CASE NO.

7434

APPlication, Transcripts, Small Exhibits,

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2	STATE	OF NEW MEXICO	
	ENERGY AND M	INERALS DEPARTMENT	
3		RVATION DIVISION	
4		ND OFFICE BLDG. E. NEW MEXICO	
		cember 1981	
5		Cemper 1901	
	COMMIS	SION HEARING	
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8	The Commission	will consider the	CASE
9	amendment of D	Division Rule 112-A.	7434
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13	BEFORE: Ramey	n in die gewonder besteht der	
	Mr. Arnold		
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19	For the Oil Conservation	W. Perry Pearce	
20	Division:	Legal Counsel t State Land Offi	
		Santa Fe, New M	_
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22	Day the North Court		
23	For the Applicant:		
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MR. HALL: The Commission will consider the amendment of Division Rule 112-A to permit the Division's

wells under certain specified conditions and to delete the

MR. RAMEY: This case was heard on December 3rd and because of an error in advertising was re-

Are there any appearances or does any-

If not, the Commission will take the case

(Hearing concluded.)

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CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Kearing before the Oil Conserva tion Division was/reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sooy W. Boyd COR

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2	INDEX	artinīju. Mara
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4	4 TO STANFOR	The second second
	A. J. JIMBIO	
5	Direct Examination by Mr. Pearce	5
6	Cross Examination by Mr. Ramey	15
7	Questions by Mr. Yates	16
8	Cross Examination by Mr. Mote	19
, , , , ,	Questions by Mr. Kalteyer	23
10	Statement by Mr. Kellahin	25
11		
12		
13	EXHIBITS	garage and the second of the s
14		
15	Division Exhibit One, Document	**************************************
16	Division Exhibit Two, Form,	8
17	Division Exhibit Three, Document	12
18		1.0
19		
20		· ·
21		
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1 MR. RAMEY: All right, we'll call now 3 Case 7434. MR. HALL: The Commission will consider 3 the amendment of Division Rule 112-A to permit the Division's District Supervisors to approve the multiple completion of 7. wells under certain specified conditions and to delete the 8 requirement for notice to offset operators. MR. RAMEY: We'll have a fifteen minute 10 recess before we start taking testimony. 11 12 (Thereupon a recess was 13 taken.) 14 15 MR. RAMEY: The hearing will come to 16 order. 17 Mr. Pearce, are you prepared to pro-18 ceed? 19 MR. PEARCE: I'm ready. 29 MR. RAMEY: With Case 7434? 21 MR. PEARCE: Thank you, Mr. Ramey. 22 Case 7434 having been called, I would like the record to 23 reflect that I am W Perry Pearce, appearing on bohalf of 24 the New Mexico Oil Conservation Division.

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I have one witness, Mr. Richard L. Stame

who has been previously sworn and qualified, and with the Commission's permission we will proceed with that matter.

MR. RAMEY: Please do.

MR. PEARCE: Thank you, sir.

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R. L. STAMETS

being called as a witness and having been previously sworn upon his oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. PEARCE:

Q Mr. Stamets, would you briefly review for the members of the Commission and those in attendance at this hearing the proposed changes set forth as Case 7434?

A. Yes. In this case I'm going to put on my white hat and try and make things easier for us and oil operators.

The first thing we're going to consider today is the amendment of Rule 112-A relative to multiple completions.

Multiple completions have been around in the -- in the oil business longer than I have, and that's going on twenty-five years now. I believe when I first went to work for the Oil Conservation Division back in 1957 we

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were approving some of the first multiple completions.

We've had an administrative process for approval of multiple completions for a number of years, and after all of this experience the multiple completion well has become essentially routine and so what I've done is try and rewrite Rule 112-A to reflect the more routine nature of this to give the District offices approval to approve multiple completions in the same manner that they would approve notice of intention to drill, or any other ordinary oil field activity, and then a new administrative process where reservoir energy concerns may be a matter of concern to us.

Let me just run through this, then, in the proposal.

Rule 112-A, the first paragraph is the same as what we've had now, just saying that you do have to get Division approval for multiple completion.

Paragraph 2 goes into the new District approval process. The -- it starts by saying the supervisor of the appropriate Division district may authorize the multiple completion of qualifying conventional, tubingless, or combination, whenever the zones to be completed are to be produced through tubing or through casing where such casing has an outside diameter of 2.875 inches, or less.

The supervisor may authorize one zone

to be produced through a casing -- through a casing/tubing annulus if such zone produces no more than one barrel of liquids per day.

Now, in this last -- let me talk about this whole thing for a minute.

I think we can assume that if all the zones are to be produced through tubing, there should be no real problem with excessive use of reservoir energy in the production of any of those zones.

When we get into a situation where one zone may be going up the annulus it is possible that because of liquids production inefficient use of reservoir energy could occur.

Now, this -- the volume of liquids, the volume of gas is going to vary from well to well, and I don't have any sliding scale that I could present here today which would magically show any of us exactly what volume of liquids could be produced relative to another volume of gas. So I've just simply said if it's more than a barrel a day, you have to use some other process. That cannot be approved at the District Office level. And that's strictly an arbitrary figure.

Now going on, the second paragraph describes what you must do to obtain approval for multiple com-

pletion at the District; tells you how many forms must be filed and what information must be on that form, which is Form C-107.

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Form C-107 is shown as Exhibit Two to this case. This form is very similar to the existing Form C-107. The information to be shown in the middle of the form is somewhat different, primarily in paragraph E there, showing the daily production, actual or estimated, and showing Oil Bbls., Gas MCF, and Water Bbls.

Also, we have removed from the form any requirement that the offset operators be listed or that they be notified. Again, this has become such a routine situation that we don't believe the offset operators have to be notified, and in my conversations with operators, both the Oil and Gas Association and the Petroleum Association, no one said that they felt that offset operators had to be notified, so we are eliminating that provision.

Going on, then we do say that the District supervisor may forward any application to the Director of the Division for approval. If for any reason he's not satisfied with the application, he can send it on up.

Section III, then, describes the new administrative approval process. It states that the Division Director may authorize the multiple completion, qualifying

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conventional, tubingless, or combination, not qualifying for District approval or referred to him by a District supervisor

when a zone of a proposed multiple completion is to be produced through a casing/tubing annulus,
and such zone produces more than one barrel a day of liquids,
the applicant shall furnish proof that such liquids may be
efficiently produced without undue use of reservoir energy
for the expected producing life of the well.

Application then, the next paragraph goes into how you would file, and this would basically be filing the same information with the Santa Fe Office, plus this one additional requirement, demonstrating that the flow up the annulus is efficient.

Upon receipt of a complete application the Division Director may approve the matter administratively or he may set it for public hearing. If he's not satisfied with what he has received, he can set the matter for hearing.

Now, Section IV goes into what types of multiple completions qualify for approval either at the District Office or administratively, and these are essentially the same as our existing rules. The definitions and the requirements are identical.

We have one slight change in Section

IV (a) (5), which is in the middle of that page. Let me read

that.

It says, downhole equipment used to segregate the separate zones of the multiple completion will be production-type packers, which is what we have in the current rule, and then we've added polished bore receptacles, or the equivalent, and shall effectively prevent communications between all producing zones.

And we have added polished bore receptacles there because after a number of hearings we have added those to our list of approved separation equipment.

The rest of that page is the same as the existing rules, so we can move on to the next page, which talks about -- Section V being how you would apply for a hearing. It states that any multiple completion not qualifying for District Approval or administrative approval must be set for public hearing, and states that the operator can apply for that either under the terms of Rule 1203 or by filing Form C-107 with the Santa Fe office.

Section VI goes into operation and testing, and in sections -- or parts (a) through (e) here are essentially the same as our existing rules. There are a few changes I would like to mention.

In paragraph (c) in the second line we're talking about the segregation tests and/or packer leak-

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age, we have provided fifteen days after the multiple completion to do this. This was suggested by an operator in the
San Juan Basin who said sometimes it is difficult to actually
get out and run this test within seven days, and that doesn't
seem like an undue period of time to allow for such tests.

We have removed the requirement for submittal of a packer setting report. That can now simply be shown on Form C-103 or Form C-105.

The next change is in paragraph (e).

There we have provided twenty days after the completion of a well for furnishing of the diagrammatic sketch of mechanical installation. It formerly said fifteen days. Twenty days was requested by an operator in the San Juan Basin.

It doesn't seem unreasonable and it does tie in with our filing dates for Form C-105.

The next two paragraphs are new paragraphs which have been added.

Paragraph (f) says that no multiple completion may continue to produce in a manner which would unnecessarily be wasteful of reservoir energy.

Paragraph (g) states that the Division may require the proper plugging of any abandoned zone of a multiply completed well if such plugging appears necessary to prevent waste or protect correlative rights.

Mr. Stamets, in addition, Exhibit Three to Case 7434 deals with the second part of this case as it relates to changes in downhole commingling regulations of the Division. Would you at this time summarize for the Commissioners and those in attendance at this hearing those proposed changes?

A. Yes. We have had administrative approval for the downhole commingling of oil zones available for us and the operators for a number of years. We've had quite a few hearings in the last few years for downhole commingling of gas zones or gas and oil zones, and to sort of facilitate our work and to allow the operators to get approval of such downhole commingling without necessity of coming in for a hearing, we have proposed these additional rules.

Rule 303-C, the first paragraph there in Section 1, we have simply added in authorization to approve gas-gas and gas-oil zones in addition to the oil zones originally authorized by the rule.

And then no changes have been made in Section (a) there, for wells involving oil zones. Everything is identical through the first seven sentences there, seven parts.

You get into paragraph (b), this is all new and it is taken from the provisions of many of our gas

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downhole commingling orders.

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24 25 So these would be the requirements which must be met for wells which are -- which involve a gas zone.

The first is that the commingling is necessary to permit a zone, or zones, to be produced which would not otherwise be economically producable; that there would be no cross flow between the zones to be commingled; that any zone which is produced from fluid-sensitive sands, which may be subject to damage from water or other produced liquids, is protected from contact from such liquids produced from other zones in the well; that the fluids from each zone are compatible with fluids from the others; and that the combining of the fluids will not result in the formation of precipitates which may damage any of the reservoirs; that the ownership of the zones to be commingled is common, including working interest, royalty, and overriding royalty; that the bottom hole pressure of the lower pressure zone is not less than 50 percent of the bottom hole pressure of the higher pressure zone, adjusted to a common datum.

The next page starts out with part 2 on how to obtain approval, and down through part (h) these are essentially the same as our existing rules.

Part (i) is new. It says, a formula for the allocation of production to each of the commingled

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on the production history of the well or may be based on reserve calculations, or such other reasonable formula as the operator may determine.

And then the final part there, (j), is the same as in the existing rule for obtaining approval.

determining such a formula. This, of course, is often based

zones and the description of the factors or data used in

Next Section 3, simply provides that the Division Director may approve this if nobody has objected within twenty days, and that's the same as our existing rule.

The next part, 4, talks about operation of the well, and that is the same as the existing rule until we get down to the second sentence, which starts about the middle of that paragraph.

well with a commingled oil zone shall be subject to the lower daily gas/oil ratio limitations applicable to the reservoirs. The production attributable to an oil zone commingled with a gas zone shall be subject to the daily gas/oil ratio limitation applicable to such zone or pool. And the last sentence is the same, simply requiring that wells be tested on a commingled basis annually.

The next paragraph, 5, is basically the same as in the existing rule.

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And that's all I have on this proposal.

MR. PEARCE: Mr. Commissioner, at this
time we would move the admission of Exhibits One, Two, and

Three to Case 7434, and the staff of the Division has nothing additional at this time.

MR. RAMEY: Exhibits One, Two, and Three

CROSS EXAMINATION

BY MR. RAMEY:

will be admitted.

Mr. Stamets, on on number four there that you just recently completed discussing, I wonder if you shouldn't put the word "oil" after "such" if you're talking about the lower -- "The production attributable to the oil zone commingled with the gas zone shall be subject to the daily gas-oil ratio limitation applicable to such oil zone or pool"?

A. Yes, I think that would improve the language there.

A. Oh, I might -- I did have a discussion with someone during the break about this and they did make a couple of suggestions.

Right at the beginning of 303-C, in

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Part A, they did suggest that the -- for clarification we should say that the total combined daily oil production zones before commingling would be the equivalent shown there, and I think that would perhaps clarify that rule.

MR. RAMEY: Mr. Yates.

QUESTIONS BY MR. YATES:

Q Peyton Yates, with the -- representing the Petroleum Association.

We had a question. Generally, we're very much in favor of the proposed changes and welcome the Commission's attempt to try to make simpler the field operations.

However, we had a question and I'm not quite sure, I just came across this yesterday, whether or not we still have the same latitude and (inaudible) of the regulations as proposed as you had in these old regulations; namely, the part of the old regulations, paragraph 2-A --

A. Which, are we talking about 112 or 303?

112, excuse me, 112-A, paragraph Two-A, the old regulations, the Secretary-Director of the Commission excuse me, the Division -- had the authority to grant exceptions to the rules affecting multiple completion in cases in areas where it had been approved before. In other words,

if there were a precedent established there was no need to come up again in certain pools for a hearing, and it appears you attempted to do this somewhat, but I wonder if you'd discuss this. Do you agree that the Director still has that same latitude under these new regulations?

A. It is the intent of this rule as written to be more flexible than what you're talking about.

The rule as it is currently written provides for administrative approval if there are already similar dual completions in those same two pools.

And this rule goes beyond that, allowing for approval of the dual completion in any set of pools whether or not there have ever been any pooled before, so long as it meets the construction requirements of these rules.

Well, that's the question, Dick, is whether or not if you have a case that does not meet the construction requirements but has previously been approved in a hearing, can, under the new guidelines that we have here, is it possible that the Director says, we've already approved this for these wells in this pool -- for this -- for one well, therefor, we can approve the second one administratively rather than have a hearing, or is he forced into a hearing mechanism because that particular method is not defined under this method? Do you see?

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A. I see what you mean, and I agree that it does not permit that. What type of a multiple completion are you talking about, though? Can you give me an example?

ences -- I think you tried to address it where you have differences in tubing sizes. You have some paragraph at the bottom of IV (b), in a paragraph there, that gives the Director some leeway. I'm just -- I can't -- I don't have a specific example of it, other than that you may have tubing sizes that are different than those listed here, and we're not saying -- we're not objecting to coming up and having a hearing for special cases, but in this second go-around are you forced into having a hearing?

MR. RAMEY: In other words, Mr. Yates, if you would utilize 3-inch tubing in one well and have a hearing for it, well, then you feel like you ought to be able to use 3-inch tubing in the same pool, in the same zone?

MR. YATES: That's correct, once it's been approved at one hearing. And we want to make sure the Director still has that authority to permit that.

A. It certainly seems like a reasonable addition, and I will make a note of that.

MR. RAMEY: Mr. Mote?

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3	CROSS EXAMINATION		
4	BY MR. MOTE:		
5	Q Mr. Stamets, on Rule 303-C		
6	MR. RAMBY: Wait just a minute, please.		
7	MR. STAMETS: Let me make a note, please		
. 8	MR. PEARCE: Thank you.		
,9	Q Rule 303-C (b) small (b), for wells in-		
10	volving a gas zone.		
11	A. Yes.		
12	Q Number 2, my people tell me, is almost		
13	identical to Number 6, and that both the requirement that		
14	there be no cross flow between the zones being commingled,		
15	with the requirement in (6) that the bottom hole pressure		
16	differential of 50 percent. The one would take care of the		
17	other, I think. One or the other must be redundant, must be		
18	considered redundant. Any comments on that?		
19	A. I don't think redundancy hurts in this		
20	particular rule.		
21	Q. Another question that they've raised is		
22	whether or not you can even actually prove whether or not		
23	cross flow occurs between zones being commingled. How do		
24	you prove it or disprove it?		
25	A. Well, reasonable people must agree to a		

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certain set of numbers, and Amoco is possessed of quite a few engineers and I feel confident that they would be able to come in and demonstrate that it wasn't going to happen if it wasn't going to happen, and we are certainly qualified to review the evidence that they submit and make that determination.

After all, this is the sort of thing we're been doing at hearings for several years, and it -- it's not been a problem.

Q Would there be any objection to adding the word "detrimental" between "no" and "crossflow" so that it might be recognized that there may be some crossflow that might occur and not be detrimental, especially in view of Number (6) where you have the pressure differential established?

would be helpful there. We're talking about an administrative process here, and that perhaps should require more of an applicant than a process at a hearing where he can be cross examined and the issue can be discussed.

My preference is that there should be reasonable evidence that there is going to be no crossflow for wells to be approved administratively.

Q I realize that Number 2, which is to ob-

tain approval for downhole commingling, 303-C #2.

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 I realize most of the items listed there are already in the rules, but it occurs to us that this might be a good time to bring up a point; that is, that most of the items that are stated to be required to be furnished to obtain downhole commingling are items which imply that the downhole commingling has already occurred. I believe (d), (e), (f), (g), (h), and (i) all assume that the commingling has occurred, and in most of those cases unless the commingling has actually occurred that information cannot be furnished.

A That's certainly not the way I read those paragraphs. I feel that they all anticipate that -- that the commingling has not occurred.

Well, let's take for example number (f), which requires them to give an estimated bottom hole pressure for each artificially lifted zone. You give a current measured bottom hole pressure for each zone capable of flowing.

The only way you could get estimated would be to have both zones flowing. If you have one zone behind the pipe how would you possibly give a bottom hole pressure in that zone if you hadn't yet commingled?

A. Well, it does say estimated, so certainly you could estimate what your pressure would be based on near-by wells, and perhaps the experience that's been obtained in

that zone -- in completion of that zone in recent wells.

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thing about estimation. How could you give a description of fluid characterisitics of each zone? How would we know what

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the fluid characteristics are without that zone being produced?

Well, (g) following it doesn't say any-

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A. What you're discussing is a situation

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where you are proposing to downhole commingle zones which are

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Q Yes, sir, primarily.

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A. Well, again, as I stated, this is an ad-

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ministrative process and I feel that the burden should be

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greater on the operator for an administrative process than

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one where there is a hearing and an open discussion, and it

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would seem as though this information is reasonable informa-

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tion to be supplied.

not currently completed.

I know of no reason why the operator

couldn't go in and set a bridge plug and test the new zone.

Certainly he would have information on any existing zone in

the well.

21 Q. We would have a suggestion in connection

with the entire paragraph 2. If you could condition the fur-

nishing of material to the extent such information is avail-

able to the operator, since it's all within the discretion of

the Division Director anyway, whether or not the commingling

is permitted. It appears to me that if we added to number

2 a clause saying to the extent such information is available
to the operator that this would clear it up to an extent
showing that in all cases wouldn't have to make all these tests
before the application is made.

A. I'm certain that the Commission has heard your recommendation and I don't believe I concur.

MR. MOTE: I don't have anything further at this time.

MR. RAMEY: Any other questions of Mr. Stamets? Mr. Kalteyer.

QUESTIONS BY MR. KALTEYER:

Q Charles Kalteyer for Gulf Oil.

I do want to commend the Commission for their simplification of the multiple completion and downhole commingling.

I had one question of clarification and that is in the Rule 112-A, multiple completion, item II, District Approval. You set that out and then for Item III, Roman numeral III, you've used the term administrative approval.

I guess your terminology, administrative approval means Division Office, Santa Fe Division Office _

Yes, it --

And I was wondering about clarification of why not call that Division approval versus District approval in several instances there.

They're both administrative.

A. Well, we'll certainly think about that and -- and see if such language appears to clarify the -- the division of approval.

In Item V there on page 7, it could be difficult to interpret where you've put them both together for hearings, any multiple completion not qualifying for District or administrative approval ... the words right together.

And in Rule 303-C, I strongly support your comments about clarifying that Item 1(a) by inserting the word "combined", the combined total daily oil production from oil zones before commingling . . . and also to set out the bottom perforations lowermost zones barrels per day be set out as the oil limit. It does refer to it down below in one paragraph.

And the heading of that column over there is barrels, but the way it's set out it's oil in barrels per day.

Yes, I believe that would improve the

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clarity of this rule.

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We have a problem, usually have to end up having to phone Dan to get it straightened out.

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three types of approval, it seems to me that that's fairly

that it might be in the opening statement up there in I;

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clear. It could be that if we're going to say anything about

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simply state that there are three ways for getting approval.

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MR. RAMEY: I'm just going to mention,

MR. KALTEYER: We'll commend them for

Getting back to your comments on the

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Mr. Kalteyer, you probably shouldn't, you know, praise the

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Commission yet. We haven't made a decision yet. You know,

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this is a Division proposal to the Commission.

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their proposal, then.

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MR. RAMEY: Mr. Kellahin.

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STATEMENT BY MR. KELLAHIN:

completion and downhole commingling.

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MR. KELLAHIN: Mr. Ramey, the New Mexico

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Oil and Gas Association Sub-Committee on Rules and Regulations

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of the Division supports the removal from the hearing process

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of what has become, we believe, routine cases in multiple

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Of those comments addressed to you today

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the only one that I recall not being raised here this morning

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that was raised in our committee discussions was a question of concern in the interpretation of the ownership of the zones to be commingled.

The rule provides and you generally require that the ownership of the zones to be commingled is common. I would assume that that would also allow an operator to present to you written commitments in situations where the ownership is not in common and in which the parties have agreed that the production can be commingled.

I recall that El Paso's had some recent downhole commingling cases in which that was presented for consideration, and if that is broad enough to include those kinds of cases, it may be helpful to amend it.

A I would -- I would certainly think that if all of the owners have agreed in writing, that downhole commingling could be authorized administratively, and I would ask that you would submit some proposed language on that.

MR. RAMEY: Is that agreeable, Mr. Kel-

MR. KELLAHIN: Yes, sir.

MR. RAMEY: Any other questions?

If not, the witness may be excused.

We will readvertise and reopen Case

7434 and also Case 7433 on December 22nd of this year.

CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Rixisian was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sacry W. Boyd CSR

OF THE STATE OF NEW MEXICO OF THE ENERGY AND MINERALS DEPARTMENT

CASE NO. 7434 Order No. R-6882-A

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO ON ITS OWN MOTION FOR THE PURPOSE OF CONSIDERING THE AMENDMENT OF RULE 112-A AND RULE 303-C OF THE OIL CONSERVATION DIVISION RULES AND REGULATIONS AND THE AMENDMENT OF DIVISION FORM C-107:

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Commission that Order No. R-6882, dated January 12, 1982, does not correctly state the intended order of the Commission,

IT IS THEREFORE ORDERED:

- (1) That paragraph 3 on pages 3 and 4 of Exhibit "C" of Order No. R-6882, dated January 12, 1982, is hereby corrected to read in its entirety as follows:
 - "3. The Division Director may approve the proposed downhole commingling in the absence of a valid objection within 20 days after the receipt of the application if, in his opinion, there is no disqualifying disparity of bottomhole pressures or other reservoir characteristics, waste will not result thereby, and correlative rights will not be violated. The 20-day waiting period may be dispensed with upon receipt of waivers of objection from all parties mentioned in Section 2, paragraph (j)."
- (2) That this order shall be effective <u>nunc pro tunc</u> as of January 12, 1982.

-2-Case No. 7434 Order No. R-6882-A

DOWE at Santa Pe, New Mexico, this 22nd day of January,

External Chairman Chairman

ALEX J. ARNIJO, Member

STATE OF NEW MEXICO

JOE D. RAMBY Member & Secretary

SEAL

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF MEN MEXICO ON ITS OWN
MOTION FOR THE PURPOSE OF CONSIDERING
THE AMENDMENT OF RULE 112-A AND RULE 303-C
OF THE OIL CONSERVATION DIVISION RULES AND
REGULATIONS AND THE AMENDMENT OF DIVISION
FORM C-107:

CASE NO. 7434 Order No. R-6882

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at Santa Fe, New Mexico on December 3 and 22, 1981, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 12th day of January, 1982, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the multiple completion of any oil or gas well in New Mexico is prohibited except after approval of the Oil Conservation Division (Division) after notice and hearing or after administrative approval granted under provisions of Division Rule 112-A.
- (3) That the multiple completion of wells is a standard industry practice with 200 or more such completions annually.
- (4) That as a result of limitations contained in said Rule 112-A, approximately half of all applications for multiple completion must presently be set for hearing.
- (5) Experience has shown that most of the applications now set for public hearing could be processed administratively and without notice to offset operators without posing a risk of contributing to waste nor causing violation of correlative rights.

-2-Case No. 7434 Order No. R-6882

- (6) That the proposed amendment to Division Rule 112-A as shown on Exhibit "A" attached to this order, contains administrative approval processes which will permit most applications for multiple completion to be approved without notice and hearing, provided that certain "standard" downhole equipment is utilized and that volumes of liquids which would be wasteful of reservoir energy are not proposed for production through a casing-tubing annulus.
- (7) That said amendment also contains proposals for hearings for certain multiple completions and for the operation and testing of approved multiple completions.
- (8) That in order to effectuate the proposed administrative processes, Division Form C-107, Application for Multiple Completion, should be amended as shown on Exhibit "B" attached to this Order.
- (9) That the proposed amended Rule 112-A and Form C-107 should be adopted effective February 1, 1982.
- (10) That the Division Rule 303-A prohibits the commingling of production from separate common sources of supply (pools) within the wellbore of any oil or gas well except after notice and hearing.
- (11) That Division Rule 303-C provides an administrative procedure to permit the commingling within a common wellbore of production from separate oil pools under certain conditions.
- (12) That in recent years the Division has heard many applications for downhole commingling of gas pools and gas pools and oil pools.
- (13) That many such applications have been approved and that certain standards for approval and operation of such wells have been developed.
- (14) That such standards are incorporated in the proposed amendment of Division Rule 303-C, as shown on Exhibit "C" to this Order, which further contains an administrative procedure for approval of the downhole commingling of production from oil pools, gas pools, and oil and gas pools.
- (15) That adoption of the proposed amended Rule 303-C should permit more efficient industry and Division operations, should permit more economic well operations and longer well life thereby achieving greater ultimate production thereby preventing waste, all without violation of correlative rights.

-3-Case No. 7434 Order No. R-6882

- (16) That effective February 1, 1982, Division Rule 303-C should be amended as shown on Exhibit "C" attached to this Order.
- (17) That adoption of the proposed rule amendments and revised Division Form C-107 will serve to prevent waste and will not violate correlative rights.

IT IS THEREFORE ORDERED:

- (1) That effective February 1, 1982, Division Rule 112-A is hereby revised to read in its entirety as shown on Exhibit "A" attached to this Order.
- (2) That effective February 1, 1982, Division Form C-107, Application for Multiple Completion, is hereby revised as shown on Exhibit "B" attached to this Order.
- (3) That effective February 1, 1982, Division Rule 303-C is hereby revised to read in its entirety as shown on Exhibit "C" attached to this Order.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

EMERY C ARNOLD, Chairman

ALEX J. ARMIJO, Member

JOE D. RAMEY, Member & Secretary

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S E A L

RULE 112-A. MULTIPLE COMPLETIONS

I. The multiple completion of any well may be permitted only as hereinafter provided. Multiple completion of any well without prior approval by the Division shall be solely at the operator's risk and shall in no way commit the Division to subsequent approval thereof.

II. District Approval

The supervisor of the appropriate Division district may authorize the multiple completion (qualifying conventional, tubingless, or combination) whenever the zones to be completed are to be produced through tubing or through casing where such casing has an outside diameter of 2.875 inches or less. The supervisor may authorize one gas zone to be produced through a casing-tubing annulus if such zone produces no more than one barrel of liquids per day.

To obtain approval for multiple completion the operator shall file four copies of Division Form C-107 (Application for Multiple Completion) with the appropriate district office. Form C-107 shall be accompanied by a diagrammatic sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location of packers, side door chokes, and such other information as may be pertinent.

The district supervisor may forward any application to the Director of the Division for approval.

III. Administrative Approval (Division Director)

The Division Director may authorize the multiple completion (qualifying conventional, tubingless, or combination) not qualifying for District approval or referred to him by the District supervisor.

When any gas zone of a proposed multiple completion is to be produced through a casing-tubing annulus and such zone produces more than one barrel per day of liquids, the applicant shall furnish proof that such liquids may be efficiently produced without undue use of reservoir energy for the expected producing life of the well.

Application for administrative approval of a multiple completion shall be made in QUADRUPLICATE, with two copies of the application to be mailed to the Division's Santa Fe Office, and two copies to the District Office for the area in which the

EXHIBIT "A"
Order No. R-6882

well is located. Application shall be made on the Division Form C-107 (Application for Multiple Completion) and shall be accompanied by the following:

- (a) Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location of packers, side door chokes, and such other information as may be pertinent.
- (b) Blectrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as hereinafter provided.)

Upon receipt of a complete application the Division Director may approve the matter administratively or he may set any such application for public hearing.

IV. Qualifying Multiple Completions

The following defines those mechanical installations qualifying for District or Administrative approval of multiple completion.

- (E) The applicant proposes to utilize one of the conventional mechanical installations? escribed below:
 - (1) The well is to be completed as a gas-gas dual or as a gas-gas triple and the hydrocarbons from each of the zones can be safely and efficiently produced through parallel strings of tubing or a combination of tubing string(s) and the tubing-casing annulus; or
 - (2) The well is to be completed as an oil-oil dual or as an oil-oil-oil triple and the hydrocarbons from each of the zones can be safely and efficiently produced through parallel strings of tubing; or
 - (3) The well is to be completed as a combination oil and gas multiple completion and the hydrocarbons from each oil zone can be

EXHIBIT "A"
Order No. R-6882

safely and efficiently produced through parallel strings of tubing and the hydrocarbons from each gas some can be safely and efficiently produced through parallel string(s) of tubing or through a combination of tubing and the tubing-casing annulus; and

- (4) All strings of tubing used for the production of oil in the proposed multiple completion will have a nominal inside diameter of not less than 1.670 inches nor greater than 2.50 inches; and
- (5) The downhole equipment used to segregate the separate zones of the multiple completion will be production-type packer(s), polished bore receptacles, or the equivalent, and shall effectively prevent communication between all producing zones.
- (b) The applicant proposes to employ one of the following tubingless and/or combination methods of completion:
 - (1) Multiple Completion (Tubingless) utilizing two or more small diameter casing strings (2.875 inches OD or less), one to each common source of supply, all cemented in a common well-bore; or
 - (2) Multiple Completion (Combination) utilizing a combination of small diameter (2.875 inches CD or less) and conventional diameter (greater than 2.875 inches) casing strings, all cemented in a common well-bore; and demonstrates that
 - (3) Sufficient cement will be used in said multiple completion to extend throughout each pay and a minimum of 100 feet above; and
 - (4) Centralizers and/or turbolizers will be installed on each joint of casing throughout each pay and on a minimum of three joints above; and
 - (5) Directional perforating equipment will be used in perforating all intervals in any casing string in said multiple completion

EXHIBIT "A"
Order No. R-6882

which intervals are in a zone through which one or more other casing strings pass.

The requirements of paragraphs (3) and (4) may be modified for multiple completions within given common sources of supply and within a given area if, in the opinion of the Division Director, circumstances warrant such modification.

V. Hearings

,

- (a) Any multiple completion not qualifying for district or administrative approval must be set for public hearing.
- (b) Application for public hearing to authorize a multiple completion shall be made in TRIPLICATE to the Division's Santa Fe Office. Application may be made in accordance with Rule 1203 or on the Division Form C-107, Application for Multiple Completion, setting forth all material facts relative to the common sources of supply involved and the manner and method of completion proposed.

VI. Operation and Testing

All multiple completions, whether approved after hearing or by district or administrative procedure, shall be subject to the following rules:

- (a) Prior to actual multiple completion of a well, the operator shall make adequate pressure tests of the casing to determine that no casing leaks exist. Results of casing tests shall be reported to the Division on Form C-103.
- (b) The well shall be completed and thereafter produced in such a manner that there will be no commingling of hydrocarbons from the separate strata.
- (c) The operator shall commence a segregation test and/or packer leakage test not later than fifteen (15) days after actual multiple completion of the well. Segregation tests and/or packer leakage tests shall also be made any time the packer is disturbed and at such other intervals as the Division may prescribe. The Operator shall also make all other tests and determinations deemed necessary by the Division. The Division shall be notified of the time such tests are to be commenced and tests may be witnessed by the

EXHIBIT "A"
Order No. R-6882

Division at its election. Representatives of offset operators may witness such tests at their election and shall advise the producer in writing if they desire to be notified when such tests are to be conducted. Results of such tests shall be filed with the Division within fifteen (15) days after the completion of tests; provided, however, that in the event a segregation test or packer leakage test indicates that there is communication between the separate strata, the operator shall immediately notify the Division and commence remedial action on the well.

- (d) The well shall be so equipped that reservoir pressures may be determined for each of the separate strata and further be so equipped that meters may be installed and the gas, oil and gas, and oil produced from each of the separate strata may be accurately measured, and the gas-oil ratio or the gas-liquid ratio thereof determined.
- (e) Within 20 days after the completion of the well, the operator shall furnish the Division with a diagrammatic sketch of the mechanical installation which was actually used in completing the well together with a report of the gravity, gas-oil ratio or gas-liquid ratio, and surface or bottomhole pressure for each of the separate zones, and the log of the well if the same has not been previously submitted.
- (f) No multiple completion may continue to produce in a manner which is unnecessarily wasteful of reservoir energy.
- (g) The Division may require the proper plugging of any abandoned zone of a multiply completed well if such plugging appears necessary to prevent waste or protect correlative rights.

STATE OF NEW MEXICO ERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION P. O. BOX 2058 SANTA FE, NEW MEXICO 87501

Form C-107 Revised 2-1-82

APPLICATION FOR HULTIPLE COMPLETION

operator	County	Data	
Address	Lasto	Well No	
location Unit Se of Well	ction Township	Range	
All Applicants for multip	le completion must com	mplete Items 1 and 2 bi	low.
l. The following facts are submitted:	Upper Zane	Intermediate Zone	Lawer Zone
a. Name of Pool and Formation			
b. Tep and Bottom of			
Pay Section (Perforations)			
 c. Type of production (0il or Gas) 			
d. Method of Production (Flowing or Artificial Lift)			
e. Daily Production Actual Estimated Oil Bbls. Gas HCF Water Bbls.			
2. The following must be	attached:		
quantities used and diameters and settin other information as b. Plat showing the loc leases, and the name c. Electrical log of the and intervals of per-	d depths, centralizers top of cement, perfora g depth, location and may be pertinent. ation of all wells on a and addresses of ope e well or other accept foration indicated the	and/or turbolizers and stated intervals, tubing type of packers and stapplicant's lease, all seators of all leases of table log with tops and	nd location thereof, strings, including ide door chokes, and such offset wells on offset offsetting applicant's I dottoms of producing zerot available at the
I hereby certify that the and belief.			•
Signed		**	
(This space for State Use	1)		•

EXHIBIT "B" Order No. R-6882

this application.

RULE 303 C. DOWNHOLE COMMINGLING

1. The Director of the Division shall have the authority to grant an exception to Rule 303-A to permit the commingling in the well-bore of oil-oil, gas-gas, or gas-oil zones in a well-when the following facts exist and the following conditions are met:

(a) For wells involving oil scaes:

(1) The total combined daily oil production from oil zones before commanding (se determined in accordance with Section 2; paragraphs (d) and (e) below) does not exceed the followings

Bottom perforation,	Bbls/day oil
lowermost pool	
Less than 4,999 feet	20
5,000 feet to 5,999 feet	30
6,000 feet to 6,999 feet	40
7,000 feet to 7,999 feet	50
8,000 feet to 8,999 feet	
9,000 feet to 9,999 feet	70
More than 10,000 feet	80

- (2) Oil zones require artificial lift, or, both zones are capable of flowing. (Special consideration may be given to an exception to this latter requirement in the case in which a particular well's characteristics may justify same; however, the commingled production must be artificially lifted if either zone required artificial lift prior to commingling.)
- (3) Neither zone produces more water than the combined oil limit as determined in paragraph (1) above.
- (4) The fluids from each zone are compatible with the fluids from the other, and combining the fluids will not result in the formation of precipitates which might damage either reservoir.
- (5) The total value of the crude will not be reduced by commingling.

EXHIBIT "C" Order No. R-6882

- (6) Ownership of the zones to be commingled is common (including working interest, royalty, and overriding royalty).
- (7) The commingling will not jeopardize the efficiency of present or future secondary recovery operations in either of the zones to be commingled.

(b) For Wells Involving a Gas Zone:

- (1) That the commingling is necessary to permit a zone or zones to be produced which would not otherwise be economically producible.
- (2) That there will be no crossflow between the zones to be commingled.
- (3) That any zone which is producing from fluid-sensitive sands, which may be subject to damage from water or other produced liquids, is protected from contact from such liquids produced from other zones in the well.
- (4) The fluids from each zone are compatible with the fluids from the other(s), and combining the fluids will not result in the formation of precipitates which might damage any of the reservoirs.
- (5) That ownership of the zones to be commingled is common (including working interest, royalty, and overriding royalty).
- (6) The bottom hole pressure of the lower pressure zone is not less than 50 percent of the bottom hole pressure of the higher pressure zone adjusted to a common datum.
- 2. To obtain approval for downhole commingling, the operator of the well shall submit the following in duplicate to the Division Director plus one copy to the appropriate District Office of the Division.
 - (a) Name and address of the operator.
 - (b) Lease name, well number, well location, name of the pools to be commingled.

EXHIBIT "C" Order No. R-6882

- (c) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.
- (d) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of oil, gas, and water produced from each zone.
- (e) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed with in the case of a newly completed or recently completed well which has little or no production history. However, a complete resume of the well's completion history including description of treating, testing, etc., of each zone, and a prognostication of future production from each zone shall be submitted.)
- (f) Estimated bottom-hole pressure for each artificially lifted zone. A current (within 30 days) measured bottom-hole pressure for each zone capable of flowing.
- (g) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.
- (h) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams.
- (i) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula.
- (j) A statement that all offset operators and, in the case of a well on Federal land, the United States Geological Survey, have been notified in writing of the proposed commingling.
- 3. The Division Director may approve the proposed downhole commingling in the absence of a valid objection within 20 days after the receipt of the application if, in his opinion, there is no disqualifying disparity of bottomhole pressures of other reservoir characteristics, waste will not result thereby, and correlative rights will not be violated. The 20-day waiting

EXHIBIT "C"
Order No. R-6882/

period may be dispensed with upon receipt of waivers of objection from all parties mentioned in Section 2, paragraph (j).

- 4. Upon such approval, the well shall be operated in accordance with the provisions of the administrative order which authorized the commingling, and allocation of the commingled production from the well to each of the producing zones shall be in accordance with the allocation formula set forth in the order. The production from a well with commingled oil zones shall be subject to the lower of the daily gas-oil ratio limitations applicable to the reservoirs. The production attributable to an oil zone commingled with a gas zone shall be subject to the daily gas-oil ratio limitation applicable to such oil zone or pool. Wells shall be tested on a commingled basis annually, except that a well penalized for a high gas-oil ratio shall be tested semi-annually.
- 5. The Division Director may rescind authority to commingle production in the well-bore and require both zones to be produced separately, if, in his opinion, waste or reservoir damage is resulting thereby or the efficiency of any secondary recovery project is being impaired, or if any change of conditions renders the installation no longer eligible for downhole commingling under the provisions of Section 1(a) or 1(b).

EXHIBIT "C" Order No. R-6882 To ease the administrative burden on operators and the Division, a greatly simplified approval process is proposed. Most multiple completions should be approvable at the District office level in the same manner as an intention to drill. It is proposed to amend Rule 112-A to read in its entirety as follows:

MRULE 112-A. MULTIPLE COMPLETIONS

I. The multiple completion of any well may be permitted only as hereinafter provided. Multiple completion of any well without prior approval by the Division shall be solely at the operator's risk and shall in no way commit the Division to subsequent approval thereof.

II. District Approval

The supervisor of the appropriate Division district may authorize the multiple completion (qualifying conventional, tubingless, or combination) whenever the zones to be completed are to be produced through tubing or through casing where such esting has an outside dismeter of 2.875 inches or less. The supervisor may authorize one zone to be produced through a casing-tucing auditus if such zone produces no more than one barrel of liquids per day.

To obtain approval for multiple completion the operator shall file four copies of Division Form C-107 (Application for Multiple Completion) with the appropriate district office. Form C-107 shall be accompanied by a diagrammatic sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location of packers, side door chokes, and such other information as may be pertinent.

The district supervisor may forward any application to the Director of the Division for approval.

III. Administrative Approval

The Division Director may authorize the multiple completion (qualifying conventional, tubingless, or combination) not qualifying for District approval or referred to him by the District supervisor.

When any zone of a proposed multiple completion is to be produced through a casing-tubing annulus and such zone produces more than one barrel per day of liquids, the applicant shall furnish proof that such liquids may be efficiently produced without undue use of reservoir energy for the expected producing life of the well.

Application for administrative approval of a multiple completion shall be made in QUADRUPLICATE, with two copies of the application to be mailed to the Division's Santa Fe Office, and two copies to the District Office for the area in which the well is located. Application shall be made on the Division form C-107 (Application for Multiple Completion) and shall be accompanied by the following:

- (a) Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location of packers, side door chokes, and such other information as may be pertinent.
- (b) Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as hereinafter provided.)

Upon receipt of a complete application the Division Director may approve the matter administratively or he may set any such application for public hearing.

BEFORE THE OIL COMMISSION SANTA FE, NEW MEXICO CHIEFT NO. / CASE 7434

IV. Qualifying Multiple Completions

The following defines those mechanical installations qualifying for District or Administrative approval of multiple completion.

- (a) The applicant proposes to utilize one of the conventional mechanical installations described below:
 - (i) The well is to be completed as a gas-gas duel or as a gas-gas-gas triple and the hydrocarbons from each of the zones can be safely and efficiently produced through parellel strings of tubing or a combination of tubing string(s) and the tubing-casing annulus; or
 - (2) The well is to be completed as an oil-oil dual or as an oil-oil triple and the hydrocarbons from each of the zones can be safely and efficiently produced through parallel strings of tubing; or
 - (3) The well is to be completed as a combination oil and gas multiple completion and the hydrocarbons from each oil zone can be safely and efficiently produced through parallel strings of tubing and the hydrocarbons from each gas zone can be safely and efficiently produced through parallel string(s) of tubing or through a combination of tubing and the tubing-casing annulus; and
 - (4) All strings of tubing used for the production of oil in the proposed multiple completion will have a nominal inside diameter of not loss than 1.670 inches nor greater than 2.50 inches; and
 - (5) The downhole equipment used to segregate the separate zones of the multiple completion will be production-type packer(s), polished bore receptacles, or the equivalent, and shall effectively prevent communication between all producing zones.
- (b) The applicant proposes to employ one of the following tubingless and/or combination methods of completion:
 - (1) Multiple Completion (Tubingless) utilizing two cr more small diameter casing strings (2.875 inches 00 or less), one to each common source of supply, all cemented in a common well-bore; or
 - (2) Multiple Completion (Combination) utilizing a combination of small digmeter (2.875 inches 00 or less) and conventional diameter (greater than 2.875 inches) casing strings all cemented in a common well-bore; and demonstrates that
 - (3) Sufficient cement will be used in said multiple completion to extend throughout each pay and a minimum of 100 feet above; and
 - (4) Centralizers and/or turbolizers will be installed on each joint of casing throughout each pay and on a minimum of three joints above; and
 - (5) Directional perforating equipment will be used in perforating all intervals in any casing string in said multiple completion which intervals are in a zone through which one or more other casing strings pass.

The requirements of paragraphs (3) and (4) may be modified for multiple completions within given common sources of supply and within a given area if, in the opinion of the Division Director, circumstances warrant such modification.

V. Hearings

- (a) Any multiple completion not qualifying for district or administrative approval must be set for public hearing.
- (b) Application for public hearing to authorize a multiple completion shall be made in TRIPLICATE to the Division's Sents Fe Office. Application may be made in accordance with Rule 1203 are an the Division Form £-107, Application for Multiple Completion, setting forth all material facts relative to the common sources of supply involved and the manner and method of completion proposed.

VI. Operation and Testing

All multiple completions, whether approved after hearing or by district or administrative procedure, shall be subject to the following rules:

- (a) Prior to actual multiple completion of a well, the operator shall make adequate pressure tests of the casing to determine that no casing leaks exist. Results of casing tests shall be reported to the Division on Form C-103.
- (b) The well shall be completed and thereafter produced in such a manner that there will be no commingling of hydrocarbons from the separate strata.
- (c) The operator shall commence a segregation test and/or packer leakage test not later than fifteen (15) days after actual multiple completion of the well. Segregation tests and/or packer leakage tests shall also be made any time the packer is disturbed and at such other intervals as the Division may prescribe. The Operator shall also make all other tests and determinations deemed necessary by the Division. The Division shall be notified of the time such tests are to be commenced and tests may be witnessed by the Division at its election. Representatives of offset operators may witness such tests at their election and shall advise the producer in writing if they desire to be notified when such tests are to be conducted. Results of such tests shall be filed with the Division within fifteen (15) days after the completion of tests; provided, however, that in the event a segregation test or packer leakage test indicates that there is communication between the separate strata, the operator shall immediately notify the Division and commence remedial action on the well.
- (d) The well shall be so equipped that reservoir pressures may be determined for each of the separate strata and further be so equipped that meters may be installed and the gas, oil and gas, and oil produced from each of the separate strata may be accurately measured, and the gas-oil ratio or the gas-liquid ratio thereof determined.
- (e) Within 20 days after the completion of the well, the operator shall furnish the Division with a diagrammatic sketch of the mechanical installation which was actually used in completing the well together with a report of the gravity, gas-oil ratio or gas-liquid ratio, and surface or bottomhole pressure for each of the separate zones, and the log of the well if the same has not been previously submitted.
- (f) No multiple completion may continue to produce in a manner which is unnecessarily wasteful of reservoir energy.
- (g) The Division may require the proper plugging of any abandoned zone of a multiply completed well if such plugging appears necessary to provent waste or protect correlative rights."

· STATE OF NEW MEXICO Y MO MINERALS DEPARTMENT

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

Ferm C-107

APPLICATION FOR MULTIPLE COMPLETION

Sperator	Pount	y	
Milfons			No.
WHITE AND	Lease	met.	i NG.
Location Unit Sec of Well	Lion Tawn	ship Rang	
All Applicants for multiple	e completion must	complete Items 1, 2,	and 4 below.
1. The following facts are submitted:	Uppes Zone	Intermediale Zone	Lower Zone
a. Name of Pool and Formation	·		
b. Top and Bottom of Pay Section (Perforations)			
c. Type of production (Oil or Gas)			
d. Method of Production (Flowing or Artificial Lift)		001-13	
e. Daily Production // Actual // Estimated			
Oil Bbls. Gas HCF Water Bbls.			
diameters and setting quantities used and to	f the Multiple Co depths, centrali op of cement, per depth, location	zers and/or turbolizer forated intervals, tub	casing strings, includings and location thereof, ing strings, including of side door chokes, and
			all offset wells on off es offsetting applicant'
and intervals of perfe	oration indicated	ceptable log with tops thereon. (If such lo submitted as provided	and bottoms of producing is not available at the by Rule 112-A.)
I hereby certify that the and belief.	information above	is true and complete	to the best of my knowle
Signed	Title	Da	ite
(This space for State Use)			
Approved By			Date
NOTE: If the proposed mu and/or a non-stand	ltiple completion ard proration uni	will result in an und t in one or more of th f the same should be f	orthodox well location producing zones, then filed simultaneously with BEFORE THE ONL CONSTRUCTOR
		* 4	SANTA FE, NEW MEXICO CED EXHIBIT NO. 2

V. DOMNHOLE COMMINGLING

It is proposed to smend Rule 303 C. to permit administrative approval of ges-gas and gas-oil downhole commingling in addition to oil-oil as permitted by current rules. Rule 303 C. would be amended to read as follows:

"RULE 303 C. DOWNHOLE COMMINGLING

 The Director of the Division shall have the authority to grant an exception to Rule 303-A to permit the commingling in the well-bore of all-oil, gas-gas, or gas-ail romes in a well when the following facts exist and the following conditions are met:

(a) Far wells involving oil zone:

(1) The total daily throduction from oil zones before commingling (es determined in accordance with Section 2, paragraphs (d) and (e) below) does not exceed the following:

Bottom perforation, lowermost pool	Bbla/day
Less than 4,999 feat	20
5,000 feet to 5,999 feet	30
6,000 feet to 6,999 feet	40
7,000 feet to 7,999 feet	50
8,000 feet to 8,999 feet	60
9,000 feet to 9,999 feet	70
More than 10,800 feet	80

- (2) Oil zones require artificial lift, or, both zones are capable of flowing. (Special consideration may be given to an exception to this latter requirement in the case in which a particular well's characteristics may justify same; however, the commingled production must be artificially lifted if either zone required artificial lift prior to commingling.)
- (3) Neither zone produces more water than the combined oil limit as determined in paragraph (1) above.
- (4) The fluids from each zone are compatible with the fluids from the other, and combining the fluids will not result in the formation of precipitates which might damage either reservoir.
- (5) The total value of the crude will not be reduced by commingling.
- (6) Ownership of the zones to be commingled is common (including working interest, royalty, and overriding royalty).
- (7) The commingling will not jeopardize the efficiency of present or future secondary recovery operations in either of the zones to be commingled.

(b) For Wells Involving a Gas Zone:

- (1) That the commingling is necessary to permit a zone or zones to be produced which would not otherwise be economically producible.
- (2) That there will be no crossflow between the zones to be commingled.
- (3) That any zone which is producing from fluid-sensitive sands, which may be subject to damage from water or other produced liquids, is protected from contact from such liquids produced from other zones in the well.
- (4) The fluids from each zone are compatible with the fluids from the other(s), and combining the fluids will not result in the formation of precipitates which might damage any of the reservoirs.
- (5) That ownership of the zones to be commingled is common (including working interest, rayalty, and overriding rayalty).
- (6) The bottom hole pressure of the lower pressure zone is not less than 50 percent of the bottom hole pressure of the higher pressure zone adjusted to a common datum.



- To obtain approval for downhole commingling, the operator of the well shall submit the following in duplicate to the Division Director plus one copy to the appropriate Distint Office of the Division.
 - (a) Name and address of the operator.
 - (b) Lease name, wall number, well location, name of the pouls to be commingled.
 - (c) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.
 - (d) A current (within 30 days) 24-hour productivity test on Division Form C-116 showing the amount of ULL, gus, and water produced from each zone.
 - (e) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed with in the case of a newly completed or recently completed will which has little or no production history. However, a complete resume of the well's completion history including description of treating, testing, etc., of each zone, and a prognostication of future production from each zone shall be submitted.)
 - (f) Estimated bottom-hole pressure for each artificially lifted zone. A current (within 30 days) measured bottom-hole pressure for each zone capable of flowing.
 - (g) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.
 - (h) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams.
 - (i) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula.
 - (j) A statement that all offset operators and, in the case of a well on Federal land, the United States Geological Survey, have been notified in writing of the proposed commingling.
- 3. The Division Director may approve the proposed downhole commingling in the absence of a valid objection within 20 days after the receipt of the application if, in his opinion, there is no disqualifying disparity of bottomhole pressures of other reservoir characteristics, waste will not result thereby, and correlative rights will not be violated. The 20-day waiting period may be dispensed with upon receipt of waivers of objection from all parties mentioned in Section 2, paragraph (j).
- 4. Upon such approval, the well shall be operated in accordance with the provisions of the administrative order which authorized the commingling, and allocation of the commingled production from the well to each of the producing zones shall be in accordance with the allocation formula set forth in the order. The production from a well with commingled oil zones shall be subject to the lower of the daily gas-oil ratio limitations applicable to the reservoirs. The production attributable to an oil zone commingled with a gas zone shall be subject to the daily gas-oil ratio limitation applicable to such zone or pool. Wells shall be tested on a commingled basis annually, except that a well penalized for a high gas-oil ratio shall be tested semi-annually.
- 5. The Division Director may rescind authority to commingle production in the well-bore and require both zones to be produced separately, if, in his opinion, waste or reservoir damage is resulting thereby or the efficiency of any secondary recovery project is being impaired, or if any change of conditions renders the installation no longer eligible for downhole commingling under the provisions of Section 1(a) or 1(b).

Dockets Nos. 1-82 and 2-82 are tentatively set for January 6 and January 20, 1982. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: CONMISSION HEARING - TUESDAY - DECEMBER 22, 1961

OIL CONSERVATION CONMISSION - 9 A.M. ROOM 205, STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO

CASE 7390: (Continued and Reddvertised)

Application of Harvey E. Yates Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests down through the Orderician formation underlying the W/2 of Section 18, Township 9 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

(The following cases have been continued from December 3, 1981 Commission Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the following cases. Copies of all rule changes and forms as presently proposed are available for inspection during normal business hours at the main office of the Oil Conservation Division, State Land Office Building, Santa Fe, and at the Division's District Offices in Artesia, Aztec, and Hobbs.

- CASE 7433: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the designation of two crude petroleum oil producing areas and the amendment of the Oil Conservation Division's Rules and Regulations governing the acquisition, movement, and disposition of crude oil and condensate, sediment oil, tank bottoms and other miscellaneous hydrocarbons as well as produced weeks. Pursuant to Section 30-16-48, hMSA 1978 Comp. the Commission would designate Chaves, De Baca, Eddy, Lea, and Roosevelt Counties, and Cibola, McKinley, Rio Arriba, Sandoval, San Juan, and Valencia Counties as Crude Petroleum Oil Producing Areas. Further, in order to facilitate oil theft investigation and provide an improved audit trail for the movement of liquid hydrocarbons, the Commission will consider certain amendments to the Division's Rules relating to the acquisition, movement, and disposition of crude oil and condensate, sediment oil, tank bottoms and other miscellaneous hydrocarbons as well as produced waters. Specifically, the Commission will consider the amendment of Division Rules 310, 311, 312, 1110, 1117, and 1118, and the adoption of new Rules 709, 710, 804, and 1133. Also to be considered will be the revision of existing Forms C-117-A and C-117-B governing the acquisition, movement and disposition of tank bottoms, sediment oil, waste oil and other miscellaneous hydrocarbons, and the adoption of a new Form C-133, Authorization To Move Produced Water.
- The Commission will consider the amendment of Division Rule 112-A to permit the Division's District Supervisors to approve the multiple completion of wells under certain specified conditions and to delete the requirement for notice to offset operators. Form C-107, Application For Multiple Completion, would also be revised. Also to be considered will be the amendment of Rule 303-C to permit the Division Director to approve the downhole commingling, under certain specified conditions, of two or more oil zones, or gas zones, or oil zones and gas zones in the wellbore of a single well.
- CASE 7435: The Commission will consider the amendment of Rule 104 of the Oil Conservation Division Rules and Regulations. Specifically, the Commission will consider the amendment of Rule 104 to permit the Division Director to approve unorthodox and well locations for geological reasons under certain specified conditions in Lea, Chaves, Eddy, and Roosevelt Counties, and the amendment of Rule 104 S Section III to require the dedication of 160 acres to wells projected as gas wells in presumed or known gas producing formations and areas outside Lea, Chaves, Eddy, Roosevelt, San Juan, Rio Arriba, and Sandoval Counties.
- CASE 7436: The Commission will consider the adoption of a Rule Number for the Definitions Section of the Division's Rules.

DOCKET: COMMISSION HEARING - THURSDAY - DECEMBER 3, 1981

9 A.M. - OIL CONSERVATION COMMISSION - MORGAN HALL STATE LAND OFFICE SUILDING, SANTA FR, NEW MEXICO

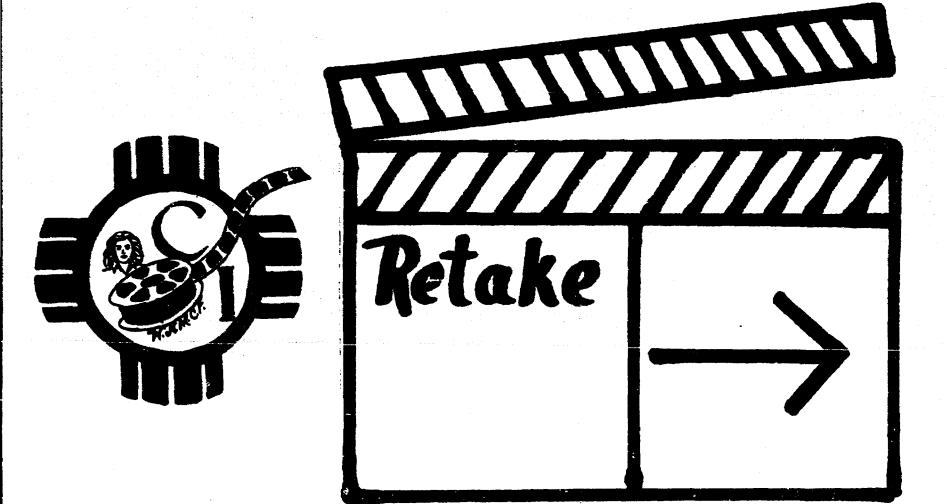
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- CASE /436: The Commission will consider the adoption of a Rule Number for the Definitions Section of the Division's Rules.
- CASE 7437: The Commission will consider the emendment of Division Rule 105 to prescribe certain requirements governing the disposition of drill cuttings and drilling fluids.
- CASE 7438: The Commission will consider the amendment of Division Rule 1204 to require applicants for hearings to make a reasonable effort to provide notice of hearings to adversely affected persons or, in the alternative, to adversely affected operators.

DOCKET NO. 38-81 FOR THE EXAMINER HEARING TO BE HELD ON DECEMBER 2, 1981, WILL BE MAILED UNDER SEPARATE COVER.

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Dockets Nos. 1-82 and 2-82 are tentatively set for January 6 and January 20, 1982. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - DECEMBER 22, 1981

OIL CONSERVATION COMMISSION - 9 A.M. ROCH 205, STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO

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Page 2 CONSISSION HEARING - TUESDAY - DECEMBER 22, 1981

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CASE 7438: The Commission will consider the amendment of Division Bule 1204 to require applicants for hearings to make a reasonable effort to provide notice of hearings to adversely affected persons or, in the alternative, to adversely affected operators.

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Docket No. 42-81

DOCKET: EXAMINER HEARING - MONDAY - DECEMBER 28, 1981

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following case will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 7450: Application of Kenai Oil and Gas Inc. for a unit agreement, Rio Arriba County, New Metico.

Applicant, in the above-styled cause, seeks approval for the Ojito Unit Area, comprising 6425

acres, more or loss, of Federal and fee lands in Townships 24 and 25 North, Ranges 1 and 2 West.

DOCKET: COMMISSION HEARING - THURSDAY - DECEMBER 3, 1981

9 A.M. - CIL CONSERVATION COMMISSION HURGAN HALL STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the following cases. Copies of all rule changes and forms as presently proposed are available for inspection during normal business hours at the main office of the Oil Conservation Division, State Land Office Building, Santa Fe, and at the Division's District Offices in Artesia, Aztec, and Hobbs.

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING

CALLED BY THE OIL CONSERVATION

COMMISSION OF NEW MEXICO ON ITS OWN

MOTION FOR THE PURPOSE OF CONSIDERING

THE AMENDMENT OF RULE 112-A AND RULE 303-C

OF THE OIL CONSERVATION DIVISION RULES AND

REGULATIONS AND THE AMENDMENT OF DIVISION

FORM C-107:

CASE NO. 7434 Order No. R- 6882

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at santa re, New Mexico on December 3 and 22, 1981, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this ______ day of January, 1982, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the multiple completion of any oil or gas well in New Mexico is prohibited except after approval of the Oil Conservation Division (Division) after notice and hearing or after administrative approval granted under provisions of Division Rule 112-A.
- (3) That the multiple completion of wells is a standard industry practice with 200 or more such completions annually.
- (4) That as a result of limitations in the Division Rule

 112-A, approximately half of all applications for multiple

 presently

 completion must be set for hearing.
- (5) Experience has shown that most of the applications now set for public hearing could be processed administratively and without notice to offset operators without posing a risk of contributing to waste nor causing violation of correlative rights.
- (6) That the proposed amendment to Division Rule 112-A as shown on Exhibit "A" attached to this order, contains administrative approval processes which will permit most applications for multiple completion to be approved without notice and hearing, provided that certain "standard" downhole equipment is utilized and that volumes of liquids which would be

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- (5) Experience has shown that most of the applications now set for public hearing could be processed administratively and without notice to offset operators without posing a risk of contributing to waste nor causing violation of correlative rights.
- (6) That the proposed amendment to Division Rule 112-A as shown on Exhibit "A" attached to this order, contains administrative approval processes which will permit most applications for multiple completion to be approved without notice and hearing, provided that certain "standard" downhole equipment is utilized and that volumes of liquids which would be

wasteful of reservoir energy are not proposed for production through a casing-tubing annulus.

- (7) That said amendment also contains proposals for hearings for certain multiple completions and for the operation and testing of approved multiple completions.
- (8) That in order to effectuate the proposed administrative processes, Division Form C-107, Application for Multiple Completion, should be amended as shown on Exhibit "B" attached to this Order.
- (9) That the proposed amended Rule 112-A and Form C-107 should be adopted effective February 1, 1982.
- (10) That the Division Rule 303-A prohibits the commingling of production from separate common sources of supply (pools) within the wellbore of any oil or gas well except after notice and hearing.
- (11) That Division Rule 303-C provides an administrative procedure to permit the commingling within a common wellbore of production from separate oil pools under certain conditions.
- (12) That in recent years the Division has heard many applications for downhole commingling of gas pools and gas pools and oil pools.
- (13) That many such applications have been approved and that certain standards for approval and operation of such wells have been developed.

There by a clieving greater ultimate production thanky preventing wast, all without violation of correlative rights.

- amendment of Division Rule 303-C, as shown on Exhibit "C" to this Order, which further contains an administrative procedure for approval of the downhole commingling of production from oil pools, gas pools, and oil and gas pools.
- (16) That effective February 1, 1982, Division Rule 303-C should be amended as shown on Exhibit "C" attached to this Order.
- (17) (16) That adoption of the proposed rule amendments and revised Division Form C-107 will serve to prevent waste and will not violate correlative rights.

IT IS THEREFORE ORDERED:

- (1) That effective February 1, 1982, Division Rule 112-A burby is revised to read in its entirety as shown on Exhibit "A" attached to this Order.
- (2) That effective February 1, 1982, Division Form C-107,

 Application for Multiple Completion, is revised as shown on

 Exhibit "B" attached to this Order.
- (3) That effective February 1, 1982, Division Rule 303-C herby is revised to read in its entirety as shown on Exhibit "C" attached to this Order.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EMERY C. ARNOLD, Chairman

ALEX J. ARMIJO, Member

JOE D. RAMEY, Member & Secretary

SEAL

To ease the administrative burden on operators and the Division, a greatly simplified approval process is proposed. Most mulaiple completions should be approvable at the District office level in the same manner as an intention to drill. It is proposed to seem Rule like to read in its entirety as follows:

"RULE 112-A. MULTIPLE COMPLETIONS

I. The multiple completion of any well may be permitted only as hereinafter provided. Multiple completion of any well without prior approval by the Division shell be solely at the operator's risk and shall in no way commit the Division to subsequent approval thereof.

II. District Approval

The supervisor of the appropriate Division district may authorize the multiple completion (qualifying conventional, tubingless, or combination) whenever the zones to be completed are to be produced through tubing or through casing where such casing has an outside diameter of 2.875 inches or less. The supervisor may authorize one zone to be produced through a casing-tubing annulus if such zone produces no more than one barrel of liquids per day.

To obtain approval for multiple completion the operator shall file four copies of Division Form C-107 (Application for Multiple Completion) with the appropriate district office. Form C-107 shall be accompanied by a diagrammatic sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location of packers, side door chokes, and such other information as may be pertinent.

The district supervisor may forward any application to the Director of the Division for approval.

III. Administrative Approval (Division Director)

The Division Director may authorize the multiple completion (qualifying conventional, tubingless, or combination) not qualifying for District approval or referred to him by the District supervisor.

When any zone of a proposed multiple completion is to be produced through a casing-tubing annulus and such zone produces more than one barrel per day of liquids, the applicant shall furnish proof that such liquids may be efficiently produced without undue use of reservoir energy for the expected producing life of the well.

Application for administrative approval of a multiple completion shall be made in QUADRUPLICATE, with two copies of the application to be mailed to the Division's Santa Fe Office, and two copies to the District Office for the area in which the well is located. Application shall be made on the Division Form C-107 (Application for Multiple Completion) and shall be accompanied by the following:

- (a) Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location of packers, side door chokes, and such other information as may be pertinent.
- (b) Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as hereinafter provided.)

Upon receipt of a complete application the Division Director may approve the matter administratively or he may set any such application for public hearing.

Exhibit "P" Order No R_

OIL CONSTRUCTION THE COMMISSION SAINTA BY, NEW MEXICO CASE 7434

IV. Qualifying Multiple Completions

The following defines those mechanical installations qualifying for District or Administrative approval of multiple completion.

- (a) The applicant proposes to utilize one of the conventional mechanical installations described below:
 - (1) The well is to be completed as a gas-gas dual or as a gas-gas triple and the hydrocarbons from each of the zones can be safely and efficiently produced through parallel strings of tubing or a combination of tubing string(s) and the tubing-casing annulus; or
 - (2) The well is to be completed as an oil-oil dual or as an oil-oil-oil triple and the hydrogarbons from each of the zones can be safely and efficiently produced through parallel strings of tubing; or
 - (3) The well is to be completed as a combination oil and gas multiple completion and the hydrocarbons from each oil zone can be safely and efficiently produced through parallel strings of tubing and the hydrocarbons from each gas zone can be safely and efficiently produced through parallel string(s) of tubing or through a combination of tubing and the tubing-casing annulus; and
 - (4) All strings of tubing used for the production of oil in the proposed multiple completion will have a nominal inside diameter of not less than 1.670 inches nor greater than 2.50 inches; and
 - (5) The downhole equipment used to segregate the separate zones of the multiple completion will be production-type packer(s), polished bore receptacles, or the equivalent, and shall effectively prevent communication between all producing zones.
- (b) The applicant proposes to employ one of the following tubingless and/or combination methods of completion:
 - (1) Multiple Completion (Tubingless) utilizing two or more small diameter casing strings (2.875 inches OD or less), one to each common source of supply, all cemented in a common well-bore; or
 - (2) Multiple Completion (Combination) utilizing a combination of small diameter (2.875 inches 00 or less) and conventional diameter (greater than 2.875 inches) casing strings, all cemented in a common well-bore; and demonstrates that
 - (3) Sufficient cement will be used in said multiple completion to extend throughout each pay and a minimum of 100 feet above; and
 - (4) Centralizers and/or turbolizers will be installed on each joint of casing throughout each pay and on a minimum of three joints above; and
 - (5) Directional perforating equipment will be used in perforating all intervals in any casing string in said multiple completion which intervals are in a zone through which one or more other casing strings pass.

The requirements of paragraphs (3) and (4) may be modified for multiple completions within given common sources of supply and within a given area if, in the opinion of the Division Director, circumstances warrant such modification.

Ex 17

V. Hearings

- (a) Any multiple completion not qualifying for district or administrative approval must be set for public hearing.
- (b) Application for public hearing to authorize a multiple completion shall be made in TRIPLICATE to the Division's Santa Fe Office. Application may be made in accordance with Rule 1203 or on the Division Form C-107, Application for Multiple Completion, setting forth all material facts relative to the common sources of supply involved and the manner and method of completion proposed.

VI. Operation and Testing

All multiple completions, whether approved after hearing or by district or administrative procedure, shall be subject to the following rules:

- (a) Prior to actual multiple completion of a well, the operator shall make adequate pressure tests of the casing to determine that no casing leaks exist. Results of casing tests shall be reported to the Division on Form C-103.
- (b) The well shall be completed and thereafter produced in such a manner that there will be no commingling of hydrocarbons from the separate strata.
- (c) The operator shall commence a segregation test and/or packer leakage test not later than fifteen (15) days after actual multiple completion of the well. Segregation tests and/or packer leakage tests shall also be made any time the packer is disturbed and at such other intervals as the Division may prescribe. The Operator shall also make all other tests and determinations deemed necessary by the Division. The Division shall be notified of the time such tests are to be commenced and tests may be witnessed by the Division at its election. Representatives of offset operators may witness such tests at their election and shall advise the producer in writing if they desire to be notified when such tests are to be conducted. Results of such tests shall be filed with the Division within fifteen (15) days after the completion of tests; provided, however, that in the event a segregation test or packer leakage test indicates that there is communication between the separate strata, the operator shall immediately notify the Division and commence remedial action on the well.
- (d) The well shall be so equipped that reservoir pressures may be determined for each of the separate strata and further be so equipped that meters may be installed and the gas, oil and gas, and oil produced from each of the separate strata may be accurately measured, and the gas-oil ratio or the gas-liquid ratio thereof determined.
- (e) Within 20 days after the completion of the well, the operator shall furnish the Division with a diagrammatic sketch of the mechanical installation which was actually used in completing the well together with a report of the gravity, gas-oil ratio or gas-liquid ratio, and surface or bottomhole pressure for each of the separate zones, and the log of the well if the same has not been previously submitted.
- (f) No multiple completion may continue to produce in a manner which is unnecessarily wasteful of reservoir energy.
- (g) The Division may require the proper plugging of any abandoned zone of a multiply completed well if such plugging appears necessary to prevent waste or protect correlative rights."

STATE OF NEW MEXICO SHERGY MO MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION P. O. BOX 2084 SANTA FE, NEW MEXICO 87501

Form C-107

APPLICATION FOR HULTIPLE COMPLETION

Sperator .	County	Dete		•
Address	Losso	Rell N	9.	· · · · · · · · · · · · · · · ·
Location Unit Se of Yeli	ction Townshi	p Range		-
All Applicants for multip	le completion must co	mplete Items 1/2	ca below.	<u></u>
. The following facts are submitted:	Upper Zone	Intermédiate Zone	Lower Zone	<u>-</u> .
s. Name of Pool and Formation				
b. Top and Bottom of Pay Section (Perforations)				.
c. Type of production (Oil or Gas)		X		-
d. Method of Production (Flowing or Artificial Lift)				.
e. Deily Production Actual Estimated				
011 Bbls. Gas MCF Water Bbls.				
diameters and setting quantities used and diameters and setting	of the Multiple Compl g depths, centralizer top of cement, perfor g depth, location and	s and/or turbolizers ated intervals, tubin	sing strings, including and location thereof, g strings, including side door chokes, and su	
other information as b. Plat showing the loca	•	applicant's lease. a	ll offset wells on offse	e È
leases, and the name: c. Electrical log of the end intervals of per	s and addresses of op e well or other accep foration indicated th	erators of all leases table log with tops a ereon. (If such log	offsetting applicant's nd bottoms of producing is not available at the Rule 112-A.)	lea
hereby certify that the	information above is	true and complete to	the best of my knowledg	је
igned	Title	Date		
This space for State Use				₩.
Approved By			Date	
and/or a non-stan	dard proration unit i	he same should be fil	hodox well location producing zones, then ed simultaneously with REFORE THE CONSTRVATION COMMISSION SANTA RE NEW MEXICO	
	Order NO R.	CAS	7484	

DOWNHOLE COMMENGLING

mend Rule 303 C. to permit administrative approval of gla-gas and proposed to downhole comminalin ion to oil oil as permitted by current rules. be dwended to read de failows:

"RULE 303 C. DOWNHOLE COMMINGLING

 The Director of the Division shall have the authority to grant an exception to Rule 303-A to permit the commingling in the well-bore of oil-oil, gas-gas, or gas-oil zones in a well when the following facts exist and the following conditions are met:

(e) For wells involving oil zones:

The total Admily production from oil zones before commingling (as determined in accordance with Section 2, paragraphs (d) and (e) below) does not exceed the following:

Sottom perforation, lower	most pool Bala/day ai/
Leas than 4,999 feet	28
5,000 feet to 5,999 feet	30
6,000 feet to 6,999 feet	48
7,000 feet to 7,999 feet	50
8,000 feet to 8,999 feet	60
9,000 feet to 9,999 feet	70
More than 10,000 feet	80

- (2) Oil zones require artificial lift, or, both zones are capable of flowing. (Special consideration may be given to an exception to this latter requirement in the case in which a particular well's characteristics may justify same; however, the commingled production must be artificially lifted if either zone required artificial lift prior to commingling.)
- (3) Neither zone produces more water than the combined oil limit as determined in paragraph (1) above.
- The fluids from each zone are compatible with the fluids from the other, and combining the fluids will not result in the formation of precipitates which might damage either reservoir.
- (5) The total value of the crude will not be reduced by commingling.
- (6) Ownership of the zones to be commingled is common (including working interest, royalty, and overriding royalty).
- The commingling will not jeopardize the efficiency of present or future secondary recovery operations in either of the zones to be commingled.

For Wells Involving a Gas Zone:

- (1)That the commingling is necessary to permit a zone or zones to be produced which would not otherwise be economically producible.
- (2) That there will be no crossflow between the zones to be commingled.
- That any zone which is producing from fluid-sensitive sands, which may be subject to damage from water or other produced liquids, is protected from contact from such liquids produced from other zones in the well.
- (4) The fluids from each zone are compatible with the fluids from the other(s), and combining the fluids will not result in the formation of precipitates which might damage any of the reservoirs.
- That ownership of the zones to be commingled is common (including working interest, royalty, and overriding royalty).
- The bottom hole pressure of the lower pressure zone is not less than 50 percent of the bottom hole pressure of the higher pressure zone adjusted to a common datum.

Order No R

Poge 1



- 2. To obtain approval for downhole commingling, the operator of the well shall submit the following in duplicate to the Division Director plus one copy to the appropriate District Office of the Division.
 - (a) Name and address of the operator.
 - (b) Lease name, well number, well location, name of the pools to be commingled.
 - (c) A plat of the area showing the acreage dedicated to the well and the ownership of all offsetting leases.
 - (d) A current (within 30 days) 24-hour productivity test on Division form C-lie showing the amount of oil, gas, and water produced from each zone.
 - (e) A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes. (This requirement may be dispensed with in the case of a newly completed or recently completed which has little or no production history. However, a complete resume of the well's completion history including description of treating, testing, etc., of each zone, and a prognostication of future production from each zone shall be submitted.)
 - (f) Estimat 3 bottom-hole pressure for each artificially lifted zone. A current (within 30 days) measured bottom-hole pressure for each zone capable of flowing.
 - (g) A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore.
 - (h) A computation showing that the value of the commingled production will not be less than the sum of the values of the individual streams.
 - (i) A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula.
 - (j) A statement that all offset operators and, in the case of a well on Federal land, the United States Geological Survey, have been notified in writing of the proposed commingling.
- 3. The Division Director may approve the proposed downhole commingling in the absence of a valid objection within 20 days after the receipt of the application if, in his opinion, there is no disqualifying disparity of bottomhole pressures of other reservoir characteristics, waste will not result thereby, and correlative rights will not be violated. The 20-day waiting period may be dispensed with upon receipt of waivers of objection from all parties mentioned in Section 2, paragraph (j).
- 4. Upon such approval, the well shall be operated in accordance with the provisions of the administrative order which authorized the commingling, and allocation of the commingled production from the well to each of the producing zones shall be in accordance with the allocation formula set forth in the order. The production from a well with commingled oil zones shall be subject to the lower of the daily gas-oil ratio limitations applicable to the reservoirs. The production attributable to an oil zone commingled with a gas zone shall be subject to the daily gas-oil ratio limitation applicable to such zone or pool. Wells shall be tested on a commingled basis annually, except that a well penalized for a high gas-oil ratio shall be tested semi-annually.
- 5. The Division Director may rescind authority to commingle production in the well-bore and require both zones to be produced separately, if, in his opinion, waste or reservoir damage is resulting thereby or the efficiency of any secondary recovery project is being impaired, or if any change of conditions renders the installation no longer eligible for downhole commingling under the provisions of Section 1(a) or 1(b)."

exhibit "a"
Order No R



BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO OF THE ENERGY AND MINERALS DEPARTMENT

> CASE NO. 7434 Order No. R-6882-A

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO ON ITS OWN
MOTION FOR THE PURPOSE OF CONSIDERING
THE AMENDMENT OF RULE 112-A AND RULE 303-C
OF THE OIL CONSERVATION DIVISION RULES AND
REGULATIONS AND THE AMENDMENT OF DIVISION
FORM C-107:

NUNC PRO TUNC ORDER

BY THE COMMISSION:

It appearing to the Commission that Order No. R-6882, dated January 12, 1982, does not correctly state the intended order of the Commission,

IT IS THEREFORE ORDERED:

(1) That paragraph 3 on pages 3 of Exhibit "C" of Order No. R-6882, dated January 12, 1982, is hereby corrected to read in its entirety as follows:

and 4

- "3. The Division Director may approve the proposed downhole commingling in the absence of a valid objection within 20 days after the receipt of the application if, in his opinion, there is no disqualifying disparity of bottomhole pressures or other reservoir characteristics, waste will not result thereby, and correlative rights will not be violated. The 20-day waiting period may be dispensed with upon receipt of waivers of objection from all parties mentioned in Section 2, paragraph (j)."
- (2) That this order shall be effective nunc pro tunc as of January 12, 1982.

-2-Case No. 7434 Order No. R-6882-A

DONE at Santa Fe, New Mexico, this day of January, 1982.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

EMERY C. ARNOLD, Chairman

ALEX J. ARMIJO, Member

JOE D. RAMEY, Member & Secretary

SEAL

