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Application Transcripts. Small Exhibits



I II C	BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico June 16, 1971 REGULAR HEARING	J
dearniey-meier reporting service, inc. specializing in depositions, marings, statements, expert testimony, dally corr, zon simus elde. • F.O. 50X 1072 • MONE 242-4471 • Albuourdout, 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, Eddv County, New Mexico, to a bottom hole- location 123 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 cver other producers.	Case No. 4503 De Novo
	BEFORE: A. L. "PETE" PORTER, SECRETARY DIRECT	OR

1 MR. PORTER: The Commission will call Case 4503. 2 MR. HATCH: Case 4503. De Novo. In the matter of 3 the hearing called by the Oil Conversation Commission on its 4 own motion to permit Penroc Oil Corporation and all other 5 interested persons to appear and show cause why the intentional 6 deviation of Penroc Oil Corporation state well number two, 7 having a surface location 360 feet from the south line and 330 feet from the east line of section twenty-eight, township 8 9 seventeen south, range twenty-eight east, empire-abo pool, Eddy County, New Mexico, to a bottom hole location 120 feet ĺŌ from the scuth line and 149 feet from the east line of said 11 12 section twenty-eight should be approved and why the allowable assigned to said well should not be reduced to offset any 13 advantage gained by said bottom hole location over other 14 producers. 15 MR. PORTER: At this time the Commission would like 16 to call for appearances in Case 4503. 17

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

21 MR. BUELL: For Amoco Production Company, Guy Buell. 22 MR. KELLAHIN: If the Commissioner please, at this 23 time --

24 MR. PORTER: Mr. Morris, did you intend to make an 25 appearance in this case?

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1 MR. MORRIS: No, sir, I did not. 2 MR. PORTER: Let me say at the outset here for the 3 benefit of the other commissioners, this is a case which was heard some time ago on the Commission's own motion. We called 4 5 this case ourselves, and rendered a decision, and under our 6 procedures, anyone or any -- I believe the rule or the law 7 states -- and the adversely effected party may ask for a De Novp 8 hearing within a certain time.

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

Mr. Kellahin, you may proceed.

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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

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1	deviation of the well.
2	Now, at the time of the hearing on February the 24th,
3	Penroc appeared with its witnesses, ready to proceed, and the
4	Commission read a telegram into the record from Amoco signed
5	by Mr. Guy Buell.
6	MR. PORTER: What was the date of that hearing, Mr.
7	Kellahin?
8	MR. KELLAHIN: February 24th.
9	MR. PORTER: 24th?
10	MR. KELLAHIN: 1971. The telegram asked that the
11	case be continued for the reason that Mr. Buell found it
12	necessary to be in Austin, Texas on that date.
13	We, of course, objected to any continuance, having
14	gone to the expense of appearing before the Commission and had
15	no advance notice of any request for a continuance.
16	The examiner denied any continuance and proceeded
17	with the hearing. Now, we are before the Commission on a letter,
18	I guess, application I don't know what you might call it,
19	from Amoco, not signed by an attorney, but signed by one of
20	their engineers, not served upon opposing parties.
21	We have never received a copy of this application as
22	is required by the Commission rules. We take the position that
23	if Amoco has any standing, this is a pleading that should have
24	been signed by an attorney for the company, and it certainly
25	has attorneys available, and it should have been served as

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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.

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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.

18 It was incumbent upon them to appear at the examiner 19 hearing and state their case and give the examiner the 20 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

1 meeting in legal parts. It is understood he or they or by 2 against whom a suit is brought whether in law or equity, party 3 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 5 of one or more individuals, and whether natural or legal 6 7 persons, they are parties in the written parties on the records, and all others who may be affected by the suit indirectly, 8 consequentially are persons interested but are not parties. 9 We take the position that Amoco today has no 10 standing to proceed in this case. 11 MR. PORTER: Mr. Buell? 12 MR. BUELL: May it please the Commission, I am not 13 going to argue Black's Dictionary, but I would like to argue 14 the New Mexico Statutes and the rules and regulations and 15 policies of the Commission. 16 I had hoped I wouldn't have to burden the record with 17 the legislative history of the Commission's examiner-type 18 hearings and De Novo hearings, but in view of Mr. Kellahin's 19 argument, I am afraid I will have to. 20 It might be a little hard, for Governor King, and 21 Commissioner Armijo, for you to realize that not too many years 22 ago both the Governor and the Land Commissioner and Mr. Porter's 23 predecessors were sometimes tied up as long as two weeks out 24 of every month hearing these dockets. 25

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Prior to 1953 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 18 time there has been no proceedings. There has been no case 19 heard before an examiner, but yet, the legislature said any 20 affected party has this right, so the Commission operated under 21 that, and a' J at that time when they adopted their rules setting 22 up their examiner's system, the Commission retained to its 23 exclusive jurisdiction over certain matters. 24 If my memory serves me correctly, it was mainly items 25

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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.

8 And all the legislature did there was eliminate that 9 provision that said any affected party could object prior to 10 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

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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.

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

12 It has always been the policy of this Commission
13 following the intent of the legislature to let the party
14 decide whether or not he was adversely affected. There is
15 nothing in your statutes or your rules that says the party
16 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.

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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 17 and required local counsel to appear with foreign attorney or 18 a layman. Then about two years after that memorandum, the 19 Commission -- I mean after that Attorney General opinion, the 20 Commission issued a memorandum number 9-60, and in that 21 memorandum, this memorandum is discussing the Attorney General's 22 opinion on the necessity for local counsel to be present, and 23 in the third paragraph of this memorandum, the Commission says 24 application for hearing signed by any company representative 25



1 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.

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

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

20 MR. PORTER: Does this conclude your arguments on 21 this particular point?

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

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MR. HATCH: Mr. Buell, was there a letter from a 1 2 local attorney in the record at the time of the original hearing? 3 MR. BUELL: You mean back in February? 4 MR. HATCH: 5 Yes. MR. BUELL: No, sir. There was not. I did not 6 request one, because I knew I could not be present, and that 7 is the reason that I did not, Mr. Hatch. 8 MR. HATCH: The letter now is from Mr. Charles Malone? 9 MR. BUELL: Yes, sir. 10 MR. HATCH: Are you assisting Mr. Malone today? 11 MR. BUELL: Am I assisting Mr. Malone? 12 MR. HATCH: Yes. 13 MR. BUELL: No. I would say just the reverse is 14 true. Mr. Malone is assisting me by entering his appearance 15 as local counsel with me as a foreign lawyer, so I can be an 16 applicant before this Commission. 17 MR. HATCH: You said that Mr. Ray has been authorized 18 to submit applications --19 MR. BUELL: Yes, sir. 20 MR. HATCH: -- for Amoco? 21 MR. BUELL: Yes, sir. 22 MR, HATCH: Is that a written authorization or some 23 formal proceeding? 24 MR. BUELL: Yes, sir. It is in our formal instructions 25

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PAGE 13 1 and policy book. 2 MR. HATCH: Could you furnish the Commission --3 MR. BUELL: Yes, sir. MR. HATCH: -- with that? 4 5 MR. BUELL: Yes, sir. MR. HATCH: All right. 6 MR. BUELL: Now, that holds true, not only from 7 New Mexico, but all the states in which we operate. 8 MR. HATCH: If I wanted to have a personal service 9 on Amoco, would service upon Mr. Ray constitute a personal 10 service on an Amoco Corporation? 11 MR. BUELL: Mr. Ray is not an officer of the company. 12 He would accept service for the company. Any of we Amoco 13 people would accept service, but he is not an officer of the 14 company. 15 We should have, and I'm sure we do, a designated 16 agent in New Mexico for service. 17 MR. HATCH: Mr. Ray is not that designated --18 MR. BUELL: It is not Mr. Ray. It will be some 19 local person, Mr. Hatch, that the court service can reach without 20 any difficulty. 21 we never try to avoid service. 22 MR. HATCH: Mr Kellahin brought up the problem that 23 no papers, supplemental papers, were served on Penroc or 24 mailed to Penroc concerning your --25

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1	MR. BUELL: No, sir. He was complaining of just
2	the opposite. He said that we did not furnish him a copy of
3	the letter, of application for this hearing.
4	MR. HATCH: Yes. That is what I am saying. And you
5	did not?
6	MR. BUELL: To my knowledge, we did not, and to my
7	knowlege, Mr. Hatch, we have never done that.
8	We have asked for several De Novo hearings and have
9	never done that.
10	MR. HATCH: Do you think the rules require that?
11	MR. BUELL: I don't know of any rule that does
12	require it, Mr. Hatch. I have studied them very carefully,
13	and I can certainly overlook.
14	I think Mr. Kellahin was thinking mainly as a courtesy,
15	and in that light, I am sorry that I did not send it to him,
16	because as you know, I think the world of him both personally
17	and professionally, and I do not want to be discourteous in
18	any way to Mr. Kellahin.
19	MR. HATCH: I think rule 308 does require any pleading
20	other than an application to be served upon the adverse party.
21	MR. BUELL: 308?
22	MR. HATCH: 1208.
23	MR. BUELL: 1208?
24	MR. HATCH: Yes. And 1208 also describes how an
25	appearance is made before the Commission, I think. Would you

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consider this?

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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?

9 MR. BUELL: No, sir. This is just an application for
10 hearing that Mr. Ray signed. I could have just as easily
11 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.

17 It doesn't require as much skill as filing a form
18 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?

21 MR. BUELL: No, sir. We did not do that, because in 22 my opinion, and 1 hope 1 am not wrong, but in my opinion, the 23 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

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PAGE 16 1 and under your rule, all you have to say is that, "I am 2 adversely affected and want a De Novo hearing." MR. HATCH: But you did not allege that right? 3 MR. BUELL: No, sir. MR. HATCH: Would you ---5 MR. BUELL: I believe if we had the opportunity --6 MR. HATCH: Would you, had you filed it, rather than 7 Mr. Ray? 8 MR. BUELL: Sir? 9 MR. HATCH: Would you have alleged any facts --10 MR. BUELL: No, sir. Actually --11 MR. HATCH: -- if you had filed it rather than Mr. 12 Ray? 13 MR. BUELL: This letter that was filed and signed 14 by Mr. Ray was patterned over a letter that I dictated at 15 our last previous De Novo hearing. 16 MR. HATCH: That's all the questions I have. 17 MR. PORTER: Gentlemen, the Commission frankly is 18 not absolutely sure that it has jurisdiction to hear the 19 case. 20 However, we are going to proceed in order to build 21 as good a record as possible, and, Mr. Buell, since you are 22 going to have to make a showing for any change in order that 23 your company is adversely affected, Commission directs you to 24 proceed with your testimony at this time. 25

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MR. BUELL: All right, sir. I am happy to proceed. 1 2 I would like to --3 MR. KELLAHIN: May I say something just a minute? MR. PORTER: Oh, sure. Sure. 4 MR. KELLAHIN: I would like to note an objection 5 to the Commission ruling in this record and the fact that we 6 continue to participate in this hearing under these circumstances 7 does not waive that objection. 8 MR. PORTER: Your objection will be noted in the 0 record, Mr. Kellahin. 10 MR. BUELL: May it please the Commission, that by 11 us proceeding, this is a very peculiarly worded notice, as most 12 show cause notices are. 13 The notices were to show cause why it should be 14 allowed to produce. The thrust of our evidence is actually 15 in the opposite direction. 16 We are going to contend that it should not be 17 allowed to produce, so with that understanding, we are happy 18 to assume the burden of proceeding. 19 MR. KELLAHIN: We would be happy to proceed first 20 if the Commissioner wishes. 21 GOVERNOR KING: What is that? 22 MR. KELLAHIN: I say we would be happy to proceed 23 if it doesn't make any difference. 24 MR. PORTER: Is there any objection? 25

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1	MR. HATCH: If Mr. Kellahin is willing, why, I
2	think the Commission
3	MR. KELLAHIN: This being a hearing De Novo, we
4	would have to put our testimony on a new
5	MR. BUELL: If Mr. Kellahin is willing, I am willing
6	to incorporate the record of the examiner hearing and the
7	exhibits of the examiner hearing in this hearing, just as they
8	were presented.
9	MR. KELLAHIN: We would want them supplemented.
10	MR. BUELL: Yes, sir. Say, in the interest of
11	saving time.
12	MR. PORTER: Would the Commission Legal Department
13	have any objection to this?
14	MR. HATCH: As long as Mr. Kellahin and Mr. Buell
15	agree.
16	MR. PORTER: Well, suppose we proceed on that basis,
17	then.
18	MR. KELLAHIN: We would want to supplement the
19	testimony, Your Honor.
20	MR. KELLAHIN: I would need a moment with my witness,
21	because we have prepared to present both cases.
22	MR. BUELL: Would you like for us to go ahead and
23	then you supplement and handle on to direct your counsel to
24	our case? I believe it will save time.
25	MR. PORTER: We would like to save time.

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1 MR. BUELL: We will try in every way possible, Mr. 2 Porter, to save time. We have one witness, Mr. Dan Nutter. 3 MR. PORTER: You may be corrected, Mr. Buell. MR. BUELL: I mean Dan Currens. 4 5 MR. HATCH: Mr. Kellahin might object to it. 6 MR. BUELL: The last time I was before Mr. Nutter, 7 I had Eddy County in Texas. MR. PORTER: I missed that. I didn't know what 8 was taking place. What I was about to say is that technically, 9 you may be correct in referring to yourself as a foreign 10 attorney, Mr. Buell, but we don't look on Texas as a foreign 11 country, I think. 12 MR. BUELL: Thank you, sir. Could we have about five 13 minutes to put our exhibits on the wall? 14 MR. PORTER: We will have a five-minute recess, and 15 incidentally, let's notice at this time that Governor King 16 will go. He would much prefer to stay with us. He feels that 17 his presence is needed, perhaps, also more acutely at another 18 place right now, so he will have to excuse himself. 19 MR. BUELL: Your Honor, we certainly understand. 20 GOVERNOR KING: Okay. Thank you. 21 (Whereupon, a brief recess was held.) 22 MR. PORTER: This hearing will come to order. 23 Because of a meeting, a rather large number of right-of-way 24 people, we are going to recess the hearing down here and move 25

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1	up to the Oil Conservation Commission Hearing Room on the
2	second floor in order to accommodate the larger crowd in this
3	auditorium for the other meeting, so when we reconvene
4	immediately following this recess, it will be in the OCC
5	Conference Room upstairs, and we will send all of the right-of-
6	way people down here.
7	(Whereupon, a brief recess was held.)
8	MR. PORTER: The hearing will come to order, please.
9	Mr. Buell, would you proceed with the testimony of Amoco?
10	MR. BUELL: Yes, sir. May it please the Commission,
11	Amoco has one witness, Mr. Currens, who has not been sworn.
12	(Witness sworn)
13	DAN CURRENS
14	having been first duly sworn, testified upon his oath, as
15	follows:
16	DIRECT EXAMINATION
17	BY MR. BUELL:
18	Q Mr. Currens, would you please state your complete name.
19	by whom you are employed, and in what capacity and what
20	location, please.
21	A Daniel R. Currens, Staff Engineer, Amoco Production Company,
22	Fort Worth, Texas.
23	Q Mr. Currens, you have testified at previous Commission
24	hearings, and your qualifications as a Petroleum Engineer
25	are a matter of record before this Commission, are they not?

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A	Yes, sir.
	MR. BUELL: Is there any question?
	MR. PORTER: No, sir. His qualifications are
aco	eptable.
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 shorton this record if
	we can avoid a long cross examination and bickering over

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1		minor geological niceties, and that is the reason that
2		we have used this approach.
3	Q	All right, sir. Would you look first at what has been
4		identified as Pan Am Exhibit Number I and state for the
5		record what that exhibit is, please.
6	A	Well, let me move to these larger copies we have hanging
7		on the wall here.
8		Exhibit I is simply a map of the general area that
9		shows the Penroc forty acre tract where the Penroc State
10		Number II was drilled, and the old Delhi State Fourteen
12		was drilled.
12		That forty acres is outlined in red on this exhibit.
13		It shows the surface locations of those two wells, as well
14		as the bottom hole location of those two wells.
15	Q	All right, sir. Now, with regard to the surface location,
16		those black dots on that scale map, they overlap, do they
17		not?
18	A	Yes, sir. They do. The two wells that we are talking
19		about here are the Delhi State Fourteen, which was 330
20		from the south line and 330 from the east line of section
21		twenty-eight, township seventeen south, range twenty-eight
22		east, and the Penroc State Number II, which is north of
23		it by thirty feet, being 360 from the south line, 330
24		from the east line of that same section.
25	Q	All right, sir. Is Amoco a direct off-set to this forty

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1		acre unit of Penroc's?
2	A	Right here to the direct east of this Penroc forty acre
3		tract is Pan Am's BW Lease.
4	Q	Will the word Pan Am appear on a lot of your exhibits
5		instead of Amoco?
6	A	We have rather recently become Amoco, and some of these
7		will say Pan Am, and some will say Pan American.
8	Q	Will you and I also frequently inadvertently say Pan Am
9		instead of Amoco?
10	A	I don't doubt it in the least.
11	Q	Will Mr. Porter do that also?
12	A	I don't know.
13		MR. BUELL: Well, may we state right now that
14	Pan	America and Amoco are one and the same, and Amoco is the
15	surv	ivor, if word survivor is appropriate.
16		MR. NUTTER: I still say Stanolon.
17	Q	(Mr. Buell continuing) All right, sir. Now, I noticed
18		on Exhibit I you showed a bottom hole location for Hole
19		Well Number Fourteen; is that correct?
20	Α	Yes, sir.
21	Q	So obviously, a directional survey must have been run on
22		that well.
23	À	Yes, sir. Directional survey, according to the testimony
24		in the February hearing, had been run on that, I believe,
25		in November of 1970.

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1	Q	All right, sir. Now, you have read the transcript of the
2		examiner hearing which has been incorporated in this
3		record.
4	A	Yes, sir, I have.
5	Q	All right, sir. And you have also, since you are using
6		some of Penroc's exhibits, I am sure, looked at all of
7		their exhibits.
8	A	Yes, sir, I have.
9	Q	All right, sir. Was the directional survey on Old Well
10		Number Fourteen run prior to the spudding of Penroc's
11		Number II?
12	A	Yes, sir, according to the record.
13	Q	All right, sir. Did I ask you when the Number II was
14		spudded, about when it was spudded?
15	A	It was in December, mid-December of 1970.
16	Q	All right, sir. Do you have any other comments on Exhibit
17		Number I?
18	A	No, sir. I think not.
19	Q	Let's go, then, to Exhibit Number II. What is that
20		exhibit?
21	A	Well, Exhibit Number II simply shows the surface location
22		ot the Delhi State Fourteen, and the surface location of
23		the Penroc State Number II, and the rules of the
24		directional survey that were run on the Delhi State Fourtee
- •		that was in the record of the last hearing.

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1	Q	Now, that is a copy of Penroc Exhibit Number Four in the
2		last hearing, except you have drafted it to a larger scale
3		so that the Commission could see it from a distance.
4	A	Yes, sir. That is true.
5	Q	You have added one thing to the old Exhibit Four. What
6		was that?
7	A	Well, I have added the location of the Penroc State II
8		to their exhibit.
9	Q	But you use the same horizontal and vertical scale that
10		they used on their Exhibit Four?
11	A	Yes, sir. On the exhbits in the record this oversize,
12		of course, is blown up by the exhibit in the record
13		is on the same scale.
14	Q	All right, sir. Would you comment very generally on the
15		path the Old Fourteen took from surface to bottom hole?
16	A	Well, as depicted on Exhibit II here, Fourteen started
17		out, oh, barely in a southeasterly direction, turning
18		around and going to, oh, pretty near straight westerly
19		direction, and then going in a southwesterly direction,
20		and then coming out on roughly west from, say, five
21		thousand feet to TD.
22	Q	Well, was the Old Number Fourteen intentionally deviated?
23	A	Not that I know of.
24	Q	So that represents the path of that hole due to random
25		deviations, just the deviations from drilling in this

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1		particular area?
2	А	Yes, sir.
3	Q	All right, sir. So even though its bottom hole location
4		is near to the south lease line, then 330 feet, under the
5		Commission rules and regulations, it is still an orthodox
6		bottom hole location?
7	A	Yes, sir. I would think it would be.
8	Q	All right, sir. Are you familiar with the form C103, dated
9		December 21, 1970 that was filed by Penroc?
10	A	Yes, sir.
11	Q	What is the purpose of that form?
12	A	The form C103 was an application to deviate to vertical
13		or to 330 from south and east of the section line, to
14		straighten the old hole, apparently, or to hit a specific
15		target from a well that had been drifting.
16	Q	By the word vertical, you don't mean, though, whether he
17		meant vertical from its present sub-surface or bottom
18		hole location or vertical under the surface location at
19		360 from the south and 330 from the east line of the unit?
20	A	No. I don't know which was really meant there.
21	Q	All right, sir. Did Amoco receive a copy of that?
22	À	Yes, sir.
23	Q	Did we make any kind of objection?
24	λ	No, sir.
25	Q	Why didn't we?
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		PAGE 27
1	A	Well, the purpose of the application was to obtain
2		authority to correct the hole to vertical, or to a point
3		330 from the south line and 330 from the east line, and
4		these are legal locations.
5	Q	All right, sir. Now, Number II was studied December 14th,
6		I believe you said, and this application was filed December
7		the 21st, so they had made some hole on the well?
8	A	Yes, sir.
9	Q	Based on the transcript of the prior hearing, did they
10		have any deviation data at the time they made this
11		application?
12	A	Yes, sir. Shown on this form C103, which is from the
13		district office file of the Conservation Commission, there
14		were some pencil notations showing various depths, various
15		angles of deviation, and various directions of those
16		deviations.
17	Q	And the copy of the form Cl03 from the Commission's
18		district office has been identified as Amoco's Exhibit
19		Number III, has it not?
20	A	Yes, sir.
21	Q	And Penroc also submitted a copy of the Cl03 at the prior
22		hearing. Is there any difference between our Exhibit III
23		and their prior exhibit?
24	Α	Well, this particular copy has the information that was
25		noted on it in pencil at the district office, as I

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		understand it, at the time the application was filed.
2	Q	All right, sir. Now, do you recall, based on reading the
3		transcript, where these deviation data came from that are
4		written on our Exhibit Number III?
5	A	The deviation data that are shown on here were said to be
6		the deviations that were supplied by the driller to Penroc
7	Q	And Penroc, in turn, furnished it to Mr. Gresset of the
8		Commission's office who put it on?
9	A	Yes. That is what I understand.
10	Q	All right, sir. As I recall from reading the transcript,
11		and see if your memory corresponds with mine, the reason
12		given by Penroc for the filing of the Cl03 was that these
13		deviations data indicated that New Well Number II was
14		striking the deviation of Old Well Number Fourteen, and
15		they wanted to be assured they were bottomed away from
16		Old Well Number Fourteen.
17	λ	Yes, sir. That is the way I read it.
18	Q	As a matter of fact, at the top of page fourteen of the
19		old transcript, where counsel and the witness for Penroc
20		were discussing the deviation data that this question was
21		asked. It is the top of page fourteen, Mr. Currens.
22	Ā	Úkay.
23	Q	Now, would that have brought it closer to the old well?
24		Would you read the answer?
		The answer was, "Yes. It was following almost exactly the

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1		old deviation."
2	Q	All right, sir. Now, is it possible to take the deviation
3	5	data which are on our Exhibit III and plot that and
4		ascertain where the bottom hole location of the well was
5		at that time, based on that data?
6	A	Yes, sir. We can plot those data.
7	Q	Do you recall from the transcript whether or not Penroc
8		furnished the Commission a lot of these deviations data?
9	A	No, sir. There was none furnished.
10	Q	Have you taken these deviations data and made a plot of
11		the random deviations? That is, the deviations
12		unintentionally of New Well Number II?
13	A	Yes, sir.
14	Q	In that connection, let me direct your attention to Exhibit
15		Number IV. What is that exhibit?
16	A	Well, Exhibit Number IV is a comparison of the known
17		bottom hole locations or the bottom hole locations of the
18		Penroc State II, and the Delhi State Fourteen at the time
19		of the request for approval of the form Cl03.
20	Q	All right, sir. What other data are on that exhibit?
21	A	The directional survey that was used in a prior exhibit
22		for the Delhi State Fourteen is plotted on here, showing
23		that the well is tending to the west southwest, and the
24		data or plot for the information supplied in support of
25		the form C103 request.

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		PAGE 30
1	Q	And all of these data were available at the time your
2		application to intentionally deviate were filed?
3	A	Yes, sir.
4	Q	Do these data, when you are plotting as you have on
5		Exhibit IV, do they show that the new well was striking
6		the random deviations of the Old Well Number Fourteen?
7	A	No, sir. The data indicated on this exhibit, the plot of
8		the data that were supplied show that the Penroc State
9		Number II was going in a northwesterly direction, and the
10		data from the Delhi State Fourteen was west southwest.
11	Q	Would you take this red pencil and mark on the lower
12		curve that is a directional survey on Old Well Fourteen,
13		its bottom hole location at the approximate depth of
14		3275 feet, which is the random deviations data on our
15		Exhibit Number III.
16	A	It should be right in this area. (Indicating)
17	Q	And by "this area" you are pointing at a red "X" you have
18		put on the directional survey of Old Well Fourteen?
19	A	Yes. Between the 3200 and 3400 foot points.
20	Q	All right, sir. Approximately how far apart were those
21		holes at the time the request to intentionally deviate
22		was made?
23	A	The location at 3275 up higher on the Penroc State Number II
24		and a similar depth location of the Delhi State Fourteen
25		would be about eighty-five feet apart.
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		PAGE 31
1	Q	So actually, the holes were further apart, and by holes,
2		I mean the hole of State Number II and Old Number Fourteen
3		were actually further apart at the time they filed their
4		application to intentionally deviate then was the case
5		when they spudded?
6	A	Yes, sir. The two surface locations are only thirty feet
7		apart. These were about eighty-five feet apart, so it is
8		almost three times as far away.
9	Q	So at this time, do these data, when you compare them,
10		show any danger of the New Well Number II drilling into
11		the old hole or bottoming in an area near the bottom hole
12		of Old Well Number Fourteen?
13	A	No, sir. I don't see how they could.
14	Q	All right, sir. You recall Penroc's structure map and
15		Isopach, the random deviations of New Well Number II.
16		What was it doing with respect to structure and the
17		Isopach? Do you recall?
18	A	The random deviations of Well Number II, with respect to
19		the structure map was, oh, essentially no change.
20	Q	Flat?
21	A	Yes, about flat.
22	Ŷ	What about the Isopach?
23	А	About the Isopach, it would be showing a loss in pay
24		interval.
25	Q	All right, sir. According to the transcript, did Penroc

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		PAGE 32
1		run a directional survey to total depth when they finally
2		completed the drilling of their Number II?
3	A	Yes, sir.
4	Q	In that connection, let me direct your attention to what
5		has been identified as Exhibit Number V, Amoco's Exhibit
6		Number V. What is that exhibit?
7	A	Well, Exhibit Number V is another comparison of directiona
8		surveys of bottom hole location showing the directional
9		survey that was available on the Delhi State Number Fourte
10		prior to the drilling of the Penroc State Number II Well,
11		and the directional survey that was entered in the hearing
12		in February for the Penroc State Number II Well.
13	Q	Well, this exhibit is actually a composite of Penroc's
14		Exhibits IV and V at the examiner hearing.
15	A	Except in that I have put them on the same scale of so
16		many inches per foot.
17	Q	In their Exhibits IV and V, which were the directional
18		surveys of Old Well Fourteen and on Well Number II, they
19		were different scales, and you simply
20	A	Yes. It was two different exhibits, one for Number Fourte
21		one for Number II, and the scale on those two exhibits
22		for the amount of deviation was
23	Q	So you could have an accurate comparison, you wanted them
24		brought to the same scale?
25	A	Yes, sir.

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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.

All right, sir. Does the directional survey run on New Q 17 Well Number II generally confirm the deviations data that 18 was presented to the Commission by Penroc? 19 Well, yes. It shows that it was going in a northwesterly Α 20 direction, and that it was pulling away from the Delhi 21 State Fourteen. 22 Instead of getting closer to it or tracking it? Q 23

 $_{24}$  A Yes, sir.

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

		PAGE 34
1		the directional tool to intentionally deviate authorized
2		them two targets. One was vertical from where it was in
3		location or under their surface location.
4		The other was located under the surface of Old Well
5		Number Fourteen, which was 330 from the south line and
6		330 from the east line of the forty acre unit; is that
7		correct?
8	A	Yes, sir.
9	Q	Let me ask you this: Is drilling technology so advanced
10		that you can control the direction of a well and hit at
11		or near a precise target such as the Commission gave them?
12	A	Oh, yes, sir.
13	Q	What control measures do you have to exercise generally
14		speaking? I don't want you to give us a lecture on
15		directional drilling, but just generally speaking, what
16		control devices do you use?
17	A	Well, to begin with, you have to know where you are when
18		you start, and then you have to orient your deviation
19		device to be pointing in the direction that you want the
20		well to go, and then you would have to keep up with the
21		progress of the drilling after having started that deviati
22	Q	According to the transcript of the examiner hearing, did
23		Penroc exercise any control of the type you have just
24		discussed in the drilling to total depth after the
25		deviation tool was set on their Well Number II?

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		PAGE 35
1	A	In the transcript there was no mention made of any
2		directional points taken after the deviation survey starte
3		until the final directional survey was run after the well
4		was completed.
5	Q	Assuming that no control was exercised in the state of
6		the record, I think that is a fair assumption to make.
7		Would it have been possible for them to hit the
9		targets the Commission gave them without exercising it?
9	A	Oh, I guess all things are possible, but it would be very
0		highly improbable, and it would be most fortuitous if
L		you just started drilling in a deviated hole and hit a
2		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
5		no intention to deviate, and then the intentional
5		deviation even fortuitously, they couldn't have hit
7		the target, could they?
3	А	Well, not with the kind of angle that they achieved later
9		on in the drilling of the hole. Now, if they had come
		back to zero, it would have been to vertical or on
L		probably something on the order of five, six degrees,
2		something like that, to put them to one of their two
3		target locati
4	Q	Al! right, sir. We have introduced Penroc's structure
5		map which was presented at the examiner hearing as their

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		<u></u>	PAGE 36
	1	-	Exhibit VI. Our Exhibit VI at this hearing is also their
د.	2		structure map.
2 2 2 2	3		Have any changes been made of that structure map by
a a A a a a a a a a a a a a a a a a a a	4		you, or is that just as exact a duplication as you can
•	5		duplicate?
C 22 C 22 C 22 C 22 S 22 S 22 S 22 S 22	б	A	That is simply a duplication of that portion of that
	7		exhibit.
mei	8	Q	Now, they did have some other data on that. I recall
ley-	9		a cross section.
dearnley-meier	10	A	There was a cross section, and I think that is all the
ē	11		other data that were on this.
	12	Q	All right, sir. Penroc testified at the examiner hearing
	13		that the bottom hole location in New Well Number II is
	14		eighteen feet lower structurally than the bottom hole
	15		location of Old Well Number Fourteen.
	16		Is my memory correct on that?
	17	Α	Yes, sir, you did. The Old Fourteen minus 2216, and the
	10		New Number II was 2234, eighteen feet lower.
	19	Q	And the Commission in their order in this case, Order
	20		R4122, recited in their finding number nine, did they not,
	21		that fact that the subject well encountered the pay lower
	22		than it would have at its surface location or a bottom
	23		hole location 330 from the south and 330 from the east;
	24		is that right?
	25	A	Yes, sir.

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1	Q	All right, sir. Do you interpret that structure map to
2		conform to the Commission's finding number nine?
3	A	Yes, sir.
4	Q	Do you have any other comments to make on that?
5	A	No, sir.
б	Q	All right, sir. We have also mentioned the Isopach
7		there was their Exhibit VII at the examiner hearing, and
8		is likewise our Exhibit Number VII at this hearing.
9		As far as a reproduction of that exhibit is concerned,
10		would the same factors applied to Number VI apply to our
11		Number VII?
12	A	Yes, sir.
13	Q	All right, sir. Now, there was some testimony in the
14		hearing that they did gain a minor additional amount of
15		pay, but not enough to worry about. Let me ask you this:
16		What additional footage of pay did they gain from their
17		bottom hole location in the southeast corner of that
18		proration unit over the pay at the bottom hole location of
19		Old Well Number Fourteen?
20	A	Well, according to this exhibit, they gained eighteen
21		feet.
22	Q	Oh, they gained as much in pay as they lost in structure?
23	A	Yes, sir, they did. They lost eighteen feet in structure,
24		gained eighteen feet in pay.
25	Ω	As the Reservoir Engineer, what would you rather see in a

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		PAGE 38
1		well of Amoco's? Additional structure or additional pay?
2	А	I would rather have additional pay.
3	Q	If you had to lose structure at the expense of gaining
4		pay, you would be happy to do it?
5	A	Yes, sir. Be glad to.
6	Q	All right, sir. Now, let's make the same comparison on an
7		additional pay with regard to the surface location of the
8		Number II Well.
9		Let's assume the well had been drilled vertical and
10		was bottomed right under its surface location, and then
11		compare the pay there with the pay that they encountered
12		deviating the well to the southeast corner of the unit,
13		how many additional feet of pay did they gain over that?
14	A	Well, looking at this structure map, or this Isopach map,
15		which is, oh, twenty-five foot interval, oh, it looks
16		like they probably gained on the order of thirty feet
17		or so.
18	Q	All right, sir. Now, finding number ten in the Commission
19		order that we previously mentioned, said that no
20		advantage was gained by the above described bottom hole
21		location over other producers in the pool. Would you
22		consider a gain of thirty feet in additional pay an
23		advantage?
24	A	Yes, sir.
25	Q	All right, sir. Do you have any other comments on your

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1		Isopach?
2	A	No, sir.
3	Q	Look now, if you will, at what has been identified as our
4		Exhibit Number VIII. What is that exhibit?
5	A	This Exhibit Number VIII is simply a 160 acre area showing
6		the forty acres on the Penroc and Delhi Wells, and Amoco
7		and two other forty acre offsets to the east, southeast
8		and south of that Penroc unit.
9	Q	All right, sir. Now, our Exhibit Number V shows graphical
10		or by plotting the bottom hole location of New Well
11		Number II compared to the surface location. Have you
12		shown that same information on this exhibit looking at
13		the surface?
14	A	Yes. Here is the Delhi Fourteen. Thirty feet north of
15		that is the Penroc II.
16		Bottom hole location of the Penroc II is the red
17		dot that is shown over here in the southeast corner.
18	Q	So if the authority given to Penroc by the Commission
19		was to locate the well, bottom of the well, 330 from the
80		south and 330 from the east, about how far are they off
21		their target?
22	A	About 270 feet.
23	Q	So that would make them approximately 300 feet from their
24		surface locations?
5	A	Yes, sir.

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	<u></u>	PAGE 40
1	Q	And it is in the corner of the unit in the direction of
2		other production, is it not?
3	A	Yes, sir.
4	Q	All right, sir. Look back for a minute, if you will, at
5		their Exhibit Number VII. In all their geological exhibits
6		they covered about a two-mile spread of the east-west axis
7		of the Empire-ABO Oil Pool, did they not?
8	À	Yes, sir.
9	Q	I realize we are not quarreling with them. I think they
10		showed sufficient data for the purpose of their hearing,
11		but in truth, and in fact, the Empire-ABO along the
12		east-west axis is much longer, is it not?
13	A	Oh, it is on the order of twelve, thirteen, fourteen miles
14		long east and west.
15	Q	All right, sir. Now, I am going to jump you back to
16		Exhibit Number VIII. What is the precise bottom hole
17		location based on the bottom perforations in their well
18		from the south line of their unit and the east line of
19		their unit?
20	A	The actual base of the perforations that was entered in
21		the February hearing for this well is 153.41 feet from
22		the east line and 129.70 feet from the south line.
23	Q	All right, sir. Now, if the Commission does after this
24		hearing, as they did after the examiner hearing and
25		authorizes this well to be produced, they are, in effect,

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		PAGE 41
1		authorizing a location a little over 153 feet from one
2		line and 129 feet from another line?
3	A	Yes, sir.
4	Q	All right, sir. Just looking at the two-mile area of the
5		pool that they presented on there, and using their Isopach
6		can you find, according to their geological character
7		interpretation other areas where corner shooting or
8		locating a well within the distances that this one is
9		located, you could result in a producing well?
10	A	Yes, sir.
11	Q	Have you plotted on an exhibit those locations that you
12		did so find?
13	A	Yes, sìr.
14	Q	Has that been identified as your Exhibit Number IX?
15	A	Yes, sir.
16	Q	Would you now go to Exhibit Number IX and briefly comment
17		on this?
18	A	Yes, sir. Exhibit Number IX is the Isopach map that was
19		used as Exhibit Number VII, Penroc Isopach that was
20		entered in the February hearing, and on this map I have
21		simply taken the places where an undeveloped proration
22		unit would be indicated to have reef pay in it from the
23		map, and show them with some red arrows.
24		In other words, there is some Isopach that comes
25		into these forty acre proration units that those units

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		PAGE 42
1		being undeveloped units.
2	Q	How many such cases did you find in this two-mile area?
3	A	Well, there would be six indicated by this Isopach map.
4	Q	It would follow, would it not, in the thirteen or
5		fourteen-mile east-west spread of this field? There
6		would probably be many such corners that you could shoot?
7	A	I would think so.
8	Q	All right, sir. Mr. Currens, based on your data that you
9		have presented in your study and analysis of these data,
10		what is your recommendation with regard to the show cause
11		feature of the notices for this hearing, and that is
12		whether or not Penroc's Number II should be allowed to
13		produce from its existing bottom hole location in the
14		southeast corner of that unit.
15	A	Well, my recommendation would be that the bottom hole
16		location not be approved and the Penroc be required to
17		comply with the authorization they obtained on the form
18		Cl03 to return the well to the vertical or to get a bottom
19		hole location 330 from the south and east lines of that
20		unit.
21	Q	Do you have anything else you would care to add, Mr. Curren
22	A	No, sir.
23		MR. BUELL: May it please the Commission, I would
24	like	to formally offer our Exhibits One through Nine.
25		MR. PORTER: Any objections? Exhibits will be

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		PAGE 43
	1	admitted. Any questions of Mr. Currens?
C <sup>11</sup>	2	MR. KELLAHIN: I have a couple.
Charles Charles Charles Charles Charles	3	MR. PORTER: Mr. Kellahin?
4 1	~ 4	CROSS EXAMINATION
4	5	BY MR. KELLAHIN:
naj i Naj - Kali Jan	6	Q Mr. Currens, on your Exhibit Number IX, you have indicated
a.;	7	a number of locations you say would be productive, and
meie	8	new corners; is that correct?
dearnley-meier	9	A Is that what that was intended to be? No, sir. That is
	10	not what I said there, and it is not what I intended to
de	11	say.
	12	What I was trying to say here. if I didn't, was that
	13	based on the Isopach map that was used in the prior hearing,
	14	there are places where pay would exist shown on that
	15	Isopach that are undeveloped forty acre tracts with a
	16	small portion of that tract showing this Isopach pay.
	17	Q Well, actually, you do indicate that a very small section
	18	of pay would be sufficient to produce in the Empire-ABO
	19	Pool, do you not?
	20	A No, sir. I didn't.
	21	Q Well, will you agree with that?
	22	A Well, the old Penroc or the old Delhi well here produced
	23	about 12,000 barrels during its lifetime, and I am sure
	24	that there may be some wells in this section that are
	25	productive. I don't know. I haven't made a study of that.

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		PAGE 44
1	Q	Have you had any experience with it yourself?
2	A	No. I haven't made any study of the amount of pay require
3		to have a commercial well.
4	Q	Well, in that case, maybe those locations you are talking
5		about with the red arrows wouldn't produce.
6	A	That might be possible. I don't know.
7	Q	That might be possible?
8	A	I simply show that there is some Isopach present there.
9	Q	Now, getting back to your Exhibit Number III, which was
10		the form Cl03, was penciled notations. Do you know who
11		put those on there?
12	A	The way I understand the transcript of the record, they
13		were put on by Mr. Gressett.
14	Q	And do you know what they were based on?
15	A	The way I read the transcript, it was information that
16		was furnished by Penroc when they requested the approval
17		of the form Cl03.
18	Q	And was it not represented that that was information
19		supplied by the driller?
20	A	Oh, yes, sir. Yes, sir. The driller supplied the data,
21		as I understood the record. The driller supplied the
22		data to Penroc, and he simply furnished the data to Mr.
23		Gressett at the time of the application.
24	Q	And that was the only information available at that time?
25	A	As far as I know, yes, sir.

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			PAGE 45
	1	Q	Now, referring to your Exhibits IV and V, I believe it
C.	2		is, Exhibits IV and V, IV is the plot on the Penroc State
	ప		Number II based on the information shown on the form C103;
•	4		is that correct?
	5	A	Yes.
	6	Q	And not the actual deviation?
<u>Ci</u> .: X	7	A	Yes, sir. That is correct.
meie	8	Q	And that was what is believed to have occurred at the time?
ey-I	9	A	Yes, sir. That is my understanding.
dearnley-meier	10	Q	Now, at what point did the Delhi State Well start to swing
de	11		to the south?
	12	A	Well, according to the directional survey on this that is
	13		plotted here, it started, oh, sort of southeast probably
	14		200 foot point, and continued there to about a 400 foot
	15		point, and then south to the 690, and then started moving,
	16		say, west, southwest from there.
	17	Q	At the 3000 foot mark it made a decided swing toward the
	18		south, did it not?
	19	A	Yes, sir.
	20	Q	What causes the well to deviate from the vertical like
	21		that, Mr. Currens?
	22	A	Oh, the formations that are encountered in drilling, depth
	23	-	angle of the formation, drilling speed, bit weight, many
	24		things.
	25	Q	It would be reasonable to expect that a well located thirty

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		PAGE 46
1		feet from a well that had deviated in that fashion would
2		follow somewhat the same pattern, would it not?
3	A	Yes, sir. Except that the data that the driller had
4	-	supplied showed it going in another direction, to the
5		northwest, in the easterly portion of the hole.
6	Q	Yes, sir. And what depth was that?
7	A	Well, the last point was 3275.
8	Q	And that was about the point at which Delhi State started
9		to swing south?
10	A	Yes, sir. And that is the point they were about eighty-fi
11		feet apart at that time, yes, sir.
12		MR. KELLAHIN: Thank you, Mr. Currens.
13		MR. PORTER: Any further questions? Mr. Nutter?
14		CROSS EXAMINATION
15	BY	MR. NUTTER:
6	Q	Mr. Currens, you stated that it was your suggestion that
7		Penroc be held to their stated objective on the C103,
.8		that is, to set the whipstock and deviate the well toward
19		the vertical or to a 330 330 foot location bottom hole.
0	A	Yes, sir.
1	Q	You haven't made any recommendations as to how you will
2		handle this or what your recommendations would be if
3		Penroc had been in here seeking approval to directionally
4		drill on the bottom a hole, say, 129 feet from the east
5		line or south line and 150 feet from the east line of the

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			PAGE 47
	1		guarter guarter section. What would your recommendation
ر.	2		be in an event like that?
	3	A	Well, I haven't made no recommendation. That is an
	4		entirely different matter.
κ () ± 	5	Q	That is where the bottom of the hole is now, and if we
	6		were considering the bottom of the hole as it is now,
	7		what would be your recommendation?
dearnley-meier re	8	A	Well, if he were in here to ask to deviate that well to
ley-	9		that point that is 150 and 130 feet from the section lines,
Barn	10		he would be in here to, say, protest that he be granted
-G	11		that authority, my recommendation would be that he not
	12		be allowed to do it.
	13	Q	Well, it often happens among all companies, including
	14		Pan Am. Of course, we are talking about Amoco here, but
	15		Pan Am has been in here on occasion seeking an unorthodox
	16		location
	17	A	Yes, sir.
	18	Q	and the Commission approved the unorthodox location
	19		with the provision that the well would be penalized
	20	Α	Yes.
	21	Q	in some manner, so if we would be considering the
	22		bottom hole location of this well, where it is, and
	23		looking at a penalty for such a location, do you have
	24		any thoughts on that?
	25	A	I haven't really given that a lot of thought.

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PAGE 48 1 MR. BUELL: May it please the Commission, that is 2 a completely different case. That is not what you have before 3 you now. You have before you an applicant who said, "I want 5 to intentionally deviate my well. Will you give me the 6 authority," and you gave him the authority, and he didn't follow 7 that authority. dearnley-meier 8 And from the state of the record, that exists now, 9 he made no attempt to even follow it, so we have got a completely 10 different situation from a person coming to you and saying, 11 "I want to bottom this well here. Let me do it." MR. KELLAHIN: If the Commissioner please, the call 12 13 of the hearing says in part, why it should be approved, and why the allowable should not be reduced. I think that is 14 what Mr. Nutter is talking about. Offset any advantage gained, 15 if any. 16 MR. BUELL: If you get to bridge number two, you have 17 first got to cross bridge number one, and we have crossed that 18 and recommended that that well comply with the authority that 19 the Commission gave. 20 MR. PORTER: In other words, Mr. Buell, your witness 21 has recommended that the well be required to be drilled on the 22 vertical or to comply with the 330 330 location, I believe, 23 and he has not recommended any suggested deviation from a 24 normal allowable for this location; is that right? 25

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1	MR. BUELL: Yes, sir. That is correct.
2	MR. PORTER: Mr. Nutter, I believe, what he was
3	trying to arrive at, is if he had his recommendation concerning
4	this
5	MR. NUTTER: I believe as Mr. Kellahin pointed out
6	that when the Commission wrote the ad and billed it as a
7	show cause hearing, it did state the two alternatives why the
8	well should be approved at all or if it were to be approved if
9	it should be penalized in some manner.
10	MR. PORTER: Well, Mr. Buell, do you have any
11	objection to your witness making any recommendations concerning
12	a penalized allowable in the event the Commission should see
13	fit to do so?
14	MR. BUELL: No, sir. If he has a recommendation,
15	I certainly have no objections to him making it. Of course,
16	as everyone in this room is aware, normally when we are looking
17	at an unorthodox well location, we base our opinion on the
18	amount of productive acreage in the unit, in this unit.
19	The entire unit is productive, and we are not
20	quarreling with that, so we have lost our normal means of
21	assessing the penalty, but if the witness has one, I will be
22	happy for him to say.
23	MR. PORTER: Is this what you are trying to arrive
24	at Mr. Nutter?
25	MR. NUTTER: Yes. Because I think that the provisior

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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.

7 MR. BUELL: No, sir. But you can certainly come
8 up the hole about 2000 feet and deviate as they did before and
9 put it where you told them that they ought to put it to begin
10 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.

16 THE WITNESS: Well, it would perhaps seem appropriate 17 to me that if I recall the Tennaco or Delhi well that was there 18 before, it produced, oh, 12,000 barrels or so, probably the 19 last five or six years of its life.

20 It produced something less than ten barrels a day.
21 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.

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1	Nutt	er?
2		MR. NUTTER: No, sir.
3		MR. PORTER: Anyone else have a question?
4		CROSS EXAMINATION
5	BY M	R. STAMETC:
6	Q	Mr. Currens, have you ever participated in the drilling
7		of a well using a dyna-drill?
8	A	No, sir.
9	Q	You have not? Yet, you have given some testimony as to
10		the proper use of dyna-drill.
11	A	Drill. Yes, sir. I have discussed that thoroughly with
12		our drilling superintendent and with people that have
13		participated in this, and in addition to the things that
14		they tell me, which is what I have related to you, I
15		don't see how you can hit a target if you don't know where
16		you start from and you don't keep up with where you are
17		while you are going down.
18	Q	In other words, your testimony is that you would have to -
19		let me not put these words in your mouth. Let me back up.
20		If you were to deviate a well to a specific point,
21		would you run any sort of a survey to determine the starti
22		point?
23	A	If I had a specific target location, in order to achieve
24		that location, I feel like I would have to know where I
25		was starting from so that I would not road map to follow

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1	<u> </u>	to get there.
2	Q	In a case like this, would you have run a number of
3		surveys as you went along to determine where the bottom
4		of the hole was?
5	A	Yes, sir. You would have to do that.
6	Q	After you had put the dyna-drill in the hole?
7	A	Yes, sir.
8	Q	In your opinion, if you drilled this well, set the
9	÷	dyna-drill one time, and did not survey it, did not run
10		the dyna-drill again, what would likely happen to the
11		deviation in this hole, in your opinion?
12	A	One oriented dyna-drill setting, and you are aimed in a
13		direction, and you make one dyna-drill run, this would
14		depend, of course, on how much weight you put on it and
15		what your pump speed was in rotating the bit, because this
16		is similar to a turbine sort of arrangement.
17		It would normally kick off, as I understand the
18		thing, somewhere on the order of three degrees or so for
19		a hundred feet, depending on how limber your hook-up was,
20		how stiff your hook-up was, and so on.
21		I mean, I don't know any way I can get to where I am
22		going unless I keep finding out where I am all along the
23		line.
24	Q	What I was getting at, on your Exhibit V, it shows a
25		rather long line trending to the southeast from the point

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PAGE 53 where the Penroc State Number II was deviated. 1 Would you anticipate that long southeast trending 2 line, or would you anticipate that the line would deviate 3 in some other direction if the dyna-drill was run only 4 5 one time, and no other surveys were run in this hole? Well, if you made one dyna-drill run and got the thing to б A vertical, or very close to vertical, which that doesn't 7 really indicate happening, then you might expect random 8 deviations that was beyond that point. 9 Having established a direction, you might expect a 10 random deviation to tend to bring the hole in perspective 11 with the other deviations you would normally get from 12 random deviations. 13 For example, you might expect that hole at the point 14 3852 to then start out in a westerly direction. 15 In your opinion, does the deviation shown on Exhibit Q 16 Number V indicate a random deviation? 17 Well, it certainly -- for the Penroc State II does not 18 Α show the same direction of random deviation that the 19 Delhi State Fourteen had, 20 MR. PORTER: Anyone else have a question of Mr. 21 Currens? Witness may be excused. 22 MR. BUELL: May it please the Commission, that's all 23

24 we have.

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MR. PORTER: Mr. Kellahin?

1 MR. KELLAHIN: If it please the Commission, could we 2 have about five minutes to --3 MR. PORTER: Yes, sir. 4 MR. KELLAHIN: We have prepared to present our entire 5 case, and we don't want to leave out some of these exhibits 6 which have been presented here. MR. PORTER: The hearing will recess for five minutes 7 (Whereupon, a brief recess was held.) 8 MR. PORTER: The hearing will come to order, please. 9 The Commission will recognize Mr. Kellahin. 10 MR. KELLAHIN: If the Commission please, before we 11 put on our testimony, at the discussion downstairs we agreed 12 that the record in the hearing in February would be entered 13 in this case, and with that in mind, we have curtailed our 14 testimony considerably, but we do so with the feeling of 15 assurance that the Commission will review the testimony and 16 the exhibits that were offered in the previous case, although 17 many of them are here. 18 I think by the time we get through, probably all the 19 exhibits will be duplicated. 20 MR. PORTER: And I believe the Commission ruled on 21 that earlier, too, and the Commission will review the exhibits 22 in the transcript. 23 MR. KELLAHIN: That will considerably reduce our 24 testimony. We have one witiness I would like to have sworn, 25

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1	please.
2	(Witness sworn)
3	JOHN B. CASTLE
4	having been first duly sworn, testified upon his oath as
5	follows:
6	DIRECT EXAMINATION
7	BY MR. KELLAHIN:
8	Q Would you state your name, please?
9	A John B. Castle.
10	Q By whom are you employed and in what position, Mr. Castle
11	A I am a geologist and president of Penroc Oil Corporation.
12	Q Have you testified before the Oil Conservation Commission
13	and made your qualifications as a geologist a matter of
14	record?
15	A Yes.
16	MR. KELLAHIN: Are the witness' qualifications
17	acceptable?
18	MR. PORTER: Yes, they are.
19	Q (Mr. Kellahin continuing) Mr. Castle, are you the same
20	John Castle who testified in the original hearing in the
21	case now before this Commission, that hearing being in
22	Case Number 4503 heard February 24th of this year?
23	A Yes.
24	Q Do you recollect the testimony you offered there? Do you
25	reaffirm that testimony?

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I A	Yes.
2 2	Now, Mr. Castle, referring to what has been marked as
3	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
5	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 Fourtee
	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.
Ω	that was entered into prior to the drilling of the well
A	Yes.
Q	Now, referring to what has been marked as Exhibit Number I
	would you identify that exhibit?
A	This is a copy of Sperry Sons' deviation survey of the
3	Penroc State Number II well.
4	It shows on there that we set two dyna-drills. I
5	believe Dick was asking about that earlier. We set the

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		PAGE 57
1		first one at 3552 and did time the direction of the
2		hole backward to the south southeast, but it seemed that
3		we were probably at the angle we had picked up that we
4		were going to overrun our target, so at 3972 we set another
5		one to decrease the angle and turn it more toward a 330
6		location.
7	Q	Now, were you successful in turning the direction of the
8		well?
9	A	Yes.
10	Q	But not to the extent you anticipated?
11	А	Well, no. We didn't. We turned it really, to the 330
12		location, but actually, we did overshoot the 330 location.
13		We agree with that.
14	Ω	And that is reflected, of course, by the surveys which have
15		been submitted in this case?
16	A	Yes.
17	Q	Now, did you make any other checks on the direction that
18		well was taking during the course of drilling?
19	A	Not after we set the second dyna-drill, because we believed
20		at that time we were going in the right direction, at the
21		right angle.
22	Q	And on what did you base your assumption that that would
23		be in the right direction?
24	Α	We had a Sperry Son engineer out there, and we were going
25		on his recommendations.

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

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1	us for correcting a hole.
2	They paid for correcting the deviation.
3	O Because that was in their contract?
4	A Because that was in the contract.
5	$\Omega$ And you did anticipate it would deviate, and that is the
6	reason you contracted for that?
7	A Yes.
8	Q Do you consider them a competent drilling company?
9	A Yes.
10	Q Have you used them before?
11	A Yes.
12	Q And had good experiences with them?
13	A Yes.
14	Q Now, referring to Exhibit Number IV, would you identify
15	that exhibit, please?
16	MR. PORTER: Mr. Kellahin, I think we noted Mr. Armijo
17	had to excuse himself for a moment. Maybe we should wait.
18	MR. KELLAHIN: Okay. A minute ago you said whipstock.
19	You meant dyna-drill?
20	THE WITNESS: Dyna-drill. It's like Amoco and Pan
21	Am. It's the same thing.
22	MR. PORTER: You may proceed now.
23	A Penroc's Exhibit Number IV is a structure map contoured
24	on top of the ABO reef formation, and it is the same
25	exhibit as Exhibit VI on the wall, except for some minor

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		PAGE 60
1		differences, one being a cross section on the bottom.
2	Q	Actually, we are just offering that so that the cross
3		section will be available in this case; is that correct?
4	A	Yes.
5	Q	You have nothing to add?
6	A	Well, I might add while they have already agreed that by
7		moving southeast in the direction that we did move, we
8		were hurting ourselves structurally.
9	Q	You were structurally lower?
10	A	Yes.
11	Q	And that exhibit reflects that?
12	A	Yes.
13	Q	Now, Exhibit Number V, would you identify that, please?
14	A	Exhibit Number V is Penroc's Isopach of the ABO reef
15		formation with Penroc's forty acre tract outlined in red,
16		and it is the same as the one they are using here as
17		Exhibit VII, except for the cross section on the bottom.
18	Q	Now, Exhibit Number VI, would you identify that exhibit,
19		please?
20	A	Number VI is Penroc's exhibit showing the relationship
21		of the ABO reef perforations, total depth and so forth to
22		the lease lines.
23	Q	Now, actually, the perforations are above the total depth,
24		are they not?
25	A	Yes.

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1	Q	So the total depth is closer to the lease lines than the
2		perforations?
3	A	That's right.
4	Q	By how much total depth?
5	A	Total depth is 148.74 feet from the east line, 123.20 feet
6		from the south line.
7		Base of the perforations are 153.41 feet from the
8		east line, 129.70 feet from the south line.
9	Q	And that shows the location in the well of the various
10		other points, does it not?
11	A	Yes. It shows the top of the reef, the base of the reef,
12		plug-back TV, top of the perforation, base of the perforat
13		and total depth.
14	Q	Do you have anything to add in connection with that exhibi
13	A	No.
16	Q	Now, Mr. Castle, you heard the testimony of Mr. Currens
17		this morning in regard to a structural situation, and his
18		testimony was to the effect that he would rather have net
19		pay than structural position.
20		Do you agree with that?
21	A	Well, it would depend on where it was. In ABO reef I
22		would just as soon have two feet if it is structurally
23		located favorably as fifty feet.
24	Q	Now, you are talking about a pay?
25	А	Yes.

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1	Q	Now, what is the disadvantage of being lower structurally
2		in this pool?
3	А	Well, as I mentioned a few minutes ago, and as they
4		mentioned, we are structurally low, and the disadvantage
5		of that on this being structurally low is water
6		encroachment, of course, from the east, and some of the
7		wells to the east does make water, and the low wells, of
8		course, will be the first ones to make water.
9	Q	Now, would that reduce the ultimate production from that
10		well?
11	А	I would say it would reduce the life of the well.
12	Q	And there is no way you can correct that in this well
13		bore; is that correct?
14	A	No. I can't see how we can correct this well bore. No.
15		We are perforated in the top of the reef now, and there
16		is no way that we could, as they were talking, ever go
17		to a 330.
18		We have a four and a half inch casing in the hole,
19		and it is almost impossible to whipstock out of that.
20	Q	Now, what pay section would you have at the location of
21		this well? Do you know?
22	A	Which well?
23	Q	The bottom of your Penroc State Number II.
24	А	State Number II? The pay section?
25	Q	Yes, sir.

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2		I don't remember exactly. It is, I would say, somewhere in the neighborhood of 150 feet.
	Q	in the neighborhood of 150 feet.
3	Q	
		Would there have been more pay section at an orthodox
4		well location?
5 7	A	Let me refer back to the Isopach. State Number II has
6		approximately 189 feet of reef section, I believe it is.
7		I can hardly see it.
8		And should we have below hole, they will have
9		fourteen 171 feet.
10 🤇	Q	Is there enough difference in the ABO reef formation to
11		make a significant difference in your well?
12 7	A	We don't think it would make any difference at all. We
13		think even if we were up toward the north part of the
14		forty acre tract that it would still be up that well.
15 (	Q	Well, some of your tests, Mr. Castle, did you gain any
16		advantage by bottoming the well where it was bottomed?
17 1	A	No. Actually, if anything, we lost advantage.
18	Q	And will this cause any unfair drainage against offsetting
19		wells?
20 2	A	We don't believe so. We think probably for the last eight
21		or ten years we have been drained on this forty acre
22		tract by the offset operators.
23	Q	Do you have anything further, Mr. Castle?
24	A	No.
25	Q	Were Exhibits One through Six prepared by you or under

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1	your supervision?
2	A Yes.
3	MR. KELLAHIN: At this time I would like to offer
4	in evidence Exhibits One through Six.
5	MR. PORTER: If there are no objections, Exhibits
6	One through Six will be admitted. Mr. Kellahin, we have some
7	exhibits here that are numbered, I believe, a little different.
8	MR. KELLAHIN: If the Commission please, those wer_
9	the originals. We were going to present the full set, and we
10	went through and renumbered.
11	MR. PORTER: So you renumbered?
12	MR. KELLAHIN: Yes, sir. So please ignore those
13	numbers.
14	MR. PORTER: Thank you. We will go by the one that
15	was identified by
16	MR. KELLAHIN: We have two sets marked.
17	MR. PORTER: Mr. Castle in the record. Mr. Buell,
18	do you have some questions?
19	MR. BUELL: Yes, sir. I have just a very few.
20	CROSS EXAMINATION
21	BY MR. BUELL:
22	Q Mr. Castle, do I understand your testimony correctly that
23	you did not exercise any control on your deviated well
24	after you deviated to assure you that you would be in
25	your target area that the Commission authorized you to?

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	PAGE 65
1 A	Well, after we set the second dyna-drill, we didn't run
2	any other surveys.
3	We knew we were going to run a survey after we got
4	the total depth.
5 Q	So you did not exercise control?
<b>6</b> A	No.
7 Q	I tried to follow your testimony pretty carefully, and
8	as I understand, you said when you set your second dyna-dr
9	you kicked the well back towards the 330 location.
10	That doesn't show up on your Exhibit Number II, though
11	does it?
12 A	Yes, it does.
<b>13</b> Q	Well, let me get my glasses on. As I understand it, 3972
14	is the second little circle after your well had started
15	to the south southeast
16 A	That's right.
17 Q	going back to approximately the 330 location?
18 A	Well, if you will notice there, the line that follows the
19	dots moved more to the east after that, and if you will
20	also notice the heavy line running perpendicular is the
21	330 line.
22 Q	The line that I see connecting point number two, which is
23	your 3972 feet with point number three, which is at a
24	datum of 4705 or total depth, true depth, 4705, that line
25	to me is not in an easterly direction. It is southeast.

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		PAGE 66
1	A	That's right. That's right, yes, sir. It is moved more
2		east than at 3972.
3	Q	But it is still going south?
4	A	Right.
5	Q	All right, sir. I have just got to ask you this. As I
6		understand, you have testified at the prior hearing and
7		this one that you felt that your new well would follow
8		the random deviations of Old Fourteen, and under no
9		conditions did you want to drill into it or bottom close
10		to it so that you would treat into that well, because it
11		wasn't completed properly.
12		Have I fairly summarized your testimony so far?
13	A	Yes.
14	Q	Then why did you spud it only thirty feet north of Old
15		Fourteen?
16	A	I thought you might ask that.
17	Q	I've got to know.
18	A	The reason for that, we are not Amoco. We don't have
19		lots of money. We are a small company, so we try to save
20		all the money we can, and that road location was already
21		built, so we used that location.
22		Otherwise, we would have had to build new roads and
23		locations.
24	Q	All right, sir. And you also testified that you had
		been just as content with a well bottomed in the northwest

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		PAGE 67
1		portion of your forty acre unit; is that correct?
2	A	Yes.
3	Q	Well, then, why didn't you just let it go ahead under
4		its random deviations? You have been way away from Old
5		Fourteen, and up in the northwest portion of your forty
6		acre section where you would like to be.
7	A	No. I don't think that's right. If you will notice on
8		the testimony earlier, that a little below 3000 feet on
9		the old hole, you see it turns south, so we expected that
10		one to turn south about that same time.
11	Q	But you didn't have any data that showed you that turned
12		south?
13	A	No.
. 14	Q	Your data really showed you just the opposite, didn't it?
15	Α	No. The old hole down there shows going south.
16	Q	Well, why didn't you wait til you had some data from your
17		driller showing you that it had turned south before you
18	••	asked to intentionally deviate it?
19	A	Because the longer we waited, the further away toward the
20		old hole we were getting, and had less time to correct it.
21	Qر.	He was giving you pretty frequent readings here, 3133,
22		then another one here that is not footage depth on it,
23		and 3275.
24		He had, under the contract, to take a reading every
25		500 feet, didn't he?

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		<u></u>	Page 68
	1	A	Yes. And if you will notice, we are getting deeper and
C <sup>1</sup> 2	2		deeper all the time, and if we had waited until we turned
<b>(</b>	3		south and got close to that old hole, we would not have
a - 2	4		had time to correct it.
•. · · <b>&gt;</b> : 	5	Q	Why wouldn't you?
e e Constant Constant CON Second	6	A	Well, it takes a little while to deviate a hole. You
	7		can't do it in the last couple of hundred feet.
mei	8	Q	Didn't take you very long up here.
ley-	9	A	Took us from 3346 to total depth.
dearnley-meier	10	Q	All right, sir. And by the time you deviated there, you
qe	11		were headed south towards the old hole, and you still
	12		weren't anywhere near it, were you?
	13	А	What's that?
	14	Q	I am now referring to our Exhibit Number V at this hearing
	15	-	today, and the directional survey on the State Number II.
	16		You said it took you 200 feet to affect your
	17		deviation to the south. Right?
	18	A	No. I don't remember saying that, but you can turn the
	19		direction almost immediately, but whether or not you can
	20		hold it is something else.
	21	Q	But the point I am making, you had completely reversed the
	22		direction of this well way away from the Old Hole Pourteen.
	23		You were still further away than your surface location.
	24	λ	When was that?
	25	Q	Right here.
	19 20 21 22 23 24	Q	direction almost immediately, but whether or not you can hold it is something else. But the point I am making, you had completely reversed direction of this well way away from the Old Hole Pourt You were still further away than your surface location. When was that?

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<ul> <li>1 A At the time we corrected it?</li> <li>2 Q Point 3599?</li> <li>3 A Yes.</li> <li>4 Q You were headed due south?</li> <li>5 A Right. That is what we are trying to do.</li> <li>6 Q So it didn't take you long to change the direct</li> </ul>	.ion, diđ
<ul> <li>3 A Yes.</li> <li>4 Q You were headed due south?</li> <li>5 A Right. That is what we are trying to do.</li> </ul>	ion, did
<ul> <li>4 Q You were headed due south?</li> <li>5 A Right. That is what we are trying to do.</li> </ul>	ion, did.
5 A Right. That is what we are trying to do.	ion, did
	ion, did
6 Q So it didn't take you long to change the direct	ion, did
	Į.
7 it?	
8 A I said it didn't take long to change the direct	ion. You
10 Q Then my point, I will have to ask you again, be	cause it
11 is obvious I don't understand you.	
12 Why were you so afraid of waiting for a de	viation
13 from your driller that would show you that this	; well
14 was headed south when you had no fear at all ab	out setting
a dyna-drill and intentionally running south as	fast as
16 you could?	
17 A That was the idea. We were going southeast, if	you will
18 notice the line up there, instead of south, and	we wanted
19 to get it back to where it was supposed to be a	is soon as
20 we could.	
21 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
23 all right?	
A If we are going south southwest it is not all r	ight.
25 Q All right, sir. Now, you do agree with the tes	stimony of

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1		Mr. Currens, that your location in the southeast corner
2		of your unit did, according to your Isopach, pick up
3		additional pay?
4	A	Small amount, yes.
5	Q	And you say you would rather have structure in this
6		reservoir than additional pay?
7	A	Yes. Well, I didn't say I would. I would just as soon
8		have structure.
9	Q	Oh, just as soon? I thought you said you would rather.
10	A	Well, I will say that, then, because that depends on which
11		part of the structure you are on.
12	Q	What reservoir mechanism do we have here to the Empire-ABO?
13		Do you have any idea?
14	A	No, I don't.
15	Q	Assume for the purposes of this question that it was
16		gravity segregation. Would you rather be high on the
17		structure or low on the structure?
18	А	I am not an engineer, so I couldn't answer that.
19	Q	Well, then, you don't know whether losing structure in
20		this reservoir is an advantage or disadvantage, do you?
21	A	To me it is an advantage. I would rather have it, even
22		though I am not an engineer.
23	Q	Well, if you are not an engineer, you couldn't have made
24		any drainage or migration studies, could you?
25	A	I didn't.
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	2         3         4         A         5         6         7         8         9         10         11         12         13         14         15         16         17         18         19         20         21         22         23         24

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PAGE 70

		PAGE 71
1	Q	Well, then, how do you support your testimony that this
2		forty acre tract has been drained?
3	A	I said that is what I believe.
4	Q	Without the base of a study?
5	A	Right.
6	Q	And do you support your testimony that this well wouldn't
7		drain from the offsetting unit the same way, just the
8		fact that you haven't studied it? You just believe it?
9	A	Yes.
10		MR. BUELL: I believe that's all.
11		MR. PORTER: Any further questions of Mr. Castle?
12		MR. RAMEY: I would like to ask him some, Mr. Porter
13		MR. PORTER: Mr. Ramey?
4		CROSS EXAMINATION
15	BY	AR. RAMEY:
.6	Q	I am still kind of confused here. Now, you say you set
17		your second dyna-drill to bring the hole back toward the
8		330 line, and not necessarily the 330 point. Right? Is
19		that correct?
20	A	Well, yes.
21	Q	What were you
22	A	Mr. Ramey, we were turning back toward the 330 line. We
23		didn't expect to hit the 330 point exactly.
24	Q	You were
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1	Q	You were going to let the well deviate on to the south?
2	A	We were intending to get back as close to the 330 location
3		as we could.
4	Q	Well, looks like you would have had to point it back to
5		the northeast to get towards the 330 point.
6	A	No, no. Mr. Ramey, see, our surface location was north
7		of the 330 location, so we would have to go southeast to
8		get back to
9	Q	Well, when you set your dyna-drill, you were already
10		south of your surface location, were you not?
11	A	No, sir. We were not. West.
12	Q	Well, where is the 330 location on this in relation to
13		your
14	A	330 location would be thirty feet south of that location
15		which is spotted on there.
16	Q	Which would be
17	A	Which would be somewhere
18	Q	approximately
19	A	in here.
20	Q	at the point you set your dyna-drill? Okay. Didn't
21		the driller take deviation surveys at all during the
22		drilling of this?
23	A	In the beginning they did, but after that, we didn't.
24	Q	You didn't take any? You didn't take a Totco at any
25		point?

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		PAGE 73
1	A	Not after that.
2	Q	You didn't the angle that you were deviating?
3	A	No. I haven't seen them if they did.
- 4	Q	Isn't that kind of unusual?
5	A	No, sir. As I mentioned a few minutes ago, we knew
6		we were going to run a survey on it anyway when we got
7		to total depth.
8	Q	It looks like if you were striving for a certain point you
. 9		would want to know how the well was deflecting during
10		the drilling process, wouldn't you?
11	A	And at our last dyna-drill setting we were headed toward
12		that target.
13		MR. RAMEY: I think that's all.
14		MR. PORTER: Any further questions?
15		CROSS EXAMINATION
16	BYM	IR. STAMETS:
17	Q	Under whose direct control was this dyna-drill run?
18	A	Penroc's.
19	Q	Was a deviation survey run prior to setting the dyna-drill?
20	A	No.
21	Q	It was not?
22	A	No.
23	Q	The only deviation test run was after the hole was
24		completed?
25	A	That's right.

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	PAGE 74
1	MR. STAMETS: That's all the questions I have.
2	MR. PORTER: Anyone else?
3	RECROSS EXAMINATION
4	BY MR. RAMEY:
5	Q You set the dyna-drill at random, you thought you were
6	deviating?
7	A No. No. We knew we were deviating back toward a 330
8	location.
9	Q But you knew you were deviating to the northwest, so there
0	was a directional survey of sorts taken, wasn't there?
1	A Yes. We were running surveys, yes, as we were drilling,
2	and we knew that we were going in a westerly direction.
3	Q Okay. So you did know which way to set the dyna-drill to?
•	A Oh, yes.
5	MR. PORTER: If there are no further questions, the
5	witness may be excused.
,	MR. KELLAHIN: We have nothing further.
3	MR. PORTER: Would you gentlemen like to make a
9	closing statement of any kind?
	MR. KELLAHIN: I'll waive it if you will.
L	MR. BUELL: May I make a suggestion, Mr. Porter? It
?	is almost noon, and due to the lateness of the hour and the
3	crowded docket, I know this is an unusual request, but could
\$	we submit written closing statements in this case?
5	MR. PORTER: Are there any objections to that, Mr.

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PAGE 75 1 Kellahin? 2 MR. KELLAHIN: Not if I can receive a copy. 3 MR. BUELL: I will send you a copy, yes, sir. I am 4 going to send you a copy of everything. 5 MR. PORTER: Mr. Buell, how much time would you 6 like to have? Ten days? 7 MR. BUELL: Could I have fifteen, Mr. Porter? If 8 there was any sanction being applied to this, well, I would 9 understand the need for haste, but it has been producing at 10 capacity ever since it was completed. 11 They are not operating under any kind of a sanction 12 whatever, any kind of a penalty, and it is certainly not to their detriment, so I would like fifteen days. 13 I have got it in my head. I could say it, but it 14 would take a while. 15 MR. PORTER: Fifteen days will be all right, and I 16 believe you agreed to furnish counsel for Penroc copies. 17 MR. BUELL: Yes, sir. I will furnish Mr. Kellahin. 18 MR. KELLAHIN: Will we have an opportunity to file 19 one subsequent to his? In other words --20 MR. BUELL: I wouldn't quibble about that. We took 21 the burden of proving. Normally, I would be allowed to close 22 last, but I would be happy to furnish mine, and then would 23 five days after you received mine be enough? 24 MR. KELLAHIN: Five days? In other words, ours will

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1	be due in twenty days?
2	MR. PORTER: The Commission will so rule, and take the
3	case under advisement.
4	MR. BUELL: Thank you, sir.
5	MR. KELLAHIN: Thank you.
6	MR. PORTER: The regular hearing of the Commission
7	is adjourned at this time. The examiner hearing will be
8	called by Mr. Nutter at what time, Mr. Nutter?
9	MR. NUTTER: I think we are going to try and run a
10	couple of cases before lunch.
11	MR. PORTER: At this time we will turn the gavel
12	over to Mr. Nutter and let him go ahead with the examiner
13	hearing.
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PAGE 78 1 STATE OF NEW MEXICO ) SS ) 2 COUNTY OF BERNALILLO ) I, LINDA MALONE, Court Reporter, do hereby certify that 3 the foregoing and attached Transcript of Hearing before the 4 5 New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said б proceedings, to the best of my knowledge, skill and ability. 7 dearnley-meier 8 Malor 9 Court Reporter 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

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$ 118' - 1/2 \\  624' - 136' - N \\  122' - 2/4' - 6 \\  132' - 2/4' - N \\  33' - N \\  225' - 4' - N \\  275' - 5' - N \\  275' - 5' - N \\  275' - N \\  27$	hole to vertice R-28-E. $V-80^{\circ}\omega$ $\omega$ $70^{\circ}\omega$	icle or to 330' FS	of my knowledge and belle President	of Sec.	28, T-17-S,	
$\begin{array}{c} 1118' - 1/2 \\ 1624' - 136' - 1 \\ 122' - 214' - 1 \\ 628' - 234' - 1 \\ 133' - 314' - 1 \\ 133' - 314' - 1 \\ 225' - 1 \\ 275' - 1 \\ 275' - 1 \\ 5' - 1 \\ 18, 1 hereby certify that the in \\ 18, 18, 18, 18, 18, 18, 18, 18, 18, 18,$	hole to vertice R-28-E. $V-80^{\circ}\omega$ $\omega$ $70^{\circ}\omega$	icle or to 330' FS	of my knowledge and belle President OIL ANO CAS INSPEC	- of Sec.	28, T-17-S, <u>LATE</u> 12-21- DEC 2	
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$\begin{array}{c} 1118' - 1/2 \\ 1624' - 136' - N \\ 1/22' - 21/4' - 1 \\ 628' - 234' - N \\ 133' - 314' - N \\ 225' - 4' - N \\ 275' - 5' - N \\ 18. 1 hereby certify that the in \\ 18. 1 hereby certify thereby certify that the in \\ 18. 1 hereby$	hole to vertice R-28-E. $V-80^{\circ}\omega$ $\omega$ $70^{\circ}\omega$	icle or to 330' FS	of my knowledge and belle President DIL AND CAS INSPEC OII. CONS Son	, of Sec. 	28, T-17-S, <u>LATE 12-21-</u> DEC 2 THE	2 2 1970
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$\begin{array}{c} 1118' - 1/2 \\ 1624' - 136' - 1 \\ 122' - 214' - 1 \\ 628' - 234' - 1 \\ 133' - 314' - 1 \\ 133' - 314' - 1 \\ 225' - 1 \\ 275' - 1 \\ 275' - 1 \\ 5' - 1 \\ 18, 1 hereby certify that the in \\ 18, 18, 18, 18, 18, 18, 18, 18, 18, 18,$	hole to vertice R-28-E. $V-80^{\circ}\omega$ $\omega$ $70^{\circ}\omega$	icle or to 330' FS	of my knowledge and belle President <i>DIL AND CAS INSPEC</i> I OII. CONS Son <i>A INC CCS</i>	, of Sec. 	28, T-17-S, <u>LATE</u> <u>DEC</u> THE N COMMISSIO W Maxico Sit No.	2 2 1970

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\_\_\_\_, 10 <u>70</u> <u>December 1st,</u> To Drilling Concret dured.....

Rod Ric Corporation \_Polando Cill <u>Corporation</u> Station ..... \_Contractor\_ Min Recent Re <u>ato #1</u> Well Name and Number

Baabat "A"

DESCRIPTIONS AND SECOND PROVISIONS

1. CASING PROGRAM (Soo Par. 3)

	Size		Weisht	Approx. Setting Depth	To Be Set By	Allowed Cement Time
Conductor Surface	<u>8 5/8"</u>	in	Nos./it.		•• •••••	srequired hours
Protection Oil String Liner Tubing	<u>5 1/2<sup>u</sup></u>	in in in	lbs./it. lbs./it. lbs./it.	<u>6200</u>	ta ta t.	<u>s</u> required hours
2. MUD CON	itrol program h Interval (fl)	1 (See Par, 10		Weight (lbs./gal.)	Viscosity (Sees)	Water Loss (cc)
From 	To T.D.	Asre	cuired.			

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.

5. STRAIGHT HOLE SPECIFICATIONS (See 201 10 S)

Well Depth		Maximum Distance Between Surveys,	Maximum Deviation from Vertical.	Maximum Change of Angle (or Over-All Angle) Between	
From	To	Feet	Degrees	Any Two Surveys, Degrees(1)	
6001	<u> </u>	500'	30		
	<u> </u>			*	
		· · · · · · · · · · · · · · · · · · ·			
		· · · · · · · · · · · · · · · · · · ·			
				·	
ation of well por		icet shall bei			

(1) a. Reduce proportionately for survey intervals less than 165 feet, but do not use intervals shorter than 80 feet.

b. If these limits are exceeded and the distance between surveys is more than 169 feet, Contractor shall take intermediate surveys no more than 160 feet a art, 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.

e. When directional surveys are required, the change of angle shall be the change of over-all angle.

4, INSURANCE (506 207. 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 of injury of any one person and \$ 300,000, for each accident.
- 4.8 Comprehensive Public Liability Property Damage Insurance or Public Liability Property Damage Insurance with limits of
- not less than \$ 160,000 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 the death or injury of each person and \$ 300,000 for the death or injury of each person and \$ 300,000 for each accident; and Automobile Public Liability Property Damage Insurance with limits of <u>50,000</u> for each accident. S.,

 BEF
H DIL CONSERVATION MMISSION Sento Fie, New xico Alec Case No. 555





INVOICE

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No. #831 CM

	OOIR POILLA D MIDLAND, TEXAS P. O. BOX 1767	<ul> <li>Y O IN Abo State #1, 360<sup>i</sup> F.51. c</li> <li>PEL, Sec. 20, T-17-S, 1</li> <li>-E, East Empire Field, 1</li> </ul>	{-28
.0	PENROC OIL CORPORATION Drawer 831	County, New Mexico. Dote January 5, 1971	
	Midland, Texas 79701	Your Purchase Order Nu	
		Ordered by Mr. Brace Wigzell	

DATE	DESCRIPTION	AMO	DUNT
	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: 4% New Mexico Tax	(63,469 (138	34) 77)
	Total Credit Due	(\$3,608	11)
	· ·	a da Antonio da Contra da	
	Pay Last Amount in This Column	->	<u> </u>

BEFORE THE 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.

BEFORE: Elvis A. Utz, Examiner



DEPOSITIONS, MEARINGS, STATE MENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

MEXICO

MIN

ALBUQUEROUE,

POX 1092 • PHONE 243-6491

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SIMUS BLDG.

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SPECIALIZING IN

dearnley-meier reporting service, inc

TRANSCRIPT OF HEARING

) Case No. 4503

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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

SPECIALIZING IN DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS OU SIMMS GLOG. P.O. BOX 1002 PHONE 243-0001 ALBUQUERQUE. NEW MEXICO 87103

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203 SIMMS ELDG., P.O. BOX 1092 PHONE 243-0091 ALBUQUERQUE, NEW MEXICO B FIAST NATIONAL BANK BLDG, EAST ALBUQUERQUE, NEW MEXICO 87108 1

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page 2

1 Case 4503, Oil Conservation Commission Examiner 23rd. Re: 2 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.

PAGE 3

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

CONVENTIONS 87103 NEW MEXICO 87108 SPECIALIZING IN. DEPOSITIONS, MEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, SIMMS RLDG., P.O. BOX 1092. PHONE 243-6691. ALBUQUERQUE. ST NATIONAL BANK BLDG. EAST ALBUQUERQUE. NEW MEXICO 2.0V F 1.63

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for sometime prior to the calling of this case.

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SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COFY, CONVENTION

SIMMS BLDC. P.O. BOX 1002. PHONE 243-6691. ALBUQUERQUE, NEW MEXICO 87103 St national Bank Bldc. East-Albuquerque, new mexico 87108 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 1 2 offset and southeast diagonal and Pan Am and Amaco is direct 3 east offset; no other offsets. 4 MR. UTZ: I would say that Amaco certainly has an 5 interest in this case. I would also say Atlantic has an б interest in this case. 7 MR. KELLAHIN: We don't deny that. 8 MR. HATCH: I think that Amaco has presented a valid 9 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 10 continued. I believe that no allowable has been cut on this 11 well --12 87103 NEW MEXICO 87108 MR. KELLAHIN: That's correct. 13 MR. HATCH: -- so it would not, during the meantime, 14 15 be penalized any manner on that ground. Penroc has appeared here and if they have a valid reason to go on with their 16 testimony today, would be willing to appear at another time, 17 make themselves available for cross examination, I think we 18 could --19 MR. KELLAHIN: If the Examiner please, Mr. Castle 20 , a advises me that it would not be possible for them to be here 21 next month, which is another reason they want to go ahead today 22 but we certainly do not want to put on our testimony today 23

dearnlev-meiei SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS 139 SIMMS ELDC.# 2.0. BOX 1092+PHONE 243-0691+ALBUQUERQUE.

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and then come back a month from now for an additional hearing.

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

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PAGE 6 1 whole thing. We do not agree that there's been a valid case 2 made for continuing this case in that the Commission well knows 3 that Amaco has more than one lawyer and just the fact that one 4 of them has to be in Texas and gives priority to Texas over 5 New Mexico is not a valid ground for continuing this case. 6 And, if the Commission elects to continue it, however, what 7 date would it be continued to? dearnlev-meiei 8 MR. HATCH: If it's not convenient for Mr. Castle 9 next month, do you have a suggested date here? 10 MR. CASTLE: Of course, we would rather it be now since we are here. We have taken the time and expense to be 11 SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTION 12 here now. We think Pan Am or Amaco has had as much notice 200 SIMMS BLDC.+ 2.0. BOX 1092+PHONE 243-6691+ALBUQUERQUE, NEW MEXICO 87103 Pirst National Bank BldC. East+Albuquerque, New Mexico 87108 13 as we have and they should be here, but if it's going to be continued, any time after next month. 14 15 MR. HATCH: Any time in April? MR. CASTLE: Yes. 16 MR. HATCH: I believe the first thing we have in 17 April now is the hearing for Hobbs the middle of April. 18 MR. PORTER: What's your latest hearing in March? 19 MR. HATCH: The latest hearing in March is the 24th, 20 I believe. There's one for the 31st of March rather than the 21 24th and then April 14th. 22 MR. CASTLE: If it's going to be mainued, we would 23 much rather have April 14th. 24

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

PAGE 7 1 MR. PORTER: We will, if necessary. 2 MR. HATCH: That would be in Hobbs. 3 MR. KELLAHIN: April 14th? 4 MR. HATCH: Yes. 5 MR. UTZ: Well, obviously, the reason that Amaco is 6 interested in this case is that they want to argue about how 7 much allowable the well should have or whether it should have dearnley-meier 8 any, would be my supposition. 9 MR. CASTLE: Of course, we understand that but what 10 we can't understand is why they are not here now. 11 MR. KELLAHIN: This is our position. They have had DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTION 12 ample notice, and we feel they should be here. They are not 87103 00 a small company and are not being abused or put upon by the 13 NEW MEXI 87108 hearing today. They had an opportunity to be here and they 14 1. ALBUQUERQUE. RQUE, NEW MEXICO 15 should be here. MR. CASTLE: We wonder if we will have the same 16 consideration, too, if it should be postponed until -- we know 17 1092 • PHONE 243-669 DG. EAST • AL BUQUEF it would be hard for us to be here next month, but if it's 18 postponed to April and we find out that we can't make that, 19 would you also give us a continuance? 20 BCX e E MR. UTZ: Well, speaking frankly, ordinarily the TIONAL SANK 5 21 Commission is quite lenient in that respect. We usually bend 22 SPECIALIZING IN over backwards to try to give everybody a chance to have their 23 SIMMS ۲ Z say. I hate to inquire into your testimony but is it your HK 5 603 24 contention that this well should have top allowable or are 25

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1 you willing to testify to the fact that there should be some 2 decrease? 3 MR. CASTLE: No, we think we should have top allowable. 4 MR. UTZ: So, you are not willing at this point to accept any curtailment of the well? 5 MR. CASTLE: No. 6 MR. HATCH: I think that's your decision to make at 7 this point. 8 MR. UTZ: I think we ought to hear the case. Like 9 you say, you are here. They have had time and they ought to 10 have other lawyers besides Guy. I just think it's an imposition 11 on you. You made the trip here and I think we ought to hear 12 the case. 13 If they want to come back and call another case, I 14 think they have that opportunity. I don't think the thing is 15 shut to them, after a decision is made at this time. Am I 16 right; they can call another case on the same subject, can't 17 they? 18 MR. HATCH: That's a different legal question. I 19 think it's not to be answered at this moment. There was some 20 question raised in some discussion yesterday about the right 21 of somebody to ask for denovo and I am not going to express my 22 opinion on that right now. 23 We will face that later. I think Mr. Kellahin 24 pointed out some problems on that yesterday. I think it should 25

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DESCIALIZING IN. DEPOS TIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS DAV SIMMS BLDG. P.C. BOX 1092-PHONE 243-0091-ALBUQUERQUE. NEW MEXICO 87103 PERST NATIONAL BAILK BLDG. EAST-ALBUQUERQUE. NEW MEXICO 87103



	1	MR. UT2: The hearing will come to order, please.
	2	de'll hear Case 4503 first, and then 4502.
	3	MR. HATCH: Case 4503. We've covered that this
	4	morning, and we skipped over it a while.
	5	MR. UTZ: Yes. That was called, and the previous
	6	reporter took an argument as to continuance, so the case has
s. <b></b>	7	been well and properly called.
dearnley-meier	8	MR. KELLAHIN: If the Examiner please, we'll have
ey-I	9	one witness in Case 4503 I'd like to have sworn.
arnl	10	(Witness sworn)
qe	11	MR. UTZ: Are there other appearances?
<b>IVENTIONS</b> 87103	12	JOHN B. CASTLE
PY, CONVE Exico 87	13	called as a witness, having been first duly sworn, testified
EXFERT TESTIMONY, DAILY COPY, CONVENTIONS I• Albuquerque, në:w mexico 87103 Oue, nëw mexico 87103	14	as follows:
STIMONY, DAI Derour, Dai Mexico 87	15	DIRECT EXAMINATION
TESTIMO DOUERO	10	BY MR. KELLAHIN:
EXPERT 10 Albu 10 Lbu	17	Q Would you state your name, please?
TEMENTS,   243-0091 Buouer	18	A John Castle.
angs, state • Phone 2 • Alte Ale	19	$\Omega$ By whom are you employed, and in what position, Mr.
5, HEARING -X 1092 - P	20	Castle?
P. OSITIONS, P. D. BOX	}	A Penroc Oil Corporation. I'm a geologist and president
t DE/205 06.● 2.05	27.	of Penroc Oil Corporation.
SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, 209 Simms Bldg., P.O. Box 1002 Phone 243-009 Phost Mational Hank BLDG., BAT ALBUQUED		2 Have you testified before the Oil Conservation
SPECIALIZIY 204 SIMMS		Commission and one of its examiners and made your
	25	qualifications as a geologist a matter of record?

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	1	λ	Yes, I have.
	2		MR. KELLAHIN: Are the witness' qualifications
	3	acce	eptable?
	4		MR. UTZ: Yes, sir. they are.
	5	Q	(By Mr. Kellahin) Mr. Castle, are you familiar with the
на 1 1 1 с. 44	6		case that has been called by the Oil Conservation
Ruik (2) Ruis (2) Ruis (2)	7		Commission in Case Number 4503?
leie	8	A	Yes, I am.
ey-N	9	Ω	What prompted that case, do you know?
dearnloy-meigi auerque. New mexico 87103 ew mexico 87103	10	A	Penroc Corporation drilled a well it's Penroc Number
	11		Two State in the Empire ABO Field, Eddy County, New
	12		Mexico and intentionally deviated the hole from a
	13		surface location of 360 from the south, 330 from the east
.Y COPY, Z E X	5 <b>14</b>		off the section, and the Commission called a hearing
NY, DAIL	i 8 15		to see whether Penroc should have a full allowable or
TESTIMO	× × × × × 16		not.
CXPERT - Albu	z 	Q	Now, referring to what has been marked as Penroc Exhibit
MENTS, 1	a a a a a a a a a a a a a a a a a a a		Number 1, would you identify that, please?
STATE:	• 19	A	Exhibit Number 1 is a location plat and offset ownership
EAFINGS	DG. EAST		plat showing the Penroc State Number 2 location and offset
TIONS, H			operator.
SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, 209 SIMMS BLDG, - 2,0, BOX 1002 - PHONE 243-069	AL BAL	Q	Now, at the time this well was deviated from the vertical,
יצואל ואי מי אי ט	23		did you send notices to the offset operators?
PECIALI	z Festa 24	λ	Yes, we did. Exhibit Number 2 is our proposal to
τ <b>υ</b> (1	ຳ 		deviate, and this was sent to the offset operators.

			PAGE ] 2
	1	Ü	And that was in Pan American, Atlantic Richfield, Depco,
	2		Sun Oil Company and Petroleum Corporation of "exas?
	3	λ	Yes. I might make a statement here now that Petroleum
	4		Corporation of Texas is now Petrofina.
	5	Q	Petrofina?
4. 4. j. 6. j. j. 8. j.	6	А	Yes, which was forwarded to them.
Sec.	7	Q	And those are all the offsets required to be notified
meie	8		under Order of the Commission; is that correct?
dearnley-meier	9	A	Yes.
arn	10	Q	Now, referring to what has been marked as Exhibit Number
de	11		3, would you identify that exhibit?
IVENTIONS 87103	12	Λ	Exhibit Number 3, I might have made a mistake there with
PY, CONVI Exico 87	13		the Commission a few minutes ago. There may be nine
TESTIMONY, DAILY COPY, CONVENTIONS Guerque, New México 87103 Ew Mexico 87108	14		exhibits. I have that one missing from my files here,
(MONY, D4: Rque, Р Ie×ico8			one which they may have, but, yes, that is the one that
TTESTIM UDU NRUN NRV NRV NRV NRV	16		I have, is Exhibit Number 2, but Number 3, that is where
	17		we did apply to the Commission to deviate the hole.
TEMENTS, E 243-66915 Buouers	18	Q	And this was filed prior to the deviation of the well?
55, 5TAT 0 HONE 5 T • AL 8	19	А	Yes. Filed and approved before the deviation.
HÉARINGS, 57A7 1092 • Phone 566 • East • Al	20	Q	Now
SITIONS, H O. BOX J			MR. UTZ: Now, excuse me just a moment. This says
NI DEPOSITIO 	22		deviate to vertical, right?
SPECIALIZING IIH. DEPOSITIONS, HÉARINGS, STATEMENTS, EXPER 209 Simms Bldg. P.O., Box 1092.0Phone 243-66910Alb	23		THE MITNESS: The proposed the one I have here
SPECIAL 209 Sin	24	ľ t	hink we have the same exhibit proposed to deviate to
	25	app	roximately 3500 feet and correct holes to vertical or to a

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		PAGE 13
1	330 f	from the south and 330 from the east of Section 281728.
2		MR. UTZ: So this would be notice that you're
3	qoinc	y to deviate to vertical, but not to where you are?
4		THE WITNESS: Yes.
5	Ω	(By Mr. Kellahin) Now, did you have a deviation survey
6		run after completion of the well?
7	A	Yes, we did.
" " " "	Q	And prior to turning to that exhibit, what occasioned
dearnley-meie		your application to the Commission for permission to
U_U_10		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
00 13		drilled by Delhi-Taylor Oil Corporation, and we ran a
15         13           тезтімону, рацья сору, сончемтіоня         13           ди е в хи е х і сов         17 гов           19         12		deviation survey on the old hole, and we knew where the
2 0 15 0 0 15		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.
STATEMENTS, STATEMENTS, ONE 243-609 ONE 243-609 DUE 74	Ω	Now, at the time you were drilling your twin well, did
5 0 • 19		the driller advise you that it was deviating from the
чтора. 2601 - 260 2601 - 260 20	ŧ	vertical?
21 20 20 20 20 20 20 20 20 20 20 20 20 20	A	Yes. We had a contract with the drilling contractor
		who was Roderick Corporation, and our contract with them
SFECIALIZING IN: DEPOSITIONS, HEARINGS, OF SIMMS BLDG J.O. BOX 1092 - PHI FIRST NATIONAL BANK BLDG. EAST 7		was for a maximum of three degrees from vertical.
24. SHECIA		They reported to us that during the early stages
25		of the drilling that the deviation was up to five degrees.

			PAGE ] A
	1		going in a west northwest direction, following the old
•	2		hole drilled by Delhi.
	3	Q	Now, would that have brought it closer to the old well?
	4	Λ	Yes. It was following almost exactly the old
	5		deviation.
	· 6	Ũ	And is that what occasioned, then, your application
5.0 3.1	7		for permission to deviate the hole?
meie	8	A	Yes.
dearnley-meier	9	Q	Now, turning to Exhibit Number 4, would you identify
arn	10		that exhibit, please?
de	11	A	Well, this is Is that the one of our State Number
<b>IN TIONS</b>	12		2, or is that the Delhi well?
TESTIMONY, DAILY COPY, CONVENTIONS querque. New Mexico 87103 em Mexico 87103	13		MR. UTZ: It's the Delhi 14 I've got.
ALY COPY NEW ME. B7108	14		MR. KELLAHIN: The Delhi well.
STIMONY, DAI	15	A	Okay. The Delhi 14, then. It's the deviation survey
	10		which we ran of the old Delhi State Number 14 well,
, EXPERT 91● A L 8 U 8 0 U E, N	17		showing that the well did deviate from vertical to the
TEMENTS, 243-0601	18		west approximately 166 feet.
465, STAT PHONE	19	Q	And then you ran a survey on the new well, too, did you
45, HEARING 27, 1092 + F	20		not?
EFOSITIONS, DIPLOL BOX		A	Yes.
NI DEMO DC.●P. NAL BA	22	Q	And is that Exhibit Number 5?
SPECIALIZING IN. DEPOSITIONS, HEARINGS, STATEMENTS, 200 Simms Bldg. (19.0. Box 1002. Fron E 243-060 201 Simms Bldg. (1002. Fast - Al Bldger	<u>-</u>	A	Yes, sir.
<b>SPECIA</b> 209 Sin 2.1847	24	Ω	And what information is shown on this exhibit?
	25	A	This exhibit shows that our new hole, the Penroc State

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		1	Number 2, was deviating from vertical to the west along
		2	the same direction as the Delhi State 14.
		3	MR. UPZ: Excuse me just a moment. What is the
		4	location of this hole in relation to the 14 again?
*	•	5	THE WITNESS: The 14 was located 330 from the
	uy Si Si sima	6	south and east of Section 281728. The Penroc State Number 2
	C 3 7 8 - 1 - 1 8 - 1 - 1	7	is located 360 from the south and 330 from the east of the
,*	1618	8	same section.
5. <b></b>	dearnley-meie	9	MR. UTZ: Thirty feet north?
		10	THE WITNESS: Yes.
; >	dea	11	$\Omega$ (By Mr. Kellahin) Now, the exhibit shows at what point
4 j	SHOLE	3 <b>12</b>	the bottom of the well was located at the time you set
ξ <b>4</b> Στ	CONVENTIONS		your whipstock or dynodrill?
1-4	DAILY COPY,	× π 8 8 14	A Yes. We set a dynodrill, which is similar to a whipstock.
5 ×	IT, DAIL	14 14 12 15	We set the dynodrill at $3552$ , and at that depth we were
, .	TESTIMONY,		going west northwest.
۰.	5	ar ar ∎r ar ar ar ar ar ar ar ar ar ar ar ar ar	$\Omega$ And did that cause the direction of the deviation from
7 m i	LENTS, E	вородания Вораления Вороления Ворол	the vertical to reverse as shown on the exhibit?
; . <b>.</b>	STA'	u J Z ↓ 19	A When we set the dynodrill, yes, we did turn it back
, •	A A	1001 E AST	toward vertical, or what we were trying to do was set
<u>}</u>	TIONS, H	- x09.00.0 21	it turn it toward vertical or to a regular 330
e *		.o.v ∾.uve: •.uve: •.uve: 22	location.
			$\Omega$ Now, there are two designations next to the bottom
	SPECIALIZING IN	SMMIS 602	location of the well. What is the meaning of those
	SF SF	25	two, MD and TVD?

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				PAGE 15
		1	Α	MD is measured depth at "D. Measured depth is 6158,
		2		and true vertical depth is 6135.61.
		3	Ω	So that accounted for the additional distance on the
		4		deviation?
		5	A	Yes.
t N K		6	Q	Now, as shown on this exhibit, the bottom of your well
€ 4 5 3 - 0		7		is located 123 feet from the south line and 149 feet
neie		8		from the east line of Section 28; is that correct?
dearnley-meier		9		MR. UTZ: 149, and from south
arnl		10		THE WITNESS: We have that on an exhibit which
de		11	will	come up a little later, which will give the exact
	601	12		MR. UTZ: Okay.
	100 87103	13	ð	(By Mr. Kellahin) Now, turning to what has been marked
Y COPY	NEW MEXICO 87108	14		as Exhibit Number 6, would you identify that exhibit?
IIY , IN	ERQUE. N	15	A	Exhibit Number 6 is a structure contour map on top
TESTING		16		of the ABO reef, which is the pay formation of the
EXPERT	אר פר סרובי ערובי	17		field.
STATEMENTS.		18	Q	And what does this indicate, Mr. Castle?
S. STATE	U Z ↓	19	А	It indicates that by deviating our hole, we did not
DEPOSITIONS HEARINGS.	P.O. BOX 1052 PH	20		gain any structural advantage. Actually, we came in
TIONS	0 BOX	21		structurally lower than the old hole was.
		22	Q.	Did you encounter any additional pay section on account
SPECIALIZING IN	SIMMS BLDG.	23		of the deviation?
SPECIAL	204 SIM	24	Α	A minor amount.
		25	0	Appreciable?

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		1	λ	Not enough really to make any difference.
	ł,	2	Q	It wouldn't have been something you would have
	-	3		deviated in order to achieve, would it?
		4	A	No.
		5	Ω	In your opinion, insofar as structural position is
	karan Cari S Kiri Ann	6		concerned, you gained no advantage; is that correct?
	(0.0) 3000	7	A	We actually have less advantage.
	meie	8	Q	Now, referring to what has been marked as Exhibit
	dearnley-meier	9		Number
	arn	10	A	Number 7.
	de	11	Q	7, would you identify that exhibit, please?
	<b>CONVENTIONS</b> ICO 87103	12	A	Number 7 is an Isopach of the Empire ABO Reef.
	<b>У, СОИУЕ</b> XICO 87	13	Q	What information is shown on this exhibit?
	DAILY COPY, New Mex 3 87108	14	А	It shows the thickness of the reef at the old Delhi
		15		State 14 bottom hole location, and the thickness of
	1 EST 2 × ⊂ 7 × ⊡	16		the reef at the Penroc Number 2 deviated location.
		17		And this shows that we had a minor amount of reef
	DEPOSITIONS, HEARINGS, STATEMENTS, EXP P.O. BOX 1092.0PHONE 243-06910A Jank BLDG. EAST ALBUQUERQU	18		thickness at our deviated location.
	INGS, STAT • PHONE : AST • ALE	19	Q	Now, on both of these exhibits there is a dotted line.
•	HEARIN. 1092.0 DG.EA.	20		Is that the cross section shown at the bottom of the
	P.O. BOX 1 3ANK BLDG	21		exhibit?
		22	A	Yes. At the bottom of each exhibit it shows a cross
	SPECIALIZING IN DI 209 SIMMS BLOG I 219 SIMMS BLOG I	23	ĺ	section across the field from south to north.
	SPECIA LCP SH	24	Ω	And that basically is the information available
		25	Δ	Yes.

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PAGE 17

	1	0	on which you based these two exhibits; is that right?
¢.'	2	A	Yes. It just shows a reef thickness across the reef.
	3		MR. UTZ: Now, this is total ree??
₹ 2	4		THE WITNESS: Yes.
	5		MR. UTZ: Not just the pay zone?
C22 C22	6		THE VITNESS: Right.
	7	õ	(By Mr. Kellahin) Now, referring to both Exhibit 6
meie	8		and Exhibit 7, do these indicate that the entire
ley-	9		tract which you have dedicated to your well is
dearnley-meier	10		productive from the ABO reef section?
DERT TESTIMONY, DAILY COPY, CONVENTIONS ALBUQUERQUE. NEW MEXICO 87103 QUE. NEW MEXICO 87108	11	A	Yes, it does. The structural plat, which is Exhibit
	12		Number 6, does show that reef covers the entire forty
	13		acre proration unit, and Exhibit Number 7 shows that
LY COP	14		we do have reef across the entire unit.
ОНУ, DA QUE, 7 X100 в	15	Ω	In your opinion, is the entire forty acres productive
TTESTIM Courses Severa	16		from the ABO?
	17	А	Yes.
<b>TEMENTS, E</b> 243-6691	18	Ó	And would a well located as yours has been located
AT2	19		and bottomed as it is, adequately drain the forty acre
IONS, HEARINGS, BOX 10926PH	20		tract dedicated to the well?
POSITIONS,		А	Yes, I think it will drain. I think they also show
ING IN: DEPO . □ □ □ 0. • P.	22		that we do not have any advantage from a deviated hole,
TIZING I	23		and all we were doing when we deviated was stay away
SPECIALIZIN	24		from the old hole so we would not treat into it.
	25	Ω	Now, referring to what has been marked as Exhibit

		1		Number 8, would you identify that exhibit?
ç,		2	Α	Exhibit Number 8 is a plat showing the relationship
•		3		of several different levels of the lower portion of
1 • 2		4		the Penroc State Number 2 well to the lease lines.
		5	Ú.	And the lease line is the solid line on the right
N 4 61 1 1-104		6		and bottom of the exhibit; is that correct?
		7	A	That's right.
mele		8	Q	Is there anything you want to point out on that,
dearniey-meier		9		in particular?
		10	А	I could point out that we show the top of the reef
06		11		at 5946, which is 134.91 feet from the south line
SHOLTH	103	12		and 158 feet 158.27 feet from the east line. And
SNOILMEARDS AGOS A UNG AROMITSET	EXICO 87	13		the top of the perforation is 5952 or 134.54 feet from
1 Y CDP	NEW ME 87108	14		the south line and 157.93 feet from the east line.
AU THO	0.150 €	15		The base of the perforation, it is 6,032 or
		16		129.70 feet from the south line, 153.41 feet from the
793973		17		east line.
	243-660 BUQUEI	18	Q	And that is the interval that is open in your
54 CT 17	• PHONE	19		Number 2 well
7.84 31	1092 F	20	А	Yes.
ANOIT IS	O. BOX	21	Q	in the ABO?
0.90 7	AMS BLOG. P.O. E	22	A	Yes.
COECILI ITIMG IN. DEUDSITIANS MERRINGS (TATERENTS	SIMMS BLDG.	23	Q	So the bottom of the well, for all practical purposes,
4 L L H Q S	209 SIN 209 SIN F1R5T	24		would be considered the bottom of the perforation;
		25		is that correct?

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A Yes.

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Ō, Do you have anything to add to that, Mr. Castle? Λ No. I think the rest of it explains itself. 0 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? Α 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.

dearnley-meier SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTION NEW MEXICO 87103 87108 209 SIMMS BLDG. # 20, BOX 1002 FHONE 243-6601 # ALBUQUERQUE.

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			PAGE 21
	1	Ú.	And this is shown by your Exhibit Europer 9?
ų ·	2	A	Exhibit Number ? shows that they did bill us for
:	3		drilling the well and gave us credit, then, for
	4		deviating the hole.
2007) 2007 1917	5	Q	Now, Mr. Castle, would the assignment of a full
dearnley-meier teper	6		allowable to this well in any way impair the rights
	7		of your offset operators, in your opinion?
mei	8	A	We don't think so. We think for ten years that the
ley-	9		offset operators have been draining this location,
Barn	10		and should we have less than a full allowable, they
	11		would continue to drain our forty acre location, so
TESTIMONY, DAILY COPY, CONVENTIONS Ouerque, New Mexico 87103	12		we think that we should have a full forty acre
Υ, <b>CONV</b>	13		allowable.
ALLY COPY, CON	<b>14</b>	0	Now, roughly how close is the nearest production to
	<b>15</b>		you?
► ⊃ ;	2 <b>16</b>	A	It is approximately 1200 feet.
• X • A FE	ы По вы	A	So the assignment of a full allowable would not
TEMENTS, 1 243-0651			impair the production from that well, in your
(G IN. DEPOSITIONS, HEARINGS, STAT	- 19 ∙ 19		opinion?
HEARIN	3. <b>20</b>	А	We don't think so, no.
SITIONS	21	Q	Now, will your well make a full allowable?
NI DEP	a 22 v⊻z	А	Yes. We are making right now it's still our
SPECIALIZING IN.	22 23 24 24	1	well hasn't cleaned up and still hasn't settled
5PEC()	1381 24		down to what we think will be normal after another
	25		say, another month's production, but now we are making
		PAGE 22	
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	1	anywhere from 110 barrels of oil per day to 160	
	2	barrels of oil per day. The allowable is 142	
	3	barrels.	
21 - 1	4	Q And you think it will stabalize, then, of sufficient	
€ > 6) £ 	5	amount to produce the full allowable?	
National Color El Dan El D	6	A Yes, we think it will.	
<b>X</b>	7	Q Were Exhibits 1 through 9 prepared by you or under	
mei	8	your supervision?	
dearnley-meier	9	A Yes.	
Barn	10	MR. KELLAHIN: At this time I'd like to offer	
	11	in evidence Exhibits 1 through 9, inclusive.	
TESTIMONY, DAILY COPY, CONVENTIONS Querque, New Mexico 87103 Ew Mexico 87108	12	MR. UTZ: Without objection, Exhibits 1 through	
7, CONV	13	9 will be entered in the record of this case.	
<b>ЛІГҮ СОРҮ, СОМ</b> NEW MEXICO ( 87108	14	MR. KELLAHIN: That completes the examination of	
<b>MONY, D</b> Rque, i exico i	15	the witness, Mr. Utz.	
⊢ <sup>⊃</sup> z	16	MR. UTZ: Are there questions of the witness?	
ts, EX19821 691 • A L B	17	Any questions, Bill?	
FEMEN 243-6 BUQU	18	CROSS EXAMINATION	
165,57Å1 Phone ∆st∮al	19	BY MR. GRISSETT:	
, HEARIN 6 1062 • - DG. EA	20	0 Mr. Castle, you did take a G.O.R. test recently,	
POSITIONS, POSITIONS, POSITIONS, POSITIONS, POX	21	didn't you?	
	22	A Yes, Mr. Grissett. We have had more than one G.O.R.	
SPECIALIZING IN 200 SIMMS PLD	23	test. First, one run by Penroc January 8th, 1971,	
SPECI. 2005	24	tested 190 barrels of oil, G.O.P. of 1158 to 1, with	
	25	twelve barrels of water.	

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	1		Phillips Petroleum Company, our gas purchaser, ran
ue a	2		one on January 20th, 1971, tested 142 barrels of oil,
	3		no reported water, gas oil ratio, 1401.
	4		We ran a Penroc ran another gas oil ratio
	5		test at the request of the Commission on February 11th,
	6		1971,128 barrels of oil, six barrels of water, 786
	7		G.O.R. All of these were twenty-four hour tests.
	8	0	Well, what I was getting at, this one is the required
	9		G.O.R. by the Commission, and the allowable will be
	10		produced unless another test is taken.
	11	A	Are you asking me a question or making a statement?
<b>T TESTIMONY, DAILY COPY, CONVENTIONS</b> Uquerque, New Mexico 87103 New Mexico 87108	12	Q	Well, I guess it's a statement. You are aware of the
	13		fact that this G.O.R., this latest one that the
	14		Commission received, is the one that the allowable
	15		will be assigned on effective the first of next
	16		month?
ж бХ 21 - КХ 21 - КС 21 - СС 21 - СС	17	A	NO, I wasn't familiar with that.
<b>ГЕМЕNTS,</b> 243-069 В U Q U E F	18	Q	Well, it will be reduced to that test effective the
65, 57 А) Рноме 15 т. Аг	19		first of next month unless it is re-tested and makes
5, HEARIN 12 1092 • 1 106. EA	20		more.
OSITIONS .0. BO. Ank BL	21	A	Am I supposed to make a remark? Am I supposed to say
Ni DE≏OS :⊓c.,● ⊅.C :∧ A ⊑ 3 A	22		something?
SPECIALIZING IN. DE*OSITIONS, KEARINGS, STATEMENTS, EXPER 209 Simms Bl.dc. P. J.O. Box 1082.0Phone 243-06910ALB 2.1837 NATICNAL 3ANK BLDG. EAST AND DUDERQUE.	23	Q	Well, I just was wanting to make sure that you were
SPEC() 209-51 21857	24		aware of that.
	25	A	Then I might make a statement that we will make another

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	1	test, then.
t i	2	MR. UPZ: I presumed you would. Anything
	3	further?
an an An an An an	4	CROSS EXAMINATION
2 (1) 1 1	5	BY MR. UTZ:
	6	Mr. Castle, referring to your Exhibit Number 7, what
<b>G</b> .3	7	is the top of the pay zone on this? While you're
leie	8	digging that out, let me ask you another one.
ey-n	9	The contour here is for the entire section, as
dearnley-meier	10	I understood.
e T	11	A Which exhibit are you referring to now?
ITIONS 03	12	Q Referring to 7.
CONVENTI ICO 87103	13	A Number 7?
AILY COPY, CON NEW MEXICO 87108	14	Q Yes.
EXPERT TESTIMONY, DAILY COPY, CONVENTIONS • Albuquerque, New Mexico 87103 que, New Mexico 87108	15	A The Number 7 is an Isopach.
TESTIMONY, D Joueroue. Jewexico	16	Q That's right.
EXPERT ' ● A L B U Q U E. NI	17	A And it shows zero reef north of our forty acre unit.
. <b>-</b> 12	18	Q Yes.
S, STATE Hone 2 51 - Alb	19	A Now, your first question is top of pay. We consider
HÉARING: 1092 € Pt	20	the top of the pay the top of the reef at 5946.
2051710N5, HEARING 2.0. BOX 1092.6 PI	21	Q On
D€ 20517 6.• ⊃.0. AL 3AN	22	A On our State Number 2, yes.
SPECIALIZING IN. DEPOSITIONS, HEARINGS, STATEMENTS, 204 Simms Uldg., P.O., Box 1002, PHONE 243-668 Minst National Dank Blog. East-Albuquel	23	O Well, you don't have it on here, do you?
SPECIALIZIN 204 SIMMS	24	A No.
vi - 2	25	Q But you have got the old Delhi 14?

	1	A	I've got it on Exhibit Mumber 6, which is contoured			
(	2		on top of the reef, which shows the top of the reef,			
	3		I believe, to be at a minus 2334, with an elevation,			
5	4		I believe, of let me see what that is. Of an			
2	5		elevation of 3690.			
internet anti- Netri i Elista Elista	б	Q	Minus 2334 and 3690?			
	7	A	2234 minus 2234 elevation. I may be wrong on			
meie	8		elevation, but I believe it's 3690.			
ley-I	9	Q	That would be 5924?			
dearnley-meier	10	A	What I am using us I don't have an elevation of			
0 6	11		our State Number			
HTIONS	<sub>و</sub> 12		MR. JOHN RYAN: May I interrupt just a moment?			
, CONVE	MEXICO 8103	The	The subsea datums are based on true vertical depth, rather			
TESTIMONY, DAILY COPY, CONVENTIONS	14 80148 NEW WEN	than	the 5946, if there is any difference, and that's the			
IND , THO		reas	on.			
	ани 16 0 на 16	A	Well, I'm using the elevation on the Delhi State			
EXPERT	ng z ⊐∎ng 17 • 0		Number 14. I don't have available the elevation of			
EMENTS,	V 17 V 18 V 18		our State Number 2, which should be very close.			
5, STATI	Z 19	Û	Well, the zigzag line that is across this cross			
HEARING	1092 - FHG		section, you consider it the top of the pay?			
si ti ons,	× 1 <sup>1</sup> 21 <sup>1</sup> × 21	A	The zigzag line across Exhibit Number 7, which is			
4, DE:70	•. J 22		just above the Penroc lease, marked in yellow, which			
PECIALIZING IN. DEPOSITIONS, HEARINGS, STATEMENTS,	10 X 08 10'с - 20 X V 05 00'с - 20 X 00 X 00 X 00'с - 22 X X V 05 X X X X X X X X X X X X X X X X X X		shows zero, is the north edge of the Empire ABO reef.			
1410 B 42	16 E State 24	. O	Mell, I'm talking about the cross section.			
	25	A	Oh, you're down on the cross section?			

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12 Acres of the State of the

PAGE 25

PAGE	$\gamma$	c
	4.4	rn.

	~		
	1	Ω	Yes.
	2	A	Oh, yes. Well, the line then
	3	Ċ	The reason I asked that is that it appears the top of
	4		that line is the top of pay, as you described it here,
.Э. 	5		at about 15 5924, so, now, I'm asking you is that
x /	6		the top of the pay.
3	7	λ	Yes. The top of the reef is the top of the pay, and
	8		this cross section, as Mr. Ryan just pointed out, is
	9		made on true vertical depth.
	10	Q	And that is the contouring point well, no. This
	11		is an Isopach. I'm sorry. We'd better get on this
EXPERT TESTIMONY, DAILY COPY, CONVENTIONS • Albuquerque, New Mexico 87103 que, New Mexico 87108	12		one.
	13	A	Well, the structure map has the same cross section at
	14		the bottom.
	15	Ω	Well, let's see, 5924 here should be minus that
IT TESTIMONY, C BUQUERQUE, NEW MEXICO	16		was minus 2234, right?
m	17	Α	Yes.
<b>FEMENTS,</b> 243-069 BUQUEF	18	Ú	So this is contoured on the top of the reef, then,
PECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, 399 SIMMS ELDG. P.O. BOX 1092 PHONE 243-669 1497 NATIONAL BANK BLDG. EAST-ALBUQUEI	19	:	right?
<b>HEARIN</b> 1092 • F DG. EA	20	λ	Yes.
ЕРСSITIONS, НЕА! P.O. BOX 109: B.ANK BLDG.	21	Ω	And the Tenneco Number 14, the top of the reef is a
MIDEPC DG., P. NALB,	22		minus 2234, which passes through almost through
SPECIALIZING IN: DE 209 SIMMS ELDG.	23		your well?
SPECIA 209 SH F145 T	24	A	No. The minus 2234 is our well. The Tenneco 14 is
	25		a minus 2216.

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			PAGE 27
	1	Ũ	2216? Okay. In other words, it
dearnight fight to the second stores and static stores and stores	2	A	Which shows that we are approximately eighteen feet
	3		low to the old hole.
	4	Ŭ	Yes. Now, does the contour of the structure have
	5		anything to do with the producing qualities of this
	6		reservoir?
	7	Α	Well, yes, we think it of course, the higher that
	8		you come in structurally on the reef, the better pay
	9		section you'll have. The thicker reef section you'll
	10		have. The best wells with the thickest reef section
	11		are to the south.
	12	Ù	Now, these wells I see up in Section 27, I believe it
	13		is, isn't it, the section immediately east of the
	14		section in which you are in, which is Section 28
	15	А	Yes.
	16	Ω	Are those wells and I count on your Exhibit Number
<b>TS, EXPERT</b> 5691 • A L BU	17		6 one, two, three, four, five, six producing wells.
2 2 4 3 - C	18		Are they all producing in the Empire Zone?
	19	A	Which exhibit are you looking at now?
НЕАЯ! 1092 -	20	Q	I'm looking at Number 6 and the
SITIONS,	21	A	The structure map?
IN DEPC	22	ũ	structure map, yes.
CIALIZING IN SIMMS PLOOD	23	A	Well, immediately to the east
SPECIA SPECIA SPECIA	24	0	All right.
	25	Λ	there are seven Empire ABO Reef wells.

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	1	0	And the offset well?
	2	Δ	Offset well is Anco Number 1, Bb.
·	3	Ċ.	Now, what kind of a well is it?
. 1	4	А	It's a full allowable well.
	5	Q	Now, the well immediately north of that, which is the
	6		Knox Sunray Number 1, Sunray State Number 1, was a
Ci 2 X	7		dry hole; is that right?
1616	8	A	It was a dry hole, and or, it was plugged and
ey-n	9		abandoned. I'll put it like that. I don't believe
dearnley-meier repo	10		it was a dry hole. It had thirty-six feet of reef
	11		show with a total reef thickness of 116 feet.
.XPERT TESTIMONY, DAILY COFY, CONVENTIONS • Albuquerque, New México 87103 que, New México 87103	12		We believe it will make a well.
	13	0	These are twenty-five foot intervals on your contour;
	14		correct?
		Α	Yes.
		Q	So the 2250 contour virtually runs through the Pan
	17		American well to the east of you?
TEMENTS, EXI 243-6691-7 80-04ER-04	18	Α	That's correct.
SS, STATE PHONE 2: ST - ALBU	19	0	Now, is that the last control you had for that contour,
HEARINGS, 1092 - PH			where you curve it over in through your proration unit?
TIONS, HEAL BOX 109: FX BLDG	1 )	A	No. We have control for that contour further to the
14: 05:001710 - 06:001710 - 00: 000 B	22		east southeast in the Pan American Number 2, BT State,
CIALIZING 14: • 5:MMS_ULD	23		which is a minus 2252, and cur control for that, if you
SPECIALIZING 14: DEPOSITIONS, HEARINGS, STATEMENTS, EX 200 Simme ULDG. • 3.0. BOX 1092 • FHONE 243-6691 •	24		will notice to the north, we have other contours up
<b>4</b> 7 · • ·	25		there for minus 2300, which goes through the chambers

			PAGE 29
<b>4</b> *	1		in Kennedy. Number 1 ABO State, minus 2297, and then
	2		to the south we have the Pan Am or the Amco Number 3,
	3		BT State, a minus 2234. We have control on both sides
	4		of that contour.
	5	Ŋ	Well, but your control north is well, the only
kan a Cand Da dan	6		control you have north is that Sunray well, right, dry
	7		hole?
DUESTIMONY, DAILY COPY, CONVENTIONS UQUERQUE, NEW MEXICO 87103 NEW MEXICO 87108	8	A	The Knox Sunray State immediately north, yes, but we
	9		have other control to the northeast.
	10	Q	Yes. Well, I noted that the 2225 to 2250 contour
	11		spread out pretty wide after you left the Pan American
	12		well at 2247, minus 2247, and I just wondered what is
	13		your reason for widening the interval between those two
	<b>14</b>		contours.
	<b>15</b>	А	We have very good control. We have the Knox Sunray
	™ ≈ 16 ⊎ z		State minus 2269.
e< 0	<sup>11</sup> 17	Q	Yes.
TEMENTS, E	ຟ ດີ <b>18</b> ດີຍ	A	We have the Yates Number 1, minus 2289.
65, 57A7 Phone		Q	Now, where is that?
. HEARINGS, 57A	<ul><li>4</li><li>20</li></ul>	А	That's immediately east of the dry hole that you have
SITIONS	ם 19 <b>21</b> אוע פר		mentioned, the Sunray Knox well.
а Осе В		Q	Yes.
SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPE . 05 SIMMS BLDG P.O. BOX 1002 - PHONE 243-6601 - AL	22 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	A	And we have the Pan Am-Amco Number 3, BZ State to
SPECIAL 2004 SIN	<u>-</u> 24		the east, still a minus 2335. Very good control,
	25		every forty acres, every location, we have control.

	1	Ü	And how about the Delhi wells over to the west?
· · ·	2	λ	Well, the old Delhi -
	3	Q	That will offer you some control?
	4	А	The old Delhi 14, which we have control minus 2216, and
	5		then straight west we have the Castle and Wigzell
2	6		Number 2 State, a minus 2229, and then to the south,
C. 2 3	7		of course, we have Atlantic Richfield. We don't
i e i e	8		think you could have any more control.
dearnley-meier	9	Ω	Now, referring hack again to Number 7, it's your
arn	10		statement that the top of the reef is the top of the
de	11		pay zone?
TESTIMONY, DAILY COPY, CONVENTIONS Querque, Néw Mexico 67103 Ew Mexico 87108	12	A	Yes.
	13	Q	Now, how far down into the reef does the pay zone
	14		penetrate?
	15	λ	We think there is pay through the entire section of
	16		the reef. The base of the reef is 6135 measured depth.
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	17	Q	So it's your contention, then, that where your contour
TEMENTS, EX 1640091 ● 1 100001 ● 1	18		reaches zero is the end of the productive area?
5, 57ATE Hone 2 T•Aùb	19	A	Yes. We think if we are inside the zero line, we
<b>HEARINGS</b> 1002 € PH D.C. EAST	20		have a very good chance of making a well, probably an
TIONS, F	21		allowable well.
<b>derosi</b> 1 6.• °.0. Al ban	22	Ω	How do you explain the old Delhi Number 14 not being
LIŽING IN: DEPOSITIONS, HEA Ams blog 7.0. box 109 National bank blog.	23		a very good well?
SPECIALIZING IN. DEPOSITIONS, HEARINGS, STATEMENTS, E) 1995 Simms Bldg., ?.O. BOX 1992, PHONE 243-6691 1857 National Bank Bldg. East AlbUQUERQ	24	λ	Okay. I said on the Delhi 14, when it was drilled
20	25		I'm an ex-employee of Delhi. However, at the time they

PAGE 30

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.

SPECIALIZING INI DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS 2009 Simmes Bldg. (\* 19.0), Box (1002 (\* 1400 NE 243-1660) (\* Albuquerque, "New Mexico 87103 10 Net National, Dank Bldg. East (\* Albuquerquer, New Mexico 87108

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		1		And I think that our Number 2 State proves that,
4	2		since we didn't improve ourself any structurally or	
		3		thickness wise on the reef, and we're making a good
<ul> <li>x</li> <li>4</li> <li>x</li> <li>x&lt;</li></ul>	4		well. I think that proves that.	
	5	2	Well, the bottom of your well, then, in your opinion,	
		6		is eighteen feet higher than their well? Was that the
200 200		7		figure?
neie		8	A	What did you say?
ey-I		9	Ω	The pay zone of your well, what is the relationship
dearnley-meier		10	λ	It's approximately eighteen feet low to their well.
qe	11	Ŋ	Low, yes. So you gained eighteen feet of structure?	
XPERT TESTIMONY, DAILY COPY, CONVENTIONS Albuquerque, New Mexico 87103 iue, New Mexico 87108	12	A	We lost structurewise, we lost.	
	XICO 87	13	Q	I'm sorry. All right. All right.
	EW ME.	14		MR. KELLAHIN: You didn't perforate the lower
	ж. 1902-х х-со	15	zone	as it was perforated in the
TESTIM	UQUERQUE. NEW MEXICO	16		THE WITNESS: No, I didn't. We did not we
	• o	17	perfo	orated the section which I tried to get Delhi to
DEPOSITIONS, HEARINGS, STATEMENTS,	243-6691+. BUQUERQU	18	perfo	orate.
55. STAŤ	● PHONE	19		MR. UTZ: Are there other questions of the witness?
HEARIN	X 1092 • F	20	Q	(By Mr. Utz) Mr. Castle, we have here your well file
SI TIONS.	P.O. BOX	21		and your 103, which I imagine you are familiar with.
		22		It's dated 12-21-70, where you request permission to
SPECIALIZING IN	SIMMS ULDG.	23		deviate, and I believe this is one of your exhibits,
5PECIAL	202 SIN 202 SIN 7185 T	24		isn't it?
		25	Λ	Yes, it's Exhibit Number 3.

<del></del>		
1	Ú.	But in addition to the exhibit, you have some figures
2		here showing where the well deviated. Now, these
3		figures are what, Totco?
4	A	No, no.
5	Ō	Or what?
6	A	No. They didn't have Totco. We had an idea that the
7		well would deviate to the west northwest as the old
8		Delhi 14 did, and for that reason, the Totco only shows,
9		you know, the amount of deviation off of vertical. It
10		doesn't show the direction. So for that reason
11	Q	Yes.
12	A	we had a Monelle collar and another type of
13		deviation tool, which they ran, so we could also tell
14		the direction of deviation. And we had that there at
15		all times.
16	Q	And this showed you where five degrees to the north
17		northwest
18	Α	This exhibit doesn't show that.
19	0	Well, these notations here do. Are these yours or
20		MR. GRISSETT: Yes.
21	λ	Those are the notations which I gave Mr. Grissett at
22		the time I requested to deviate the hole. Those
23		deviations were given to me by the drilling contractor.
24	Q	I see.
25	A	And it was they had no reason to actually, it
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	2         3         4         5         6         7         8         9         10         11         12         13         14         15         16         17         18         19         20         21         22         23         24

PAGE	34	

	1	would have been better for them if they had told me
	2	that it was less than three degrees, because when it
	3	was more than three degrees, they had to correct it.
	4	And as one of our exhibits shows, they did pay
	5	for correcting the holes. Those are not my figures.
т	6	That's the drilling contractor's figure
230 2	7 <u>0</u>	This is Sperry Son
neie	8 A	which was reported to me.
<b>By-1</b>	9 Q	Excuse me. Are you finished?
dearnley-meier	10 A	Yes.
	<b>11</b> Ω	And this Sperry Son survey, though, at that same
<b>VENTIONS</b> 87103	12	depth shows less than one degree?
NO C	13 A	Well, yes, and I tend to agree with Sperry Son.
8 × CC	14	However, I think you will notice that we don't have any
AONY, DAIL	15	deviations from Sperry Son at those exact intervals, so
TESTIMO O∪ERC Ev ME	16	we're not quite sure about that.
	17	But I tend to paree with Sperry Son.
ТЕКЕНТ\$, П 849-6691 - 8000681	18 Q	Well, now, it's from 3346, 3345.78, and then the next
ST A	19	interval is 3599, and you deviated at 5551, so that was
. 20 2.5 . 2	20	in the neighborhood of close to fifty feet a hole with
ан сан сан сан сан сан сан сан сан сан с	21	the claim 3345 and 3599, there was, well, less than
> U	22	two degrees, according to your Sperry Son. Now, you
SPECIALIZING IN, DE	23	say you're going to agree with Sperry Son, but you didn't
SPECIAL 209 SIM	24	have that available
	25 A	No, we didn't.

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		PAGE 35
	1	0 at the time you
	2	A No. We didn't have that available until we got it to
	3	the depth.
	4	Q So to the best of your knowledge, the figures you
	5	gave the district office, and which are on the 103
	6	and the well file, are correct, according to your
	7	contractor?
	8	A I gave the deviations as reported to me by the drilling
	9	contractor, and they didn't have any reason to tell me
	10	something that wasn't true, because it was costing them
	11	almost \$4,000 to give me those deviations.
	12	MR. UTZ: Does that answer your question?
~	13	MR. GRISSETT: Yes.
87108	14	MR. UTZ: Are there other questions? Witness
IEW MEXICO 6	15	may be excused.
NEWME	16	Statements in the case?
BUQUERQJE.	17	Case will be taken under advisement.
BUQUE	18	
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LDC.0.DOX 10920PHONE Onal Hank BLDG. Eastoal	22	
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DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT YESTIMONY, DAILY COPY, CONVENTIONS

.DC.+ -.O. BOX 1092+PHONE 243-0691+ALBUQUERQUE, NEW MEXICO 87103 NAL JANK BLDG. EAST+ALBUQUERQUE, NEW MEXICO 87108

Me, 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.

Glendo Burks

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December <sup>2</sup>3, 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 Cil 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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BEFORE SXAMINER UTZ
OIL COPSERVICES OF A SECTION
1,400
CASE NO. 4503

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# SPERRY-SUN

### **DIRECTIONAL SURVEY REPORT**

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PENROC OIL CORPORATION



TYPE OF SURVEY:_	MANTE	C MILEISHOP	
SURVEY DEPTH: FR	OM	FT. TO6158	FT.
LEASE: STA	75 <b>-</b>	WELL NO	
FIELD:			·····
COUNTY/PARISH	<u> </u>	STATE	EX 100
DATE OF SURVEY_	J.n. 1., 1771	JOB_NO	
OFFICE:	<u>CLESSA, CEXAS</u> LO-3-1106		

SP 135C

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	*:09'CB		
/XX8,Gary D. B.	enson		
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perry-Sun Well Surveying		<u></u>	
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		day of	
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( <sup>200</sup> )

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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.

Tarij 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 \_\_\_\_\_

PORH SP-220 (REV. 8)

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

				Lease	<b>.</b> .		Well No.	-7
<u>Tennoa Oil</u>	Corporatio	Township	1	Bange		unty	······	2
5			200			-		
Actual Footage Loc	28 Setten of Wells		175	<u>28E</u>		Eddy		
		0.44	<b>N L L L</b>	330	<b>.</b>		· •	
360 Ground Level Elev:	feet from the	South Formation	line and	<u></u> P <sup>∞1</sup> /	leet from	m the East	Dedicated Acreage	
680	Abo			Empir	. cho		40	•. A
			L			· · · ·	a the plat below.	^
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PAGE 1 JANUARY 4 1971 BNG CLOSURE DATE OF SURVEY JANUARY 4 1971 VERTICAL SECTION COMPUTED ALONG CLOSURE 11 DEG EAST MAGNETIC CORRECTION APPLIED MS+6971

PENROC OIL CORPORATION STATE LEASE WELL NO 2 EMPIRE ABO FIELD EDDY COUNTY NEW MEXICO MAGNETIC MULTISHOT SURVEY

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33001

## SPERRY-SUN WELL SURVEYING COMPANY Record of survey

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MEASURED	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION		TION	DØG+LEG SEVERITY	VERTICAL	RECTANGULAR COORDINATES			
DEPTH		DEG	MIN		DEC	3		SECTION	NORTH	SOUTH	EAST	WEST
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819.	818+98	0	45	S	73	W	+07	<b>≈</b> ∎93		•78		2+55
1071.	1070•97	0	30	N	81	W	<b>1</b> 5	•2•53		• 4 4		4+73
1324.	1323+96	0	30	S			•08	#3+44		•93		6+88
1577+	1576.94	Ó	45	N	76	W	•15	<b>=6.03</b>		•13		10+09
1830+	1829+93	Ō	30	N	9	W	•28	•7 <b>•</b> 97	2+05			10+44
2083.	2082•92	0	30	N	57	W	•16	<b>*10.05</b>	3+25			12,29
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2588.	2587+86	1	0		15		+33	•16+91	8+64			16+53
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PAGE 2 DATE OF SURVEY JANUARY 4 1971 VERTICAL SECTION COMPUTED ALONG CLOSURE 11 DEG EAST MAGNETIC CORRECTION APPLIED MS+6971

3003 PENROC BIL CURPORATION STATE LEASE WELL NO 2 EMPIRE ABD FIELD EDDY COUNTY NEW MEXICO MAGNETIC MULTISHOT SURVEY

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231,824

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#### SPERRY-SUN WELL SURVEYING COMPANY RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	INCLINATION		DIRECTION			RE	CTANGULAR	COORDINA	COORDINATES	
		DEG	MIN	DEG	SEVERITY DEG/100	VERTICAL SECTION	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	•55	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)

1. 1. N. (\* 17) ) ) ) 151,25 144.70



### SPERRY-SUN WELL SURVEYING COMPANY

CHARLES E. HAWK PRESIDENT P.O. Box 2133 Odessa, Texas January 7, 1970 JOS. T. WILSON, JR. SECRETARY-TREASURER

Care 4503

PENACC CIL CORP. P.O. Pox 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

'aruí N. Benn

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 CON-SERVATION 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 SAST LINE OF SAID SECTION 28 SHOULD BE APPROVED AND WHY THE ALLOWABLE ASSIGNED TO SAID WELL SHOULD NOT BE REDUCED TO OFF-SET 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. Uts.

NOW, on this <u>23rd</u> 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 Bast line of said Section 28. -2-CASE NO. 4503 Order No. R-4122

(4) That the subject case was called by the Oil Conservation Commission on its own motion to permit Panroc 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

-3-CASE NO. 4503 Order No. R-4122

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 Bast 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 "he day and year hereinabove designated.

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STATE OF NEW MEXT. O OIL CONSERVATION COMMISSION

BRUCE KING. Chairman

e= ( ALEX J. ARMIJO, Mamher

A. L. PORTER, Jr., Member & Secretary

BEFORE THE OIL CONSERVATION COMMISSION OF NEW MEXICO

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I. 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 TC 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 approved 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 <u>party adversely affected</u> 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 <u>person</u> affected thereby may file with the commission an application for rehearing \* \* \*", but the same section, sub-section (b) provides that "Any <u>party</u> 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 <u>parties</u> 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. <u>Braun v. Brown</u>, 87 P. 2d 1009 (Calif.). "Party affected" means only such persons as are technically parties to the action or their representatives. <u>Martin v. Kanouse</u>, 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.

-3-

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

-4-

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.

I hereby certify that a true copy of the foregoing instrument was mailed to opposing counsel of record this 6 th, 19 11 W. Kille

Respectfully submitted, PENROC OIL CORPORATION

Kason W. Malloh By. KELLAHIH & FOX, Attorneys for Penroc P. O. Box 1769 Santa Pe, New Mexico

-5-
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 120.7 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. <u>Penroc Claim</u>: 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

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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. <u>Penroc Claim</u>: 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. <u>Penroc Claim</u>: 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. <u>Penroc Claim</u>: 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

-2-

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

-3-

its Nc. 2 Well to the vertical or to an orthodox location at 330 feet from the South and East lines of the unit.

Respectfully submitted, 7.60 all

GUY T. BUELL, Attorney



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Amoce Production Company

July 2, 1971

Oil and Gas Building P.O. Box: 5410 Fort Worth, Texas 76101

tile 4503 Cone 4503 (Deror)

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.

truly yours un GUY T. BUELL, Attorney

GTB:mc Enclosure

т. ац. і PAN AMERICAN PETROLEUM CORPORATION : ى INSTRUCTION LETTER Ę Effericive: May 21, 1970 FW-722 Temporary Letter 1545 OIL AND GAS PRORATION Contents A. Proration Hearings B. Preparing Kansas Hugoton Field Ratable Take File C. Preparing Kansas Hugoton Field Overage/Underage Printouts D. Following Ratable Take from Gas Wells When Proration is Regulated by Purchaser in Certain Fields Supplements 1. Form 663, Gas Production Record 2. Reporting Average Net Calendar Day Allowable - Texas and New Mexico 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. 8. Preparing Kansas Hugoton Field Ratable Take File 1. Prepares Kansas Hugoton Field Ratable Take File **Computer** Operations printouts. (Computer User Instructions Control Manager 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 3. Reviews update routine and handles debugging Supervisor 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 Gas Sales Supervisor. Two Copies Сору

File.

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#### OIL CONSERVATION COMMISSION

P. O. Box 871 Santa Pe, 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 <u>personally</u>. 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.

Core 4504 Finds (1) (2) That Pennoe Cil Corporation is the annew and apecator of the Pennor ail Corporation state well No. 2 horing a surface location 360 fat from the south line and 330 feet from The East line of section 28, Tourship 17 South, Ronge 28 Est, Empire abo Pool, Eddy Camby. new Varies. (3) that the above described well has its perforte lowemant perforation at a bottom-bale location 129.70 fat from the Sauth line and 153. 41 fat from the East line of said section 28. 141 That the subject care was called by the all currentin Commission on its and mation to to primit Person Del Corperation and all other interested persons to appear and show some why the intentional descention of the subject well. to the above decembed should be spraced and why the allowable assigned to rised well shared not he reduced to offset any advantage gained by said batton lale location over atten peoducers.

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(10) That the subject no advatage was gained by the share - described battom hale location over atten afeators producers in the paul. W that the intentional desiration of the subject well should be approved and

(11) That in ache to effort Pensoe Oil Corporation the apportunity to produce ats just and equitable show y the oil in the Empire also Pool, present the lonour loss caund by the dulling y unnecessary wells, oraid the augmentation og rick aning from Ele diellig og an excernie marken g calls, and to alkinine frenest wante and prater correlation rights, to intentional desiation of the subject well should be approved and the no adjastment shereld be made to the allowable assigned to the well on account of said devialini

Ordered ! (1) That the interim deviation of the Pennor Gil Corporation State Well res. 2 from a surface location 360 fat from the farth line and 330 feet from the Earl line of section 28 Township 17 faith. Kang 28 East, Empire - also Pool, Eldy County Free Mexico, to a bottom hale location lining its lower perfectanin

129.70 fat from the south Cine and 153.41 feel from the Bal line of said seeling 28 is hereby afferrand. \*\*

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(2) Junio -

Careed S 6 3 3

Amoco Production Com	pang) -
Oil and Gas Building P.O. Box 1410 Fort Worth, Texas 76101	1.22
Producing Department	
April 16, 1971	

File: DRC-217-986.510.1

Subject: de n

de novo Hearing Request Order No. R-4122

New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Gentlemen:

D. L. Ray Division Engineer

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

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covould be an confain burden on all pailies provent. maled to head the Ceese, Oncoro -made appearance by telegre only. Il The case was heard and & can find as expland orang dry begrage in the SE SE 0,28 and the bottom of the hole is bottomelon the lease partably topathy from the Decese link them I many other evella in this & athey & foolas The expaination as lowlights well towas deviated was reasonable, I then for Ree zit reason to cleetait Pennon allowable for the levit. Locommend and only be essued granting The location and full 40 1A. allowable. This

Care 4503 Kecond 2-24-71 Ksc. 2-26-71, This case was called on the commissions motion to blain con explanation on the necessity for the deviation of the well to a bottomed location. 12320 from the So. tino and 148.74' fear the Eat line 1) see. 25- 175-28E. The serface/location heing 360/5, 330/F. of sec. 78. Cempro requester a contenname on this ease 2-22-71 × were informed by a commission spokesman to cetterupt to get an agreement to contentuanteen Vano, Line for orgoan ready ables, willing to report to the Kommission call they evouldn't eque to costin ucure & made ceppear. cence cel the hearing out 27th. + appired to be heard. Since The cell was by the commission To Vennon and they convellar altanter and comprision person from Secular & alexia hours there ready a withing to here the cases and firstly since Centro had as much time as other interested parties to prepar it seemed to the examine That to conterme the care

#### DOCKET: REWELLIG - WARNESDAM - MULL 16, 1971

OIL CORSERVATION COMMISSION - 9 A.M. - MORGAN MALL, 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 protated 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 Penazoil 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 P. Antweil Joell Well No. 1 located 660 feet from the North line and 1980 fest 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 Penroe 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 fast from the South line and 149 fast 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.

Regular Hearing Wodnesday - June 16 1971 -2-

Upon application of Amoco Production Company, this case will be heard fo Novo under the provisions of Rule 1220.

THE FOLLOWING TASES WILL BE REARD REFORE DANIEL S. NUTTER, EXAMINER, OR ELVIS A. UT2, ALTERPATE EXAMINER, IN THE OIL CONSERVATION CONTENENCE 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 abovestyled 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 abovestyled 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 1863-1960

. C. I CHARLES F MALONE RUSSELL D. MANN PAUL A COOTER BOD F. TURNER REDERT A JOHNSON JOHN W. BASSETT ROBERT E. SABIN

(ð (\*)

RUFUS E THOMPSON

P. O. DRAWER 700 SECURITY NATIONAL BANK BUILDING ROSWELL, NEW MEXICO 88201 (505) 622-622I JUNE 10th 1971

Mr. A. L. Porter, Jr. Executive Director Oil Conservation Commission State Land Office Building Santa Fe, New Mexico 87501 4503, Examiner Hearing June 16 Re: Case No.

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,

Malnu US

Charles F. Malone

С  $\mathbf{F}$ М \* v

Encls.

Cc: Guy Buell, Esquire w/encls. Harry O. Hickman, Esquire w/encls.

#### BEFORE THE OIL CONSERVATION COMMISSION

#### STATE OF NEW MEXICO

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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 20 Attorneys for Amoco Production

Company Post Office Drawer 700 Roswell, New Mexico 88201

Can \$ 4.503



#### **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. <u>R-4122</u>

Applicant:

Kellahin & Fox Attorneys at Law Post Office Box 1769 DCALAS WARSD Penrog Oil Corporation Santa Fe, New Mexico

Mr. Jason W. Kellahin

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, h. Forter . h.

A. L. PORTER, Jr. Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC Artesia OCC\_\_\_X Aztec OCC State Engineer\_

Other Mr. Guy Buell, Amoco Production Company

		No	. #83	I CM
То	CORPORATION Abo State #1 MIDLAND, IEXAS P. O. Box 1767 PENROC OIL CORPORATION Drawer 831 Midland, Texas 79701 CORPORATION Ordered by Mr. Brain CORPORATION MIDLAND, IEXAS -E, East En County, New Date January 5, 1 Your Purchase Order No. Ordered by Mr. Brain	28, ' apir ' Me .971	T-17-8 e Fiel exico.	s <u>,</u> <u>R</u> -24 3, Edd
DATE	DESCRIPTION		AMO	NINI
	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: 4% New Mexico Tax	(8 (	3,469 138	
	Total Credit Due	(\$	3, 608	11)
	CASE NO. 4523			
	Thank you!			

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

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Do Drilling Contract dated	Deceraber 1st,	, 10 _70	
owner	Corporation	Contractor	Rod Ric Corpor

Well Name and Number\_\_\_\_

Restande 2 <u>Abortana Ab</u>

Rod Ric Corporation

#### SPECIFICATIONS AND SPECIAL PROVISIONS

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1. CASING PROGRAM (See Per. 8)

	Size	Weight	Approx. Setting Depth	To Be Set Dy	Allowed Cement Time
Conductor Surface	in. <u>8_5/8<sup>11</sup>in.</u>	lbs./it.	ît. 600 eachît.	as re	hours
Protection Oil String	$\frac{1}{5 1/2^n}$ in.	lbs./it.	it. 	asre	hours quiredhours
Liner Tubing	in. in.	los./it. lbs./it.	ít. ít.		
2. MUD CON	NTROL PROGRAM (See Pa	r. 10.3)			

Depth Interval Weight Viscosity (Secs) Water Loss (cc) Type Mud (lbs./gal.) (it.) To From ្រា T D<u>As required</u>

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 Grilling operations to be resumed.

Other mud specifications:\_ None.

STRAIGHT HOLE SPECIFICATIONS (See Port 10.5)

Well Depth		Maximum Distance Maximum Deviation Between Surveys, from Vertical,		Maximum Change of Angle (or Over-All Angle) Between	
From To		Feet	Degrees	Any Two Surveys, Degrees	
6001	T. D.	500'	30		
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
		·			
		· · · · · · · · · · · · · · · · · · ·		•	
			<u> </u>	·····	
tion of well be	nte st	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 aport. If such intermediate surveys show that above limits for any interval have been exceeded. Contractor shall correct hole deviation to within limits of atove specifications.

e. When directional surveys are required, the change of angle shall be the change of over-all angle.

A. INSURANCE (See Par. 18)

4.5

4.0

- 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, 600, for each accident.
- 4.3 Comprehensive Public Liability Property Dumage Insurance or Public Liability Property Dumage Insurance with limits of
- not less than § 100,000 for each accident and § 300,000 aggregate per policy. All Automobile Public Liability Insurance with limits of § <u>100,000</u> for the death or injury of each person and § <u>300,000</u> for each accidenc; and Automobile Public Liability Property Damage Insurance with limits of 50,000 for each accident.

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oor	229 O 130 LA 227 E MIDIANO, TEXAS P. O. Dox 1969	0 147	1250 Seeke 20, 20,114 Mari 20 20, 224 de Margi Coursey, New .	; 0-07-8, 120 Mola, 1	2-20
· Ponteo Oil Corporation		Dute	December 31,	1970	
. Drawor 831 Millind, Dexas 79701		Your Pure	hase Order No.		
•		Ordered i	by Mr. Drac	e Wigzell	
	0(5(**?)) 0(5(**?)) 2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2	، بصفره روز جرد . د. ترقی محمد و روز جرد . د. ترقی		anana mengahananan AVGy+1 Lananan - Lanananan -	
To invoice you as follows Daywork to 62001 on subj				\$35,380	00
Move in, rig up, rig dow	n, and move rig off l	ocation -		5,850	00
	· · · ·	•	SUBTOTAL	\$41,230	00
	4% N	lew Mexi	co State Tam	1,649	20
			TOTAL	\$4 <b>2,87</b> 9	20
	-			•	
	· ·				
	· · ·				
		:	H 6		
	THANK YOU !	<u>_1_</u>	#6		
6.4- <sup>15</sup>	THANK YOU !		Ħ 6		

Note: All Blus Due and Payable 30 days after date of involce. 7% interest Charged on Past due Accounts.

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INVOICE
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No. #831 CM

		$\circ \circ :$ $\sim \circ \circ :$ $\sim \circ $		Abo State #1, 360' ESILE 330
		• • • • • • • • • • • • • • • • • • •		PEL, See, 20, T-17-S, R-28 -D, East Empire Field, Eddy County, New Mexico.
້າວ	•	PENROC Off. CORPORATION Drawer 331	Date	January 5, 1971
	•	Midland, Pexas 79701	Your Pur	rchase Order No.

Ordered by Mr. Brace Wigzell

DATE	DESCRIPTION	INUOMA
	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: 4% New Mexico Tax	(83,469 34) ( 138 77)
	Total Credit Due	(\$3,608 11)
	Pay Last Amount in This Column	>

#### OIL CONSERVATION COMMISSION P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

February 25, 1971

Mr. Guy Buell Amoco Production Company Post Office Box 1410 Fort Worth, Texas 76101



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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 NS	A391	1971 FEB 23 PM 4 07
NS FWB219 MB PD A L PORTER JR SEC		T WORTH TEX 23 430P CST=
NEW MEXICO	OIL CONSERVATIO	DN COMMISSION
STATE LAND	OFFICE BLDG SAN	TA FE NMEX 8750 1
RE CASE 4503 OIL	CONSERVATION C	OMMISSION EXAMENERS PH 4 24
HEARING SCHEDULE	ED FEBRUARY 24,	197 1 -=
AMOCO PRODUC	TION COMPANY, A	S AN OPERATOR IN THE
EMPIRE ABO POOL	RESPECTFULLY R	EQUESTS CASE 4503 BE
CONTINUED OUR AT	TORNEY IS NOT A	VAILABLE TO BE PRESENT A
THE HEARING AS N	NOW SCHE DULE D DU	E TO HIS PRESENCE BEING
REQUIRED IN ANOT	HER MATTER WHIC	H WAS SCHEDULED PRIOR TO
THE ISSUANCE OF	DOCKET 5-71, CAL	LING CASE 4503 . AMOCO



				(	No. #831 831
•			PORAT: MIDLAND, TEXAS P. O. Box 1767	ION	Abo State #1, 360' FSL & 330' FEL, Sec. 28, T-17-S, R-28- E, Ea st Empire Field, Eddy County, New Mexico.
	Penroc Oil Co	orporation		Date	December 31, 1970
	• Drawer 831 Midland, Tex	as 79701		Your Purc	hase Order No.
	•			Ordered b	y Mr. Brace Wigzell

DAIE	DESCRIPTION		1
	To invoice you as follows: Daywork to 6200' on subject well	<b>\$</b> 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 I L		
	Pay Last Amount in This Column	→ · · ·	$\mathcal{O}$

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

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	FILE	1	EST FOR ALLOWABLE	Eliective [-]-	65
l	U.S.G.S.	AUTHORIZATION	AND TRANSPORT OIL AND NA	TURAL GAS	
}	LAND OFFICE			2 <b>y</b>	
	TRANSPORTER GAS	JAN 25 1971		·	
ļ	OPERATOR	- <b>D.</b> S. B.		· - •	
1.	PRORATION OFFICE	ARTEGIA, OFFICE			
		Corporation			
	Address P. O. Dra	wer 831, Midland, T	axas 70701		
ł	Reason(s) for filing (Check proper bos		Other (Please et	xplain)	
	New Well X Recompletion	Change in Transporter of: Oil	Dry Gas		
	Change in Ownership		Condensate		
	If change of ownership give name				
	and address of previous owner			·	
<b>u</b> . j	DESCRIPTION OF WELL AND	LEASE			
	Lease Name State	Well No. Pool Name, Inclus 2 Empir		ind of Lease ate, Federal or Fee State	B-457
ł	Location	~~l		Jiate	<u></u>
	Unit Letter P ; 36	0 Feet From The South	_Line and330	Feet From The East	
	Line of Section 28 To	waship 175 Range	. 28E , NMPM,	Eddy	Cour
•			<u> </u>		
<b>u.</b> 1 [	DESIGNATION OF TRANSPOR			which approved copy of this form is	to be sent)
	The Permian Corpora		P. O. Drawer 8	31, Midland, Texas	79701
	Name of Authorized Transporter of Ca Phillips Petroleum C		Address (Give address to )	which approved copy of this form is	to be sent)
$\left  \right $	If well produces oil or liquids,	Unit Sec. Twp. Rg	Bartlesville, O is gas actually connected?		
	give location of tanks.	<u>P 28 175 2</u>	28E No	Waiting on conne	ection
	If this production is commingled wind COMPLETION DATA	th that from any other lease or y	pool, give commingling order n	umber:	
ſ	Designate Type of Completi	on (Y) Oil Well Gas W	fell New Well Workover	Deepen   Plug Back   Same Re	afy. Diff. Re
}	Date Spudded	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.	
	12/14/70	1/12/71	6158'	6140'	
ſ	Elevations (DF, RKB, RT, GR, etc.) 3680 G. L.	Name of Producing Formation Abo	Top Oll/Gas Pay	Tubing Depth	
ł	Perforations		5946'	5897 <sup>1</sup> Depth Casing Shoe	
	5952'-			6157'	
ł	HOLE SIZE	TUBING, CASING CASING & TUBING SIZE	AND CEMENTING RECORD	SACKS CEI	MENT
ł	11"	8-5/8" casing	614'	425 sa	
. }	7-7/8"	4-1/2" casing 2-3/8" O. D. tubi	<u>6157'</u>	500 sa	icks
ŀ		1 - 2 - 37 $0, D, $ tubi	ng 5897'		
	TEST DATA AND REQUEST F			of load oil and must be equal to or	exceed top a
រ	OIL WELL Date First New Oil Run To Tanks	Date of Test	his depth or be for full 24 hours) Producing Method (Flow, p	ump, gas lift, etc.)	
	1/8/71	1/19/71		lump	
ĺ				<b>_</b>	
	Length of Test 24 hours	Tubing Pressure	Casing Pressure 25 PSI	Choke Size	
	Longth of Tool 24 hours Actual Prod. During Tool		Casing Pressure 25 PSI Water-Bble.	<b>_</b>	
	Length of Test 24 hours	Tubing Preasure 25 PSI	25 PSI	Choke Size Open	<u></u>
	Longth of Tool 24 hours Actual Prod. During Tool	Tubing Pressure 25 PSI Oll-Bbls.	25 PSI Water+Bble.	Choke Size Open Gas-MCF	<u></u>
	Length of Test 24 hours Actual Prod. During Test 202	Tubing Pressure 25 PSI Oll-Bbls.	25 PSI Water+Bble.	Choke Size Open Gas-MCF	
	Length of Test 24 hours Actual Prod. During Test 202 GAS WELL	Tubing Pressure 25 PSI Oll-Bble. 190	25 PSI Water-Bble. 12	Choke Size Open Gas • MCF 2.2.2. MC Gravity of Condensate	
	Length of Test 24 hours Actual Prod. During Test 202 GAS WELL Actual Prod. Test-MCF/D	Tubing Pressure 25 PSI Oll-Bble. 190	25 PSI Water-Bble. 12 Bble. Condensate/WMCF	Choke Size Open Gas • MCF 2.2.2. MC Gravity of Condensate	
	Length of Test 24 hours Actual Prod. During Test 202 GAS WELL Actual Prod. Test-MCF/D	Tubing Pressure 25 PSI 011-Bbls. 190 Length of Test Tubing Pressure (Shut-in)	25 PSI Water-Bble. 12 Bble. Condensate/MMCF Casing Pressure (Shut-in	Choke Size Open Gas • MCF 2.2.2. MC Gravity of Condensate	
/1. (	Length of Test 24 hours Actual Prod. During Test 202 GAS WELL Actual Prod. Test-MCF/D Testing Method (pitot, back pr.) CERTIFICATE OF COMPLIAN	Tubing Pressure 25 PSI Oll-Bbls. 190 Length of Test Tubing Pressure (Shut-in) CE	25 PSI Water-Bble. 12 Bble. Condensate/MMCF Casing Pressure (Shut-Ir OIL CO	Choke Size Open Gas - MCF 2.2.2 M( Gravity of Condeneute b) Choke Size NSERVATION COMMISSIO	N
/1. (	Length of Test 24 hours Actual Prod. During Test 202 GAS WELL Actual Prod. Test-MCF/D Testing Method (pitot, back pr.) CERTIFICATE OF COMPLIAN I hereby certify that the rules and Commission have been complied v	Tubing Pressure 25 PSI Oil-Bbls. 190 Length of Test Tubing Pressure (Shut-in) CE regulations of the Oil Conserva with and that the information gi	25 PSI Water-Bble. 12 Bble. Condensate/MMCF Casing Pressure (Shut-Ir OIL CO tion APPROVED	Choke Size Open Gas+MCF 2.22 M( Gravity of Condensate Choke Size NSERVATION COMMISSIO	N 19
/I. (	Length of Test 24 hours Actual Prod. During Test 202 GAS WELL Actual Prod. Test-MCF/D Testing Method (pitot, back pr.) CERTIFICATE OF COMPLIAN I hereby certify that the rules and	Tubing Pressure 25 PSI Oil-Bbls. 190 Length of Test Tubing Pressure (Shut-in) CE regulations of the Oil Conserva with and that the information gi	25 PSI Water-Bble. 12 Bble. Condensate/MMCF Casing Pressure (Shut-Ir OIL CO APPROVED BY	Choke Size Open Gas-MCF 2.22 MC Gravity of Condensate () Choke Size NSERVATION COMMISSIO	N 19
/1. (	Length of Test 24 hours Actual Prod. During Test 202 GAS WELL Actual Prod. Test-MCF/D Testing Method (pitot, back pr.) CERTIFICATE OF COMPLIAN I hereby certify that the rules and Commission have been complied v	Tubing Pressure 25 PSI Oil-Bbls. 190 Length of Test Tubing Pressure (Shut-in) CE regulations of the Oil Conserva with and that the information gi	25 PSI Water-Bble. 12 Bble. Condensate/MMCF Casing Pressure (Shut-Ir OIL CO APPROVED BY	Choke Size Open Gas+MCF 2.22 M( Gravity of Condensate Choke Size NSERVATION COMMISSIO	N 19
/1. 0	Length of Test 24 hours Actual Prod. During Test 202 GAS WELL Actual Prod. Test-MCF/D Testing Method (pitot, back pr.) CERTIFICATE OF COMPLIAN I hereby certify that the rules and Commission have been complied v	Tubing Pressure 25 PSI Oil-Bbls. 190 Length of Test Tubing Pressure (Shut-in) CE regulations of the Oil Conserva with and that the information gi	25 PSI Water-Bble. 12 Bble. Condensate/MMCF Casing Pressure (Shut-Ir OIL CO APPROVED BY TITLE This form is to be	Choke Size Open Gas-MCF 2.2.2 MC Gravity of Condensate Choke Size NSERVATION COMMISSIO	N 19 = 1104, ·
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NO. OF COPIES RECEIVED DISTRIBUTION SANTA FE	RECEIVED Curs 4	5-03 4
DISTRIBUTION	RECEIVED	
		Form C-103
SANTA FE		Supersedes Old
	NEW MEXICO OIL CONSERVATION COMMISSION	C-102 and C-103 Effective 1-1-65
FILE	NEW MEXICO OIL CONSERVATION COMMISSION	
U.S.G.S.		Sa. Indicate Type of Lease
LAND OFFICE	0. 0. 0.	State X
OPERATOR	ARTESIA, OFFICE	5, State Oll & Gas Lease N
		B-4575
S	UNDRY NOTICES AND REPORTS ON WELLS	
DO NOT USE THIS FORM	FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUS BACK TO A DIFFERENT RESERVOIR. PPLICATION FOR PERMIT** (FORM C-101) FOR BUCH FROPOSALS.)	
1. 01L [7] 6AB [7		7. Unit Agreement Name
weit LXI weit L	OTHER-	
2, Name of Operator		8. Farm or Lease Name
	Oil Corporation	State
3, Address of Operator		9. Well No.
	Drawer 831, Midland, Texas	2
4, Location of Well		10. Field and Pool, or Wild
UNIT LETTER P		Empire Abo
THE East	SECTION 28 TOWNSHIP 17 SOUTH PARSE 28 east HMPA	12. County
hummunum	3680 G. L.	Eddy
Ci	neck Appropriate Box To Indicate Nature of Notice, Report or O	ther Data
NOTICE	OF INTENTION TO: SUBSEQUEN	T REPORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON . REMEDIAL WORK	ALTERING CASING
TEMPORARILY ABANDON	COMMENCE DRILLING OPHS.	PLUS AND ASANDO
PULL OR ALTER CABING	CHANGE PLANS CASING TEST AND CEMENT JOB	Completion
OTHER	OTHER	<u> </u>

signed_The Kabuta	V.P. Production	DATE1/21/7
APPROVED BY		DATE
CONDITIONS OF APPROVAL, IF ANY:		

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## NEW MEXICO OIL CONSERVATION COMMISSION CARE 43-03 Form Super VELL LOCATION AND ACREAGE DEDICATION PLAT

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

' fortulet				1.ease				1	Well 115.
Unit Letter C+	ction	Township		Range	· · · · · · · · · · · · · · · · · · ·	County			
						<u> </u>			
Actual Foota je Locatio									
Ground Level Elev.	et from the		line and		fee	t from the		T	line
Ground Lyver Liev.	Producing For	nution		Pool				Dedica	ited Acreage:
1. Outline the a				·····			·····	l	Acre
	one lease is				-			•	(both as to workin
dated by comm Yes If answer is this form if ne No allowable	nunitization, u ] No If an "no," list the o ccessary.) will be assigne	nitization swer is " owners an 	, force-pooli 'yes,' type o d tract desc well until all	ng.etc? f consolid riptions w interests	ation hich have ad have been d	ctually be	en consolid ed (by com	ated. ( 	vners been consol Use reverse side o zation, unitization ved by the Commis
sion.									
			F+A +	<mark> </mark>     	2		tained he	rein is t	hat the information con rue and complete to th edge and belief.
	- <del> </del>   		pu pu			as fake	Position		
	 	Ø	and the for	ا المراجع	ctK		Company Date		
	l	) 	5 14	TOMET	133	Some			
a spile.		B07D	al cally	26420. 2.5t.			shown on	this pla	that the well locatio it was plotted from fiel surveys made by me c
104 2420.	ł							supervi: and corr	sion, and that the sam ect to the best of m fiel.
1	ł				- 7		is true of knowledg Date Survey	supervi: and corr a and ba red	ect to the best of m lief.
allonlie Rich m. yole o A	ł	11 3 m <sup>-1</sup> 10			- 7		is true of knowledg Date Survey	supervis and corr a and ba red Professi d Survey	ect to the best of m fiel. onal Engineer

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U161			ECORD <sup>(</sup>	1.503	[ <u>+</u> +-		┟╼╼╁╍╾╂╸
LAND OFFICE		WELL R	ECORD	7.005			
THANSPORTER 843							
DERATOR					<del>  </del>	-+	┝╼╍┼╍╍┥╍
Mail to District	Office, Oil Conservatio	n Commission, to	which Form C-1	01 was sent not			
later than twenty	days after completion -	of well. Follow inst	ructions in Rules	and Regulations	+	┈┼╼╾╎╴╴┥	<b>├</b>  Þ
of the Commission	. Submit in QUINTU	PLICATE II	State Land sub	mit 6 Copies			
	<b>~</b>					AREA 640 AC	RES
Penroc Oil	Corporation	l lainteachta a agus a san an an anna a fhainn a fhairmean a a		, , , <del>, , , , , , , , , , , , , , , , </del>			
2						<b>10 E</b>	~
Well No.	, <u>in</u> SE <u></u> %	of	L Sec	<b>, T</b> <sup>1</sup> (	South R	20 Ea	st , NMI
E	mpire Abo		Pool	Edd	<b>7</b>		Cou
Well is 260		South		330		Eas	t
				_		*******	L 
of Section28				***********	4575		
Drilling Commenced	12-14	19	70 Drilling wa	Completed	1-5		. 10
Name of Drilling Cont							·
Address		Midland	, Texas 79	9701	********	*********	
Elevation above sea lev	1 m	.) 3680' G	T.	The information	lan alson to su	. ha hana a	
	•		i		and finder in the	be sept of	macnusi a
*****		[ <b>9</b>					
		OIL SA	NDS OR ZONE	3			
No. 1, from	۵ <u>۵</u> ۱	20251		_		REIV	ED
No. 2, from	<b>to</b>	***********	No. 5, from	<b>0</b>	to.	NICE	371
No. 3, from			No. 6. from	Ŋ		IN 2 J I	
			•			- <b>- -</b>	•
		IMPORTAL	NT WATER SAL	ND6		D. L. C	FICE
Include data on rate o	f water inflow and elev	ation to which wate	r rose in hole.		AF	TESIA, DI	
No. 1, from							
No. 2, from				feet.	***********************		
No. 3. from		to		feet.	·····	••••••••••••••••••	
No. 4, from		to		feet.			****
-			ING BECORD	feet.			<del>.</del>

SIZE	WEIGHT PER FOOT	NEW OR USED	AMOUNT	KIND OF SHOE	CUT AND PULLED FROM	PERFORATIONS	PURPOSE
8-578	24#	New	614'	Halliburto	n	······	Surface
4-1/2	9.5+10.5	New	6157'	Halliburto	n	5952'-6032'	Production
4-1/2	9.5+10.5	New	0157	Halliburto	n	5952 - 0052	Produc
*				1		······································	

MUDDING AND CEMENTING RECORD										
8127 07 Hole	SIZE OF Casing	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	MUD JRAVITY	AMOUNT OF MUD USED				
11"	8-5/8	614'	425 sacks	Pump	9#					
7-7/8''	4-1/2"	6157'	500 sacks	Pump	9#					
and the second second second										

#### 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. 157. 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.

.....

x.

RECORD OF DEILL-STEM AND SPECIAL TESTS	
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	t.
Cable tools were used fromfeet tofeet tofeet, and fromfeet tofeet	t.
PRODUCTION	
Put to Producing	
OIL WELL: The production during the first 24 hours was 202 barrels of liquid of which 90 % w	15
was oil;% was emulsion;% water; and% was sediment. A.P.	<b>I</b> .
Gravity	
GAS WELL: The production during the first 24 hours was	я
liquid Hydrocarbon. Shut in Pressurelbs.	
Length of Time Shut in	
PLEASE INDICATE BELOW FORMATION TOPS (IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE):	
Southeastern New Mexico Northwestern New Mexico	

т.	Anby	Т.	Devonian	Т.	Ojo Alamo
Т.	Salt	T.	Silurian	Т.	Kirtland-Fruitland
B.	Salt	Т.	Montoya	T.	Farmington
T.	Yates	T.	Simpson	Т.	Pictured Cliffs
Т.	7 Rivers	Т.	McKee	T.	Menefee
T.	Queen	т.	Ellenburger	T.	Point Lookout
T.	Grayburg	т.	Gr. Wash	Т.	Mancos
т.	San Andres	T.	Granite	T.	Dakota
T.	Glorieta	T.		T.	Morrison
T.	Drinkard	T.		Т.	Penn
T.	Tubbs	Т.		T.	
Т.	<u>Аю. Reef 5946</u>	T.		T.	
T.	Penn	T.		T.	
T.	Miss	Т.		T.	

#### FORMATION RECORD

F	rom	То	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	)	1700	1700	Red sh, anhy., dol.				
1700	1	T. D.	4458	Dol., some ss. and sh.				
	-							
								•
	;							

ATTACH SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED

DOCKET MALLED

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. 1/21/71 (Date)

Company or Operator	Penroc	Oil Co	rporation	۶ 
Name	John B.	Castle	• • • • • • • • • • • • • • • • • • • •	

/						(r.a.c.
Address	Р.	О.	Drawer	831,	Midland,	Texas7970
					•••••••••••••••••••••••••••••••••••••••	

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President Polition or Title ......

NO. OF COPIES RECEIVED	-	() (1	
CISTRIBUTION		CONSERVATION COMMISSION	
SANTA FE	REQUEST	FOR ALLOWABLE	Form C+104 Supersedes Old C+104 and C+1.
FILE	REDEIVED	AND	Effective 1-1-65
LAND OFFICE	AUTHORIZATION TO TR	ANSPORT OIL AND NATURAL	GAS
	□ FEB111971	: ;	
TRANSPORTER GAS		s 11.5.4	
OPERATOR	] O. G. B.	i i i i i i i i i i i i i i i i i i i	
I. PRORATION OFFICE	ARTEOLA, OFFICE		
Penroc Oil C	orporation /		
Acoress	-	,, _,, _	
P. O. Drawe	r 831, Midiand, Texas	79701	
Reason(s) for filing (Check proper box		Other (Please explain)	
New Well Recompletion	Change in Transporter of: Oil X Dry Go		
Change in Ownership	· · · ·	nsale [ from the Perm	Con P
		From Sin Telm	lan coy.
If change of ownership give name and address of previous owner			
II. DESCRIPTION OF WELL AND Lease Name	Well No.; Pool Name, Including F	ormation Kind of Lee	Lease No.
State	2 Empire	Abo State, Fede	ral or Fee State B-4575
Location			
Unit Letter P ; 36	0 Feet From The South Lin	ne and S30 Feet From	n The East
Line of Section 28 To	westin 17S Bana	28E NMPM.	Eddy
Line of Section 20 To	winship 113 Range	LOL , NMPM,	Eddy County
III. DESIGNATION OF TRANSPORT	TER OF OIL AND NATURAL GA	IS	
Name of Authoraged Transporter of Oil		Addrogs (Give address to which app	roved copy of this form is to be sent)
Navajo Pipe Line Co.	, Pipeline Division	P. S. Box 159, Arte	sia, New Mexico 282[0
Name of Authorized Transporter of Car			roved copy of this form is to be sent)
Phillips Petroleum Co	Unit Sec. Twp. Rge.	Bartlesville, Oklaho	Ma Then
If well produces oil of liquids, give location of tanks.	P 28 17S 28E		Waiting on connection
IV COMPLETION DATA	th that from any other lease or pool,	give commingling order number:	Plug Back Same Res'v. Diff. Res'v
Designate Type of Completio	$\operatorname{on} - (X) = \mathbf{x}$	x	
Date Spuided	Date Compl. Ready to Prod.	Total Depth	P.B.T.D.
12/14/70 Elevations (DF, RKB, RT, GR, 12)	1/12/71 Name of Producing Formation	6158' Top Oll/Gas Pay	6140'
3680 G. L.	Abo	5946'	5897'
Periorations	52' - 6932'		Depth Casing Shoe
			6157'
		D CEMENTING RECORD	
HOLE SIZE	CASING & TUBING GIZE	614'	SACKS CEMENT 425 sacks
7-7/8"	4-1/2" casing	6157'	500 sacks
	2-3/8" O. D. tubing	5897'	
Ĺ	!		
V. TEST DATA AND LEGUEST F OULWELL		fier recovery of colul volume of load of 19th or be for full 24 hours)	il and must be equal to or exceed top allow
Date First New Cil Run To Tanks	Date of Test	Producing Method (Flow, pump, gas	lift, etc.)
1/8/71	1/19/71	Pump	and the second sec
Liergin of Text	Tubing Prosaura	Casing Pressure	Choke Size
24 hours	25 PSI	Vater - Ebis.	Open Gas+MCF
Actual Fords, During Duri 202	190	12	222 MCF
	1	· · · · · · · · · · · · · · · · · · ·	
GRO MARTE.			
Actual Prov. Tout-WORYD	Langth of Test	Bbls, Condensate/MMCF	Gravity of Concensate
Testing Mercel (1999) and Soly	) Tubing Prossure (Shut-in )	Casing Prossure (Shut-in)	Choke Sizo
	·	Conny Francis (Dune XII)	
VI. CENTIFICATE OF COMPLIAN	02	OU CONSERV	ATION COMMISSION
			1 10171
I hereby certify that the rules and i	regulations of the Oil Conservation	APPROVED	<u>1 13/1</u> 19
Commission have been complied w above is true and complete to the	with and that the information given	in In a su	ssitt
		All 140.00	S 14SDECTAR
. 6	$\Lambda$	VIL AND GA	<u>S INSPECTOR</u>
1.16 B	140		compliance with RULE 1104.
	He get a state	- well thus form must be accome	wable for a nowly drilled or deepened anied by a tabulation of the deviation
President		I tosts taken on the well in acc	ordance with RULE 111.
		Ail sections of this form a able on new and recompleted w	ust be filled out completely for allow-

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.

2/11/71 (juice)

File				• •									artes	
Out model number         Distribution         Distreador <thdistribution< th="">         Distribution</thdistribution<>														
Optimulation         Description         Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>										12				
International Control (Control (Contro) (Control (Control (Control (Control (Control (Control (Control		ED .								•				
The second se	+			D NEW C	DE XIICA C	M CON	SERVATIO	א כמ	MAISSION	~ ~		<u> </u>		
TABLE OFFICE       7       FEB 1 1971       2       B-4575         OPENATOR       State       7       Unit Approximation of the state of the stat	FILE		WELL	COMPLE	TION OI	RREC	MPLETIC	ON R	EPORT AN	D good				
GPERATOR       CLO 1 13/1       CLO 1 13/1       CLO 1 13/1         TO TOPE or WTLL       WILL ATTERA, C. Swell       State       T. State Stress         L. TOPE or WTLL       WILL ATTERA, C. Swell       State       T. State Stress         L. TOPE or WTLL       WILL ATTERA, C. Swell       State       T. State         L. TOPE or WTLL       WILL ATTERA, C. Swell       State       State         L. TOPE or WTLL       WILL ATTERA, C. Swell       State       State         State or Tope or Coll Corporation       I. First of a track       State       State         P. O. Drawer 831, Midland, Texas 79701       First of a track of the tr				C C C						1 <sup>2</sup>				
Intervent of Year Land       Processing Proceseprend Processing Processing Processing Proces				FC	5 1 1	971								
ATTELL 1:       ATTELL 1:       OPTICE 1:       ATTELL 1:       OPTICE 1:       ATTELL 1:       OPTICE 1:       ATTELL 1:       OPTICE 1::       ATTELL 1:: <td< td=""><td>L</td><td><u>}</u></td><td>1</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>111</td><td></td></td<>	L	<u>}</u>	1	-								111		
b. TYPE or COMPLETION       State       F. Purn or L, Sake Runner         Minic V       Version of Lyster Runner       State       State         State       State       State       State         Penco Coll Corporation       F. Pontosto, State       State         Pontosto, State       State       State       State         State       State       State       State       State         S	14. TYPE OF WELL										7, Unit	Agrees	ment Name	
Market of fermion       State       State         27. de 20 of fermion       2         28. de 20 of fermion       2         29. de 11 de 20       20         20. fermion of de 20       20         21. fermion of de 20       20         22. fermion of de 20       20         23. fermion of de 20       20         24. fermion of de 20       21         25. fermion of de 20       21         26. fermion of de 20       21         27. fermion of de 20       21         28. fermion of de 20       21         29. fermion of de 20       21         20. fermion de 20       21         21. fermion de 20       21         22. fermion de 20       23         23. fermion de 20       24     <		W E		GAS		DRY	OTHER							
2. None of Prentoc       10. Set 196:         2. Micro of Prentoc       11. Set 196:         2. Micro of Construction       2         2. On Drawer 831, Midland, Texas 79701       10. Finder 64:         2. On Drawer 831, Midland, Texas 79701       11. Finder 64:         2. Note Spilors       11. Set 7.0: Income 16:         2. Note Spilors       11. Set 7.0: Income 17:         2. Note Spilors       11. Set 70: Income 17:         2. No Spilors       11. Set 70: Income 17:         2. No Spilors       11. Set 70: Income 17:		a + []		PLUG	[] eu	FF. []]								
Schlaren of Careful (C. Profile al Peci, et Wall       (C. Profile al Peci, et Wall         P. O. Drawer 831, Midland, Texas 79701       (C. Profile al Peci, et Wall         P. O. Drawer 831, Midland, Texas 79701       (C. Profile al Peci, et Wall         P. O. Drawer 831, Midland, Texas 79701       (C. Profile al Peci, et Wall         Weilt Etting P. Locates 360       retrieve town (C. South (C. R. R. R. C. G. ret.) 10, C. Cashing 12/14/70         Mit Etting P. Locates 360       retrieve (C. R. R. R. C. G. ret.) 10, C. Cashing 12/14/70         12. Total Tay (C. R. R. R. R. C. G. ret.) 10, C. Cashing 12/14/70       175/71         12. Total Tay (C. R. R. R. R. C. G. ret.) 10, C. Cashing 3682       (C. R. R. R. R. C. G. ret.) 10, C. Cashing 3682         30. Total Tay (C. R. R. R. R. C. G. Ret.) 10, C. Cashing 3682       (C. R. R. R. R. C. G. Ret.) 10, C. Cashing 3682         31. Ford Tay (C. R. R. R. R. C. R. R. R. C. R. R. R. C. R. R. R. R. C. R. R. R. C. R. R. R. R. C. R. R. R. C. R. R. R. R. C. R.				BACK	RE	SVR.	OTHER				-		, <u>, , , , , , , , , , , , , , , , , , </u>	
P. O. Drawer 831, Midland, Texas 79701       Empire Abo         4. Learner, of Bell       4. Learner, of Bell       Status of Bell         wirt strike       P       Located       360       retr read the South       330       retr read         The East stated       BE. Part TD, Breached       17. Date Congl. (Ready to Pred.)       114. Elevention (Dr., rd.R., R. C., ref. 10, Elevention (Dr., rd.R., R. R. C., ref. 10, Elevention (Dr., rd.R., R. C., ref. 10, Elevention (Dr., rd.R., R. C., ref. 10, Elevention (Dr., rd.R. R. C., ref. 10, Elevention (Dr., ref.R. R. C., ref. 10	Penroc Oil Co	rporation										2		
4. Let then of Self         with Letting P Locates 360 rect from the South the And 330 rect room         ins the Spessed 15. Date Confuscional (Rend) to Fred.)         15. Date Spessed 15. Date 1.0. (Date Compl. (Rend) to Fred.)         12./14/70       1/5/71         12./14/70       1/12/71         20. Test Heads       11.12/71         23. Test Heads       11.12/71         24. Test Heads       11.12/71         25. Test Heads       11.12/71         26. Test Heads       11.12/71         27. Test Heads       11.12/71         28. Test Heads       11.12/71         29. Test Heads       11.12/71         20. Test Heads       11.12/71         21. Test Heads       11.12/71         23. Test Heads       11.12/71         24. Test Heads       11.12/71         25. Test Heads       11.12/71         26. Test Heads       11.12/71         27. Test Heads       11.12/71         28. Test Heads       11.12/71         29. Test Heads       12.10000         29. Test Heads       11.12/71         29. Test Heads       11.12/71         29. Test Heads       11.12/71         29. Test Heads       11.12/71         29. Test					2070								-	
With Letters         P         Lecasto         360         rest area         285         330         rest read         12.0 county           The East size of sec.         28         rest field         10, Date 1:0, base rd         17, Date County         11, Elster the MR, Ril, Ri, Ri, Ri, Ri, Ri, Ri, Ri, Ri, Ri, Ri		831, Mid	fland,	Texas	5 1970	) [ 					E E	Smp	11°e ADO	
Pref East Line or size 28 raw, 105 are 28E name       112/14/10       12/14/10       12/14/10       12/17       1/12/71       1/12/71       3680 C. L.       3680 C. L.         20, Total Boys       16, Date T.D. Freededd II, Dute Congle, (Rendy to Ped.)       18, Elevation (UP, RAB, R1, CA, rec. 1), Elev. Califormity       3680 C. L.       3680 C. L.       3680 C. L.         20, Total Boys       6140       22. Molifie Conductive														
Pref East Line or size 28 raw, 105 are 28E name       112/14/10       12/14/10       12/14/10       12/17       1/12/71       1/12/71       3680 C. L.       3680 C. L.         20, Total Boys       16, Date T.D. Freededd II, Dute Congle, (Rendy to Ped.)       18, Elevation (UP, RAB, R1, CA, rec. 1), Elev. Califormity       3680 C. L.       3680 C. L.       3680 C. L.         20, Total Boys       6140       22. Molifie Conductive	UNIT LETTERP	LOCATED	360	FEET F	ROM THE	South	LINE AN	в	330	ET FROM		M		
15. Date Standard       16. Date T.D. Iteasted       17. Date Standard       16. Date T.D. Iteasted       17. 17. 1       3680 G. L.       3680 G. L.       3682         20. Yorki Dayth       1.1 Play 1° 24 T.D.       22. It Multiple Could. How 10. Iter Tools 10. 10. 10. 10. 10. 10. 10. 10. 10. 10.			· · · ·				11111	111	MIII	IIII	12. Cou	inty		
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20. Ford Usepth       21. Flag 1 * X.D. 6158       22. If Multiple Couple, How 23. Intervals of the Focks       Rotury Teels Office Float       None         24. Floating Recording, of this completion - Top, bottom, Hanne Perf. 5952' - 6032'       Abo Reef       25. Was Weil Cored No         28. Type Floating Recording, of this completion - Top, bottom, Hanne Perf. 5952' - 6032'       Abo Reef       Yes         28. Type Floating Recording Recording Recording Recording States in welly       27. The Record Rec	-			1			rod.) 18.			(B, RT, G	R. etc.)	19, El		
6158     6140     Many     Drillet ity     0' - T. D.     None       24. Freducting Intervel(s), of full completion - Top, Hotton, Name     25. Crypt Electife and Other Logit Run     27. Was Well Stored     Yes       25. Type Electife and Other Logit Run     27. Was Well Stored     27. Was Well Stored     No       28. Type Electife and Other Logit Run     27. Was Well Stored     No       28. Type Electife and Other Logit Run     27. Was Well Stored     No       29.     CASING RECORD (Report all strings set in well)     AMOUNT     AMOUNT       29.     LINER RECORD     30.     TUBING RECORD     AMOUNT       29.     LINER RECORD     30.     TUBING RECORD     None       31. Performion Precord (Interval, size and number)     5952' - 6032', 3/8'', 4 shots per foot     5952' - 6032'     Frac 40, 000 Gal & 30, 20/40 sand       33.     PRODUCTION     Production (Floring, gas 10f, pumping 21'' x 1-1/2'' x 16' H, F.     Producing Other and repre pump)     12       1/19/71     24     Open     Track price 10''' x 10'' H, F.     Other and represent 10''' and							e Contil., He		CO Laborada	, Rotar	v Teols		~~~~~	
24. Frontisting Interval(s), of this completion = Tep, Hottom, Name       25. Wing Pitestic         Perf. 5952' - 6032' Abo Reef         25. Wing Pitestic         25. Wing Pitestic         Version 2016         CASING RECORD (Report all strings set in well)         AMOUNT         A CASING RECORD (Report all strings set in well)         AMOUNT         ADD (Sol (Sol (Sol (Sol (Sol (Sol (Sol (Sol						Many			Drilled B	Y 0' -	Τ. Ι	Э.		
Perf. 5952' - 6032'       Abo Reef       Yes         26. Type Electric and Other Loge Nun Welex GR - N       27. Was Well Cored No       27. Was Well Cored No         28.       CASING RECORD (Report all strings set in well)       Amount CASING SIZE       CEMENTING RECORD       Amount 4.1/2"         29.       CINER RECORD       50.       TUBING RECORD       Amount 4.1/2"       Amount 9.5 & 10.60       6157'       7.7/8"         29.       LINER RECORD       30.       TUBING RECORD       Amount 4.1/2"       PACKE         29.       LINER RECORD       30.       TUBING RECORD       Amount And Kindo Matterial 5952' - 6032', 3/8", 4 shots per foot       30.       TUBING RECORD         31. Performion Record (Interval, size and number)       32.       ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC. 5952' - 6032', 3/8", 4 shots per foot       DEPTH INTERVAL 5952' - 6032'       A/5000 15% NE 5952' - 6032'       Frac 40,000 Gal & 30. 20/40 sand         33.       PRODUCTION       Trating Set inf, pumping - Size and type pump) 1/12/71       Producing Producing       Trating Field 190       Cus = stor 22.       12       1156 - 3. 1156 - 1150.         12.       Producing 25.       25.       Field Set from Presson       Trating Field 190       Cus = stor 22.       12       1156.         14.       Producing 25.       25.       Field Field 190	24, Producing Interval(s	s), of this compl	etion = 1	Pop, Bottom	, Name									
26. Tyre 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       MOLE SIZE       CEMENTING RECORD       AMOUNT         8.5/8''       24       614       11''       Halliburton       425 sacks       Nom         4-1/2''       9.5 & 10.60       6157'       7-7/8''       Halliburton       500 sacks       Nom         29.       LINER RECORD       30.       TUBING RECORD       Sacks       Nom         29.       LINER RECORD       30.       TUBING RECORD       Sacks       PACKE         31. Performion Recoid (Interval, size and number)       53.       Sacks CEMENT       Sacks CEMENT       Sacks CEMENT SQUEEZE, ETC.         5952' - 6032', 3/8'', 4 shots per foot       12.       ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.       5952' - 6032'       A/5000 15% NE         5952' - 6032', 3/8'', 4 shots per foot       12.       ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.       5952' - 6032'       A/5000 15% NE         5952' - 6032'       1/12/71       Production       Producting case iff, pumping - Size and type pump)       1/12/71       Producting         Date Pirst Production       Production       Producting case and type pump)       1/2	Perf. 595	2! = 6032!	ı	Abo	Reef									
Welex GR-NNo28.CASING RECORD (Report all strings set in well)CASING SIZEWEIGHT LB./FT.OEPTH SETMOLE SIZECEMENTING RECORDAMOUNTCASING SIZEWEIGHT LB./FT.OEPTH SETAMOUNTAMOUNTAMOUNT ADD SIZECEMENTING RECORD30.TUBING RECORD30.TUBING RECORDSIZETOPBOTTOMSACKS CEMENTSCREENSIZEOEPTH INTERVALANOUNT AND KIND METERIAL31. Performation freecord (Interval, size and number)SIZETOPBOTTOMSACKS CEMENTSCREENSIZEDEPTH INTERVALANOUNT AND KIND MATERIAL5952' - 6032', 3/8'', 4 shots per foot22. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.DEPTH INTERVALANOUNT AND KIND MATERIAL5952' - 6032', 3/8'', 4 shots per footDEPTH INTERVALANOUNT AND KIND MATERIAL5952' - 6032', 3/8'', 4 shots per footDEPTH INTERVALANOUNT AND KIND MATERIAL5952' - 6032'PRODUCTIONDate First ProductionProduction Material1/12/71 <th col<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th>	<td></td>													
CASING RECORD (Report all strings set in well)         CASING RECORD (Report all strings set in well)         CASING SIZE       WEIGHT LB./FT.       DEPTH SET       MOLE SIZE       CEMENTING RECORD       AMOUNT         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       30.       TUBING RECORD         SIZE       TOP       BOTTOM       SACKS CEMENT       SCREEN       SIZE       DEPTH SET       PACKE         5952' - 6032', 3/8", 4 shots per foct         Size ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.         DEPTH INTERVAL         ANOUNT AND KIND MATERIAL         5952' - 6032', 3/8", 4 shots per foct         DEPTH INTERVAL         ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.         DEPTH INTERVAL         ANOUNT AND KIND MATERIAL         5952' - 6032'         ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.         DEPTH INTERVAL         ANOUNT AND KIND MATERIAL											4	.7, was		
CASING SIZEWEIGHT LB./FT.DEPTH SETHOLE SIZECEMENTING RECORDAMOUNT $8-5/8''$ 24 $614$ $11''$ Halliburton $425$ sacksNone $4-1/2''$ 9.5 & 10.60 $6157'$ $7-7/8''$ Halliburton $500$ sacksNone $29.$ LINER RECORD $30.$ TUBING RECORD $30.$ TUBING RECORD $51ZE$ TOPBOTTOMSACKS CEMENTSCREENSIZEDEPTH SETPACKE $31.$ Perforation Precord (Interval, size and number) $5952' - 6032', 3/8'', 4$ shots per foot $32.$ ACID, SHOT, FRAC FURE, CEMENT SQUEEZE, ETC. $5952' - 6032', 3/8'', 4$ shots per foot $32.$ ACID, SHOT, FRAC FURE, CEMENT SQUEEZE, ETC. $5952' - 6032', 3/8'', 4$ shots per foot $32.$ $A/5000$ 15% NE $5952' - 6032'$ Frac 40,000 Cal & 30. $20/40$ sand $33.$ PRODUCTION $20/40$ sandDate First ProductionState of the of (Flowing, gas lift, pumping - Size and type pump)Yett Status (Prod. or Shut Producting $1/12/71$ Pumping $2''$ x 1 - 1/2'' x 16' H. F.Producting USA: First PrecodetVett Status (Prod. or Shut Producting $1/19/71$ 24Open $190$ $222$ 12Unit of Why - API 43 $190$ $222$ 12Unit of Why - API 43 $190$ $222$ 12 $43$ 34. Disposition of Gras (Sold, used for fuel, res. ed, etc.)Test Fielded 100 M. V. RobertsTest Witnesed By M. V. Roberts35. List of Att othermats $30.$ $190$ $222$ 12 $4$			·····											
4-1/2''9.5 & 10.606157'7-7/8''Halliburton500 sacksNone29.LINER RECORD30.TUBING RECORDSIZETOPBOTTOMSACKS CEMENTSCREENSIZEDEPTH SETPACKE31. Perforation Record (Interval, size and number)32.ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.DEPTH INTERVALAMOUNT AND KIND MATERIAL5952' - 6032', 3/8'', 4 shots per foot32.ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.DEPTH INTERVALAMOUNT AND KIND MATERIAL5952' - 6032', 3/8'', 4 shots per foot32.ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.DEPTH INTERVALAMOUNT AND KIND MATERIAL5952' - 6032'A/5000 15% NE5952' - 6032'A/5000 15% NESecond and and and and and and and and and a	20.			CAS	ING RECO	RD (Rep	ort all string	as set	in well)					
29.       LINER RECORD       30.       TUBING RECORD         SIZE       TOP       BOTTOM       SACKS CEMENT       SCREEN       SIZE       DEPTH SET       PACKE         31. Perforation Record (Interval, size and number)       32.       ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.         5952' - 6032', 3/8'', 4 shots per foot       32.       ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.         DEPTH INTERVAL       AMOUNT AND KIND MATERIAL         5952' - 6032', 3/8'', 4 shots per foot       DEPTH INTERVAL       AMOUNT AND KIND MATERIAL         5952' - 6032'       Job State       DEPTH INTERVAL       AMOUNT AND KIND MATERIAL         5952' - 6032'       JOOD 15% NE       5952' - 6032'       Frac 40, 000 Gal & 30,         33.       PRODUCTION       Production Method (Flowing, gas lift, pumping - Size and type pump)       Well Status (Prod. or Shut         1/12/71       Pumping       2'' x 1 - 1/2'' x 16' H. F.       Producing         Date First Production       Preduction Method (Flowing, gas lift, pumping - Size and type pump)       Well Status (Prod. or Shut         1/19/71       24       Open       Production       190       222       12       1156 - 9         1/10       25       1000 RD       190       222       12       43         34. Disposition of Gras (Sold, us		WEIGHT LE	B./ET.	·····				gs set		ING REC	ORD		AMOUNT	
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SIZETOPBOTTOMSACKS CEMENTSCREENSIZEDEPTH SETPACKE31. Perforation Record (Interval, size and number)32. $2-3/8$ $5897^{1}$ None31. Perforation Record (Interval, size and number)32.ACID, SHOT, FRAC FURE, CEMENT SQUEEZE, ETC.5952' - 6032', 3/8'', 4 shots per foot $32.$ ACID, SHOT, FRAC FURE, CEMENT SQUEEZE, ETC.5952' - 6032', 3/8'', 4 shots per foot $32.$ $ACID, SHOT, FRAC FURE, CEMENT SQUEEZE, ETC.5952' - 6032'A/5000 15\% NE5952' - 6032'A/5000 15\% NE5952' - 6032'Frac 40, 000 Gal & 30,20/40 sand20/40 sand33.PRODUCTIONDate First ProductionMethod (Floreing, gas lift, pumping - Size and type pump)1/12/71PumpingProduction Method (Floreing, gas lift, pumping - Size and type pump)Date of TestHours Tested1/19/7124252525Preducing190222121156 -190222124334. Disposition of Gras (Sold, used for fuel, recief, etc.)Waiting on Cc. Inection (Phillips)35. List of Att other exits35. I hereby certify that the information shout an both sides of this form is true and complete to the best of my knowledge and belief.$	CASING SIZE 8-5/811	24		0EPTH 61	i set 4	HOL	ESIZE	Hal	CEMENT lliburton	42	5 sac		None	
SIZETOPBOTTOMSACKS CEMENTSCREENSIZEDEPTH SETPACKE31. Perforation Record (Interval, size and number)32.ACID, SHOT, FRAC FURE, CEMENT SQUEEZE, ETC.5952' - 6032', 3/8'', 4 shots per foot32.ACID, SHOT, FRAC FURE, CEMENT SQUEEZE, ETC.5952' - 6032', 3/8'', 4 shots per foot $32.$ CDPTH INTERVALAMOUNT AND KIND MATERIAL5952' - 6032', 3/8'', 4 shots per foot $32.$ $ACID, SHOT, FRAC FURE, CEMENT SQUEEZE, ETC.5952' - 6032'37.37.37.37.Date First ProductionProduction Method (Floreing, gas lift, pumping - Size and type pump)Well Status (Prod. or Shut1/12/71Pumping2'' \times 1 - 1/2'' \times 16'1.90.Date of TestHours TestedOpenPreduction190.222.12.1/19/7124OpenTest Period190.222.12.1156 -Plow Tested25.25.190.222.12.12.43.34. Disposition of Gras (Sold, used for fuel, recief, etc.)Test Period190.222.12.43.35. List of Att other ests35. List of Att other ests35. List of Att other ests36. form is true and complete to the best of my knowledge and belief.$	CASING SIZE 8-5/811	24		0EPTH 61	i set 4	HOL	ESIZE	Hal	CEMENT lliburton	42	5 sac		None	
31. Perforation Record (Interval, size and number)       32.       ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.         5952' - 6032', 3/8", 4 shots per foot       32.       ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.         5952' - 6032', 3/8", 4 shots per foot       5952' - 6032'       A/5000 15% NE         5952' - 6032'       Frac 40,000 Gal & 30,         33.       PRODUCTION         Date First Production       Production Method (Flowing, gas lift, pumping - Size and type pump)       Well Status (Prod. or Shut         1/12/71       Pumping       2" x 1 - 1/2" x 16' H. F.       Producing         Date first       Hours Tested       Open       Test Petiod       190       222       12       1156 -         1/19/71       24       Open       Test Petiod       190       222       12       1156 -         Phow Torking Press.       25       25       190       222       12       43         34. Disposition of Gas (Sold, used for fuel, recied, etc.)       Waiting on Cc. inection (Phillips)       M. V. R obserts         35. List of Att isher ents       36. I hereby certify that the information shoun on both sides of this form is true and complete to the best of my knowledge and belief.	CASING SIZE 8-5/811 4-1/211	24 9.5 & 1	0.60	0EPTH 61 615	i set 4	HOL	ESIZE	Hal	CEMENT lliburton lliburton	42	5 sacl 0 sacl	ks	None None	
5952' - 6032', 3/8", 4 shots per foot       DEPTH INTERVAL 5952' - 6032' A/5000 15% NE 5952' - 6032' A/5000 15% NE 5952' - 6032' Frac 40,000 Gal & 30, 20/40 sand         33.       PRODUCTION         Date First Production 1/12/71       Production Method (Flowing, gas lift, pumping - Size and type pump) 1/12/71       Well Status (Prod. or Shut Producing         Date of Test       Hours Tested       Choire State       Production Test Period       Open         Date of Test       Hours Tested       Choire State       Producing Test Period       Out - Duil.       Gus - Mour         1/19/71       24       Open       Preduction Test Period       Out - Duil.       Gus - Mour       Mater - Hol.       Gas-Oil Hall 11/166 - Ull.         25       25       Ended for fuel, verted, etc.)       Underwise - Hol.       Test Witnessed By         Waiting on Ccnection (Phillips)       35. List of Att ich costs       M. V. Roberts         36. I hereby certify that the information shoun on both sides of this form is true and complete to the best of my knowledge and belief.	CASING SIZE 8-5/8 <sup>11</sup> 4-1/2 <sup>11</sup> 29,	24 9.5 & 1	0.60	DEPTH 61 615 RECORD	1 SET 4 7'	но. 7	E SIZE	Hal Hal	CEMENT lliburton lliburton	42 50	5 sacl 0 sacl	ks RECOF	None None RD	
5952' - 6032', 3/8", 4 shots per foot       DEPTH INTERVAL 5952' - 6032' A/5000 15% NE 5952' - 6032' A/5000 15% NE 5952' - 6032' Frac 40,000 Gal & 30, 20/40 sand         33.       PRODUCTION         Date First Production 1/12/71       Production Method (Flowing, gas lift, pumping - Size and type pump) 1/12/71       Well Status (Prod. or Shut Producing         Date of Test       Hours Tested       Choice State       Production Test Period       Open         1/19/71       24       Open       Predict Test Test Period       Out - Duil. 190       Gas - Mor 222       Nater - wol. 12       Gas - Oil Nater 1155         State of Gas (Sold, used for fuel, verted, etc.)       Other State 12       Test Witnessed By       M. V. Roberts         35. List of Att ich costs       Side of this form is true and complete to the best of my knowledge and belief.       M. V. Roberts	CASING SIZE 8-5/8 <sup>11</sup> 4-1/2 <sup>11</sup> 29,	24 9.5 & 1	0.60	DEPTH 61 615 RECORD	1 SET 4 7'	но. 7	E SIZE	Hal Hal	CEMENT lliburton lliburton 30. size	42 50 1 0E	5 sac 0 sac UBING F PTH SET	ks RECOF	None None RD PACKE	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	CASING SIZE 8-5/8 <sup>11</sup> 4-1/2 <sup>11</sup> 29. SIZE	24 9.5 & 1	UNER F	DEPTH 61 615 RECORD	1 SET 4 7'	но. 7	E SIZE	Hal Hal	CEMENT lliburton 30. size 2-3/8	42 50 T DE 58	5 sac 0 sac 10 10 10 10 10 10 10 10 10 10 10 10 10	ks RECOF	None None RD PACKE None	
33.         PRODUCTION         Onter First Production         1/12/71         Production Method (Flowing, gas lift, pumping – Size and type pump)         Well Status (Prod. or Shut         1/12/71         Production Method (Flowing, gas lift, pumping – Size and type pump)         Well Status (Prod. or Shut         1/12/71         Production Method (Flowing, gas lift, pumping – Size and type pump)         Well Status (Prod. or Shut         Date of Test         1/12/71         Production Method (Flowing, gas lift, pumping – Size and type pump)         Date of Test         1/12/71         Date of Test         1/19/71         24         Open         Test Period         190         222         12         Test Witnessed By         M. V. Roberts         35. List of Att tobe cols         35. List of Att tobe cols         Status of this form is true and complete to the best of my knowledge and bel	CASING SIZE 8-5/8 <sup>11</sup> 4-1/2 <sup>11</sup> 29. SIZE	24 9.5 & 1	UNER F	DEPTH 61 615 RECORD	1 SET 4 7'	но. 7	E SIZE [["-7/8" SCREEN 32.	Hal Hal	CEMENT lliburton 30. size 2-3/8 D, SHOT, FRA	42 50 1 56 58 	5 sac 0 sac 0 ubing f PTH set 3971 CEMENT	ks RECOR T	None None RD PACKE None EEZE, ETC.	
20/40 sand       33.       PRODUCTION       Date First Production     Production Method (Flowing, gas lift, pumping – Size and type pump)       Date First Production     Production Method (Flowing, gas lift, pumping – Size and type pump)     Well Status (Prod. or Shut       Date of Test     Pumping     2" x 1 - 1/2" x 16" H. F.     Producing       Date of Test     Hours Tested     Obelo State     Dradin, Date Off – Buil.     Gas – Mor       1/19/71     24     Open     Test Period     190     222     12       1156 -     25     Colculate     - 190     222     12     1156 -       190     222     12     134.     Disposition of Gas (Sold, used for fuel, readed, etc.)     Test Witnessed By       Waiting on Connection (Phillips)     M. V. Roberts       35. List of Attrich ents     35. List of Attrich ents	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record (	24 9.5 & 1 TOP	UINER F	0EPTH 61 615 RECORD	A SET 4 71 SACKS C	но. 7	E SIZE 1 [ " - 7/8" SCREEN 32. DEPTI	Hal Hal N ACII	CEMENT lliburton 30. size 2-3/8 D, SHOT, FRA ERVAL	42 50 T DE 58 C FURE, AMOL	5 sac 0 sac UBING F PTH SET 397' CEMENT	KS RECOR T F SQUE	None None Packe None EEZE, ETC.	
Date First Production       Production Method (Flowing, gas lift, pumping - Size and type pump)       Well Status (Prod. or Shull Producing         1/12/71       Pumping       2" x 1-1/2" x 16" H. F.       Producing         Date of Test       Hours Tested       Obels State       Dicd"m. Poir       Gus - mor       Water - Hol.       Gas - Oll Rat         1/19/71       24       Open       Test Period       190       222       12       1156 -         Flow Turbing Press.       Casing Pressure       Culculul Bol.       Outs - Mor       Water - Bol.       On JONNY - API         25       25       Colour Rat       190       222       12       01 JUNY - API         34. Disposition of Gas (Sold, used for fuel, verted, etc.)       Test Witnessed By       M. V. Roberts         35. List of Att informatis       35. List of Att information shown on both sides of this form is true and complete to the best of my knowledge and belief.	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record (	24 9.5 & 1 TOP	UINER F	0EPTH 61 615 RECORD	A SET 4 71 SACKS C	но. 7	E SIZE [["-7/8" SCREEN 32. DEPTI 5952'	Hal Hal ACII HINT - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032'	42 50 0 0 0 0 58 0 0 58 0 0 0 0 0 0 0 0 0	5 sac 0 sac 0 ubing f PTH set 3971 CEMENT 20159	KS RECOF T F SQUE KIND	Non Non RD PACKE Non EEZE, ETC.	
Date First Production       Production Method (Flowing, gas lift, pumping - Size and type pump)       Well Status (Prod. or Shu         1/12/71       Pumping       2" x 1-1/2" x 16" H. F.       Producing         Date of Test       Hours Tested       Choke State       Dred" Tot       Gas - mor       mater - moi.       Gas - off Rat         1/19/71       24       Open       Test Period       190       222       12       1156 -         Flow Toring Prece.       Casing Precource       Casing Precource       Culculul moi.       Flow Rat       190       222       12       00 or or with - API         St. Disposition of Gas (Sold, used for fuel, verted, etc.)       Sold of the const       Test Witnessed By       M. V. Roberts         35. List of Att ichn ents       35. List of Att ichn ents       M. V. Roberts       M. V. Roberts	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record (	24 9.5 & 1 TOP	UINER F	0EPTH 61 615 RECORD	A SET 4 71 SACKS C	но. 7	E SIZE [["-7/8" SCREEN 32. DEPTI 5952'	Hal Hal ACII HINT - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032'	42 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 sac 0 sac 0 sac 0 ubing f PTH set 397' CEMENT 20159 40,00	KS RECOF T SQUE KIND W NI 00 C	Non Non PACKE NON EEZE, ETC. MATERIAL E Tal & 30	
1/12/71       Pumping       2" x 1-1/2" x 16' H. F.       Producing         Date of Test       Hours Tested       Oboke Stac       Dred'n. For       Gus = mor       Water = Hol.       Gas = Oll Rat         1/19/71       24       Open       Test Period       190       222       12       1156 -         Flow Toring Press.       25       25       Culculul = - Hol.       190       222       12       01 JOINTY = API         25       25       Culculul = - Hol.       190       222       12       01 JOINTY = API         34. Disposition of Gas (Sold, used for fuel, verted, etc.)       Test Witnessed By       M. V. Roberts         35. List of Att information       Solution on both sides of this form is true and complete to the best of my knowledge and belief.	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record 5952' - 6032',	24 9.5 & 1 TOP	UINER F	0EPTH 61 615 RECORD	A SET 4 71 SACKS C	HOL 7 EMENT	E SIZE 11" -7/8" SCREEN 32. DEPTI 5952' 5952'	Hal Hal ACII HINT - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032'	42 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 sac 0 sac 0 sac 0 ubing f PTH set 397' CEMENT 201 59 40, 00	KS RECOF T SQUE KIND W NI 00 C	Non Non RD PACKE Non EEZE, ETC. MATERIAL E Tal & 30	
Date of Test       Hours Tested       Object State       Dredfa. For       Cill - Dui.       Gas - Mor       Water - Hoi.       Gas - Oll Rat         1/19/71       24       Open       Test Period       190       222       12       1156 -         Flow Toring Prece.       25       25       Culculation Hoi.       190       222       12       1156 -         190       222       12       12       1156 -       190       222       12       1156 -         25       25       25       Culculation Hoi.       190       222       12       0       0         34. Disposition of Gas (Sold, used for fuel, verted, etc.)       Test Witnessed By       N. V. Roberts       M. V. Roberts         35. List of Alt ichn onts       35. List of Alt ichn onts       Sold on both sides of this form is true and complete to the best of my knowledge and belief.	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record 5952' - 6032', 33.	24 9.5 & 1 TOP	0.60	DEPTH 61 615 RECORD DITTOM	A 7 SACKS C	PROD	E SIZE 11" -7/8" SCREEN 32. DEPTI 5952' 5952' UCTION	Ha] Ha] Ha] ACII H INT - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 0321 0321	42 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 sac 0 sac	ks RECONT T SQUE KIND % NI 00 C Sand	None None Packe None EEZE, ETC. MATERIAL E Zal & 30 d	
1/19/71       24       Open       190       222       12       1133 -         Plow Tubing Press.       25       25       Outculate - isol.       Ison - more       Water - bbl.       On onlying - API         34. Disposition of Gas (Sold, used for fuel, verted, etc.)       190       222       12       43         35. List of Att ichn ents       35. List of Att ichn ents       M. V. Roberts	CASING SIZE 8-5/8'' 4-1/2'' 29. 31. Perforation Record 5952' - 6032', 33. Date First Production	24 9.5 & 1 TOP (Interval, size a 3/8", 4	0.60	DEPTH 61 615 RECORD DITTOM Per fo	A SET 4 71 SACKS C Gt	PROD	E SIZE 1 1" -7/8" SCREEN 32. DEPTI 5952' 5952' 5952' UCTION ing - Size a	Hal Hal Hal Acii H INT - 60 - 60	CEMENT lliburton 30. size 2-3/8 D, SHOT, FRA ERVAL 032' 032' 032'	42 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 sac 0 sac 0 sac 971 5971 CEMENT 3971 CEM	KS RECOF T SQUE KIND W NI 00 C Sanc	None None PACKE None EEZE, ETC. MATERIAL E Jal & 30, d	
25       25       How Ha       190       222       12       43         34. Disposition of Gas (Sold, used for fuel, verted, etc.)       Test Witnessed By         Waiting on Connection (Phillips)       M. V. Roberts         35. List of Ait ichn ents         36. Thereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record ( 5952' - 6032', 33. Date First Production 1/12/71	24 9.5 & 1 TOP (Interval, size a 3/8", 4	0.60 LINER F BC Ind number shots	DEPTH 61 615 RECORD DITIOM er/ per fo	SACKS C Gt cing, gas l 2 <sup>11</sup> x 1 -	PROD	E SIZE 1 [ '' -7/8'' SCREEN 32. DEPTI 5952' 5952' UCTION ing - Size a x 16' H	Hal Hal Hal Acii H INT - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 032' 032'	42 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 sac 0 sac 0 sac 0 ubing f PTH set 3971 cement 3971 cement 00 159 40, 00 0/40 well s Pro	ks RECOF T SQUE KIND % NI 00 C Sanc Status ( oduc	None None PACKE PACKE None EEZE, ETC. MATERIAL E Cal & 30, d (Prod. or Shut cing	
34. Disposition of Gris (Sold, used for fuel, verted, etc.)       Test Witnessed By         Waiting on Connection (Phillips)       M. V. Roberts         35. List of Att ichn ents       Sold Att ichn ents         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.	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record 5952' - 6032', 33. Date First Production 1/12/71 Date of Test 1/19/71	24 9.5 & 1 70P (Interval, size a 3/8", 4 Proc F	0.60 LINER F BC nd numbe shots	DEPTH 61 615 RECORD DITIOM er/ per fo	SACKS C Gt cing, gas l 2 <sup>11</sup> x 1 -	PROD	E SIZE 1 [ '' -7/8'' SCREEN 32. DEPTI 5952' 5952' 5952' UCTION ing - Size a x 16' H cil - DUI.	Hal Hal Hal Acii H INT - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 032' 032' 032' 032'	42 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 sac 0 sac 0 sac 971 577 577 577 577 577 577 577 577 577 5	ks RECOF T SQUE KIND % NI 00 C Sanc Status ( oduc	None None PACKE PACKE None EEZE, ETC. MATERIAL E Tal & 30 d (Prod. or Shut Cing Gas-Oll Rat	
Waiting on Connection (Phillips)       M. V. Roberts         35. List of Att icht outs         36. Thereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record 5952' - 6032', 33. Date First Production 1/12/71 Date of Test 1/19/71 Flow Tubing Press.	24 9.5 & 1 70P (Interval, size a 3/8", 4 8 Proc F Hours Tested 24 24 24	0.60 LINER F BC nd numbe shots	DEPTH 61 615 RECORD DITIOM PPT fo per fo tethod (Flor ing 2 roke Stap Open decador	SACKS C SACKS C SACKS C Cing, gas l Cing, gas l Drad's Test Pe	PROD iff, pump -1/2 <sup>11</sup> For seried	E SIZE 1 [ '' -7/8'' SCREEN 32. DEPTI 5952' 5952' 5952' LOC FION ing - Size a x 16' H cil - DUI. 190	Hal Hal Hal ACII H INT - 60 - 60 - 60 - 60 - 60 - 60 - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 03' 04' 04' 04' 04' 04' 04' 04' 04	42 50 1 DE 58 C FURE, AMOL A/50( Frac 2) Vate	5 sac 0 sac 0 sac UBING F PTH SET 397 <sup>1</sup> CEMENT 397 <sup>1</sup> CEMENT 00 159 40,00 0/40 Well S PTC ST - Hol. 12	ks RECOF T SQUE SKIND % NI 00 C Sand Status ( oduc	None None RD PACKE NONE EEZE, ETC. DMATERIAL E Tal & 30, d (Prod. or Shut cing Gas-OII Rat 1156 -	
35. List of All ichronis 36. Thereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record 5952' - 6032', 33. Date First Production 1/12/71 Date of Test 1/19/71 Flow Tables Press. 25	24 9.5 & 1 70P (Interval, size a 3/8", 4 8 Proc F Hours Tested 24 24 21 21 25	UINER F	DEPTH 61 615 RECORD DITIOM er/ per fo tethod (Flor ing C tethod (Flor ing C tethod State Open deution	SACKS C SACKS C SACKS C Cing, gas l Cing, gas l Drad's Test Pe	PROD iff, pump -1/2 <sup>11</sup> For seried	E SIZE 1 [ '' -7/8'' SCREEN 32. DEPTI 5952' 5952' 5952' LOC FION ing - Size a x 16' H cil - DUI. 190	Hal Hal Hal ACII H INT - 60 - 60 - 60 - 60 - 60 - 60 - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 03' 04' 04' 04' 04' 04' 04' 04' 04	42 50 50 50 50 50 50 75 75 75 75 75 75 75 75 75 75 75 75 75	5 sac 0	KS RECOF T SQUE KIND NI 00 C Sanc Status ( oduc	None None RD PACKE None EEZE, ETC. DMATERIAL E Gal & 30 d (Prod. or Shull cing Gas_OII Rat 1156 -	
millet	CASING SIZE 8-5/8'' 4-1/2'' 29. SIZE 31. Perforation Record 5952' - 6032', 33. Date First Production 1/12/71 Date of Test 1/19/71 Flow Tubing Press. 25 34. Disposition of Gas	24 9.5 & 1 70P (Interval, size a 3/8", 4 s 24 Proc F Hours Tested 24 Crimics Precess 25 (Sold, used for f	UINER F BC nd number shots	DEPTH 61 615 RECORD DITIOM er/ per fo tethod (Flor ing fo Depen decision red, etc.)	SACKS C SACKS C Gt cing, gas l 2" x 1 - Prod'n. Test Pe	PROD iff, pump -1/2 <sup>11</sup> For seried	E SIZE 1 [ '' -7/8'' SCREEN 32. DEPTI 5952' 5952' 5952' LOC FION ing - Size a x 16' H cil - DUI. 190	Hal Hal Hal ACII H INT - 60 - 60 - 60 - 60 - 60 - 60 - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 03' 04' 04' 04' 04' 04' 04' 04' 04	42 50 50 50 50 50 50 50 75 75 75 75 75 75 75 75 75 75 75 75 75	5 sac 0	ks RECOF T SQUE Status ( oduc	None None RD PACKE None EEZE, ETC. DMATERIAL E Cal & 30 d (Prod. or Shull cing Gas-OII Rat 1156 -	
millet	CASING SIZE 8-5/8'' 4-1/2'' 29. 31. Perforation Record ( 5952' - 6032', 33. Date First Production 1/12/71 Date of Test 1/19/71 Flow Tubing Press. 25 34. Disposition of Gas Waiting	24 9.5 & 1 TOP (Interval, size a 3/8", 4 Proc F Hours Tested 24 Chaing Procost 25 (Sold, used for f on Ccne	UINER F BC nd number shots	DEPTH 61 615 RECORD DITIOM er/ per fo tethod (Flor ing fo Depen decision red, etc.)	SACKS C SACKS C Gt cing, gas l 2" x 1 - Prod'n. Test Pe	PROD iff, pump -1/2 <sup>11</sup> For seried	E SIZE 1 [ '' -7/8'' SCREEN 32. DEPTI 5952' 5952' 5952' LOC FION ing - Size a x 16' H cil - DUI. 190	Hal Hal Hal ACII H INT - 60 - 60 - 60 - 60 - 60 - 60 - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 03' 04' 04' 04' 04' 04' 04' 04' 04	42 50 50 50 50 50 50 50 75 75 75 75 75 75 75 75 75 75 75 75 75	5 sac 0	ks RECOF T SQUE Status ( oduc	None None RD PACKE None EEZE, ETC. DMATERIAL E Cal & 30 d (Prod. or Shut cing Gas-OII Rat 1156 -	
SIGNED MULTOBELLA TITLE V. P. Production DATE 1/29/71	CASING SIZE $8-5/8^{11}$ $4-1/2^{11}$ 29. SIZE 31. Perforation Record of $5952^{1} - 6032^{1}$ , 33. Date First Production 1/12/71 Date of Test 1/19/71 Flow Tubing Press. 25 34. Disposition of Gas Waiting 35. List of Att coherents	24 9.5 & 1 TOP (Interval, size a 3/8", 4 Proc F Hours Tested 24 Drain; Press 25 (Sold, used for f on Cc.ine	0.60	DEPTH 61 615 RECORD DITTOM PER fo per fo tethod (Flor ing 2 coke Size Open decision pur Ra red, etc.) (Philli	sset 4 7 <sup>1</sup> sacks c sacks c cing, gas l 2 <sup>11</sup> x 1 Product Test Pe	PROD ift, pump -1/2 <sup>11</sup> For artiod 190	E SIZE 1 ['' -7/8'' SCREEN 32. DEPTI 5952' 5952' 5952' UCTION ing - Size a x 16' H Cit - BUI. 190 Gas -	Hal Hal Hal ACII H INT - 60 - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 032' 032' 032' 032' Cas - Mor 222 Vienter 2	42 50 50 50 50 50 50 50 75 75 75 75 75 75 75 75 75 75 75 75 75	5 sac 0	ks RECOF T SQUE KIND % NI 00 C Sand Status ( oduc	Non Non PACKE Non EEZE, ETC. DMATERIAL E Cal & 30 d (Prod. or Shu cing Gas-OII Rat 1156 -	
SIGNED <u>11/11, A Decta</u> TITLE V. P. Production DATE 1/29/11	CASING SIZE $8-5/8^{11}$ $4-1/2^{11}$ 29. SIZE 31. Perforation Record of $5952^{1} - 6032^{1}$ , 33. Date First Production 1/12/71 Date of Test 1/19/71 Flow Tubing Press. 25 34. Disposition of Gas Waiting 35. List of Att coherents	24 9.5 & 1 TOP (Interval, size a 3/8", 4 Proc F Hours Tested 24 Drain; Press 25 (Sold, used for f on Cc.ine	0.60	DEPTH 61 615 RECORD DITTOM PER fo per fo tethod (Flor ing 2 coke Size Open decision pur Ra red, etc.) (Philli	sset 4 7 <sup>1</sup> sacks c sacks c cing, gas l 2 <sup>11</sup> x 1 Product Test Pe	PROD ift, pump -1/2 <sup>11</sup> For artiod 190	E SIZE 1 ['' -7/8'' SCREEN 32. DEPTI 5952' 5952' 5952' UCTION ing - Size a x 16' H Cit - BUI. 190 Gas -	Hal Hal Hal ACII H INT - 60 - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 032' 032' 032' 032' Cas - Mor 222 Vienter 2	42 50 50 50 50 50 50 50 75 75 75 75 75 75 75 75 75 75 75 75 75	5 sac 0	ks RECOF T SQUE KIND % NI 00 C Sand Status ( oduc	Non Non PACKE Non EEZE, ETC. DMATERIAL E Cal & 30 d (Prod. or Shu cing Gas-OII Rat 1156 -	
	CASING SIZE $8-5/8^{11}$ $4-1/2^{11}$ 29. SIZE 31. Perforation Record of 5952' - 6032', 33. Date First Production 1/12/71 Date of Test 1/19/71 Flow Tubing Press. 25 34. Disposition of Gas Waiting 35. List of Alt cohe ents 36. Thereby certify that	24 9.5 & 1 TOP (Interval, size a. 3/8", 4 Proc F Hours Tested 24 Draing Process 25 (Sold, used for f on Cc. ine the information	0.60 LINER F BC Ind number shots Shots Cure Control Line	DEPTH 61 615 RECORD DITTOM PER fo per fo tethod (Flor ing 2 coke Size Open decision pur Ra red, etc.) (Philli	s SET 4 7 <sup>1</sup> SACKS C SACKS	PROD PROD iff, pump -1/2 <sup>11</sup> rot iff, pump arm is tro	E SIZE 1 [" -7/8" SCREEN 32. DEPTI 5952' 5952' 5952' 5952' UC FION ing - Size a x 16' H CH - BUI. 190 GHS -	Hal Hal Hal Aclin H INT - 60 - 60 - 60 - 60 - 60 - 60 - 60 - 60	CEMENT lliburton 30. SIZE 2-3/8 D, SHOT, FRA ERVAL 032' 032' 032' 032' Cas - MCr 222 Mate 2	42 50 50 50 50 50 50 50 75 75 75 75 75 75 75 75 75 75 75 75 75	5 sac 0 sac 0 sac UBING F PTH SET 3971 CEMENT INT AND 00 159 40,00 0740 Well S PTC ST - Hol. 1 2 t Witness L. V. ge and be	ks RECOF T SQUE KIND KIND Sand Status ( oduc Sand Con S Sand Con S Status ( con S Sand Con S Sand Con S Status ( con S Sand Con Sand Con S Sand Con S Sand Con S Sand Con S Sand Con Sand Con Sa	PACKE None EEZE, ETC. MATERIAL E Gal & 30, d (Prod. or Shut Cing Gas_ON Ratt 1156 - 1156 - 43 Derts	

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#### 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-diffied or deepened well. It shall be accompanied by one copy of all electrical and ratio-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, two 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 exception 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

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т.	Anhy	<b>. T</b> .	Canyon	Т.	Ojo Alamo	. <b>T</b> .	Penn. "B"
т.	Salt	_ Т.	Strawn	Τ.	Kirtland-Fruitland	Т.	Penn. "C"
В.	Salt	- T.	Atoka	T.	Pictured Cliffs	Т.	Penn. "D"
T.	Yates	т.	Miss	Т.	Cliff House	Т.	Leadville
т.	7 Rivers	<u> </u>	Devonian	Т.	Menefee	T.	Madison
					Point Lookout		
					Mancos		
T.	San Andres2025	<u> </u>	Simpson	Т.	Gallup	T.	Ignacio Qtzte
т.					se Greenhorn		
T.	Paddock	. т.	Ellenburger	Т.	Dakota	T.	
Т.	Blinebry	_ т.	Gr. Wash	Т.	Morrison	Т.	
Ŧ.	Тирр	<u></u> . Τ.	Granite	Т.	Todilto	Т.	
Τ.	Drinkard	_ <u>1</u> `.	Delaware Sand	Т.	Entrada	Т.	
Τ.	Abo <u>Reef 5946</u>	_ T.	Bone Springs	<b>T</b> .	Wingate	Т.	·
					Chinle		
т.	Penn	. Т.		T.	Permian	T.	
					Penn. "A"		

#### FORMATION RECORD (Attach additional sheets if necessary)

From	То	Thickness in Feet	Formation	From	То	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.				·
	Carl State						
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* •.	12						
NO/ OF COPIES RECEIVED							
	Supervedes Old						
SANTA FE NEW MEXICO OIL CONSERVATION COMMESSIOND							
FILE	Star Effective 1-1-65						
	50. Indicate Type of Lease						
	mastute X Fee						
	Listate Oli & Gas Lease No.						
OPERATOR O. C. C.	- B-4575						
ARTESIA: DELINA	minimited with the second second						
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO BUILL OR TO DEFEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE TAPPLICATION FOR PERMIT - "(FORM C-101) FOR SUCH FROPOSALS.)							
	7, Unit Agreement Name						
2. Name of Operator	8, Farm or Lease Name						
Penroc Oil Corporation	State						
3, Address of Operator	9. Weli No.						
P. O. Drawer 831, Midland, Texas	2						
4. Location of Well	10. Field and Pool, or Wildcat						
UNIT LETTER P. 360 FEET FROM THE South LINE AND 330 FEET FROM	Empire Abo						
UNIT LETTER JOU FEET FROM THE LINE AND FEET FROM							
THE East LINE, SECTION 28 TOWNSHIP 17South RANGE 28 East NMPM							
THE LINE, SECTION TOWNSHIP RANGE NMPM							
15. Elevation (Show whether DF, RT, GR, etc.)	12. County						
AIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Eddy						
Check Appropriate Box To Indicate Nature of Notice, Report or Ot							
NOTICE OF INTENTION TO: SUBSEQUEN	T REPORT OF:						
PERFORM REMEDIAL WORK	ALTERING CASING						
TEMPORARILY ABANDON	PLUG AND ABANDONMENT						
PULL OR ALTER CASING	Completion [X]						
OTHER							
OTKER							
17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, includin,	estimated date of starting any proposed						
work) SEE RULE' 1 103.	s estimates one of statting any proposed						
Set Dyna Drill at 3552' and 3972'.							
Drilled 7-7/8" hole to 6158' T. D.							
	log to 6159 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 b	alle						
1/11/71 Fractured formation w/40 000 gal. Mod bring and 30 000# 20/							

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 MULTER V. P. Production DATE 1/29/71 APPROVED BY For Regord Dutt TITLE OIL AND GAS INSPECTOR DATE FEB 10 1971

CONDITIONS OF APPROVAL, IF ANY:

Pocket No. 5-71

(Case 4502 continue1)

TAWNSHED IN SOUTH, RANCE 35 EAST SECTION IN MW74

TOWNSHIPP LS SOUTH, RANGE 35 EAST Section 3: NW/4 Decision 4: Sy2 and NW/4

CASE 4503:

- 3: In the matter of the heating called by the Oil Conservation Commission on its two motion to permit Penroe Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroe 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, Hownship 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 assignment 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-2010, 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

Mr. Guy Buell Amoco Production Company Post Office Box 1410 Fort Worth, Texas 76101 Re: Case No. 4503 Order No. R-4122-A Applicant:

Amoco Production Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours, a.d.l Torler Ch

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 CON-SERVATION 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 OFF-EET 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 <u>19th</u> day of July, 1971, the Commission, a guorum 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 Bast 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. -2-CASE NO. 4503 (De Novo) Order No. R-4122-A

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(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 bottomhole 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 <u>de novo</u> 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 Bast 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 guarter-guarter 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.

-3-CASE NO. 4503 (De Novo) Order No. R-4122-A

(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-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.



dr/

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

BRICE KING, Chairman

ALEX J. ARMIJO, Member

A. L. PORTER, Jr., Membér & Secretary

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CON-SERVATION 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 VHY THE ALLOWABLE ASSIGNED TO SAID WELL SHOULD NOT BE REDUCED TO OFF-SET 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:

1 Autor

de novo

This cause came on for hearing/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 pre-

sented 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. -2-CASE NO. 4503 (De Novo) Order No. R-4122-A

(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 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. Covery503 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 heavy approved.

(6) That Amoco Production Company requested and was granted a hearing <u>de novo</u> 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. -3-CASE NO. 4503 (De Novo) Order No. R-4122-A

(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 guarter-guarter 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 -4-CASE NO. 4503 (De Novo) Order No. R-4122-A

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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.

Examiner Hearing - February 24, 1971 -3-

(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 assignment 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

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CASE No. 4503

Order No. R- 4/2-2

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Penred Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penred 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 <u>February 24</u>, 1971, at Santa Fe, New Mexico, before Examiner <u>Elvis A. Utz</u>.

NOW, on this <u>day of March</u>, 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

# CASE No. 4503

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 Subject of the 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 bottomhole 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 -3-CASE No. 4503

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 deep pages-

entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.