
Cemented w/500 sacks Pozmix "S" cement w/2 % gel.
Plug back T. D. 6140'.
Tested casing in 30 hours to 2000 PSI. Held o.k.
Perforated 4 shots per foot 5952' - 6032'.
1/8/71 Acidized w/5,000 gal 15% N. E. acid and dropped 200 rubber balls.
1/11/71 Fractured formation w/40,000 gal. Mod brine and 30,000# 20/40 mesh sand.
1/12/71 Ran 5897', 2-3/8' O. D. J-55 8 rd. Thd and put well on pump.

18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED W. A. Kebutz TITLE V. P. Production DATE 1/29/71

APPROVED BY For Raggord Dudley TITLE OIL AND GAS INSPECTOR DATE FEB 10 1971

CONDITIONS OF APPROVAL, IF ANY:

(Case 4502 continued)

TOWNSHIP 16 SOUTH, RANGE 35 EAST
Section 34: NW/4

TOWNSHIP 17 SOUTH, RANGE 35 EAST
Section 3: NW/4
Section 4: S/2 and NW/4

CASE 4503: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

CASE 4508: Application of Continental Oil Company for the assignment of discovery allowable and promulgation of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the assignement of an oil discovery allowable to its SEMU Well No. 10 located in Unit F of Section 29, Township 20 South, Range 38 East, Warren-Devonian Pool, Lea County, New Mexico. Applicant further seeks the promulation of special rules for said pool, including provisions for 80-acre spacing units.

CASE 4509: Application of Continental Oil Company for an amendment of Order No. R-2016, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2016 to permit the commingling of Paddock oil production from its Mitchell A and B leases in Sections 17, 18, 19 and 20, Township 17 South, Range 32 East, Maljamar-Paddock Pool, Lea County, New Mexico, without first separately metering the production from said leases.

CASE 4510: Application of Amerada Hess Corporation for amendment of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-510, which order established special pool rules for the Bronco Siluro-Devonian Pool, Lea County, New Mexico, to permit the assignment of allowable to wells in said pool on the basis of the statewide oil allowable rules and to no longer require the taking of bottom-hole pressure tests.

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
BRUCE KING
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

July 21, 1971

Re: Case No. 4503
Order No. R-4122-A
Applicant:
Amoco Production Company

Mr. Guy Buell
Amoco Production Company
Post Office Box 1410
Fort Worth, Texas 76101

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x
Artesia OCC x
Aztec OCC

Other Mr. Jason Kellahin

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT PENROC OIL CORPORATION AND ALL OTHER INTERESTED PERSONS TO APPEAR AND SHOW CAUSE WHY THE INTENTIONAL DEVIATION OF PENROC OIL CORPORATION STATE WELL NO. 2, HAVING A SURFACE LOCATION 360 FEET FROM THE SOUTH LINE AND 330 FEET FROM THE EAST LINE OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 28 EAST, EMPIRE-ABO POOL, EDDY COUNTY, NEW MEXICO, TO A BOTTOM HOLE LOCATION 123 FEET FROM THE SOUTH LINE AND 149 FEET FROM THE EAST LINE OF SAID SECTION 28 SHOULD BE APPROVED AND WHY THE ALLOWABLE ASSIGNED TO SAID WELL SHOULD NOT BE REDUCED TO OFFSET ANY ADVANTAGE GAINED BY SAID BOTTOM-HOLE LOCATION OVER OTHER PRODUCERS.

CASE NO. 4503 (De Novo)
Order No. R-4122-A

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing de novo at 9 a.m. on June 16, 1971, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 19th day of July, 1971, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That Penroc Oil Corporation is the owner and operator of the Penroc Oil Corporation State Well No. 2 having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico.

(3) That the above-described well has its lowermost perforations at a location 129.70 feet from the South line and 153.41 feet from the East line of said Section 28.

(4) That Case 4503 was called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of the subject well should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

(5) That after an examiner hearing, Commission Order No. R-4122, dated March 23, 1971, was entered in Case 4503 approving the intentional deviation of the Penroc Oil Corporation State Well No. 2 from a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico, to a bottom-hole location having its lowermost perforations at 129.70 feet from the South line and 153.41 feet from the East line of said Section 28.

(6) That Amoco Production Company requested and was granted a hearing de novo of Case 4503 before the Oil Conservation Commission.

(7) That on December 22, 1970, Penroc Oil Corporation requested and was granted authority to set a deviation tool at approximately 3500 feet and deviate the well to the vertical or to a bottom-hole location 330 feet from the South line and 330 feet from the East line of said Section 28.

(8) That at the time the request to deviate was made, the operator of the subject well had reason to believe the well had deviated as much as 5 degrees in a west northwest direction.

(9) That the request to deviate as described above was made to keep the bottom-hole location of the subject well away from the bottom-hole location of a well previously drilled to the same formation in the same quarter-quarter section.

(10) That a misapprehension of the true subsurface location of the subject well at the time the request was made was the cause of the well being deviated to a location nearer the lease line than that requested.

(11) That the subject well encountered the pay section at a structurally lower position than it would have had it been bottomed at the vertical from its surface location or at a bottom-hole location 330 feet from the South and 330 feet from the East line of said Section 28.

(12) That no advantage was gained by the above-described bottom-hole location over other producers in the pool.

(13) That in order to afford Penroc Oil Corporation the opportunity to produce its just and equitable share of the oil in the Empire-Abo Pool, prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and to otherwise prevent waste and protect correlative rights, the intentional deviation of the subject well should be approved and no adjustment should be made to the allowable assigned to the well on account of said deviation.

IT IS THERREFORE ORDERED:

(1) That the intentional deviation of the Penroc Oil Corporation State Well No. 2 from a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abc Pool, Eddy County, New Mexico, to a bottom-hole location having its lowermost perforations at 129.70 feet from the South line and 153.41 feet from the East line of said Section 28 is hereby approved.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

BRUCE KING, Chairman

ALEX J. ARMIJO, Member

A. L. PORTER, Jr., Member & Secretary

SEAL

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION ON ITS OWN MOTION TO PERMIT PENROC OIL CORPORATION AND ALL OTHER INTERESTED PERSONS TO APPEAR AND SHOW CAUSE WHY THE INTENTIONAL DEVIATION OF PENROC OIL CORPORATION STATE WELL NO. 2, HAVING A SURFACE LOCATION 360 FEET FROM THE SOUTH LINE AND 330 FEET FROM THE EAST LINE OF SECTION 28, TOWNSHIP 17 SOUTH, RANGE 28 EAST, EMPIRE-ABO POOL, EDDY COUNTY, NEW MEXICO, TO A BOTTOM HOLE LOCATION 123 FEET FROM THE SOUTH LINE AND 149 FEET FROM THE EAST LINE OF SAID SECTION 28 SHOULD BE APPROVED AND WHY THE ALLOWABLE ASSIGNED TO SAID WELL SHOULD NOT BE REDUCED TO OFFSET ANY ADVANTAGE GAINED BY SAID BOTTOM-HOLE LOCATION OVER OTHER PRODUCERS.

CASE NO. 4503 (De Novo)
Order No. R-4122-A

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing de novo at 9 a.m. on June 16, 1971, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this _____ day of July, 1971, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That Penroc Oil Corporation is the owner and operator of the Penroc Oil Corporation State Well No. 2 having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico.

(3) That the above-described well has its lowermost perforations at a ~~bottom-hole~~ location 129.70 feet from the South line and 153.41 feet from the East line of said Section 28.

(4) That ~~the subject case~~ Case 4503 was called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of the subject well should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

(5) That after an examiner hearing, Commission Order No. in Case 4503 R-4122, dated March 23, 1971, was entered approving the intentional deviation of the Penroc Oil Corporation State Well No. 2 from a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico, to a bottom-hole location having its lowermost perforations at 129.70 feet from the South line and 153.41 feet from the East line of said Section 28, ~~is hereby approved.~~

(6) That Amoco Production Company requested and was granted a hearing de novo of Case 4503 before the Oil Conservation Commission.

(7) That on December 22, 1970, Penroc Oil Corporation requested and was granted authority to set a deviation tool at approximately 3500 feet and deviate the well to the vertical or to a bottom-hole location 330 feet from the South line and 330 feet from the East line of said Section 28.

(8) That at the time the request to deviate was made, the operator of the subject well had reason to believe the well had deviated as much as 5 degrees in a west northwest direction.

(9) That the request to deviate as described above was made to keep the bottom-hole location of the subject well away from the bottom-hole location of a well previously drilled to the same formation in the same quarter-quarter section.

(10) That a misapprehension of the true subsurface location of the subject well at the time the request was made was the cause of the well being deviated to a location nearer the lease line than that requested.

(11) That the subject well encountered the pay section at a structurally lower position than it would have had it been bottomed at the vertical from its surface location or at a bottom-hole location 330 feet from the South and 330 feet from the East line of said Section 28.

(12) That no advantage was gained by the above-described bottom-hole location over other producers in the pool.

(13) That in order to afford Penroc Oil Corporation the opportunity to produce its just and equitable share of the oil in the Empire-Abo Pool, prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of

wells, and to otherwise prevent waste and protect correlative rights, the intentional deviation of the subject well should be approved and no adjustment should be made to the allowable assigned to the well on account of said deviation.

IT IS THEREFORE ORDERED:

(1) That the intentional deviation of the Penroc Oil Corporation State Well No. 2 from a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico, to a bottom-hole location having its lowermost perforations at 129.70 feet from the South line and 153.41 feet from the East line of said Section 28 is hereby approved.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

(Case 4502 continued)

TOWNSHIP 14 SOUTH, RANGE 35 EAST
SECTION 34: NW/4

TOWNSHIP 15 SOUTH, RANGE 35 EAST
Section 3: NW/4
Section 4: S/2 and NW/4

CASE 4503: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

CASE 4508: Application of Continental Oil Company for the assignment of discovery allowable and promulgation of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the assignement of an oil discovery allowable to its SEMU Well No. 10 located in Unit F of Section 29, Township 20 South, Range 38 East, Warren-Devonian Pool, Lea County, New Mexico. Applicant further seeks the promulation of special rules for said pool, including provisions for 80-acre spacing units.

CASE 4509: Application of Continental Oil Company for an amendment of Order No. R-2016, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2016 to permit the commingling of Paddock oil production from its Mitchell A and B leases in Sections 17, 18, 19 and 20, Township 17 South, Range 32 East, Maljamar-Paddock Pool, Lea County, New Mexico, without first separately metering the production from said leases.

CASE 4510: Application of Amerada Hess Corporation for amendment of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-510, which order established special pool rules for the Bronco Siluro-Devonian Pool, Lea County, New Mexico, to permit the assignment of allowable to wells in said pool on the basis of the statewide oil allowable rules and to no longer require the taking of bottom-hole pressure tests.

DRAFT

GMH/esr
3-8-71

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

~~IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:~~

CASE No. 4503

Order No. R-4122

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers. (UNDER)

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 24, 1971, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of March, 1971, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That Penroc Oil Corporation is the owner and operator of the Penroc Oil Corporation State Well No. 2 having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico.

(3) That the above-described well has its lowermost perforations at a bottom-hole location 129.70 feet from the South line and 153.41 feet from the East line of said Section 28.

(4) That the subject case was called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the

intentional deviation of the subject well should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

(5) That on December 22, 1970, Penroc Oil Corporation requested and was granted authority to set a deviation tool at approximately 3500 feet and deviate the well to the vertical or to a bottom-hole location 330 feet from the South line and 330 feet from the East line of said Section 28.

(6) That at the time the request to deviate was made, the operator of the subject well had reason to believe the well had deviated as much as 5 degrees in a west northwest direction.

(7) That the request to deviate as described above was made to keep the bottom-hole location of the subject well away from the bottom-hole location of a well previously drilled to the same formation in the same quarter-quarter section.

(8) That a misapprehension of the true subsurface location of the subject well at the time the request was made was the cause of the well being deviated to a location nearer the lease line than that requested.

(9) That the subject well encountered the pay section at a structurally lower position than it would have had it been bottomed at the vertical from its surface location or at a bottom-hole location 330 feet from the South and 330 feet from the East line of said Section 28.

(10) That no advantage was gained by the above-described bottom-hole location over other producers in the pool.

(11) That in order to afford Penroc Oil Corporation the opportunity to produce its just and equitable share of the oil in the Empire-Abo Pool, prevent the economic loss caused by the

drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and to otherwise prevent waste and protect correlative rights, the intentional deviation of the subject well should be approved and no adjustment should be made to the allowable assigned to the well on account of said deviation.

IT IS THEREFORE ORDERED:

(1) That the intentional deviation of the Penroc Oil Corporation State Well No. 2 from a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, NMPM, Empire-Abo Pool, Eddy County, New Mexico, to a bottom-hole location having its lowermost perforations at 129.70 feet from the South line and 153.41 feet from the East line of said 28 is hereby approved.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.