Case No.

608

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
at
Santa Fe, New Mexico

Transcript of Hearing in

Case No. 608

Continued.

April 14, 1954

Regular Hearing.

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9845 AND 5-9546
ALBUQUERQUE, NEW MEXICO

ADA DEARNLEY & ASSOCIATES
STENOTYPE REPORTERS
ROOM 105-106-107 EL CORTEZ BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

IN THE MATTER OF:

Application of the Commission upon its own motion for an order revising Rule 505, Paragraph 'b', of the Rules and Regulations pertaining to proportional factors used in allocating oil allowables.

Case No. 608 Continued.

- REGISTER -

NAME	REPRESENTING	LOCATION
George W. Selinger	Skelly Oil Company	Tulsa, Oklahoma
E. P. Keeler	Magnolia	Dallas, Texas
George Hirschfeld	N. M. O. & G.	Hobbs, New Mexico
E. H. Foster	Phillips "66"	Amarillo, Texas
D. M. Hankins	Phillips "66"	Odessa, Texas
Shofner Smith	Phillips "66"	Bartlesville, Okla.
Edward E. Kinney	Consultant	Artesia, New Mexico
W. J. Rogers	Sinclair	Midland, Texas
W. D. Girand, Jr.	Sinclair	Hobbs, New Mexico
S. J. Fraser	Sinclair	Tulsa, Oklahoma
J. N. Dunlavey	Skelly Oil Company	Hobbs, New Mexico
B. M. Keohane	Keohane Service	Roswell, New Mexico
Ralph L. Gray	Buffalo Oil Co.	Artesia, New Mexico
Jason Kellahin	Continental Oil Co.	Santa Fe, New Mexico
L. W. Folmar	The Texas Company	Fort Worth, Texas
V. F. Dullnig	The Texas Company	Midland, Texas
J. F. Addington, Jr.	American Republics Corp.	Midland, Texas

ADA DEARNLEY & ASSOCIATES
STENOTYPE REPORTERS
ROOM 105-106-107 EL CORTEZ BLDG.
PHONES 7-9845 AND 5-9546
ALBUQUERQUE, NEW MEXICO

NAME	REPRESENTING	LOCATION
W. W. Mankin	The Texas Company	Fort Worth, Texas
E. J. Pierce	Mid-Cont. Pet. Corp.	Midland, Texas
D. L. Irion	Mid-Cont. Pet. Corp.	Hobbs, New Mexico
E. C. Arnold	N. M. O. C. C.	Aztec, New Mexico
A. W. Nestor	Shell Oil Company	Hobbs, New Mexico
W. E. Owen	Shell Oil Company	Hobbs, New Mexico
C. A. Hull	Shell Oil Company	Midland, Texas
R. C. Sears	Warren Pet. Corp.	Tulsa, Oklahoma
J. P. Johnson	Atlantic Refining Co.	Midland, Texas
J. H. Vickery	Atlantic Refining Co.	Midland, Texas
F. J. Forche	Sinclair	Tulsa, Oklahoma
J. D. Cooper	Skelly Oil Co.	Tulsa, Oklahoma
S. J. Stanley	O. C. C.	Hobbs, New Mexico
Max E. Curry	Skelly Oil Co.	Hobbs, New Mexico
John Yuronka	Texas Pacific Coal and Oil Co.	Hobbs, New Mexico
M. T. Smith	Shell Oil Company	Midland, Texas
W. G. Abbott	Amerada	Monument, New Mex.
Ray E. Seifert	Amerada	Midland, Texas
G. L. Shoemaker	Stanolind Oil Purch.Co.	Midland, Texas
Merle B. Rogers	El Paso Nat. Gas. Co.	Jal, New Mexico
C. S. Neel, Jr.	Humble Oil Co.	Midland, Texas
R. S. Dewey	Humble Oil Co.	Midland, Texas
Glenn Staley	N. M. Oil & Gas Comm.	Hobbs, New Mexico
L. A. Hanson	O. C. C.	Artesia, New Mex.
Ross Waddle	Magnolia	Dallas, Texas
A. L. Aikman	Magnolia	Dallas, Texas
R. E. Adams	Cities Service	Bartlesville,Okla.

NAME	REPRESENTING	LOCATION
R. H. McKay	Western Nat. Gas. Co.	Midland, Texas
J. K. Smith	Stanolind Oil & Gas Co.	Fort Worth, Texas
Clarence Hinkle	Humble Oil Company	Roswell, New Mex.
Jack M. Campbell	Humble Oil Company	Roswell, New Mex.
Robt. G. Hiltz	Stanolind Oil & Gas Co.	Fort Worth, Texas
John A. Woodward	Amerada Pet. Corp.	Tulsa, Oklahoma
James R. Townsend	Stanolind Oil & Gas Co.	Fort Worth, Texas
Parker Wilson	Wilson Oil Company	
Raymond Lamb	Wilson Oil Company	
William Randolph	Continental Oil Co.	Hobbs, New Mexico
Homer Dailey	Continental Oil Co.	Fort Worth, Texas
Q. B. Davis	Aztec Oil & Gas.Co.	Dallas, Texas
A. S. Grenier	Southern Union Gas Co.	Dallas, Texas
A. M. Wiederkehr	Southern Union Gas Co.	Dallas, Texas
W. H. Everett	The Ohio Oil Company	Houston, Texas
J. O. Terrell Couch	The Ohio Oil Company	Houston, Texas
D. K. Spellman, Jr.	The Ohio Oil Company	Midland, Texas
V. T. Lyon	Continental Oil Co.	Fort Worth, Texas
Harry G. Dippel	Continental Oil Co.	Fort Worth, Texas
Geo. L. Zimmerman	Attorney	Lincoln County,N.M.
Paxton Howard	Atty. Shell Oil Co.	Midland, Texas

TRANSCRIPT OF PROCEEDINGS

MR. SPURRIER: Meeting will come to order please. The first and only case we have on the docket today is 608.

(Discussion off the record.)

MR. HOWARD: I was trying to figure out here, we have some big exhibits to put up and we planned on using the wall there with

the tape. I was wondering on this first exhibit if it might be better if we had that board over here so you could talk from the exhibit and point out what you have.

MR. SPURRIER: Go ahead.

MR. HOWARD: If the Commission please, Paxton Howard, appearing on behalf of Shell Oil Company. We have a considerable amount of testimony to put on this morning and a number of exhibits. Now, before putting on this testimony, I want to restate Shell's position as was stated at the last meeting, and that is that while we feel there are certain inequities in the present arrangement, we are not urging any change be made. And we come before the Commission this morning presenting our case not as initiating a change in the proration schedule for the depth factor in New Mexico, but merely showing or attempting to show to the Commission where the proposal that was made at the last meeting is not an adequate or a fair proposal, and showing the reasons why. And, also, we want to show to the Commission what we feel would be a fair proposal or a fair schedule, if the Commission is of the opinion that the present arrangement should be changed. But we do not in any sense want to be understood as coming here and urging that the change be made, that any change be made. In other words, this was brought up on the Commission's own motion and we are appearing in connection with it, we are not initiating it.

Now, I would like to have one witness sworn, Mr. Nestor.

A. W. NESTOR

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. HOWARD:

Q For the record, state your name please.

A A. W. Nestor.

Q Where do you live?

A Hobbs, New Mexico

Q By whom are you employed?

A Shell Oil Company.

Q In what capacity?

A As Division Reservoir Engineer.

Q Have you ever appeared before the Commission as a witness?

A Yes, sir, I have.

MR. HOWARD: May his qualifications be accepted?

MR. SPURRIER: They will be.

Q Mr. Nestor, you were present at the meeting last month were you not, at which a proposal was made regarding a change in depth factors in the State of New Mexico?

A Yes, sir.

Q Prior to, and since that time, have you made a detailed study in connection with the proposal?

A Yes, sir, I have.

Q In your position with the Company, the Shell, do you have within your jurisdiction and use the figures and information in connection with production of the company and the industry in New Mexico?

A Yes, I do.

Q Now, at the meeting last month there was introduced certain cost figures for wells of varying depth range. You heard that testimony?

A Yes, sir, I did.

Q You have any comments to make on that, on the facts, factual data which was presented?

A Yes, sir.

Q Will you state to the record what that is.

A We have made a detailed study of the cost data submitted by all the operators in Case 608, and we have arrived at certain conclusions as to the data themselves.

We have found that over all there are certain grievous errors in the way the data have been submitted, and they appear in error on the tabulation which has been given to us. Now, we do not represent that this in any way reflects on the Commission in their selection of the wells or in the operators in their submission of the data. We do suggest, however, that a more detailed explanation of the arrangement and the exact factors to be considered in these cost data might have prevented some of the trouble which has arisen.

Our studies show that although all the figures supposedly are on the same basis and presumably include only well costs, the cost, the actual cost of drilling the well, that is the way we understood the problem as being stated, we find out in our conversations with other people that without realizing they have submitted data which are not completely relative in that respect. Certain of the costs which appear on the tabulation as being drilling costs are known to include pumping units and in at least one, and possibly more cases, tankage. Now, that is completely without the specifications, we think, with which the data were requested. We feel, therefore, that certain serious errors exist in the basic data and that before a reasonable study could be made, that all these factors should be deleted and all data should be on the same basis.

Q In other words, you consider that the data used is defective in that some cases, in some cases well cost, drilling costs only were used, and in other cases pumping units and tanks were included?

A Yes, sir.

Q In arriving at costs?

A That is correct.

Q And that in order to get fair data, that fairly represents the situation, it would be necessary that all data be furnished either including pumping units, or excluding pumping units?

A Yes, sir, that is correct.

Q So you consider that is a basic error in the information that was furnished. Do you have any other comment?

A Yes, sir, a further general comment on the well selected for the survey. We were given to understand, by the Commission staff, that the wells to be presented should be representative, and we have made quite a study of the data submitted by other companies and we find that that has not always been the case.

Now we think that there are two falacies in the way the data have been selected. We feel, first, that data from wells located only in representative pools for that depth should be selected. And we feel that, secondly, only representative wells from all the pools should be selected. We will have some detail testimony to explain just what we have seen along these lines.

Q You also heard the proposal, I believe, that a pay out on all wells be figured on the basis of 1.406 years?

A Yes, sir.

Q Do you agree with that theory?

A We agree with that theory only to the extent that it be possible to allocate all the costs of drilling a well to the actual drilling cost. And to simply consider the drilling cost, in many cases, is but a poor approximation of the actual cost.

Q Now, you have prepared, I believe, an exhibit giving your interpretation of what would be a proper interpretation of the factors that were presented at the last meeting?

A Yes, sir.

Q You have, I believe, attempted to take the data that was furnished and give to it what you considered to be a proper application, at the same time realizing that the data is basically defective?

A Yes, sir, that is correct.

Q In other words, you have worked out a cost curve on what you consider to be a fairer basis, using the same data that was used last month in the presentation of that curve?

A Yes, sir, that is correct.

Q And, also, figuring it out on the basis of the 1.406 years, such as was done last month, although you may not basically agree with that?

A That is correct.

Q You have taken the information that was furnished last month and attempted to give what you consider a fairer and better interpretation of it?

A Yes, sir.

MR. HOWARD: Would you mark this, please?

(Marked Shell's Exhibit No. 1, Case No. 608, for identification.)

Q Now there has been placed on the board what has been marked as Shell's Exhibit One. Would you state just what that is, please, generally?

A That is a graphic presentation of the cost data submitted by the operators and tabulated and submitted back to the operators by the Commission. It includes the same wells listed on the Commission schedule in all 140, and it includes two curves, the one shown there in green being the Commission interpretation of the best curve for cost through the range which they considered, and the red curve being Shell's interpretation of these basic data.

Q Was this Exhibit prepared by you, or under your supervision?

A Yes, sir, it was.

MR. HOWARD: I ask it be admitted please.

MR. SPURRIER: Without objection it will be admitted.

A There is one comment I think that is appropriate here at this time, this again is in no way a reflection on anyone concerned, but with such a long spread of depth intervals we feel that a far better statistical study could have been made if the number of wells had been increased markedly. In that case, wells that differed from the median by quite a bit, would not have had as much weight as they now have, the theory being the more pieces of data you have, they tend to average out.

We feel, at the very least, possibly all the costs for all the wells drilled last year might have been included; and to do an even better job, possibly all the costs for the past several years, since the way the drilling splits up from year to year might prevent getting an accurate picture of the cost in one particular depth range but might be very representative in any other depth range. We

could be way off in one range.

I think that comment is applicable before we start off. We want to point out before we begin, the analysis, unfortunately we feel we are working with a faulty set of data by reason of the things we explained, there are not enough pieces of data, and some of the data might have been rejected or possibly had not been asked for, unless we were going to get all the figures for the wells drilled last year.

Q Now, Mr. Nestor, would you, referring now to Exhibit One, would you take up by the different depth ranges and explain to the Commission the differences that you consider to exist as regard the cost data, and how you felt it proper to correct those mistakes?

A Yes, sir. We will attempt to analyze, by thousand foot brackets, generally, the individual data submitted, with our comments on the things that we have been able to learn about those data. I would point out, we have been severely handicapped in preparing our case in this matter in not knowing exactly which wells were being considered, and it was a very tedious and time consuming process to eliminate the wells which were not being considered and find, particularly in critical areas, the exact wells being represented on the curve.

The reason we felt that was necessary was, to make an understandable study, we felt that these wells that did not appear to conform required detailed study to determine why they didn't conform with what might have been expected for well cost at that depth. And with that in mind we have been able to go into those areas where we feel the data are most severely distorted and attempt to explain why, in our opinion, these distortions result.

I think possibly the best thing, if people would like to follow me here, would be for them to refer to their schedule of wells. I think it would be simpler for me to refer to the wells from the Commission schedule here and try to analyze what we feel may be wrong with them.

Beginning with the 1000 to 2000 group as indicated on the curve, those data have a good locus and there seems to be no reason to suspect that these are anything but highly desirable data for inclusion.

This group down here, the next group, moving on to 2 to 3,000 foot range, by strict statistical procedure these two pieces of data spread rather badly and in good procedure had we had more points, probably both of those points would have been excluded and they probably should be excluded. However, we have left them in there since they are the only points representing the range and we feel actually in this case, it probably is pure happenstance, the two points tend to balance out and seem to fit a reasonable line connecting this locus of points over here. And in a similar locus, the general locus of points in the next range, so that actually these data possibly might be thrown out had more data been available. We have chosen to leave the data in in our study.

Moving on, I would refer you to wells 8, 9, and 14 in the 3 to 4,000 foot range. Now, a study of those data there indicates that there are some unusually high costs present in one or another of the three categories, of drilling costs, material costs or special services. Well Number 8, for instance, at a depth of 3550 feet, shows a drilling cost of $36,000, whereas, Well Number 11, which was drilled more than 200 feet deeper, shows a drilling cost

of $17,000. Now someone may indicate that if you look over from Well Number 8 you will see there are no special services indicated. We feel that that is one of the deficiencies of the data, in that again, here is a case where an operator has not submitted data on the same basis as the majority of operators, or certainly as certain other operators, because the way we understood the special services cost, it was to include such things as mud and cementing and transportation, not connected with moving in rig equipment and so on, and it is virtually impossible to drill a well without some of these things. We felt possibly those costs belonged in there. All we can assume is that whatever costs there were in that range actually have been transferred into this first column.

But I would point out that the average of costs in that bracket seems to be something less than $10,000 in this range for special services as there are only three wells listed that have a cost in excess of $10,000, or four, excuse me, but a number more, possibly, three, four or six of them were quite a bit less, and several without any, so the average is something less than $10,000. So if you were to subtract the $10,000 from the drilling costs in column one, we would still have a discrepancy in the figures, of maybe $5,000 or $8,000. Someone may say that is calling it pretty close; it isn't calling it close when you consider the average cost we are dealing with may be in the neighborhood of $35,000. So that we point out that we feel that these data, such data as this are inadmissable.

Then the next, Well Number 9 again reflects very high data. And consequently we also have omitted it from the study. We might point out the same things persist here in this case. The disparity is even greater inasmuch as the special services figure is in excess

of $15,000 which appears extremely high, and the drilling cost is still some $14,000 higher than for Well Number 11. Clearly something is wrong, we don't know, we don't know what well it is. Had we known the well we could have gone in the well file and come up with a detailed answer with the fact it was a representative well.

Then the next well in that group is Number 14. And if you will notice, there, it has an extremely high material cost. We don't know what that involves, but it involves something unusual. Our understanding was material costs should probably include the cost of the casing and the tubing and the well head equipment. I presume, without definition, other operators have submitted their data on maybe an equivalent basis, and maybe a different basis, but obviously there is no reason why that figure should be almost twice as high as the average figure for other wells in that group. Consequently, we know there is something wrong. We are unable to tell you what it is. Had someone looked more carefully, that well should also have been omitted.

Moving on now to Well Number 18, this is a well on the other side of the fence. This well has a drilling cost of only $15,000 which is the lowest listed. It has extremely low material costs and it has reasonably low special services. We don't know why that is because we don't know what well it is either, but we have chosen to omit it as being too low. We feel the deviation of that well from an average curve that might be drawn through there is so great to render it unusual for a statistical analysis.

Moving on then to the next range, we feel that the scattering of points is quite good in there and an average line drawn through these points only, might show that the scattering is fairly normal.

They appear some lower than these up here, of course that is significant. Since we are speaking of average wells, if we are trying to set up a proration scheme to apply to the southeast part of the state and make it fit all the drilled wells and the wells yet to be drilled, we want to speak only of average wells. We can't speak of odd wells that cost a lot of money or too little. We want to speak of the average wells in that depth range whether drilled last year or not.

There is one piece of logic here that, in speaking of an average well, it is impossible to drill an average well at a depth of say 4300 or 4400 feet, cheaper than you can drill a well at any depth shallower than that. We have you pass the shallow depth, you have already incurred that much cost. Your curve must always rise, it can't have humps in it like that, not when we are speaking of averages. Of course, if some of the data came from particular pools which happened to be developed last year, they could throw kinks in the curve. There is no logical reasoning, in speaking of the southeast part of the state down there, that we should have any of these humping and fall backs in the curve.

Moving on then to the 5000 to 6000 foot range, we feel that this is possibly the most serious interval in the whole curve. We have gone into some considerable study here and we will now analyze the various wells drilled. I might point out that the Commission has already recognized the differences of the data in this range. They have recognized it to the extent they have already thrown out three of the wells. We have gone into it much further and have discovered that these seven wells which lie along this line all were drilled in the Monument-Blinebry Pool.

Now, there might be some argument for including these even in a survey supposed to consist only of representative wells simply based on the reasoning that quite a few of the wells drilled in this depth range last year were drilled in the Monument-Blinebry Pool. But, unfortunately, we think that is out-weighed by the fact a relatively small percentage of the wells in that depth range in the state are completed at a 5000 to 6000 range in the Monument-Blinebry Pool, which numbers about 18.2 percent of the total number of wells that are in that pool, and yet the Commission, I think largely due to the fact there was more drilling there last year, selected seven out of 10 points in that depth range, a sampling of 70 percent, to represent only 18 percent of the wells. That might not have been so severe had it not been for the fact the Monument-Blinebry is probably the toughest pool in the State of New Mexico, certainly in the southeast area, to drill at that depth range. We have recently had a serious fire down there and it is interesting to note that in this very difficult area, two of the wells included in this list of seven are on that same lease. They are on the Santa Clara-Barbara Lease. We feel, a more representative sampling, would not have included wells in this known difficult area. They are not representative of the conditions in the southeast part of the state.

Now to support that, let me point out a couple of wells represented up here in the same depth range were drilled in the Terry-Blinebry Pool, a distance of maybe six or eight miles overland, the geological province is not changed, but the gas problem, the shallow high pressure gas problem certainly has changed, and you see how low the cost of those wells are. They are not extremely low, there are more lower cost in this depth range, but it points up, we have an

extreme sampling from the Monument-Blinebry Pool. Now the Commission chose to eliminate three; we have gone a step further, and eliminated five in preparing the average curve. I will come back and explain the statistical approach.

We have left two wells in there, that is, -- probably, you could handle it two ways, we might have dropped all of them out and considered the Monument-Blinebry as a special problem. It would be more reasonable to do that than to distort the whole picture of the whole range by including the faulty data. We have no objection to that, but to shape the state curve with inclusion of these data that are not representative of but the one area, we feel is not the best procedure. We have left two in there, which gives a sampling of two out of five, or 40 percent. That is just twice what it would be entitled to in the way of sampling if you didn't exclude all of them, since that is more than twice as many as the wells in that pool represent to the total of the wells in that depth range in the southeast part of the state.

Moving on to the 6000 to 7000 range we run into a very similar situation. It struck us immediately that this was an area where something also was seriously wrong since although we had no experience in drilling there last year, we have completed, as many operators know, a great number of wells in this 6000 to 7000 foot range in the Drinkard Area. And we might point out that a great percentage of the wells completed in this range are also in the Drinkard Area.

After careful checking, we arrived at the fact that these five points here, with the focus considerably above what might be expected as normal, disregarding an average line through several ranges

here, all five of those wells were drilled in the Lovington-Paddock Pool. That is also a very difficult area, and we understand it was pointed out to the Commission when the data was submitted by at least one company, that one of the wells which they sent in here was the costliest well they drilled in that area. We feel possibly the Commission on it's own motion, understanding that, when the rest of us really had no access to that piece of information, might have chosen to exclude that originally; could have saved me a lot of trouble if they had.

At any rate, we went to the trouble then to investigate all the wells that we could get data on in that range and we found the spread ran down to approximately $84,000 in this very field and yet all the points selected for the study were above $100,000. So, we feel that just by unfortunate selection of the data there we are probably getting a fairly distorted picture. There are certain things about the drilling in that area that make it difficult. Witness the fact you are able to drill wells to depths considerably greater out here for comparable or lesser cost; the average for wells drilled 700 or 800 feet deeper out here is no higher than the average for these wells here. There is something wrong. We feel maybe again a special study needs to be made of that condition, but don't include it in a representative condition when a great number of the wells in that Drinkard Area have no way near that cost. Probably it is another condition of shallow blow-outs and more drilling which requires more trips and extra bits.

Moving on generally from there in this 7000 to 8000 range, the data seem to have a fairly average spread with the exception of this figure here, and that is Well Number 65. And it doesn't take but a

second to see that that well cannot be representative of anything but a lot of hard luck for someone and, therefore, it should not be included. The well was drilled to 775 feet and the drilling cost was $139,000. Let me point out other wells in that range drilled to as deep as 8285 feet did not exceed $102,000, so there is an extra $37,000 over, and less than $100,000 actually as an average. Obviously such a point represents an unusual occurrence. We don't know what it was. Some slips may have fallen in the whole, someone may have dropped a pair of chain togs in, but someone had a lot of trouble.

Moving on then to Well Number 72. Again that well shows an exhorbitantly high drilling cost, 71 and 72 both are extremely high and, however, we do notice that 71 is drilled some several hundred feet deeper. We chose not to drop it out. Actually, it would be closer statistical approach had we had more data. Such a well would have been eliminated also in preparing a percentage curve, 71 happened to fall in, which wells 70 and 72 did not; 72 thrown out because the drilling cost of $144,000 at a depth of the only 8650 feet, which was extremely high.

Moving on into the 9000 to 10,000 foot range, Wells Number 85 and 88, they are these two wells up here. Obviously the same thing that pertained over here pertains here. They couldn't belong in the average. They spread so far from the norm you know you are not speaking of a representative well. You are speaking of a well that had an extreme amount of difficulty, and witness the fact while on this first page here those wells in that range were averaging a drilling cost in the neighborhood of $100,000 or maybe $110,000, Number 85 had a drilling cost of $215,000, just double what the others

were experiencing. Well Number 88, I can't imagine what has happened there unless somebody slipped a decimal point in that one. The special services run to $82,000, the drilling cost is out of line by maybe $40,000, so again there is a net error of probably 70 or 80 percent deviation from the average shown by the general scattering of points down there. So, both of these wells are likewise excluded.

Moving in the 10 to 11 range, Well Number 103. Again, a glance at the drilling cost should suffice to clear up the fact that well is not admissable inasmuch as the two wells drilled immediately beneath it, 104 and 105 were drilled for roughly half the cost, 103, $114,000.00, approximately and 104 being $108,000 and 105 being $104,000, so again that figure is enough out of line, Well 103, to cause it to be cast out of the averages. That is this well at this point.

Now in the 11 to 12 range, this is a more or less average spread of points. We must realize as we get higher and spend more money, of necessity the points are going to spread more so that on a percentage basis these are more reasonable. Actually, if you got to throwing points out you would throw more points out on the low side than the high side. I don't know why that is, I think most of these wells were drilled in the East Caprock area and I think it is probably development technique.

I understand again one of the companys pointed out of the four wells they submitted, two were the cheapest they had yet drilled there, and two other wells were about average. So we have included a scattering of low and average wells without including any of the relatively higher priced wells that were high, but not

extremely high priced.

In the 12 to 13,000 foot range, Well Number 131, again has an exhorbitant drilling cost as near as we can tell. It appears to spread far too much from what might be expected at that depth and we have likewise cast it out. Note that regardless of the curve you see here, either the Commission's suggested curve or my own, the rest of these things group pretty well on either side, so if you started dropping out extra wells it would probably balance out rather closely. We feel, and our experience has shown these costs seem to be some lower than we might have expected at that depth, but we are not able to design any reason for it, so we simply used the data we have presented here and worked with them.

Now in this range, these two well costs again appear quite low for what might be considered as normal expense at that depth. We have so few costs it is very difficult, and I might say, virtually impossible for the Commission to make a good finding there and we have no argument with what is there. We have used their data. We understand the Buffalo will give testimony to state they believe costs are somewhat in excess of more than $400,000 in the area they drilled. It might be, the spread and difficulty in drilling conditions might be such you would find that variation out there. On a percentage basis, the average in percentage of $350,000, a 20 percent spread would add another $70,000, so we might expect to have that much variation in data and I think it would be extremely difficult to actually predict accurately, with these few pieces of data and early wells, just where the locus of points for that depth range might be. We have no criticism of those, we think they are low and feel it impossible to do, and consequently we have no argument.

MR. SPURRIER: We will take a short recess.

(Recess.)

MR. HOWARD: If the Commission please, Mr. Nestor will continue with his testimony, being the same Mr. Nestor who was on the stand at the time of the recess, for the record..

MR. SPURRIER: Very well.

A Continuing with the cost data curve, having analyzed these wells in a logical manner to try to discover why there was something wrong with them and thus to eliminate them from the over-all averaging, in order to get a more accurate result, since the main deviation of any curve with all these points spreading all over the place would have been very minute and probably would have had little value, we then resorted to a statistical practice of drawing from the origin down here a 30 percent deviation curve, from what appeared to be an average curve in that general region. Now, obviously, you must be very careful with such a thing because if you had a place like this where the, you think the data are badly out of line, --

MR. SPURRIER: (Interrupting) Can you give one of these well numbers so it will be on the record?

A I am going to give all of them so it will be a matter of record. In the case of Well Numbers 41, 37, 35, 40, and 38, if we put too much weight on that group of wells we might result in throwing the curve so high that we might tend to discard the data which are probably more representative of the average conditions in that range. So that in order to prevent that we have chosen to extend an average line through five ranges to consider the center range for sampling, feeling that was a fair way to analyze these figures.

Obviously, at the beginning, since you spent no money there

would be no percentage deviation; as you get out here to the place where the average line might cross $10,000, if you are on 30 percent deviation, we would have had to cast out any well outside of the limits of 7000 to 13,000, as being either too low priced or too high priced, to be truly representative; by simply going up to where the curve crossed $100,000, we would cast out any well that had a deviation of more than $30,000 on either side of the curve since that would represent 30 percent of $100,000. In casting these data out we came up with the wells which I have previously discussed.

I will number these wells so they will be a matter of record. They are Wells 8, 9, 14, 18, 35, 37, 38, 40, 41, 54, 55, 57, 65, 72, 85, 88, 103, and 131. A total of 18 wells. Now I would like to explain the way these wells fell out. At first glance we notice that 17 of the wells were on one side of the curve and one well on the other side. That 17 were on the high side and one on the low side. That may sound like a deviation from a statistical approach, since in pure statistics, if you were dropping a bunch of rivets on the knife edge, they ought to split 50-50 on either side, and you throw out the ones that deviate too much. They ought to split 50-50. This is a different problem; this is the logic we follow. We reason for every depth range there is a minimum drilling cost line. That goes possibly somewhere along the cheapest well drilled in that range. I think that that is a completely reasonable hypothesis, since, obviously, to drill any deeper you must continue to spend money and these wells shown here probably represent the well that had absolutely no trouble from the start to finish.

Then proceeding from there and say, now that is the minimum cost line, that is a point beyond which you couldn't lower your

cost any more under present footage and day-work costs, tubular goods cost, cement, and service costs of all sorts. On the other hand, however, there is absolutely no limit to how high the wells can cost. They can deviate 200 or 300 percent from the average simply as to the amount of trouble that you have. There is a low minimum, but there is no high maximum. Since an operator could have a very severe fishing job, clean it up and immediately the same day get into another severe fishing job which could cost him almost another week and still be in a shallow well. There is no maximum limit for the cost in any range, but there is some reasonable minimum limit.

Proceeding a step further from there, we reason that if we are operating fairly prudently, all the operators in the state, we should be able to drill within 40 percent of that minimum line. Now, that is simply mathematics there of, if your average line is at 100 percent of the actual cost in a range and the minimum cost line is established at 70 percent, then there is a difference of 30 percent, but if you measure from the minimum side of the line, that 30 percent represents 40 percent plus of the 70. So that we feel that as much as we are learning about the drilling operations in the state after all these years of recent development, that we certainly ought to be able to operate within 40-odd percent of minimum cost. Then that satisfied me there was a logical reason why more points didn't fall out on the lower side of the curve.

Proceeding from that we then took the 122 wells and made a number of mathematical approaches. I have not learned how the Commission curve was drawn. I don't know whether mathematics were considered in that curve or not. But we reason that there probably is some mathematical expression that will approximate reasonably

well the cost of drilling in this isolated part of a geologic province, relatively small geologic area. Working with that assumption we have studied what we consider the most likely possibilities of curve fitting. We might state that, in beginning, that aside from a glance at the obvious general shape of the curve, we might remember back to the statements that we have often heard that "drilling increases roughly as the square of the depth". I think that is something that people generally have uttered and often wondered if that is about right or not. Actually our studies indicate it is not completely accurate, but the idea is good; instead of being a simple squared relationship it is an equation in exponential form.

We went to the trouble, then, of testing various exponential forms for these 122 points and the curve we present here as the line beginning at the origin, moving through the entire range and colored in red as being the mathematical expression which best says by means of lowest mean square deviation the 122 points which remained after casting out the points by the 30 percent deviation method. Simply, so that the record will show what that equation is, I might warn it may sound complex, but actually it is a simple form which can be worked out easily on a slide rule. You can also do it with exponential tables, but the equation of this red line expressing the costs versus depth relationship is as follows:

The cost of a well at any depth is equal to $31,900 times "E", which is the exponential to the triple zero 17135 times "D" power, in which "D" is the depth in feet, minus a second term of $31,900 over "E" to an "H" squared, "X" squared exponent. Now in this form the "H" squared is equal to 3.19692 times ten to the ninth, and the "X" squared is converted to a depth relationship, and the "X" term

is expressed as 3.727 times 10 to the minus ninth, times "D", which again is the depth in feet, that term squared.

Simply as a matter of the record, so that people might check what we have done to see it is valid over the entire range, I can assure you we have tested it and it will, any point you calculate, will fall within plotting accuracy on this red line.

Q Mr. Nestor, now as a result of the casting out of the wells that you named and the application of the formula that you have announced, you have prepared what is designated as the red line on Exhibit 1, is that right?

A Yes, sir.

Q Which shows a comparison of cost compared with the green line, which was the Commission curve presented at the last meeting?

A Yes, sir.

Q Now, do you have any comment to make as regards the method of the averaging of the cost from zero to 5,000 feet as shown on the green line as presented last month?

A Yes, sir. We have studied that in some detail at the time that that was presented by the Commission, we were hard pressed to find a logical reason for going through those steps. And, I must further state that after another month of looking at it, we still find no logical reason for doing it in that manner. I will state my understanding of what has been done by the Commission and my reasons for believing that we might approach the matter in a more equitable way.

It will be noted, I think by all, that our curve handles the zero to 3000 foot area which was not expressed by the Commission curve. We have a reason for doing that. We feel that it is a

good expression since it does average out very neatly the points in that area, which appear to be valid data with the exception of the exorbitant spread there. But as I recall it, the Commission averaged all the wells in the zero to 5,000 foot bracket by cost and by depth, and came up with a figure which appears in the record, but the average depth of all those wells as I recall it, was 3,601 feet. That might have been a starting place for ranging a cost and pay-out study. But for some reason which I still do not clearly understand, the Commission then averaged out all the wells in the 3000 to 4000 foot range and found again a cost figure, which appears in the record, and they plotted at the average depth, which I recall was 3,612 feet. And they did a similar thing in the 4000 to 5000 foot range, and again plotted another point at the average depth and cost for that range. So much was fine. But the line of logic which led to drawing a line between those two points and then saying that the average cost should be considered at 4,000 feet, to me is just a bit astounding.

It was explained to us that the reason that was done was because none of the wells below 3,000 feet or, correct me, only one of the wells selected by the Commission below 3,000 depth could make it's allowable. Well, I can see then why the Commission would not possibly want to consider this area down here. But I can't see why they couldn't simply have started in the 3,000 to 3,000 foot bracket since what went on before that has nothing to do with what goes on after that.

I might point out further that chance might have been such that we would have had a cluster of wells drilled at 4,995 feet, all those wells being capable of producing their present allowable, the

top allowable, and it might so have happened that none of the wells shallower than that would have produced their top allowable. We wonder then if they would, the only place you could start then would be 4,995 feet. It didn't happen that way, but we shudder to think it might have if the data, by that line of logic, had fallen out that way. We feel that a much more reasonable and equitable approach must be made to this problem if we are to keep from destroying the equities rather than instating them or adjusting them.

Now, there are several ways we could do this, solve this problem, one of which being, obviously, that if we wanted to be fair we could start up here since both curves coincide up there. No one could quibble over the cost of that depth.

Q At what point?

A Center of the 10,000 to 11,000 foot depth range. That would be a logical starting point, based on the data, since the two curves which represent two lines of thinking.

Now we do not argue that this red curve of ours is the solution to the problem because, unfortunately, we were forced to work with data which we still consider to be highly faulty, because of the reasons we have explained. Not that there is any intent of any member of the Commission or operator to submit data other than within the intent of the call of the hearing, but rather because of certain things which we have attempted to show. But in investigating a bit further we decided that also the curves submitted both by Shell and the Commission coincide at 3500 feet.

Now, we feel that this is a good starting place for setting up a cost analysis by depth. The reason being, first, we have no quarrel between the two systems as to the cost at that point. We

can have no quarrel below that since we, I think, have made the only reasonable representation through the area from zero to 3,000 feet. There are variations in the greater depths. I will point out, if it has not been noticed by all, that this curve prepared by Shell is always lower or equivalent to that presented by the Commission, irrespective of depth. In this range where we are highly concerned about the costs and also out in the deep ranges where we actually think that we must be careful to keep the factors such they will encourage development. But we point that out that we don't consider the curve and shoot up in an area where someone might want us to, to be under the curve. We have one curve and it happens, with the exception of the 3,000 to 3500 foot interval which does play no part in the over-all, our curve always being underneath the Commission curve.

Now, there also is considerable solid reason for considering the center of the 3,000 to 4,000 foot depth range as a logical, reasonable and equitable starting point. I might point out now that of some 7,000 odd wells producing in the state during the months of November, December of 1953, and January of 1954, 3,287 wells lie in the 3,000 to 4,000 foot range. Since that is such a large percentage, relatively, of the wells in the state, we thought it reasonable to begin there since obviously if we want to adjust production over all it is simpler to start at the heart of the problem than it would be down in the zero to 1,000 foot group where there are relatively few wells, only 218 in the state, or in the 13,000 to 14,000 foot depth range where they are only four producing wells in the southeast part of the state.

So with that line of reasoning, and the fact that there are

more wells in the zero to 3,000 foot interval, the intervals by thousand being zero to 1,000 218 wells; one to two thousand feet, 519 wells; two to three thousand feet, 517 wells; I am adding this in my head, it looks to me like that is 1,254 wells. In the four to five thousand foot range, which is on the deeper side of this average bracket; there are only 884 wells. So, if anything, the locus of a point in space would tend to shift from the center of the bracket, which might be expected to be the average of three to four thousand foot to something lower than that. That would involve investigating the total depths of every well drilled in the zero to 5,000 foot range, and we have not had time to do that. But based on pure logic, it would appear to us a fair and equitable starting place might be 3,500 feet.

With that in mind, we have gone to the, through the same manipulation of data employed by the Commission to establish what the pay-out of wells would be based on the red cost curve, which we simply offer as being possibly a better representation with all the factors being considered. We don't say it is the best, because unfortunately we think a great deal more data would cast a lot more light on the subject, but we have gone stepwise, using the Commission price per barrel of $2.69 and a net of 875 or seven-eights, and disregarding any lifting cost or other figures, since generally speaking they would tend to be fairly relative, we have gone through the calculations and we will now present our next Exhibit.

MR. HOWARD: Will you mark this Exhibit 2?

(Marked Shell's Exhibit No. 2, Case 608, for identification.)

MR. HOWARD: Now, Mr. Nestor, there has been placed on the board what has been marked as Shell's Exhibit 2. State briefly

what that represents.

A We compare on this exhibit the variations in depth factors and pay-out time based on the two cost curves and were considering the change in the starting point from 3500 in the Shell case to 4,000 in the Commission case.

The columns are headed Depth Range 5,000 of feet the Present Adaptation Factor is listed for each thousand foot interval, then we have listed the Commission's Proposed Plan with the setup that all wells should pay out in 1.406 years, we have listed then from the Commission curve the average cost at the various depth ranges being unable, of course, to obtain any cost in the zero to 3,000 foot range where the curve was not extended, and the only variation of our factors with those in the record, is that we have not rounded them off where in the record they will appear as rounded off. The factor from 3,000 to 4,000 being listed here as .82 which is the exact division, and in the record I believe it is rounded off to point eight; and the next factor being 1.27 here and being rounded off to 1.25.

Q Now this Exhibit represents a comparison of the Commission's costs and their factor, and Shell's, what they consider adjusted cost and their factor?

A Yes, sir.

Q Based on the data furnished by the Commission and on their same plan of pay-out in 1.406 years?

A Yes, sir.

Q In other words, this is just taking the information that was presented last month and this represents your interpretation of what would be a proper interpretation of it, is that correct?

A That is correct. We have then made the same calculation but using the cost data obtained from the red curve and have come up with proportional factors based on a unit of 40 barrels per day which is the same approach used by the Commission, I believe, and we have listed those factors here.

I would like to point out at this time that we do not subscribe in any way to this approach. We have indicated by our cross examination last month that we think that certain other factors, other than the direct drilling cost associated with the well, must be considered whether they are expressed exactly in dollars or not, must not be the only criterion. We must resort to some logic and we will make an effort to explain some of the logic we think should be considered in this problem.

However, for those who are located at some distance and may be interested in seeing what these factors are, let me read them. I will point out first of all that we have not lumped the zero to 5,000 foot range, since it is our opinion that that is the range where most of the inequities in the present system lie. We intend to make a thorough recommendation for modifying the proration system in such a manner that these equities will be introduced possibly for the first time.

Now, at this point it might be well to mention that we think that there is a considerable change in the situation from the one existing in 1945. The Commission in their presentation last month indicated that they followed in the footsteps of the committee established for Case 62 which was heard May 14, 1945. While we have no quarrel with this procedure, since it may have appeared to them to be the best, we suggest that there are startling differences in

in the over-all situation which have appeared in the intervening nine years.

As of the date of the hearing May 14, 1945, there were 4,186 wells producing in the State of New Mexico. Of those wells, 4,180 were in the zero to 5,000 foot range, the remaining six, being in ranges deeper than 5,000 feet. We submit that the logic at that time of all the people involved, not individuals but probably the companies and the small operators and anyone else who was represented, the logic probably followed the line of thought that we have a major oil industry here in the zero to 5,000 foot range, which we did. Below 5,000 feet the following six wells were producing.

Humble-Federal-Leonard B-1 in the Dublin-Ellenberger Pool completed in October 1944 in the interval 11,850 to 11,950 feet, plugged back from the total depth of 12,535 feet; in the Drinkard-Yesso Pool, three wells; Gulf Vivian 1, completed in October 1944 as a discovery well; Gulf Andrew 1 and Gulf Gothman 1, the fifth well was the discovery well of the Paddock Pool, Gulf Paddock 1; the sixth well was the discovery well of the Skaggs deep pool now known as the Cass Pool. Continental Skaggs B-23-2, which was completed in the interval 7,665 to 7,730 after being plugged back to a total depth of 10,464 feet.

Now we feel that at that time these few scattered wells did not necessarily portend that we were going to have a major oil industry in the 5,000 to 14,000 or 15,000 or 16,000 foot range. It was impossible for anyone from any company, regardless of his opinions as to what should be done, to have as clear an impression of what might happen in the next nine years as we who come along nine years later are able to see.

We find that today we have approximately 7,115 producing wells in the state. The number of shallow wells has increased fron 4,180 to 5,481, an increase of 1301 wells. During the same period of time, however, the wells deeper than 5,000 feet have increased from six to 1634 wells. Not only has the percentage gone completely out of sight, that is of 6 to 1634, but we think it is noteworthy that more wells have been completed deeper than 5,000 feet in the nine-year period we are talking of, than have been completed shallower than 5,000 feet.

Q Mr. Nestor, has that tendency toward the drilling of the deeper wells continued down through the past years?

A Yes, sir, it has.

MR. HOWARD: Mark this Exhibit 3, please.

(Marked Shell's Exhibit No. 3, Case No. 608, for identification.)

Q I will hand you what is marked Shell Exhibit 3 and ask you to state what it is please.

A This Exhibit is a summary of all the wells drilled in southeast New Mexico during the year 1953 as available from our scout records, which are considered as complete, but are subject to errors due only to clerical help.

In that exhibit we have separated the development wells from the exploration wells. We have also segregated the total wells drilled into depth ranges from zero to 5,000 feet by 1000 foot intervals, from 5,000 to 9,000 feet by 1,000 foot and 9,000 to 15,000 feet by 1,000 foot intervals. We have then listed the number of wells drilled in each one thousand foot bracket from zero to 15,000 feet. We have then taken, in those ranges where the Commission curve was established, the cost from the Commission curve -- we could take it from either cruve but we took it from the Commission curve since they

reflect a higher expenditure through this area and some higher through here -- and thought possibly if there is a showing that more wells are being completed in here at greater total cost, then maybe some thought should be given the increasing the amount of allowable to go into the 5,000 to 9,000 foot range.

Q Mr. Nestor, just for the benefit of those here who do not have copies of this just read the totals, will you, not breaking by 1,000 but just the totals?

A For the zero to 5,000 foot range the gross aggregate which was obtained by multiplying the number of wells in each depth range by the cost at mid-point of that depth range, we find that a total of 278 wells were drilled from zero to 5,000 feet at a total cost of $10,529,000, those being the development wells. In the same interval a total of 60 exploration wells were drilled at a total cost of $1,560,200. In the interval from 5,000 to 9,000 feet where we have some disparity in the curves, and which the Commission has indicated is an interval where they are concerned, the total of 165 wells were drilled in the development class at a cost of $19,024,000.00. Thirty-one exploration wells were drilled at a cost of $3,415,500. Then in the deeper than 9,000, which ranges all the way to 15,000, one well being drilled in that range, a total of 226 wells were drilled at a total cost of $47,364,000; and 52 exploratory ventures were drilled at a cost of $13,515,000.

Now let me point out that these exploratory costs, the total on this Exhibit No. 3 reflect only the cost from the green curve here. We all know that those costs are substantially higher and we would point out that were nearly as many wells, 52 as compared to 60, drilled deeper than 9,000 feet, in the search for oil, than

there were in the range from zero to 5,000 feet, and that the relative cost for exploration wells was in excess of thirteen and a half million, whereas, the cost of the exploration wells in the zero to 5,000 range was slightly over one and a half million and the 5,000 to 9,000 foot range slightly under three and a half million. So in the range where we were concerned, we find that four times as much money was spent last year alone, if you assume that the costs on the Commission's curve are correct. In the development wells some ten million dollars, ten and a half million dollars was spent in the zero to 5,000 foot range, almost twice as much, being slightly more than 19,000,000 in the 5,000 to 9,000. But in the 9,000 to 15,000 foot range this number increases to 47,360,000.

Now, it represents more than four and a half times the money spent in the zero to 5,000 foot range, and it represents approximately two and a half times the money spent in the 5,000 to 9,000 foot range.

Q This exhibit was prepared under your direction, was it?

MR. HOWARD: I ask it be admitted please.

MR. SPURRIER: Without objection it will be admitted.

MR. HOWARD: If the Commission please, if I didn't ask for the admission of Exhibit 2, I ask that at this time.

MR. SPURRIER: I don't know if you did do it or not, but without objection it will be admitted. Let's take a recess.

(Recess.)

MR. SPURRIER: Mr. Howard.

MR. HOWARD: Yes.

MR. SPURRIER: Are you ready?

MR. HOWARD: Yes, sir.

(Marked Shell's Exhibit No. 4, Case No. 608, for identification.)

Q I hand you what has been marked Shell's Exhibit 4 and ask you to state what it is.

A This exhibit shows the breakdown of the wells drilled in southeast New Mexico as of March 30, 1954.

Q That was prepared under your direction, was it?

A Yes, sir.

MR. HOWARD: I ask it be admitted please.

MR. SPURRIER: Without objection it will be admitted.

Q Just give your totals off of that for the benefit of those who do not have copies.

A This exhibit has been prepared in a manner similar to the previous exhibit listed as Exhibit Three in which we broke down the number of wells drilled by thousand foot intervals and then grouped them from zero to 5,000 feet, from five to nine thousand feet and from nine in this case, to fourteen thousand feet. The depth we have used here is the projected depth as reported to the scouts, and these data represent all the wells reported in the scout check with the four-county area of southeast New Mexico.

The total of development and exploration -- we have not made an attempt to break these wells down in the zero to 5,000 foot range -- is 33 wells, and again based on the green curve which represents the Commission cost, except for the place where it was necessary to supply cost from the red curve in the range from zero to 3,000 feet, we see a total of 33 wells drilled at a cost of $1,154,000. In the 5,000 to 9,000 foot range a total of 20 wells drilled at a cost of $2,904,300. From 9,000 to 14,000 feet, and we feel this is quite

significant, a total of 38 wells at a cost of $9,015,900. At the same time we see 38 wells drilling deeper than 9,000 feet at a cost in excess of nine million as compared with only 33 drilling between zero to 5,000 feet at a cost of about $1,150,000, a ratio of about 8 to 1 on cost, and even more wells drilled below nine than the zero to 5,000. The 5,000 to 9,000 foot range we had a total of 20 wells at about $2,100,000 as compared with 38 wells below 9,000 feet at a cost of $9,100,000, so that is about four and a half times as high. Twice as many wells, roughly, at approximately four and a half times as much capital being invested.

Q Now, from the information on the number of wells drilled and drilling since 1945, it would be your conclusion then that the tendency in New Mexico is toward drilling deeper than 5,000 feet?

A Definitely.

Q And that is a distinct change from the situation that existed in 1945 when the present set-up of factors were established?

A Yes, sir.

Q Now, I want to ask you one thing, you stated that, first your exhibit, your curve on Exhibit One and your comparison of cost, of factors on Exhibit Two are purely on the basis of well costs, are they not? A Yes, sir, they are.

Q You mentioned that it was your opinion that there were other factors that should be considered in arriving at the allowable factors? A Yes, sir.

Q Now, would you state what you consider those factors to be?

A I think we might start out with these previous Exhibits Three and Four, and attempt to show that definitely the trend in the state is to spend more money in the deeper than 5,000 ranges,

and a great deal more money in the deeper than 9,000 foot range.

One of the Commission witnesses last month testified that in his opinion most of the undiscovered reserves in the state were probably at depths exceeding 9,000 feet. We heartily agree with this. We feel it is almost a certainty that the major undeveloped and undiscovered reserves will lie in the ranges below 9,000 feet that will catch most of the Wolf Camp Pools we may hope to discover, and the deeper Pennsylvania and Devonian Pools.

We might go into some analysis of the results of wells drilled, but actually they are more or less comparative through the ranges as regards the successes and failures. So we feel that that wouldn't necessarily add to the whole picture. Actually, certainly the detail study of the reserves added to the state in this range will show more than for either of the other ranges.

Q In this range, which range do you mean?

A Excuse me, in the 9,000 to 14,000 or 15,000 foot range as compared with the zero to 5,000 and 5,000 to 9,000 foot ranges. That is the place where the major reserves were discovered last year and that is the place where most of us are looking today to add major reserves; not just outstep drilling around a pool, but the major reserves.

Q Now, is it your feeling that there should be given an incentive to operators to explore for and develop that deeper and more costly drilling?

A We definitely feel that if the Commission considers it is part of their duty to foster the development of probably the most valuable natural resource now known in the state, and that resource is agreed by the members of the Commission and ourselves as probably

lying below 9,000 feet, then definitely if we are to find the oil we have to look where it is. All the wells that we drill up here, if the oil is down here, are not going to help, and consequently the Commission, it appears to us as being their duty to develop these natural resources, would certainly want to consider an arrangement of proportional factors that will encourage the development of these very costly wells.

Q Is it not also true that in encouraging the drilling of these very deep wells there may also be shallow discoveries made in the course of the drilling?

A That is one thing, of course, that follows, is that the deep well going to 14,000 feet tests all of the shallow prospects on the way, so it does everything these wells can do; contrariwise, the shallow well does not test any of the deeper horizons and the best that can happen is that sometimes a shallow pool will reflect a deep seated structure.

Q In addition to actual well cost, are there other costs you think were considered in connection with getting an allowable factor? A Yes.

Q What other costs?

A We think of prime importance are the geophysical costs which are spent in an area to develop the undiscovered oil pools.

Q Would you mark this as Exhibit 5 please.

(Marked Shell's Exhibit No. 5, Case No. 608, for identification.)

Q Now, I hand you what has been marked as Shell's Exhibit Five and ask you to state what that is, please, and where that information was obtained.

A This Exhibit summarizes two things as observed by Shell Oil Company. This breaks down by one thousand foot depth ranges, the drilling during the years successively from 1945 through 1953, each column showing the total in depth ranges of the wells present as of January in the year stated, from January 1945 to January 1954, these, of course, being from our production records. We have the total wells at the end of the column representing 13,000 to 14,000 feet and we have a column showing the increase by year. To the right of that we have a breakdown, geophysical time and cost by crew months, from the years 1938 through 1953. In those geophysical costs we have made a further breakdown into seismic crew months, gravity crew months, and magnetic crew months, and we have listed, where they were available, the cost. The costs in the period 1938 through 1944 were not available to us, but it may be seen that they were relatively small for our company and as far as we are concerned they are almost negligible. The years from 1945 through 1953 represent the major amounts of geophysical expense during that period.

Now, I might point out that the money that we show here is the exact cost chargeable to geophysics only, this includes none of the geologists in the Midland office, Houston or anywhere else. This cost is chargeable only to the operating parties in the field in southeast New Mexico.

Q Now, without reading all the figures, just generally what does this exhibit show as regards the Shell Company's experience?

A It shows our experience by years as related both production-wise and geophysical crew month wise. During the years 1944, 1945 we had no wells drilled to a depth greater than 5,000 feet in the State of New Mexico.

Prior to that time we had done relatively little geophysical work in the state. During the year of 1945, we initiated what for us was a relatively heavy campaign geophysically, which we show 14 and a half seismic crew months, five gravity crew months, and 11 magnetic crew months, at a total expense for that year of $259,132.28. Now, we think it is significant that immediately following that year, as of January 1947, we had three wells in the 5,000 to 6,000 range, one in the 6,000 to 7,000 and one in the 7,000 to 8,000 for a total of five. Our first wells in the range.

Moving on through the record, which is self explanatory, we see that the costs have remained high over the intervening period of years, reaching a peak in the year of 1952 when we had 38 seismic crew months, four and three-quarters gravity crew months, at a cost of about $890,000. In the year following we notice, or in the year of 1952 actually, we had a total increase of 41 wells in the state deeper than 5,000 feet. Of those wells, five were in the 9,000 to 10,000 foot range, one in the 10 to 11 and six in the 11 to 12, and one in the 12 to 13. These wells represented all our wells then existing at a depth greater than 10,000 feet, and they tie in directly to this extremely high geophysical cost going on at that time.

Then in January 1954 we find a total of 129 wells, or an increase of 18 during the year of which seven were in the 11 to 12,000 class, three were in the 10 to 11, and six were in the 9 to 10. During the year 1953 our geophysical cost was approximately $623,000. Our total listed cost for the period 1945 through 1953 -- well, it may not be large for certain companies and may be quite a bit more for other companies -- was $3,989,129.86.

Q Now, the general picture shown by this Exhibit Five then, is from your own company's experience, as to deeper drilling development the geophysical cost increased rapidly, is that correct?

A Yes, sir.

MR. HOWARD: We ask Exhibit Five be admitted, please.

MR. SPURRIER: Without objection it will be admitted.

Q Now, the costs that are shown for the year 1953, geophysical costs in the amount of $622,922.60 represents both reconnaissance and detail work, does it not?

A Yes, sir, it does.

Q Now, is there any way in which you can break that down to apply it to specific areas?

A As was indicated last month, we have made every effort to break this down in as reasonable a manner as possible. We have found it very difficult as most people expected it would be, and as we knew too it would be; to find the best way of doing this. I think possibly we might point out a couple of examples simply as a relative matter to the problem.

In the East Caprock Area, where we have drilled two wells both of which are producers, we find that our detail work represented forty-seven miles of continuous profiling and based on the current costs that would figure to $25,229.60.

This in no way represents the preliminary reconnaissance work which enabled us to do the detail work. We have not found any suitable way to allocate certain amounts of that reconnaissance costs to the detail work for any one pool, but we know that the reconnaissance surveying costs about $1,073 a section, or $1.68 per acre, and that is in excess of the detail costs which we have listed.

This figure, I might add, was broken down to the two wells in the East Caprock area, shows an increase of cost of those wells of $12,600.00. Now, that is better than five percent of the total wells, cost of the wells, and is a substantial figure. It is only a relative figure which we introduced to indicate how these factors, in what order they might vary. We do not state they will constantly be the same.

I might point out another example in the Bagley area. We did one hundred miles of work and we had a cost there of $53,680. We drilled one pole there and got a gas well which has been shut in from time of completion, so that if we allocated all the cost of that work to that well we would increase it $54,000. That might be fine for that well, but you can see if you dab them all over the place that way we would have a distorted picture.

We agree that is possibly not the best way to do it because it would vary widely from company to company and it would depend a great deal on where the people decided to spend their geophysical money. We submit this simply as an indication of the geophysical cost factor of drilling these deep wells.

Now, we have already pointed out that the geophysical expense was tied in largely with the deep drilling, not with the shallow drilling, since it is a coral area. For shallow work, it is possibly cheaper to drill the holes and define accurately the structure rather than do the seismic work and drill the best well on the structure, and consequently that procedure was followed. Someone might say, of course, that result in dry holes; the seismic is no guarantee against dry holes, it enables us better to drill the first well over a known structure.

Q Now, your allocation in your example there of some $12,000 for each of these Caprock wells, that was purely the detail work attributable to those wells?

A Yes, sir.

Q It did not in any way take into consideration reconnaissance of the area?

A It would not.

Q Which would be an additional factor?

A Yes, sir.

MR. HOWARD: Will you mark this Five-A please?

(Marked Shell's Exhibit No. 5-A, Case No. 608, for identification.)

Q Now, I hand you what has been marked as Shell's Exhibit 5-A and ask you to state what that is please, and where the information was obtained.

A This is a listing of competitors' seismic activity during the years 1942 through 1953. We feel this is the best representation we can make of the competitors' position, as we have no way of knowing how much money they are spending. We could apply the same costs we have, but we might introduce a further report. We think, however, that the figures are completely relative and will speak for themselves. We again have broken the analysis down by year and crew months and these data are available from the scout reports on seismic activity which are available to all people.

Q For the benefit of those who do not have copies, read off those figures for the different months, please.

A I will read first the year then the crew months. 1942, 12; 1943, 13; 1944, 21; 1945, 46; 1946, 72; 1947, 109; 1948, 130;

1949, 150; 1950, 292; 1951, 339; 1952, 470; 1953, 370.

MR. HOWARD: I ask that this be admitted please.

MR. SPURRIER: Without objection it will be admitted.

Q Now, Mr. Nestor, from this information then, does it logically follow that the industry's experience has been the same as Shell's in that the geophysical work has increased materially in proportion to deep drilling?

A Yes, sir, I think very definitely that is the case.

Q Now, is it your opinion that in arriving at a proper factor in connection with the different depth wells, these geophysical costs are a proper element to consider?

A Yes, sir, we think they are equally as important, if not the same in magnitude, as the drilling cost.

Q As the actual drilling cost?

A Yes, sir.

Q Is there any other factor such as the risk involved that would be proper to consider?

A Again we run up against considerable difficulty in establishing an accurate relationship of the risk factor. However, we feel again, resorting to logic will indicate to all those present that we know certain things about the presently developed pools in the State of New Mexico.

I would like to consider the major pools discovered in the shallow ranges and then compare them with the one major pool yet discovered in the deep. The break for a major pool being 100 million barrel recoverable reserves as the best estimate of the industry. In the zero to 5,000 range these major pools consist of the Hobbs Pool, with a probable ultimate, approaching, or maybe exceeding 200

million barrels. The Eunice-Monument Pool area with a probable total recoverable ultimate in the neighborhood of 400 million barrels, and the Vacuum Pool area with a probable recoverable ultimate in the neighborhood of 180 to 200 million barrels.

Contrast this with the only major pool yet discovered in the deep to my knowledge, that being the Denton Pool, with a probable recoverable in the vicinity of 100 to 120 million barrels. It is but a step further to study the outlines on the maps of these pools and of all the pools in the various depth ranges and to see the pools in the shallow permian in the State of New Mexico are generally characterized by general structures, relatively low dip per mile. This means several things. It means that the area of development in the center of the pool is relatively large and that the relationship of the dry holes to the perimeter of that area will be relatively small.

We will point out, of course, to understand the problem, the worst possible situation in the finding of a pool is to have a single well pool which is surrounded by eight dry holes, with four direct and four diagonal offsets. As that pool increases in size the relationship of a dry hole to a producer becomes smaller. In that case it was eight to one. As you get a relatively large number of wells in the bottom of the pool the number of dry holes around the edges will come some larger, but they come larger in a lenial function, where the area becomes larger as a scarce function. Therefore, that relationship decreases.

On the other hand, consider the deeper pools, even the Denton Pool is not a large pool in area, having as it will probably be developed, something in the neighborhood of, oh, one hundred wells,

to the Devonian pay, as compared with something approaching a thousand barrels in the, or a thousand wells in the Eunice-Monument Pool, and some 250 in the Hobbs Pool. Just a pure relationship. But examine, if you will, the other deep pools and you will find that generally speaking the deep pools in the Pennsylvania and Devonian Reservoir tend to be so-called geological pimples, small bumps and have a relatively high percentage of dry holes drilled to the finder.

Now, the reason for that is that, generally speaking, the deep pools have increased dip, much higher rate of dip per mile than the shallow pool. That doesn't appear too unreasonable since those formations which at one time were relatively level at the time of deposition, or evaporation have been worked on for longer geologic periods and greater and greater warping has resulted with the increased dips. Obviously the deeper pools are subjected to all the mountain makers and diastrophies that all the shallow pools are subjected to, but the shallow pools attach only that after the beds were deposited. Therefore, the shallow pools tend generally to have a more general rate of dip, and to be larger in size.

Now, there is something else that enters there as a factor because of this reason. It is often possible to define fairly well the small pools, or excuse me, the shallow pools with the so-called small well, The well that wasn't a dry hole, will at best, will possibly break even, but at least you get some money back out of it and maybe you don't have to make the next step out to give you the real producer; but in the deeper pools there is a much greater risk of stepping out of the oil field as we say it, and running completely out of the pay and running completely into water. That, of course, is characteristic simply because of the greater rate of dip there is.

We consider complete logic to answer that and, however, we do agree that it is virtually next to impossible to assign a dollar value to such a risk.

Now, there is another factor of risk which we think enters in, that one of the risk involved in any well, the drilling of the well, is the possible loss of the hole or of the drilling equipment. We have had some unfortunate examples of that recently and we have, all of us, probably at one time or another experienced lost hole trouble. Now, just a consideration of the drilling time alone, obviously, if you drill on a well for 150 days, which is not exceptional for a well in this very deep range as compared to a shallow well, say the Bowers Pool which you can drill in 14 days or maybe 11, we drill them in a week actually, that there is just, you are over the hole just that much longer. There is just that many more opportunities for human failure or equipment failure to cause the loss of that hole, you lose everything you have in the hole to that time. You wind up with a junk hole and if you have any money left you skid over and start over again. We feel definitely that is a factor.

Again, it is just something relative and logical, it is something difficult to explain in dollars and cents, but again, it is logical to assume if you are over a hole something in the neighborhood of twenty weeks, there is greater danger of human error or failure of equipment, failure resulting in the loss of that hole than if you are only over it for a period of less than two weeks.

Q So these factors that you have discussed are, in your opinion, factors that should be considered in addition to actual well costs in arriving at the depth factors to be given the wells, is that correct?

A Yes, sir, they are.

Q And since they are factors which occur in connection with the deeper drilling they should be considered by the Commission along with well costs in arriving at an allowable factor?

A We think that if the Commission is going to have the equity which they desire in setting up a proration scheme, logic demands some consideration be given to these in a relative way.

Q Have you prepared a suggested form of Exhibit, or an Exhibit showing the suggestion as to how equity could be obtained between the different depth factors?

A Yes, sir, I have.

Q Now, as a predicate to putting that on, however, and as supporting information for the extension of your curve on Exhibit One, breaking down by thousand foot intervals below 5,000 feet, it is necessary, is it not, in order to have the proper depth range on the various shallow fields in the state?

A Yes, sir, it would be necessary to do that.

MR. HOWARD: Would you makr that as Shell's Exhibit 5-B please?

MR. SPURRIER: Mr. Howard, let's recess until 1:30.

Afternoon Session

MR. SPURRIER: Meeting will come to order, please, Mr. Howard.

MR. HOWARD: If the Commission please, before we go on the record....

(Discussion off the record.)

MR. HOWARD: Now, on the record. State for the record your name, please.

A A. W. Nestor.

Q You are the same A. W. Nestor who was testifying before the noon recess? A Yes, sir.

Q Mr. Nester, I hand you what has been marked Shell's Exhibit 5B and ask you to state, please, what that is.

A This Exhibit is a tabulation of the discovery wells for all pools shallower than 5,000 feet. We list the following column headings: Depth Range, the Pool, the Discovery Well, the month and year of the discovery, the Top of the Producing Interval in that Well and the Total Depth, and the plug back, if such was stated in the records. For simplicity, we have arranged the pools alphabetically in the one thousand foot ranges.

Q Where was that information obtained?

A The information was obtained by thorough research of the files in the Commission offices at Hobbs and atArtesia, as well as in the United States Geological Survey files in both these cities.

MR. HOWARD: I ask this Exhibit be admitted, please.

MR. SPURRIER: Without objection it will be admitted.

Q Now, Mr. Nestor, have you prepared an exhibit showing pay out against depth based on proportional factor as recommended by

Shell Oil Company? A Yes, sir, I have.

MR. HOWARD: Mark this please as Shell's Exhibit Six.

(Marked Shell's Exhibit Number Six Case No. 608, for identification.)

Q Now, referring to Shell's Exhibit Six, state just generally what that represents.

A The curve is a plot of the pay-out time in years against depth based on the proportional factor as recommended by Shell Oil Company.

Q Was this prepared by you or under your supervision?

A Yes, sir.

MR. HOWARD: I ask it be admitted, please.

MR. SPURRIER: Without objection it will be admitted.

Q Proceed to explain what the exhibit shows.

A What we have done here, as we explained before, we did not fully agree with the system suggested by the Commission of arranging all wells to pay out at the same time. What we have done is make a sliding time pay-out scale to cover only, in a relative manner, the extra costs attended to the deep drilling, which we have represented in our testimony this morning as being very real, although difficult to measure accurately well by well.

The plan of this curve was to have the slowest pay-out in the shallowest ranges where the over-all risk and other factors mentioned, the geophysical would have less bearing than any other ranges. I would point out that the answer we have here as you will see, is very moderate. The original plan was set up in this way, I arranged it so, neglecting the zero to 1,000 foot bracket inasmuch as we will be on a minimum allowable in that bracket, and started with the bracket up here.

Q At what point?

A For the, representing the 1,000 to 2,000 foot range, giving it the highest time of pay-out, dropping from there one one-hundredth of a year per thousand feet of depth. So that that means the way I originally set it up--, the understanding being of course, I am using the same calculation approach as we used up here, but each thousand feet of depth, instead of setting them equal always to, say, some constant like 1.406 or any other constant, I decreased the constant as we went deeper one one-hundredth of a year, which would be 3.6 days, or roughly half a week, until we got to 7,500 feet,which would represent the center point of the 7 ,000 or 8,000 foot range.

From thence onward I cut down that time by two-hundredths of a year per thousand feet of depth. Now, that two-hundredths obviously is roughly a week, since we have 52; 52 would be 1.104 weeks. What we gain actually, what the well in the deeper ranges would be gaining under the system, we propose, an accelerated pay-out over a week, over the 3,000 foot bracket in the part of the curve below 8,000 feet, whereas, above that the change was more gradual.

I am sure people wonder why the curve wiggles. The reason for that is, you can see it is fairly regular out here on the end well, in rounding off the barrels we have observed in making the calculation that a barrel of oil per day for 365 days a year at $2.69 a barrel, and 85 interest, was equal to $8,000. Eleven cents that is what other people would get to multiply it out, in rounding off barrels where the well costs are relatively low,you distort the picture if you round off say three-tenths of a barrel to put it on

an even barrel basis. Consequently, these pay-outs are shorter than was intended. It is the only answer you can come up with in a rounding.

We could have shown the exact curve had we gone to hundredths of barrels. Of course, we won't prorate that way. We thought it more practical to give you a recommendation, show exactly how that recommendation would plot out as to time.

I direct everyone's attention to the fact that the highest pay-out which again is only because of the rounding, occurs in the 3,000 to 4,000 foot ranges. One one-hundredth of a year higher than in the previous ranges, whereas, it had been intended they would tilt like this in roudning, dropped down, whereas, at the other end of the scale in the 13,000 to 14,000 foot range that pay-out has declined from 1.32 years to 1.17 years.

Now, I am sure that there is some confusion in everyone's mind as to how I used the same data the Commission did and they made them all come out on 1.4 years and mine come out in everything less than that. Well, the answer, I think, to that is that the Commission stated their case and we have graphed it here on the basis of the forty-barrel unit.

Q Just a minute, you graphed it where?

A On Exhibit Two, excuse me, on Exhibit Two under the factors, those factors are based on a forty-barrel unit. As Mr. Macey pointed out last month, in order to maintain the daily outlet for southeast New Mexico, it would probably be possible to increase that factor by one or more barrels. Actually the data that we have indicates that it would increase on this basis one barrel, from forty to forty-one, to give the same outlet that we had prevailing during the average

month November, December 1953 and January 1954.

Now, this set of factors will give us a set of allowables which will give as nearly as possible the same daily outlet as we had during the average month of that three-month period. That is the way they are set up. So we feel that possibly that explains in some fashion why all of these are somewhat lower, since we are going to be able to give them a little more oil, and had this proposal outlined in Exhibit Two been presented last month by the Commission, had it taken into account there would be extra oil laid over to allocate back to the other ranges, that would lower the curve and their curve would run somewhere through the middle of the curve shown on our Exhibit Six.

Q Now, have you prepared an exhibit taking the factors that you have shown on Exhibit Seven and interpreted over into factors and pay-out time in years on the Shell recommendation?

A Yes, sir, I have.

MR. HOWARD: Would you mark that Exhibit Seven, please.

(Marked Shell's Exhibit No. 7, Case No. 608, for identification)

MR. HOWARD: And would you mark that Exhibit Eight?

(Marked Shell's Exhibit No. 8, Case No. 608, for identification.)

Q Now, I hand you,-- or rather first, better put it up on the board. Now, referring to Shell's Exhibit No. Seven, state generally what that is, please.

A That shows the Shell recommended plan of the sliding time pay-out as explained on this pay-out versus depth, which is our Exhibit Six, and converts the factors obtained therein on the basis of the same forty-barrel unit as used in the previous cases. Now--

Q (Interrupting) This was prepared by you, or under your direction? A Yes, sir.

MR. HOWARD: I ask it be admitted, please.

MR. SPURRIER: Without objection, it will be admitted.

Q At this time I hand you Shell's Exhibit Eight which I think you intended to use in connection with this, state what that is please.

A This exhibit is an analysis of the production data for the three-month period November 1953 and through January 1954.

Q That was prepared by you, or under your direction?

A Yes, sir.

MR. HOWARD: I ask it be admitted, please.

MR. SPURRIER: Without objection, it will be admitted.

Q Okay, will you proceed now to explain your Exhibits Seven and Eight please?

A I believe I will refer first to our Number Eight as it is necessary to have a knowledge of it to understand the complete workings of what we have done in this Exhibit Seven.

This we feel is highly important, for all to understand, since this is what we are all interested in. It represents the juggling of oil from one zone to another, and this is the part where the money is transferred from one place to another and where we are all interested. So, let me explain it in some detail, although I don't want to go through the whole exhibit.

We have it listed by depth range and particular total wells which are broken down then into top allowable wells, the number of those wells, and the percent of that number to the total wells, the penalized wells, number and percent, the marginal wells, the number

and percent, and the remarks column.

Now, we have obtained this exhibit by process of studying every well listed as producing in southeast New Mexico, separately, for this three-month period, in an effort to establish what each well is capable of producing. Obviously, there are certain limits as to how far our knowledge can extend. For instance, we come up with the fact that operator A has in a certain depth range so many top allowable wells. Of course, those wells are top allowable based only on the prevailing allowable factor and adjustment for that depth range now in effect. We are forced in making an extension of these data when we increase the depth allowable in that bracket since we have not the detailed test information in any well, to assume that if we increase it, say five barrels, that all of the wells formerly listed as top allowable will be able to produce the increased allowable. We realize that obviously that won't necessarily be true and in practice we would hardly expect all the wells, particularly where a change in allowable is substantially upward, as we have in one of the depth ranges, we would not expect all those wells to make the increased allowable. But we feel the error thus introduced will be relatively small and consequently not have any over-all effect on the validity of the data.

The reason we did this was so we could be in a position to recommend accurately to the Commission the effect of some allowable proposals which we would make, and it enabled us by trial and error, to find out just what the basic unit should be in our new proposal in order to give the daily outlet comparable to the one prevailing the average period of November through January just past.

The interesting figures we think are these. In the depth

range from zero to 1,000 feet the total wells listed were 218. Of those 218 wells, 216 were marginal wells, or 99.1 percent, and of the 218, only four wells have demonstrated the ability, in this three-month period, to make over ten barrels a day.

In the 1,000 to 2,000 range, the total number of wells is 519, of which 516 or 99.4 percent are marginal. And of this 519 wells, only 46 wells, or less than 10 percent can make over ten barrels a day.

In the 2,000 to 3,000 range there are 517 wells, of which 494 or 99.6 percent were marginal. And in that group only 38 wells have demonstrated the ability to produce over 20 barrels per day.

In the 3,000 to 4,000 foot range, total number of wells is 3,287. Now, this is the first time when penalized wells appear. The top allowable wells in that range are 551, or 16.8 percent, the penalized wells number 204 or 6.2 percent, about one in sixteen, and the marginal wells are 2,532, or 77.0 percent. And in the 3,000 to 4,000 foot range, only 663 wells make over 30 barrels per day.

In the 4,000 to 5,000 foot range, total number of wells is 884, of which 407 or 46 percent were top allowable; 53, or 6 percent are penalized and 424 or 48 percent are marginal. Now, in this range, 498 wells of the 884 have the ability to produce over 30 barrels per day. Now this is the range where we felt one of the great inequities in the old scheme lie and we propose to adjust that inequity.

In the 5,000 to 6,000 foot range, 169 total wells of which 37, or 21.9 percent are top allowable; 42 or 24.9 percent are penalized and 90, or 53.2 percent are marginal; and in that range 42

of the 169, roughly 25 percent make over 40 barrels per day.

In the 6,000 to 7,000 foot range, 580 total wells, of which 64, or 11 percent are top allowable, 201 largely in the Drinkard Field or 34.7 percent are penalized and 315 or 54.3 percent are marginal and in this group 90 wells make over 60 barrels per day.

In the 7,000 to 8,000 foot range 253 total wells of which 83 or 32.8 percent are top allowable, 71 or 28.1 are penalized, and 99 or 39.1 percent are marginal, and in this classification 90 wells make over 80 barrels per day, 90 of 253.

In the 8,000 to 9,000 foot range a total of 69 wells of which 48 or 69.6 percent are top allowable, only one or 1.4 percent is penalized and there are 20 marginal wells, representing 29 percent of the total. And in this 8,000 to 9,000 foot range, only 19 wells make under 100 barrels per day.

In the 9,000 to 10,000 foot range a total of 289 of which 154 or 53.3 percent are top allowable, five or 1.7 percent are penalized and 130 or 45 percent are marginal. And in this grouping 95 wells make under 100 barrels per day.

In the 10,000 to 11,000 foot range, 74 total wells of which 54 are top allowable representing 73 percent, there are no penalized, 20 marginal representing 27 percent and in this grouping, out of the 74 only 17 wells make under 160 barrels per day.

In the 11,000 to 12,000 foot range, 128 total wells of which 107 or 83.6 percent are top allowable. There are no penalized and there are 21 marginal, representing 16.4 percent. And in this group, out of the 128, 13 wells or 10 percent make under 180 barrels per day.

In the 12,000 to 13,000 foot range, 27 total wells of which

14 or 51.9 percent are top allowable and 13 or 48.1 percent are marginal and in this classification, 8 of the 27 make under 240 barrels per day.

In the 13,000 to 14,000 foot bracket there are four total wells of which 3, or 75 percent are top allowable and one, or 25 percent is marginal. And the one well makes under 320 barrels per day, of course, being the top allowable.

Now, we had some over-all figures here which show there is a total of 7,018 wells which we have analyzed separately for three separate months by comparing the actual production statistics as published by the New Mexico Oil and Gas Engineering Committee with the allowable granted that well as published in the Commission allowable schedule. The top allowable wells in all represent only 1,550, or 22.1 percent and the marginal wells represent 4,891 or 69.7 percent.

Now, the reason for this exhaustive study was to find out what happens when you start moving oil from one of these depth ranges, say in the very deep, the 13,000 to 14,000 and the 12,000 to 13,000 into some other depth range. Are the wells in that depth range capable of making a substantial increased allowable, otherwise if they are not, we would simply keep pushing the unit up in an attempt to keep our daily outlet equivalent and giving it to the wells which have demonstrated they can't make additional oil and taking it away from the wells that could make it. And finally we keep pushing the basic unit and cutting down out here and lose all our proration. There wouldn't be much proration if that thing were carried to extremes.

Actually, in practice we don't know where the new factors

would take us. But we suggest that that is one of the dangers of allocating in this range from zero to 5,000 feet, worrying about keeping allowables high, when by thousand foot depth brackets, 99.1 percent in the zero to 1,000 are marginal, 99.4 in the 1,000 to 2,000, 95.6 in the 2,000 to 3,000, and 7 percent in the 3,000 to 4,000.

Now, on the 4,000 to 5,000 it is about 48 percent, so we are geting up to a more reasonable assortment of wells showing the ability to produce the allowable. Now, having considered these data, we then converted a problem into an IBM problem to solve for the allowable arrangement which would give us the same outlet as prevailing during the months November through January. And in so doing we have come up with these factors listed in the first column of Exhibit 7:

In the zero to 1,000 foot range the factor based on a 40 barrel unit which--still on the 40 barrel unit basis, we will actually transfer that in a minute, this makes these factors completely relative to the factors shown on Exhibit Two, when we solve, when the Commission did their work and when we compared it with our cost data.

They show that the zero to 1,000 foot range would get a factor on 40 of .07. That would give that range an allowable of 2.8 barrels per day. We have decided to set up what we feel is a reasonable minimum allowable for the various depth brackets. We have decided that should be established from zero to 2,000 at 10 barrels per day.

Now, referring back to the statistics we have just mentioned, but four of the 218 wells in that zero to 1,000 foot bracket could

make over 10 barrels per day, so the only wells you would be affecting would be four out of 218. I submit no matter what we do, when we change these allowables around, we are going to have to trample on some toes, you can't do it, if you move from one place to another, someone's going to get hurt and someone's going to gain.

We submit the people who are going to get hurt in this case and we are sorry anyone has to, but these people have had the best situation for the past nine years of anyone in the whole picture. Now, let me point out further that in restricting them to 10 barrels per day they still have the ability if the well will make it, for .37 hundredths of a year for 37 hundredths of a year which would be less than five months. If their well will make ten barrels per month for that time it is paid out, they are just that much better off still, than anyone else and they are still gaining a proportional return on their money after pay-out.

Now, of course, that is significant in that apparently we are making quite a change, but in effect, we see that over-all will affect only the four present wells and also in affect this fellow will still have the best deal in the zero to 1,000 foot range as far as pay-out and proportional return on his investments are concerned.

Moving on through the other ranges, these factors, it might be simpler unless you want to get all sets of them, not to copy the ones I have in this first schedule since I have gone through and divided these by .675 and the second one to come up with the factors which we recommend for the new allowable setup. I will read them and give people who want them a chance to get them.

The factor from 1,000 to 2,000 will be .27 based on the 40

barrel unit and pay-out time will be 1.31 years.

From 2,000 to 3,000 factor .54, pay-out time 1.31 years.

From 3,000 to 4,000 factor .875, pay-out time would be 1.32 years.

From 4,000 to 5,000 factor 1.25 and a pay-out time 1.30 years.

From 5,000 to 6,000 factor 1.65, pay-out time 1.30 years.

From 6,000 to 7,000 factor 2.08, the pay-out time 1.29 years.

From 7,000 to 8,000 factor 2.56, the pay-out time 1.29 years.

Again the rounding is causing these figures not to vary exactly in the order we had intended. From 9,000 to 10,000, 3.78-- did I skip one-- from 8,000 to 9,000 factor 3.12 pay-out time,1.26 years.

From 9,000 to 10,000, 3.78 factor and pay-out time 1.25 years.

From 10,000 to 11,000 factor 4.57, pay-out time 1.23 years.

From 11,000 to 12,000, 5.50 pay-out time 1.21 years.

From 12,000 to 13,000 factor 6.63 pay-out 1.19 years and 13,000 to 14,000 7.99 factor and a pay-out time of 1.17 years. Those are the same factors which result in this pay-out time.

Q As shown on Exhibit?

A As shown on Exhibit Six. Let me take one more step before I come back and clear up what might have been a misimpression on the Exhibit Number Two. The recommended plan then by Shell is based on a unit of 35 barrels per day per 40 acres for wells in the 3,000 to 4,000 foot range. This would compare in our present system to the unit which we established for the zero to 5,000 foot range.

Now, adjusting these so that that basic unit will have a factor of 1.00, we simply divide all these by .875 and come up with a new set of factors. These are the ones we recommend. I think I will skip the depth range and go slowly enough as I read them and you can copy them down.

Beginning from zero to 1,000 factor .08 the allowable, 10 barrels, which is the minimum for the zero to 2,000 foot range. Next, .31 and 11 barrels, .62 and 22 barrels, 1.00 and 35 barrels, this being our basis for 3,000 to 4,000 foot range, and 1.42 or 50 barrels in 4,000 to 5,000 foot range.

Now, this is significant, it was brought out and we thoroughly agree, that the wells which suffered the greatest discrimination under the present plan were not necessarily in the deep brackets. We thought there was possibly some discrimination occurred in the 4,000 to 5,000 foot range. Now, this, the affect of changing these allowable factors, is largely transferring oil from the 3,000 to 4,000 foot range which have had a very favorable situation, more favorable than practically anything else except the shallower, of course, than the 3,000 foot range and giving it largely to the 4,000 to 5,000 foot range which has had a longer pay-out period than any other.

Now, in actual practice the transfer represents roughly 3,000 barrels per day from the 4,000 foot range that will be going out, and roughly 4,165 barrels per day gained in the 4,000 to 5,000 foot range. Now, all that does is just put both of those on a par, they will now pay out almost in the same time based on this sliding time. They are within one week of each other. Now that is a place where we feel a good deal of the adjustment was necessary. Most

of the other adjustments by depth brackets are not large, but I will cite the ones that are over 500 barrels a day from any range.

The 6,000 to 7,000 foot range will gain approximately 1,250 barrels per day, the 7,000 to 8,000 foot range gains approximately 853 barrels a day and the 11,000 to 12,000 will lose approximately 749 barrels per day. Now, all this is after the adjustments which we have gone into in som e detail, have taken place. I will continue on. In the next bracket which should be the 5,000 to 6,000, the new factor will be 1.88 allowable 66 barrels per day. Next 2.38 and 83 barrels per day. Next, 2.92 and 102 barrels per day. Next 3.57 and 125 barrels per day. Next, 4.32 or 151 barrels per day. I point out that is exactly equivalent to the allowable now prevailing in that range. Next, 5.22 or 183 barrels per day. Next, 6.29 or 220 barrels per day. Next 7.58 or 265 barrels per day, and finally 9.13 or 320 barrels per day which again for the 13,000 to 14,000 foot range is exactly the allowable now prevailing.

Obviously, the range through here changes relatively little. But the chief adjustment is made up in this area where certain people had the most favorable situation, which was actually unfair to the other operators, and giving the oil that comes from these people favorably situated to the people who were discriminated against the most, in the 4,000 to 5,000 foot bracket.

MR. HOWARD: Will you mark that Shell's Exhibit Nine?

(Marked Shell's Exhibit Number Nine, Case No. 608, for identification.)

A In order to make it simpler for people to compare, if they do not have all the figures available I will read to you the factors, not the factors this time, but the present allowable in barrels per day by the various groups.

Prevailing, of course, from zero to 5,000 is 40; next 54; then 71, 94, from 8,000 to 9,000, 120; 9,000 to 10,000, 151; 10,000 to 11,000, 187; 11,000 to 12,000, 227; 12,000 to 13,000, 270; and 13,000 to 14,000, 320 barrels per day.

Now, using the basis suggested by the Commission last time, if the basis were broken in-to thousand foot brackets, the allowables would be, since they gave no cost below 3,000 feet, will begin from 3,000 to 4,000 where the factor is .82 and the allowable would be 32 barrels per day. Then next,at 1.27 the allowable is 50; then beginning from 5,000 to 6,000 it would be 68, 86, 104, 122, 140, 160, 190, 232, and 286, from 13,000 to 14,000.

Now, you may then compare--actually, I will give you this, then you will have the complete picture. This is our study based on our cost data using the same approach of equal pay-out for the Commission; understand we do not advocate that, but we wanted to calculate to see the over-all effect. Those allowables broken down now by thousand foot ranges from zero to 1,000.

Again, we would have factor .07, but the minimum allowable there instead of being 2.8 would be 10. In the next range it would also be 10, 10.4, which we would round to the nearest whole number. 2,000 to 3,000 foot range would be 20 barrels per day; 3,000 to 4,000, 33; 4,000 to 5,000, 46; and going down from 5,000 to 6,000, 61; 76; 93; 112; 134; 160; 190; 225; and 267. Now, I think everyone is in position to compare the exact figures there and that will make it simpler for analysis.

Q Now, Mr. Nestor, I refer you to what is marked Shell's Exhibit Nine and ask you to state what that is please, generally.

A This Exhibit is a plot of the present allowable picture as

shown by the blue line, heavy blue line stepping up and plotted as a bar graph. Since the allowables do not change except at the thousand foot brackets, we plotted as averaging out throughout the entire bracket, then the Shell proposed allowable, which we just presented, being the red curve and the minimum allowable being the green curve.

Now, let me explain; the minimum allowable is very simple. We set it up so it would be 10 barrels per day from zero to 2,000, 20 barrels per day from 2,000 to 4,000; 30 from 4,000 to 6,000 and increasing 10 barrels for each 2,000 feet all the way. Now, obviously that gives very little protection out here.

Q Out where?

A Excuse me, out in the very deep ranges. The problem we see of the minimum allowable is to formulate a system whereby market demand will not result in a premature abandonment of wells simply due to lack of an allowable. Now we submit that no well shallower than 2,000 feet will be abandoned on prevailing crude prices if it is still capable of producing 10 barrels per day, so if we set a minimum allowable at that range no one in this room, I believe, can make a statement that it will result in a premature abandonment of the well in that range. We feel, moving through the other ranges, no well shallower than 4,000 foot would be abandoned, in the 2,000 to 4,000 foot range, would be abandoned if it had an allowable of 20 barrels a day, since a great many wells in that range make considerably less than that today and are not being abandoned.

Again, you reach the conclusion that out here someone says you don't give much protection out there.

Q Out where?

A In the deeper ranges. We are of the opinion that if we ever get to that shape where we had to cut back the allowable to that level, the oil business has pretty well gone to pot anyway, so maybe we better get in uranium.

Q Your 9,000 to 10,000 and 13,000 to 14,000, your red lines?

A In the 9,000 to 10,000 foot range and 13,000 to 14,000 foot range as we indicated on, I guess it is Exhibit Number 8, the previous one, no, it was Number 7, Exhibit Number 7, the allowable is exactly as prevailing today. The allowable 9,000 to 10,000 and 13,000 to 14,000. You can see there is very minor variation in the allowables we propose in these ranges from those now prevailing that we have a moderate increase in the wells from, I should say, 7,000 to 9,000 feet. And a marked increase in the 4,000 to 6,000 foot range. The 4,000 to 5,000 and 5,000 to 6,000 and the 6,000 to 7,000, also.

Now, we personally, as we have indicated this morning, do not necessarily hold that this is a true picture of what should happen in here, since--

Q (Interrupting) Where is that?

A In the, particularly, in the 5,000 to 6,000 and 6,000 to 7,000 foot ranges. That being because we questioned the over-all value of the cost data in those ranges and, consequently if those data are incorrect, then our proposal based only on those data would also be incorrect in the same order. But, we feel that other than in those ranges running from 5,000 to 7,000 feet that this is a reasonable and equitable distribution of the daily outlet now available to the southeast portion of New Mexico.

Q Distribution on the basis that you have shown in your recommended plan would maintain the present outlet?

A Yes, sir, it will--

Q (Interrupting) And allocate the oil to the--

A (Continuing)--Within one percent.

Q And would allocate the oil to the wells that could make it?

A Yes, sir. Now, this analysis we made of the wells was not purely on an allowable basis since many wells are nominated for 40 barrels per day which actually in practice they may make only five or twelve, or twenty-three or some figure substantially less than that.

We went to the trouble to isolate each well and determine whether or not it could make the allowable as demonstrated over three-months period, the idea being certain wells will fluctuate maybe several barrels in any one month and make it up on the next two or following month. In that way we have attempted to analyze and we now feel we know what each well in the state could do at that time and that we feel is the best yardstick that was available to us since there were no production figures available at the time of the study after January 1954.

Q Let me ask you again for the record, as I understand it you are not at this time urging a change by the Commission in their factor schedule?

A No, sir, that is not our idea.

Q Your only purpose in presenting the information is that if the Commission is going to make a change you consider that the Shell recommendation would be a fair and equitable basis of change?

A Yes, sir.

Q That is correct? A That is correct.

Q Do you have anything else?

A I believe that is all, Mr. Howard.

MR. HOWARD: I believe that is all, sir.

MR. SPURRIER: Take a recess.

(Recess)

MR. SPURRIER: Mr. Howard.

MR. HOWARD: If the Commission please, that concludes Mr. Nestor's testimony, we have no other witnesses.

MR. SPURRIER: Anyone have a question of Mr. Nestor? Mr. Macey.

CROSS EXAMINATION

By: MR. MACEY:

Q Mr. Nestor, I would like to know first of all, you said that the information as to the tabulation of the wells was not accessible to you as to which wells the Commission used in making this study, is that correct?

A Yes, sir. What I meant by that, Bill, was that when I left here after speaking with you I had no reason to believe, I mean it had not occurred to me that the data might show these severe, what we consider, deficiencies, and once I got away from here I didn't, since you had not made the wells available, I questioned whether it was right for me to come to you and ask for those data. Rather than that we went through the laborious task of trying to isolate the wells by exact depth and to do that we tabulated every well completed in the state last year, and by working it down by depth range we were able to discover where the most critical wells were drilled and who drilled them. I wasn't reflecting the data

was withheld, it was simply a matter of timing. I got away from here before I realized I needed to know that.

Q Mr. Nestor, didyou go over the exhibits that we introduced?

A Yes, sir.

Q Well, we have got an exhibit here, Number One, introduced that has the name and location of every single well in this.

A I guess I didn't see that one when I asked for the record, I guess I didn't get one of those.

Q Actually there were two copies in there.

A I see. Well, that is unfortunate, it would have saved some time.

MR. MACEY: That is all I have right now.

MR. SPURRIER: Anyone else? You mean to tell me Mr. Nestor talked all that time and nobody's going to question him?

By: MR. LAMB:

Q Mr. Nestor, did I get an impression from you, you thought there were inequities in the present system we now have?

A Yes, sir.

Q That they do exist? A Yes, sir.

Q Possibly in the 5,000 to 9,000 bracket as being too low and the 9,000 and above as too high and 4,000 to 5,000 as too low?

A Definitely in the 4,000 to 5,000 I think that the quality of the data in the 4,000 to 5,000 foot range is such that we could say almost unequivically that those, that there is an inequity existing in that range.

I am not wholly convinced, since I feel that not enough representative data have been available officially by the Commission.

We attempted to work with the Commission data since we felt it would be unfair to go on our own and introduce data from other people since we would subject them to criticism for having selected data which happened to fit our ideas of the thing. So we chose not to do that, feeling rather that maybe the Commission, if they felt further study were necessary, would request and disseminate again the data which we think ought to be added to the study, but pending receipt of those data, I am not wholly convinced exactly what should happen the, let's say, the 5,000 to 8,000 foot range.

Actually, I think there is probably little possibility of change in the 9,000 foot, most of the data we had indicated that that is the place where the curve, no matter how you study the thing, the curves seemed to approach each other in the 9,000 foot range. But from 5,000 to 8,000 I would rather reserve my opinion as to what might happen if we had better data, but the data we used, do indicate that we should add some oil in those ranges and we have so recommended.

Q In your mind, I believe you stated the information was faulty, I believe that was the word you used?

A I may have.

Q With this in your mind, using faulty data, wouldn't it be a little risky to make calculations and recommendations? Would you not possibly develop more inequities than you solve?

A We were informed by the Commission last month that they didn't intend to carry this hearing over. We assumed that that meant we were going to work with the data available, that we wanted to try to analyze in the best manner possible the data they had made available to everyone and not cause a delay, when we requested

new information. Therefore, we have made this, we represent it as the best study we were able to make from an equitable standpoint of the data presented by the Commission.

Q At the last hearing I got the impression that an exact formula for the calculation of geophysical cost into the development proposition figures would be presented here.

A I don't believe the record will show that we said we would give an exact formula, we can refer to the record.

Q In other words, you don't have it?

A We certainly do not, we have so testified.

Q In your company's operation, Mr. Nestor, can you tell me what you consider the economic limit of your production?

A As far as we are concerned when a well ceases to make money by continued operation, that to us is the economic limit.

Q You have a number of barrels per day production average, do you not, somewhere?

A No, I wouldn't say that because I think there are a number of factors which would determine such things as the amount of gas you might be able to produce from a fairly small capacity well, if you had substantial gas sales, and since this is concerned largely with the oil rather than with the gas, then, of course, you couldn't make an over-all statement, I feel.

Q Well, supposing you had a lease of an average number, say eight wells. At what limit would you have to break your operation if that were an isolated lease?

A In what depth range?

Q Well, say 5,000 foot range.

A Would the wells be on the pump?

Q Probably.

A Well, anything I say here, of course, would be in the nature of a guess. We analyze our costs by statistical method to find out whether or not we are making any money. We have all the leases coded and the field locations coded and we are able to arrive at an exact answer to such a problem; whereas, I am being asked to make just a guess and I wouldn't know except that I would guess it to be in the neighborhood of three to five barrels per well, maybe per day.

Q That is considering--

A (Interrupting) That of course, when you say isolated, how isolated is it, is it twenty miles from anywhere or fifty miles from anywhere.

Q Now, I gather that in various range depths you have given a point zero one year decrease in the pay-out period, and another range depth which is greater, at .o2 years.

A Correct.

Q Those being in the greater depths?

A Yes, sir.

Q Would it be that you think the greater depths need some advantage in pay-out?

A We have testified at length as to our reasons for that, Mr. Lamb, they are the extra incentive to develop the undiscovered reserves which we feel are yet to be found. The factor of the geophysical costs, which we have attempted to show is tied into this expanse of deeper drilling activity in the state and the risk factor, was explained as our basis.

Q Don't you think that the exploratory drilling since 1945

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Q Don't you think that the exploratory drilling since 1945

down to the present in the greater brackets, the greater depth brackets, must have given some operators an incentive?

A I don't know what you mean by that.

Q In other words, the allowable condition which exists, the great number of wells which have been drilled since 1945 doesn't that indicate that there is an incentive there already?

A Yes, I would say that it does.

Q What will your proposed factor shallower than 5,000 feet do to the incentive of drilling at that depth?

A The way I see it, Mr. Lamb, that is the place we are talking equities and if you want to be equitable, that is where the revisions must be made. Now, the substantial showing that we have made here, the data speak for themselves. I am not here to debate that, but it is clear that wells in the 4,000 and shallower ranges have had a very beneficial picture as regards pay-out and income after pay-out. Now, we much consider that we are not speaking only of the wells which were drilled last year, we are speaking of all the wells in the state. And, consequently, we feel that if that is the place where the inequity has been, that is the place to go and correct it.

Q If there had been a great inequity in the shallower than 5,000 foot bracket, it is surprising to me that a great number of operators would not have taken advantage of that great range depth.

A I don't understand what you said, ask it again.

Q If the great advantage exists shallower than 5,000 feet, would it not be surprising that more operators would not have drilled in that depth range?

A Our argument to that is we feel that most of the pools in

that range have been discovered and consequently it is more important to foster the development of the places not yet discovered.

Q In a recent publication there has been a reserve statement as to the proven reserves in the State of New Mexico. Do you happen to have that figure? A No, sir, I do not.

Q I think it was filed with the Commission, seven hundred and sixty million barrels of oil, and the greater percentage of that is lesser than 5,000 feet.

A I think I indicate that in my testimony, Mr. Lamb.

By: MR. WILSON: Mr. Wilson: Parker Wilson.

Q Mr. Nestor, would you give me a guess as to how much the cost of drilling wells to the 5,000 foot depth has increased since 1945?

A I could not give you a guess. We have not made a study since that was not within the scope of the hearing. We have analyzed some data over those periods, but I could not give you any factors to indicate what the difference might be relatively.

Q We have some figures that indicate it would be double, that joint cost today with, are double what they were in 1945.

A I would say our data would not indicate that.

Q Not that much? A Not nearly that much.

Q But a substantial increase?

A Not anywhere in that order. I am speaking from the figures I have looked at and I know that is not reasonable from our experience. It may be something you have observed.

Q In any event, the deeper wells, I would say at the 11,000 to 12,000 foot level, the cost of drilling them has gone down considerably, is that right?

A Yes, if you consider the fact that the only wells drilled, of course, at first were exploratory wells, but remember, we have to pay for those too.

Q I mean generally, country-wide, the technological improvements have been mainly toward the benefit of the deeper wells, isn't that a fact?

A Well, I don't know that that would be true. It might be in some particular part of the country, yes, I think they are. For instance, the chert bit has possibly helped a great deal, and the jet bit. The jet bit also works in the shallow hole, of course.

Q Until you advocate the allowable below 5,000 feet be decreased, the factor be decreased, and the factor for the deeper be increased.

A Very definitely, since the cost data submitted by the people in that period indicated while their costs may have risen, they have not risen disportionately to the rest of the scale.

MR. SPURRIER: Anyone else?

MR. KEOHANE: B. M. Keohane.

By: MR. KEOHANE:

Q You were advocating the figuring of the cost of the shooting into the cost of the wells. Would you also want to take into consideration the cost of the acreage acquisition?

A No, sir, since we figure over all that a certain amount of acreage obviously happened to lay over a shallow pool thought to be very rich, or over a deep pool thought to be very rich, should average out. Pure wildcat, I presume the cost would be relatively the same.

Q You talked about the East Caprock wells, you had $25,000 worth of shooting and I believe $25,000 worth of lease acquisition

on those two wells.

A That is correct, but we have not thrown that cost in at all.

Q It should be figured if you are going to figure the shooting.

A No, I don't agree. That is open for discussion, however, but that was outside the scope.

MR. KEOHANE: That is all I had.

MR. SPURRIER: Anyone else?

By: MR. MACEY:

Q Mr. Nestor, I believe I am correct in saying that you recommended a ten barrel per day allowable, to wells from zero to 1,000 feet, as a minimum. And under your proposed 35 barrel per day unit allowable your zero to your 1,000 to 2,000 bracket would get 11 barrels a day? A Yes, sir.

Q Have you taken into consideration the fact that a great many of the pools in the bracket from zero to 2,000 feet are drilled in some instances on 10 acre spacing, and that the operators have invested four times what you estimated?

A The fact that you didn't introduce any data in the study to cover that, of course, made it difficult for us to come up with any other answer. We don't submit this is the only solution to the problem. We submit had more data been available we would have been able to make a better study; I agree to that extent.

Q You mean we should have listed that and told you those wells were developed on 10 acre spacing at the time of the hearing?

A No, more data given in the hearing, and if that were a factor, that is something the Commission would have to study, whether or not the spacing pattern must be altered in the shallower pools and what should be done to preserve the equities in those cases.

Actually we have an established, we feel that if a man drills one well on a 40 he can pay it out as far as anyone else who drills a well on a 40; if he chooses to drill two wells on the 40 it becomes a problem as to whether or not he is entitled to pay out both of those wells faster than anybody else in the state. It may be that is true. If so, I presume that will be considered.

By: MR. SMITH:

Q Mr. Nestor, one or two questions if you please. As I understand it, all your data based both upon your recommendation and upon your prior analysis has been upon data which was submitted to the Commission and in turn submitted back to the operator?

A Yes, sir.

Q In making your selection you eliminated certain wells because of weighting and errors? A Yes.

Q Going into the matter, I would like to know if you have a recommendation as to the manner or method whereby a more careful sampling could have been acquired by the Commission?

A Mr. Smith, I think along those lines that sampling technique is a very advanced part of statistical analysis and it is the most demanding part of it. Consequently, we feel the best sample is all of the cost. It would be far simpler to analyze this problem with all the wells drilled, of which costs were available over the last ten years, than it was to analyze with the data we had.

Q In other words, one year's period may have an additional weighted factor which may not have been mentioned, which is, if you, if that particular year should have very few discoveries of new fields and, thus, a relatively slower amount of development wells coming about by reason of that fact, that in that event it would be

a fairer sample to have taken, say a three-year period which would be more representative of the development in a particular field, having in mind of course, the fact that as you go into a field and drill wells and learn more about the faulting and the various problems you have in drilling the wells, you can cheapen the cost of those particular wells? A That is correct.

Q Your recommendation, then, as I gather then,--of course, the ideal situation would have been to take the last nine or ten years, all of the costs and worked a pure arithmetical average?

A Or then go through and try to isolate those wells which obviously were the result of poor practice, or have had unfortunate conditions which befall all of us.

Q In view of the relatively small samples taken, the use of a strict arithmetic average would be bound to lead to error, in various brackets? A Yes, it would.

Q It would be better, more preferable to do as you did in this case which, I assume, was a modified version of the method?

A That is right.

Q Have you given consideration with respect to the media to go through?

A Of course, we considered that, and considered everything and felt it reasonable to retain as much of the data as we felt were reasonably relative of that portion of the data which were submitted to us.

MR. SMITH: Thank you.

MR. SPURRIER: Anyone else?

By: MR. MACEY:

Q Mr. Nestor, you quoted some figures on the number of pro-

ducing wells, I believe they were producing wells which were producing as of the beginning of 1945 in the zero to 5,000 depth range and below 5,000 I believe it was below 5,000, and--

A Yes, sir.

Q What was the zero to 5,000? A 4,180.

Q 41 what? A 4180.

Q Now, do you have the breakdown as it occurred during your study, I don't know what date you used, but you used the total of about 7100 though? A I see.

Q I have something here, is it 7115 total?

A That is correct. And there are also added to that 78 so-called distillate wells which are largely dual completions, for a total of 7193. That was as of April 1st, 1954 taken from the official promtion schedules. We realize, of course, they also lag some in new completions. That is only an approximate figure, but the best we have.

Q You drew a conclusion from those figures that there has been more deep wells drilled since 1945 than shallow wells?

A Yes.

Q Now, you are comparing producing wells in 1945, some of which had been in production for 18 or 20 years?

A Correct. Well, wait a minute, no I just compared the producing wells, I think that were drilled in the interim, did I not? I may have mis-stated it.

Q I wanted to clarify that. I wanted to find out if you definitely established the fact that there were more deep wells drilled than shallow wells and if so, how you established it using producing wells, because there certainly have been a flock of wells

plugged since 1945.

A I see, the net gain would be a net gain in both, net gain and net loss in both the groups, and I have not taken that into account. So whatever variation would enter there, would effect these figures.

Q Your statement that there were more may not be correct, isn't that true?

A On that basis it may not be, I could better state it, appearing in the proration schedule.

Q I want to find out from you how you can drill a well too cheaply? A Too what?

A You said you could drill a well too cheap. Now, how can you drill a well too cheap?

A Someone told me,--you mean the well we threw out?

Q I don't know which one you threw out, you said you could drill a well too cheap. I see how you can drill a well and cost you too much, but I can't understand how you can drill a well as relatively cheap.

A Well, Mr. Macey, all I can say to that is I found so many warped and twisted pieces of data in there I was afraid some error had been made, and in making a pure statistical approach I thought it would be fair to all to drop the low well out. Actually it would have indicated the cost of the average well in that range was lower than we used and resulted in cutting further the 3,000 to 4,000 foot bracket. But we eliminated that well because of the fear that possibly some part of the cost had inadvertently been omitted since the grouping of the rest of the wells was reasonable and that would appear unreasonable. Someone told me today as far as he knows

that well,--I can't tell you who it was, I don't recall but as far as he knows those costs were accurate, in which case the well cost is accurate.

Q I believe it was a well, if I am not mistaken. I can't remember the number of it, I think it was the Texaco-Link Well, if I am not mistaken. A Probably was.

Q I can't remember which one you referred to.

A If we had complete well reports on all the wells and knew that all the costs were broken down exactly the same by all the operators and tabulated across the page so much for cementing, so much for mud, so much for coring, so much for drill stem testing, I would not have been forced to make that decision. But without those figures, and run into the fact that certain of the costs, even though you had warned the people as I remember, not to include artificial lift or tankage, that inadvertently, without any malice, those figures had been submitted including those costs. And that was part of my concern. I just didn't know. Had it been my own company I could have tracked it down to find out exactly why we do, find out we drilled it five days faster than any other well in the pool. Your question is then, it couldn't be too cheap, it was just the best well drilled.

Q Have you made any effort to attempt to superimpose the present allowable curve on your curve that compares the recommendations that the Commission made and the curve that shows your recommendations, have you made any attempt to put that down?

A No, sir, we have not.

Q You have any idea what it might look like?

A No. I have an idea I could tell you what the allowables

would run, possibly, for the same outlet, I mean I could calculate them here if that would be of value.

Q No, I think that is all right. I would like to ask you if you have any wells that are producing, say in the zero to 3,000 bracket?

A Do we have any wells in that bracket?

Q Yes, sir.

A Just a second, I can tell you, Mr. Macey. Our figures indicate that our first producing wells are located in the 3,000 to 4,000 foot bracket.

Q All right, then, you couldn't hardly know from your company's standpoint what the economic limit would be on a well anywhere in the zero to 3,000 foot bracket except by guessing?

A Mr. Macey, I think that is a bit naive statement to make in as much as we operate in many states where we do have the shallow wells. I have experience in the State of Texas which has operated from our division, and we do have shallow wells in the other states, too, and I can say only that in general, no one in here will abandon a well at 10 barrels per day in that range. I don't believe anyone will challenge that.

Q All right now, you stick by the strict theory that when a well is on a lease, assuming that the economic limit of that well is five barrels per day, that well drops below five barrels a day, you just abandon that well, is that right?

A Normally we do not immediately. Generally we study to see if there are work-over prospects to improve the productivity and so on.

Q You obviously, then, must allow the other wells in the lease

to make up the slack for that one, don't you?

A To make up the slack?

Q Well, if you are losing money on that particular well on that lease, you must operate in the lease at a profit. Now, I am not going into the point whether you could work the well over economically or not, we will get to that in a minute, what I am getting at is you may not have all the wells on a lease that are economical to operate as a single well, but you continue to operate that well, don't you?

A Well, we don't if we can recognize an uneconomic unit. Obviously we don't operate at a loss anyplace deliberately, not deliberately, I don't say we don't through inability to know the exact facts to such a thing. As soon as any prudent operator found out it was costing him money to operate B-27, he is going to stop operating, if he is satisfied there is no further trend of action which will enable him to make that a money making proposition for him again.

Q Now, if you had a well which was on the economic limit the decision which you would recommend to your company as to whether you would work that over or hydrofract the well, any kind of remedial work would depend on the kind of allowable you could produce out of that well? A Correct.

Q Don't you think the tendency for remedial work lies greater with the low allowable? A Would you repeat that?

Q Don't you think that the tendency toward remedial work lies in the wells with a low volume, low income?

A Yes.

Q Therefore, doesn't it stand to reason that if you are going

to work over a well, you have got to have some incentive and an allowable to work that thing over?

A All right, Mr. Macey, consider this. Do you suppose--I will ask this question, pose it, and answer it. Do you suppose the cost of working over that well is going to exceed the cost of drilling another well to that depth? If it does not, then you are not entitled to any more incentive in that range. If it does we probably ought to drill another well or forget about it.

Q Well, all I know is this, Mr. Nestor, that down in southeast New Mexico we have got a lot of wells with very small allowables. They are small allowables because the wells can't make any more, they are marginal wells. And I know that unless some facilities are afforded those operators to produce on some other lease, or some other property even, and allow them to make some money to flush production at say 40 barrels or 35 barrels allowable, then they are not going to work those wells over and they are going to abandon those wells. Now, you may not, your company may not operate that way, but I believe that a lot of operators do and I believe that if they were here today they would bear me out on every word I said.

A Well, a prudent operator, it seems to me, if he can work over the well at less than the well cost,--now we have been talking about the shallow wells. Let's remember the deeper wells get into the same stage. We have a very unfortunate situation happen to one of our wells in the Echo Pool recently where we just managed to junk and abandon a very expensive property that just cost us one hundred odd thousand dollars, Mr. Macey. It doesn't just happen in the shallow ranges and we had taken what we feel were the normal precautions, but we had extremely bad luck and lost a lot more money.

It will take quite a while for anyone in the shallow ranges to equal the cost of the deep well, and we were working in an attempt to make a better producer, and we had--

Q (Interrupting) That is part of the risk factor.

A Yes, it is, we feel.

Q Do you have any definite recommendations as to how this project could be continued, abandoned or something done with it?

A Well, I suppose if you asked everyone in the room everyone would have a good idea how to do it, and I don't suppose mine would be any better than anyone else's, but I believe a more reasonable answer could be evolved where we consider all of the data available from all the companies and make every effort to define exact limits of certain companies and have everyone break down their costs in that pattern so we will know what is a representative figure, and what is one which just, as I say, represents a very unfortunate thing, which we are not trying to consider in setting allowables, or a very prudent operator, and I presume we could all qualify for that.

And we had such a study, since there have been a great number of wells, almost half the wells now producing in the state have been drilled since 1945. We have increased from some 4180 to 7100 so if we were to go back that far I think we might be able to arrive at a more reasonable picture, and I think every effort for it should be made by study and consultation before asking for the information from the operators to pin down just what we are going to define as a drilling cost and as equipment cost and as special service cost. I mean define there, and actually, I think it would be better if we submitted, further broke them down in the special services to

logging and mud, cementing costs and so on.

That would be my recommendation. But I realize that one man probably is not in position--I have studied this problem at great length and I certainly have learned some of the things that would tend to make this study better. That is no reflection on the people who have contributed thus far, either their ideas or data, but unfortunately I think what we have is not adequate to give a good answer, so the decision as to whether or not we go ahead, I think, rests with the Commission. But I would make those recommendations and I think we ought to go back to at least the post-war period when, probably cost date,--we I know have our detail cost data in good shape back to 1946 and would be happy to go through the whole thing again if necessary to come up with the equitable solution.

Q Well, one thing on that point you brought up, has there been a big or small increase in costs since 1947 or '48 to the present, in 1953?

A Has there been a big increase? Speaking from our own data, I would say generally speaking there has not been as much of a change in cost as I expected. I don't know what others expected, but I have looked at a great number of wells and I have not seen that great increase. Of course in studying those wells I studied wells from nearby pools, whether in New Mexico or not, simply to gain enough information to make a logical approach to our problem here.

Q Now, from your own information, from your own recollection back in 1948 you drilled quite a few wells down in the Drinkard Pool? A Yes, sir.

Q Do you, offhand, know approximately how much those wells cost in 1946?

A Yes, sir, I do. We have the company's curve hidden there. I believe the figures I noted by way of comparison, I will just take a group of wells drilled in late 1947 on our Argo and Argo A leases in the Drinkard Pool and the costs of these four wells were respectively: $79,684.43; $79,242.94; $91,931.87; $78,933.69. And I can see here that the average depth of those wells was approximately 6600 and say 35 feet.

Now, we also drilled in late 1952, our Andrews One, I believe--yes, in the Drinkard Pool, and we completed that well at 6613 feet in September of '52 for $97,000. Drilled our Taylor-Glenn Six to a total depth of 6707 for a completed cost of $90,600, so actually two of the wells were substantially the same as the highest well and the others were some ten to $12,000 higher than, or they were some ten to $12,000 higher on the average than the other four wells I mentioned. That relationship is something I have not analyzed.

I might add we also drilled our Brazelle Number 8, completed it in October of that year, of 1952, at 6513 feet at a cost of $74,100. So it is actually lower than all of the four wells that I cited before.

Q That was a chaap one? A Yes, it was, I agree.

Q All right, now, if you use that same data, say at eight or nine year periods, and you compared drilling costs in 1946 and '47 with the drilling cost now, you are going to end up with a pretty big spread of figures, aren't you?

A Well, Mr. Macey, it occurs to me this way, that we would have

logic in how we do the thing. Of course, it might be as we studied the problem we would make individual studies year by year and attempt to correlate from them. I don't know, I strongly suggest an attempt be made, if you desire to go ahead. We do not agree that the drilling costs have increased as sharply as some people feel. I admit I was somewhat surprised myself, and I think it is a bit foolish to consider the deep costs are plummeting, getting cheaper every day. That is not true. I assure you of that. And, also, we have considerable information to which we have not really gone into to show a number of the wells selected were actually cheaper than might be the average for certain people in those deep ranges, but we chose not to make any comment on that.

If we go into a further study all those data will be available. I will tell you it is going to be a severe problem to do this. It is an important matter; if it merits attention, I think we ought to give it all we can.

Q You mentioned a risk factor in losing wells. Do you know how many wells were lost during the year 1953 in southeast New Mexico?

A No, sir, I don't.

Q Well, I think there were some, but I don't know which ones they were. They may have had flared them, but they didn't end up--

A (Interrupting) No, wait a minute, now you mean in drilling operation?

Q That is what you were talking about.

A Well, sure. But I mean if you, it is just a matter of logic whether there were any or not. Let's be logical about the thing. If a certain,-- we are all in agreement wells have been lost in that manner and let's not just talk about 1953, since we are treating

all the wells drilled from the discovery of the first well drilled in the State of New Mexico. We are regulating it's allowable too, so let's consider the facts for all the wells and actually I think more largely we were speaking in the risks of drilling the dry holes rather than losing a well, that being a secondary possibility.

Q You cited the fact that we would, first and everything else, you were talking about losing wells, and I didn't realize you were including that, or making that a separate issue under the risk factor. I realize you have a risk factor whenever you put a hole in the ground. I wonder if you could name me where that was a very significant item in consideration on any kind of study?

A Possibly that risk factor is not today serious as structural legislation. The deeper pools are smaller, I think you agree to that. Anyone who has made a cursory study, even of the size of the pools in the state will have seen that.

Q Have you made any tabulation to the approximate over all cost of seismograph figures in the state?

A For all companies?

Q Using your figures? A No, I have not.

Q How much does it cost your company to operate seismograph crew for a month?

A A crew month? We do not have that figure available, Mr. Macey, we have the total figures which represent the---we made a breakdown rather than on that basis instead, on the cost of continuous profiling and the cost of reconnsissance; we don't have the breakdown that you would like. We could relate it I believe to total crew months and total cost. You might try that since we do have those two figures available.

MR. SPURRIER: We will take a ten minute recess.

(Recess)

MR. SPURRIER: Did you have something, Mr. Nestor?

A Yes, sir. In answer to Mr. Macey's previous questions, the first answer I would submit is the one as to the cost of a crew month of geophysical work and we find that approximately $35,000 to $36,000 for the work that we are doing in New Mexico now.

Now, in answer to a previous question as to whether or not any wells had been lost in the state, I have had a chance to call to mind a well which we did lose last year that was drilled at great depth, that being Pacific Royalty Number 2 in the Denton Area. We were forced to abandon that well at a depth approximating 11,000 feet, and plug it back to a Wolf Camp producer. We then went back in and drilled an unnecessary hole to the Devonian which was dry. Now that, as far as we are concerned, we drilled two wells there where we might have only drilled one. Again we lost considerable money. So that is in answer to your question as to whether any wells were lost in this risk factor, that is one; when you talk about those wells at that depth, they run in the neighborhood of $300 odd thousand dollars, particularly when you have trouble, and we had lots of it.

MR. SPURRIER: Anyone else have a question of Mr. Nestor?

MR. WADDLE: Ross Waddle representing Magnolia.

By: MR. WADDLE:

Q Mr. Nestor, on the data that was gathered by the Commission, some of the wells called for were company drilled and some of them were contract drilling. There is one way you look at it in the sense that the actual direct cost as reflected by the company's books

would be lower on a company drilled well for the reason that the contractor's profit is not in there and the fact that you are self-insured and don't have those insurance premiums that are high for that drilling contractor, is that right?

A Yes, sir, that would be true of any such wells.

Q Therefore, in any study you might work out that would be a factor to consider when you gather in your data. We had that problem in furnishing the data to the Commission as requested for Magnolia. We see those wells which we drilled were considerably lower than the contracted wells at the same depth, side by side.

A I think that would be an excellent recommendation for any group to go and consider this thing any further.

MR. SPURRIER: Anyone else? Mr. Lamb.

By: MR. LAMB:

Q Mr. Nestor, I gather from your testimony that you would think it would be advisable to have two million dollars invested in one hole should be returned to the operator faster than two million dollars spent in several shallower holes.

A I suppose if you want to twist the thing completely you might state it that way.

Q Now, how many wells did your company drill shallower than 4,000 feet this last year?

A Shallower than 4,000 feet?

Q Yes.

A My records show, Mr. Lamb, --was that 4,000?

Q 4,000.

A That we drilled one gas well in the 2,000 to 3,000 foot range, that we drilled one oil well in the 3,000 to 4,000 foot range and

another gas well in the 3,000 to 4,000 foot range.

MR. LAMB: If the Commission please, if it would be of any interest or value to them, I have, I could betalked out of my file on the 1945 drilling costs, this figure by the 1945 Committee, if it is of any interest.

MR. SPURRIER: Is there objection to Mr. Lamb's offer of the 1945 information upon which this original curve was compiled?

MR. SMITH: I would like for it to be better identified as to the source and nature and how it happens to be in Mr. Lamb's possession.

MR. SPURRIER: Well, Mr. Lamb, for your information, was at that time chairman of that committee.

MR. LAMB: Secretary, Mr. Spurrier.

MR. SPURRIER: Secretary.

MR. LAMB: It is just a tabulation from my file of the drilling costs, if it is of any value, it is available.

MR. SPURRIER: Without objection, it is admitted.

MR. HOWARD: Is that the information the Committee had before it at that time in 1945?

MR. LAMB: Yes, sir.

MR. SPURRIER: Anyone else have a question of Mr. Nestor?

By: MR. MACEY:

Q Considering the curve which you have recommended and the curve which the Commission staff recommended, is there any great difference below the 5,000 foot point between those two curves?

A I can speak of one outstanding difference, in that you didn't carry your curve below 3,000 feet.

Q That isn't the question I asked you, below 5,000 feet.

A You mean deeper than 5,000 feet?

Q Deeper than 5,000 feet.

A I understand, yes, I would say there are considerable differences there, Mr. Macey, from a percentage standpoint. I refer you to the relative costof a well drilled ataboutt 6,250 feet. Your curve would indicate a cost of $100,000 there. My curve indicates the cost ought to be about $88,000. Now, that is a flat difference of 12 percent right at that point.

Q Isn't it a fact though the reason, did you throw any wells out of that? A We certainly have.

Q Isn't that the reason why it is lower?

A Had the truth been known about the wells in that thing we feel they wouldn't have been as high. I could give you testimony except they are not my wells, and I don't prefer to enter them in this record. There were a substantial number of wells drilled in this same pool at much lesser cost down to $84,000, to be exact. Also, some of the wells that you have included in there have pumping units. I have that on the statement of the companies who submitted them.

Q All right then, this curve, this red curve that you have drawn here is not necessarily completely limited to the wells that you used in that bracket, minus the ones that you threw out. Did you use somebody else's information?

A No, there are, there is no consideration of those. If the true information had been given, we think, if all the facts were known, the curve would more nearly approximate the red line even than your curve would have. We just feel that way.

We don't have all the figures either, but we do have a group

of figures submitted by the same companies who submitted these to date. Those were high cost wells and that, at least in one case, one of them included tankage and a pumping unit. That is why they are high; such things as that. Another one was announced to you as having been the most expensive well drilled by that company in that pool, yet you choose to include it. We think it would have been more relative had that well been ignored, possibly.

I might add the red curve is our plot by lease squares of the 122 wells which we have cited as being considered.

MR. SPURRIER: Anyone else? No further questions, the witness may be excused. You have another witness?

MR. HOWARD: That is all I have.

MR. SPURRIER: Anyone have any further testimony to present in this case? Statement or testimony.

MR. SMITH: We have about five minutes worth of testimony. I would like to have Mr. Hiltz sworn, please.

(Witness sworn)

MR. SMITH: I might make a preliminary statement at the outset, I should like to state we are in agreement with Shell wfrom the standpoint that we consider the former factors satisfactory, I mean the former setup used, and that we are also in agreement with their analysis, perhaps the data collected may be faulty, from a Stanolind standpoint.

My purpose in profering testimony at this time is to see if we can't show a slightly different method of approach to the matter, which in this particular instance tends to support the former factors that have been in effect. I have in mind, of course, that the essence of Shell's testimony has been to result in leaving the former

factors dangling with inference being they may be arbitrary. I think the testimony we are getting ready to offer may serve to demonstrate the original factors may be distorted.

R O B E R T G. H I L T Z

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By: MR. SMITH:

Q Mr. Hiltz, have you made an analysis of the cost of certain wells drilled during the years 1951, '52 and '53 in the southeast New Mexico area?

A Yes, sir, I have had available to me data on all wells drilled by Stanolind Oil and Gas Company or participated in by Stanolind during the years 1951, '52 and '53. I have at this time a tabulation of all the wells drilled by Stanolind during that period.

MR. SMITH: I would like to have this marked as Stanolind's Exhibit One.

(Marked Stanolind's Exhibit No. 1, Case No. 608, for identification.)

A I should like to remark further this tabulation does include all wells drilled in and participated in by Stanolind and no attempt has been made whatsoever to distinguish between wells, eliminate any or omit any for any purpose. However, they are confined strictly to development wells. There are no wildcats or exploratory wells included.

Q And these are all of the wells of Stanolind and those which Stanolind participated in? A Yes, that is correct.

Q Now, have you taken the data and plotted it on to a chart?

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Q And these are all of the wells of Stanolind and those which Stanolind participated in? A Yes, that is correct.

Q Now, have you taken the data and plotted it on to a chart?

A Yes, sir, in a manner similar to that employed by the Commission and Shell. I have prepared a graph in which the cost of each of these wells has been plotted as a function of depth. Indicated on this graph are the Stanolind wells by a blue dot. The blue circles indicated on this graph are simply the average cost determined at the average depth of each bracket for all of the Stanolind wells. The manner employed in determining those averages was identical to that employed by the Commission. In addition to the Stanolind data, certain data were also made available to us by Atlantic Refining Company, that data has been placed on the same graph with red dots.

Q You have a separate exhibit with the Atlantic data on it?

A Yes, sir, I do.

MR. SMITH: I would like to have that marked as Stanolind's Exhibit Three.

(Marked Stanolind's Exhibits three & four, Case No. 608, for identification.)

A Data furnished by Atlantic on a total of 22 wells and they have been also included on our plot of cost versus depth.

Q Have you had occasion to compare the data acquired in this manner with the factors, present factors and the proration formula and also the factors proposed by the Commission at the last hearing?

A Yes, I have. Our objective in analyzing these data in this fashion was principally this. It was our thought that the sampling by the Commission was not necessarily representative of the average cost in each depth bracket. We felt that there may have been too few samples which were representative of a longer period of time of development of the field. It was our objective to take a different set of data and analyze them in a manner identical to the Commission

and determine whether or not we would arrive at similar factors.

Therefore, we took our cost versus depth graph and prepared a best correlation curve through the average values for each depth and from this curve, in a manner identical to that employed by the Commission, we calculated new depth allocation factors, and we have prepared a chart or graph showing these factors as calculated from our data and that of Atlantic as compared with the data or the factors calculated from the data submitted to the Commission in this case, and also compared to the present factors.

Q Now, Mr. Hiltz, will you refer to Stanolind's Exhibit Four and explain the functions of these three curves that appear thereon?

A The green curve shown here is simply a plot of the factors as they now exist. The blue curve here are the factors which have been proposed by the Commission on the basis of 140 wells, which were analyzed in this case. The yellow curve here is the curve which has been calculated from the additional 98 wells of Stanolind, and the 20 wells, 22 wells which were made available to us by Atlantic. From our analysis of these data and calculation of these additional factors we arrived at a curve substantially different from that determined by the Commission and one that conforms very closely to the present factors.

So we concluded the data presented to the Commission may not be representative of the wells in all depth brackets. And a different sampling, using the same technique of factor determination tends to confirm the fact the present factor should remain in effect.

Q As I understand, the data that was acquired to prepare the yellow curve through here were on all of the wells during a certain

period of years that Stanolind and another company and Atlantic had drilled? A Yes, sir.

Q Not discrimination, but a pure arithmetical average?

A That is correct.

Q Is that somewhat similar to the suggested type of approach Mr. Nestor made awhile ago, except he extended his to include all the companies for a longer period of years?

A Yes, sir, and I feel for the number of wells involved, it might be more substantial.

Q You acquired the data from Atlantic at a date after you plotted the curves of the earlier data you received. I will ask you whether or not in acquiring that data did they by any chance fall on or close to the projected curve based on the date you already acquired?

A Their data were principally a range from 9,000 to 10,000 and 12,000 to 13,000 feet. In the 9,000 to 10,000 foot bracket their data coincided closely with ours and the point fell close to our curve. In the 12,000 to 13,000 foot bracket we had relatively very little data, but the average of their costs in that depth bracket fell exactly on what an extravasation of our curve would have indicated.

Q Do you have any further comments to make with reference to your study in this matter?

A My only further comment would be to recommmend to the Commission, that based on these data, that the present factors be continued in effect.

Q Thank you, Mr.Hiltz.

MR.SMITH: I would like to offer in evidence Stanolind's

Exhibits One, Two and Four.

MR. SPURRIER: Without objection, admitted. Anyone have a question of Mr. Hiltz?

CROSS EXAMINATION

By: MR. LAMB:

Q Have you, Mr. Hiltz, did your company drill any wells less than 5,000 feet last year?

A Mr. Lamb, I seem to have misplaced the tabulation that has that data on it. I will be glad to furnish--

Q (Interrupting) Can you give me from your curve, the average cost of a 12,500 foot well?

A Just one minute. I can answer your first question now. Zero to 5,000 feet, Stanolind drilled one well less than 5,000 feet in the year, 1951, In 1952--

Q (Interrupting) Do you have the depth of that '51? If you have, may I have it please?

A It was 4,405 feet. 1952 we drilled no wells less than 5,000 feet. 1953 I believe there are 6, 1953.

Q Possibly in the 4,000 to 5,000 foot bracket?

A Two of the wells were less than 4,000 feet at approximately 3,775 feet.

Q Thank you. Now, on the, from the curve, what the estimated cost of the wells was in the $12,500.00?

A 12,500 feet, $335,000.

Q Do you happen to have the 13,500 there?

A No, sir, I have not tabulated my curve beyond approximately 12,800 feet, due to a lack of data at higher intervals.

Q I believe 35 was 12,000, I was comparing it with the 19-- $335,000 figure was for 12,500 feet.

A That is correct.

Q The figure for 1945 was $396,000?

A I can't attest to that.

MR. SPURRIER: Anyone else have a question of Mr. Hiltz? Mr. Macey.

By: MR. MACEY:

Q You think that your data is representative?

A I think my data is certainly representative of all the wells that Stanolind drilled and participated in, and I feel the date supplied me by Atlantic is equally representative of their experience.

Q You got one well here, Atlantic's in the 12,000 to 13,000 bracket, cost more to drill than one that was drilled at 14,100 feet. You think that well is representative?

A It may not be representative of the average, it was a well that was considered in preparation of the curve; elimination of the well would not have affect on the attitude of the curve, however.

Q You don't think it would?

A It would shift it a little perhaps, but it would not alter it in any great degree.

Q It so happens in some of the wells which Mr. Nestor threw out of his consideration, some of them were your wells that you have got on here.

A Well, as we explained in our testimony earlier, we made no attempt to discriminate. However, I feel in any field you are certainly likely to encounter differences that are normal operating problems in a field, and you can't discard those wells simply because

their cost may have been a little bit higher.

MR. SMITH: I might explain, Mr. Macey, the difference is in the difference in sampling. The method you go by to arrive at your averages. In other words, the inclusion of one of the wells, Mr. Macey had, would have no significance as contrast with the testimony of Mr. Nestor.

MR. SPURRIER: Anyone else have a question of Mr. Hiltz? If not, the witness may be excused.

(Witness excused.)

MR. SPURRIER: Does anyone have further testimony to introduce? Mr. Woodward and Mr. Christie.

R. S. C H R I S T I E

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By: MR. WOODWARD:

MR. WOODWARD: Mr. Woodward representing Amerada. Before we begin, I would like to say that it is difficult for anyone to fill the presentation of this case without sounding redundant or a little anticlimactic.

I think at this point it should be recognized that whatever differences of opinion may exist, that both the Commission and the industry owes Shell, and particularly Mr. Nestor, a vote of appreciation for the thorough and able study for whatever light it can throw on this problem. I am not making that in the form of a motion, but an observation.

MR. SPURRIER: I think the Commission agrees with you, John.

MR. WOODWARD: Stating Amerada's position in something of a preliminary statement, as we view this case, it's proper scope is

the determination of what relative share of total allowable production should be assigned to wells of varying depth in any given proration period. It is obviously not the same thing as determining what set of relationships to pay-out the respective development costs within the same time.

At the 1945 hearing in this matter. The Commission adopted equal pay-out of the development costs as it's sole criteria, and with the data available to it at that time fixed the present depth factors on the basis of equal pay-out. By accident or design, we could not know which, those factors have worked reasonably well in practice while the present factors do not contemplate a number of important considerations and are not entirely equitable to the deep operators of the deep wells.

We know from experience we can arrive, under the present factors, and therefore consider them satisfactory for all practical purposes. However, if consideration is to be given changing the present depth factor, then we do not think equal pay-out of certain development costs should again be adopted as the sole criteria.

We are therefore offering some testimony which largely confirms that which has been given by Shell on the basis ofoour independent study and experience, which bears on these other considerations we believe are relevant to the underlying, or fundamental problem in Case 608, which is again the relative share of total allowable which should be assigned to wells of varying depths and not necessarily what set of relationships will allow them to pay out in equal time. Calling Mr. Christie now.

Q Will you state your name, please?

A R. S. Christie.

Q Where do you live, Mr. Christy?

A Tulsa, Oklahoma.

Q By whom are you employed and in what capacity?

A Amerada Petroleum Corporation, as petroleum engineer.

Q What experience have you had in south east New Mexico's production of oil?

A Well, I have had experience in southeastern New Mexico since discovery of the Hobbs field about 19, from 1929 to the present.

MR. WOODWARD: We submit Mr. Christie as an expert witness. Are his qualifications acceptable?

M.R SPURRIER: They are.

Q Mr. Christie, have you analyzed the data and testimony presented by the Commission in 608?

A Yes, I have to a limited extent.

Q Aside from the wells selected by the Commission, have you any observations on the approach employed by the Commission in making it's study?

A Yes, I think it is somewhat misleading to determine pay-out in the manner used by the Commission. To be more realistic, other factors should be considered.

To cite our own experience, we find the average price to be $2.76 against the Commission's $2.69, I believe, which is a little bit higher. That our average lifting cost in this area to be 27¢ a barrel, taxes 17¢, and a royalty 34¢, and using an average exploration cost of $1.01, we find we end up with a net of 97¢ per barrel. On this basis, then, the average pay-out is extended from

1.4 years which was determined by the Commission's analysis to 3.88 years, which is a considerable difference when you take into account all the other factors, or at least some of the other factors.

I might add that I used this exploration cost of $1.01 that I found in an article by Mr. H. J. Strut, who is an economist, and youhave probably read some of his articles. In his article, Petroleum Engineer" of May, 1953, "Chargeable Oil Finding Cost Up 49 percent," he says as follows:

"The facts indicate that the combined cost per barrel of oil produced in 1952 for exploration development and lifting oil to the surface, averaged about $2.35, against an average market price for crude of $2.56. Preliminary figures indicate that for every net barrel of crude oil produced last year, the industry spent $1.01 for exploration, 58 cents for development and about 75 cents for lifting."

Now, I have used that $1.01 for exploration, which of course, might be considerably different than our own figures, but it is the best figure I could arrive at without detailed analysis of all our costs, and then using our own figures for the lifting cost, taxes and royalty and so forth.

Q Mr. Christie, whether you used pay-out on the basis of a net 97¢ or a gross $2.76 or $2.69, the relationships on the pay-out period with deeper or shallow wells is not affected, if you use the same figure for your relative pay-out periods?

A Will you state that question again?

Q Does the testimony you have just given concerning the 97¢ net which is available toward liquidating development cost, and the

$2.76 per barrel gross figure, regardless of which figure you use so long as you applied it consistantly over wells of all depths, you are going to come out with the same relationships between the wells in the pay-out periods?

A That is right, the relative.

Q Your purpose in bringing it up is to correct any impression in the record these wells are actually paying out in 1.4 years?

A That is correct.

Q What factors, Mr. Christie, if any, not heretofore considered by the Commission itself, do you feel are relevant to this problem in addition to development cost?

A This has been covered rather thoroughly by Shell, but I think in a little different manner, the way I have it analyzed that is the risk factor.

Our analysis shows the risk of getting a producing well at greater depth is much greater. The following analysis bears this out, taking the area from the Hobbs Field south, through the Penrose-Skelly Field appears dry holes to producers for wells about 5,000 feet is 2.56 percent. Now, that was taking the producing well from the proration schedule and counting the dry holes from a development map around those areas. For this same area, 3.24 percent of the wells below 5,000 feet were dry holes and those were considered to be development wells, but turned out to be dry. The majority of these wells were between 5,000 and 8,000 feet. Now, that is in the same area that I quoted the 2.56 percent for the wells above 5,000 feet.

Now, if you take all the wells in Lea County below 9,000

feet, the average is 16½ percent dry holes. And as Mr. Nestor pointed out this morning, the smaller the field, why the larger the percent, and if you eliminate the Denton Field and the Saunders Field from this group, then the average increases to 23½ percent, which includes the majority of the deep structured fields.

Therefore, generally, the smaller and deeper the field, the greater percent of dry holes. The highest we know of being 83 percent. Then I would like to cite one specific example. There are several. Perhaps to cite as an example in the Knowles Field, I believe was 35 percent, we had 7 producers and 4 dry holes, Considering the cost of producing wells and dry holes, the average cost of the producing wells is $425,991. Whereas, your cost based on your analysis for an average depth of 12,500 which is the depth in the Knowles Field is $280,000. Therefore, if you add the cost of the dry holes which have to be paid for as well as the producers, you have a difference of almost $426,000 as against $280,000 for this one,particular field.

Likewise, the Hightower-Pennsylvanian and the Devonian averaged $243,785.00 and $327,093.00 respectively, on the Commission's analysis,--pardon me, for our analysis as compared to the Commission's analysis of $169,900 and $194,000 for depth of 9500 and 10,500 respectively.

Q It seems plausible a risk factor should be included in the depth factor in some manner. Any other factors you think the Commission should also consider in this matter?

A Well, this of course has also been brought out, I think it is worth repeating. At the present time the total state allowable

is approximately 10 percent over the actual production. The Commission's proposed depth factors reduces the allowable on wells from 9,000 to 14,000 feet and increases the allowable from 5,000 to 9,000 feet, and I think it was point out it would probably increase the wells from zero to 5,000, too, because of an increase in the unit factor to take care of the state allowable.

By this plan, if the present state allowable is maintained, it would be necessary to raise the allowables on the wells from zero to 5,000. Our analysis indicates that 73.7 percent of the wells between 9,000, 14,000 are non-marginal; that 25.14 percent of the wells from 5,000 to 9,000 feet are non-marginal; and that 28 and 4/10ths percent of the zero to 5,000 foot wells are non-marginal.

Therefore, it is evidenced by taking the allowable from the deeper wells and assigning it to the wells of shallower depths having a larger number of marginal wells will tend to further unbalance the production between the allocated and unallocated wells.

MR. WOODWARD: At this time we would like to introduce into evidence a statistical study that was prepared by a General Rules and Regulations Committee appointed by the Oklahoma Corporation Commission which illustrates graphically what happens to effective proration control, when a substantial portion of the wells in the state are virtually unallocated by reason of the fact that the allowables figured are far above what the wells can actually make.

In any event, we will put this on the board if it is so requested, otherwise if not we would just like to submit it in the record as Amerada's Exhibit One.

MR. SPURRIER: Without objection it will be admitted. Does

anyone have a question of Mr. Christie? You have something further?

MR. WOODWARD: We have one further matter.

Q That involves any recommendations you may have in this matter, Mr. Christie?

A Upon analysis of some of these other factors other than the well cost, it appears to us that the deeper wells are being discriminated against. We find the reduction in allowable on the wells from 9,000 to 14,000 feet represents approximately 4.3 percent. We believe this percent is not too high to be considered as a risk factor. As a matter of fact, it is too low; however, we would be satisfied with such a risk factor.

In other words, by not taking this 4.3 percent off we think that would be in some measure make up for a risk factor which is undoubtedly much higher than that. This is another way of saying we are in favor of no change in the present depth factors. We point out some of the other factors to show it is not fair to the industry, we believe, to indicate the average pay-out time as 1.4 years, whereas, the actual pay-out time is probably nearer 4 years, based on our over-all cost.

Q Mr. Christie, if there are inequities in the present system, do you think they are of a magnitude that would justify the expense of a vast statistical study in order to arrive at correct depth factors or an adequate consideration of all of the cost factors which you have discussed, and risk factors?

A Well, it was surprising to me that the statistical analysis that Shell made came out reasonably close to the present factors, with the exception of depth brackets below 5,000 feet, I should say from zero to 5,000 feet, and it would be my guess that if you analyzed

a large number of wells, you still come up with some factors that vary very little from the present depth factor.

Q In other words, you do not think it worthwhile--

A I think--

Q (Interrupting) If you retain the present depth factor?

A Of course, I think if the Commission is not satisfied with the present depth factor that then it would be worthwhile to go into the matter more thoroughly and get a larger represented number of wells and analyze it further.

Q You feel then it would be essential if they go into the matter further to examine a great deal more data than they did before? A Yes, I do.

MR. WOODWARD: That is all we have.

MR. SPURRIER: Anyone have a question of Mr. Christie? If not Mr. Christie may be excused.

(Witness excused.)

MR. SPURRIER: Does anyone have anything further in the case? Mr. Kinney.

MR. KINNEY: Mr. Spurrier, I represent a group of independents in Artesia who desire a statement be sworn into the record.

MR. SPURRIER: A sworn statement?

MR. KINNEY: Yes, sir.

E D W A R D K I N N E Y

having first been duly sworn, testified as follows:

MR. KINNEY: If the Commission please, my name is Edward Kinney from, consultant from Artesia. I have testified before the Commission before. I wonder if my qualifications are accepted?

MR. SPURRIER: They are.

MR. KINNEY: I will read this. "We, the undersigned, have made a careful study of the Commission's well costs, payouts, and proportional depth factors for computing the oil allowable. We find some inequities in regard to the length of time required for a "payout" under the present system.

It is our opinion that the length of "payout" should be essentially equal or uniform. We, therefore, commend the Commission and its staff for reviewing the question and attempting to resolve the inequalities. However, we deem the present proration plan for wells shallower than 5000 feet to be fully satisfactory and not to require adjusting.

The majority of New Mexico's production to date has come from the pools at depths less than 5000 feet.

The small business enterprise has been the cornerstone of the nation's growth. Small business enterprises can only operate in the depth ranges to 5000 feet. To this group belong the wildcatters who have been responsible for many discoveries. Reducing the allowable for the 0-5000 foot depth range would seriously curtail wildcatting. It would be ill-advised to tamper with the energy, industry, and livelihood of the operators in this group.

The "payout" time for a 3500 foot well is 1.247 years - just slightly under the average 1.406 years which figure the Commission calculated for all depths over 5000 feet. The "payout" time for a 4500 foot well is 1.503 years - over the average 1.406 years. In the group of wells from 0-3000 feet deep, it is true that top allowable wells with 36 gravity oil would "payout" quickly, but

these are seldom found in New Mexico. In this depth range, exclusive of the southern tip of the Central Basin platform where some fields straddle the 3000 foot mark, we are looking at only 39 top allowable wells so that the present proration volume is not an important factor. The incentive and assistance of present proration practice for a small operator is of far greater consequence than the reallocation of a few barrels of oil.

Further, we deem a "minimum" top unit allowable as an essential portion of our proration rules and regulations. The old rules provided a "minimum" of 30 BOPD for wells under 5,000 feet and provided a formula for allocation of production in the depths over 5000 feet whenever the "normal" top unit allowable fell below 30 BOPD. For some reason this provision was deleted from the revised rules and regulations. A formula is not needed now inasmuch as the present proration derives from the top unit allowable.

We submit that a new paragraph be added to rule 505 permitting any well, capable of so-doing, to produce a minimum of 30 BOPD in the event that the "normal" top unit allowable set by the Commission in any period is less than said figure."

This signed by Edward E. Kinney, Carper Drilling Company, Incorporated, by Marshall Rowley, Vice President Kincaid and Watson Drilling Company, by Jim Watson, Partner, Paton Brothers by H. R. Paton, Robert E. McKee, Incorporated, by J. R. Lund, Manager of the Oil Division, V. S. Welch, Independent Oil Producer, Jerry Curtis, Ralph Nix, Resler Oil Company by Vilas P. Sheldon, Yates Brothers Oil Company by John A. Yates, T. J. Sively, Martin Yates the Third, Harvey E. Yates and Barney Cockburn by C. J. Barnes.

MR. SPURRIER: Anyone have a question of Mr. Kinney? If not you may be excused.

(Witness excused.)

MR. SPURRIER: Anyone else have anything to represent?

MR. EVERETT: My name is W. H. Everett representing Ohio Oil Company. The oil wells operated by my company in New Mexico have a total allowable in excess of 5,000 barrels per day for the month of March, 1954. Because of our interest we wanted to state for the record and for the benefit of the Commission and anyone else who is interested, our position in connection with the proposed change in Rule 505, Paragraph B, pertaining to proportional factors used in allocating oil allowables.

First, we have been producing oil under the present rules since its adoption. Without now admitting that well cost is a proper basis for allocation, we believe that the present rule has operated fairly and justly in its statewide application.

Second, the undisputed testimony of the record in this case is that future discoveries and development of oil in New Mexico will be principally from depths below 5,000 feet. It would definitely discourage exploration and development if you were to adopt this new proposal or any other proposed change which would operate to take allowance away from deeper wells and give them to wells of lesser depth.

Third, it is our firm belief the present rule is generally, if not almost unanimously acceptable and satisfactory to the industry on a state-wide basis and that no change should be made therein. Moreover no change should be considered at any time unless and until it has been conclusively proved beyond question that the present

rule is manifestly unjust and inequitable to state-wide basis. Certainly no necessity for change has been shown or indicated by any of the testimony or evidence in the case.

Fourth, the statutes of the State of New Mexico and the rules of this Commission recognize minimum allowables for special situations under specific circumstances and approved. Those circumstances and special requests for change can and should be handled by the Commission under those statutes and rules for particular wells or fields, rather than by the proposed departure in change in a rule, state-wide in scope, tested and proved by time and experience. We suggest and urge you to leave the present rule as it is.

MR. SPURRIER: Anyone else? Mr. Gray.

MR. GRAY: I have a copy of this statement I will leave with you here. Ralph Gray, Buffalo Oil Company. Buffalo Oil Company regarding Case Number 608. "The Buffalo Oil Company wishes to make a statement regarding Case # 608 where consideration is being given to revising depth factors used in allocating oil allowables.

We are primarily a shallow well operator and at the present time 94.5% of our wells in New Mexico are above 5000' deep. However, we have 4.1% in the range of 5000 to 6000' and 1.4% in the range 13,000 to 14,000'. So, we do have a knowledge of operating conditions and costs for shallow wells, as well as extremely deep wells.

With reference to the proportional factors now proposed by the Commission for the depth bracket of 13,000 to 14,000' it has previously been testified that only two wells costs were considered to represent this bracket and both of these are in one pool. We

believe that the pool used is one of extremely low cost for this depth, and that future development in this bracket will show that average well costs will be substantially greater. In the Maljamar-Devonian Pool which is below 13,554', the cost for the discovery well was $524,135.51, not including battery or geophysical exploration cost. More than two years later, the second Devonian test is being drilled in this area and drilling has progressed far enough at this time to make a fairly accurate prediction of final well cost, barring any unusual difficulties." I will add at this point the well drilling at 12,700 feet, at this time. "It is estimated that the second well cost will reach $495,787. These costs are substantially higher than costs reported to the Commission in this bracket, chiefly due to drilling conditions being more difficult in the Maljamar area, and also due to a much greater number of possible pay zones. This requires that a large amount of coring, drill stem testing, and logging be performed in order to assure that no pays will be overlooked and to allow an accurate evaluation of pays existing.

The Commission has made a comparison of what it considers as representative well costs for the various depth brackets and has proposed new factors which it believes would allow equal well payouts. These estimates disregarded several factors that would tend to change payouts. No consideration was given to operating cost, taxes, or to cost incurred in geophysical exploration. All of these factors may be much greater for deep wells than for the shallow wells. It is our opinion that the actual average well payouts will be substantially different than calculated by the Commission and that

greater differences will exist for the deeper wells.

If the independents are to participate in deeper drilling in the State, then it becomes evident that higher allowables are needed for the deep brackets to insure a more favorable payout.

We believe that curtailment of allowables on wells below 10,000' to the extent as proposed by the Commission will tend to discourage operators from drilling deeper tests and in so doing will be a detriment to the State.

The Buffalo Oil Company accordingly urges the Commission to retain the present depth factors. Signed by H. G. Ellis, Vice President in charge of Production."

I might add to this statement a little explanation of the cost for drilling those 13,500 foot wells. We don't contend that those costs will be representative of an average field development well down the line. We hope that we can reduce those costs substantially below thefigures on the first two wells.

However, it does illustrate how high some of these well costs can go and I think that in considering the payouts we are going to have to consider the bad wells right along with the cheapest wells. We like to look at a curve and say, well, we will take the average of that curve and use that, but still we do have these excessive costs that come in and the companies have to be paid.

Now, in addition, we have other factors that come into deeper wells. For instance, we have a condition there where we have a very high pressure oil pay at slightly above 12,000 feet, in the Maljamar Field, and this pressure is considerably higher than the Devonian pressure which is 13,500 feet. Therefore, we are forced to set in some cases what would be an extra string of casing to case off that

upper high pressure stuff so that the Devonian could be penetrated without danger of losing circulation and a subsequent blow out. So., all those factors tend to make your drilling costs for deeper wells increase over the normal run of expenditures. Thank you.

MR. SPURRIER: Mr. Vickery.

MR. VICKERY: J. H. Vickery with Atlantic. Atlantic's Drilling experience in New Mexico has been confined for the last three years primarily to the Denton Wolf Camp and Devonian Pools. Our average cost of $147,000 drilling to the Wolf Camp Formation compares favorably with the average of the cost selected by the Commission for the 9,000, 10,000 foot range.

However, Atlantic's cost for drilling on the Denton-Devonian averages $344,195 which is higher than the Commission's average for the 11,000, 12,000 foot range, which this field is listed, to the proration schedule. It is also higher than the 12,000,13000 foot range, which more nearly represents the depth from which this field produces.

From our experience, Atlantic has concluded the present established proportional depth factors are reasonably equitable, and we recommend the continued use of these factors by the Commission.

MR. SPURRIER: Mr. Walker.

MR. WALKER: Walker with Gulf. First, I would like to state for Gulf, we favor the retention of the present factors. So, we can have our position clear, I would like to state here that on according to our account, the 1945 shows on the March schedule, according to my count there is 3,741 wells of less than 5,000 feet in depth which Gulf has 368; so we are not primarily a,-- and by the way, we have 573 wells listed, total,-- so we are not primarily a

deep well operator, although we think the future will be in that range. We would recommend retention of the present factors.

However, if the Commission determines a change is necessary, we would ask that they use sufficient typical cost data to give a true representation of the average cost for each depth interval. Also, recommend this reconsideration or re-analysis and reassignment of allowable factors not be restricted to those depths greater than 5,000 feet, but 1,000 incriments for all depth brackets should be determined for each interval.

MR. SPURRIER: Mr. Keeler.

MR. KEELER: Magnolia Petroleum Company has no objections to the depth bracket factors now in effect and is not advocating any change in these factors. We are certainly not in favor of changing these factors on the basis of well cost data now in the hands of the Commission, since we doubt that these costs are truly representative.

If new depth bracket factors should be adopted, we are in favor of departing from a strict well payout basis, so as to give some additional allowable to deep wells because of the additional risk and additional geophysical expense involved in deep wells. We are also in favor of additional depth brackets in the zero to 5,000 foot range in order to provide for more uniform payout for shallow wells. Magnolia's recommendations could be summarized as follows:

One, retain the present depth bracket allowable factors.

Two, if it is decided an amendment of these factors is necessary, additional well cost data on a uniform basis should be obtained on all wells completed at least during the past two years.

Three, due consideration should be given to the additional risk and additional geophysical expense involved in deep wells when the final well cost curve is plotted.

Four, zero to 5,000 foot bracket should be converted to several smaller brackets, possibly on a 1,000 foot basis.

Five, any depth bracket factors adopted should not be considered the final word as to allowables assigned individual reservoirs, but should be subject to change on a reservoir basis after notice and hearing in accordance with individual reservoirs ability to produce oil without causing underground waste.

MR. SPURRIER: Mr. Lyon.

MR. LYON: V. T. Lyon, Continental Oil Company. Referring to Mr. Gray's statement, Continental drilled both wells which the Commission listed as being representative of the cost in the 13,000 to 14,000 foot bracket. We recognize and, I am sure that everyone here recognizes, that two wells do not present a very good basis to determine our factor to be used for that bracket, although it is the best that we have right now.

We would like to urge the Commission to consider Buffalo's cause, for whatever value it may be, in helping them to determine what factor should be in this bracket.

MR. SPURRIER: Mr. Rogers.

MR. ROGERS: W. J. Rogers, Sinclair Oil and Gas Company. Sinclair being an operator in New Mexico on both shallow and deep wells is satisfied with the present depth factors, and we urge the Commission to leave these present depth factors unchanged. If, however, the Commission feels that a change is necessary, we recommend that the Shell plan be adopted.

MR. ROY SEARS: Roy Sears, Warren Petroleum Company. I would like to present this general comment that represents our ideas on the matter.

We urge you, the Commission, to maintain the present allocation of production on the present depth basis. This request is based on the completion of cost as well as lifting cost on the various depth wells. Drilling cost and hazards are much greater in the deeper development, an operators should be permitted the allowables commensurate with this to insure continued exploration and development with the State of New Mexico.

MR. SPURRIER: Judge Foster.

MR. FOSTER: We want to endorse everything that Shell said and we don't think they will make any changes.

MR. SPURRIER: Mr. Selinger.

MR. LYON: May I make a further statement, we feel we were extremely fortunate in drilling those two wells at low cost that we did, and we feel that we will be unable to match that low cost in future drilling.

MR. SELINGER: In behalf of Skelly, we wish to urge the Commission to continue the present depth bracket, Our company has wells which we have drilled since the, prior to the 1945 adoption of the depth bracket, and since the 1945 depth bracket adoption we have drilled in every depth classification down to slightly below 12,000 feet. We have approximately 100 wells below so-called deep wells. We, last year, drilled 19 wells above the 5,000 feet classification. It is very apparent that from the encouragement of the present depth bracket all operators have drilled a great many deep

wells, and operators are continuing to drill in the so-called shallow classifications. Therefore, we believe that the historical background is self-evident that the plan as now utilized by the Commission is a satisfactory one.

We wish to point out that nobody in the industry has recommended any change from the present plan. We don't know how this whole thing came about, but it looks very well to me that the Commission could dismiss the whole application and go on its way on the present plan. We feel that any change from the present allocation formula depth bracket would of necessity bring about a disturbance of equities. Everybody here has indicated that the equitable situation is satisfactory to them from a practical standpoint. I see no reason why the Commission should attempt to correct some equities which in turn will create an additional set of inequities.

In passing, without going into too much detail, also I want to point out to the Commission that there is something greater in consideration than just the depth bracket allocation. There are other factors that would have to be considered and it is very apparent to me that you are going to disturb the development program which has been in existence in this state since 1935, and we would like to see no disturbance of the development program, that has been approximately twenty years, and we would hate to see any disturbance in present equities from the 1945 program. And we would like to urge the Commission to deny all proposed plans including the one by their own staff.

MR. SPURRIER: Anyone else? If there is no further comment in the case, I don't know what I will recommend to the Commission

on this, but we will take it under advisement.

STATE OF NEW MEXICO)
: ss.
COUNTY OF BERNALILLO)

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

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 28th day of April, 1954.

Marianna Meier
Notary Public, Court Reporter

My Commission expires:
April 8, 1956.

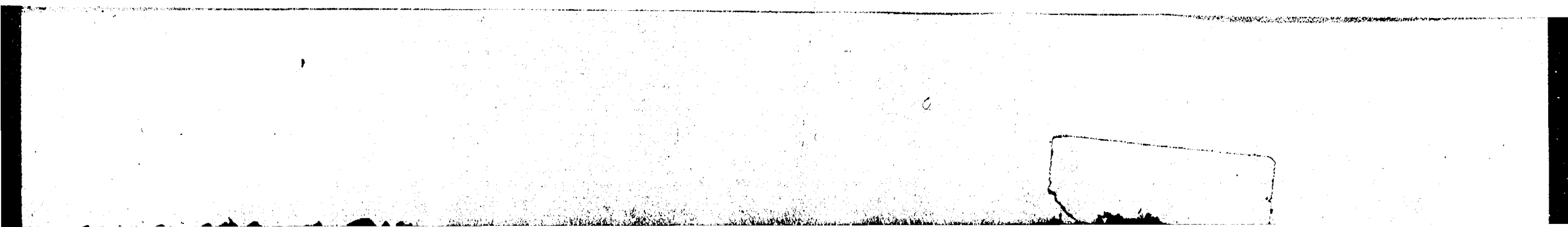
2 & 7 Shell Case 608
4-14-54

COMPARISON OF DEPTH FACTORS AND VARIATION IN PAYOUT TIME

Depth Range	Present Adaptation Factor	Commission–Proposed Plan All Wells Pay Out in 1.406 Years Average Cost	Factor*	Shell Interpretation All Wells Pay Out in 1.406 Years Average Cost	Factor*	Shell Recommended Plan Sliding Time Payout Factor*	Payout Time In Years	Shell Recommended Plan Basic Unit 35 B/D For Wells in 3-4000' Range Factor	Allowable
0 - 1000	1.00	No Cost	–	3200	0.07	0.07	0.37**	0.08	10**
1 - 2000	1.00	Curve in	–	12400	0.26	0.27	1.31	0.31	11
2 - 3000	1.00	0-3000' Range	–	24800	0.51	0.54	1.31	0.62	22
3 - 4000	1.00	39500	0.82	39600	0.82	0.875	1.32	1.00	35
4 - 5000	1.00	61000	1.27	56000	1.16	1.25	1.30	1.42	50
5 - 6000	1.33	81700	1.66	73500	1.52	1.65	1.30	1.88	66
6 - 7000	1.77	104400	2.15	92300	1.91	2.08	1.29	2.38	83
7 - 8000	2.33	126000	2.59	111700	2.33	2.56	1.29	2.92	102
8 - 9000	3.00	148000	3.07	135600	2.81	3.12	1.26	3.57	125
9 -10000	3.77	169700	3.51	161900	3.35	3.78	1.25	4.32	151
10 -11000	4.67	194000	4.02	192600	3.99	4.57	1.23	5.22	183
11 -12000	5.67	230800	4.76	228800	4.74	5.50	1.21	6.29	220
12 -13000	6.75	280300	5.81	271600	5.62	6.63	1.19	7.58	265
13 -14000	8.00	345000	7.17	322400	6.67	7.99	1.17	9.13	320

* These Factors Assume A Basic Unit of 40 Barrels of Oil Daily

** Minimum Allowable of 10 Barrels of Oil Daily for 0-2000 Foot Range



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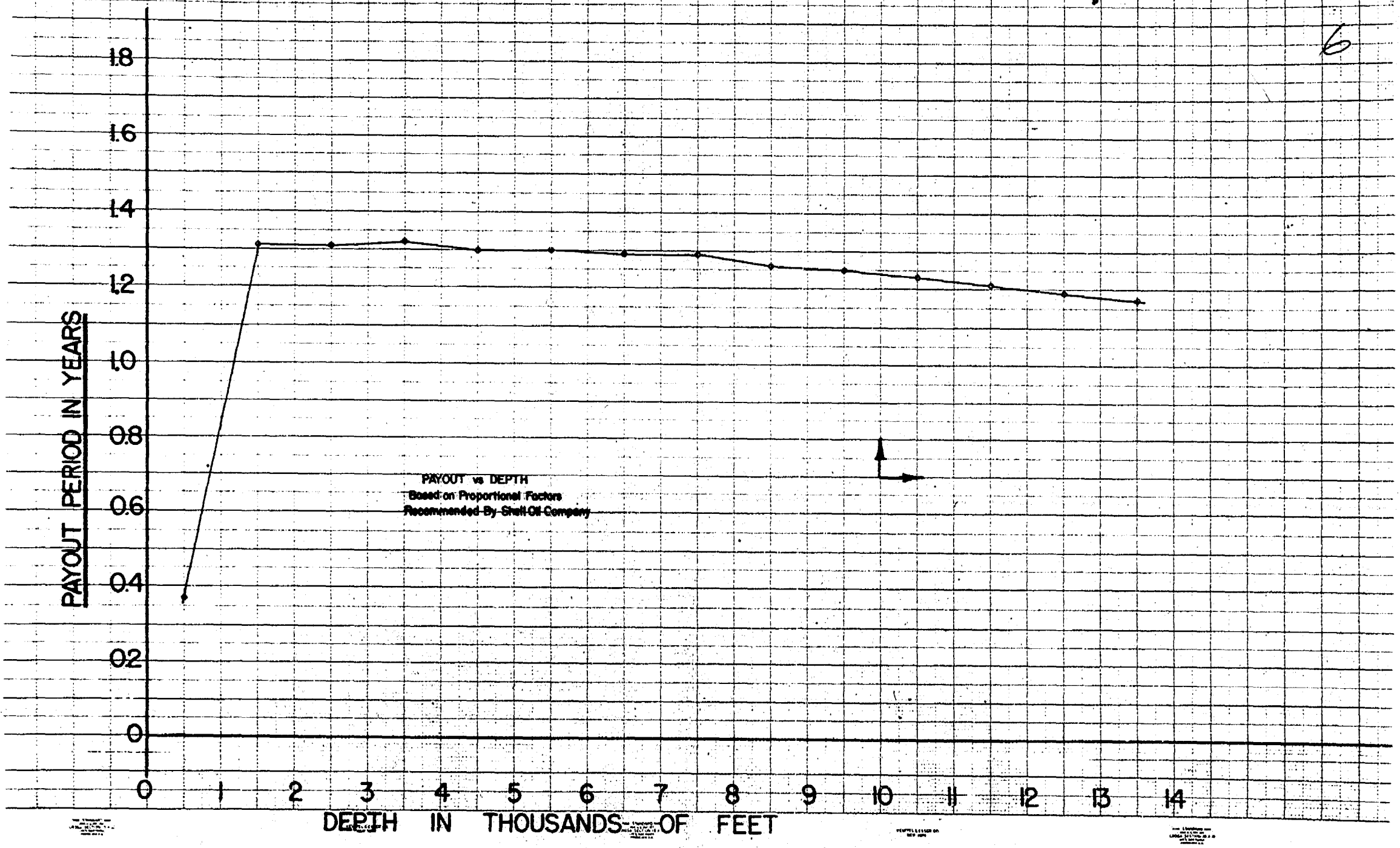
Shell Recommended Plan Sliding Time Payout Factor*	Payout Time In Years	Shell Reco Basic Uni Wells in 3 Factor
0.07	0.37**	0.08
0.27	1.31	0.31
0.54	1.31	0.62
0.875	1.32	1.00
1.25	1.30	1.42
1.65	1.30	1.88
2.08	1.29	2.38
2.56	1.29	2.92
3.12	1.26	3.57
3.78	1.25	4.32
4.57	1.23	5.22
5.50	1.21	6.29
6.63	1.19	7.58
7.99	1.17	9.13

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Shell EXHIBIT No. 2
CASE 608

mmended Plan ime Payout Payout Time In Years	Shell Recommended Plan Basic Unit 35 B/D For Wells in 3-4000' Range Factor	Allowable
0.37**	0.08	10**
1.31	0.31	11
1.31	0.62	22
1.32	1.00	35
1.30	1.42	50
1.30	1.88	66
1.29	2.38	83
1.29	2.92	102
1.26	3.57	125
1.25	4.32	151
1.23	5.22	183
1.21	6.29	220
1.19	7.58	265
1.17	9.13	320

Case 608 Shell #6 - Dugal 4-14-54

6



5B

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Shell EXHIBIT No. 5-B
CASE 608

TABULATION OF DISCOVERY WELLS FOR POOLS SHALLOWER THAN 5000 FEET

DEPTH RANGE	POOL	DISCOVERY WELL	DATE	TOP OF PRODUCING INTERVAL	TOTAL DEPTH
0 - 1000'	Aid	H. Aid, Wentz St. #1	July 1941	840	2840 (P.B. 910)
" "	Cedar Hills Yates	Geo. Riggs-Welch et al #1-U	April 1951	542	551
" "	Dayton	Bassett & Birney Platt #1	Sept. 1940	930	1182
" "	Empire	See page 334 Vol. I Annual Report NMO&GEC	Year 1924	350	460
" "	Glenn-Castile	Buck Jones Drlg. Co. Gates Federal #1-J	Aug. 1952	877	883
" "	McMillan	Martin Yates Bowers #1	Dec. 1938	845	1180 (P.B. 960)
" "	McMillan-Seven Rivers	M. Yates, Jr., Featherstone St. #1	Nov. 1950	249	361
" "	Russell	Neil H. Wills #1 Wills	March 1942	786	906
1000-2000'	Acme	E. G. Levick St. B #1-B	Nov. 1950	1960	1990
" "	Artesia	Flynn, Welch & Yates State 1	Aug. 1923	1898	1930
" "	Atoka	Martin Yates III #1	April 1941	1485	1984
" "	Barber	Neil Wills Colglazier #1	Feb. 1937	1442	1545
" "	Benson	Harvey Yates #1 Snowden McSweeney	July 1943	1828	1836
" "	Black River	T. D. Collins #1 Weiler	Year 1937	1943	1969 (P.B. 1963)
" "	Burton	Getty #2 Cook & Ironsides	July 1934	1105	1597
" "	Dark Canyon	M. Yates III King #1	Aug. 1952	1863	1881
" "	Daugherity	P. B. English #1 Daugherity	Nov. 1938	1945	2014
" "	Fren	R. R. Wooley Arnold #5-A	Feb. 1944	1914	1964
" "	Getty	Getty Oil Co. Dooley #2	Nov. 1927	1325	1368
" "	High Lonesome	G. Atkins #1 Illes	Nov. 1939	1801	1821
" "	Millman Grayburg	O. F. Featherstone St. #1-N	Aug. 1951	1880	2733
" "	P.C.A.	Neil Wills Keyes C-1	Dec. 1939	1586	1587
" "	Red Lake	Etz, Hammond & Keyes St. #1	Oct. 1924	1947	1964
" "	Turkey Track Seven Rivers	S. L. Jones St. #1-B	Year 1950	1655	1697

TABULATION OF DISCOVERY WELLS FOR POOLS SHALLOWER THAN 5000 FEET

DEPTH RANGE	POOL	DISCOVERY WELL	DATE	TOP OF PRODUCING INTERVAL	TOTAL DEPTH
2000-3000'	Anderson	M. T. Anderson #1 Root	Feb. 1940	2512-	2563
" "	Baish	Maljamar Oil & Gas Corp. Baish A-5	Dec. 1935	2320	2370
" "	Chisum San Andres	Keller & Peterson St. A No. 1-J	June 1951	2028	2065
" "	Drickey	N. G. Penrose Zimmerman #1	Jan. 1954	2865	2870
" "	Eaves	Continental Oil Co. Eaves A-19 #1	June 1928	2895	3000
" "	Forest	F. E. Levers #1 Levers B	Dec. 1945	2660	3027 (P.B. 2675)
" "	Halfway	Argo Oil Co. Farley Texas St. #1	Oct. 1939	2627	2629
" "	Loco Hills	Yates et al Yates #1	Feb. 1939	2806	2874
" "	Loco Hills Queen	R. R. Woolley "D" #7-A	Apr. 1949	2200	2781
" "	Lusk	Three States Nat. Gas Co. Miller #1	Nov. 1942	2455	2634
" "	Lusk, West	P. B. English #1 Hinkle	May 1944	2290	2599
" "	Malaga	Sou. Calif. Pet. Corp. Valley Land Co. #1	June 1951	2774	2779
" "	Nichols	Kincaid & Watson Ohio St. #1-K	June 1948	2919	3018
" "	Square Lake	Sanders Bros. #1 Leonard	Nov. 1941	2912	2980
" "	Turkey Track	R. E. McKee #2 State	Aug. 1943	2575	2815 (P.B. 2710)
" "	Turkey Track, East	Leonard Oil Co. #1 Keohane Fed.	Apr. 1950	2220	2250
" "	Turkey Track, West	Miller Bros. Oil Co. Jones Watkins #1-F	May 1951	2745	2785

TABULATION OF DISCOVERY WELLS FOR POOLS SHALLOWER THAN 5000 FEET

DEPTH RANGE	POOL	DISCOVERY WELL	DATE	TOP OF PRODUCING INTERVAL	TOTAL DEPTH
3000-4000'	Arrowhead	Continental St. J-2 #1	May 1938	3776	3847
" "	Bowers	Tide Water Asso. Oil Co. St. B1-H	Oct. 1935	3353	3385
" "	Caprock	G. P. Livermore St. D #1	Oct. 1940	3025	4385
" "	Cooper-Jal	Skelly Oil Joyner #1	May 1929	3297	3331
" "	Corbin Yates	B. C. Corbin #5	Apr. 1952	3443	4305
" "	Dollarhide Queen	Skelly Oil Co. Mexico O #1-H	Apr. 1952	3670	6997
" "	Eunice-Monument	Continental Lockhart B-31 #1	Mar. 1929	3865	3990
" "	Eunice, South	Cities Service Oil Co. Closson #1	May 1930	3737	4237
" "	Grayburg Jackson	Flynn, Welch & Yates Jackson #1	Mar. 1929	3477	3560
" "	Grayburg Keeley	Western Production Keely "C" 27-D	Year 1948	3296	3407 (P.B. 3322)
" "	Hardy	Texas Co. Alexander #1	Mar. 1937	3705	3788
" "	Langlie Mattix	Continental Oil Co. #1 Sholes A-19	Jan. 1929	3010	3035
" "	Lee	H. W. Martin #1 Gates	Aug. 1939	3204	3245
" "	Leonard	Leonard Federal #1	June 1948	3400	3511
" "	Leonard, South	Plains Scarborough #1	Feb. 1950	3438	3440
" "	Lynch	Texas Co. Lynch A-1	Apr. 1929	3373	3731
" "	Lynch, North	Henderson, Dexter & Blair Jewett #1	July 1929	3510	3612
" "	Maljamar	Maljamar Oil & Gas Corp. Baish #1	July 1926	3590	4140
" "	Maljamar, North	Maljamar Oil & Gas Corp. Mitchell #1	Year 1939	3645-3800	4230
" "	Pearsall	Phipps Oil Co. Walker #1	Jan. 1940	3673	3722
" "	Penrose Skelly	Skelly Harrison #1	Mar. 1936	3723	3781
" "	Premier	General American of Texas	May 1930	3180	3678 (P.B. 3300)
" "	Rhodes	El Paso Rhodes #1	Nov. 1927	3180	3213
" "	Robinson	Texas Co. Robinson #1	Aug. 1927	3884	3886

TABULATION OF DISCOVERY WELLS FOR POOLS SHALLOWER THAN 5000 FEET

DEPTH RANGE	POOL	DISCOVERY WELL	DATE	TOP OF PRODUCING INTERVAL	TOTAL DEPTH
3000-4000'	San Simon	Skelly St. U #1	Oct. 1943	3930	4182
" "	Santo Nino	Keohane Inc. Keohane Inc. #1	Jan. 1951	3970	4022
" "	Shugart	R. A. Shugart #1 Coulthard	July 1937	3440	4088
" "	Shugart, North	R. D. Collier #2 Ginsberg	Sept. 1938	3147	3185
" "	Skaggs	Continental Oil Co. Skaggs A-24 #1	Mar. 1937	3801	3900
" "	Teas	P. C. Teas Dinnin #1-I	Mar. 1951	3343	3420
" "	Tonto	Texas Co. Baskin #1	June 1944	3565	3586
" "	Watkins	Peckham-Clark Watkins #1	May 1945	3566	4266
" "	Wilson	Cities Service Oil Co. St. B #1	Aug. 1928	3626	3836
" "	Wilson, North	Wilson Oil Co. Charlotte St. #4-N	Nov. 1951	3990	4201
" "	Wilson, West	J. C. Clower St. #1	Oct. 1948	3936	3948
" "	Young	McCurdy-Young #1	Feb. 1945	3765	3783
4000-5000'	Bluit	Austral Oil Exp. Co. McGrail #1	Feb. 1952	4610	4802
" "	Corbin	Texas Co. M. A. Corbin #1	June 1938	4258	5118
" "	Hobbs	Stanolind Oil & Gas Co. St. #1	June 1928	4065	4220
" "	Hobbs, East San Andres	Aurora Gasoline Co. Davis #1	Jan. 1951	4445	4465
" "	House San Andres	Stanolind Howse A #1	Jan. 1950	4406	4440
" "	Littman San Andres	N. G. Penrose Numex #1	Apr. 1953	4322	4352
" "	Lovington	Skelly Oil Co. St. N-1	Jan. 1939	4675	5012
" "	Lovington, West	F. Turner Jr. St. B #1-N	June 1944	4770	5175
" "	Maljamar, East	G. H. Vaughn Phillips St. 16 #1-P	Apr. 1949	4340	4564
" "	Maljamar, South	Buffalo Oil Co. Cheesman #2-K	July 1943	4640	4840
" "	Roberts	McLaughlin & Cosden St. #1	Aug. 1943	4170	4234
" "	Sawyer	Devonian Co. Fed. Brown #1 (Warren)	Jan. 1947	4945	5011
" "	Vacuum	Socony-Vacuum St. #1	May 1929	4364	4900
" "	Watkins Grayburg	Peckham-Clark Hightower #1	Dec. 1947	4217	4252

5A
4-14-54

SOUTHEAST NEW MEXICO
COMPETITORS' SEISMIC ACTIVITY
1942 - 1950

Year	Crew- Months
1942	12
1943	13
1944	21
1945	46
1946	72
1947	109
1948	130
1949	150
1950	292
1951	339
1952	470
1953	370

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Shell EXHIBIT No. 5-A
CASE 608

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Shell EXHIBIT No. 4
CASE 608

Case 608
Ex. 4
Shell 4-14-54

4

WELLS DRILLING IN SOUTHEAST NEW MEXICO

AS OF MARCH 30, 1954

DEPTH RANGE IN 1000 FEET*	DEVELOPMENT & EXPLORATION NO. OF WELLS	TOTAL COST**
0-1	1	$ 3,200
1-2	3	37,200
2-3	9	223,200
3-4	14	554,400
4-5	6	336,000
TOTAL	33	$1,154,000
5-6	4	$ 294,000
6-7	8	738,400
7-8	1	112,700
8-9	7	949,200
TOTAL	20	$2,094,300
9-10	9	$1,457,100
10-11	8	1,540,800
11-12	1	228,800
12-13	11	2,987,600
13-14	9	2,901,600
TOTAL	38	$9,115,900

* Projected Depth Used

** Cost Based on Commission Curve

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Shell EXHIBIT No. 3
CASE 608

3

WELLS DRILLED IN SOUTHEAST NEW MEXICO

DURING 1953

DEPTH RANGE IN 1000 FEET	DEVELOPMENT NO. OF WELLS	DEVELOPMENT TOTAL COST*	EXPLORATION NO. OF WELLS	EXPLORATION TOTAL COST*
0-1	18	$ 57,600	15	$ 48,000
1-2	13	161,200	8	99,200
2-3	34	843,200	15	372,000
3-4	164	6,478,000	14	553,000
4-5	49	2,989,000	8	488,000
TOTAL	278	$10,529,000	60	$ 1,560,200
5-6	17	$ 1,411,000	12	$ 996,000
6-7	86	8,987,000	7	731,500
7-8	25	3,150,000	4	504,000
8-9	37	5,476,000	8	1,184,000
TOTAL	165	$19,024,000	31	$ 3,415,500
9-10	89	$15,085,500	12	$ 2,034,000
10-11	54	10,476,000	6	1,164,000
11-12	35	8,085,000	5	1,155,000
12-13	45	12,622,500	14	3,927,000
13-14	2	690,000	14	4,830,000
14-15	1	405,000	1	405,000
TOTAL	226	$47,364,000	52	$13,515,000

* Cost based on Commission curve

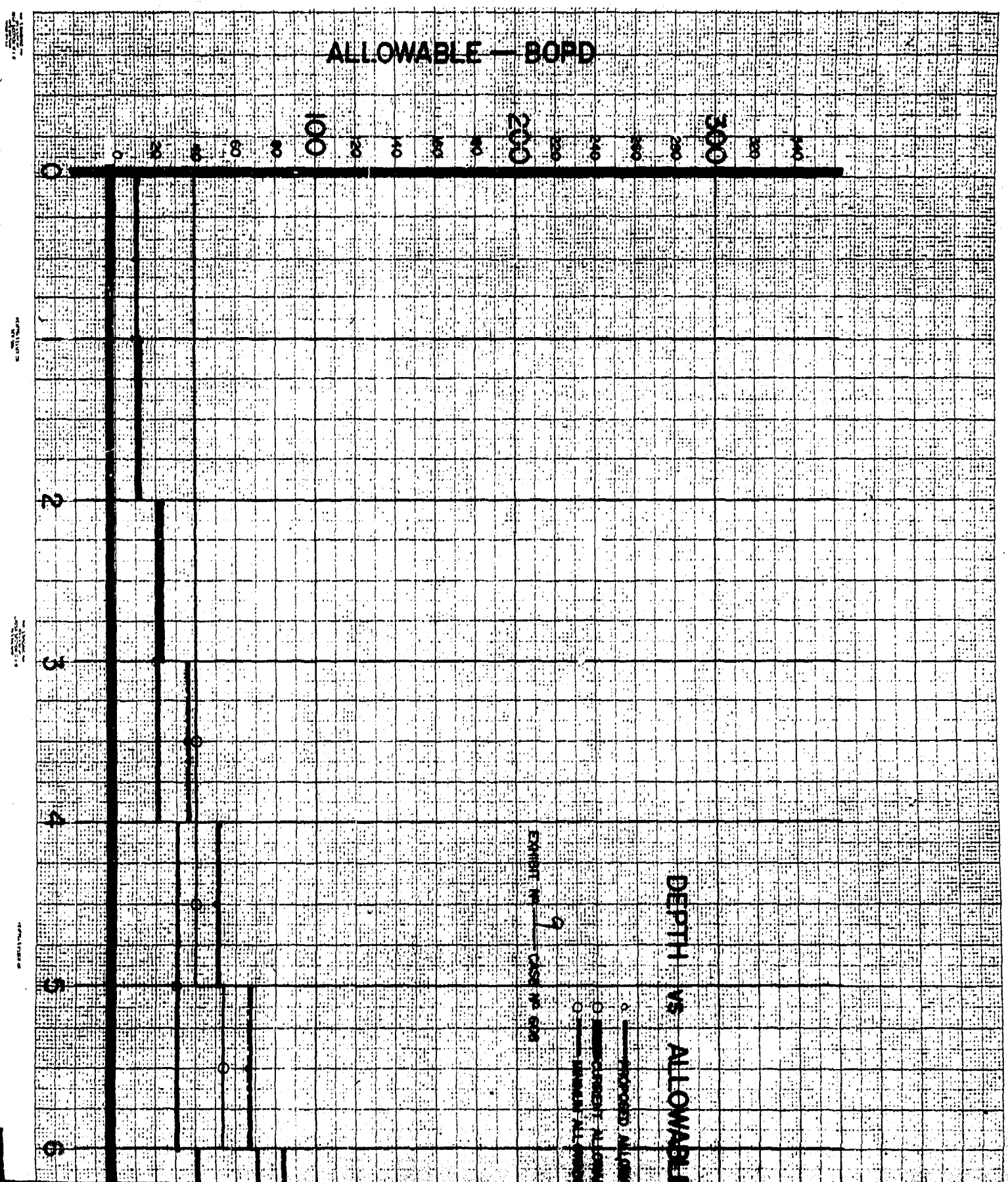
BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Shell EXHIBIT No. 8
CASE 608

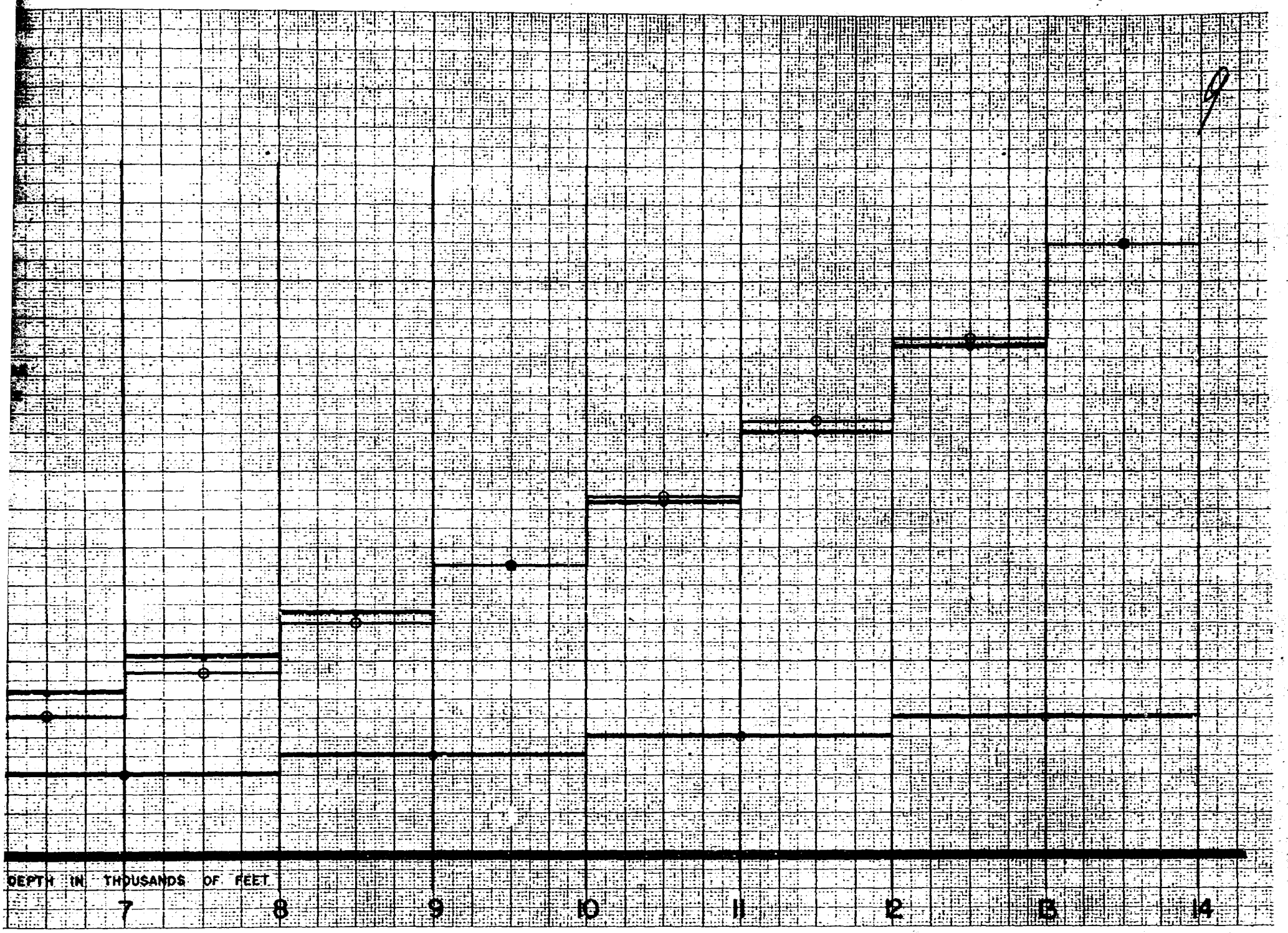
STATE OF NEW MEXICO

ANALYSIS OF ALLOWABLE AND PRODUCTION DATA

FOR THREE-MONTH PERIOD NOVEMBER, 1953 THROUGH JANUARY, 1954

DEPTH RANGE	AVERAGE DAILY ALLOWABLE	AVERAGE DAILY PRODUCTION	TOTAL WELLS	TOP ALLOWABLE WELLS NUMBER	TOP ALLOWABLE WELLS PER CENT	PENALIZED WELLS NUMBER	PENALIZED WELLS PER CENT	MARGINAL WELLS NUMBER	MARGINAL WELLS PER CENT	REMARKS
0-1000'	642	350	218	2	0.9	0	-	216	99.1	Only 4 wells make over 10 B/D
1-2000'	3,242	2,298	519	3	0.6	0	-	516	99.4	Only 46 wells make over 10 B/D
2-3000'	4,398	3,436	517	23	4.4	0	-	494	95.6	Only 38 wells make over 20 B/D
3-4000'	54,681	47,752	3287	551	16.8	204	6.2	2532	77.0	Only 663 wells make over 30 B/D
4-5000'	24,255	22,933	884	407	46.0	53	6.0	424	48.0	498 wells make over 30 B/D
5-6000'	4,597	4,233	169	37	21.9	42	24.9	90	53.2	42 wells make over 40 B/D
6-7000'	16,644	14,747	580	64	11.0	201	34.7	315	54.3	90 wells make over 60 B/D
7-8000'	14,296	13,084	253	83	32.8	71	28.1	99	39.1	90 wells make over 80 B/D
8-9000'	7,218	6,583	69	48	69.6	1	1.4	20	29.0	Only 19 wells make under 100 B/D
9-10,000'	36,754	32,267	289	154	53.3	5	1.7	130	45.0	95 wells make under 100 B/D
10-11,000'	12,302	11,384	74	54	73.0	0	-	20	27.0	Only 17 wells make under 160 B/D
11-12,000'	27,870	26,392	128	107	83.6	0	-	21	16.4	Only 13 wells make under 180 B/D
12-13,000'	6,143	5,803	27	14	51.9	0	-	13	48.1	Only 8 wells make under 240 B/D
13-14,000'	1,107	1,084	4	3	75.0	0	-	1	25.0	Only 1 well makes under 320 B/D
TOTAL	214,149	192,346	7018	1550	22.1	577	8.2	4891	69.7	


ALLOWABLE — BOPD
DEPTH VS ALLOWABLE
EXHIBIT NO. 9
CASE NO. 699


DEPTH IN THOUSANDS OF FEET
7
8
9
10
11
12
13
14

SHELL OPERATED WELLS - NEW MEXICO

Schedule	Depth Range 5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	Total	Increase by Year
Jan. 1945	0	0	0	0	0	0	0	0	0	0	0
Jan. 1946	0	0	0	0	0	0	0	0	0	0	0
Jan. 1947	3	1	1	0	0	0	0	0	0	5	5
Jan. 1948	5	8	2	0	0	0	0	0	0	15	10
Jan. 1949	5	15	2	0	0	0	0	0	0	22	7
Jan. 1950	5	23	5	0	0	0	0	0	0	33	11
Jan. 1951	5	30	13	0	1	0	0	0	0	49	16
Jan. 1952	5	31	31	0	3	0	0	0	0	70	21
Jan. 1953	5	40	50	0	8	1	6	1	0	111	41
Jan. 1954	5	40	52	0	14	4	13	1	0	129	18

Geophysical Time & Costs
Crew Months

Year	Seismic	Gravity	Magnetic	Cost
1938	4½	0	0	?
1939		0	0	?
1940	1/2	0	0	?
1941	3-3/4	0	0	?
1942	4½	0	0	?
1943	0	0	0	0
1944	8½	0	0	?
1945	14½	5	11	259,132.28
1946	24½	0	0	404,962.20
1947	26¼	0	0	482,271.71
1948	20½	0	0	410,139.79
1949	16	0	0	297,370.10
1950	12	0	0	223,150.71
1951	18¼	0	0	399,903.99
1952	38	4-3/4	0	889,276.48
1953	23	11¼	0	622,922.60
				3,989,129.86

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Shell EXHIBIT No. 5
CASE 608
4-14-54

Ex #5
Case 608

5

SHELL OPERATED WELLS - NEW MEXICO

Schedule	Depth Range 5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	Total	Increase by Year
Jan. 1945	0	0	0	0	0	0	0	0	0	0	0
Jan. 1946	0	0	0	0	0	0	0	0	0	0	0
Jan. 1947	3	1	1	0	0	0	0	0	0	5	5
Jan. 1948	5	8	2	0	0	0	0	0	0	15	10
Jan. 1949	5	15	2	0	0	0	0	0	0	22	7
Jan. 1950	5	23	5	0	0	0	0	0	0	33	11
Jan. 1951	5	30	13	0	1	0	0	0	0	49	16
Jan. 1952	5	31	31	0	3	0	0	0	0	70	21
Jan. 1953	5	40	50	0	8	1	6	1	0	111	41
Jan. 1954	5	40	52	0	14	4	13	1	0	129	18

Geophysical Time & Costs

Year	Crew Months Seismic	Gravity	Magnetic	Cost
1938	4½	0	0	?
1939		0	0	?
1940	1/2	0	0	?
1941	3 3/4	0	0	?
1942	4½	0	0	?
1943	0	0	0	0
1944	8½	0	0	?
1945	14½	5	11	259,132.28
1946	24½	0	0	404,962.20
1947	26½	0	0	482,271.71
1948	20½	0	0	410,139.79
1949	16	0	0	297,370.10
1950	12	0	0	223,150.71
1951	18½	0	0	399,903.99
1952	38	4-3/4	0	889,276.48
1953	23	11½	0	622,982.60
				3,989,129.86

Shallow Oil Drillers Penalized by P

State Board to Hear Views of Operators

SANTA FE, March 6 (AP)—Drillers of shallow oil wells in New Mexico, a state official says, are being penalized by the high production allowed deeper wells.

The Oil Conservation Commission intends to consider the matter here at its next hearing. Oil operators will present their views at the session, as will OCC engineers.

A survey has just been completed by the state agency of the costs of preparing a well to the production stage. Information was furnished by operators on drilling, material and special services costs in connection with wells of various depths.

"The significant thing to me," OCC Chief Engineer W. B. Macey said, "is that the survey shows the shallow pool operators are being penalized by the high allowables assigned to the deeper wells. This adjustment we contemplate making will tend to make the situation more equitable.

"Modern deep drilling techniques have definitely decreased the relative costs of deep drilling over the years. All drilling costs have gone up, but those of the deeper wells havent' gone up as fast as the shallower ones.

"At the same time, we don't want to do anything to jeopardize encouragement of deep drilling in the state."

The OCC is preparing figures on the average cost of wells in each depth bracket.

Incentive Is Purpose

A change in the depth factors on which New Mexico's oil allowables are set is under consideration. Those factors have been in operation for eight years, and there is some feeling among specialists that changing conditions have made the factors out of date to the disadvantage of the shallow operators.

The state's prorationing system is set up with the purpose not only of avoiding waste of the oil reserves but of giving incentive for operators to drill the expensive deep wells right along with the cheaper shallow ones.

The basic unit allowable set each month is multiplied by the depth factors to give the production allowable for wells of varying depths. The idea, officials explain, is to permit more production from deep wells than from shallow ones, giving the deep operators a chance to get their investment back in the same length of time the shallow ones do. If this procedure were not followed, they say, the tendency naturally would be for oilmen to sink their money in shallower—and cheaper—wells, leaving the heavy oil-bearing strata two miles and more below the surface less fully explored.

8000 Feet Is Deep

The depth factors are determined by well costs at varying depths, and other things. It is those which the new survey is expected to change.

Macey said he referred to wells below 8000 feet when speaking of deep wells.

In addition, Macey said, there is an "excellent possibility" that the OCC staff will recommend periodic pool-performance records be submitted to determine if allowables in the pools are not excessive.

The tabulation of well costs has been sent to oil operators in the state. In general, the costs naturally tend to increase the deeper a well is. This fluctuates, however, due to difference in types of strata and other factors. The highest cost reported among the 140 wells shown was $380,616 for a well 12,640 feet deep. Drilling costs constituted $304,927 of that total.

The deepest well reported on in the survey—13,703 feet deep—cost $354,831.

The wells were not identified in the compilation as to location or name.

Mother and Child Stricken as Baby Awaits Surgery

MULLAN, Idaho, March 6 (AP)—Bad news has become a constant companion of Ben Noordam, father of a "blue baby" whom all the town chipped in to help out.

Things looked rosy for the family when Mrs. Noordam left for Rochester, Minn., last week to take her 8-month-old girl Ramona Lee to the Mayo Clinic for a heart operation.

Doctors said there was every chance the operation would give the child a normal life. Mullan residents had contributed money to pay for the expensive surgery.

This week, Noordam received a call saying his wife was seriously ill with a rare liver ailment and would need immediate operation.

As he prepared to go to his wife's side, another call came from Rochester. Doctors had found Ramona Lee also was suffering from the mother's liver ailment.

Noordam said his wife will undergo surgery Monday. Meanwhile, the operation on the baby, originally scheduled for Monday, is being postponed.

The Noordams have three other children.

Sex, Souvenirs and Seamy Street Scenes

16 Million People a Year Cro From El Paso to Gay, Excitin

By JULIUS GOLDEN

JUAREZ, Mexico, March 6 (AP) — Two well-worn, narrow bridges separate the U. S. tourist from this gateway to Mexico and its stock in trade: Sex, souvenirs and seamy street scenes.

About 16 million people annually tramp, drive or ride the streetcar across the one-way bridges which stretch across the almost dry Rio Grande. Many of them stagger or weave back across the return span after an evening of strenuous relaxation.

Juarez and El Paso, across the river in Texas, have populations which are numerically similar. Outside of this, the two cities are as different as night and day.

The hustle and competition that besets the tourist in Juarez shows up before he crosses Santa Fe St. bridge. As he nears it:

"In here mister . . . park your car here mister . . . only 25 cents here mister . . . AAA recommended . . . you don't even have to lock your car. . . ."

There's no red tape in leaving the United States and entering Juarez.

Distribute Handbills

Before you're halfway across the bridge, ragged Mexican children are giving you handbills informing you this club is better than that club, the women are prettier in the club two blocks down, this one has the best—but the lowest-priced—food.

Then you're across the back yard of the United States. You are on Avenida Juarez, the main tourist drag from which you probably won't wander more than three blocks.

You are the object of every hawker and taxi driver.

"Come into this shop, Sir," one storekeeper pleads in a low voice of momentous secrecy. "Cheapest in town." Then, in a lower voice: "You see some picture postcards?"

However, most of the stores sell legitimate goods, from rugs to perfume, at prices ridiculously low to a tourist.

The grimy side is everywhere.

Taxi drivers buttonhole every passing male with offers of a tour guaranteed to take in only the spiciest sights.

"Come on, Mister," they whisper. "Only 50 cents for as long as you want to ride. All the places you want to see."

Juarez calculates to make a tourist forget his ordinary life. Its attraction, for the most part, is built on sex — from brothels to the nightclubs whose shows could compete with some of the best in the United States.

While you watch the show, you eat a filet mignon — priced at two dollars in the expensive places.

Juarez is a city of incongruous street scenes. Some visitors ignore the pathos, others gape.

Young kids offer to polish your shoes for a nickel. You turn them down and they persistently ask to brush them for a penny.

A little old lady walks past selling painted eggs and bags of confetti . . . a man wearing the tattered remains of a uniform hobbles by on one leg, begging for pennies . . . A young girl pleads with her eyes, trying to sell a bouquet of pitiful flowers.

The tourist goggles at the strange scene 50 yards from home.

Finally, at 4 or 5 o'clock in the morning, you have seen all the shows. Your wife has bought all the souvenirs she can afford at cut-rate prices and in hand is the allotment of rum you are allowed to bring back to the states.

You head for the bridge, tell the immigration official you're a United States citizen, and walk to your car.

In Juarez, the tired strippers go home. Weary prostitutes — there are about 4000 legally registered in Juarez — drop off to an u

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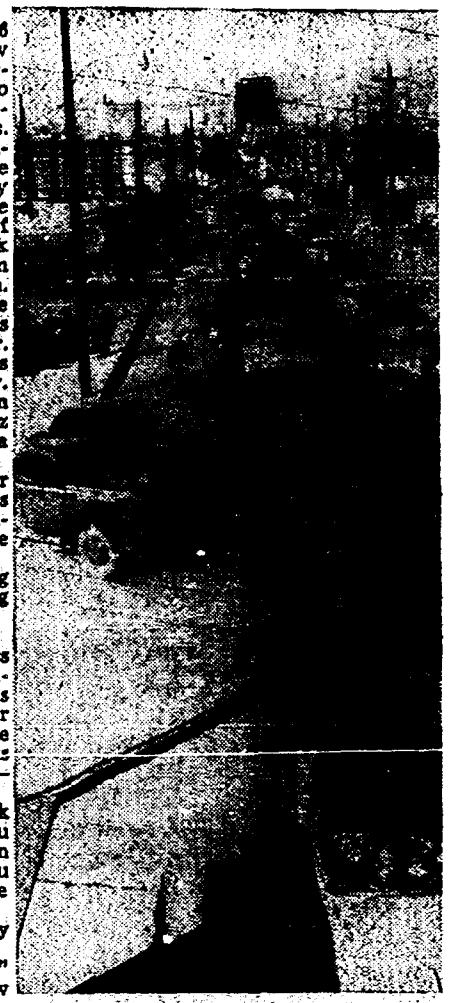


TRAFFIC LINE UP: Tourists and reside mobiles and trolley cars line up for block cross the international bridge. El Paso, T is in the background.

in certain cases. Main ones are

Fourth Army Fort Sam Houston where Batch- chapel

roduction Control, Official Says

ss Border ıg Juarez

nts of Mexico in auto- s during rush hours to ex., adjacent to Juarez, (AP photo)

neasy sleep.
eaning women make the of the nightclubs, work- Dawn is coming up.
natter of minutes, Juarez t another day.

Fourteen Judges Seek Re-election In New Mexico

SANTA FE, March 6 (AP) — Fourteen of New Mexico's 15 district judges are seeking re-election this year. The lone exception is R. F. Deacon Arledge of the Second Division, Second District, who is running for the Supreme Court.

The incumbents who are running are 10 Democrats, including four now unopposed on either ticket; and four Republicans, including Luis E. Armijo of Las Vegas who is headed for a November victory without opposition.

The Democrats unopposed in the primary and with no Republican opposition listed are George T. Harris, Roswell; A. W. Marshall, Deming; Fred J. Federici, Raton, and E. T. Hensley Jr., Portales.

In case of contests the order of names on the ballot was determined by drawing in the office of Secy of State Beatrice B. Roach.

The list follows:

First Judicial District: Division One (Rio Arriba, McKinley, San Juan, Santa Fe, Los Alamos—Republican: Bertrand B. Prince, Santa Fe; Democrat: David W. Carmody, Santa Fe (X).

Division Two: Republican: Robert E. Fox, Santa Fe (X); Democrat: James M. Scharborough, Espanola.

Second Judicial District—Division One (Bernalillo-Sandoval-Valencia) - Republican: M. Ralph Brown, Albuquerque, Waldo H. Rogers, Albuquerque (X); Democrat: John B. McManus Jr., Albuquerque. Division Two — Republican: Hugh Horne, Albuquerque; Democrat: Robert W. Reidy, Albuquerque, Albert R. Kool, Albuquerque, Benjamin Osuna, Albuquerque. Division Three—Republican: Addison L. Strong, Albuquerque; Democrat: Edwin L. Swope, Albuquerque (X).

Third Judicial District (Dona Ana-Lincoln-Otero)—Republican: None. Democrat: W. T. Scoggin, Las Cruces (X).

Fourth Judicial District (Guadalupe-Mora-San Miguel)—Republican: Luis E. Armijo, Las Vegas (X); Democrat: None.

Fifth Judicial District (Chaves-Eddy-Lea)—First Division—Republican: None. Democrat: D. D. Archer, Artesia; C. Roy Anderson, Carlsbad (X). Division Two — Republican: None. Democrat: George T. Harris, Roswell (X). Division Three — Republican: None. Democrat: John R. Brand, Hobbs (X), Robert C. Dow, Lovington.

Sixth Judicial District (Grant-Hidalgo-Luna)—Republican: None. Democrat: A. W. Marshall, Deming (X).

Seventh Judicial District (Catron-Sierra-Socorro-Torrance)—Republican: Charles H. Fowler, Socorro (X). Democrat: Garnett R. Burks, Socorro.

Eighth Judicial District (Colfax-Union-Taos)—Republican: None. Democrat: Fred J. Federici, Raton (X).

Ninth Judicial District (Curry-Roosevelt)—Republican: None. Democrat: E. T. Hensley Jr., Portales (X).

Tenth Judicial District (Quay-DeBaca-Harding)—Republican: None. Democrat: David S. Boner, Tucumcari (X), Robert M. Rowley, Tucumcari.

(X)—Incumbent.

Population Increase Continues

WASHINGTON, March 6 (AP) —The nation had a population of about 161,100,000 at the beginning of 1954, a gain of nearly 10 million since the last census April 1, 1950, the Census Bureau estimated today.

During 1953 the population increased about 2,700,000, or 1.7 per cent. The bureau said the growth in population has been remarkably stable for several years, ranging between 2,500,000 and 2,700,000 a year, or at an average annual rate of about 1.7 per cent.

Of major significance, said the bureau, is the continued high level of the number of births in this decade, reaching almost four million in 1953 alone, the greatest number in any year to date. Mortality during 1953 continued at the record low 1952 level of 9.6 deaths per 1000 persons.

GALLUP POWER SHUTOFF

GALLUP, March 6 (Special) —The electric current in Gallup will be shut off for a time early Sunday morning, the power company said today. The starting of the shutoff was not announced but the firm said it thought this would be the last time the power would be curtailed. Power will be back on at 8 a. m.

BROADCAST TO FARMERS

Allan Kline, president of the American Farm Bureau Federation, will be guest on Senator Clinton P. Anderson's "Report from Congress" radio broadcast today at 9:15 p. m. Kline's talk heralds the membership drive of the New Mexico Farm and Livestock Bureau which takes place this week.

Auto Industry Chiefs Far Apart On U.S. Outlook

WASHINGTON, March 6 (AP)— Auto industry chiefs have come up with clashing views on the nation's economic outlook.

Paul G. Hoffman, head of the Studebaker Corp., reported auto sales far below expectations so far this year and he blamed much of the current economic dip on an atmosphere of "pessimism and distrust."

Henry Ford II, head of Ford Motor Co., told newsmen in Louisville, Ky., he is optimistic about business in general in the next six months.

Ford said things look so good at this point that he thinks Ford may outsell its old rival, Chevrolet, in 1954, although Chevrolet has led the low-priced car field for years.

Meanwhile, in Detroit, Chrysler and Hudson announced the recall of 9800 auto production workers during the week.

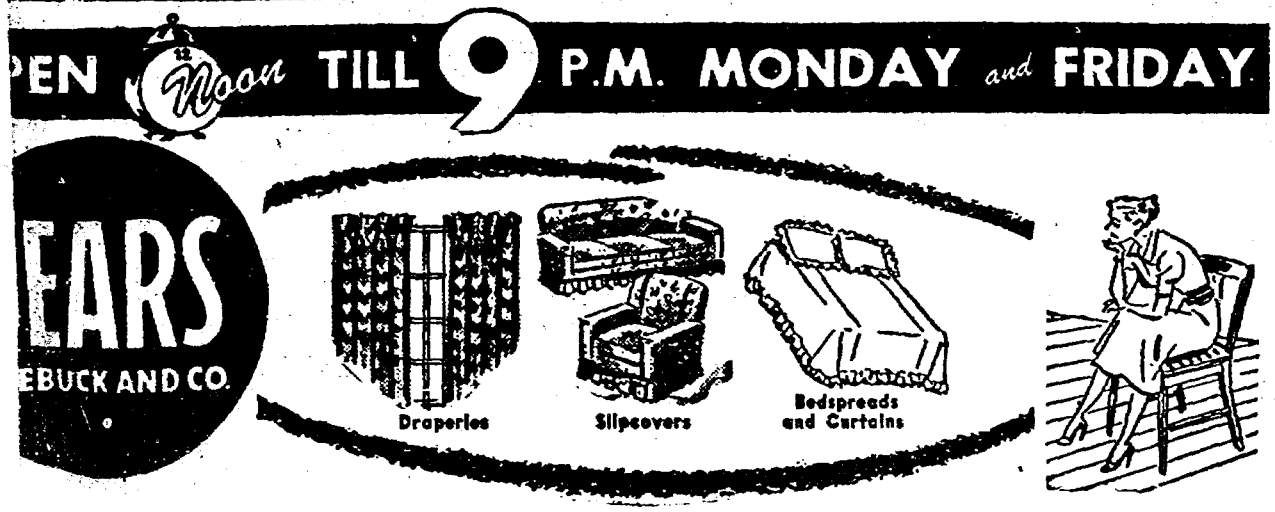
Hudson said it recalled 4500 workers laid off Feb. 24 due to a seasonal slack in demand for cars.

Hoffman made his comment about lagging auto sales in announcing that the advertising council will launch a nationwide campaign April 1 on "the future of America." Hoffman is chairman of the council's public policy committee.

Hoffman, who served as foreign aid chief during part of the Truman administration, said the campaign is designed to counteract recession talk. He said national advertisers' advertising agencies, broadcasters and the press will contribute millions of dollars worth of advertising space and time to stress the nation's opportunities for economic growth.

Hoffman said surveys made last year indicated 5,600,000 persons intended to buy cars in 1954, but if the present sales volume continues the result will be "nearer 3,500,000."

Ohio is an Iroquois word, first applied to the river, meaning great.



Gasoline Tax Revenue Hits All-Time High

The New Mexico Petroleum Industries Committee reported Saturday that collection of gasoline taxes by New Mexico cities reached an all-time high of $1,021,079 during 1953.

In a report compiled by Executive Secretary Fred Linn, the committee said that the next highest year was in 1952 when collections totaled $942,079.

Largest collections were in Albuquerque where a levy of one-half cent per gallon produced $230,067 during the year.

Eddy county collections ranked second, totaling $67,549 or slightly below the total for 1952. The Carlsbad tax rate is one cent per gallon.

Santa Fe ranked third with collections totaling $64,712—also slightly below 1952 collections. Albuquerque collections were up from the 1952 total of $197,228.

Of the 46 towns and cities collecting a gasoline tax in New Mexico, 36 are collecting one cent. The rest collect ½ cent per gallon.

Vision Week To Be Observed

New Mexico optometrists will observe Save Your Vision Week, which begins today, Dr. Frank E. Green, vice president of the New Mexico Optometric Assn., said.

He said teachers should be aware of symptoms of vision problems in children.

He listed the association's recommended checklist of eyesight problems as:

Poor sitting posture while reading, dislike for reading and reading subjects, losing place frequently in reading, holding book closer than normal.

Vocalizing during silent reading and excessive head movements, poor perceptual ability such as confusing "o" and "a"; "n" and "m"; or other letters or words, frowning, excessive blinking, scowling, squinting or other facial distortions while reading.

Only 7 Days Left For Income Tax

Only seven days remain for Albuquerque residents to pay their federal income tax.

Anyone wanting to avoid last-minute crowds had better plan to visit the U.S. Internal Revenue office in the Federal Bldg. early in the week. Office hours are 8 a.m. to 4:30 p.m.

"We are prepared to render all necessary assistance," S. P. Vidal, internal revenue director for New Mexico, said Saturday.

Vidal—as the Mar. 15 deadline grew nearer—stressed there is no provision under the law for extension of time in which to pay your income tax, except in certain cases. Main ones are [illegible] of sickness and absence

FOUR COED COWGIRLS from Eastern New Mexico University were on the ballot recently as students and faculty members selected the queen of the University Ag Club Rodeo. Left to right, they are Jo Ann Straley, Ancho; Jim Elyce Ribble, Portales; Sandy Pawol, and Sue Scott, Carlsbad. The four—w university students—will trade their campus garb to boots and big hats later semester for Rodeo Week. The queen announced at that time.

Kiwanis Official To Visit in City

John R. Franks of Phoenix, governor of the Southwest district of Kiwanis International, will be honored at a joint meeting of Albuquerque's three Kiwanis clubs at noon Wednesday at the Fez Club.

About 250 Kiwanians of the city are expected to attend.

The district governor, making his official visit to Albuquerque, will talk on Kiwanis Club activities at the luncheon.

He will be met at the Municipal Airport at 11:30 a.m. Wednesday by Howard Cundy, Albuquerque, lieutenant governor of this district, and the presidents of the three Albuquerque clubs.

They are S. Y. Jackson, of the Albuquerque Kiwanis Club; Richard Hindley, of the Sandia Kiwanis Club; and Wilbur Jones, of the Rio Grande Club.

Hindley said the Sandia Kiwanis Club will hold its regular luncheon meeting Tuesday at the Triangle.

Pretrial Probe Ordered In Claude Batchelor Case

SAN ANTONIO, Tex., March 6 (AP)—Col. Cyril D. Hill, judge advocate at Fort Bliss, today was named to conduct the pretrial investigation that will determine if Cpl. Claude Batchelor will stand court martial on charges of misconduct and aiding the enemy.

The announcement came from Fourth Army headquarters at Fort Sam Houston where Batch-

Couple Weds in Alask After 40-Year Roman

ANCHORAGE, Alaska, March 6 (AP)—A romance that began in Germany and did not cool in 40 years of hardship and separation was culminated today in the marriage of Miss Charoltte Staudte, 54, and Eric Tobehn, 56.

Tobehn lost trace of Miss Staudte shortly after he went to war in Germany in 1914. All efforts to find each oth until he took out citizenship papers, wh Staudte obtained his a Alaska from a Germ sulate.

Their correspondence newed and eventually made arrangements Staudte to come here. rived a few days ago. wedding ceremony wa arranged.

The wedding, read in man language, was perf the Anchorage Lutheran The bride wore a wh wedding gown, the veil belonged to her mot used her mother's wedd in the double-ring cere

The bridal gown, packed, was smuggled Russian occupation Germany shortly bef Staudte escaped over t to the western zone. ried a bouquet of pi the gift of a local flo

Mountain Club Members To Explore Near Grants

New Mexico Mountain Club members and several archaeology students at the University of New Mexico will explore caves, nooks and canyons in lava beds southeast of Grants today.

Two Mountain Club members and several archaelogy students went to the site Saturday and camped out for the night.

Several more Mountain Club members will join the parties today, Sherman Marsh, club member, said.

Funeral Rites Monday For Miss Lucie Jobin

Funeral services will be held at 10 a.m. Monday in St. Charles Catholic church for Miss Lucie Jobin who died Friday in an Albuquerque hospital. She was 83.

Rosary services will be held at 7:30 p.m. today in the Mission chapel of the

Congratulates Poli

LOS ANGELES, (INS)—Lawrence Ear son, 24, congratulated geles police for arre today on forgery char Anderson: "I'm the m ed man in the country. $2000 worth of bad Los Angeles. I've be in Maryland (20 c

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March 6 Ander- Los An- ting him es. Said ost want- I cashed hecks in en jailed ounts of

State Receives Big Feed Ration

New Mexico ranchers and farmers this year have received more than 600 carloads of corn, wheat, and mixed feed at reduced rates under the emergency drouth feed program.

The State Agricultural Stabilization and Conservation committee came up with totals at the end of the week, showing the over-all picture. The summary was for the period of Jan. 4 through Feb. 26.

Corn added up to 361 carloads, and wheat to 66 carloads. Mixed feed showed up as 153,418 hundredweight, equivalent to about 190 carloads.

These amounts were purchased by about 4500 farmers and ranchers, the majority of them on the East Side, Archie Vance of Albuquerque, ASC executive director, estimated.

Continuing need for emergency feed in New Mexico was indicated when the State Drouth committee at a meeting Friday called for immediate and indefinite extension of the program.

Vance said the program enables purchase of corn and wheat for about half-price, the supplies coming through the Commodity Credit Corp. "from all those surpluses you read about."

Mixed feed bought by ranchers and farmers, on an emergency basis, is through regular trade channels, with certificates of eligibility. The rate this way is a reduced one, but not as low as half, Vance said.

150 Red Guerrillas Killed, Captured in Korea

SEOUL, Sunday, March 7 (AP)—The South Korean Defense Ministry said today that recent police and Army operations resulted in the death, surrender or capture of 150 Communist guerrillas.

The ministry estimated that only about 500 Communist guerrillas remain in South Korea—a record low.

The police and Army are attempting to completely clean up the remaining Red guerrillas by the forthcoming national assembly elections in May.

11 of 14 North Korean POWs Are Released

SEOUL, Sunday, March 7 (AP)—The South Korean Army has released 11 of 14 North Korean war prisoners who had been charged with murder while they were held by Indian custodian forces.

The Social Affairs Ministry said the former POWs now are civilians. They were released during the routine screening of the anti-Red North Koreans.

There was no word as to the status of three other North Korean POWs who had also been charged with murder by the Indians.

REPLACED CORNEAS in eyes of Mrs. Sam B. Jones are examined by nurse Capt. Hazel M. Jones in Walter Reed Hospital, Washington. Mrs. Jones is wife of a U.S. Army chaplain stationed in Munich, Germany. The new corneas were furnished by the Army cornea bank. (International)

Western Airlines To Fly Ordinary First-Class Mail

For the first time, small airlines are going to deliver ordinary first class mail on a regular basis in the West this week.

The new, faster service will include selected cities in Oklahoma, Texas, Colorado and Arizona beginning Wednesday, and there is a possibility that New Mexico will be included later.

The Associated Press in Washington quoted Asst. Postmaster General John Allen as follows:

"We are still studying the possibility of using other small airlines to deliver mail in more sections of the country. We don't think we'll save anything, but we don't think the cost will be any higher either."

Chief reason for starting this type of service, he said, is because rail lines to the cities involved do not have direct routes.

Airlines carried first class mail between New Mexico cities on a temporary basis during the Christmas rush last year, and this state could be one considered by Allen.

One of the airlines included in Wednesday's change is Frontier, which will carry first class mail between Denver, Pueblo, Alamosa and Durango, Colo., Phoenix, Winslow and Flagstaff, Ariz.

Woman Is Injured In Fall Into Hole

Mrs. Homer Hart, 3141 La Junta Rd. SW. told police Saturday that she had injured both legs in a fall in a hole in the 300 block Fourth St. SW Friday.

Mrs. Hart said she had parked her car and started to walk across the street. She slipped and fell into the hole.

Sumatra, with an area of 182,860 square miles has a population of about 11 million people.

Two Persons Hit By Cars in City

A two-year-old boy and a 76-year-old man were struck by cars in Albuquerque Saturday.

The boy, Ricky Davidson, son of Mr. and Mrs. Joe Davidson, 1109 Pennsylvania St. NE, was listed in fairly good condition at Bataan Memorial Hospital. Jose Jaramillo, 76, of 2409 Edna Ave. NW, was under emergency treatment at St. Joseph Hospital Saturday night.

Rickey was struck at 11:45 a.m. in front of his home by a car driven by Robert F. Mason, 7713 Hannett Ave. NE. Mason said the boy darted into the path of his car from behind a parked tractor.

Jaramillo was struck at 2403 Central West at 6:40 p.m. by a car driven by Roy L. Davis, 65, of 3512 Cypress Dr. SW.

DRUNK DRIVER FINED $100

Ralph Artiaga, 25, of 1142 La Vega Rd. SW, was fined $100 on a drunk driving conviction Saturday in Police Court. Johnnie Perea, 22, of 1015 Fairhaven Ave. SW, forfeited a $130 bond on a similar charge.

An ex-President can become a member of the Supreme Court as did William Howard Taft.

SAVE

Open Until 9 P.M. Monday

AT SO-LO

Use Our Convenient Layaway

Candy Striped Towels Bath Size Cannon 39c

3-Pc. Set of Towels Bath - Hand Wash Cloth 97c

Muslin Pillow Cases Type 128 36x36 Size 39c

Fringed Chenille SPREADS Full Bed Size $2.99
• Red • Rose • White
• Blue • Gold • Others

Chicken Feather Pillows Floral Tick Perfect Size

25% Turkey Feathers Pillows

Foam Rubber Pillows Zipper Covers Ass't Colors

SUBJECT: CASE 608

Attached is a tabulation of well costs furnished the Commission by operators in conjunction with Case 608. Extra copies of the tabulation may be obtained from this office upon request.

DEPTH RANGE - 0 - 5000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
1	1992	$9945.98	$7646.12	$1014.62	$18606.72
2	1971	9466.62	6837.26	979.01	17282.89
3	1997	9085.41	10046.34	1200.03	20331.78
4	1949	9194.33	9438.27	280.56	18913.16
5	1977	8561.32	10412.22	1108.55	20082.09
6	2831	12456.80	8392.92		20849.72
7	2736	16080.08	16855.93	2642.92	35578.83
8	3550	36492.00	18933.00	-	55425.00
9	3573	31393.97	11213.32	15698.74	58306.03
10	3752	33725.00	19677.00	-	51402.00
11	3760	17466.66	13347.54	13050.16	43854.36
12	3228	24376.00	10831.00	-	35207.00
13	3626	20625.00	16949.00	4303.00	41877.00
14	3482	21650.00	27989.00	3176.00	52815.00
15	3455	19179.42	10381.10	4939.78	34500.30
16	3404	16583.39	16897.18	11341.77	44822.34
17	3380	18807.74	11140.05	8464.87	38412.66
18	3690	15387.00	5290.10	5989.72	26666.82
19	3630	23182.00	12526.00	-	35708.00
20	3925	23094.00	15657.65	10676.53	49428.18
21	3879	34038.00	14323.00	-	48361.00
22	3846	28309.72	14886.50	1392.94	44589.16

Depth Range - 0 - 5000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
23	4454	$32126.29	$15391.14	$2204.14	$49721.57
24	4462	30969.78	15322.51	2226.37	48518.66
25	4470	27531.00	22916.00	1612.00	52059.00
26	4471	38521.00	12310.00	2030.00	52861.00
27	4479	29363.36	20759.23	8772.69	58895.28
28	4465	31324.50	21859.81	8063.00	61247.31
29	4310	34446.00	13135.00	1423.00	50004.00
30	4313	29633.00	14637.00	1092.00	45462.00
31	4310	38483.00	15255.00	1410.00	55148.00
32	4278	22096.54	14647.00	741.23	37484.77
33	4340	22000.00	18000.00	9200.00	49200.00
34	4459	24300.00	18600.00	3800.00	46700.00
		DEPTH RANGE: 5000 - 6000			
35	5711	49895.16	35173.34	47037.66	132106.16
36	5710	61854.00	25045.00	-	86899.00
37	5720	76659.00	71388.00	3243.00	151290.00
38	5700	72618.00	30916.00	-	103534.00
39	5714	57463.00	23767.00	8141.00	89371.00
40	5700	65200.00	34662.00	8165.00	108027.00
41	5690	132852.00	41670.00	14839.00	189361.00
42	6015	49756.00	20658.00	4777.00	75191.00
43	5970	56383.00	17801.00	109.00	74293.00
44	5080	32952.06	20863.40	12489.02	66304.48

Depth Range 6000 - 7000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
45	6878	$70104.00	$42411.00	$ 1888.00	$114403.00
46	6700	55425.00	36378.00	10913.00	102716.00
47	6900	63454.00	28655.00	-	92109.00
48	7020	71547.00	34377.00	3121.00	109045.00
49	6800	44202.29	31783.38	22692.92	98678.59
50	7009	52249.12	38242.20	24338.27	108285.59
51	6500	47261.21	26587.23	16092.74	89941.18
52	7125	51001.11	35438.30	37126.73	123566.14
53	7110	42783.74	25498.44	20249.29	88531.47
54	6280	50308.55	52634.80	21575.41	124518.76
55	6250	43179.20	53472.15	14590.54	111241.89
56	6230	47400.00	33500.00	22780.00	103680.00
57	6275	52325.00	50758.00	10587.00	113670.00
58	6279	74112.00	34671.00	-	108783.00
59	6150	38895.00	34571.00	5434.00	78900.00
		DEPTH RANGE 7000 - 8000			
60	7990	79988.00	44264.00	3883.00	128135.00
61	8127	96481.00	54657.00	5390.00	156528.00
62	8114	84004.00	40140.00	-	124144.00
63	8285	102425.00	46877.00	-	149302.00
64	8033	84032.00	32674.00	2391.00	119097.00
65	7575	139238.00	39872.00	-	179110.00
66	7193	61198.00	26704.00	3429.00	91331.00
67	7443	58400.00	37000.00	20800.00	116200.00

Depth Range 8000 - 9000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
68	8285	$111921.00	$50021.00	$4957.00	$166899.00
69	8700	81910.00	52126.00	4977.00	139013.00
70	8780	117304.00	62966.00	5720.00	185990.00
71	9022	136007.00	40856.00	13930.00	190793.00
72	8650	143855.00	40509.00	-	184364.00
73	8468	69386.97	55042.61	23613.44	148043.02
74	8440	67738.12	42010.51	16413.50	126162.13
75	8460	115267.00	26058.00	13350.00	154675.00
76	8429	91998.00	31175.00	-	123173.00
77	8534	83024.00	49638.00	3300.00	135962.00
78	8530	80532.00	41206.00	2844.00	124402.00
79	8525	82365.00	45379.00	2681.00	130425.00
80	8470	79871.00	39547.00	2058.00	121476.00
81	8470	70189.00	41357.00	11932.00	123478.00
82	8810	92116.56	29120.46	27381.13	148618.15
		DEPTH RANGE 9000 - 10,000			
83	9980	122503.00	55961.00	-	178464.00
84	9171	106043.89	40181.16	27879.46	174104.51
85	9639	215408.00	29407.00	31985.00	276800.00
86	9602	94562.00	29549.00	11966.00	136077.00
87	9212	103948.63	55300.48	5608.95	164858.06

Depth Range 9000 - 10,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
88	9438	$141348.50	$56510.43	$82225.36	$280084.29
89	9820	85683.00	42299.00	2357.00	130339.00
90	9760	64205.08	47431.49	21474.25	133110.82
91	9469	101366.00	51407.00	51827.00	204600.00
92	9905	94836.53	74927.29	-	169763.82
93	9743	120586.00	41634.00	4994.00	167214.00
94	9730	64549.02	52154.12	21725.76	138428.90
95	9755	81546.46	42873.63	21475.06	145895.15
		DEPTH RANGE 10,000 - 11,000			
96	10750	111402.90	58361.55	17856.55	187621.00
97	19756	108693.27	55710.17	22684.13	187087.57
98	10727	137985.00	48587.00	-	186572.00
99	10736	149250.00	46325.00	-	195575.00
100	10755	130006.00	48587.00	-	178593.00
101	10570	170219.00	71889.00	6630.00	248738.00
102	10295	180492.00	49746.00	3589.00	233827.00
103	10430	213624.00	56531.00	8238.00	278393.00
104	10650	108039.70	43472.03	21612.64	173124.37
105	10671	103871.72	49557.42	25447.72	178876.86
106	10593	134154.77	60955.97	28226.27	223337.01
107	10577	140541.74	62314.42	24121.11	226977.27

Depth Range 10,000 - 11,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
108	10600	$96301.01	$51044.73	$25503.41	$172849.15
109	10585	129055.38	49144.33	10188.78	188388.49
110	10600	146000.00	60700.00	34800.00	241500.00
		DEPTH RANGE 11,000 - 12,000			
111	11890	143911.08	58945.57	21989.04	224845.69
112	11228	154634.35	45422.10	18600.00	218656.45
113	11302	146703.45	48694.25	19217.34	214615.04
114	11255	124994.62	52791.07	27621.16	205406.85
115	11250	124782.06	56595.50	20496.87	201874.43
116	11230	144700.00	55600.00	26300.00	226600.00
117	11228	172300.00	51900.00	36900.00	261100.00
118	11228	120576.40	42937.00	31775.84	195289.24
119	11272	114389.98	45820.06	31916.10	192126.14
120	11235	107899.94	57160.22	27666.41	192726.57
121	11310	188112.10	52970.78	30025.20	270108.08
122	11750	118200.00	59500.00	29300.00	207000.00
123	11698	115882.91	45627.02	32328.64	193838.57
124	11955	173677.00	96817.00	5583.00	276077.00
		DEPTH RANGE 12,000 - 13,000			
125	12212	205184.00	39344.00	8435.00	252963.00
126	12571	203618.00	126336.00	15364.00	345318.00

Depth Range 12,000 - 13,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
127	12500	$193544.00	$112896.00	$6065.00	$312505.00
128	12131	194670.00	79286.00	4694.00	278650.00
129	12475	183781.05	42151.45	5530.22	231462.72
130	12560	173850.76	42967.09	4567.09	221384.94
131	12640	304927.00	45987.00	29702.00	380616.00
132	12630	253852.00	45175.00	24173.00	323200.00
133	12343	240584.00	40192.00	7699.00	288475.00
134	12650	172400.00	58800.00	31400.00	262600.00
135	12876	213800.00	75500.00	53000.00	342300.00
136	12660	195650.00	62789.00	16824.00	275203.00
137	12640	196950.00	56641.00	17994.00	271585.00
138	12575	200300.00	48224.00	17122.00	265646.00
		DEPTH RANGE 13,000 - 14,000			
139	13703	290472.00	62776.00	1583.00	354831.00
140	13540	266358.00	69996.00	-	336354.00

Submitted by Raymond Lamb, Wilson Oil Co. in CASE 608 Hearing April 14, 1954: These are from 1945 files of original committee in proportional factor study and were accepted as exhibits in current case

Case 608
Wilson Exhibit 1.
4/14/54
Committee

Payout on Per Bbl. Basis

Depth 5500 feet Cost $57,000 Allowable 50	57,000 16205	=	3.5 years
Depth 6500 feet Cost $90,000 Allowable 68	90000 22643	=	4.0 years
Depth 7500 feet Cost $126,000 Allowable 92	126000 31229	=	4.0 years
Depth 8500 feet Cost $164,000 Allowable 120	164000 41264	=	4.0 years
Depth 9500 feet Cost $208,000 Allowable 150	208000 51974	=	4.0 years
Depth 10,500 feet Cost $260,000 Allowable 190	260000 66283	=	3.9 years
Depth 11,500 feet Cost $320,500 Allowable 230	320500 80590	=	4.0 years
Depth 12,500 feet Cost $396,000 Allowable 280	396000 98280	=	4.0 years

NEL-JL
Hobbs, N. M.
9-26-45

Case 608
Wilson Cybelt 1
4/14/54

Wilson Oil Company

COSTS TAKEN FROM CURVE

From File Advisory 1945

Depth	Cost
5000	$ 40,000
6000	72,000
7000	107,000
8000	145,000
9000	186,000
10000	233,500
11000	290,500
12000	357,000
13000	435,000

4-14-54

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 1
CASE 608

PHILLIPS PETROLEUM COMPANY

BARTLESVILLE, OKLAHOMA

PRODUCTION DEPARTMENT
L. E. FITZJARRALD
MANAGER

March 29, 1954

J. M. HOUCHIN
GENERAL SUPERINTENDENT
J. TARNER
TECHNICAL ADVISER TO MGR
H. S. KELLY
CHIEF ENGINEER

In re: Committee on General Rules and Regulations - State of Oklahoma

TO ALL MEMBERS OF THE COORDINATING, STATISTICAL, LEGAL ADVISORY AND RULES AND REGULATIONS COMMITTEES:

At the meeting in Oklahoma City on Tuesday and Wednesday March 23 and 24, 1954 requests were made by several representatives that the chart showing Oklahoma pipe line runs by months for the period of July through December, 1953 be duplicated and distributed. I am therefore enclosing herewith a copy of this chart.

As you were advised at the meeting, as soon as reports of all of the Subcommittees and of the Statistical Committee have been received by me, I will have them duplicated and distributed. You will at the same time be notified of the call of another meeting of the Committee on General Rules and Regulations to be held approximately one week after distribution of these Subcommittee reports. It is hoped that such meeting can be held on the same day as the April Statewide hearing of the Corporation Commission.

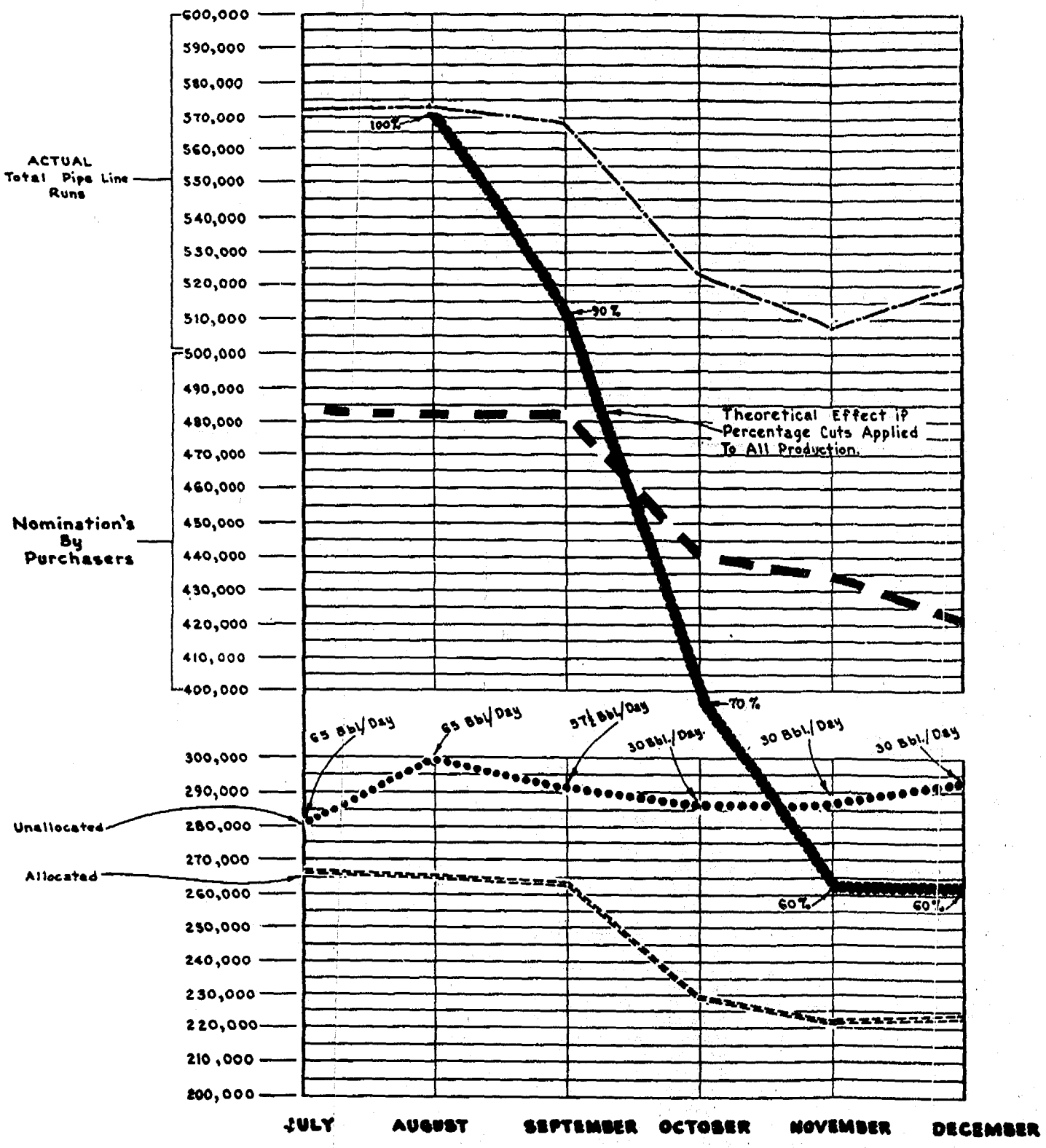
I would like to take this opportunity to thank all those who attended the meetings on March 23 and 24 for their interest and support of the work of the Committee.

Yours sincerely,

O. P. Nicola, Jr.

O. P. Nicola, Jr., Chairman
Committee on General Rules
and Regulations

OPN
Enclosure



STATE OF OKLAHOMA

Comparison Between Daily Average Allowables And Pipe Line Runs In Allocated And Unallocated Pools, Last Half Of 1953

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Amerada EXHIBIT No. 1
CASE 608

AMERADA
EXHIBIT 1
in Case 608

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
EXHIBIT No. 1
CASE

No.			
1			
2	2-13-52		
3	9-11-52		
4	12-1-52		
5	11-22-52		
6	4-6-52		
7	7-20-51		
8	4-14-51	3906	
9	5-11-51	3920	
10	8-14-51	3913	
11	10-2-51	3901	
12	10-18-51	3922	
13	10-24-51	3911	
14	11-28-51	3954	
15	12-13-51	3929	
16	12-12-51	3953	
17	11-15-51	3922	
18	11-26-51	3931	
19	4-26-51	3243	
20	7-2-51	3898	
21	6-29-51	3911	
22	11-1-51	3920	
23	10-31-51	3920	
24	11-6-51	3910	
25	11-12-51	3920	
26	3-17-51	3908	
27	1-29-53	3228	
28	7-7-53	3400	
29	8-31-53	3879	
30	7-1-53	4910	
31	8-13-53	4900	
32	7-26-53	4313	
33	8-27-53	4310	
34	4-9-53	3970	
35	8-11-53	3975	
36	6-27-53	3950	
	DEPTH RANGE OF GOOD	10	
37	10-21-52	6653	
38	12-8-52	6645	
39	11-28-52	6655	
40	8-8-51		

57	8-4-57	8075	77698	6800	37247	121790	
58	5-10-57	8044	78080	5700	30371	113921	
59	6-28-57	8075	81017	5320	29519	115826	
60	5-2-57	8090	82460	6584	36313	136857	
61	12-6-57	8042	70257	4500	35459	110211	
62	7-18-57	8268	83977	9800	42294	136071	
63	10-28-57	8145	82238	7065	35943	124646	
64	12-30-57	8150	100,852	8500	43579	151146	
65	12-11-57	8090	85081	6934	46844	139859	
66	5-2-58	8014	60766	5300	27157	93223	
67	7-6-57	8191	68311	5800	24859	99070	
68	11-11-58	8078	82486	5800	32318	94603	
69	1-24-58	8110	78948	6600	38424	77049	
70	7-15-59	8191	105050	6924	33606	147587	
71	11-26-58	8024	78948	6600	34998	120541	
72	[illegible]	[illegible]	80028	6945	39171	126141	
73	[illegible]	[illegible]	80328	6145	40585	127350	
74	[illegible]	[illegible]	78290	5821	43764	125814	
75	[illegible]	[illegible]	[illegible]	4658	44536	126546	
76	[illegible]	[illegible]	[illegible]	5779	44637	124863	
77	[illegible]	[illegible]	[illegible]	2293	38627	119396	
78	[illegible]	[illegible]	[illegible]	11394	57757	174911	
79	[illegible]	[illegible]	[illegible]	11234	39611	142514	

No.	Completion Date	Total Depth	Drilling Costs	Logging Services	Material Costs	Total Cost
	Depth Range 9000'–10,000'					
80	8-15-57	9251	116,220	[illegible]	50,614	172,477
81	12-4-57	9767 ①	149,956	11,851	49,762	199,457
82	5-21-57	9129	100,211	7,100	31,180	142,491
83	3-13-57	9745	112,534	8,784	46,484	167,802
84	7-27-57	9788	150,443	13,464	46,464	210,906
85	10-18-57	9092	120,286	14,134	36,604	171,068
86	7-24-53	9775	84,653	33,397	49,626	136,615
87	9-30-53	9770	86,000	4,852.1	56,892	147,744
88	11-5-53	9761	86,744	4,935	57,654	149,334
	Depth Range 10,000'–11,000'					
89	4-28-57	10,480	166,057	10,469	41,290	217,816
90	4-24-57	10,530	220,907	9,443	53,468	283,818
91	1-12-53	10,245	178,486	4,249	51,834	234,565
92	8-18-53	10,240	203,945	16,620	53,610	274,625
93	9-7-53	10,185	157,045	10,184	54,160	221,729
	Depth Range 11,000'–12,000'					
94	9-24-57	11,914'	182,360	[illegible]	[illegible]	246,926
95	12-4-57	10,920 ②	267,353	[illegible]	[illegible]	353,411
96	12-[illegible]-57	11,160	177,013	[illegible]	[illegible]	227,[illegible]
97	11-9-53	11,240	174,[illegible]	[illegible]	[illegible]	234,[illegible]
98	1-31-53	10,[illegible] ③	167,[illegible]	[illegible]	[illegible]	220,[illegible]

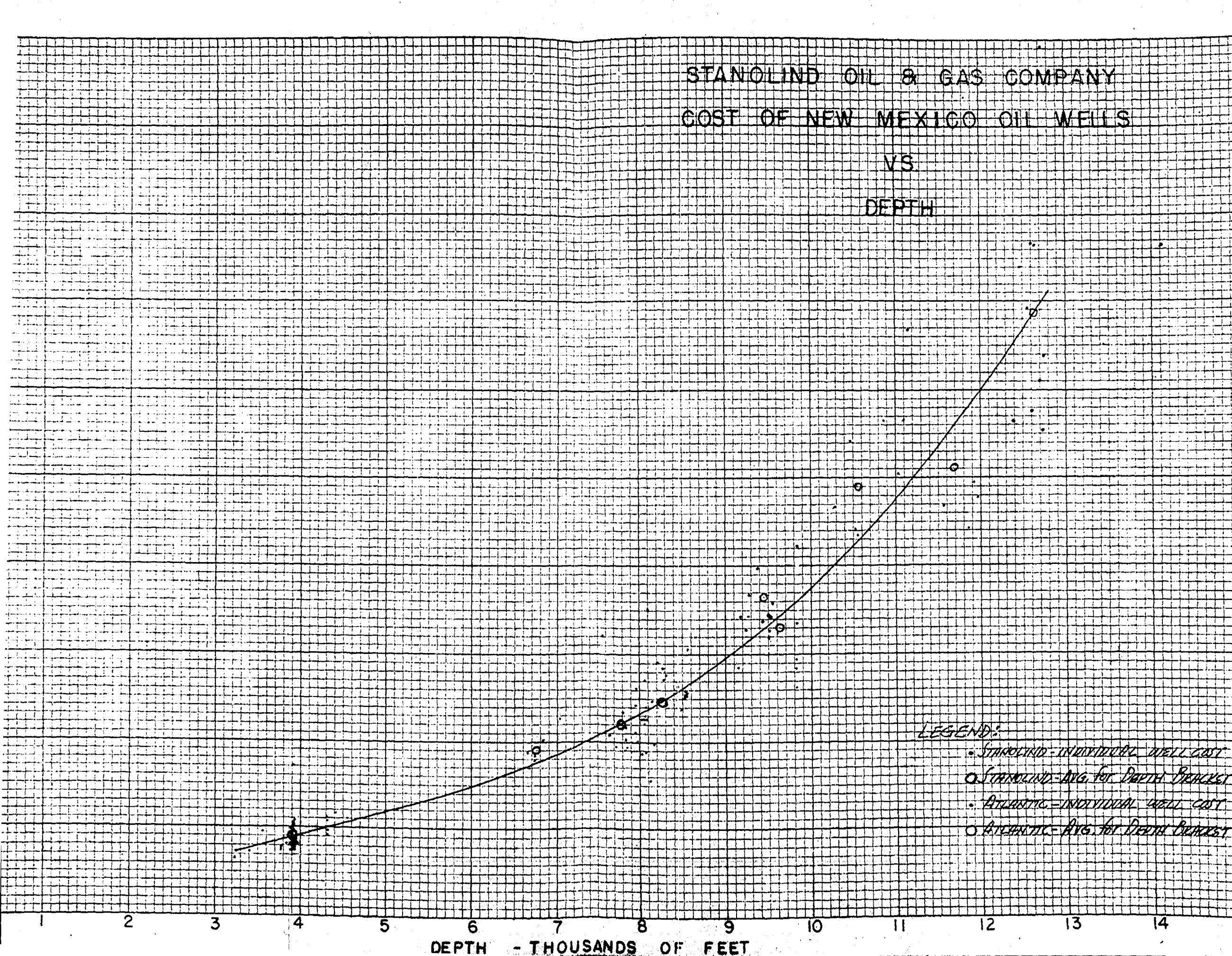
① Original Total Depth 7576'
② " " " 9856'
③ " " " 9300'
④ " " " 9811'
⑤ " " " 9240'
⑥ " " " 9775'

STANOLIND OIL & GAS COMPANY

COST OF NEW MEXICO OIL WELLS

VS.

DEPTH



THE ATLANTIC REFINING COMPANY
NEW MEXICO DRILLING COSTS
Wells Completed 1951, 1952, 1953

Well Name	Field	Date of Completion	Actual Drilling Cost	Total Depth
Dickinson A-1 #1	Denton (NC)	10-7-51	$170,487	9,510'
Dickinson B #2	" "	4-12-51	$163,174	9,509'
Dickinson B #5	" "	7-18-53	$169,762	9,428'
Federal Jones #3	" "	11-16-52	$171,872	9,500'
Federal Jones #4	" "	3-1-53	$159,509	9,500'
State "T" #6	" "	11-7-53	$179,543	9,550'
State "T" #7	" "	3-2-53	$164,359	9,231'
State "T" #8	" "	2-25-53	$184,457	9,295'
Dickinson A-1 #2	Denton (Dev.)	3-29-53	$346,829	12,570'
Dickinson A-34 #1	" "	7-14-52	$319,017	12,720'
Dickinson A-34 #2	" "	7-19-53	$287,924	12,604'
Dickinson B #3	" "	10-17-52	$378,587	12,662'
Federal Jones #1	" "	7-27-51	$305,176	12,700'
Federal Jones #2	" "	12-22-52	$379,969	12,600'
State "T" #1	" "	6-2-51	$275,212	12,730'
State "T" #2	" "	1-15-52	$495,993	12,726
State "T" #3	" "	6-22-52	$370,500	12,483'
State "T" #4	" "	8-24-52	$282,752	12,400'
State "R" #1	Saunders (Penn)	10-6-51	$381,893	14,147'
State "S" #1	" "	5-13-51	$202,562	10,012'
M. Goins #1	Teague (Dev.)	7-2-52	$238,703	9,825'
State "T" #5	Denton (NC)	3-10-53	$234,000 *	9,250'

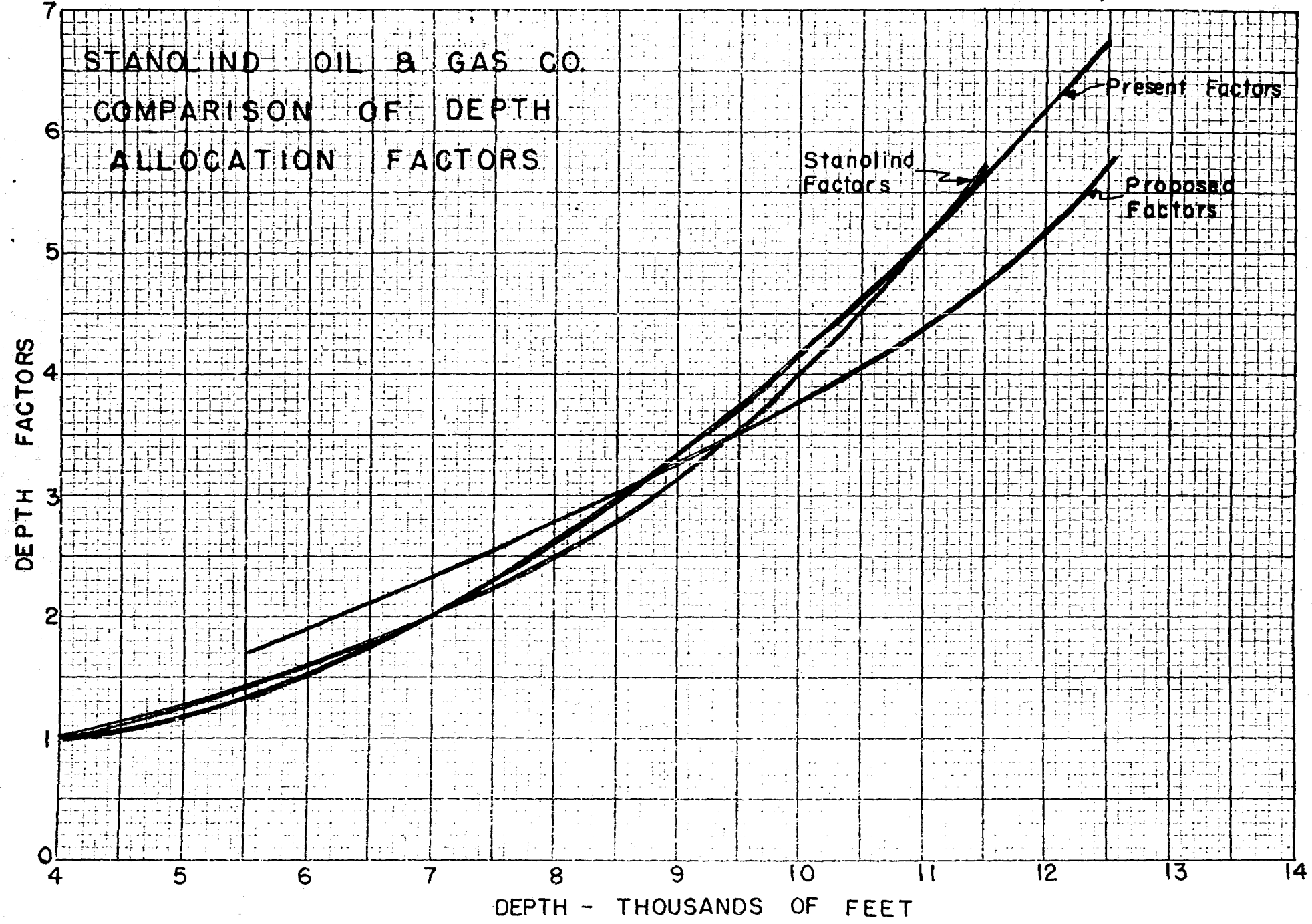
* This cost is the sum of the original AFS and the supplemental AFS. Actual Cost is not available.

Case 608
Ex 3 - Stone
4-14-54

K&E 5 X 5 TO THE INCH 359 6
KEUFFEL & ESSER CO. MADE IN U.S.A.

Case 608
Stano Ex. 4
4-14-54

STANOLIND OIL & GAS CO.
COMPARISON OF DEPTH ALLOCATION FACTORS



April 14, 1954

Case 608: Shell Exhibits (Paxton Howard – A. W. Nestor)

Ex. #1 — Curve {Cost / Depth

Ex. #2 — Comparison – Depth factor & Payout time Figures

Ex. #3 — Well drilled in SE New Mexico during 1953

Ex. #4 — Wells drilling in SE New Mexico as of March 30, 1954

Ex. #5 — {Summary – Shell-operated Wells – Drilling 1945 – 1954 – Cost, etc / Geophysical time

#5 (a) Competitive Seismic activity – (List) Figure – 1942-1953

#5 (b) Tabulation of discovery wells for pools shallower than 5000'

Ex. #6 — Curve – Payout time vs depth

Ex. #7 — Shell's recommended sliding time pay-out

Ex. #8 – Analysis of Allowable & Production Data

Ex. #9 – Depth vs Allowables — (Bar Graph)

Stanolind Ex 1 — Protocol

Ex 2 — Graph Cost of NM Wells vs Depth

Ex 3 — Atlantic Rfg Co data

Ex. 4 — Stano Comparison of depth allocation factors

Amerada Introduced Okla Corp Comm Stdy – Ex. #1

Kinney — Statement of Artesia Independents

Ohio — Everett — Statement

Buffalo — Ralph Gray — Written statement

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

W. P. MARSHALL, PRESIDENT

FX-1315

SYMBOLS

DL = Day Letter
NL = Night Letter
LT = Int'l Letter Telegram
VLT = Int'l Victory Ltr.

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

1954 APR 14 PM 2 39

Case 608
4-14-54

LA48 SSD213 I

L RWA100 PD=WUX ROSWELL NMEX 14 225PMM=

R R SPURRIER=

OIL CONSERVATION COMMISSION SANTA FE NMEX=

WE WOULD LIKE TO GO ON RECORD AS OPPOSING ANY REDUCTION IN ALLOWABLES BELOW FIVE THOUSAND FEET DEPTH AS IT WOULD MATERIALLY HURT OUR SMALLER LOCAL OPERATORS AND HINDER FUTURE DEVELOPMENT AND EXPLORATION= IN ANY REDUCTION OR CHANGES IN ALLOWABLE FACTORS THAT ARE TO BE MADE, THE PROBLEM OF DEEP WELL ALLOWABLES SHOULD BE REVIEWED FIRST=

R O ANDERSON PRESIDENT MALCO REFINERIES INC=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

Case 608
4-14-54

WESTERN UNION

W. P. MARSHALL, PRESIDENT

FX-1201

(03)

SYMBOLS

DL = Day Letter
NL = Night Letter
LT = Int'l Letter Telegram
VLT = Int'l Victory Ltr.

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

1954 APR 14 AM 10 18

LA47 SSD053 I

L ARA012 PD=ARTESIA NMEX 14 1005AMM=

Case 608

R R SPURRIER, SECRETARY=

NEW MEXICO OIL CONSERVATION COMMISSION MABRY HALL

SANTA FE NMEX=

AMERICAN REPUBLICS CORPORATION IS STRONGLY OPPOSED TO ANY CHANGE IN DEPTH FACTOR WHICH WOULD GIVE DEEP WELLS ANY INCREASE IN DAILY ALLOWABLE AT EXPENSE OF SHALLOW WELLS=

AMERICAN REPUBLICS CORPORATION=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

MAIN OFFICE OCC

1954 APR 14 PM 2:56

SOHIO

SOHIO PETROLEUM COMPANY

PRODUCTION DEPARTMENT

1954 MAY 24 AM 9:43

MIDLAND DISTRICT

BOX 2007
MIDLAND, TEXAS

May 20, 1954

Mr. W. B. Macey
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

Attached is a copy of a letter referring to the wells tabulated in Case No. 608. We have prepared a copy of this work. Please accept my heartfelt thanks for the use of this letter.

Very truly yours,

H. G. Sehnert, Jr.
District Geologist
Midland District

HGS:JR:epk
Encl:

SOHIO

SOHIO PETROLEUM COMPANY

PRODUCTION DEPARTMENT

1954 MAY 24 AM 9:43

MIDLAND DISTRICT

May 20, 1954

BOX 2007
MIDLAND, TEXAS

Mr. W. B. Macey
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District Geologist
Midland District

HGS:JR:epk
Encl:

Ex 1
Case 608
(12-11-53)

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

205 CARPER BUILDING
Artesia, New Mexico

December 13, 1953

Oil Conservation Commission
Box 871
Santa Fe, New Mexico

ATTN: Mr. William B. Macey

Dear Bill,

This letter is in compliance with your correspondence of December 7, 1953 which was directed to this office. You will note the lack of the number you requested for some depth ranges. This lack of wells is do to, 1. the operator was not considered to be likely to have the information you desire, 2. the lack of wells drilled within those depth ranges for the year 1953.

The following is a list of those wells:

1,000' to 2,000'

FREN POOL

1	Southern Production Co., Inc.	Turner B	#40	NW SW 17-17-31	1992	1956
2	Southern Production Co., Inc.	Turner A	#26	NW NW 19-17-31	1971	1932
3	Southern Production Co., Inc.	Turner A	#27	SE SW 18-17-31	1997	1956
4	Southern Production Co., Inc.	Turner A	#28	SW SE 18-17-31	1949	1917
5	Southern Production Co., Inc.	Turner A	#29	SE SE 18-17-31	1977	1933

S-9886 S-9684

2,000 to 3,000'

ARTESIA POOL

	Franklin, Aston, Fair	State-14	#6	NE NE 14-18-28	2639	2192
	Malco, Resler & Yates	Dunn B	#8	SW SE 12-18-28	2717	

DRICKEY-QUEEN POOL

6	Neville G. Penrose, Inc.	Phil-Mex	#1	SW SW 10-14-31	2831	✓

MALAGA POOL

7	De Kalb Agricultural Assn., Inc	Pardue	#1	SW SE 13-24-28	2726	2716

4-10913 2-4914

3,000 to 4,000

COOPER-JAL POOL						
8	Continental Oil Co.	Wells	#3	NW NW 12-25-36	3550'	3423
9	Texas Pacific Coal & Oil Co.	State A ac/1	#36	NW NE 9-23-36	3573'	3308
					7123	6231
DOLLARHIDE-QUEEN POOL						
10	Skelly Oil Co.	Mexico L	#5	NE NE 5-25-38	3752'	3642
11	The Texas Co.	McGhee	#4	NW SE 31-24-38	3760'	—
EAVES POOL						
12	Continental Oil Co.	Eaves-Fed	#8	SE SW 19-26-37	3228'	3804
EUNICE-MONUMENT POOL						
[illegible]	Charm Oil Co.	Superior	#2	SE SW 12-21-35	3902'	3810
GRAYBURG-JACKSON POOL						
13	Sinclair Oil & Gas Co.	West B	#10	SW NW 9-17-31	3626'	3209
14	Sinclair Oil & Gas Co.	Keel A	#11	SE NE 7-17-31	3482'	3203
15	Southern Production Co., Inc.	Turner B	#41	SE NW 20-17-31	3455'	3290
LANGLIE-MATTIX POOL						
16	Anderson -Prichard Oil, Corp.	Langlie	#5	SW SE 8-25-37	3404'	3290
17	Leonard Oil Co.	Justis	#4	NE NE 19-25-37	3380'	3280
LYNCH POOL						
18	The Texas Co.	Lynch A	#9	SE NW 34-20-34	3690'	3450
PENROSE-SKELLY POOL						
19	Skelly Oil Co.	Steeler	#4	SW SW 17-23-37	3630'	3460
SKAGGS POOL						
20	The Texas Co.	Weir B	#1	SE SE 12-20-37	3925'	3750
21	Continental Oil Co.	Skaggs B-13	#3	NW SE 13-20-37	3879'	3749
WILSON POOL						
22	Wilson Oil Co.	State	#1-A	SW NE 7-21-35	3846'	3830

16 - 5808 v 15 - 5164 v

4,000 to 5,000

EAST HOBBS SAN ANDRES POOL

23	Aurora Gasoline Co.	Browning	#1	SW NW 29-18-39	4454' 4442
24	Aurora Gasoline Co.	Rocket-Cain	#1	NW SW 30-18-39	4462' 4451
25	Gulf Oil Corp.	Davis	#2	NW SW 29-18-39	4470' 4445
26	Gulf Oil Corp.	Davis	#3	SW SW 29-18-39	4471' 4453
27	Humble Oil & Refining Co.	Cain	#2	NE SW 30-18-39	4479' 4445
28	Humble Oil & Refining Co.	Cain	#3	SE SW 30-18-39	4465' 4441
34	Sam K. Vierson	Laney	#3	SE SE 30-18-39	4459' 4432

HOBBS POOL

29	Stanolind Oil & Gas Co.	State A tr 4	#8	NW SW 5-19-38	4310' 4076
30	Stanolind Oil & Gas Co.	State A tr 4	#24	SE SW 5-19-38	4313' [illegible]
31	Stanolind Oil & Gas Co.	State A tr 6	#24	SE NW 9-19-38	4310' 4106

MALJAMAR POOL

32	Carper Drlg. Co., Inc.	Ohio-Jones	#3	SW NE 30-17-33	4278' 4230
33	Shell Oil Co.	State	#3-A	SE SE 29-17-33	4340' 4290

37

1-45-2811 · 11-47816

5,000 to 6,000

10

MONUMENT-BLINEBRY POOL

35	Anderson Prichard Oil Corp.	Britt B.	#2	SE SW 5-20-37	5711' 5665
36	Continental Oil Co.	Britt B-8	#2	NE NW 8-20-37	5710' 5672
37	Gulf Oil Corp.	Matthews	#8	SW SE 6-20-37	5720' 5645
38	Gulf Oil Corp.	Whitmire	#5	SE NW 8-20-37	5700' 5660
39	Sinclair Oil & Gas Co.	Phillips A.	#7	SE SW 31-19-37	5714' 5671
40	Sinclair Oil & Gas Co.	Barber	#9	NE NE 7-20-37	5700' 5615
41	Sinclair Oil & Gas Co.	Barber	#10	SW NW 8-20-37	5690' 5608

TERRY-BLINEBRY POOL

42	Fullerton Oil Co.	Elliott	#6	SE SW 1-21-37	6015' 5851
43	Gulf Oil Corp.	Leonard A.	#27	SE SE 2-21-37	5970' 5800

Humble Oil & Ref.

WEST LOVINGTON POOL

44	Humble Oil & Ref. Co.	State T	#2	NE SW 8-17-36	5080' 5020

10-57010 · 10-56209

15

6,000 to 7,000

DOLLARHIDE-DRINKARD POOL

45	Gulf Oil Corp.	Leonard A	#23	NE NE 33-24-38	6878'	6398
46	Sinclair Oil & Gas Co.	McClure	#2	SW NE 30-24-38	6700'	6510
47	Skelly Oil Co.	Mexico "K"	#2	SW SW 29-24-38	6900'	6810
48	Stanolind Oil & Gas. Co.	State Y	#6	NW NW 32-24-38	7020'	6556
49	The Texas Co.	McGhee	#6	NW SE 31-24-38	6800'	6491

DRINKARD POOL

50	Cosden Petroleum Corp.	Butler	#2	SW NW 18-22-38	7009'	6940
51	Humble Oil & Ref. Co.	Greenwood	#15	SW SW 9-22-37	6500'	6290
52	The Texas Co.	Lockhart	#3	SW SE 18-22-38	7125'	6847
53	The Texas Co.	Lockhart	#5	NE NW 18-22-38	7110'	6846

LOVINGTON-PADDOCK POOL

54	Amerada Petroleum Corp.	State LB	#1	SE NE 12-17-36	6280'	6220
55	Amerada Petroleum Corp.	State LA	#14	NW SW 1-17-36	6250'	6108
56	Cities Service Oil Co.	State AJ	#1	NE NW 12-17-36	6230'	6037
57	Sinclair Oil & Gas Co.	State-182A	#5	NE SW 31-16-37	6275'	6080
58	Skelly Oil Co.	Mexico N	#3	NE NE 36-16-36	6279'	6148
59	Tide Water Assoc. Oil Co.	State M	#4	NE SE 36-16-36	6150'	6090

8

15-99506 15-96446

7,000 to 8,000

DOLLARHIDE-DEVONIAN POOL

60	Gulf Oil Corp.	Leonard A	#21	SW NW 33-24-38	7990'	7757
61	Gulf Oil Corp.	Leonard A	#22	SE NE 4-25-38	8127'	7899

HARE POOL

62	Continental Oil Co.	Hawk B-3	#5-S	SW NE 3-21-37	8114'	7788
63	Continental Oil Co.	State-10	#1	NW NW 10-21-37	8285'	7800
64	Continental Oil Co.	Lockhart B12	#5	SW NW 12-21-37	8033'	7619

WANTZ-ABO POOL

65	Continental Oil Co.	Lockhart B-13A	#1	SW SW 13-21-37	7575'	7063
66	Gulf Oil Corp.	Keenum	#2	SW SE 14-21-37	7193'	6840
67	Shell Oil Co.	Andrews	#2	NE NW 14-21-37	7443'	6940

8-61761 8-59745

8,000-9,000

BRUNSON POOL

68	Gulf Oil Corp.	Leonard A	#20	SW NE	2-21-37	8285' 8157
69	Gulf Oil Corp.	Leonard A	#24	SW SE	2-21-37	8700'

DOLLARHIDE-FUSSELMAN POOL

70	Gulf Oil Corp.	Leonard A	#19	NW SW	33-24-38	8780' 8695

EAST CAPROCK-WOLFCAMP POOL

71	Magnolia Petroleum Co.	State D	#1	NW NW	23-12-32	9022' 8456
72	Skelly Oil Co.	Mexico S	#2	SE NW	23-12-32	8650' 8584
73	The Texas Co.	State BA NCT-9	#1	SW NW	1-12-32	8468' 8440

LOVINGTON-ABO POOL

74	Amerada Pet. Corp.	State LA	#11	SW NE	1-17-36	8440' 8300
75	Magnolia Pet. Co.	State R	#11	NW SE	1-17-36	8460' 8418
76	Skelly Oil Co.	State O	#14	NE SE	31-16-37	8429' 8354
77	Stanolind Oil & Gas Co.	State E tr 18	#16	NW NW	1-17-36	8534' 8105
78	Stanolind Oil & Gas Co.	State E tr 18	#19	SW NW	1-17-36	8530' 8360
79	Stanolind Oil & Gas Co.	State E tr 18	#20	SE NE	2-17-36	8525' 8355
80	Stanolind Oil & Gas Co.	State E tr 18	#21	NW NE	2-17-36	8470' 8250
81	Tide Water Assoc. Oil Co.	Shipp	#1	SW NE	32-16-37	8470' 8428

WHITE RANCH SILURO DEVONIAN POOL

82	Republic Natural Gas & Seaboard Oil Co.	White Ranch	#2	NW SW	34-11-29	8810' 8725

9,000 to 10,000 15 16-128563 M-117618

ANDERSON RANCH WOLFCAMP

83	Continental Oil Co.	Anderson Ranch Unit	#6	SE SE	2-16-32	9980' 9630
84	Texas Pacific Coal & Oil Co.	State C ac/1	#6	SE NW	2-12-33	9171' 8996

Bagley-Penn Pool

BOUGH POOL

85	Magnolia Pet. Co.	Matthews	#3	SW NE	13-9-35	9639' 9563

CROSSROADS-PENNSYLVANIAN

86	Magnolia Pet. Co.	Santa Fe E	#1	NW NE	29-9-36	9602' 9588

9,000 to 10,000 cont'd

DENTON-WOLFCAMP

87	Ralph Lowe	Dickinson D	#7	SE SW	35-14-37	9212' 9160
88	Ohio Oil Co.	Denton	#10	NW SW	11-15-37	9438' 9155

GLADIOLA-WOLFCAMP

89	Stanolind Oil & Gas Co.	Wingard	#7	SE NE	24-12-37	9820' 9140

LAZY J POOL

90	Amerada Pet. Corp.	State SHA	#2	SW NW	27-13-33	9760' 9535
	Lion Oil Co.	State	#1-B	NE SE	28-13-33	9718' 9624

MESCALERO-PENNSYLVANIAN

91	Gulf Oil Corp.	State BT	#1	SE SW	22-10-32	9469' 8361

SAUNDERS

92	Lawton Oil Corp.	State R	#2	NE NW	27-14-33	9905' 9874

TEAGUE

	Amon G. Carter	Hill	#2-M	NW NE	34-23-37	9370' 9180

TEAGUE-ELLENBURGER

93	Gulf Oil Corp.	Hill A	#4	SE SW	27-23-37	9743' 9660

TULK-WOLFCAMP

94	Amerada Pet. Corp.	Tulk-State B	#1	SW NW	5-15-32	9730' 9690
95	The Texas Co.	State AS NCT-1	#3	15-32 SE NE	6-15-32	9755' 9717

10,000 to 11,000

15-14431 ... 15-140883

KIDSON-PENNSYLVANIAN

96	Amerada Pet. Corp.	State STA	#1	NW NW	17-16-35	10750
97	Humble Oil & Rfg. Co.	Townsend	#2	SE SE	7-16-35	10756' 10740
98	Skelly Oil Co.	Mexico "R"	#2	NW NE	18-16-35	10727'
99	Skelly Oil Co.	Mexico R	#3	NE NW	18-16-35	10736' 10696
100	Skelly Oil Co.	Mexico R	#4	NW NW	18-16-35	10755' 10727

FOWLER POOL

101	Gulf Oil Corp.	Carr	#5	SE SW	10-24-37	10570 10300
102	Stanolind Oil & Gas Co.	South Mattix Unit	#8	SE SE	15-24-37	10295 10001
103	Stanolind Oil & Gas Co.	South Mattix Unit	#9	NW NE	15-24-37	10430 10156

10,000 to 11,000 (15)

MOORE-DEVONIAN POOL

104	Amerada Pet. Corp.	State MA	#2	NW SW	24-11-32	10650 (10546)
105	Amerada Pet Corp.	Robinson	#2	SE NE	23-11-32	10671 (10658)
106	Samedan Oil Corp.	Moore B	#2	SE NW	25-11-32	10593 (10400)
107	Samedan Oil Corp.	Moore B	#1	SW NW	25-11-32	10557 ?
108	The Texas Co.	State BO	#2	SW NW	24-11-32	10600 (10436)

TOWNSEND WOLFCAMP POOL

109	The Pure Oil Co.	Lea State A	#1	NW NW	10-16-35	10585
110	Shell Oil Co.	State TA	#1	NE SE	4-16-35	11546

(15) 160721 — 10/04560

11,000 to 12,000 (14)

BRONCO SILURO-DEVONIAN POOL

111	Amerada Pet. Corp.	Ward	#1	SW SE	11-13-38	11890 (11725)

EAST CAPROCK POOL

112	Amerada Pet. Corp.	State ECC	#2	NW NE	11-12-32	11228 (11155)
113	Amerada Pet. Corp/	State ECF	#1	SW SW	11-12-32	11302 (11270)
114	Amerada Pet. Corp.	Posey A	#4	NW NE	14-12-32	11255 (11238)
115	Amerada Pet. Corp.	State ECH	#1	SE SE	2-12-32	11250 (11141)
116	Shell Oil Co.	State ECA	#1	NW SE	2-12-32	11230 (11141)
117	Shell Oil Co.	State ECA	#2	NE SE	2-12-32	11228 (11076)
118	The Texas Co.	State BB NCT-1	#2	SE SW	11-12-32	11228 (11186)
119	The Texas Co.	State BH NCT-1	#3	SW NW	11-12-32	11272 (11235)
120	The Texas Co.	State BH NCT-1	#4	NW NW	11-12-32	11235 (11215)
121	Texas Pacific Coal & Oil Co.	State NM E ac/1	#1	NE SW	2-12-32	11310 (11160)

ECHOLS POOL

122	Shell Oil Co.	State A	#3	SW SW	2-11-37	11750 (11666)
123	The Texas Co.	State AR	#2	NW SW	2-11-37	11698 (11580)

GLADIOLA POOL

124	Gulf Oil Corp.	Lea State AV	#2	SW NW	19-12-38	11955 (11886)

(14) 159831 — 14/58376

15

12,000 to 13,000

CROSSROADS POOL

125	Magnolia Pet. Co.	Santa Fe Pacific E	#1	SW SW 23-9-36	12212

DENTON POOL

126	Atlantic Oil & Rfg. Co.	Dickinson A-1	#2	NW SW 1-15-37	12571 /12474
127	Gulf Oil Corp.	Simpson et al	#2	SE SE 3-15-37	12500 /12560
128	Gulf Oil Corp.	Simpson et al	#1-D	NE SE 3-15-37	12131 /12026
129	Ralph Lowe	Dickinson D	#5	NE NW 35-14-37	12475 /12160
130	Ralph Lowe	Dickinson D	#6	NE SW 35-14-37	12560 /12369
131	Magnolia Pet. Co.	Pope	#4	SW SW 26-14-37	12640 /12305
132	Magnolia Pet Cp.	Pope	#6	NW SE 26-14-37	12630 /12096
133	Magnolia Pet. Co.	Pope	#5	SW NE 35-14-37	12343 /12010
134	Shell Oil Co.	Priest	#3	NE NW 1-15-37	12650 /12536
	Shell Oil Co.	Pacific Royalty	#1	NE NE 10-15-37	12635 /12158
135	Shell Oil Co.	Shelton	#1	SE NW 26-14-37	12876 /12550
136	Sinclair Oil & Gas Co.	Whitman	#2	NW NE 26-14-37	12660 /12460
137	Sinclair Oil & Gas Co.	Pope	#1	SW SW 36-14-37	12640 /12460
138	Sinclair Oil & Gas Co.	Whitman	#1	SW NE 26-14-37	12575 /12350

15- 18098- 17181-

13,000 to 14,000

ANDERSON RANCH DEVONIAN POOL

139	Continental Oil Co.	Anderson Ranch Unit	#2	NE NW 11-16-32	13703 /13382
140	Continental Oil Co.	Anderson Ranch Unit	#3	NE NE 11-16-32	13540 /13370

- 27243 - 26752

Yours truly,

OIL CONSERVATION COMMISSION

BY L. A. Hanson
L. A. Hanson
Oil & Gas Inspector Rm

LAH/rm

Case 608 (12-11-53)

New Mexico
OIL CONSERVATION COMMISSION

MEMBER: JOHN L. MECHEM (ABSENT)
LAND COMMISSIONER E.S. WALKER
MEMBER
STATE GEOLOGIST A.L. PORTER
SECRETARY AND DIRECTOR

205 CARPER BUILDING
Artesia, New Mexico

December 13, 1953

Oil Conservation Commission
Box 871
Santa Fe, New Mexico

ATTN: Mr. William B. Macey

Dear Bill,

This letter is in compliance with your correspondence of December 7, 1953 which was directed to this office. You will note the lack of the number you requested for some depth ranges. This lack of wells is do to, 1. the operator was not considered to be likely to have the information you desire, 2. the lack of wells drilled within those depth ranges for the year 1953.

The following is a list of those wells:

1,000' to 2,000'

PREW POOL

1	Southern Production Co., Inc.	Turner B	#40	NW SW 17-17-31	1992
2	Southern Production Co., Inc.	Turner A	#26	NW NW 19-17-31	1971
3	Southern Production Co., Inc.	Turner A	#27	SE SW 18-17-31	1997
4	Southern Production Co., Inc.	Turner A	#28	SW SE 18-17-31	1949
5	Southern Production Co., Inc.	Turner A	#29	SE SE 18-17-31	1977

2,000 to 3,000'

ARTESIA POOL

Franklin, Aston, Fair	State-14	#6	NE NE 14-18-28	2639
Maloc, Ritzler & Yates	Dunn B	#8	SW SE 12-18-28	2717

[illegible] POOL

[illegible]	Phil-Mex	#1	SW SW 10-14-31	2831

9	[illegible]					
10	[illegible] Oil Co.					
11	The Texas Co.	McElroy				
EAVES POOL						
12	Continental Oil Co.	Eaves-Fed	#8	SE SW 19-[illegible]-37	32[illegible]	
EUNICE-MONUMENT POOL						
	Charm Oil Co.	Superior	#2	SE SW 12-21-35	3902'	
GRAYBURG-JACKSON POOL						
13	Sinclair Oil & Gas Co.	West B	#10	SW NW 9-17-31	3626'	
14	Sinclair Oil & Gas Co.	Keel A	#11	SE NE 7-17-31	3482'	
15	Southern Production Co., Inc.	Turner B	#41	SE NW 20-17-31	3455'	
LANGLIE-MATTIX POOL						
16	Anderson -Prichard Oil, Corp.	Langlie	#5	SW SE 8-25-37	3404'	
17	Leonard Oil Co.	Justis	#4	NE NE 19-25-37	3380'	
LYNCH POOL						
18	The Texas Co.	Lynch A	#9	SE NW 34-20-34	3690'	
PENROSE-SKELLY POOL						
19	Skelly Oil Co.	Steeler	#4	SW SW 17-23-37	3630'	
SKAGGS POOL						
20	The Texas Co.	Weir B	#1	SE SE 12-20-37	3925'	
21	Continental Oil Co.	Skaggs B-13	#3	NW SE 13-20-37	3879'	
WILSON POOL						
22	Wilson Oil Co.	State	#1-A	SW NE 7-21-35	3846'	

	[illegible] Oil Corp.	[illegible]	#2	NW SW	29-[illegible]-39	[illegible]
	[illegible] Oil Corp.	Boyle	#3	SW SW	29-[illegible]-39	[illegible]
	[illegible] Oil & Refining Co.	Cain	#2	NW SW	30-[illegible]-39	[illegible]
	[illegible] Oil & Refining Co.	Cain	#3	SE SW	30-18-39	4465V
	Pierson	Laney	#3	SE SE	30-18-39	4459'

[illegible] POOL

29	Stanolind Oil & Gas Co.	State A tr 4	#8	NW SW	5-19-38	4310'
30	Stanolind Oil & Gas Co.	State A tr 4	#24	SE SW	5-19-38	4313'
31	Stanolind Oil & Gas Co.	State A tr 6	#24	SE NW	9-19-38	4310'

MALJAMAR POOL

32	Carper Drlg. Co., Inc.	Ohio-Jones	#3	SW NE	30-17-33	4278'
33	Shell Oil Co.	State	#3-A	SE SE	29-17-33	4340'

5,000 to 6,000

MORTON-BLINEBRY POOL

35	Anderson Prichard Oil Corp.	Britt B.	#2	SE SW	5-20-37	5711'
36	Continental Oil Co.	Britt B-8	#2	NE NW	8-20-37	5710'
37	Gulf Oil Corp.	Matthews	#8	SW SE	6-20-37	5720'
38	Gulf Oil Corp.	Whitmire	#5	SE NW	8-20-37	5700'
39	Sinclair Oil & Gas Co.	Phillips A.	#7	SE SW	31-19-37	5714'
[illegible]	Sinclair Oil & Gas Co.	Barber	#9	NE NE	7-20-37	5700'
[illegible]1	Sinclair Oil & Gas Co.	Barber	#10	SW NW	8-20-37	5690'

TERRY-BLINEBRY POOL

[illegible]2	Fullerton Oil Co.	Elliott	#6	SE SW	1-21-37	6015'
[illegible]3	Gulf Oil Corp.	Leonard A.	#27	SE SE	2-21-37	5970'

WEST LOVINGTON POOL

[illegible]4	Humble Oil & Ref. Co.	State T	#2	NE SW	8-17-36	5080'

46	Gulf Oil Corp.					
46	Sinclair Oil & Gas Co.					
47	Skelly Oil Co.					
48	Stanolind Oil & Gas Co.					
49	The Texas Co.	Holmes				
	DRINKARD POOL					
50	Cosden Petroleum Corp.	Butler	#2			
51	Humble Oil & Ref. Co.	Greenwood	#15			
52	The Texas Co.	Lockhart	#3			
53	The Texas Co.	Lockhart	#5			
	LOVINGTON-PADDOCK POOL					
54	Amerada Petroleum Corp.	State LB	#1			
55	Amerada Petroleum Corp.	State LA	#14			
56	Cities Service Oil Co.	State	#1			
57	Sinclair Oil & Gas Co.	State-182A	#5			
58	Skelly Oil Co.	Mexico "B"	#3	NE NE	36-16-36	
59	Tide Water Assoc. Oil Co.	State M	#4	NE SE	36-16-36	
		7,000 to 8,000				
	DOLLARHIDE-DEVONIAN POOL					
60	Gulf Oil Corp.	Leonard A	#21	SW NW	33-24-38	7990'
61	Gulf Oil Corp.	Leonard A	#22	SE NE	4-25-38	8127'
	HARE POOL					
62	Continental Oil Co.	Hawk B-3	#5-S	SW NE	3-21-37	8114'
63	Continental Oil Co.	State-10	#1	NW NW	10-21-37	8285'
64	Continental Oil Co.	Lockhart B12	#5	SW NW	12-21-37	8033'
	WANTZ-ABO POOL					
65	Continental Oil Co.	Lockhart B-13A	#1	SW SW	13-21-37	7575'
66	Gulf Oil Corp.	Keenum	#2	SW SE	14-21-37	7193'
67	Shell Oil Co.	Andrews	#2	NE NW	14-21-37	7643'

8,000-9,000

[illegible] POOL

68	Gulf Oil Corp.	Leonard A	#20	SW NE	2-21-37	8285'
69	Gulf Oil Corp.	Leonard A	#24	SW SE	2-21-37	8700'

DOLLARHIDE-FUSSELMAN POOL

70	Gulf Oil Corp.	Leonard A	#19	NW SW	33-24-38	8780'

EAST CAPROCK-WOLFCAMP POOL

71	Magnolia Petroleum Co.	State D	#1	NW NW	23-12-32	9022'
72	Skelly Oil Co.	Mexico S	#2	SE NW	23-12-32	8650'
73	The Texas Co.	State BA NCT-9	#1	SW NW	1-12-32	8468'

LOVINGTON-ABO POOL

74	Amerada Pet. Corp.	State LA	#11	SW NE	1-17-36	8440'
75	Magnolia Pet. Co.	State R	#11	NW SE	1-17-36	8460'
76	Skelly Oil Co.	State O	#14	NE SE	31-16-37	8429'
77	Stanolind Oil & Gas Co.	State E tr 18	#16	NW NW	1-17-36	8534'
78	Stanolind Oil & Gas Co.	State E tr 18	#19	SW NW	1-17-36	8530'
79	Stanolind Oil & Gas Co.	State E tr 18	#20	SE NE	2-17-36	8525'
80	Stanolind Oil & Gas Co.	State E tr 18	#21	NW NE	2-17-36	8470'
81	Tide Water Assoc. Oil Co.	Shipp	#1	SW NE	32-16-37	8470'

WHITE RANCH SILURO DEVONIAN POOL

[illegible]	Republic Natural Gas & Seaboard Oil Co.	White Ranch	#2	NW SW	34-11-29	8810'

9,000 to 10,000

[illegible]SON RANCH WOLFCAMP

[illegible]	Continental Oil Co.	Anderson Ranch Unit	#6	SE SE	2-16-32	9980'
[illegible]	Texas Pacific Coal & Oil Co.	State C ac/1	#6	SE NW	2-12-33	9171'

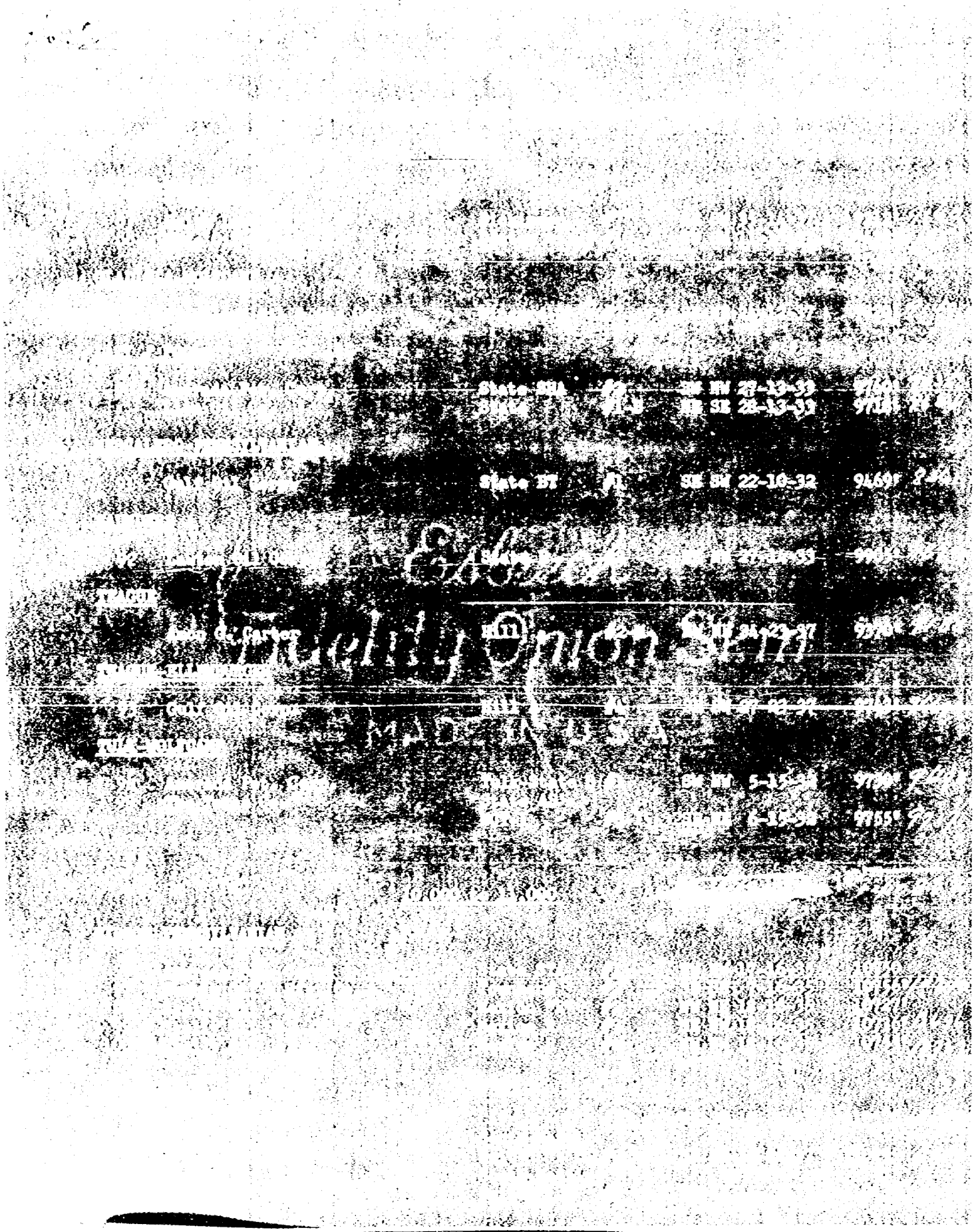
Bagley-Penn Pool

[illegible]CH POOL

[illegible]	Magnolia Pet. Co.	Matthews	#3	SW NE	13-9-35	9639'

[illegible]OSSROADS-PENNSYLVANIAN

[illegible]	Magnolia Pet. Co.	Santa Fe E	#1	NW NE	29-9-36	9602'



ILLEGIBLE

12,000 to 13,000

GROSSBEAKS POOL

125	Magnolia Pet. Co.	Santa Fe Pacific E	#1	SW SW 23-9-36	12212

DENTON POOL

126	Atlantic Oil & Rfg. Co.	Dickinson A-1	#2	NW SW 1-15-37	12571
127	Gulf Oil Corp.	Simpson et al	#2	SE SE 3-15-37	12500
128	Gulf Oil Corp.	Simpson et al	#1-D	NE SE 3-15-37	12131
129	Ralph Lowe	Dickinson D	#5	NE NW 35-14-37	12475
130	Ralph Lowe	Dickinson D	#6	NE SW 35-14-37	12560
131	Magnolia Pet. Co.	Pope	#4	SW SW 26-14-37	12640
132	Magnolia Pet Cp.	Pope	#6	NW SE 26-14-37	12630
133	Magnolia Pet. Co.	Pope	#5	SW NE 35-14-37	12343
134	Shell Oil Co.	Priest	#3	NE NW 1-15-37	12650
	Shell Oil Co.	Pacific Royalty	#1	NE NE 10-15-37	12635
135	Shell Oil Co.	Shelton	#1	SE NW 26-14-37	12876
136	Sinclair Oil & Gas Co.	Whitman	#2	NW NE 26-14-37	12660
137	Sinclair Oil & Gas Co.	Pope	#1	SW SW 36-14-37	12640
138	Sinclair Oil & Gas Co.	Whitman	#1	SW NE 26-14-37	12575

13,000 to 14,000

ANDERSON RANCH DEVONIAN POOL

139	Continental Oil Co.	Anderson Ranch Unit	#2	NE NW 11-16-32	13703
140	Continental Oil Co.	Anderson Ranch Unit	#3	NE NE 11-16-32	13540

Yours truly,

OIL CONSERVATION COMMISSION

BY L. A. Hanson
L. A. Hanson
Oil & Gas Inspector

LAH/rm

Illegible

Ex 1
Case 608
(12-17-53)

New Mexico
OIL CONSERVATION COMMISSION

MEMBER
MEMBER
STATE GEOLOGIST E.S. WALKER
SECRETARY AND DIRECTOR

205 CARPER BUILDING
Artesia, New Mexico

December 13, 1953

Oil Conservation Commission
Box 871
Santa Fe, New Mexico

ATTN: Mr. William B. Macey

Dear Bill,

This letter is in compliance with your correspondence of December 7, 1953 which was directed to this office. You will note the lack of the number you requested for some depth ranges. This lack of wells is do to, 1. the operator was not considered to be likely to have the information you desire, 2. the lack of wells drilled within those depth ranges for the year 1953.

The following is a list of those wells:

1,000' to 2,000'

FREN POOL

1	Southern Production Co., Inc.	Turner B	#40	NW SW 17-17-31	1992
2	Southern Production Co., Inc.	Turner A	#26	NW NW 19-17-31	1971
3	Southern Production Co., Inc.	Turner A	#27	SE SW 18-17-31	1997
4	Southern Production Co,, Inc.	Turner A	#28	SW SE 18-17-31	1949
5	Southern Production Co., Inc.	Turner A	#29	SE SE 18-17-31	1977

2,000 to 3,000'

ARTESIA POOL

	Franklin, Aston, Fair	State-14	#6	NE NE 14-18-28	2639
	Malco, Resler & Yates	Dunn B	#8	SW SE 12-18-28	2717

BRICKEY-QUEEN POOL

6	Neville G. Penrose, Inc.	Phil-Mex	#1	SW SW 10-14-31	2831

[illegible] POOL

7	De Kalb Agricultural Assn., Inc	Pardue	#1	SW SE 13-24-28	2726

ILLEGIBLE

COOPER-JAL POOL

8	Continental Oil Co.	Wolfe	#3	NE NW 1-25-36	3762'
9	Texas Pacific Coal & Oil Co.	State A ac/1	#36	NW NE 1-25-36	3760'

DOLLARHIDE-QUEEN POOL

10	Skelly Oil Co.	Mexico L	#5	NE NE 5-25-38	3762'
11	The Texas Co.	McGhee	#4	NW SE 31-24-38	3760'

EAVES POOL

12	Continental Oil Co.	Eaves-Fed	#8	SE SW 19-26-37	3228'

EUNICE-MONUMENT POOL

	Charm Oil Co.	Superior	#2	SE SW 12-21-35	3902'

GRAYBURG-JACKSON POOL

13	Sinclair Oil & Gas Co.	West B	#10	SW NW 9-17-31	3626'
14	Sinclair Oil & Gas Co.	Keel A	#11	SE NE 7-17-31	3482'
15	Southern Production Co., Inc.	Turner B	#41	SE NW 20-17-31	3455'

LANGLIE-MATTIX POOL

16	Anderson -Prichard Oil, Corp.	Langlie	#5	SW SE 8-25-37	3404'
17	Leonard Oil Co.	Justis	#4	NE NE 19-25-37	3380'

LYNCH POOL

18	The Texas Co.	Lynch A	#9	SE NW 34-20-34	3690'

PENROSE-SKELLY POOL

19	Skelly Oil Co.	Steeler	#4	SW SW 17-23-37	3630'

SKAGGS POOL

20	The Texas Co.	Weir B	#1	SE SE 12-20-37	3925'
21	Continental Oil Co.	Skaggs B-13	#3	NW SE 13-20-37	3879'

WILSON POOL

22	Wilson Oil Co.	State	#1-A	SW NE 7-21-35	3846'

ILLEGIBLE

		Rochwell-Cain	#1	NW	SW 30-18-39	
		Davis	#2	NW	SW 29-18-39	
		Davis	#3	SW	SW 29-18-39	
	Oil & Refining Co.	Cain	#2	NE	SW 30-18-39	4465'
	Oil & Refining Co.	Cain	#3	SE	SW 30-18-39	4465'
34	Henderson	Laney	#3	SE	SE 30-18-39	4459'

29	Stanolind Oil & Gas Co.	State A tr 4	#8	NW SW	5-19-38	4310'
30	Stanolind Oil & Gas Co.	State A tr 4	#24	SE SW	5-19-38	4313'
31	Stanolind Oil & Gas Co.	State A tr 6	#24	SE NW	9-19-38	4310'

MALJAMAR POOL

32	Carper Drlg. Co., Inc.	Ohio-Jones	#3	SW NE	30-17-33	4278'
33	Shell Oil Co.	State	#3-A	SE SE	29-17-33	4340'

5,000 to 6,000

MONUMENT-BLINEBRY POOL

35	Anderson Prichard Oil Corp.	Britt B.	#2	SE SW	5-20-37	5711'
36	Continental Oil Co.	Britt B-8	#2	NE NW	8-20-37	5710'
37	Gulf Oil Corp.	Matthews	#3	SW SE	6-20-37	5720'
38	Gulf Oil Corp.	Whitmire	#5	SE NW	8-20-37	5700'
	Sinclair Oil & Gas Co.	Phillips A.	#7	SE SW	31-19-37	5714'
	Sinclair Oil & Gas Co.	Barber	#9	NE NE	7-20-37	5700'
	Sinclair Oil & Gas Co.	Barber	#10	SW NW	8-20-37	5690'

BLINEBRY-BLINEBRY POOL

	Fullerton Oil Co.	Elliott	#6	SE SW	1-21-37	6015'
3	Gulf Oil Corp.	Leonard A.	#27	SE SE	2-21-37	5970'

EAST LOVINGTON POOL

	Humble Oil & Ref. Co.	State T	#2	NE SW	8-17-36	5080'

LEGIBLE

45	Gulf Oil Corp.	Leonard A	#20	[illegible]	
46	Sinclair Oil & Gas Co.	McClure	#2	[illegible]	
47	Skelly Oil Co.	Mexico "E"	#2	[illegible]	
48	Stanolind Oil & Gas. Co.	State I	#6	[illegible]	
49	The Texas Co.	McGhee	#6	[illegible]	

DRINKARD POOL

50	Cosden Petroleum Corp.	Butler	#2	SW NW 18-22-38	7090' [illegible]
51	Humble Oil & Ref. Co.	Greenwood	#15	SW SW 9-22-37	6900' [illegible]
52	The Texas Co.	Lockhart	#3	SW SE 18-22-38	7125' [illegible]
53	The Texas Co.	Lockhart	#5	NE NW 18-22-38	7110' [illegible]

LOVINGTON-PADDOCK POOL

54	Amerada Petroleum Corp.	State LB	#1	SE NE 12-17-36	6280' [illegible]
55	Amerada Petroleum Corp.	State LA	#14	NW SW 1-17-36	6250' [illegible]
56	Cities Service Oil Co.	State [illegible]	#1	NE NW 12-17-36	6230' [illegible]
57	Sinclair Oil & Gas Co.	State-182A	#5	NE SW 31-16-37	6275' [illegible]
58	Skelly Oil Co.	Mexico "E"	#3	NE NE 36-16-36	6279' [illegible]
59	Tide Water Assoc. Oil Co.	State M	#4	NE SE 36-16-36	6150' [illegible]

7,000 to 8,000

DOLLARHIDE-DEVONIAN POOL

60	Gulf Oil Corp.	Leonard A	#21	SW NW 33-24-38	7990' [illegible]
61	Gulf Oil Corp.	Leonard A	#22	SE NE 4-25-38	8127' [illegible]

HARE POOL

62	Continental Oil Co.	Hawk B-3	#5-S	SW NE 3-21-37	8114' [illegible]
63	Continental Oil Co.	State-10	#1	NW NW 10-21-37	8285' [illegible]
64	Continental Oil Co.	Lockhart B12	#5	SW NW 12-21-37	8033' [illegible]

WANTZ-ABO POOL

65	Continental Oil Co.	Lockhart B-13A	#1	SW SW 13-21-37	7575' [illegible]
66	Gulf Oil Corp.	Keenum	#2	SW SE 14-21-37	7193' [illegible]
67	Shell Oil Co.	Andrews	#2	NE NW 14-21-37	7443' [illegible]

ILLEGIBLE

		Leonard A	#19	NW [illegible] 33-[illegible]		
	[illegible] Petroleum Co.	State D	#1	NW NW 23-12-32	9022'	[illegible]
73	[illegible] Oil Co.	Mumbo S	#2	SE NW 23-12-32	[illegible]	[illegible]
73	[illegible] Co.	State BA				
		NCT-9	#1	SW NW 1-12-32	8468'	8440
LOCKHART-ABO POOL						
74	Amerada Pet. Corp.	State LA	#11	SW NE 1-17-36	8440'	8300
75	Magnolia Pet. Co.	State R	#11	NW SE 1-17-36	8460'	8418
76	Skelly Oil Co.	State O	#14	NE SE 31-16-37	8429'	8359
77	Stanolind Oil & Gas Co.	State E tr 18	#16	NW NW 1-17-36	8534'	8145
78	Stanolind Oil & Gas Co.	State E tr 18	#19	SW NW 1-17-36	8530'	8360
79	Stanolind Oil & Gas Co.	State E tr 18	#20	SE NE 2-17-36	8525'	8355
80	Stanolind Oil & Gas Co.	State E tr 18	#21	NW NE 2-17-36	8470'	8310
81	Tide Water Assoc. Oil Co.	Shipp	#1	SW NE 32-16-37	8470'	8429
WHITE RANCH SILURO DEVONIAN POOL						
82	Republic Natural Gas & Seaboard Oil Co.	White Ranch	#2	NW SW 34-11-29	8810'	8725
		9,000 to 10,000			16-178562	NT-117618
ANDERSON RANCH WOLFCAMP						
83	Continental Oil Co.	Anderson Ranch Unit	#6	SE SE 2-16-32	9980'	9630
84	Texas Pacific Coal & Oil Co.	State C ac/1	#6	SE NW 2-12-33	9171'	8996
Bagley-Penn Pool						
BOUGH POOL						
85	Magnolia Pet. Co.	Matthews	#3	SW NE 13-9-35	9639'	9563
CROSSROADS-PENNSYLVANIAN						
86	Magnolia Pet. Co.	Santa Fe E	#1	NW NE 29-9-36	9602'	9588

ILLEGIBLE

90	Lion Oil					
MUSCALERO-PENNSYLVANIAN						
91	Gulf Oil Corp.	State BT	#1	SE SW 27-16-35	10,[illegible]	
SAUNDERS						
92	Lawton Oil Corp.	State B	#2	NE NW 27-14-35	9[illegible]	
TEAGUE						
	Amon G. Carter	Hill	#2-A	NE SW 27-23-37	[illegible]	
TEAGUE-ELLENBURGER						
93	Gulf Oil Corp.	Hill A	#4	SE SW 27-23-37	9743'	7[illegible]
TULK-WOLFCAMP						
94	Amerada Pet. Corp.	Tulk-State B	#1	SW NW 5-15-32	9790'	9[illegible]
95	The Texas Co.	State AS NCT-1	#3	15-[illegible] SE NE 6-15-32	9755'	9[illegible]

10,000 to 11,000

KIDSON-PENNSYLVANIAN						
96	Amerada Pet. Corp.	State STA	#1	NW NW 17-16-35	10750	
97	Humble Oil & Rfg. Co.	Townsend	#2	SE SE 7-16-35	10[illegible]	
98	Skelly Oil Co.	Mexico "R"	#2	NW NE 18-16-35	10727'	
99	Skelly Oil Co.	Mexico R	#3	[illegible]	[illegible]	
100	Skelly Oil Co.	Mexico R	#4	[illegible]	[illegible]	
POWLER POOL						
101	Gulf Oil Corp.	Carr				
102	[illegible]	[illegible]				

ILLEGIBLE

			Lea State A	#1	NW NW 10-16-35	10585
110	[illegible]		State TA	#1	NE SE 4-16-35	11546
		11,000 to 12,000				
BRONCO SILURO-DEVONIAN POOL						
111	Amerada Pet. Corp.		Ward	#1	SW SE 11-13-38	11890
EAST CAPROCK POOL						
112	Amerada Pet. Corp.		State ECC	#2	NW NE 11-12-32	11228
113	Amerada Pet. Corp/		State ECF	#1	SW SW 11-12-32	11302
114	Amerada Pet. Corp.		Posey A	#4	NW NE 14-12-32	11255
115	Amerada Pet. Corp.		State ECH	#1	SE SE 2-12-32	11250
116	Shell Oil Co.		State ECA	#1	NW SE 2-12-32	11230
117	Shell Oil Co.		State ECA	#2	NE SE 2-12-32	11228
118	The Texas Co.		~~State BB~~ NCT-1	#2	SE SW 11-12-32	11228
119	The Texas Co.		State BH NCT-1	#3	SW NW 11-12-32	11272
120	The Texas Co.		State BH NCT-1	#4	NW NW 11-12-32	11235
121	Texas Pacific Coal & Oil Co.		State NM E ac/1	#1	NE SW 2-12-32	11310
[illegible]HOLS POOL						
[illegible]	Shell Oil Co.		State A	#3	SW SW 2-11-37	11750
[illegible]	The Texas Co.		State AR	#2	NW SW 2-11-37	11698
[illegible]RDIOLA ~~POOL~~						
[illegible]	Gulf Oil Corp.		Lea State AV	#2	SW NW 19-12-38	11955

ILLEGIBLE

		State H	#1			

11,000 to 12,000

	Amerada Pet. Corp.	Ward	#1	SW SE	13-13-38	11690

	Amerada Pet. Corp.	State ECC	#2			
	Amerada Pet. Corp.	State ECF	#1			
	Amerada Pet. Corp.	Posey A	#4			
	Amerada Pet. Corp.	State ECH	#1			
	Shell Oil Co.	State ECA	#1			
	Shell Oil Co.	State ECA	#2	NE SE	2-12-32	11228
	The Texas Co.	State BB NCT-1	#2	SE SW	11-12-32	11328
119	The Texas Co.	State BH NCT-1	#3	SW NW	11-12-32	11272
120	The Texas Co.	State BH NCT-1	#4	NW NW	11-12-32	11235
121	Texas Pacific Coal & Oil Co.	State BM E ac/1	#1	NE SW	2-12-32	11310

ECHOLS POOL

122	Shell Oil Co.	State A	#3	SW SW	2-11-32	11750
123	The Texas Co.	State AR	#2	NW SW	2-11-32	11698

GLADIOLA POOL

124	Gulf Oil Corp.	Lea State AV	#2	SW NW	10-12-38	11955

157831

ILLEGIBLE

10,000 to 13,000 15

POOL

	Magnolia Pet. Co.	Santa Fe Pacific E	#1	SW SW 23-9-36	12212	

POOL

	[illegible] Oil & Rfg. Co.	Dickinson A-1	#2	NW SW 1-15-37	12571	12474
	[illegible] Corp.	Simpson et al	#2	SE SE 3-15-37	12500	11960
128	Gulf Oil Corp.	Simpson et al	1-D	NE SE 3-15-37	12131	12026
129	Ralph Lowe	Dickinson D	#5	NE NW 35-14-37	12475	12160
130	Ralph Lowe	Dickinson D	#6	NE SW 35-14-37	12560	12569
131	Magnolia Pet. Co.	Pope	#4	SW SW 26-14-37	12640	12305
132	Magnolia Pet Cp.	Pope	#6	NW SE 26-14-37	12630	12096
133	Magnolia Pet. Co.	Pope	#5	SW NE 35-14-37	12343	12010
134	Shell Oil Co.	Priest	#3	NE NW 1-15-37	12650	12536
	Shell Oil Co.	Pacific Royalty	#1	NE NE 10-15-37	12635	12128
135	Shell Oil Co.	Shelton	#1	SE NW 26-14-37	12876	12432
136	Sinclair Oil & Gas Co.	Whitman	#2	NW NE 26-14-37	12660	12466
137	Sinclair Oil & Gas Co.	Pope	#1	SW SW 36-14-37	12640	12460
138	Sinclair Oil & Gas Co.	Whitman	#1	SW NE 26-14-37	12575	12352

15- 18098- 11-7151-V

13,000 to 14,000

ANDERSON RANCH DEVONIAN POOL

139	Continental Oil Co.	Anderson Ranch Unit	#2	NE NW 11-16-32	13703	13342
140	Continental Oil Co.	Anderson Ranch Unit	#3	NE NE 11-16-32	13540	13370

2- 27243- V-26752

Yours truly,

OIL CONSERVATION COMMISSION

BY L. A. Hanson
L. A. Hanson
Oil & Gas Inspector

LAH/rm

ILLEGIBLE

MAIN OFFICE OCC
1954 MAY 11 AM 8:57

TIDE WATER ASSOCIATED OIL COMPANY
MID-CONTINENT DIVISION
P. O. Box 972
Roswell, New Mexico

May 10, 1954

W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Bill,

We have recently received one copy of a tabulation of well cost furnished the Commission by operators in conjuction with Case 608 and would you be so kind as to send us 10 more copies so same may be distributed to personel in our Houston, Midland, and Tulsa offices who work with such information.

We noticed on the docket for April 14, 1954, that Case 608 was to be heard and wondering if it was again postponed to permit the Commission to gather additional data.

Thanking you in advance for this favor, we remain,

Very truly yours,

Tide Water Associated Oil Company

R. C. Powless

By: R. C. Powless

RCP:pht

Photostat
5-18-54

Put case in 608 file

COPY OF PROPOSED PETITION - - LEA COUNTY OPERATORS

To: The Oil Conservation Commission
of the State of New Mexico,
Santa Fe, New Mexico

In re: Proposed changes in Section B, Rule 505 of the Rules and Regulations adopted by the New Mexico Oil Conservation Commission.

Gentlemen:

The undersigned group are all owners of mineral interests located within Southeastern New Mexico and as such are vitally interested in any proposed change in Section B, Rule 505 of the Rules and Regulations of the Commission and in view of the fact that the Commission is reconsidering the existing rule, the undersigned respectfully submit as their proposal and for the consideration of the Commission the following as a depth factor to be used in the calculation of allowables at the various depth ranges from which oil and gas are produced within Eastern New Mexico, to-wit:

Pool Depth Range	40 Acre Proportional Factor	80 Acre Proportional Factor
0-3000'	1.00	
3000-4000'	1.25	
4000-5000'	1.50	2.50
5000-6000'	1.75	2.75
6000-7000'	2.00	3.00
7000-8000'	2.50	3.50
8000-9000'	3.00	4.00
9000-10,000'	3.77	4.77
10,000-11,000'	4.67	5.67
11,000-12,000'	5.67	6.67
12,000-13,000'	6.75	7.75
13,000-14,000'	8.00	9.00

It is the opinion of the undersigned that the above formula will equitably support a unit base allowable of approximately thirty-six barrels of oil per day per proration unit and in so doing will allow the operators a more equitable pay-out for wells ranging between 3,000 feet and 8,000 feet and will protect wells below 8,000 feet although their daily allowable will be considerably reduced from the existing allowable. The record of pay-Outs of these wells below 8,000 feet shows that the factors now being used under Rule 505, Section B, allow the operators to recoop their development cost in a more rapid rate than any other production at upper depths.

In this connection the undersigned would show the Commission that there are only a few wells, less than ten, completed at a depth of less than 3,000 feet that are capable of making the top allowable under the provisions of Rule 505, Section B, at the present time. Hence, the adoption of the proposed change would not in any way affect the production of producers producing from a depth of less than 3,000 feet.

The undersigned feel that since the elimination of the provision previously in force establishing a minimum allowable, many of the producers from the depths of 5,000 feet and above have felt insecure in that the Commission montly establishes an allowable without any control as to the minimum which any well may be allowed to produce. The producers of crude from the shallow depths, that is, above 5,000 feet are at the mercy of the producers from the greater depths below 5,000 feet in that their multiple allowable factor now being used under Rule 505, Section B, will in the main afford them an economical recovery from their wells regardless of the base allowable fixed by the Commission from month to month. This is not true of the shallow producers. In view of the above, we recommend that a minimum base allowable of thirty barrels per production unit in the event of discovery and the unit being capable of producing.

In this connection the undersigned producers realize the need of a bonus allowable or premium allowable in favor of the deep producers as well as the discoverers of new oil pools and it is our belief that some provision should be made to Rule 505 authorizing the discoverer or discoverers of a new pool a premium allowable for the first four or five wells completed in the area to assist in compensating these producers for the unusual and abnormal drilling costs incurred in the drilling and completing of a well capable of producing oil and gas in wildcat territory. This premium factor should, to a certain extent, be patterned under and in conformity with the factors set out in this proposal as the factors to be used in lieu of the existing Section B of Rule 505.

It is the opinion of the undersigned that the production records in the possession of the Commission will clearly substantiate that the proposed change to Rule 505, Section B, used in connection with a minimum allowable provision and a discoverer's premium provision, will more equitably protect all producers of oil and gas and at the same time will offer an incentive for further exploration within this State.

The undersigned respectfully petition the Commission to seriously consider the proposals set out above and after such consideration should the Commission desire to do so, and in their wisdom feel such action necessary, et the matter for public hearing.

Respectfully submitted,

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

Transcript of Proceedings

Case No. 608

Regular Hearing
February 17, 1954

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9845 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
at
Santa Fe, New Mexico
February 17, 1954

In the Matter of:	
Application of the Oil Conservation Commission upon its own motion for an order revising Rule 505, Paragraph (b), of the Commission's Rules and Regulations, pertaining to proportional factors used in allocating oil allowables.	Case No. 608

MR. SPURRIER: Does anyone have any testimony to present at this time on Case 608?

MR. MADULE: Ross Madule for Magnolia. If the Commission please, the figures that the Commission was to compile as to the cost of the various wells at the various depths has not been released and not been furnished. For that reason, we think that the matter should be continued so we could have the benefit of the figures, and be able to present testimony as a result of that compilation.

MR. SPURRIER: Anyone else?

MR. MACY: We have received, Mr. Spurrier, the information, cost information on 140 wells, total wells, and some of this information was received in the last two or three days. It is our thought that the companies, in order to expedite the matter, should have this information presented to them before the next hearing so they could go over it, and we can settle the matter at the hearing next month. Therefore, I would like to concur in Mr. Madule's request for continuance.

MR. SPURRIER: Anyone else? Is there objection to Mr. Madule's and Mr. Macy's motion? If not, the Case 608 will be continued to the regular March hearing which is March 17th.

STATE OF NEW MEXICO)
:
COUNTY OF BERNALILLO)

I HEREBY CERTIFY that the foregoing and attached transcript of hearing in Case No. 608 (Continued) before the Oil Conservation Commission, State of New Mexico, at Santa Fe, on February 17, 1954, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 20th day of February 1954.

Ada Dearnley
COURT REPORTER

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 105-106, EL CORTEZ BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO

SUN OIL COMPANY

SOUTHWEST DIVISION

RIO GRANDE NATIONAL BUILDING

DALLAS 2, TEXAS

S. M. GLADNEY
MANAGER

T. F. HILL
ASSISTANT MANAGER

JOHN A. RITTER
SUPT. OPERATING DEPT.

December 8, 1953

Mr. R. R. Spurrier
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Sir:

I have a copy of docket for the regular hearing December 17th and note Case (608) calls for revising Rule 505, Paragraph B, of the Rules and Regulations.

Would you please advise me what change you wish to make in this rule so that I can discuss it with the Management here prior to the hearing.

Yours very truly,

A R Ballou

ARB: oms

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
RECEIVED
DEC 10 1953

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO
at
Santa Fe, New Mexico
December 17, 1953

In the Matter of:	
Application of the Oil Conservation Commission upon its own motion for an order revising Rule 505, Paragraph (b), of the Commission's Rules and Regulations, pertaining to proportional factors used in allocating oil allowables.	Case No. 608

(Notice of Publication read by Mr. Graham).

MR. GRAHAM: Mr. Macy, do you have a preliminary statement to make?

MR. MACY: At the request of the Commission the Commission staff has compiled a list of wells and the various depth ranges that were drilled during the year 1953. These wells were all considered to be an average well in the pool. They were picked solely because they involved normal completion practices; didn't have any fishing jobs or lengthy day work. It is the intention to obtain this list of wells in order to get cost figures to determine the relationship between the cost of drilling wells in the various depth ranges. There is a lot of wells on this list. It is - - there are upwards of 25 in the zero to five thousand bracket, and at the most 15 each of the other brackets, wherein some cases it was not possible for us to get 15 wells in the deeper brackets, because there had not been that many wells drilled. I would like to introduce this list of wells into the record, and suggest that we supply the operators with a copy of this list and contact each operator and request that

the cost information be obtained on each well, if possible.

MR. SPURRIER: Is there any objection to the introduction of this list into testimony? Without objection it will be admitted. Does anyone have a comment at this time on this case?

MR. CHRISTIE: Mr. R. S. Christie, Amarada. I presume, then, the case will be continued and allow the companies opportunity to furnish you with the information that you have requested?

MR. MACY: That is the intention, Mr. Christie. We realize it is going to take us a little while to get this information together and tabulate it. There may be some wells, incidentally, on the list which were put on here erroneously. By that I mean we made a quick summary of it and determined that the cost of the wells in all probabilities was an average cost, but we could be wrong. For that reason I think that every operator on the Commission's mailing list should get a copy of the list so they will know what we are talking about. Next month, if possible, if we have got the data, we can compile the data and have it available for every one at the hearing to take a look at.

MR. HINKLE: Mr. Hinkle, representing Humble. Does that list include any wildcat wells?

MR. MACY: No, sir, it does not.

MR. SPURRIER: Do you move continuance to the January 20th hearing?

MR. MACY: Yes, sir.

MR. SPURRIER: Is there objection to continuing this case to the January 20th hearing?

MR.SELINGER: May I suggest that the matter be set off at least

sixty days, because of the large amount of work involved at the end of the year. I doubt if there would be sufficient time for the Commission's staff to assemble all this data. I believe it would be more advisable to have it set over to the February hearing.

MR. SELINGER: My name is Selinger with Skelly - -

MR. SPURRIER: Are you withdrawing your motion?

MR. MACY: I would like to get it cleared up. You mean it would take the companies a while to get the information to us?

MR. SELINGER: In some instances the companies don't get information on wells for three or four months, complete expenditures in for at least three or four months. You may have some recently completed wells. If you do you may not even get the information in in the February hearing.

MR. MACY: That is true. I will concur with Mr. Selinger's recommendation.

MR. HILTZ: Mr. Hiltz, Stanolind. Will the Commission, in issuing that list of wells,advise the operators what costs are to be included?

MR. MACY: Yes.

MR. SPURRIER: Is there any objection to continuing this to the regular February hearing, then? If not the case will be continued to the regular February hearing. The next case on the docket is Case No. 609.

STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

I HEREBY CERTIFY that the foregoing and attached transcript of hearing in Case No. 608 (Continued) before the Oil Conservation Commission, State of New Mexico, at Santa Fe, on December 17, 1953, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 30th day of December, 1953.

Ada Dearnley
COURT REPORTER

MISTAKES

Cy 3
Case
608

SUBJECT: CASE 608

Attached is a tabulation of well costs furnished the Commission by operators in conjunction with Case 608. Extra copies of the tabulation may be obtained from this office upon request.

DEPTH RANGE - 0 - 5000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
1	1992	$9945.98	$7646.12	$1014.62	$18606.72
2	1971	9466.62	6837.26	979.01	17282.89
3	1997	9085.41	10046.34	1200.03	20331.78
4	1949	9194.33	9438.27	280.56	18913.16
5	1977	8561.32	10412.22	1108.55	20082.09
6	2831	12456.80	8392.92		20849.72
7	2736	16080.08	16855.93	2642.92	35528.93 ~~35578.83~~
8	3550	36492.00	18933.00	-	55425.00
9	3573	31393.97	11213.32	15698.74	58306.03
10	3752	33725.00	19677.00	-	53402.00 51402.00
11	3760	17466.66	13347.54	13050.16	43854.36
12	3228	24376.00	10831.00	-	35207.00
13	3626	20625.00	16949.00	4303.00	41877.00
14	3482	21650.00	27989.00	3176.00	52815.00
15	3455	19179.42	10381.10	4939.78	34500.30
16	3404	16583.39	16897.18	11341.77	44822.34
17	3380	18807.74	11140.05	8464.87	38412.66
18	3690	15387.00	5290.10	5989.72	26666.82
19	3630	23182.00	12526.00	-	35708.00
20	3925	23094.00	15657.65	10676.53	49428.18
21	3879	34038.00	14323.00	-	48361.00
22	3846	28309.72	14886.50	1392.94	44589.16

Depth Range - 0 - 5000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
23	4454	$32126.29	$15391.14	$2204.14	$49721.57
24	4462	30969.78	15322.51	2226.37	48518.66
25	4470	27531.00	22916.00	1612.00	52059.00
26	4471	38521.00	12310.00	2030.00	52861.00
27	4479	29363.36	20759.23	8772.69	58895.28
28	4465	31324.50	21859.81	8063.00	61247.31
29	4310	34446.00	13135.00	1423.00	49004.00 50004.00
30	4313	29633.00	14637.00	1092.00	45362.00 45462.00
31	4310	38483.00	15255.00	1410.00	55148.00
32	4278	22096.54	14647.00	741.23	37484.77
33	4340	22000.00	18000.00	9200.00	49200.00
34	4459	24300.00	18600.00	3800.00	46700.00
		DEPTH RANGE: 5000 - 6000			
35	5711	49895.16	35173.34	47037.66	132106.16
36	5710	61854.00	25045.00	-	86899.00
37	5720	76659.00	71388.00	3243.00	151290.00
38	5700	72618.00	30916.00	-	103534.00
39	5714	57463.00	23767.00	8141.00	89371.00
40	5700	65200.00	34662.00	8165.00	108027.00
41	5690	132852.00	41670.00	14839.00	189361.00
42	6015	49756.00	20658.00	4777.00	75191.00
43	5970	56383.00	17801.00	109.00	74293.00
44	5080	32952.06	20863.40	12489.02	66304.48

DEPTH RANGE - 0 - 5000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
1	1992	$9945.98	$7646.12	$1014.62	$18606.72
2	1971	9466.62	6837.26	979.01	17282.89
3	1997	9085.41	10046.34	1200.03	20331.78
4	1949	9194.33	9438.27	280.56	18913.16
5	1977	8561.32	10412.22	1108.55	20082.09
6	2831	12456.80	8392.92		20849.72
7	2736	16080.08	16855.93	2642.92	35578.83 → 35528.93
8	3550	36492.00	18933.00	-	55425.00
9	3573	31393.97	11213.32	15698.74	58306.03
10	3752	33725.00	19677.00	-	51402.00 → 53402.00
11	3760	17466.66	13347.54	13050.16	43854.36
12	3228	24376.00	10831.00	-	35207.00
13	3626	20625.00	16949.00	4303.00	41877.00
14	3482	21650.00	27989.00	3176.00	52815.00
15	3455	19179.42	10381.10	4939.78	34500.30
16	3404	16583.39	16897.18	11341.77	44822.34
17	3380	18807.74	11140.05	8464.87	38412.66
18	3690	15387.00	5290.10	5989.72	26666.82
19	3630	23182.00	12526.00	-	35708.00
20	3925	23094.00	15657.65	10676.53	49428.18
21	3879	34038,00	14323.00	-	48361.00
22	3846	28309.72	14886.50	1392.94	44589.16

Depth Range 6000 - 7000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
45	6878	$70104.00	$42411.00	$ 1888.00	$114403.00
46	6700	55425.00	36378.00	10913.00	102716.00
47	6900	63454.00	28655.00	-	92109.00
48	7020	71547.00	34377.00	3121.00	109045.00
49	6800	44202.29	31783.38	22692.92	98678.59
50	7009	52249.12	31698.20 (38242.20)	24338.27	108285.59
51	6500	47261.21	26587.23	16092.74	89941.18
52	7125	51001.11	35438.30	37126.73	123566.14
53	7110	42783.74	25498.44	20249.29	88531.47
54	6280	50308.55	52634.80	21575.41	124518.76
55	6250	43179.20	53472.15	14590.54	111241.89
56	6230	47400.00	33500.00	22780.00	103680.00
57	6275	52325.00	50758.00	10587.00	113670.00
58	6279	74112.00	34671.00	-	108783.00
59	6150	38895.00	34571.00	5434.00	78900.00
		DEPTH RANGE 7000 - 8000			
60	7990	79988.00	44264.00	3883.00	128135.00
61	8127	96481.00	54657.00	5390.00	156528.00
62	8114	84004.00	40140.00	-	124144.00
63	8285	102425.00	46877.00	-	149302.00
64	8033	84032.00	32674.00	2391.00	119097.00
65	7575	139238.00	39872.00	-	179110.00
66	7193	61198.00	26704.00	3429.00	91331.00
67	7443	58400.00	37000.00	20800.00	116200.00

Depth Range 8000 - 9000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
68	8285	$111921.00	$50021.00	$4957.00	$166899.00
69	8700	81910.00	52126.00	4977.00	139013.00
70	8780	117304.00	62966.00	5720.00	185990.00
71	9022	136007.00	40856.00	13930.00	190793.00
72	8650	143855.00	40509.00	-	184364.00
73	8468	69386.97	55042.61	23613.44	148043.02
74	8440	67738.12	42010.51	16413.50	126162.13
75	8460	115267.00	26058.00	13350.00	154675.00
76	8429	91998.00	31175.00	-	123173.00
77	8534	83024.00	49638.00	3300.00	135962.00
78	8530	80532.00	41206.00	2844.00	124582.00 (124402.00)
79	8525	82365.00	45379.00	2681.00	130425.00
80	8470	79871.00	39547.00	2058.00	121476.00
81	8470	70189.00	41357.00	11932.00	123478.00
82	8810	92116.56	29120.46	27381.13	148618.15
		DEPTH RANGE 9000 - 10,000			
83	9980	122503.00	55961.00	-	178464.00
84	9171	106043.89	40181.16	27879.46	174104.51
85	9639	215408.00	29407.00	31985.00	276800.00
86	9602	94562.00	29549.00	11966.00	136077.00
87	9212	103948.63	55300.48	5608.95	164858.06

Depth Range 9000 - 10,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
88	9438	$141348.50	$56510.43	$82225.36	$280084.29
89	9820	85683.00	42299.00	2357.00	130339.00
90	9760	64205.08	47431.49	21474.25	133110.82
91	9469	101366.00	51407.00	51827.00	204600.00
92	9905	94836.53	74927.29	-	169763.82
93	9743	120586.00	41634.00	4994.00	167214.00
94	9730	64549.02	52154.12	21725.76	138428.90
95	9755	81546.46	42873.63	21475.06	145895.15

DEPTH RANGE 10,000 - 11,000

96	10750	111402.90	58361.55	17856.55	187621.00
97	19756	108693.27	55710.17	22684.13	187087.57
98	10727	137985.00	48587.00	-	186572.00
99	10736	149250.00	46325.00	-	195575.00
100	10755	130006.00	48587.00	-	178593.00
101	10570	170219.00	71889.00	6630.00	248738.00
102	10295	180492.00	49746.00	3589.00	233827.00
103	10430	213624.00	56531.00	8238.00	278393.00
104	10650	108039.70	43472.03	21612.64	173124.37
105	10671	103871.72	49557.42	25447.72	178876.86
106	10593	134154.77	60955.97	28226.27	223337.01
107	10577	140541.74	62314.42	24121.11	226977.27

Depth Range 10,000 - 11,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
108	10600	$96301.01	$51044.73	$25503.41	$172849.15
109	10585	129055.38	49144.33	10188.78	188388.49
110	10600	146000.00	60700.00	34800.00	241500.00
		DEPTH RANGE 11,000 - 12,000			
111	11890	143911.08	58945.57	21989.04	224845.69
112	11228	154634.35	45422.10	18600.00	218656.45
113	11302	146703.45	48694.25	19217.34	214615.04
114	11255	124994.62	52791.07	27621.16	205406.85
115	11250	124782.06	56595.50	20496.87	201874.43
116	11230	144700.00	55600.00	26300.00	226600.00
117	11228	172300.00	51900.00	36900.00	261100.00
118	11228	120576.40	42937.00	31775.84	195289.24
119	11272	114389.98	45820.06	31916.10	192126.14
120	11235	107899.94	57160.22	27666.41	192726.57
121	11310	188112.10	52970.78	30025.20	270108.08 (270108.08)
122	11750	118200.00	59500.00	29300.00	207000.00
123	11698	115882.91	45627.02	32328.64	193838.57
124	11955	173677.00	96817.00	5583.00	276077.00
		DEPTH RANGE 12,000 - 13,000			
125	12212	205184.00	39344.00	8435.00	252963.00
126	12571	203618.00	126336.00	15364.00	345318.00

Depth Range 12,000 - 13,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
127	12500	$193544.00	$112896.00	$6065.00	$312505.00
128	12131	194670.00	79286.00	4694.00	278650.00
129	12475	183781.05	42151.45	5530.22	231462.72
130	12560	173850.76	42967.09	4567.09	221384.94
131	12640	304927.00	45987.00	29702.00	380616.00
132	12630	253852.00	45175.00	24173.00	323200.00
133	12343	240584.00	40192.00	7699.00	288475.00
134	12650	172400.00	58800.00	31400.00	262600.00
135	12876	213800.00	75500.00	53000.00	342300.00
136	12660	195650.00	62729.00 (62789.00)	16824.00	275203.00
137	12640	196950.00	56641.00	17994.00	271585.00
138	12575	200300.00	48224.00	17122.00	265646.00
		DEPTH RANGE 13,000 - 14,000			
139	13703	290472.00	62776.00	1583.00	354831.00
140	13540	266358.00	69996.00	-	336354.00

Depth	# wells	TS	avge TS	# wells	Depth	avge TP	
1000-2000	5	9886	1977	5	9686	1937	40
2000-3000	4	10913	2729	2	4914	2457	272
3000-4000	16	58082	3630	15	51642	3443	187
4000-5100	12	52811	4401	11	47816	4347	54
5000-6000	10	57010	5701	10	56209	5621	80
6000-7000	15	99506	6634	15	96446	6430	204
7000-8000	8	61761	7720	8	59745	7468	252
8000-9000	15	128563	8571	14	117618	8401	170
9000-10000	15	144312	9621	15	140883	9392	229
10000-11000	15	160221	10681	10	104560	10456	225
11000-12000	14	159831	11416	14	158374	11312	104
12000-13000	15	188098	12540	14	171812	12272	268
13000-14000	2	27243	13621	2	2675	13376	245

32 companies

Amerada Petroleum Corporation

Anderson-Prichard Oil Corp.

Atlantic Oil & Refining Co.

Aurora Gasoline Co.

Casper Drilling Co.

Amon G. Carter

Charm Oil Co. ✓

Cities Service Oil Co.

Continental Oil Co.

Cosden Petroleum Corp.

DeKalb Agricultural Assn., Inc

Franklin, Aston, Fair ✓

Fullerton Oil Co.

Gulf Oil Corp

Humble Oil & Refining Co.

Lawton Oil Corp

Leonard Oil Co.

Lion Oil Co ✓

Ralph Lowe

Magnolia Petroleum Co.

Males, Lester & Yates ✓

Ohio Oil Co.

Neville G. Penrose, Inc.

Pure Oil Co.

Republic Natural Gas & Seaboard Oil Co.

Sameden Oil Corp.

Shell Oil Co

Sinclair Oil & Gas Co.

Skelly Oil Co.

Southern Production Co., Inc.

Stanolind Oil & Gas Co.

Texas Company

Texas Pacific Coal & Oil Co.

Tidewater Associated Oil Co.

Sam K. Vierson

Wilson Oil Co.

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Charm Oil Co.
314 Carper Building
Artesia, New Mexico

No Show

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Superior	2	Eunice-Monument	3902

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Franklin, Aston & Fair
321 White Building
Roswell, New Mexico

No Show

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State-14	6	Artesia	2639

INTER-OFFICE TRANSMITTAL SLIP

TO: RRS

FROM: [illegible]

( ) For Approval
( ) For Signature
(✓) Note and Advise
( ) Note and Return
( ) For Your Files
( ) For Your Handling

Does Counsel say we have to consider it? I suggest we dismiss 608

Remarks:

Rennard is planning to get a Habbs group together to support this. He says he can get the Eddy Co. operators to back it. He requests us to hold up on our order on 608 + determine if we need to Readvertise possibly in June.

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

~~Lion Oil Co.~~ MR. H.T. Hilliard
~~P. O. Box 192~~ Ashmun & Hilliard
~~Snyder, Texas~~ Box 1374
Midland - Tex
} No Show

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State	1-B	Lazy J	9718

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Malco, Resler & Yates
Carper Building
Artesia, New Mexico

No Show

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Dunn B	8	Artesia	2717

Worn

Wilson Oil Company

INCORPORATED UNDER THE LAWS OF NEW MEXICO

MAIN OFFICE OCC

1954 MAR 24 AM 8:38

P. O. BOX 627
SANTA FE, NEW MEXICO
TELEPHONE 66

March 22, 1954

Mr. W. B. Macey
N. M. Oil Conservation Commission
Box 871
Santa Fe, New Mexico

RE: Oil Conservation Commission Case No. 608

Dear Bill:

It is my understanding that Case 608 will be carried over and heard on April 14, 1954, and probably Shell, Amerada, Buffalo and Gulf may submit testimony. If my memory is correct, Phillips made no comment as to the submitting of testimony.

In connection with the continued hearing, I would like an opportunity to examine the transcript of the hearing on March 17. I am particularly interested in the factors read into the record by Judge Foster of Phillips. If you have this information available, I would appreciate the opportunity of examining the same.

From my memory of the hearing, I would say that the factors you proposed are certainly in line, with the possible exception of below 13,000', and which exception is based on the fact that the information from only two wells is available. In my opinion, this is a small item since the trend of the curve is already established.

Any information which you might have in connection with the case would be certainly appreciated.

Sincerely yours,

Raymond

Raymond Lamb

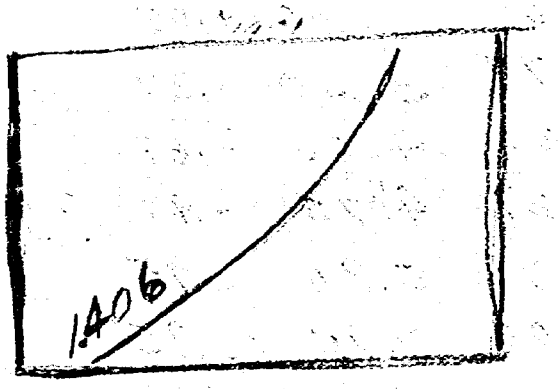
RL:lg
cc: Wilson Oil Company
Santa Fe, New Mexico

Dooo	Old	new	diff	%
5-6	1.33	1.70	+.37	+28
6-7	1.77	2.15	+.38	+21
7-8	2.33	2.60	+.27	+8.6
8-9	3.00	3.05	+.05	+1.6
9-10	3.77	3.50	-.27	-7.0
10-11	4.67	4.00	-.67	-14
11-12	5.67	4.75	-.92	-16
12-13	6.75	5.80	-.95	-14
13-14	8.00	7.15	-.85	-10

MEMORANDUM

From: R. R. SPURRIER

To: _____



OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

April 8, 1954

Mr. George Singletary
Railroad Commission of Texas
Oil and Gas Division
Tribune Building
Austin, Texas

Dear Mr. Singletary:

Dusty Rhodes said you needed the transcript on our Case 608 relating to proportional depth factors. Enclosed is the transcript from the rather extensive hearing on March 17. As you will note from the docket, the case was continued to the April hearing, and I am making a note to send you the additional record as the case is resolved.

Sincerely,

OIL CONSERVATION COMMISSION

COPY

PHONE 3-4318
3-5701

R. G. McPHERON
HOBBS, NEW MEXICO

103 EAST TAYLOR
BOX 176

MAIN OFFICE OCC
1954 APR 19 AM 10:27

April 14, 1954

Mr. R. R. Spurrier, Secretary & Director
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Sir:

A group of Independent Operators producing oil and gas in Lea County, New Mexico, are quite concerned over the proposed changes in Section B, Rule 505, pertinent to the acreage proportional factors and the pool depth range.

It is their opinion that the base depth range should be reduced 0-4000 to 0-3000 feet. The following table for calculating allowables at the various depth ranges is submitted for your consideration:

Pool Depth Range	40-Acre Proportional Factor	80-Proportional Factor
0-3000'	1.00	
3000-4000'	1.25	
4000-5000'	1.50	2.50
5000-6000'	1.75	2.75
6000-7000'	2.00	3.00
7000-8000'	2.50	3.50
8000-9000'	3.00	4.00
9000-10,000'	3.77	4.77
10,000-11,000'	4.67	5.67
11,000-12,000'	5.67	6.67
12,000-13,000'	6.75	7.75
13,000-14,000'	8.00	9.00

This formula will equitably support a unit base allowable of approximately 36 BOPD and provide more equitable payouts for wells ranging between 3000 and 8000 feet and also establish an equitable payout for wells below 8000 feet although their daily allowable will be considerably reduced.

It will be appreciated very much if you will give the above formula consideration in the matter of changing that portion of the Rule.

Yours very truly,

R. G. McPheron

RGM/mm

ILLEGIBLE

MAIN OFFICE
GULF STATES BLDG.
DALLAS, TEXAS

Buffalo Oil Company

A MARYLAND CORPORATION
NEW MEXICO DISTRICT
CARPER BUILDING
Artesia, New Mexico
Box 686

MAIN OFFICE OCC
APR 9 AM 8:11

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Buffalo EXHIBIT No. 1
CASE 608

April 7, 1954

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Sirs:

The Buffalo Oil Company wishes to make a statement regarding Case #608 where consideration is being given to revising depth factors used in allocating oil allowables.

We are primarily a shallow well operator and at the present time 94.5% of our wells in New Mexico are above 5000' deep. However, we have 4.1% in the range of 5000 to 6000' and 1.4% in the range 13,000 to 14,000'. So, we do have a knowledge of operating conditions and costs for shallow wells,as well as extremely deep wells.

With reference to the proportional factors now proposed by the Commission for the depth bracket of 13,000 to 14,000' it has previously been testified that only two wells costs were considered to represent this bracket and both of these are in one pool. We believe that the pool used is one of extremely low cost for this depth, and that future development in this bracket will show that average well costs will be substantially greater. In the Maljamar-Devonian Pool which is below 13,554', the cost for the discovery well was $524,135.51, not including battery or geophysical exploration cost. More than two years later, the second Devonian test is being drilled in this area and drilling has progressed far enough at this time to make a fairly accurate prediction of final well cost, barring any unusual difficulties. It is estimated that the second well cost will reach $495,787. These costs are substantially higher than costs reported to the Commission in this bracket, chiefly due to drilling conditions being more difficult in the Maljamar area, and also due to a much greater number of possible pay zones. This requires that a large amount of coring, drill stem testing, and logging be performed in order to assure that no pays will be over-

looked and to allow an accurate evaluation of pays existing.

The Commission has made a comparison of what it considers as representative well costs for the various depth brackets and has proposed new factors which it believes would allow equal well payouts. These estimates disregarded several factors that would tend to change payouts. No consideration was given to operating cost, taxes, or to cost incurred in geophysical exploration. All of these factors may be much greater for deep wells than for the shallow wells. It is our opinion that the actual average well payouts will be substantially different than calculated by the Commission and that greater differences will exist for the deeper wells.

If the independents are to participate in deeper drilling in the State, then it becomes evident that higher allowables are needed for the deep brackets to insure a more favorable payout.

We believe that curtailment of allowables on wells below 10,000' to the extent as proposed by the Commission will tend to discourage operators from drilling deeper tests and in so doing will be a detriment to the State.

The Buffalo Oil Company accordingly urges the Commission to retain the present depth factors.

Yours very truly,

BUFFALO OIL COMPANY

By H Ellis
Vice President in charge of
Production

RLG:lt

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Southeastern New Mexico Producers Association
EXHIBIT No. 1
CASE 608

New Mexico Oil Conservation Commission

Santa Fe, New Mexico

Gentlemen:

We, the undersigned, have made a careful study of the Commission's well costs, payouts, and proportional depth factors for computing the oil allowable. We find some inequities in regard to the length of time required for a "payout" under the present system.

It is our opinion that the length of "payout" should be essentially equal or uniform. We, therefore, commend the Commission and its staff for reviewing the question and attempting to resolve the inequalities. However, we deem the present proration plan for wells shallower than 5000 feet to be fully satisfactory and not to require adjusting.

The majority of New Mexico's production to date has come from the pools at depths less than 5000 feet.

The small business enterprise has been the cornerstone of the nation's growth. Small business enterprises can only operate in the depth ranges to 5000 feet. To this group belong the wildcatters who have been responsible for many discoveries. Reducing the allowable for the 0-5000 foot depth range would seriously curtail wildcatting. It would be ill-advised to tamper with the energy, industry, and livelihood of the operators in this group.

The "payout" time for a 3500 foot well is 1.247 years - just slightly under the average 1.406 years which figure the Commission calculated for all depths over 5000 feet. The "payout" time for a 4500 foot well is 1.503 years - over the average 1.406 years. In the group of wells from 0-3000 feet deep, it is true that top allowable wells with 36 gravity oil would "payout" quickly, but these are seldom found in New Mexico. In this depth range, exclusive of the southern tip of the Central Basin platform where some fields straddle the 3000 foot mark, we are looking at only 39 top allowable wells so that the present proration volume is not an important factor. The incentive and assistance of present proration practice for a small operator is of far greater consequence than the reallocation of a few barrels of oil.

Further, we deem a "minimum" top unit allowable as an essential portion of our proration rules and regulations. The old rules provided a "minimum" of 30 BOPD for wells under 5000 feet and provided a formula for

allocation of production in the depths over 5000 feet whenever the "normal" top unit allowable fell below 30 BOPD. For some reason this provision was deleted from the revised rules and regualtions. A formula is not needed now inasmuch as the present proration derives from the top unit allowable.

We submit that a new paragraph be added to rule 505 permitting any well, capable of so-doing, to produce a minimum of 30 BOPD in the event that the "normal" top unit allowable set by the Commission in any period is less than said figure.

Signed this 13 day of April, 1954.

Company	Representative - Title
Edward E. Kinney	Edward E. Kinney
Casper Drilling Co, Inc.	Theodore Rowley Vice-Pres.
Kincaid & Watson Drlg Co	Jim Watson - Partner.
Colton Brothers	C.H. Colton Partner
Robert E. McKee Inc	J.C. Lund Mgr oil Division
V. S. Heleh	Independent Oil Producer
Jerry Curtis	Jerry Curtis
Ralph Nix	Ralph Nix.
Resler Oil Company	Silas P. Shelton
Yates Bros. Oil Co.	John A Yates
Monroe Yates III	
Harvey E Yates	
Barney Cockburn	by C. J. Barnes

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

May 3, 1954

Mr. George Singletary
Oil and Gas Division
Railroad Commission of Texas
AUSTIN, TEXAS

Dear Mr. Singletary:

Enclosed is the transcript on our Case 608 (relating to proportional factors in deep-pool adaptation) from the hearing on April 28, 1954. At the conclusion of this hearing, the case was taken under advisement pending the issuance of an order, so this will complete your transcript file. We will send you a copy of the order in the case as soon as it is issued.

Sincerely,

NR

C
O
P
Y

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

May 14, 1954

Mr. H. G. Schnert, jr.
Sohio Petroleum Company
Box 2007
MIDLAND, TEXAS

Dear Sir: RE: OCC Case 608

The Commission's chief engineer, W. B. Macey, asked that the attached letter be sent to you in line with your request of May 7, 1954, for information related to a tabulation issued in the captioned case.

The list of wells with locations was not printed, but was introduced as an Oil Conservation Commission in the case. No extra copies are available, but the attached letter is an informal copy of the original exhibit. We would like very much to have this returned for our case file. However, Mr. Macey thought you might like to make a copy for your own studies, and you are welcome to do so, returning this copy to us at your convenience.

Very truly yours,

For W. B. Macey

WBM:mr

Encl.

COPY

SOHIO

MAIN OFFICE

SOHIO PETROLEUM COMPANY

PRODUCTION DEPARTMENT

1954 MAY 10 AM 9:31

MIDLAND DISTRICT

May 7, 1954

BOX 2007
MIDLAND, TEXAS

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sirs:

At the last mailing of cases you submitted a tabulation of well costs for Case #608. On it are listed only wells numbered as such. The locations of these wells, of course, are not indicated. You indicated that extra copies of this tabulation could be obtained upon request. I am wondering if there is a page missing from my copy in which the names of the wells and their locations are indicated.

I would appreciate hearing from you in this matter. Please do not go to any research in investigating the locations of these wells as I am only interested if there has already been something published.

Thank you very much for your consideration.

Very truly yours,

H. G. Sehnert, Jr.
District Geologist
Midland District

HGS:JR:epk

Cool 60 Acre Rule

COPY OF PROPOSED PETITION - - LEA COUNTY OPERATORS

To: The Oil Conservation Commission
of the State of New Mexico,
Santa Fe, New Mexico

In re: Proposed changes in Section B, Rule 505 of the Rules and Regulations adopted by the New Mexico Oil Conservation Commission.

Gentlemen:

The undersigned group are all owners of mineral interests located within Southeastern New Mexico and as such are vitally interested in any proposed change in Section B, Rule 505 of the Rules and Regulations of the Commission and in view of the fact that the Commission is reconsidering the existing rule, the undersigned respectfully submit as their proposal and for the consideration of the Commission the following as a depth factor to be used in the calculation of allowables at the various depth ranges from which oil and gas are produced within Eastern New Mexico, to-wit:

Pool Depth Range	40 Acre Proportional Factor	80 Acre Proportional Factor
0-3000'	1.00	
3000-4000'	1.25	
4000-5000'	1.50	2.50
5000-6000'	1.75	2.75
6000-7000'	2.00	3.00
7000-8000'	2.50	3.50
8000-9000'	3.00	4.00
9000-10,000'	3.77	4.77
10,000-11,000'	4.67	5.67
11,000-12,000'	5.67	6.67
12,000-13,000'	6.75	7.75
13,000-14,000'	8.00	9.00

It is the opinion of the undersigned that the above formula will equitably support a unit base allowable of approximately thirty-six barrels of oil per day per proration unit and in so doing will allow the operators a more equitable pay-out for wells ranging between 3,000 feet and 8,000 feet and will protect wells below 8,000 feet although their daily allowable will be considerably reduced from the existing allowable. The record of pay-Outs of these wells below 8,000 feet shows that the factors now being used under Rule 505, Section B, allow the operators to recoop their development cost in a more rapid rate than any other production at upper depths.

In this connection the undersigned would show the Commission that there are only a few wells, less than ten, completed at a depth of less than 3,000 feet that are capable of making the top allowable under the provisions of Rule 505, Section B, at the present time. Hence, the adoption of the proposed change would not in any way affect the production of producers producing from a depth of less than 3,000 feet.

The undersigned feel that since the elimination of the provision previously in force establishing a minimum allowable, many of the producers from the depths of 5,000 feet and above have felt insecure in that the Commission montly establishes an allowable without any control as to the minimum which any well may be allowed to produce. The producers of crude from the shallow depths, that is, above 5,000 feet are at the mercy of the producers from the greater depths below 5,000 feet in that their multiple allowable factor now being used under Rule 505, Section B, will in the main afford them an economical recovery from their wells regardless of the base allowable fixed by the Commission from month to month. This is not true of the shallow producers. In view of the above, we recommend that a minimum base allowable of thirty barrels per production unit in the event of discovery and the unit being capable of producing.

In this connection the undersigned producers realize the need of a bonus allowable or premium allowable in favor of the deep producers as well as the discoverers of new oil pools and it is our belief that some provision should be made to Rule 505 authorizing the discoverer or discoverers of a new pool a premium allowable for the first four or five wells completed in the area to assist in compensating these producers for the unusual and abnormal drilling costs incurred in the drilling and completing of a well capable of producing oil and gas in wildcat territory. This premium factor should, to a certain extent, be patterned under and in conformity with the factors set out in this proposal as the factors to be used in lieu of the existing Section B of Rule 505.

It is the opinion of the undersigned that the production records in the possession of the Commission will clearly substantiate that the proposed change to Rule 505, Section B, used in connection with a minimum allowable provision and a discoverer's premium provision, will more equitably protect all producers of oil and gas and at the same time will offer an incentive for further exploration within this State.

The undersigned respectfully petition the Commission to seriously consider the proposals set out above and after such consideration should the Commission desire to do so, and in their wisdom feel such action necessary, et the matter for public hearing.

Respectfully submitted,

PHONE 3-4315
3-5701

Case 608

103 EAST TAYLOR
BOX 176

R. G. McPHERON
HOBBS, NEW MEXICO

MAIN OFFICE OCC

April 14, 1954

1954 APR 16 AM 8:35

Mr. R. R. Spurrier, Secretary & Director
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Sir:

A group of Independent Operators producing oil and gas in Lea County, New Mexico, are quite concerned over the proposed changes in Section B, Rule 505, pertinent to the acreage prorational factors and the pool depth range.

It is their opinion that the base depth range should be reduced 0-5000 to 0-3000 feet. The following table for calculating allowables at the various depth ranges is submitted for your consideration:

Pool Depth Range	40-Acre Proportional Factor	80-Proportional Factor
0-3000'	1.00	
3000-4000'	1.25	
4000-5000'	1.50	2.50
5000-6000'	1.75	2.75
6000-7000'	2.00	3.00
7000-8000'	2.50	3.50
8000-9000'	3.00	4.00
9000-10,000'	3.77	4.77
10,000-11,000'	4.67	5.67
11,000-12,000'	5.67	6.67
12,000-13,000'	6.75	7.75
13,000-14,000'	8.00	9.00

This formula will equitably support a unit base allowable of approximately 36 BOPD and provide more equitable payouts for wells ranging between 3000 and 8000 feet and also establish an equitable payout for wells below 8000 feet although their daily allowable will be considerably reduced.

It will be appreciated very much if you will give the above formula consideration in the matter of changing that portion of the Rule.

Yours very truly,

R. G. McPheron

RGM/mm

C. MELVIN NEAL
W. D. GIRAND, JR.

KERMIT E. NASH
W. D. GIRAND, SR.

NEAL & GIRAND
LAWYERS
NEAL BUILDING
HOBBS, NEW MEXICO

TELEPHONES:
3-5171 3-5172
P. O. BOX 1336

MAIN OFFICE OCC
1954 JUN 14 AM 9:24

June 10, 1954

Case 608

Oil Conservation Commission,
Santa Fe, New Mexico

Attention: Mr. R. R. Spurrier

Gentlemen:

We are enclosing proposed change in Section B of Rule 505 of the Rules and Regulations adopted by the New Mexico Oil Conservation Commission pertaining to the unit allowable for oil wells. It is our thought in the matter that since no order has been entered on the hearing called by the Commission for the consideration of changes in Section B of Rule 505 that this petition can be considered by the Commission for whatever probative force it may afford.

Should the Commission determine that it is a matter that notice and hearing should be given and had, please advise before the case is docketed.

Very truly yours,

NEAL & GIRAND,

BY: W. D. Girand Jr.

G/cl
Encls.

To: The Oil Conservation Commission
of the State of New Mexico,
Santa Fe, New Mexico.

In re: Proposed changes in Section B, Rule 505 of the Rules and Regulations adopted by the New Mexico Oil Conservation Commission.

Gentlemen:

The undersigned group are all owners of mineral interests located within Southeastern New Mexico and as such are vitally interested in any proposed change in Section B, Rule 505 of the Rules and Regulations of the Commission and in view of the fact that the Commission is reconsidering the existing rule, the undersigned respectfully submit as their proposal and for the consideration of the Commission the following as a depth factor to be used in the calculation of allowables at the various depth ranges from which oil and gas are produced within Eastern New Mexico, to-wit:

Pool Depth Range	40 Acre Proportional Factor	80 Acre Proportional Factor
0-3000'	1.00	
3000-4000'	1.25	
4000-5000'	1.50	2.50
5000-6000'	1.75	2.75
6000-7000'	2.00	3.00
7000-8000'	2.50	3.50
8000-9000'	3.00	4.00
9000-10,000'	3.77	4.77
10,000-11,000'	4.67	5.67
11,000-12,000'	5.67	6.67
12,000-13,000'	6.75	7.75
13,000-14,000'	8.00	9.00

It is the opinion of the undersigned that the above formula will equitably support a unit base allowable of approximately thirty-six barrels of oil per day per proration unit and in so doing will allow the operators a more equitable pay-out for wells ranging between 3,000 feet and 8,000 feet and will protect wells below 8,000 feet although their daily allowable will be considerably reduced from the existing allowable. The record of pay-outs of these wells below 8,000 feet shows that the factors now being used under Rule 505, Section B, allow the operators to recoop their development cost in a more rapid rate than any other production at upper depths.

In this connection the undersigned would show the Commission that there are only a few wells, less than ten, completed at a depth of less than 3,000 feet that are capable of making the top allowable under the provisions of Rule 505, Section B, at the present time. Hence, the adoption of the proposed change would not in any way affect the production of producers producing from a depth of less than 3,000 feet.

The undersigned feel that since the elimination of the provision previously in force establishing a minimum allowable, many of the producers from the depths of 5,000 feet and above have felt insecure in that the Commission monthly establishes an allowable without any control as to the minimum which any well may be allowed to produce. The producers of crude from the shallow depths, that is, above 5,000 feet are at the mercy of the producers from the greater depths below 5,000 feet in that their multiple allowable factor now being used under Rule 505, Section B, will in the main afford them an economical recovery from their wells regardless of the base allowable fixed by the Commission from month to month. This is not true of the shallow producers. In view of the above, we recommend that a minimum base allowable of thirty barrels per production unit be established so as to afford the operators of shallow production a definite assurance of thirty barrels per production unit in the event of discovery and the unit being capable of producing.

In this connection the undersigned producers realize the need of a bonus allowable or premium allowable in favor of the deep producers as well as the discoverers of new oil pools and it is our belief that some provision should be made to Rule 505 authorizing the discoverer or discoverers of a new pool a premium allowable for the first four or five wells completed in the area to assist in compensating these producers for the unusual and abnormal drilling costs incurred in the drilling and completing of a well capable of producing oil and gas in wildcat territory. This premium factor should, to a certain

extent, be patterned under and in conformity with the factors set out in this proposal as the factors to be used in lieu of the existing Section B of Rule 505.

It is the opinion of the undersigned that the production records in the possession of the Commission will clearly substantiate that the proposed change to Rule 505, Section B, used in connection with a minimum allowable provision and a discoverer's premium provision, will more equitably protect all producers of oil and gas and at the same time will offer an incentive for further exploration within this State.

The undersigned respectfully petition the Commission to seriously consider the proposals set out above and after such consideration should the Commission desire to do so, and in their wisdom feel such action necessary, set the matter for public hearing.

Respectfully submitted,

Charles R Lyons
R G McSherry
J. W. Daniels
Leary Wise
J. Hiram Moore
R. Wolcott
B H Nolen
Nolen & Lane
Guy K Zachry
John R Murray
Malcolm Byrom
W R Byrom
Blanche Woods
T. E. Chastier
J Don Hodges
R. H. (Don) Staynes

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

July 30 1954

COPY

Miss Ada Dearnley
ADA DEARNLEY & ASSOCIATES
104 El Cortez Building
323 South 3rd Street
ALBUQUERQUE

Dear Ada: RE: Transcript in Case 608

Mr. Burt Folsom, now with the North Dakota Geological Survey, is interested in obtaining transcripts of Case 608 relating to proportional factors used in allocating oil allowables.

You will recall that considerable testimony was presented in both the March 17 and April 14, 1954, hearings. We have only our original transcripts which are for official file purposes, so I am referring his request to you for handling of his order.

We will appreciate your contacting him as to whether he wants both transcripts, and taking care of his order for him.

Thank you very much -

Nancy Royal

cc: Mr. Burth Folsom
North Dakota Geological Survey
GRAND FORKS N D

Case 608
Order No R-____

the application of the OCC upon its own motion for an order revising Rule 505, Paragraph (b) of the Commissions Rules and Regulations, pertaining to proportional factors used in allocating oil allowables.

Order of The Commission

By The Commission

This Cause came on for hearing at 9 o'clock a.m., on December 17, 1953, ~~and~~ February 17, 1954, March 17, 1954 and April 14, 1954 at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

Now, on this ____ day of ____ 1954, The Commission, a quorum being present having considered the record and testimony adduced and having and being fully advised on the premises

Finds:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, The Commission has jurisdiction of this cause and the subject matter thereof.

The application of the Oil Conservation Commission upon its own motion for an order revising Rule 505, Paragraph (b) of the Commission's Rules and Regulations, pertaining to Proportional Factors for deep gas wells used in allocating Oil allowables.

MAIN OFFICE OCC

1954 MAR 25 AM 8:40

BEFORE THE

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

Santa Fe, New Mexico

* * * * *

TRANSCRIPT OF PROCEEDINGS

CASE NO. 608

Regular Hearing

March 17, 1954

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
March 17, 1954

IN THE MATTER OF:

Application of Commission on its own motion for an order revising Rule 505, Paragraph 'b', of the Rules and Regulations pertaining to proportional factors used in allocating oil allowables.) Case No. 608

BEFORE:

Honorable Edwin L. Mechem
Mr. E. S. (Johnny) Walker
Mr. R. R. Spurrier

TRANSCRIPT OF HEARING

MR. YOST: If the Commission please, we have witnesses to put on in that matter. Case 608 is the application of the Commission on its own motion for an order revising Rule 505, Paragraph 'b', of the Rules and Regulations pertaining to proportional factors used in allocating oil allowables, and we have two witnesses, Mr. Rhodes and Mr. Macey.

(Witnesses sworn.)

W I L L I A M B. M A C E Y ,

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

DIRECT EXAMINATION

By MR. YOST:

Q Will you state your name, please?

A William B. Macey.

Q You are employed by the Oil Conservation Commission?

A Yes, sir.

Q In what capacity?

A Chief Engineer.

Q Mr. Macey, in connection with Case 608 at the December hearing you made reference to a list of wells of various depth ranges, compiled by the Commission staff. That list was never introduced in evidence in this case, nor was it given an exhibit number. Do you have the list to which you had reference?

A Yes, I do.

Q I would like to have that Exhibit marked as Exhibit 1.

(Marked Exhibit 1, for identification.)

Q Now, in connection with this list of wells contained in Exhibit 1, you wrote a form letter to all of the operators requesting information on well costs. Do you have a copy of that letter with you?

A Yes, I do.

MR. YOST: I would like to have this letter marked as Exhibit 2.

(Marked Exhibit No. 2, for identification.)

Q Would you care to read the letter?

A The letter is dated January 6, 1954, and it has the blank space provided for each operator. The letter reads as follows: (Reading) "Case 608 - Well Data. Gentlemen: With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i, e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February 1954 hearing." Signed by W. B. Macey.

Q Now, at the January hearing of the Commission it was stated that a tabulation of these well costs was to be submitted to all of the operators. Do you have a copy of that tabulation with you?

A I think it was at the February hearing, wasn't it?

Q February hearing.

A Yes, I do.

Q Do you have a copy of that tabulation?

A Yes, sir.

MR. YOST: I would like this tabulation marked as Exhibit 3.

(Marked Exhibit No. 3, for identification.)

Q Now, Mr. Macey, is this tabulation exactly correct?

A No, sir, there are a few minor mistakes in it.

Q Would you mind, for the benefit of the Commission and individuals present at this hearing, to correcting those mistakes so everyone will have the correct figures?

A On the first page, in 0 to 5,000 range, Well Number 7, the total should read : 35,578.93. That is $35,578.93. Well

Number 10, the total should read $53,402.00. Well Number 29 the total is 49,004.00; Well Number 30 the total is 45,362.00. In the 6,000 to 7,000 range, Well Number 50, under material cost, the cost is corrected to $31,698.20. The total is correct. Well Number 78, the total is $124,582.00. In the 11,000 to 12,000 range, Well Number 121 the total is $271,108.08; and in the 12,000 to 13,000 bracket, Well Number 136, the material cost is $62,729.00. The total is correct.

Q Is that the total of the corrections?

A Yes, sir.

MR. YOST: At this time, if the Commission please, I would like Mr. Macey to be temporarily excused and Mr. Rhodes take the stand, and thereafter recall Mr. Macey and they can cross examine him.

MR. SPURRIER: Very well. (Witness excused.)

H. N. R H O D E S ,

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

DIRECT EXAMINATION

By MR. YOST:

Q State your name, please.

A H. N. Rhodes.

Q You are employed by the Oil Conservation Commission?

A Yes, sir.

Q In what capacity are you employed, Mr. Rhodes?

A As an engineer.

Q Mr. Rhodes, in connection with the tabulation, which has

been marked Exhibit 3, have you prepared a graph showing these various well costs and depths?

A Yes, I have.

Q Do you have that graph with you?

A Yes, sir, I certainly do.

MR. YOST: I would like the graph marked Exhibit 4.

(Marked Exhibit No. 4, for identification.)

Q Mr. Rhodes, will you explain what the black circles on that graph represent?

A The graph is plotted with the depth in thousand foot intervals horizontally. It would be one inch to 250 feet on the horizontal scale. The well cost is in hundred thousand dollar increments vertically, making the vertical scale one inch to $20,000.00. The cost and depth of each well was plotted on the graph in accordance with the information which we received from the operators, and each of those black circles then represents the well cost at the well depth. That is, a total cost of the well in drilling to the total depth of the well.

Q Now, adjacent to each black circle is a number in pencil. Please state what that number represents.

A That number corresponds to the well number in the tabulation, which was entered as Exhibit 3.

Q And also, I noticed that you have some black circles with red centers in each depth bracket. What does that indicate?

A The black circle with the red center is the average in each depth bracket of the wells drilled in that bracket. For example, we totalled the cost of all the wells drilled in the

six to seven thousand bracket. We also totalled the total depths of all the wells drilled in this bracket and obtained an average cost at an average depth in each bracket. The black circle with the red center is this average point.

Q Now, I notice that in the five to six thousand foot bracket you have three wells which have red circles around them. What do those indicate?

A Those wells were eliminated from the average for that depth bracket, because it was found, upon examination, that the cost of drilling these wells was very excessive due to mechanical difficulties and blowouts. It was not our intention to include in the tabulation wells that encountered difficulty, but rather to use an average well in each case.

Q Will you tell the Commission and the people here what the red line on the graph indicates?

A The heavy red line is an average of all the points and is a curve drawn as uniformly as possible through each one of the points or as near as possible to the points.

Q In some instances the curve misses some of the points and in other places it goes exactly through the point, is that correct?

A That is correct.

Q Now, in connection with this exhibit, did you determine what the average payout for an average well in each depth bracket was?

A We determined the payout of an average well in each bracket below 5,000 feet.

Q And how did you go about this calculation?

A In determining the average payout in each bracket we made a number of assumptions. First of all we assumed that the average well in the five to six thousand foot bracket would be drilled to the midpoint of the bracket; for example, in the five to six thousand foot bracket the average depth used was 5,500 feet. We determined the cost of an average well drilled to the midpoint of each depth bracket, and came up with the following costs at the following depths:

At 5500 feet the average cost was $82,650.00. In the 6 to 7,000 foot bracket, that would be at a depth of 6500 feet, the well cost was $104,250.00. At 7,500 feet the average cost was $126,100.00. At 8,500 feet the average well cost was $148,100.00. At 9,500 feet the average well cost was $169,900.00. At 10,500 feet the average cost was $194,000.00 even. At 11,500 feet the average cost was $230,750.00. At 12,500 feet the average cost was $280,000.00 even; and at 13,500 feet the average well cost was $344,650.00.

Q Now, from these costs you determined a payout, is that correct?

A That is correct.

Q And how did you go about that calculation?

A We assumed that the well was producing under the present allowable system with the proportional factors as they are at present. We also assumed that crude was valued at $2.69 per barrel and that the operator had a 7/8 interest in that oil. By dividing the cost of the well by the net yearly income, we determined the payout in each depth bracket in terms of years.

Q Now, will you read the payouts which you calculated in each depth bracket, starting at the five to six thousand foot bracket?

A The payout in the 5 to 6,000 foot bracket was 1.782 years. In the 6 to 7,000 foot bracket - 1.709 years; in the 7 to 8,000 foot bracket - 1.562 years; in the 8 to 9,000 foot bracket - 1.437 years; in the 9 to 10,000 foot bracket - 1.301 years; in the 10 to 11,000 foot bracket - 1.208 years; in the 11 to 12,000 foot bracket - 1.183 years; in the 12 to 13,000 foot bracket - 1.209 years; and in the 13 to 14,000 foot bracket 1.254 years.

Q Then did you average those payouts?

A Yes, we averaged the payouts, and the average payout of the wells drilled from 5,000 to 14,000 feet was 1.406 years.

Q And in connection with these payouts you used the proportional factors which are presently in effect, is that correct?

A That is correct.

Q In connection with this graph have you prepared new proportional factors?

A Yes, we have.

Q Please state the manner in which you arrived at new proportional factors.

A In arriving at the new proportional factors we reversed the simple mathematical calculation used to determine the original payouts, using an average payout of 1.406 years which we found to be the average under the present allocation system. We calculated the number of barrels of oil which each well would have to produce each day in order to return enough money to the operator to

pay out his well in 1.406 years. We then assumed the present normal unit allowable of 40 barrels and from that we determined what the factor should be.

Q N_ow, you used the same basic assumptions in determining the new factors as you did in arriving at the payouts under the present system?

A Yes, we used 365 days per year - oil at $2.69 per barrel with a 7/8 interest.

Q Will you state what the new factors you arrived at are?

A They are as follows: In the 5 to 6,000 foot bracket - 1.70 years; -- I beg your pardon, not years, that is the proportional factor. For 5 to 6,000 feet, 1.70; for 6 to 7,000 feet, 2.15; 7 to 8,000 feet, 2.60; 8 to 9,000 feet, 3.05; 9 to 10,000 feet, 3.50; 10 to 11,000 feet, 4.00; 11 to 12,000 feet, 4.75; 12 to 13,000 feet, 5.80 and 13 to 14,000 feet, 7.15

Q Now, do you have a graph comparing the proposed factors with the present factors?

A Yes, I do.

MR. YOST: I would like that graph marked Exhibit 5.

(Marked Exhibit No. 5, for identification.)

A I might explain this graph just a little bit, Mr. Yost. On this graph the red curve is the proposed allowable. That is, it is the normal unit allowable of 40 barrels multiplied by the proportional factor as we have calculated it in our recent survey. The blue line if the present allocation. That is 40 barrels per day multiplied by the present proportional factor. It will be seen that the new allowables will be slightly higher in smaller

brackets, up to about 8,600 feet, at which time they drop below the present allowable in those depth brackets.

Q Now, in connection with the zero to 5,000 bracket, did you determine what the payout was on wells in this bracket?

A We determined an average point at a depth of 3,601 feet the cost of a well drilled to that depth to average $41,800.00.

Q And you obtained that point by averaging all of the wells in the zero to 5,000 bracket as to cost and depth, is that correct?

A That is correct.

Q Now, what point did you use in determing the payout of wells in that depth bracket?

A We examined the production records and the allowables assigned the wells upon which we requested cost information and found that only one well drilled to a depth less than 3,000 feet was capable of producing the present top unit allowable of 40 barrels per day. Therefore, we decided to average the cost of the wells in the 3 to 4,000 foot bracket and average the cost and depth of the wells in the 4 to 5,000 foot bracket.

Q Now, what were these averages for these brackets?

A The average cost of the 15 wells in the 3 to 4,000 bracket was $44,091.00 at an average depth of 3,612 feet. The average wells in the 4 to 5,000 foot bracket was $50,252.00 at an average depth of 4,420 feet. I might add, those two points are represented here by the green circles. We then assumed that the average well drilled in the 3,000 to 5,000 bracket, all of which have a standard unit allowable of 40 barrels, would be drilled to 4,000 feet and then we determined what that well cost would be. That green line connecting the two green circles is the line upon which we base

this determination.

Q And what was the cost of the well drilled at 4,000 feet?

A The cost is $47,500.00.

Q What is the payout under the present allocation system assuming the same factors that you assumed onthe other depth brackets?

A The payout on this well costing $47,500.00 at 4,000 feet is 1.382 years.

MR. YOST: I would like to offer Exhibits 1 to 5, inclusive, in evidence.

MR. SPURRIER: Is there any objection? If no objection they will be admitted.

(Whereupon, Exhibits No. 1 to 5, inclusive, were received in evidence.)

MR. YOST: They may cross examine this witness and I will call for Mr. Macey.

MR. SPURRIER: Does anyone have a question of this witness on cross examination? You may proceed, Mr. Gray.

....MR. GRAY: May I ask a question of this witness? Ralph L. Gray.

CROSS EXAMINATION

By MR. GRAY:

Q In figuring the payouts, did you take into consideration the operating cost or taxes?

A In making these calculations shown here, taxes and operating cost were not considered. However, Mr. Macey made a little off the cuff calculation in which he considered just such elements, and we found that in the long run it didn't make a whole lot of difference as far as the relativity of the thing is concerned, let's put it that way.

By MR. HOWARD:

MR. HOWARD: May I ask the witness a question? Mr. Howard with Shell.

Q Mr. Rhodes, you gave a breakdown taking the midpoint on 5,500, 6,500 and on down with the average cost. Now, do you have a similar breakdown for the depths, 4,500, 3,500, 2,500 and 1,500?

A Now, we have one in at thirty-five and one at forty-five.

Q You did not make a breakdown of the average cost below thirty-five?

A No, sir, we didn't. We first considered the brackets zero to 5,000 feet as a single bracket. It came out with this average point at 3,600 feet and costing approximately $42,000.00 We considered that point in drawing the curve. We came back then, and more for our own information than anything else, we calculated the three to four thousand foot bracket and four to five thousand foot bracket and then picked average cost at average depth and then in considering the entire bracket, in computing the proportional factor, we went back and considered a well drilled to exactly 4,000 feet. Now, the reason for that was our survey showed only one well in the entire State which was considered in this summary which was drilled to a depth less than 3,000 feet that was capable of producing its top unit allowable of 40 barrels.

Q Don't you think it would be proper, in order to get the complete picture, that you would extend that information to the depths that I have suggested, so that you may determine the equity, we will say, of the present formula as regards those wells of 3,500 feet or less?

A Well, sir, I would wonder if, actually, that equity would mean anything, inasmuch as there is only one well in that bracket which would produce its top unit allowable.

Q You don't mean, do you, all the wells in the other allowables produce their top unit allowable?

A No, I believe the wells in the summary do produce their top unit allowable.

Q Well, but my point is, if the fact a well cannot produce its top allowable is a justification for not extending your curve to less than 3,500 feet, then it also throws some question, doesn't it, on the validity of the curve in the other brackets? What I am getting at, if it is proper to consider one place, it ought to be considered everyplace.

A Then, would you advocate taking the average cost and average depths of those wells below or above, rather, 3,000 feet, that is the wells drilled in the intervals of 3,000 feet, would you consider then that we should take the allowable as it is assigned on those wells and try to calculate a payout period?

Q Well, that is what was done on the others, isn't it?

A Well, sir, the allowables on the wells in the deeper brackets are all assumed to be 40 barrels, all the wells are assumed to be able to make their top allowable, whereas, in the lower brackets, we have to consider a number of wells may make 10 barrels a day, or 15 --

Q But, can make the 40, if they can make it -- will be allowed the 40 if they can make it?

A If they can make it.

Q What I am driving at, if the Commission is going to take a look at this time of the allowable factor based on depths, it would be proper to have the picture carried down through its entire range. In other words, your lump there, zero to 5,000 in effect now, I think if you are going to review this thing it would be proper to see whether or not that is a proper lumping, or whether we should review -- the Commission should review the factors that are permitted, say, for 3,500, 2,500, 1,500. I mean, just to get the complete picture. That is made just as a suggestion, so that this information will be available. Just one other question in connection with your cost on the deep wells there, did you take into consideration at all any geophysical or costs of that type?

A No, sir, we did not consider anything of that nature, just straight material services and drilling factors.

Q I see. Do you have any idea at all as to what those geophysical costs might run on that deeper stuff?

A No, sir, I would not feel qualified to make an estimate.

Q Is it your opinion they probably would run greater though than on the five or six thousand foot stuff?

A I would rather not express an opinion on that, sir, I am not familiar with it.

Q Now, the only other suggestion, if I may make, and ask you if you don't think it would be proper in line with my suggestion, on your first exhibit there, or your first tabulation would be that you figure the payout period on wells below 5,000, that is, four to five, three to four, two to three, or one to two, just so

the complete picture may be available?

A You are offering that as a suggestion?

Q I am making that as a suggestion, asking you if you don't think it would be proper?

A Well, sir, I would like to study that a little bit before I commit myself on it. I am not satisfied that it would be, nor am I satisfied it is proper to leave it out, but --

MR. SPURRIER: Anyone else have a question of the witness?

MR. FOSTER: Mr. Chairman, I would like to ask a question or two.

MR. SPURRIER: Mr. Foster.

By MR. FOSTER:

Q I notice here in the five to six thousand bracket you have some wells there at seven thousand and over. How does that happen?

A Would you repeat that, please, Judge?

Q Turn over to Well 48 there.

MR. SPURRIER: Judge, come to the front, please.

MR. FOSTER: Can't you hear me?

Q Well, Number 48 there in the five to six thousand feet bracket, I notice you got a depth there of 7,020 feet on that well. Do you think that well belongs in that bracket?

A Well, sir, that is in the six to seven thousand foot bracket, isn't it?

Q No, that is the five to six.

A Did you not say Well 48?

Q Yes, sir.

A That is the six to seven thousand foot bracket.

Q Pardon. Mine shows five to six, I don't know.

A You probably didn't see the range changes at the top of the page there.

Q Oh, I see. So you don't have any in the brackets that are over the depth ranges?

A Yes, we do, Judge, we have two or three which are just over the line, you might say, and those wells were included in the lowere brackets for the reason that normal wells in that particular bracket, which were drilled in the last year, were rather few and far between. In other words, by considering these wells which just barely were over the line, we were only considering normal wells. We, however, applied those costs to the lower brackets.

Q Well, along the line Mr. Howard was asking you about there, considering these lesser depth ranges there. I made a computation here showing that starting with 3,000 to 4,000. You have a well cost factor based on an average of 3,500 feet of one and 4,000 to 5,000 it would be 1.21. As compared to the present depth bracket there, the factor would be, the five to six would be 2.53 as compared to the present 1.33. 6,000 to 7,000 would be 2.39 as compared with the factor of 1.77. 7,000 to 8,000 would be 2.48 as compared to the present factor of 2.33; and 8,000 to 9,000 would be 3.35 as compared to the present factor of 3. And nine to ten would be 4.16 compared to the present of 3.77 and 10,000 through 11,000 would be 4.78 as compared to the present 4.67, and 11,000 to 12,000 would be 5.19 as compared to the present 5.67;

12,000 to 13,000 would be 6.76 as compared to the present 6.75; and the 13,000 to 14,000 depth range, the well cost factor based on the starting at 13,000 to 14,000 would be 8.02 as compared to the present 8. Now, I suppose you can start it at whatever point you want to start, and sort of get whatever answer you would want to come out with. Isn't that true?

A Well, sir, Judge, in computing this the proposed changes here we followed very much the same pattern as was used by the Committee which recommended procedures for setting up depth allowables, in 1945, I believe it was. And, they lumped the zero to 5,000 foot bracket together and considered it as 1.00 and went from that.

Q That doesn't mean it is correct, does it?

A It doesn't mean it is correct, but the procedure followed by that organization was followed here in that respect.

Q As I understand, your only excuse for not starting with a lesser depth range than you started with is you don't have any wells that are making their allowable in that bracket, is that right?

A Well, sir, I don't know exactly what the percentage would be in that bracket. Mr. Macey, do you have any idea?

MR. MACEY: I will tell him later.

Q Well, whether you have any in that range or not, you do have a good many wells that have been drilled in that bracket?

A Yes, a very great number.

Q I notice here, taking your own figures, 15 wells in this 3,000 to 4,000 range, listed on your sheet, which would mean, of course, that is not all the wells that are in that depth range?

A No, sir.

Q There are many others?

A Yes.

Q Well, would you say that if you got 15 wells that were producing within that range these figures ought to be changed?

A Well, sir, there again, Judge, I would like to refer you to Mr. Macey on that particular point, inasmuch as it is purely a matter of policy.

Q What would be your idea about it?

A Well, sir, my idea about it is that the way it is now it is just all right.

Q Well, I understand, but that doesn't answer my question. The production in this range that I am talking about, would you then revise your figures, in your opinion, should they be revised?

A No, sir, I believe the whole thing is more or less of a relative situation and I believe that it would be within reason to start anyplace you chose.

Q Well, then that is just saying that you just start wherever you want to start, to get whatever answer you want to get, isn't that it?

A Well, sir, are you referring to the -- indirectly, in this case are you referring to the payout periods?

Q Yes, I am referring here to the fact that you started where you started, because you said that in this 3 to 4,000 range you didn't have any wells that would make their allowable in that range anyway.

MR. MACEY: You didn't say that.

A Well, they say I didn't say that.

Q Well, what do you say?

A Would you repeat that once more?

Q Well, you said that you started there at the average depth, you took the average depth, a starting point you took, because in the lesser depth ranges there you found no wells that were producing their allowable, or have any of them produced their allowable?

A From zero to 3,000 feet?

Q Yes, you didn't have any there that would produce their allowable?

A Only one.

Q Only one well, so, what I am saying is, what I am trying to find out is, suppose you had some wells in that range that were making their allowables, where would you have started then?

A Well, Judge, I believe that would be a matter which would require a little consideration before I could stick my --

Q You can give me an answer?

A I frankly don't know, Judge.

Q You don't know where you would start?

A No, like I say, I would have to consider it. By the way, Judge, might I say in considering your statement in which you mentioned that we could start any place to come out with any answer we wanted, I was wondering if you might not be referring indirectly to the pay out period of 1.4 years. That is an arbitrary figure, and choosing a payout of 1.4 years, I want it clear the Commission does not condone that payout period. That is merely an average of the calculated payout periods as they now

exist, and as far as the Commission is concerned, or as far as we who calculated the thing are concerned, we don't care whether it is 1.4 or 14 years.

Q But the net result of this whole thing is the allowables come of the deeper wells, isn't that true?

A In the adjustment --

Q Production and allowables will be taken of the deeper wells?

A Yes, sir, as the curve demonstrates, such will be the case.

Q Now, why should the deeper wells paying, should the deeper wells stand all of the cut in the allowables, in your opinion?

A Well, according to our simple mathematical calculation here it shows that the deep wells under the present allowable system are receiving a much faster payout, well, not necessarily a much faster payout, but a faster payout than the wells at the shallower depth ranges.

Q By reason of that fact, you want to extend the period of their payout?

A I would like to not necessarily extend their period payout, but also cut back the period of payout in any depth ranges which now has a very quick payout period.

Q Is it your opinion there is some inequity here between the payout of the wells and the different depth brackets?

A Yes, sir, I believe that was demonstrated in our calculation.

Q Well, that was the purpose of the calculation. Now, if

you started at 3,500 feet you would wind up about where you are now, wouldn't you, according to these figures I read, if they are good or not?

A Well, sir, asyou read the figures it seemed to me they were all pretty much relative to the figures which we have presented here, the only change being the difference between them so to speak.

Q Well, they are relative only to the extent you use the ones I give you, you stay where you are, if you take the ones you are using you move the deeper wells into a long period of payout, now, if that is relative, well, all right.

MR. FOSTER: That is all.

MR. SPURRIER: Anyone else?

By MR. HOWARD:

Q The net result of your suggestion as I see then, is that you would keep the factor from zero to 5,000 as it is?

A That is correct.

Q You would increase the factor from 5,000 to about 8,500, or 9,000.

A Yes, sir, that is correct.

Q And you reduce the factor for the drilling from 9,000 on to deeper formations?

A That is correct, sir.

Q Now, that recommendation is based solely, is it not, on a comparison of the cost figures that you have received as regards those various depths?

A Yes, sir.

Q Have you taken into consideration at all, in making your recommendation, the possibilities that from the standpoint of encouraging development in the State of New Mexico, the person who drills a deep well at the big expense and at the big risk might be entitled to a proportionate return on his money and his risk.

A Yes, sir, that has been considered, but not included in the calculation.

Q In other words, this calculation does not give any weight to that at all.

A No, sir, it does not.

Q Is it -- In your opinion will the major reserves of the State of New Mexico be recovered above or below a depth of 9,000 feet or do you have an opinion?

A In my opinion it would be recovered at a depth in excess of 9,000.

Q In excess of 9,000?

A Yes.

Q So, that according to the strict mathematical curve you have made then you are going to reduce the encouragement factor, shall we call it, to those who might seek to find what you think will be the big major reserve of the State in the future?

A Well, the encouragement factor, or lack of it, would be balanced by other factors which could be construed to work favorably for the deep well operator. In other words, were we to begin to consider things as risk factors, geophysical cost, we would be asked to include interest on the money and one thing and another, all of which would work not only in favor, but would be detrimental

to deep operation.

Q At arriving, however, at a practical and workable and fair formula, is it, or is it not, your opinion that some consideration should be given to that risk factor?

A Well, sir, if you could evaluate that risk factor in dollars and cents it may have.

Q Wouldn't that evaluation be just the difference between $8,000.00 and $350,000.00?

A I don't believe I follow that.

Q Well, okay. Now, let me ask you another thing. You said you did not include in the deep well cost or any cost, the geophysical expenses?

A No, sir, we did not.

Q Now, if testimony at this hearing should show that in connection with the exploration below 9,000 feet the geophysical expenses were considerably greater than at a lesser depth than 9,000 feet --

A Yes, sir.

Q Would, or would you not consider that that was a factor to be considered in making your recommendation?

A Well, sir, there again that could be an intangible figure which would require an entirely different survey, an entirely separate survey from this.

Q But wouldn't that be a proper element of cost to arrive -- to use in arriving at a proportional factor?

A Well, sir, there again I would say that such a factor would be rather difficult to evaluate the dollars and cents.

Q Well, if the evidence could establish what the relative costs were you would consider it proper to consider it in your recommendation, would you not?

A If it could be pin-pointed to where there were no doubts in our minds as to the geophysical costs I would seriously consider it, yes, sir.

Q Then that would be a factor which might or might not change your recommendation?

A Yes, sir, it might, providing, of course, you can put it in an accurate dollar and cents.

Q Right. I think that is all.

MR. SPURRIER: Anyone else? Mr. Gray?

MR. GRAY: I would like to ask the witness about the depth classification from 13,000 to 14,000 feet. There are two wells listed. I would like to ask if both these wells are in the same pool?

A Yes, I believe they are, Mr. Gray.

Q Then, this represents then information from one pool in that depth range?

A Mr. Gray, in requesting information on these wells we requested information only from the wells which had been drilled within the last year, or completed within the last year, and we were just a little bit restricted in that bracket, as to what wells we could request information on. The Anderson Ranch field would be a -- well, virtually the only field in the State producing at that depth.

Q Do you know if there are any other pools that are in that depth range, other than the Anderson Ranch?

A No, sir, I don't.

MR. GRAY: I will assure you there are pools. We would like to request the Commission to get additional data on this depth range, because the figures on the information that we have, seems to be awfully low for that particular depth range, and, inasmuch as these govern this one pool, we would like to ask that additional information be secured from other pools in this depth range.

MR. SPURRIER: You have information, Mr. Gray on these two wells that your company has drilled?

MR. GRAY: Yes, sir, we do have.

MR. SPURRIER: Will you give that to the Commission then for the hearing?

MR. GRAY: Well, I will have to have that mailed. I don't have it with me.

MR. SPURRIER: Anyone else?

MR. TOWNSEND: Jim Townsend, Stanolind.

By MR. TOWNSEND:

Q I notice your wells are only for the year, that you requested information only for the year 1953. Would you tell us why that year was selected?

A Well, sir, the economic cycle, as you are undoubtedly aware, makes a good many swings, from time to time. We felt if we went back any further than that, one year prior to the date of the survey, we would be including, let's say, the economic factor; and, whereas, there are many indexes available by which you can bring an economic factor up to date, we felt it would be a margin

of error. We wanted to keep the survey as current as possible.

Q Considering the economic factor for just a minute, wouldn't you say the cost of the wells drilled in 1952 and 1951 averaged somewhat higher than the wells drilled in 1953?

A In view of the technological advances made in the drilling business in the last couple of years, I would say, yes, that they had, and if the economic cycle should ever change in the future, to an extent where a new survey of the proportional factor would be required, it would be a simple matter to make such a survey.

Q Isn't it true, just for the moment forgetting the economic factor, that the cost of development, wells drilled in a later stage of development is generally less than cost of development of wells drilled in an earlier stage of development?

A That is generally true.

MR. SPURRIER: Anyone else? Mr. Lamb.

By MR. LAMB:

Q Mr. Rhodes, along that line, a well drilled in 1951, with the present factor as we have in mind, what would be the payout status of that well, as of this date?

A As of this date? A well drilled in 1951?

Q 1951.

A Mr. Lamb, I am not sure I follow you.

Q Would it not have been paid out as of this date?

A Yes, sir, it certainly would.

MR. SPURRIER: Anyone else? If not the witness may be excused.

(Witness excused.)

W I L L I A M B. M A C E Y ,

recalled as a witness, having been previously duly sworn, testified further as follows:

DIRECT EXAMINATION (Cont'd.)

By MR. YOST:

Q State your name, please.

A William B. Macey.

Q And you previously testified in this matter?

A Yes, sir.

Q And you have heard the testimony of Mr. Rhodes?

A Yes, sir.

Q And you have heard the questions that have been asked him?

A Yes, sir.

Q And you are fully familiar with all Exhibits that have been prepared by the Commission staff?

A Yes, sir, I am.

Q And you are fully familiar with the new factors that resulted from those calculations?

A Yes, sir.

Q In your opinion, based on the information that you had at your disposal, are they more fair and equitable than the old factors?

A Based on the information which we requested and we received, this is the answer that we came up with. Now, we are not saying that that this is the absolute final answer, by any means, that we realize that everybody might have a different approach to this matter. But, I might say, and might assure Judge Foster we didn't

try to arrive at any answer before we started. The reason that we did not consider any well drilled below 3,000 feet in the zero to 3,000 foot bracket was for the simple reason that calculating a payout or a theoretical payout on a well that couldn't possibly produce the present allowable is foolish and fantastic. There are about 1,700 wells in Eddy County completed at a depth of less than 3,000 feet, and all but about 22 of those wells are marginal wells, most of them in the seven and eight barrel class. If a man spends $20,000.00 drilling a 2,000 foot hole and he gets it back at the rate of six barrels a day and not 40 barrels a day, there is no sense in considering the payout under a 40 barrel allow - able.

Q And now, I think it was stated that you consider only wells drilled in 1953, is that correct?

A That is correct.

Q Why did you consider only those wells?

A Well, in 1953 when the State top allowable was 53 barrels which is approximately 33 percent higher than it is right now, oil was $2.45 a barrel, which is about 10 percent less than what it is now. But that 33 percent far out weighs the 10 percent increase in price of oil and wells paid out even quicker then than they do now.

Q Is it your opinion practically all the wells drilled prior to that time will be paid out?

A Yes, if they are capable of producing top allowable.

Q Do you have any comments to make on the wells in the three to five thousand depth bracket?

A No, other than the fact that we made a tabulation using a per month lifting cost of wells in the three to five thousand and every other bracket. And we came out with a -- We made three tabulations as a matter of fact, one calculating a monthly operating cost of $100.00 a month and $150.00 a month and $200.00 a month. And the lifting in the payout period was so close for each depth range under the new factors that it was within a week of each other on an overall payout period.

Q How many examples, Mr. Macey, did you have, how many wells?

A We had a total of 140 wells.

Q And the information was requested from numerous companies, is that correct?

A 32 separate companies, majors and independents both.

Q Did you get a pretty good response?

A We got all but about five or six, I believe.

MR. YOST: I think that is all.

MR. SPURRIER: Does anyone have a question of the witness?

CROSS EXAMINATION

By MR. HOWARD:

Q Mr. Macey, in connection with these wells at less than 3,500 feet, which you have not tabulated by reason of the fact you say there is not many of them, if any, has had wells at 3,500 or less that could make 40 barrels, They have, haven't they?

A Now, Mr. Howard, you may have misunderstood us. We didn't stop at the 3,500 point, we stopped at the 3,000 point.

Q Well, 3,000 then.

A All right. We very very definitely have had wells that could produce top allowable completed at a depth less than 3,000

feet.

Q And it is possible that there may be more, is it not?

A That is very true.

Q Have you computed the payout period on a 2,900 foot well with a 40 barrel per day allowable?

A No, sir, I haven't.

Q It might be interesting to know.

A I have an idea it would be 9/10 per year.

Q Wouldn't it be proper in making your recommendation to carry it on down to cover all of these possibilities of different depth range?

A Mr. Howard, it might be if certain sections weren't in existence right now. Insofar as the present pools in the State, we have a number of pools, if we were to start from scratch with this thing we ought to probably start at 1,000 and 2,000 and 3,000 and so forth. But, you tell me how you are going to break -- what bracket you are going to put the Eunice Monument Pool in, or what bracket to put the Hobbs Pool in and I will go along with you.

Q Well, you have depth brackets at the present time, do you not?

A No, we don't, they are in a separate bracket, 3 to 5,000 feet.

Q You broke this down on your schedule by depth brackets?

A Sure, that is right.

Q Well, all I am driving at is that we get a complete picture of this thing.

MR. HOWARD: If the Commission please, you may tomorrow

get two fields in the State at 3,000 or less that will make 40 barrels a day.

MR. SPURRIER: Is there any reason why we can't calculate them tomorrow?

MR. HOWARD: Well, if you are making a rule at this time to govern the entire productive picture, it seems to me it should be in this picture that you arrive at.

MR. SPURRIER: Is your company on that committee that in 1945 recommended these factors?

MR. HOWARD: I don't know, sir.

MR. SPURRIER: Was yours, Judge Foster?

MR. FOSTER: Well, I don't know, but I will find out and tell you.

MR. LAMB: Mr. Roy of Shell was on the Committee, Phillips was not represented.

A Mr. Howard, in connection with your point, we thought about the possibility of breaking the zero to 5,000 bracket into a 1,000 foot increment, but we just don't see how you are going to determine what the producing, the top of the pay of the first well in that or any pool that was drilled some 20 years ago and say that that is the depth bracket.

Q Well, you can catch from here on, can't you?

A Well, we are.

Q Not if you lump them.

A It is not relative though.

Q You can't do one to one thing and not the other, not if you lump them all at 5,000 feet.

A Well, I -- In connection with what you say, I agree with you that if we were going to start right now that is the way to do it, but you have got a pool -- Well, I will give you an example. You have got some pools that have 1,000 feet difference, the shallow pools from the producing interval of the highest well to the producing intervals of the lowest well. What bracket are you going to put that in?

Q Your engineers will have to figure that out.

A That is the reason we didn't do it because we don't believe it feasible in any circumstances. The same thing applies to the Langley-Mattix Pool. The pool straddles the three to 4,000 line. On pools which have been discovered in the last year or so, I guess we do do it, but you got to remember, when you do it to these old ones you have to make everything relative to that point. I might point out another thing, if you establish a factor of 1.00 as the Judge did in getting those factors of his, when you put a 1.00 factor in a three to four thousand foot well and then increase the factor from the four to five thousand foot well, you are going to be producing a lot more in that bracket than you are right today, and you are going to cut the State top allowable down. Under the proposed factors which we have here, the 40 barrel allowable, in order to keep the present allocation could go to 42 barrels.

Q Isn't there a possibility those shallower wells might operate on a part of a fraction, that is, instead of one that you had?

A Sure.

Q You would reduce and have it a part of one for these shallow depths?

A That is perfectly possible. As I said, we are not completely sold on this. This was our approach, but, still, I can not see in anyway whatsoever how we could go back and assign a depth bracket to some of the shallow pools.

Q You do agree with Mr. Rhodes statement that this recommendation is based entirely upon these cost factors which you received then?

A That is right.

Q And that you have not taken into consideration anything whatsoever as regards risk element, geophysical costs or anything of that type?

A No, sir, we haven't. The original committee that set up the present factors didn't take --

MR. SPURRIER: Let me interrupt -- (Off the record.)

A The original committee -- We read the original committees report before we ever did one thing on this, and we patterned our ideas after that committee's system, with two exceptions. They used a lifting cost figure and how they arrived at the lifting cost I don't know. There wasn't anything in there to tell us, but they did use it and they also used wildcat wells. In fact, they used most of their wells out of the State of Texas, they didn't even use New Mexico.

MR. YOST: There weren't any?

A There were not any wells at that time, that is right.

Q Well, in your opinion, do you, or do you not feel that this strike cost figure graph which you havedrawn should be temporary, or considered, or should be considered, these geophysical costs, the rish element and the questions of development of future reserves?

A Mr. Howard, if you start bringing in the geophysical cost you are going to have all the geologists from your Midland Office in before you are through.

Q Do you feel then the risk element should be considered?

A I don't think it should be considered.

Q You do not?

A No, I qualify that. I have never had anybody really show me where it was, where it should be considered, and I will -- I can always change my mind because nobody has ever given me a convincing argument. In fact, I have never heard any real argument.

Q Then your recommendation is based on a lack of consideration of geophysical costs, because you don't think it should be done and you are not sold that the risk factor should be considered?

A I didn't say I didn't think it could be done. I said I don't think it should be brought into this anymore than the tank battery should be brought in. You can't pin it down. Your company may have a different set-up on geophysical costs from any other company, if you bring in the geophysical cost you are going to start buying the cost of leases, taking ability, everything. You can start and stop at some point, and this is where we figured was the best place to start and stop.

MR. HOWARD: That is all I have.

MR. SPURRIER: Anyone else?

By MR. LAMB:

Q Mr. Macey, on considering exploratory cost, geophysical drilling, would that not apply to every bracket?

A It surely could.

Q It would apply to everybody?

A I think you got to have as much geology, maybe not to that extent, in 4,000 foot wells as you do in 14,000 foot wells.

Q It would apply to every bracket and would be a constant figure throughout?

A That is right.

Q That was the original decision of the Committee that set these figures up. One other point, your payout is calculated on 1.406?

A That is right.

Q The figure I have of payout on four to five thousand foot wells is greater than that amount, is it not?

A That is right, very definitely.

Q In other words, you break below 4,000, somewhere in the neighborhood of 3,500 or 3,600, you get back to the 1.406 which the deeper wells have?

A I don't follow you, Mr. Lamb.

Q Well, your payout for the four to five thousand foot well is 1.553 years, which is a greater amount than the payout from 13 to 14,000 foot payout, which is 1.406.

MR. SELINGER: Where did you get that figure?

A The payout on a four to five thousand foot well was 1.553. The payout on a three to four thousand foot well was .955.

Q In other words, the point breaks somewhere between 3,000 and 4,000 to get equal with the 13 to 14,000 foot payout?

A Somewhere between 3,500 and 4,500.

Q So what Mr. Howard is talking about we actually have, if you started at 3,500?

A Well, I won't agree with you entirely, but we are approaching --

Q I mean within a reasonable figure.

A Yes, I agree with you there.

Q In other words, somewhere between 3,000 and 4,000 you come to a 1.406 payout?

A I would take a guess and say it was 4,100 feet is where you get the 1.406

Q In other words, you break it about 4,100?

A That is right.

MR. SPURRIER: Anyone else? Mr. Yost.

RE-DIRECT EXAMINATION

By MR. YOST:

Q Do you have any recommendation regarding reviewing these proportional factors from time to time?

A Mr. Yost, I believe that this matter should be something that should be constantly under surveillance by the Commission. I don't think that it is fair at all to go on the factors that we have got right in effect, right today, for the simple reason that those factors were based on a lot of information which

didn't apply to New Mexico then and doesn't apply to New Mexico today. I am not criticizing the Committee, it was the only thing they had at the time and then they had to draft something up, and at the time it was fine, but I think the circumstances have changed considerably in the past eight or nine years. I also think that we should definitely establish a minimum allowable for wells in the zero to 5,000 bracket. Now, if we go to breaking the zero to 5,000 down into separate brackets, why that might not necessarily apply. I don't know what effect it would have on the State over-all allowable, but I do know that if we were to be curtailed in our production to 150,000 barrels per day, our normal unit allowable would be down approximately 25 barrels and the shallow pool operators would suffer.

MR. YOST: That is all.

MR. SPURRIER: Does anyone else have a question of Mr. Macey?

MR. WOODWARD: Mr. Spurrier, Mr. Woodward, representing Amerada.

RE-CROSS EXAMINATION

By MR. WOODWARD:

Q Mr. Macey, both the red and blue lines shown on that lower exhibit represent the minimum payout period possible under present unit allowables, do they not?

A Yes, sir, they do.

Q That is theoretically the shortest possible time that these wells, given this average cost at this average depth, could pay out?

A I will say that the curves are based on those calculations. That curve doesn't show that -- I mean the curve is based on a minimum payout.

Q They don't show anything about the actual or the average payout period that, in which these wells actually do pay out?

A That is right.

Q That is a different depth?

A That is right.

Q So that these theoretical figures then, nevertheless, do show under the present factor -- That is, your figures do show that under the present factors the deeper wells are paying out sooner than the shallower wells, is that correct?

A Yes, sir.

Q And it is your opinion that this situation is prejudicial to the operator of a shallower well?

A I think it is.

Q Now, your figures then theoretically show the present factors are unfair to these operators, that is a kind of paper prejudice shown on the basis of these minimum payout periods?

A Well, inasmuch as all the payout periods under the present factors, as compared with the proposed factors, show the discrepancy, I don't think it is strictly a paper calculation.

Q Well, if we assume there is such a thing as an average actual payout for these wells in different classes, which varies in some respect from the lines that you have drawn there, and I think we can assume that it does, inasmuch as we do know not all those wells are making their allowables, you are -- the prejudice

on which you are placing your judgment is, it is a prejudice which is shown by theoretical calculations, as to the minimum payout period?

A That is right.

Q Inasmuch as you haven't considered the actual figures it must be based on that?

A That is true.

Q Doesn't a person that is usually hurt complain about it, if he is really hurt as -- doesn't a person that is really hurt voice what he feels is a real prejudice as distinguished from a paper prejudice?

A I don't think it is the Commission's position, or staff's position to worry about who is going to squawk the loudest.

Q Isn't it their concern to worry about who is complaining that they are suffering a real prejudice under the present set-up and what operator has complained of being hurt by the present factor, right now. Now, we have got this thing, it is true we are going to have to deal with it somewhat on a theoretical basis, but these factors have been in existence some time, and we are interested in knowing about the real prejudice list and who has voiced any -- who has been hurt by what we have now. Your figures would indicate on paper that that may be true, well, without contesting those figures at this time, in any way, who is actually being hurt?

A Well, Don, I will tell you, the Commission/the statute says something about reasonable and proper as far as allocating production, and I will say that I don't think the present factors,

that this information shows that the present factors are reasonable and proper. That is all I can say. There has nobody come to me and sat down and said, "We are getting gypped".

Q Nobody actually complained about what is going on right now?

A Well, I can't really remember whether they have or not. Everybody's got a few gripes down the line, but I do know that some of the operators are greatly concerned with the reduction in the allowable in the shallow well allowable. For instance, you know that we have gone from 53 barrels for zero to 5,000 foot wells down to 40 and we are constantly being pressed to even cut that more as more deep wells are completed. Now, the more deep wells that are completed cuts into that shallow allowable every day. Now, that is the way I look at it. I do know that there are -- I think that the evidence here clearly shows there are some very serious inequities. It all depends on which bracket you have your well in whether you like what we say or not.

Q Well, that may be true in the case of individual operators, but I am wondering about this group that has their wells in such a bracket that they are moved to complain about what we have now?

A You mean you are worrying about their motives, or what?

Q The situation as presented here is a theoretical prejudice as shown by figures which make a great number of assumptions. Now, I am not questioning, at all, those figures are valuable as an indication , but there is a practical test as to whether or not prejudice exists, in fact, and I think probably the obvious

practical test is whether or not other people are complaining about it, now, regardless of what your figures show theoretically. Do you have the evidence of a practical -- that is, the practical evidence of any real injury? That, it seems to me is a cross check against --

MR. SPURRIER: Mr. Woodward, let me clear the record for you. Mr. Macey made this study at the direction of the Commission.

MR. WOODWARD: Well, we are not questioning his reason, at all, of making the study. We are just wondering if the Commission has available any information as to cross checking what his figures seem to show about an injury to any operator today. If there is no such information, of course, our line of questioning is concluded.

A I might say, Mr. Woodward, maybe we will hear a little injury in a little while, I don't know whether we will or not. As I said, there has never anybody come in the office and said to me, "I lost $40,000.00 today because you did such and such, or because of these factors". I have never had anybody do that. I think that the evidence speaks for itself. Now, as I said before, I am not -- I don't say that we have got everything in this survey, we may not have it all. But, this is what we have arrived at, based on the information that we have got, and until somebody can come in here and show us some tangible concrete facts, which we really want to hear -- I understand there is a lot of the industry that wants to put on some testimony -- until then we will stick with it.

MR. LAMB: Mr. Macey, is it not true that the using of

the new factors you proposed will change the overall top allowable allocation less than 10 percent? Is that not true?

A It will change it 6,500 barrels out of one hundred forty, I believe, whatever that percentage is, it will decrease it.

Q That amount of oil which will be re-calculated to every range depth, is that right?

A That is right.

Q In other words, it is an equalization?

A It very definitely is.

Q For all range depths and there really is not a great deal of oil to be changed, except in the various depths. In other words, there is only about 14,000 barrels out of the entire State allocation that will be effected at all?

A That is right.

Q In other words, there is no effect except the equalization you stated?

A That is right.

By MR. FOSTER:

Q If there is only some 14,000 barrels of oil going to be effected, why make a change at all?

A You notice where those 14,000 barrels lay, Judge?

Q No, sir, I don't know where they are, but if it is that close, why don't you leave it like it is?

MR. LAMB: I think, Judge, the figure which I have given him now, a 12,000 foot well will pay out in 14 months; a 6,000 foot well will pay out in 22 months, or 50 percent greater. There is what the inequity is.

MR. HOWARD: If the Commission please, I was going to suggest, if there is going to be testimony I would like to have the witness on the stand so we can cross examine him.

MR. SPURRIER: Mr. Lamb, would you consent to being sworn and go on the witness stand?

MR. LAMB: That is right.

MR. SPURRIER: Let's take a break for lunch.

(Noon Recess.)

A F T E R N O O N S E S S I O N

MR. SPURRIER: The meeting will come to order, please. Any further questions of Mr. Macey? If not the witness may be excused. Mr. Lamb.

R A Y M O N D L A M B ,

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

DIRECT EXAMINATION

By MR. YOST:

Q State your name.

A Raymond Lamb, with Wilson Oil Company. I have a statement I wish to make. We have made a thorough study of the proportional factor well cost and payouts. In checking the records you will find the original figures were calculated, using cost figures from the few, then existing, deep wildcat wells. In fact, some of the wells used were not even located in the State. In using only a few deep wildcat cost figures there was certainly room for inequities. Now, using development cost figures throughout we can see these inequities. We have compared our factors

with the proportional factors proposed by the Commission engineers and have found them relatively close. The difference in interpretation was in the eight, nine thousand, nine, ten thousand brackets. Since the factors are essentially the same for all other brackets we would recommend that the proportional factors proposed by the Commission be adopted. In 1945 the advisory committee recommending the proportional factors made another recommendation equally important to the industry. Their recommendation was a minimum production rate. It was presented to the Commission, with not one member of the Advisory Committee dissenting. The clause was then, and still is, an important associated part of the proportional factor rule. This minimum rate rule was in effect to January, 1952.

The reinstating of this clause will serve to assure each and every operator, shallow or deep, a reasonable rate of production for continued operations, and would be in the interest of conservation by preventing premature abandonment of wells and even leases. It is, therefore, proposed that a paragraph be included with the order of this case to reinstate this important factor. The proposed addition to Rule 505 is as follows:

'In the event the normal unit allowable, as compared by the Commission, is less than 30 barrels a day for any month, the actual unit allowable of any particular well, except marginal wells, shall not be set below 30 barrels per day. The proportional factor for depth shall be applied to the computed normal unit allowable, although this may be less than 30 barrels per day. And, if after applying the proportional factor, the result is

less than 30 barrels, such wells shall, nevertheless, receive a minimum of 30 barrels per day, and if the result of such application of the proportional factor is more than 30 barrels, the well shall receive such greater amount."

The above is essentially the same as was originally in effect in 1945 to 1952. I have an example for applying, which I will give later. That is the statement that we have to make and I am prepared to answer any questions which you might have.

MR. SPURRIER: Mr. Howard?

MR. HOWARD: I thought he stated he had further testimony.

A No, I have an example. Supposing the normal unit allowable is set at 40 barrels . The allowable for zero to 5,000 would be 40 Barrels. Using the factors proposed by the Commission here your allowables would be set accordingly. If your normal unit allowable were 30 barrels, all wells from zero to 5,000 feet shall receive 30 barrels, and those below 30 barrels multiplied by the proportional factors, in the case of 12 to 13,000 foot well, 174 barrels. The normal unit allowable at 20 barrels, zero to 5,000 foot wells would receive 30 barrels, and the wells in the depth factors below would receive 20 times their proportional factor, or a well from 12 to 13,000 feet shall receive 116 barrels.

MR. HOWARD: May I ask you a question? Were you a member of that Committee in 1945?

A That is right. I have an apology to make to Judge Foster. I checked an attendance record when I stated that Phillips did not have a representative. In checking the full Committee I find that Mr. Charles Daniels, General Manager of Phillips Petroleum

Company in Oklahoma City was a member of that Committee. I am sorry.

MR. FOSTER: You don't have to apologize for that.

Q (By MR. HOWARD) To the best of your knowledge, are there any records or reports of that Committee that could be made a part of this record?

A Well, there are a few minutes. I have checked for the official record of the Committee. The few notes which I kept myself are all that I have found available. I can give you some comparison figures if they will be of any help.

Q I was particularly interested if there was any official report that that Committee filed?

A Nothing but the recommendations that they made to the Oil Conservation Commission.

Q At that time in 1945, was it, or was it not true that most of the production in the State was from Zero to 5,000 feet?

A That is correct.

Q So, that the lumping together of all the wells from zero to 5,000 was actually taking in most of the wells in the State, and the additional factors covered wells that maybe it was hoped would be in the State, is that correct?

A Well, actually here is what happened, Mr. Howard. A survey was made of cost figures of these wells from zero to 5,000 feet. We found one factor which radically influenced the cost of drilling. For example, in Lea County you have some thousand feet of salt section and about 1,500 feet of red-bed section, which as we know is easily drilled. The figures in that area for drilling

cost were relatively low compared to the west area drilling cost, which drilled solid lime from the entire section. That was the situation then, and as I know, it is still the situation now, because the section has not changed.

Q But, the overall picture as to where the majority of wells were located has definitely changed since 1945, has it not?

A I don't know about -- You mean the number of wells in Lea County, and the number in Eddy County and so forth?

Q Well, the break between zero and five, and above five?

A That is right.

Q That picture has changed?

A That is right, actually there were few wells below 5,000 producing at that time. Actually the figures that we used to calculate our factors in 1945 were based on wildcat exploratory wells. Actually seven of the wells were Shell wells out of the 23 that we used. A lot of those were in Texas, as far away as Crockett County, because that was all the information we had. The tabulation here now, which the Commission has presented, takes in 140 wells all located in New Mexico.

Q You heard the questions that I asked of the other witnesses as regards whether or not the complete picture wouldn't require the carrying on down of this curve below 5,000 feet?

A Well, as I stated a minute ago, I have made a survey, rechecking what we had in mind in 1945. I don't find the conditions have changed below that 5,000 foot level.

Q To take a hypothetical case production well, say, at a depth of 3,600 feet, using the cost figures shown on the Commission's example, and a top allowable, have you figured out what the payout

would be on a 3,600 foot well?

A Mr. Macey and I were talking about that at the hearing this morning. It will be slightly less than 1.406 years. It will be slightly less -- The period will be slightly less than, what is it, 17 months. That is an average. That does not include the high cost drilling in the lime area. That is an average of all of it.

Q Just taking the average cost figures that are shown here on the board, the 3,600 foot well, if permitted, will make its top allowable, will pay out in 1.40--

A (Interrupting) Something less than that.

Q Something less than that?

A Something less.

Q What is the approximate cost of such a well?

A You will find a wide range. That is the point I have been talking about. You will find a wide range here is 126,000, 152,000, 155,000 and you can go on down the other way. Here is 35,000. In other words, I am reading from the Commission record which you have. You will find a wide variation in that range even more than you do in the other brackets, percentagewise.

Q On the basis of the testimony that was put on by Mr. Rhodes, today, showing the payout periods from 5,000 to 6,000, 6 to 7, 7 to 8 and 8 to 9, as I took them down, 8 to 9,000 foot well has a payout period of 1.437. That was the figure that I understood Mr. Rhodes to give.

A That is the way I have it.

Q Under the present formula a 3,500 foot well will payout in less time than a 9,000 foot well?

A Going along that same line, Mr. Howard, you will find an 11 to 12,000 foot well paying out in 1.183 years.

Q What I am trying to direct attention to is, if there is any correction that is needed to be made in the present formula, shouldn't the Commission consider a correction below 5,000?

A My point is this, in attempting to approach at a proportional factor below that point you will cause more inequities than you will ~~incur~~ cure.

Q Is your opinion that it is proper proration for a 3,600 foot well to pay out in less time than a 9,000 foot well?

A Well, I would say it was just as proper under the present conditions for a 3,600 foot well to pay out in a less time if a 12,000 foot well can.

Q Well, now, on the same table that was given six to seven, takes 1.7 years to pay out?

A That is right.

Q There is considerable more investment made in that than a 3,600 foot well, is there not?

A Along the same comparison there is considerably more money in a 12,000 foot well.

Q That is right.

A Actually we are saying here that a 3,600 foot well will pay out in 1.64 years, slightly less than that. On the figures that were given this morning by Mr. Rhodes, 11 to 12,000 will pay out in 1.83 years.

Q What did you say was the average cost on the 3,600?

A I didn't say.

Q You didn't? I thought you did.

A I said there was a wide range of variation in them. An average would be misleading.

Q According to the averages, what they will use on arriving at the recommendation?

A I think Mr. Rhodes said his figure was $44,000.00.

Q $44,000.00 --

A That is what I think.

Q For thirty-six hundred?

A 3,612 feet, is that right, Mr. Rhodes?

MR. RHODES: 3,601.

Q Take the figures just shown on the chart there for the 3,600 foot well, what is the figure there? I can't see it from here.

A His cost?

Q Yes.

A I wrote it down as something slightly over $44,000.00.

MR. RHODES: I think that is the average of the 4,000 foot bracket.

Q What is the curve, can you see that? I can't see it.

A I don't see a figure written up there. It would be at the green point, I don't know what the range is.

MR. RHODES: That is about 44,000.

A About 44,000.

Q The cost is also shown on that chart for, from 13 to 14,000 feet is in the bracket from three hundred to three hundred eighty thousand, is that correct?

A The average figure Mr. Rhodes gave this morning is

13,500 is at 344,000. You can drill a 13,500 at the present date, compared to a 5,000 in 1945 and have $52,000.00 left in your pocket.

Q Is it, or is it not, your opinion that the party who risks, we will say,$380,000.00 might be entitled to some consideration on a payout standpoint, over the party who risks $44,000.00?

A I think we are pretty close, we are 1.406.

Q Do you think some consideration whould be given to that additional risk?

A It was not the opinion of the Committee in 1945 and it was their intent in recommending the figures we should have an equal payout. At that time the payout on a 13,000 foot well was better than 30 years and it was a matter of equalizing that figure to four years even for all brackets.

Q Well, at the present time --

A (Interrupting) You are down to 1.406 years.

Q At the present time isn't it your opinion that that risk is probably to be considered?

A In proportion to your return on your money I would say no.

Q That the person who risks the three hundred eighty is not entitled to any consideration for that?

A He expects a similar return on his money as the man who invests $44,000.00 for a 3,600 foot well.

Q Do you have any idea as to the comparative outlay that the operator makes who is drilling for 3,600 foot stuff and for 13,000 foot stuff, as regards a geophysical or exploratory expense?

A That is a misleading idea. I have some figures on that. Since geophysical operations for the shallower zones are not practical, naturally you can not do geophysical work. But, in turn you do exploratory drilling and the ratio of exploratory drilling cost to your seismograph cost for your other investment should be approximately the same.

Q If the evidence in this case should show that the geophysical and other exploratory costs on the deeper production are greatly in excess of that on the shallower brackets, we will say, 5,000 down, would you consider that that was proper to be considered by the Commission in arriving at this recommendation of theirs?

A There is no Committee, we attempted -- the original Committee attempted to work on the geophysical figure. If we had worked on it and waited for an answer we wouldn't have had the proportional factors to this date. In other words, there is such a radical change or variation in the amount of seismograph cost and this, that and the other involved that I don't think you would ever arrive at any figures.

Q I am assuming, by testimony in the case, those geophysical costs could be fairly well established. If that could be done, would you think that is proper to consider?

A No.

Q You do not?

A I would not.

Q Well, --

A (Interrupting) We are talking of a payout of a develop-

ment well, that was the intent, the original intent as I understand that is the intent now.

Q Do you think there is any merit to the proposition of encouraging deep wildcats to give an allowable factor which might be favorable to encourage deep wildcats?

A I think they have a fair incentive at the present time, with a 14 month payout.

Q Do you think that should encourage deeper drilling?

A Don't you think it would encourage it?

Q I don't know. I am asking it.

A I don't think it will affect it.

Q In affect, what the proposal that you are supporting here, I believe the mention was 6,500 hundred barrels, is that what it was that would be a factor?

A Approximately that.

Q Approximately?

A It is less than 10 percent.

Q Yes. This proposal actually amounts to taking about 6,500 barrels away from the deep well, over 9,000 feet, and giving it to the wells between the five and nine bracket, is that correct?

A That is correct. Actually I think what your figures are doing, I mean the figures proposed by the Commission here are clearing inequities which we knew existed at the time we put the proportional factors in. What you are doing, you are equalizing the inequities which existed. As you say, all you are doing is creating barrels from one zone to another.

Q If, at the present time, under the present factors, a

3,600 foot well has the advantage that we pointed out. Over a 5 to 9,000 foot well, don't you think possibly there is an inequity that might be corrected?

A If we set them all on 1.406 we have no inequities, do we?

Q You are changing the rates on the well above 5,000. Wouldn't it be fair to look at those rates on the wells below 5,000 to get the complete picture, I mean?

A Don't you think the figures that the Commission has here, that you can see that the conditions have not changed from 1945?

Q No, I don't know that. I don't know that there is anything here which doesn't show that the Commission might not, at this time, if it is going to re-open this matter, might not reopen and look at the whole picture?

MR. SPURRIER: Do you have testimony below 5,000 feet to present?

A Do you have testimony to present on the wells below 5,000 feet?

MR. HOWARD: At less than 5,000 feet. If the Commission please, if it would be proper to make a statement at this time, or would it be out of turn? I have no further questions.

MR. SPURRIER: Let's wait until we get through with this witness. Does anyone else have a question of Mr. Lamb? If not the witness may be excused.

(Witness excused.)

MR. HOWARD: May I make a statement?

MR. SPURRIER: Surely.

MR. HOWARD: I might state that Shell's position in this

matter is this. We have felt for sometime that there are certain inequities in the present factors; that those inequities consist of too big a factor below the 5,000 foot, particularly below the 3,600, and that the factors on the extremely deep stuff are too small, just what we have indicated in our cross examination here today. We are not asking that any change be made. We feel that, like it has been shown in the testimony of a 3,600 foot well paying out in a lesser time than a 9,000, in itself shows the inequity of the present picture. We are not asking for any change. We feel this thing has operated satisfactorily and that it should continue. We do have this feeling that if the Commission feels that it should review this thing at this time and make changes with the end of looking to see if changes should be made; that the entire picture should be looked at; the Commission should test the validity of this zero to 5,000 breaking point. We have some testimony prepared which will take probably an hour or hour and a half to present. I do not have it in the shape I would like to have it because of the time limit. I want to have it charted out on pictures such as this, so that it may be put up. What I am asking is this, that the recommendation to the Commission has been made. I am asking that this matter be received until your next statewide hearing or at some special hearing, with the idea that it will probably take a considerable amount of time.

I think there are others who have testimony also to introduce and that at that time that the operators be advised to come in and give the Commission the benefit of any testimony or opinions they have on what the recommendation has been. That is the request that I make. Might I add that, at that time, we explore

also the inequities that exist from 5,000 to the surface.

MR. SPURRIER: Anyone else? Is there any objection to Mr. Howard's motion to continue the case to April 15th?

MR. HOWARD: You need a separate day, Mr. Spurrier.

MR. SPURRIER: Actually then you amend your motion to April 16th?

MR. HOWARD: I didn't realize what the meeting was. I think you should have a special day on this, because it is going to crowd your docket if you don't.

MR. LAMB: If the Commission please?

MR. SPURRIER: Mr. Lamb?

MR. LAMB: May I ask how many other operators have other testimony to give?

MR. SPURRIER: Does anyone else have testimony which they plan to present on April 16th?

MR. MALONE: May it please the Commission, Ross Malone representing Gulf Oil Corporation. Gulf would like to support the recommendation to the Commission that the hearing be recessed to a later date for the reason that the presentation that has been made to the Commission this morning, there has not been an opportunity to analyze it and test it against figures which we have available, and which we are in the process of assemblying for that purpose. I am not in a position to say, at this time, that we would be prepared to present testimony when the hearing is resumed. It is the feeling of Gulf , until the operators have an opportunity to analyze the presentation against the figures they have available, the Commission will not have had the benefit

of all the information which it might need in reaching its decision.

MR. SPURRIER: Mr. Lamb?

MR. LAMB: Is that all?

MR. SPURRIER: Mr. Woodward?

MR. WOODWARD: We do believe we will have testimony next time. We have analyzed the data presented by the Commission and made an independent study of this problem. It is our conclusion that whatever advantage may exist in any particular -- in favor of any particular class of well, that advantage under the present set up is relatively small and does not require a change of the present depth factor. As a matter of fact, we feel that no system of allocation is perfect and any change in the present system will result in some disparate between classes of well. Our study has not convinced us, up to this point, that the disparaties that will be eliminated by the change, will out-weigh the disparities caused by change.

If further consideration is to be given this matter, and further consideration of a prospective change is to be given, we ask that the matter be continued so that we can evaluate the full effects of such proposed change.

MR. SPURRIER: Mr. Gray, could you submit your testimony at this time?

MR. GRAY: You mean at the April meeting?

MR. SPURRIER: Yes.

MR. GRAY, Yes, we will be ready and we think, too, that we would like to have a little time to study the recommendations that the Commission has prepared, and we will be ready to present any

testimony that we might have to offer at the April meeting.

MR. HILTZ: Stanolind will also have some evidence to prssent at the April meeting. We want to join in that recommendation.

MR. SPURRIER: We will continue the case to April 16th, providing that all the testimony yet to be presented will be presented on that day or subsequent consecutive days, depending on how long the hearing will last. The reason I say that is in the interest of time. We don't intend to have this hearing continued for the rest of the year.

MR. SELINGER: April 16th is a Friday. Would you rather have it prior to the April 15th hearing, earlier in the week?

MR. SPURRIER: Would you make a motion to that, and do you withdraw yours?

MR. HOWARD: I withdraw.

MR. SPURRIER: Do you also understand the motion as Mr. Selinger made it, to continue the case to April 14th. Is there objection to Mr. Selinger's motion? If not we will continue the Case to April 14th.

STATE OF NEW MEXICO)
: ss.
COUNTY OF BERNALILLO)

I, Ada Dearnley
Marianna Meier, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of ~~my~~ our knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 24th day of March, 1954.

Ada Dearnley
Notary Public, Court Reporter

Marianna Meier
Notary Public, Court Reporter

My Commission Expires:

June 19, 1955

April 8, 1956

STATE BUREAU OF MINES AND MINERAL RESOURCES
NEW MEXICO INSTITUTE OF MINING & TECHNOLOGY
CAMPUS STATION SOCORRO, NEW MEXICO

MAIN OFFICE OCC
1956 MAY 25 AM 8:18

May 22, 1956

Mr. A. L. Porter, Jr.
Director
Oil Conservation Commission
Box 871
Santa Fe, New Mexico Registered Mail

Dear Mr. Porter:

I am returning herewith "TRANSCRIPT OF PROCEEDINGS - CASE NO. 608 - Regular Hearing March 17, 1954," which you loaned to Dr. Callaghan.

Dr. Callaghan is most grateful to you for the use of this material.

Very truly yours,

Myrtie M. Morris

Encs/

(Miss) Myrtie M. Morris
Secretary to the Director

E. Hobbs SA — AURORA GAS Co. #2 DAVIS 19-18-39 NE 29-18-39 (O)
T.D. 6433 5½" to 6388 Acid 6405 - 6433 T.P.

E. Hobbs J-R — HARDIN & HOUSTON #1 Jaylon 25-18-38 (CK)
T.D. 3897 T.P. 3852. perfs. 3850 - 3866

PEARSALL — BAREFIELD & PHIPPS #1 WALKER #V 5-18-32
T.D. 3722 T.P. 3673 - 94

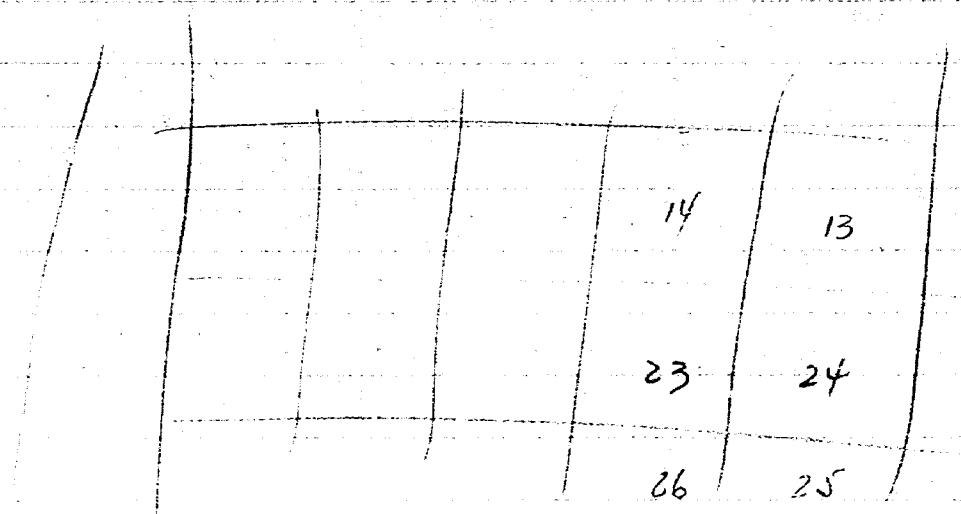
WILSON — CITIES #1 St. B #V 8-21-35. T.D. 3835? T.P. 3826 - 31

DK CANYON — ~~HANSON~~ & CORDIE M. YATES #1 KING (L) 22-23-26
1856 TO 1867 T.D. 1881 T.P. 1876

EUNICE — CONT. LOCKHART B-31, 31-21-36 (3-29) T.D. 3990 Csg. 3344 T.P. 3865 - 3959
CONT. #1 Meyers A-17 - 17-21-36 #V (1-30) Csg. 3908 T.D. 4001

FALBY-YATES — AMERADA #1 FALBY. 19-24S-37 T.D. 3824
T. perfs 3085, pipe to 3350

MAN.

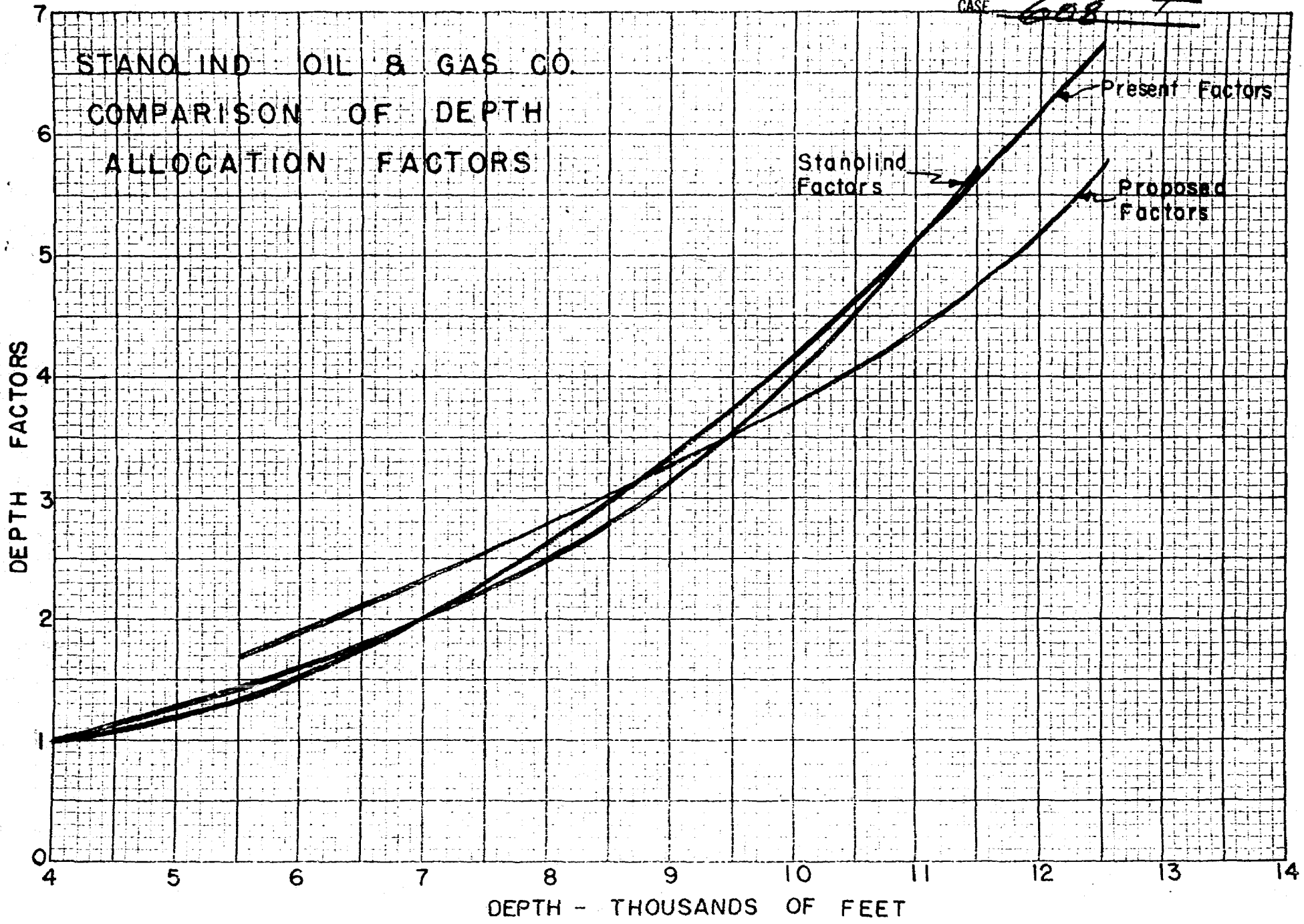


E. HOBBS S.A.	AURORA GAS. Co #1 DAVIS. - O - 18-39 sec. 30 & 31
~~VACUUM~~ J.-29	SOCONY STATE #1 13-17-34 Csg. ~~4386~~ 4402 T.D 4900
WILSON	CITIES #1 St. "B" 21-34 (12-13-14, 23, 24, 26)
PREMIER	
E HOBBS 7-R	HARDIN & HOUSTON
~~MAGNOLIA~~	MAG. O & G Co. #1 BAISH 21-17-32 Csg. 3590 P. 3885 - 4140 T.D. 4140 AB
PEARSALL	BAREFIELD & PHIPPS #1 WALKER 26 & 27 - 32-35 ; 17-32 ✓
~~DEAN CANYON~~	M. YATES #1 KING L 20-23-26
	BUCK JONES GATES FED. #1
FREN	
EMPIRE	
EUNICE	CONT. MEYERS - 31-21-36
FALBY YATES	AMERADA #1 FALBY. 24-36
	T.D.
	Skelly #1 Joyner - 26-25-36
	T. Collins #1 Weyler 13-24-26.
	Texas Co. #1 RHODES.

K&E 5 X 5 TO THE INCH 359 6
KEUFFEL & ESSER CO. MADE IN U.S.A.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Stanolind EXHIBIT No. 4
CASE 608

STANOLIND OIL & GAS CO.
COMPARISON OF DEPTH ALLOCATION FACTORS



USING GROSS LINE

DEPTH	COST	MULT.	TOP ALLOW	PROP. ALLOW.
3500	43,200	1.0000	40	40
4500	52,000	1.2037	49	40
5500	82,650	1.9132	77	68
6500	104,250	2.4132	97	86
7500	126,100	2.9190	117	104
8500	148,100	3.4282	138	122
9500	169,900	3.9329	158	140
10500	194,000	4.4907	180	160
11500	230,750	5.3414	214	190
12500	280,000	6.4815	260	232
13500	344,650	7.9780	320	286
3500	43,200	.8308	34	40
4500	52,000	1.0000	40	40
5500	82,650	1.5894	64	68
6500	104,250	2.0048	81	86
7500	126,100	2.4250	97	104
8500	148,100	2.8481	114	122
9500	169,900	3.2673	131	140
10500	194,100	3.7308	150	160
11500	230,750	4.4375	176	190
12500	280,000	5.3846	216	232
13500	344,650	6.6279	266	286

USING RED LINE

D	Cost	Mult.	Top Allow.		Allow. Proposed
3500 ft	= 39,425	= 1.0000	= 40	BoPD	40
4500 ft	= 61,050	= 1.5485	= 62		40
5500 ft	= 82,650	= 2.0964	= 84		68
6500 ft	= 104,250	= 2.6443	= 106		86
7500 ft	= 126,100	= 3.1985	= 128		104
8500 ft	= 148,100	= 3.7565	= 151		122
9500 ft	= 169,900	= 4.3094	= 173		140
10500 ft	= 194,000	= 4.9207	= 197		160
11,500 ft	= 230,750	= 5.8529	= 235		190
12500 ft	= 280,000	= 7.1021	= 285		232
13500 ft	= 344,650	= 8.7419	= 350		286

3500	= 39,425	= .6458	= 26	BoPD	40
4500 ft	= 61,050	= 1.0000	= 40	BoPD	40
5500 ft	= 82,650	= 1.3538	= 55		68
6500 ft	= 104,250	= 1.7076	= 69		86
7500 ft	= 126,100	= 2.0655	= 83		104
8500 ft	= 148,100	= 2.4259	= 98		122
9500 ft	= 169,900	= 2.7830	= 112		140
10500 ft	= 194,000	= 3.1777	= 128		160
11500 ft	= 230,750	= 3.7797	= 152		190
12500 ft	= 280,000	= 4.5864	= 184		232
13500 ft	= 344,650	= 5.6454	= 226		286

Summary

	New Pools	Abandoned Pools	Total Pools
0-5000	24	2	94
5-6	2	1	8
6-7	6	2	10
7-8	6	2	13
8-9	6	-	7
9-10	10	-	17
10-11	8	-	10
11-12	4	-	5
12-13	3	-	4
13-14	2	-	2
	71		

Total New Pools since 1-1-50 : 71

Total New Pools in 0-5000 range : 24

Total New Pools in 5000-9000 range : 20

Total New Pools in 9000-14000 range : 27

New Pools since January, 1950

0-5000 ft.

1. Acme
2. Bluit SA
3. Chisum SA
4. Corbin Yates
5. Dollarhide Queen
6. Drickey Queen
7. Falby Yates
8. Hobbs East SA
9. House SA
10. Leonard, South
11. Littman S.A.
12. Teas
13. Wilson, North
14. Atoka (Eddy Co.)
15. Cedar Hills
16. Dark Canyon
17. Glenn Castile
18. Malaga
19. M^{c} Millan
20. M^{c} Millan 7-R
21. Millman Grayburg.
22. Santo Nino
23. Turkey Track, East
24. Turkey Track, West.

Abandoned Pools in 0-5000' Range.

1. Crossroads Slaughter
2. Henshaw.

5000 – 6000' NEW POOLS.

1. CARTER SA
2. TERRY BLINEBRY.

ABANDONED.
1. MALJAMAR PADDOCK

6000 - 7000'

1. CHISUM
2. DOLLARHIDE DRINKARD
3. HOBBS DRINKARD
4. HOBBS E. BLINEBRY
5. LOVINGTON PADDOCK
6. WARREN DRINKARD

ABANDONED:
1. DRINKARD, N.
2. DRINKARD, S.

7000 - 8000

1. LIGHTCAP
2. LONE WC
3. NADINE
4. TEAGUE DEVONIAN
5. TWIN LAKES
6. WANTZ ABO.

ABANDONED
1. ELLIOTT
2. MONUMENT ABO.

8000 - 9000

1. CAPROCK E. WC
2. DOLLARHIDE DEV.
3. DOLLARHIDE FUSSELLMAN
4. HIGHTOWER PERMO PENN.
5. MESCALERO PENN.
6. WHITE RANCH S/D.

9000 - 10000

1. ANDERSON RANCH WC
2. DENTON WC
3. GLADIOLA WC
4. LAZY S
5. MESCALERO DEV.
6. MOORE PENN.
7. SAUNDERS
8. TEAGUE ELLENBURGER
9. TULK WC
10. WARREN M^{c}KEE NORTH

10,000 - 11,000

1. CAPROCK, EAST PENN.
2. DOLLARHIDE ELLENBURGER
3. EIDSON PENN
4. KING WC
5. LOVINGTON WC
6. MOORE DEV.
7. SAUNDERS, SOUTH
8. TOWNSEND WC

11000 - 12000

1. BRONCO S/D
2. CAPROCK, EAST DEV.
3. ECHOL DEV.
4. LOVINGTON, EAST PENN.

12000 - 13000

1. ECHOL DEV., NORTH
2. GLADIOLA
3. SHOE BAR DEVONIAN

13000 - 14000

1. ANDERSON RANCH DEV.
2. MALJAMAR DEVONIAN.

Using a payout of 1.40 yrs
Calc. factor for each depth range
using 40 Bbls per day A N.O.A.

6500

Cost - 80,000
Present factor
1.33.

$\frac{\$80,000}{1.40}$ = P.Y.N.P. = $57,143

$\frac{57,143}{2.69}$ = 21,243 bbls net

$\frac{21,243}{.875}$ = 24,278 bbls gross.

$\frac{24,278}{365}$ = 66.5 bbls/day

$\frac{66.5}{40}$ = 1.66 = factor

6500

Cost 102,950
Present
factor = 1.77

$\frac{102,950}{1.40}$ = P.Y.N.P. = 74,286

$\frac{74,286}{2.69}$ = 27,616 bbls net.

$\frac{27,616}{.875}$ = 31,561 bbls gross

$\frac{31,561}{365}$ = 86.46 bbls/day

$\frac{86.46}{40}$ = 2.16 = factor

7500

Cost 126,000
Present
factor = 2.33

$\frac{126,000}{1.40}$ = 90,000

$\frac{90,000}{2.69}$ = 33,457 bbls net

$\frac{33,457}{.875}$ = 38,237 bbls gross

$\frac{38,237}{365}$ = 104.75 bbls/day

$\frac{104.75}{40}$ = 2.62 = factor

8500
Cost 150,000
Present factor
3.00

$\frac{150,000}{1.40} = 107,143 = PYNP$

$\frac{107,143}{2.69} = 39,830$ bbls net

$\frac{39,830}{.875} = 45,520$ bbls gross

$\frac{45,520}{365} = 124.71$ bbls/day

$\frac{124.71}{40} = 3.12$ factor

SUMMARY OF WILDCATS COMPLETED DURING 1953 IN NEW MEXICO (EXCLUDING McKINLEY, RIO ARRIBA AND SAN JUAN COUNTIES).

DEPTH RANGE	No. WILDCATS	PROD.	P & A.
0 - 1000	25	3	22
1000 - 2000	9	1	8
2000 - 3000	21	7	14
3000 - 4000	40	32	8
4000 - 5000	24	9	15
5000 - 6000	12	5	7
6000 - 7000	17	13	4
7000 - 8000	11	7	4
8000 - 9000	12	6	6
9000 - 10000	30	18	12
10000 - 11000	16	7	9
11000 - 12000	12	5	7
12000 - 13000	18	7	11
13000 - 14000	13	3	10
14000 - 15000	1	0	1
15000 - 16000	1	1	0
16000 - 17000	1	1	0
	263	125	138

NO. WILDCATS IN 0 - 5000 FT. BRACKET: 119

NO. WILDCATS IN 5000 - 9000 FT. INTERVAL 52

NO WILDCATS IN 9000 - 17000 FT INTERVAL 92

TOTAL WILDCATS: 263

OIL AND/OR GAS PRODUCERS: 125

Total Cost 3000-4000-wells - 661,374.85

no. of wells 15

avg Cost = 44,092 12,600

total footage = 54,180

avg footage = 3612

Total Cost 4000-5000 wells = 607,301,59

no. of wells = 12

avg Cost = 50,608.46

Total footage = 52,811

avg footage = 4401

Depth 4500

Cost 53,000

allowable - 40

$40 \times 365 = 14,600$ bbls/yr.

$14,600 \times .875 = 12775$ bbls/yr net

$12,775 \times 2.69 = 34,365$

$\frac{53,000}{34,365} = 1.54$ yr payout

Depth 3500

Cost 38,000

all. 40

$40 \times 365 = 14,600$ bbls/yr.

$14,600 \times .875 = 12,775$

$12,795 \times 2.69 = 34,365$

$\frac{38,000}{34,365} = 1.10$ yr payout.

3000 - 4000 NUA = 40, factor = 1.00

Cost 39,100

Shell - P.U.: 40 x 2.69 x .875 = 107.60 $ per day

Shell Factor: .82 $\frac{39,100}{107.60}$ = 363.383 days = .9955 yrs.

1.274

4000 - 5000 NUA 40, f = 1.00

Cost 61,000.00

$\frac{61,000}{107.60}$ = 566.914 days = 1.553 years

S.F.

5000 - 6000 f NUA = 54. cost = 82,650.00

54 x 2.69 x .875 = 127.103 $ per day 1.406

$\frac{82,650}{127.103}$ = 650.260 days = 1.782 yrs.

6000 - 7000 f NUA = 71 cost = 104,250.00

71 x 2.69 x .875 = 167.116 $ per day

$\frac{104,250}{167.116}$ = 623.818 days = 1.709 yrs.

7000 - 8000 f NUA = 94 cost = 126,100.00

94 x 2.69 x .875 = 221.253 $ per day

$\frac{126,100.00}{221.253}$ = 569.936 days = 1.562 yrs.

8000 - 9000 f NUA = 120 cost = 148,100.00

120 x 2.69 x .875 = 282.450 $ per day

$\frac{148,100}{282.450}$ = 524.341 days = 1.437 years.

9000 - 10000 f NUA = 151 cost = 169,900

151 x 2.69 x .875 = 355.416 $ per day

$\frac{169,900}{355.416}$ = 478.031 days = 1.310 yrs.

10 000 - 11 000

f NUA = 187 cost = 194,000.00

187 x 2.69 x .875 = 440.151 $ per day

$\frac{194\,000}{440,151}$ = 440.758 days = 1.208 yrs.

11 000 - 12 000

f NUA = 227 cost = 230,750.00

227 x 2.69 x .875 = 534.301 $ per day

$\frac{230,750}{534.301}$ = 431.873 days = 1.183 years.

12 000 - 13 000

f NUA = 270 cost = 280,500

270 x 2.69 x .875 = 635,513 $ per day

$\frac{280,500}{635,513}$ = 441.376 days = 1.209 years.

13 000 - 14 000

f NUA = 320 cost = 344,650

320 x 2.69 x .875 = 753.200 $ per day

$\frac{344,650}{753.200}$ = 457.581 days = 1.254 years.

Avg. Payout (all brackets) : 1.382 yrs.

Avg. Payout: ($ = 6 000, thru 13 - 14 000) : 1.406 yrs.

3000-4000 :(
4000-5000 :(

NEW FACTORS

5000 - 6000

well cost = 82,650.00

$\frac{82,650}{573.190}$ = 161.05 ft per day

69 BOPD

$\frac{161.05}{2.35375}$ = 68.423 BOPD (gross)

1.70

$\frac{68.423}{40}$ = 1.711 FACTOR. 1.33 (present factor)

6000 - 7000

well cost = 104,250.00

$\frac{104,250.00}{573.190}$ = 203.14 ft per day.

89

$\frac{203.14}{2.35325}$ = 86.305 BOPD (gross)

2.15

$\frac{86.305}{40}$ = 2.158 FACTOR. 1.77

7000 - 8000

well cost: 126,100.00

$\frac{126,100}{573.190}$ = 245.72 ft per day

105

$\frac{245.72}{2.35375}$ = 104.395 BOPD (gross)

2.60

$\frac{104.395}{40}$ = 2,610 FACTOR 2.33

8000 - 9000

well cost = 148,100.00

$\frac{148,100}{573.190}$ = 288.587 ft per day

123

$\frac{288.587}{2.35375}$ = 122.607 BOPD (gross)

3.05

$\frac{122.607}{40}$ = 3.065 FACTOR 3.00

9000-10000 well cost = 169,900

169,900 = 331.067 $ per day
513.190

141 331.067 = 140.65$ BOPD gross
2.35375

3.50 140.65$ = 3.516 FACTOR 3.77
40

10000-11000 cost: 194,000.00

194.000 = 378.028 $ per day
513.190

161 378.028 = 160.607 BOPD gross.
2.35375

4.00 160.607 = 4.015 FACTOR. 4.67
40

11000-12000 cost: 230,750.00

230,750.00 = 449,639 $ per day
513.190

192 449.639 = 191.031 BOPD gross.
4.75 2.35375

191.031 = 4.776 FACTOR 5.67
40

12000-13000 cost: 280,500

280,500 = 546.581 $ per day
513.19

233 546.581 = 232.217 BOPD gross
5.90 2.35375

232.217 = 5.805 FACTOR 6.75
40

13000-14000 Cost: 344,650

$\frac{344,650}{513.19} = 671.584$ $/ per day

286 $\frac{671.584}{2.35375} = 285.325$ BOPD gross

$\frac{285.325}{40} = 7.133$ FACTOR. 8.00

4000 - 5000	1.00	90.00	40	
5000 - 6000	1.70	68.00	54	+ 25.92 %
6000 - 7000	2.15	86.00	71	+ 21.13 %
7000 - 8000	2.60	104.00	94	+ 10.64 %
8000 - 9000	3.05	122.00	120	+ 1.666 %
9000 - 10000	3.50	140.00	151	- 5.96
10000 - 11000	4.00	160.00	187	- 14.41
11000 - 12000	4.75	190.00	227	- 16.30 %
12000 - 13000	5.80	232.00	270	- 14.07 %
13000 - 19000	7.15	286.00	320	- 10.63 %

Payout Calculations
using a per year operating Cost under present Factors

$200/mo op. cost

Depth 5500
Cost -82,650
allowable-54
oil @ $2.69/bbl

365 x 54 = 19710
19710 x .875 = 17246 bbls/yr net
17246 x 2.69 = $46,392
$46,392 - 2400 = $43,992
82,650 / 43,992 = 1.88 yrs.

Depth 6500
Cost -104,250
allowable: 71
oil @ 2.69

365 x 71 = 25,915
25,915 x .875 = 22,676
22,676 x 2.69 = $60,998
60,998 - 2400 = 58,558
104,250 ÷ 58,558 = 1.78 yrs

Depth 7500
Cost 126,100
allowable - 94
oil @ 2.69

365 x 94 = 34,310
34,310 x .875 = 30,021
30,021 x 2.69 = 80,756
80,756 - 2400 = 78,356
126,100 / 78356 = 1.61 yrs.

Depth 8500
Cost 148,100
all - 120
oil @ 2.69

365 x 120 = 43,800
43,800 x .875 = 38,325
38,325 x 2.69 = 103,094
103,094 - 2400 = 100,694
148,100 / 100,694 = 1.47 yrs

Depth 9500
Cost 169,900
all 151
oil @ 2.69

365 x 151 = 55115
55115 x .875 = 48,226
48,226 x 2.69 = 129,728
129,728 - 2400 = 127,328
169,900 / 127,328 = 1.33 yrs.

Depth 10,500
Cost 194,000
all 187
all @ 2.69

187 x 365 = 68255
68,255 x .875 = 59,723
59,723 x 2.69 = 160,655
160,655 - 2400 = 158,255
194,000 ÷ 158,255 = 1.23 yrs.

Depth 11,500
Cost 230,750
allow = 227
all @ 2.69

227 x 365 = 82855
82,855 x .875 = 72,498
72,498 x 2.69 = $195,020
195,020 - 2400 = 192,620
230,750 / 192,620 = 1.20 yrs

Depth 12,500
Cost 280,500
allow: 270
all @ 2.69

270 x 365 = 98,550
98550 x .875 = 86,231
86231 x 2.69 = 231,961
231,961 - 2400 = 229,561
280,500 / 229,561 = 1.22 yrs

Depth 13,500
Cost 344,650
all = 320
all @ 2.69

320 x 365 = 116,800
116,800 x .875 = 102,200
102,200 x 2.69 = 274,918
274,918 - 2400 = 272,518
344,650 / 274,918 = 1.25 yrs

Depth 4000
Cost 47,500
all 40
all 2.69

40 x 365 = 14,600
14,600 x .875 = 12,775
12,775 x 2.69 = 34,365
34,365 - 2400 = 31,965
47,500 - 31,965 = 1,49

Present allac

Operating Cost @ $100/mo

5-6000	46392 - 1200 = 45,192 82,650 / 45192 = 1.83
6-7000	60998 - 1200 = 59798 104250 - 59798 = 1.74
7-8000	80756 - 1200 = 79556 126,100 / 79556 = 1.58
8-9000	103094 - 1200 = 101,894 148,100 / 101,894 = 1.45
9-10000	129728 - 1200 = 128,528 169,900 / 128,528 = 1.32
10-11000	160,655 - 1200 = 159,455 194,000 / 159,455 = 1.22
11-12000	195,020 - 1200 = 193,820 230,750 / 193,820 = 1.19
12-13000	231,961 - 1200 = 230,761 280,500 / 230,761 = 1.22
13-14000	274,918 - 1200 = 273,718 344,650 / 273,718 = 1.26
3-5000	34365 - 1200 = 33165 42,500 / 33165 = 1.43

Present allow.
Operating Cost - $150/mo.

5-6000	46,392 - 1800 = 44,592 82,650 / 44592 = 1.85
6-7000	60 998 - 1800 = 59198 104250 / 59198 = 1.76
7-8000	80756 - 1800 = 78956 126100 / 78956 = 1.60
8-9000	103,094 - 1800 = 101,294 148,100 / 101,294 = 1.46
9-10008	129,728 - 1800 = 127,928 169,900 / 127,928 = 1.33
10-11,000	160,655 - 1800 = 158855 194,000 / 158,555 = 1.22
11-12,000	195020 - 1800 = 193,220 230,750 / 193,220 = 1.19
12-13,000	231,961 - 1800 = 230,161 280,500 / 230,161 = 1.22
13-14,000	274,918 - 1800 = 273,118 344,650 / 273,118 = 1.26
3-5000	34,365 - 1800 = 32565 47,500 / 32165 = 1.46

Payout Calculations using proposed Factors, & revenue per year operating Costs.

Following Conditions : 40 BOPD = 1.00 . NUA
Well Costs as follows.

	Cost	Prop. Factor	daily allow
4000 -	47,500	1.00	40
5500 -	82,650	1.70	69
6500 -	104,250	2.15	86
7500 -	126,100	2.60	104
8500 -	148,100	3.05	122
9500 -	169,900	3.50	140
10,500 -	194,000	4.00	160
11,500 -	230,750	4.75	190
12,500 -	280,500	5.80	232
13,500 -	344,650	7.10	286

3-5000 Bracket

40 x 365 = 14600 — no lift cost 1.382
14,600 x .875 = 12,775
12,775 x 2.69 = 34,365

Cost	47500	47,500	47,500
Inc./year	34,365	34,365	34,365
less op. Cost	1200	1800	2400
Net income	33,165	32,565	31,965
Payout: yrs.	1.43	1.46	1.49

5-6000

69 x 365 = 25185 — no lift cost 1.394
25185 x .875 = 22037
22037 x 2.69 = 59,280

Cost	82650	82650	82650
Inc/year	59280	59280	59280
less op Cost	1200	1800	2400
Net inc.	58080	57,480	56,880
Payout yrs	1.42	1.43	1.45

6-7000

86 + 365 = 31390 — no. lift cost 1.41

31,390 x .875 = 27,466

27466 x 2.69 = 73,884

Cost	104,250	104,250	104,250
Inc./yr	73884	73884	73884
Less op Cost	1200	1800	2400
Net inc	72684	72084	71484
Payout/yr.	1.43	1.45	1.46

7-8000

104 + 365 = 37960 — no. l. c. 1.41

37960 x .875 = 33,215

33,215 x 2.69 = 89,348

Cost	126,100	126,100	126,100
Inc/yr.	89,348	89,348	89,348
Less op. Cost	1200	1800	2400
Net inc	88,148	87,548	86,948
Payout/yr.	1.43	1.44	1.45

8-9000

122 + 365 = 44530 — no. eqft cost 1.41

44530 x .875 = 38964

38964 x 2.69 = 104,813

Cost	148,100	148,100	148,100
Inc/yr	104,813	104,813	104,813
Less op. Cost	1200	1800	2400
Net inc	103,613	103,013	102,413
Payout/yr.	1.43	1.44	1.45

9 - 10,000

140 × 365 = 51,100 — w left cost
51,100 × .875 = 44,713 — 1.41
44,713 × 2.69 = 120,278

Cost	169,900	169,900	169,900
Inc/yr	120278	120278	120,278
Less op Cost	1200	1800	2400
Net inc	119,078	118,478	117,878
Payout/yr	1,43	1.43	1.44

10 - 11,000

160 × 365 = 58,400 — n.f.c
58,400 × .875 = 51,100 — 1.41
51,100 × 2.69 = 137,459

Cost	194,000	194,000	194,000
Inc/yr.	137,459	137,459	137,459
Less op. Cost	1200	1800	2400
Net inc	136,259	135,659	135,059
Payout/yr.	1.42	1.43	1.44

11 - 12000

190 × 365 = 69,350 — N×C
69,350 × .875 = 60,681 — 1.41
60,681 × 2.69 = 163,232

Cost	230,750	230,750	230,750
Inc/yr.	163,232	163,232	163,232
Less op. Cost	1200	1800	2400
Net inc	162,032	161,432	160,832
Payout/yr.	1.42	1.43	1.43

12 - 13000

232 + 365 = 84,680 N.P.C.
84,680 + .875 = 74,095 1.41
74,095 × 2.69 = 199,315

Cost	280,500	280 500	280,500
Inc/yr.	199,315	199, 315	199, 315
Less op. Cost	1200	1800	2400
Net Inc/yr	198,115	197,515	196,915
Payout/yrs	1.42	1.42	1.42

13-14000

284 × 365 = 104,390 N.P.C.
104,390 × .875 = 91,341 1.40
91,341 × 2.69 = 245,707

Cost	344,650	344,650	344,650
Inc/yr.	245,707	245,707	245,707
Less op. Cost	1200	1800	2400
Net Inc/yr.	244,507	243,907	243,307
Payout/yr.	1.41	1.41	1.42

			daily allot.			daily allt.	
0-5000	1106		40	44,240	40		44,240
5-6000	42	1.33	55.86 54	2268	69		2898
6-7000	51	1.77	90.27 71	3621	86		4386
6-7000 Sp	37	-	91	3367	911		3367
7-8000	94	2.33	219.02 94	8836	104		9776
8-9000	42	3.00	126.00 120	5040	122		5124
8-9000 Sp.	9		100	900	100		900
9-10,000	189	3.77	712.53 151	28539	140		26460
9-10,000 Sp.	11	4.77	52.47 191	2101	180		1980
10-11000	41	467	191.47 187	7667	160		6560
~~10~~ 11,000 Sp	15	5.67	85.05 227	3405	200		3000
11-12000	114	5.67	646.38 227	25878	190		21,660
12-13000	17	6.75	114.75 270	4590	232		3944
13-14-	3	8.00	24.00 320	960	286		858
	1771		8317.80	141,412			135,153

141,412/40 = 3535

135153/40 = 3378

Payout under present factors at lowest point in each depth bracket

Costs @		allowable
5000	73,000	- 40
6000	94,500	54
7000	116,500	71
8000	138,000	94
9000	160,000	120
10,000	182,000	151
11,000	212,000	187
12,000	255,000	227
13,000	312,000	270
14,000	381,000	320

7/8 entered, acl @ 2.69 $/bbl

0 - 5000 $40 \times 365 \times .875 \times 2.69 = 34,365$

$73,000 / 34,365 = 2.124$ yrs payout

5-600 $94,500 / 46,392 = 2.037$

6-7000 $116,500 / 60,998 = 1.910$

7-8000 $138,000 / 80,756 = 1.709$

8-9000 $160,000 / 103,094 = 1.552$

9-10000 $182,000 / 129,822 = 1.402$

10-11,000 $212,000 / 160,655 = 1.320$

11-12000 $255,000 / 195,020 = 1.307$

12-13,000 $312,000 / 231,961 = 1.345$

13-14000 $381,000 / 274,918 = 1.386$

5000-14000. 1.552 0-14000 1.609

$1.552 = \frac{94,500}{x}$; $x = 60,889$.

5-6 $60889 / 2.69 \times .875 \times 365 = \frac{60889}{859.12} = 70.87$

$70.87 / 40 = 1.77$.

6-7 $\frac{116,500}{1.552} = 75,064$; $\frac{75,064}{859.12} = 87.37$ BOPD

$87.37 / 40 = 2.18$.

7-8 $\frac{138,000}{1.552} = 88917$ $\frac{88,917}{859.12} = 103.50$

$103.50 = 2.59$

8-9 $\frac{160,000}{1.552} = 103,093$; $\frac{103,093}{859.12} = 1.19.99$

$119.99 / 40 = 3.00$.

9-10 $\frac{182,000}{1.552} = 117,268$ $117,268 / 859.12 = 136.50$

$136.50 / 40 = 3.41$.

10-11 $\frac{212,000}{53334} = 3.97$.

11-12 $\frac{255,000}{53334} = 4.78$.

12-13 $\frac{312,000}{53334} = 5.85$.

13-14 $\frac{381,000}{53334} = 7.14$.

Average Cost 3-4000 foot wells

Total footage 15 wells 54,180

54180 / 15 = 3612

661,375 / 15 = 44,091

Average Cost 4-5000
Depth 4420 Cost $50,252

Cost @ 4000 = $47,500

Payout @ 40 BOPD 2.69 .875 interest

40 + 365 = 14,600
14,600 + .875 = 12775
12775 + 2.69 = 34,365
47,500 / 34,365 = 1.382 yrs.

Payout excluding $1200/yr operating Cost

34365 - 1200 = 33165
47,500 / 33165 = 1.43 yr payout

@ 1800/yr.

34365 - 1800 = 32,565
47,500 / 32565 = 1.46

@ 2400/yr

34365 - 2400 = 31,965
$47,500 / 31,965 = 1.49 yrs.

Avg well cost

Depth -	
5500	80,000
6500	104,000
7500	126,000
8500	150,000
9500	173,000
10,500	197,000
11,500	221,000
12,500	274,000
13,500	347,000

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
Stanolind EXHIBIT No. 3
CASE 608

THE ATLANTIC REFINING COMPANY
NEW MEXICO DRILLING COSTS
Wells Completed 1951, 1952, 1953

Well Name	Field	Date of Completion	Actual Drilling Cost	Total Depth
Dickinson A-1 #1	Denton (WC)	10-7-51	$170,487	9,510'
Dickinson B #2	" "	4-12-51	$163,174	9,509'
Dickinson B #5	" "	7-18-53	$169,762	9,428'
Federal Jones #3	" "	11-16-52	$171,872	9,500'
Federal Jones #4	" "	3-1-53	$159,509	9,500'
State "T" #6	" "	11-7-53	$179,543	9,550'
State "T" #7	" "	3-2-53	$164,359	9,231'
State "T" #8	" "	2-25-53	$184,457	9,295'
Dickinson A-1 #2	Denton (Dev.)	3-29-53	$346,829	12,570'
Dickinson A-34 #1	" "	7-14-52	$319,017	12,720'
Dickinson A-34 #2	" "	7-19-53	$287,924	12,604'
Dickinson B #3	" "	10-17-52	$378,587	12,662'
Federal Jones #1	" "	7-27-51	$305,176	12,700'
Federal Jones #2	" "	12-22-52	$379,969	12,600'
State "T" #1	" "	6-2-51	$275,212	12,730'
State "T" #2	" "	1-15-52	$495,993	12,726
State "T" #3	" "	6-22-52	$370,500	12,483'
State "T" #4	" "	8-24-52	$252,752	12,400'
State "R" #1	Saunders (Penn)	10-6-51	$361,893	14,147'
State "S" #1	" "	5-13-51	$202,562	10,012'
M. Goins #1	Teague (Dev.)	7-2-52	$235,703	9,825'
State "T" #5	Denton (WC)	3-10-53	$234,000 *	9,250'

* This cost is the sum of the original AFS and the supplemental AFS. Actual Cost is not available.

Jab

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Amorada Pet, Corp.
P. O. Box 706
Ennice, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Ward	1	Bronco Silluro-Devonian	11390

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Amerada Pet. Corp.
P. O. Box 706
Eunice, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State ECG	2 ✓	East Caprock	11226
State ECF	1 ✓	East Caprock	11302
Posey A	4 ✓	East Caprock	11255
State ECH	1 ✓	East Caprock	11250

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Amerada Petroleum Corp.
P. O. Box 706
Eunice, New Mexico

Gentlemen:

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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State STA	1	Eidson-Penn.	10750

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Amerada Pet. Corp.
P. O. Box 706
Eunice, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State MA	2 ✓	Moore-Devonian	10650
Robinson	2 ✓	Moore-Devonian	10671

Rec'd 1-29-54

THE ATLANTIC REFINING COMPANY

PETROLEUM PRODUCTS

ATLANTIC BUILDING

DALLAS, TEXAS

January 27, 1954

MAILING ADDRESS
P. O. BOX 2819
DALLAS 1, TEXAS

ACCOUNTING DEPARTMENT

Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

In compliance with your request of January 6, 1954, I am detailing the costs of our Dickinson A-1, Well #2 in the Denton Pool:

Drilling Costs	$203,618
Material Costs	126,336
Special Services	15,364
Total	$345,318

Very truly yours,

G. B. Hefner, Manager
Crude Oil & Gas Accounting Division

GBH:eh

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Atlantic Oil & Rfg. Co.
P. O. Box 2819
Dallas, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Dickinson A-1	2	Denton	12571

CITIES SERVICE OIL COMPANY

PRODUCERS-REFINERS-MARKETERS OF PETROLEUM PRODUCTS

BOX 97

HOBBS, NEW MEXICO

January 8, 1954

OIL CONSERVATION COMMISSION
SANTA FE
JAN 11 1954

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Att: W. B. Macey, Chief Engineer

Gentlemen:

We have your letter of January 6, 1954 with respect to cost data being assembled for Oil Conservation Commission Case 608 - Well Data. We are happy to assist you and tabulated below, you will find cost figures on drilling and equipping our State "AJ" Well No. 1 located in Section 12-17S-36E, Lovington - Paddock Pool, Lea County, New Mexico. This well was drilled to a total depth of 6230'.

Contract Drilling labor	$ 47,400
Casing, tubing, casing & well head connection	33,500
Special services	22,780
Tank battery and lines	~~12,820~~
Pumping equipment	~~11,430~~
	$127,930

We trust this information is sufficient for your case.

Very truly yours,

D. D. Bodie
Division Superintendent

DDB:bjs

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Cities Service Oil Co.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State A & J	1	Lovington-Paddock	6230

ANDERSON-PRICHARD OIL CORPORATION

PRODUCERS REFINERS

P. O. BOX 2197
PHONE 3-2131

DISTRICT II FIELD OFFICE
107 WEST SANGER STREET
HOBBS, NEW MEXICO

GENERAL OFFICE
LIBERTY BANK BLDG.
OKLAHOMA CITY 2, OKLAHOMA

January 29, 1954

RECEIVED
FEB 1 1954

Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

JAL

Attention: Mr. W. B. Macey

Gentlemen:

In reply to your letters of January 6, 1954, Case 608 - Well Data regarding our Britt B #2, Monument-Blinebry, and our Langlie #5, Langlie-Mattix, following is information requested:

	BRITT "B" #2	LANGLIE #5
Material	$ 35,173.34	$ 16,897.18
Drilling Cost	49,895.16	16,583.39
Special Services	47,037.66	11,341.77
	$ 132,106.16	$ 44,822.34

If any additional information is required, please advise this office and we will forward the information as quickly as possible.

Very truly yours,

L. H. Fosber,
District Superintendant.

LHF/mjs

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Anderson Prichard Oil Corp.
P. O. Box 2197
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

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Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Britt B	2	Monument-Blinebry	5711

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

Dale

January 6, 1954

Case 608 - Well Data

Anderson Prichard Oil Corp.
P. O. Box 2197
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Langlie	5 ✓	Langlie-Mattix	3404

TEXAS CALGARY COMPANY

May 13, 1958

Mr. Emery C. Arnold
New Mexico Oil Conservation Commission
Aztec, New Mexico

Dear Mr. Arnold:

Enclosed herewith please find two copies of Form C-116, Well Tests, on wells in the Knopah Field.

We were unable to test Santa Fe #9; Hurst-Santa Fe 49, 51; State 25, 48 and 50; and Osborne #1. Past tests on these wells are as follows:

		Date	Water Bbls.	Oil Bbls.
Santa Fe	# 9	10-25-57	71.77	7.97
Hurst-Santa Fe	#49	1- 5-58	0.38	3.43
" " "	#51	11-15-57	1.24	11.16
State	#25	1-29-58	4.75	26.93
"	#48	10-25-57	5.10	3.85
"	#50	10-15-57	1.62	1.62
Osborne	# 1	Estimate		2.00

We will attempt to get new tests on these wells as soon as possible.

We would appreciate your sending us a supply of Form C-116.

Yours very truly,

Mark P. Autry

Mark P. Autry
Geologist

MPA/nb
Enclosures

cc: New Mexico Oil Conservation Commission
125 Mabry Hall, Capitol Building
Santa Fe, New Mexico

Form C- 116
Revised (12/1/55

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR TEXAS CALGARY COMPANY POOL Koopah

ADDRESS 320 Petroleum Bldg., Abilene, Texas MONTH OF April - May, 19 58

SCHEDULED TEST X COMPLETION TEST SPECIAL TEST (Check One)

(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Calc. Test Hours Run	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
Santa Fe	38	4-14	Pump		24		85.88	4.32	Nil	
	13	4-16	"		"		56.88	18.96	"	
	39	4-17	"		"		83.47	5.33	"	
	5	4-18	"		"		18.18	12.12	"	
	4	4-21	"		"		9.46	14.20	"	
	21	4-22	"		"		78.24	8.70	"	
	22	4-22	"		"		11.80	7.88	"	
	2	4-23	"		"		74.35	19.76	"	
	6	4-24	"		"		7.38	17.30	"	
	8	4-25	"		"		58.39	6.49	"	
	11	4-26	"		"		84.56	6.37	"	
Buracaflecta Fe	14	4-16	"		"		17.82	5.94	"	
	23	4-17	"		"		2.23	7.92	"	
	18	4-18	"		"		5.14	7.25	"	
	24	4-20	"		"		80.07	10.85	"	
	32	4-22	"		"		4.29	3.35	"	
	1	4-23	"		"		0.41	1.49	"	
	20	5-8	"		"		0.25	6.10	"	

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 degrees F. Specific gravity base will be 0.60.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date May 13, 1958

TEXAS CALGARY COMPANY
Company

By

Assistant Secretary
Title

Form C- 116
Revised (12/1/55

NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO REPORT

OPERATOR TEXAS CALGARY COMPANY POOL Hospah

ADDRESS 320 Petroleum Bldg., Abilene, Texas MONTH OF April - May, 19 58

SCHEDULED TEST X COMPLETION TEST SPECIAL TEST (Check One)

(See Instructions on Reverse Side)

Lease	Well No.	Date of Test	Producing Method	Choke Size	Calc. Test Hours to	Daily Allowable Bbls.	Production During Test			GOR Cu. Ft. Per Bbl.
							Water Bbls.	Oil Bbls.	Gas MCF	
State	10	4- 3	Pump		24		1.08	14.34	Nil	
	3	4- 6	"		"		10.77	6.14	"	
	7	4- 7	"		"		4.48	15.42	"	
	15	4- 7	"		"		1.85	15.29	"	
	33	4- 8	"		"		.14	9.22	"	
	16	4- 8	"		"		.68	15116	"	
	27	4- 9	"		"		16.63	5.25	"	
	19	4-10	"		"		.11	11.33	"	
	29	4-13	"		"		15.89	3.73	"	
	37	4-14	"		"		15.30	3.60	"	
	32	4-17	"		"		26.70	2.64	"	
	23	4-18	"		"		54.07	2.85	"	
	36	4-19	"		"		21.88	5.48	"	
	28	4-28	"		"		31.64	14.56	"	
	34	4-23	"		"		30.07	17.66	"	
	17	5-9	"		"		12.35	14.50	"	
Wilson-State	18	4-29	"		"		4.30	18.73	"	
	35	4-30	"		"		.20	20.76	"	

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Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission. In accordance with Rule 301 and Appropriate Pool Rules.

(I certify that the information given is true and complete to the best of my knowledge.)

Date May 13, 1958

TEXAS CALGARY COMPANY
Company

By

Assistant Secretary
Title

Ralph Lowe

Phone 4-7441

Box 832 *Midland, Texas*

OIL CONSERVATION COMMISSION
JAN 11 1954
RECEIVED

January 8, 1954

Mr. W. B. Macey
Oil Conversation Commission
P. O. Box 871
Santa Fe, New Mexico

Re: Case 608-Well Cost Data

Dear Sir:

In reply to you request of the cost data on certain wells drilled in the Denton Pool of New Mexico, we submit the following information;

WELL	DRILLING	MATERIAL	SPL. SERVICES	TOTAL
DICKENSON D-5	$183,781.05	$42,151.45	$5,530.22	$231,462.72
DICKENSON D-6	173,850.76	42,967.09	4,567.09	221,384.94
DICKENSON D-7	103,948.63	55,300.48	5,608.95	164,858.06

If you desire more information we will be more than happy to supply same.

Very truly yours,

RALPH LOWE

By *Alton R. Jones*

ANJ/

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Ralph Lowe
P. O. Box 832
Midland, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Dickinson D	5	Denton	12475
Dickinson D	6	Denton	12560

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Ralph Lowe
P. O. Box 832
Midland, Texas

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Dickinson D	7	Denton-Wolfcamp	9212

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Fullerton Oil Co.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Elliott	6	Terry-Blinebry	6015

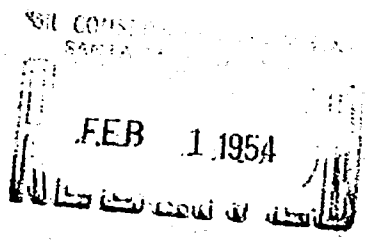
TELEPHONES
RYAN 1-8191
SYCAMORE 6-0261

MAILING ADDRESS
380 EAST GREEN STREET
PASADENA 1

FULLERTON OIL COMPANY

FULLERTON OIL BUILDING
380 EAST GREEN STREET
PASADENA 1, CALIFORNIA

January 27, 1954



New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. W. B. Macey
Chief Engineer

Gentlemen:

In reply to your letter of January 6, 1954 regarding Case 608, we wish to advise the cost of drilling and equipping our Elliott well #6 is as follows:

Drilling	$49,756
Special Services	4,777
Casing and Tubing and Well Head Equipment	20,658
Total Drilling and Equipping Costs, exclusive of Tankage	$75,191

Tankage to serve this well and one other well, which is producing from the same zone, costs $12,460. If the cost data you are seeking should include tankage, the total cost of drilling and equipping this well should be increased to $81,421 ($75,191 + 1/2 of $12,460).

Yours very truly,

FULLERTON OIL COMPANY

Paul Mack

Paul Mack
Chief Accountant

PM:dm

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S. WALKER
MEMBER
STATE GEOLOGIST R.R. SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

De Kalb Agricultural Assn. Inc.
306 Lubbock National Building
Lubbock, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Pardue	1	Malaga	2726

Case No 8

Oil and Gas Division
DEKALB AGRICULTURAL ASSOCIATION, INC.
Texas-New Mexico District
ROOM 508 LUBBOCK NATIONAL BANK BLDG.
LUBBOCK, TEXAS

JAN 18 1954

January 16, 1954

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

ATTENTION: Mr. W. B. Macey
Chief Engineer

Gentlemen:

In reference to your letter requesting certain information on the Pardue Lease, Well # 1, Malaga Pool, we are submitting the following facts for your consideration:

Drilling Cost	$ 16,080.08
Material Cost	16,855.93
Special Services	2,642.92
Total Cost of Well	$ 35,578.93

We appreciated your nice letter of explanation and we trust that the above information will be sufficient for your purposes. We would appreciate it if this will be kept confidential.

Yours very truly,

DEKALB AGRICULTURAL ASSN., INC.
Oil and Gas Division
Texas-New Mexico District

Curtis L. Taylor
Accountant

CLT/cp

CONTINENTAL OIL COMPANY

Hobbs, New Mexico
January 19, 1954

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
JAN 2 2 1954

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Attention: Mr. W. D. Macey

Gentlemen:

Replying to your eight letters dated January 6, 1954 regarding Case 608 Well Data, we are forwarding herewith tabulation setting out cost data on the 11 wells drilled by our Company in Lea County, New Mexico on which you have requested the information.

If we can assist you further in this matter, please advise.

Yours truly,

N. A. RICKMAN
Dist. Supt., New Mexico Dist.
West Texas-New Mexico Divn.
Production Department

NAR-BJE

WELL COST DATA - LEA COUNTY, N.M.
CONTINENTAL OIL COMPANY-1953

POOL AND WELL	DRILLING COST	MATERIAL	SPECIAL SERVICES	TOTAL DEPTH
Anderson Ranch Unit - Devonian				
Anderson Ranch Unit No. 2	$290,472	$ 62,776	$ 1,583	13,703'
Anderson Ranch Unit No. 3	266,358	69,996		13,540'
Anderson Ranch Unit - Wolfcamp				
Anderson Ranch Unit No. 6	122,503	55,961		9,980'
Cooper-Jal				
Wells A-12 No. 3	36,492	18,933		3,550'
Eaves				
Eaves A-19 No. 6	24,376	10,831		3,228'
Hare				
Hawk B-3 No. 5-S	84,004	40,140		8,114'
State 10 No. 1	102,425	46,877		8,285'
Lockhart B-12 No. 5	84,032	32,674	2,391	8,033'
Monument-Blinebry				
Britt B-8 No. 2	61,854	25,045		5,710'
Skaggs				
Skaggs B-13 No. 3	34,038	14,323		3,879'
Wantz-Abo				
Lockhart B-13 "A" No.1	139,238	39,872		7,575'

Jal

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Continental Oil Co.
P. O. Box 627
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Skaggs B-13	3	Skaggs	3879

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Continental Oil Co.
P. O. Box 627
Hobbs, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Wells	3	Cooper Jal	3550

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Continental Oil Co.
P. O. Box 627
Hobbs, New Mexico

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Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Eaves-Fed A 17	86	Eaves	3228

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Continental Oil Co.
P. O. Box 627
Hobbs, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Britt B-8	2	Monument-Blinebry	5710

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Continental Oil Co.
P. O. Box 527
Hobbs, New Mexico

Gentlemen:

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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Anderson Ranch Unit	2	Anderson Ranch Unit	13703
Anderson Ranch Unit	3	Anderson Ranch Unit	13540

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Continental Oil Co.
P. O. Box 627
Hobbs, New Mexico

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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Anderson Ranch Unit	6	Anderson Ranch Wolfcamp	9980

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Continental Oil Co.
P. O. Box 627
Hobbs, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Lockhart B-13 A	1	Wantz-Abo	7575

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Continental Oil Co.
P. O. Box 627
Hobbs, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Hawk B-3	5-S	Hare	8114
State 10	1	Hare	8285
Lockhart B-12	5	Hare	8033

Jak

JAN 27 1954

SKELLY OIL COMPANY

PRODUCTION DEPARTMENT
J. S. FREEMAN
VICE PRESIDENT
E. A. JENKINS
GENERAL SUPERINTENDENT

TULSA 2, OKLAHOMA

January 25, 1954

W. P. WHITMORE
CHIEF PETROLEUM ENGINEER
G. W. SELINGER
PRORATION ATTORNEY
J. H. McCULLOCH
CHIEF CLERK

Re: Case No. 608

Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

We have your letters of January 6 with respect to nine of our wells, and we are enclosing a tabulation giving the information you desired on these nine wells as per your request.

Yours very truly,

George W. Selinger

George W. Selinger

GWS:dd

cc: Mr. J. N. Dunlavey

SKELLY OIL COMPANY
PARTIAL LIST NEW MEXICO WELLS

Lease	Well No.	Pool	Total Depth	Approximate Well Cost, Less Tankage: Drilling Cost	Material Cost	Total Cost	Remarks
Mexico "R"	2	Eidson-Penn.	10,727'	$137,985	$ 48,587	$186,572	
Mexico "R"	3	Eidson-Penn.	10,736'	149,250	46,325	195,575	Additional coring
Mexico "R"	4	Eidson-Penn.	10,755'	130,006	48,587	178,593	
State "O"	14	Lovington-Abo	8,429'	91,998	31,175	123,173	
Mexico "S"	2	East Caprock-Wolfcamp	8,650'	143,855	40,509	184,364	7" casing & rework
State "N"	3	Lovington-Paddock	6,279'	74,112	34,671	108,783	Equipped to pump
Mexico "K"	2	Dollarhide-Drinkard	6,900'	63,454	28,655	92,109	
E. L. Steeler	4	Penrose-Skelly	3,630'	23,182	12,526	35,708	
Mexico "L"	5	Dollarhide-Queen	3,752'	33,725	19,677	51,402	Job

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Skelly Oil Co.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Mexico L	5 ✓	Dollarhide-Queen	3752

GOVERNOR EDWIN L. MECHEM
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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Steeler	4 ✓	Penrose-Skelly	3630

GOVERNOR EDWIN L. MECHEM
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January 6, 1954

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Very truly yours,
W R Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Mexico K	2	Dollarhide-Drinkard	6900

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Skelly Oil Co.
Hobbs, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Mexico N	3	Lovington-Paddock	6279

GOVERNOR EDWIN L. MECHEM
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New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Skelly Oil Co.
Hobbs, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Mexico S	2	East Caprock-Wolfcamp	8650

GOVERNOR EDWIN L. MECHEM
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SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Skelly Oil Co.
Hobbs, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State 0-	14 ✓	Lovington-Abo	8429

GOVERNOR EDWIN L. MECHEM
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STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Skelly Oil Co.
Hobbs, New Mexico

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Mexico R	2	Eidson-Penn.	10727
Mexico R	3	Eidson-Penn.	10736
Mexico R	4	Eidson-Penn.	10755

GENERAL OFFICES
120 BROADWAY NEW YORK

AMERADA PETROLEUM CORPORATION
BEACON BUILDING
P. O. BOX 2040
TULSA 2, OKLA.

OIL CONSERVATION COMMISSION
FEB 1954
RECEIVED

February 3, 1954

AIR MAIL

Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

As requested in your letter of January 6, 1954, with reference to Case 608, we furnish you herewith cost data on thirteen wells.

In presenting these costs we feel it imperative to point out certain facts.

In analyzing our Lovington Paddock wells we find the first well drilled, State L "B" No. 1, was the costliest well drilled, partly attributed to a blowout, whereas the fifth well drilled, State L "A" No. 16, was the cheapest. We find this to be generally true in all fields; that is, the costs decline with development. We note your other selection, State L "A" No. 14, cost less than the average of the five wells here analyzed.

We have final costs on five Lovington Abo wells and find that State L "A" No. 11, your selection was the cheapest one drilled being some $5,000 less than the costliest well.

Our State-Tulk "B" No. 1 cost approximately $50,000 less than Tulk "A" No. 1, and State SH "A" No. 2 $32,000 less than SH "A" No. 1. Here again it is apparent the first wells are more expensive than subsequent development.

In the Moore Devonian Pool, the wells selected are the more recent wells and, therefore, cost less than earlier drilled wells.

The four wells selected in the East Caprock Pool are the last wells drilled on which we have complete cost data. Posey "A" No. 4 and State EC "H" No. 1 are the cheapest wells drilled whereas State EC "C" No. 2 and EC "F" No. 1 represent more nearly the average of all wells drilled.

The same condition is true on Ward No. 1. Of the six wells we have complete cost data on, four have substantially higher costs and one slightly less than Ward No. 1.

Therefore, in analyzing all the wells selected for this study, it is apparent the majority happen to cost less than the average. We point this out merely to show that a large number of cases should be used in arriving at a reasonable average value. It seems to us also that the time factor is very important in such an analysis. The time interval should be long enough to average out changes in economic and other factors such as premium pipe, areas of harder drilling, taxes and even the weather. It would be impractical to change the depth factors each time there was a change in economic conditions, price of crude oil, etc. If the depth factors are based on costs over a rather long period of time they should hold and be applicable for establishing the allowable for many years.

In submitting these data we do so with the understanding these costs are lower than our average generally and should be used only with a large amount of additional data compiled in the same manner. We reserve the right also to submit additional data in this case when it is called for hearing, if we find it necessary.

As a further thought in this matter it would seem appropriate for each company submitting data to have made available to it similar information submitted by other companies and if possible have sufficient time to evaluate same. This would delay the hearing perhaps another month but I think would be well worthwhile.

Yours very truly,

R. S. Christie

RSC:vd

LEASE AND WELL	POOL	TOTAL DEPTH	INTANGIBLES		TANGIBLE	TOTAL COST
			Drilling Cost	Special Services	Material Cost	
State L "A" # 14	Lovington Paddock	6,250'	$43,179.20	$14,590.54	$53,472.15	$111,241.89
State L "B" # 1	Lovington Paddock	6,280'	$50,308.55	$21,575.41	$52,634.80	$124,518.76
State L "A" # 11	Lovington Abo	8,440'	$67,738.12	$16,413.50	$42,010.51	$126,162.13
State-Tulk "B" #1	Tulk Wolfcamp	9,730'	$64,549.02	$21,725.76	$52,154.12	$138,428.90
State SH "A" # 2	Lazy "J"	9,760'	$64,205.08	$21,474.25	$47,431.49	$133,110.82
State M "A" # 2	Moore Devonian	10,650'	$108,039.70	$21,612.64	$43,472.03	$173,124.37
Robinson # 2	Moore Devonian	10,671'	$103,871.72	$25,447.72	$49,557.42	$178,876.86
State ST "A" #1	Eidson Penn.	10,750'	$111,402.90	$17,856.55	$58,361.55	$187,621.00
State EC "C" #2	East Caprock	11,228'	$154,634.35	$18,600.00	$45,422.10	$218,656.45
State EC "F" #1	East Caprock	11,302'	$146,703.45	$19,217.34	$48,694.25	$214,615.04
Posey "A" #4	East Caprock	11,255'	$124,994.62	$27,621.16	$52,791.07	$205,406.85
State EC "H" #1	East Caprock	11,250'	$124,782.06	$20,496.87	$56,595.50	$201,874.43
Ward #1	Bronco-Siluro-Dev.	11,890'	$143,911.08	$21,989.04	$58,945.57	$224,845.69

WMC:mk

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Shell Oil Co.
P. O. Box 1959
Hobbs, New Mexico

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State	3-A	Maljamar	4340

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Andrews	2 ✓	Wantz-Abo	7443

New Mexico
OIL CONSERVATION COMMISSION

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P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State TA	1 ✓	Townsend Wolfcamp	11546

New Mexico
OIL CONSERVATION COMMISSION

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CHAIRMAN
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STATE GEOLOGIST R.R. SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

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P. O. Box 1959
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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State ECA	1	East Caprock	11230
State ECA	2	East Caprock	11228

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
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P. O. BOX 871
SANTA FE, NEW MEXICO

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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State A	3	Echols	11750

GOVERNOR EDWIN L. MECHEM
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New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Priest	3	Denton	12650
Pacific Royalty	1	Denton	12635
Shelton	1	Denton	12876

SHELL OIL COMPANY

THIS LETTER IS FROM OUR FIELD OFFICE

AT Box 1957
Hobbs, New Mexico

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
FEB 5 1954
RECEIVED

February 2, 1954

Subject: Case 608 - Well Data

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. W. B. Macey

Gentlemen:

As requested in your letters dated January 6, 1954 we have assembled cost data on eight of the nine wells listed. Mr. Macey granted permission to exclude one of the wells listed for the Denton Pool after we explained that this well had been drilled with Company tools and therefore the cost data would not be typical. Further, as discussed with Mr. Macey, in order that these data may be at least partially confidential we are assigning code letters to the wells and are changing the total depths from exact to approximate figures.

As specified, the cost data do not contain any amount for overhead or supervision. The breakdown of costs as tabulated below is as follows: (1) drilling costs (includes the cost of installing and removing drilling equipment and all charges for footage, day work, and bits), (2) material costs (includes casing, casing shoes, tubing, and wellhead equipment), and (3) special services (includes cost of roads, preparing drilling site, electrical and radioactivity surveys, mud, cement and cementing services, rental for drill stem testing equipment, transportation, and rental and service charges for coring equipment).

Well	Pool	Approximate Total Depth	Drilling Costs	Material Costs	Special Services	Total
Shelton #1 → A	Denton	12,860'	$213,800	$ 75,500	$ 53,000	$342,300
Pucket #3 → B	Denton	12,660'	172,400	58,800	31,400	262,600
State A #3 → C	Echol	11,750'	118,200	59,500	29,300	207,000
State ECA #1 → D	E. Caprock	11,230'	144,700	55,600	26,300	226,600
State ECA #2 → E	E. Caprock	11,230'	172,300	51,900	36,900	261,100
State TA #1 → F	Townsend-Wolfcamp	11,550'	146,000	60,700	34,800	241,500
Andrews #2 → G	Wantz Abo	7,450'	58,400	37,000	20,800	116,200
State 3A → H*	Maljamar	4,340'	22,000	18,000	9,200	49,200

* Well H was drilled with combination tools.

The above data are forwarded for your use in Case 608 for presentation at the February 1954 hearing.

Yours very truly,

W. E. Owen
Division Manager

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

Jak

January 6, 1954

Case 608 - Well Data

Cosden Petroleum Corp.
P. O. Box 1311
Big Spring, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Butler	2	Drinkard	7009

COSDEN PETROLEUM CORPORATION

Producers and Refiners — HIGHER COSDEN OCTANE — Petroleum Products

R. W. THOMPSON
VICE-PRESIDENT
PRODUCTION AND PIPE LINE

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
FEB 4 1954
RECEIVED

BIG SPRING, TEXAS
February 2, 1954

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Attention: Mr. W. C. Macey, Chief Engineer

Gentlemen:

On January 6, you addressed a letter to our company asking for cost data on the completion of our #2 Butler well in the Drinkard Field in Lea County.

Attached herewith is a detail well cost statement on this well.

I would like to point out that our cost on the above mentioned well is some higher than the average cost should have been. For one thing, we had two tubing failures in the completion of this well which necessitated killing and recompleting. We call your attention to the cost of nine Drill Stem Tests in testing the various zones encountered while drilling the well. We kept a well logging unit on the well from approximately 3800 feet to total depth which represents a substantial geological expense included on this statement. As the last item, I would like to call your attention to the fact that we used 6544 feet of Japanese casing that was imported at a premium of approximately $1.00 per foot. The additional cost of this casing is naturally charged into this well.

We trust that this statement will furnish the information you desire.

Yours very truly,

R. W. Thompson

RWT:wd

Enclosure

FORM 1001-8.57

COSDEN PETROLEUM CORPORATION

DETAIL WELL COST

LEASE & WELL NO. Butler #2 FIELD Blinebry T.D. 7010'
COUNTY Lea STATE New Mexico CONTRACTOR Choya Drilling Co.

DRILLING INTANGIBLES:	AMOUNT
DRILLING COST 7010 FEET @ $5.50 Plus 2% N.W. State Tax PER FOOT	$ 39,326.20
DAYWORK With D.P. $700.00 Without $650.00	10,682.91
SWABBING	1,416.93
CORING WELL SURVEYS (S.J. - ~~KEK~~)	1,434.39
FUEL & WATER	
BITS	
ROADS, BRIDGES & CLEARING LOCATION	1,341.42
TRUCKING	2,800.98
WELDING & MACHINE SHOPS	85.56
CEMENT & SERVICE	2,913.91
MUD	2,240.01
PERFORATING Tubing 6955'-6952' 8-3/8" Holes	306.00
STIMULATING--TYPE	6,803.96
DRILL STEM TESTS (9) 2 Mis-runs	2,769.43
GEOLOGICAL EXPENSE Rotary Engineers	4,465.69
PROPERTY DAMAGE	100.00
STAKING LOCATION & ELEVATION	80.00
MISCELLANEOUS	160.00
TOTAL DRILLING INTANGIBLES	$ 76,927.39

WELL EQUIPMENT--TANGIBLES					
CASING	147	FT. OF	13-3/8 - 48# Casing	$ 645.33	
	1833	FT. OF	9-5/8 - 32.30 H-40 Casing	$ 5,237.61	
	6544	FT. OF	7 - 23# - J (Jap)	$ 22,904.00	
	413	FT. OF	7 - 23# - Casing	$ 845.62	
		FT. OF		$	
		FT. OF		$	
TUBING	7031	FT. OF	2" - 4.7#	4,499.84	34,132.40
FLOATS, SHOES, CENTRALIZERS & SCRATCHERS					816.62
WELL HEAD & CONNECTIONS & Packer & Hold Down					3,293.18
PUMPING EQUIPMENT					
TOTAL WELL EQUIPMENT--TANGIBLES					$ 38,242.20
TOTAL COST OF WELL					$ 115,169.59

DRYHOLE

TOTAL COST OF WELL	$
PLUGGING EXPENSE (+)	
SALVAGED MATERIAL $	
$	
$	
$	
SUB-TOTAL (-)	
TOTAL NET COST	$

INTANGIBLE COST PER FT.	$ 10.97
MATERIAL COST PER FT.	5.46
TOTAL COST PER FT.	$ 16.43

FORM 1001'9.57

COSDEN PETROLEUM CORPORATION

DETAIL WELL COST

LEASE & WELL NO. Butler #2 FIELD Klinebry T.D. 7010'
COUNTY Lea STATE New Mexico CONTRACTOR Choya Drilling Co.

		AMOUNT
DRILLING INTANGIBLES:		
DRILLING COST 7010 FEET @ 5.50 Plus 2% N.M. State Tax PER FOOT		$ 39,326.20
DAYWORK With D.P. $700.00 Without $650.00		10,682.91
SWABBING		1,416.93
CORING WELL SURVEYS (S.J. – KMK)		1,434.39
FUEL & WATER		
BITS		
ROADS, BRIDGES & CLEARING LOCATION		1,341.42
TRUCKING		2,800.98
WELDING & MACHINE SHOPS		85.56
CEMENT & SERVICE		2,913.91
MUD		2,240.01
PERFORATING Tubing 6955'-6952' 8-3/8" Holes		306.00
STIMULATING—TYPE		6,803.96
DRILL STEM TESTS (9) 2 Mis-runs		2,769.43
GEOLOGICAL EXPENSE Rotary Engineers		4,465.69
PROPERTY DAMAGE		100.00
STAKING LOCATION & ELEVATION		80.00
MISCELLANEOUS		160.00
TOTAL DRILLING INTANGIBLES		$ 76,927.39

WELL EQUIPMENT—TANGIBLES					
CASING 147	FT. OF 13-3/8	– 48# Casing	$ 645.33		
1833	FT. OF 9-5/8	– 32.30 H-40 Casing	$ 5,237.61		
6544	FT. OF 7	– 23# – J (Jap)	$ 22,904.00		
413	FT. OF 7	– 23# – Casing	$ 845.62		
	FT. OF		$		
	FT. OF		$		
TUBING 7031	FT. OF 2"	– 4.7#	4,499.84		34,132.40
FLOATS. SHOES. CENTRALIZERS & SCRATCHERS					816.62
WELL HEAD & CONNECTIONS & Packer & Hold Down					3,293.18
PUMPING EQUIPMENT					
TOTAL WELL EQUIPMENT—TANGIBLES					$ 38,242.20
TOTAL COST OF WELL					$ 115,169.59

DRYHOLE

TOTAL COST OF WELL		$
PLUGGING EXPENSE (+)		
SALVAGED MATERIAL	$	
	$	
	$	
	$	
SUB-TOTAL (–)		
TOTAL NET COST		$

INTANGIBLE COST PER FT.	$ 10.97
MATERIAL COST PER FT.	5.46
TOTAL COST PER FT.	$ 16.43

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Amerada Pet. Corp.
P. O. Box 706
Eunice, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State SHA	2	Lazy J	9760

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

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Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State LA	11	Lovington-Abo	8440

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
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LAND COMMISSIONER E.S.WALKER
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SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Amerada Petroleum Corp.
P. O. Box 706
Eunice, New Mexico

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State LB	1	Lovington-Paddock	6280
State LA	14	Lovington-Paddock	6250

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
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LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Amerada Petroleum Corp.
P. O. Box 706
Eunice, New Mexico

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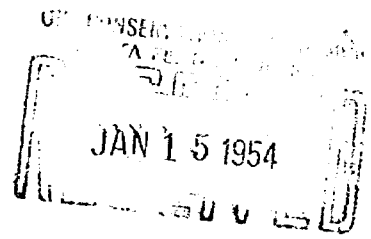
Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Tulk-State B	1	Tulk-Wolfcamp	9730

Jab

NEVILLE G. PENROSE, INC.
FAIR BUILDING
FORT WORTH 2, TEXAS

January 13, 1954



New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Re: Philmex #1
Chaves County, N.M.

Attention: Mr. W. B. Macey

Gentlemen:

Receipt of your letter dated January 6 in regard to drilling and equiping costs on the above well is hereby acknowledged. This is to advise that the development expense on this well was $20,849.72, and the equipment charges amounted to $8,392.92.

12456.Yo

Very truly yours,

John P. McNaughton

JPM:mb

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Neville G. Penrose, Inc.
1815 Fair Building
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Phil-Mex	1	Drickey-Queen	2831

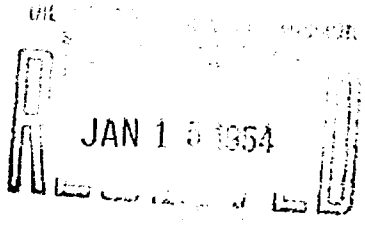
THE PURE OIL COMPANY

GENERAL OFFICES, 35 EAST WACKER DRIVE, CHICAGO.

TEXAS PRODUCING DIVISION
P. O. BOX 2107
FORT WORTH 1, TEXAS

L. L. McDONALD
ASST. MANAGER

January 13, 1954



New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

ATTENTION: Mr. W. B. Macey, Chief Engineer

Gentlemen:

As requested in your letter of January 6, 1954, Case 608 - Well Data, we are attaching statement showing cost of drilling and equipping our State-Lea "A" Well No. 1, located in the Townsend Wolfcamp Field, Lea County, New Mexico.

Yours very truly,

THE PURE OIL COMPANY

BY: L. L. McDonald

LLMcD/mh

Encl.

ALL QUOTATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
ALL AGREEMENTS CONTINGENT UPON STRIKES, FIRES, ACTS OF THE GOVERNMENT AND CARRIERS, AND ALL OTHER CAUSES BEYOND OUR CONTROL.

STATE-LEA "A" LEASE

WELL NO. 1
BATTERY NO. 1

Drilling:			
Contract: Footage	$ 94,419.00		
Day work	16,499.89	$ 110,918.89	
Bits		2,082.73	
Mud Material		11,053.13	
Misc. contract work		5,000.63	$ 129,055.38
Material:			
Casing and tubing		$ 35,106.39	
Casing and tubing heads, valves, packers, etc.		3,188.48	
Cement		5,286.56	
Cement shoes, centralizers, etc.		648.37	
Other		2,252.32	
Hauling material, etc.		2,662.21	$ 49,144.33
Special Services:			
Halliburton, Schlumberger, Welex, Core Lab., etc.		$ 10,188.78	$ 10,188.78
Other Expenses:			
*Payroll		$ 2,063.45	
*Transportation and expenses		1,419.46	
Damages		150.00	$ 3,632.91
Total Cost of Well			$ 192,021.40

Tank Battery:		
4 - 500 bbl tanks, 1 - 30" x 10' horizontal oil and gas separator, complete with fittings, flow line, etc.		$ 18,943.96
1 - Type 4Bl 2' x 12½' National 1000# WP separator complete with regulator, etc.	(Cost figures not complete, estimated -)	$ 2,685.00
Total Cost of Battery		$ 21,628.96
Total Cost of Well and Battery		$ 213,650.36

*Actual payments to Superintendent on well and does not include office or Division overhead.

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Pure Oil Co.
P. O. Box 2107
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Lea State A	1	Townsend Wolfcamp	10585

52 249.12
36 242.20
24 38.27

114 229.59

The Ohio Oil Co.
P. O. BOX 3128
HOUSTON 1, TEXAS

JAN 28 1954

January 25, 1954

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Gentlemen:

In answer to your letter dated January 6, 1954, Case 608 - Well Data, we submit the following information:

Lease	Well No.	Pool	Total Depth
Denton	10	Denton-Wolfcamp	9438

Drilling Cost	$141,348.50
* Material Cost	56,510.43
** Special Services	82,225.36
Total Cost of Well	$280,084.29

* Includes engines and pumping unit.
** Includes cost to install pumping unit.

Yours very truly,

P. L. VANLUE,
Houston Division Controller

GW/bms
cc: Mr. Coe S. Mills

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Ohio Oil Co.
P. O. Box 2107
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Denton	10	Denton-Wolfcamp	9438

MAGNOLIA PETROLEUM COMPANY

A SOCONY-VACUUM COMPANY

PRODUCING DIVISION

DALLAS 21, TEXAS

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
RECEIVED
FEB 4 1954

A. E. CHESTER
VICE PRESIDENT AND MANAGER
M. V. C. BRADLEY
ASSISTANT MANAGER
E. L. DOWNING
GENERAL SUPERINTENDENT
S. C. McFARLANE
ASSISTANT TO THE MANAGER

February 1, 1954

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: W. B. Macey
Chief Engineer

Gentlemen:

In answer to your several letters January 6th requesting well cost data with respect to Case 608, we are submitting the attached summary.

In order to clarify this summary, please note that our New Mex "D" No. 1 well in the East Caprock-Wolfcamp Field is the same as that referred to by you as State "D" No. 1, East Caprock-Wolfcamp Field. Also, we have submitted data for the T. D. Pope No. 7 at a depth of 12,630 feet which we believe is one of those referred to by you as well No. 5.

The Santa Fe "E" No. 1 and Santa Fe Pacific "E" No. 1 wells were drilled by Magnolia Petroleum Company owned drilling tools. All others were drilled by contractors. The cost of drilling by Company owned tools does not indicate the profit that would necessarily have to be paid a contractor or cost of insurance, therefore, indicating considerable less cost for these wells.

The cost data is broken down into the three brackets requested: drilling cost, material cost and special services. Overhead and supervision is not included in any of these costs.

If we can be of further assistance in this matter, please advise.

Yours very truly,

S. C. McFarlane

JAP:rs

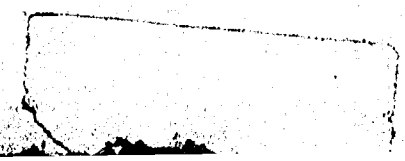
Attachment

Gross Drilling Cost - Lea County, New Mexico

Lease	Well No.	Pool	Total Depth	Drilling Cost	Material Cost	Special Service	Total
State R	11	Lovington-Abo	8,440	$115,267	$26,058	$13,350	$154,675
New Mex D	1	East Caprock-Wolfcamp	9,022	136,007	40,856	13,930	190,793
Matthews-Federal	3	Bough	9,639	215,408	29,407	31,985	276,800*
Santa Fe E	1	Crossroads-Pennsylvanian	9,602	94,562	29,549	11,966	136,077
Santa Fe Pacific E	1	Crossroads	12,212	205,184	39,344	8,435	252,963
T. D. Pope	4	Denton	12,640	304,927	45,987	29,702	380,616
T. D. Pope	5	Denton	12,343	240,584	40,192	7,699	288,475
T. D. Pope	7	Denton	12,630	253,852	45,175	24,173	323,200

*The cost of drilling the Matthews-Federal #3, Bough Field, was much higher due to a fishing job and other unexpected difficulties.

2-1-54



GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Magnolia Petroleum Co.
Box 900
Dallas, Texas

Gentlemen:

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State D	1	East Caprock-Wolfcamp	9022

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Magnolia Pet. Co.
Box 900
Dallas, Texas

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State R	11 ✓	Lovington-Abo	8460

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
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SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Matthews	3	Bough	9639

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
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SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Magnolia Pet. Co.
P. O. Box 900
Dallas, Texas

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Santa Fe E	1	Crossroads-Penn.	9602

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Magnolia Pet. Co.
P. O. Box 706
Eunice, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Santa Fe Pacific E	1	Crossroads	12212

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Magnolia Petroleum Co.
P. O. Box 706
Eunice, New Mexico

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Pope	4	Denton	12640
Pope	7	Denton	12630
Pope	5	Denton	12343

AURORA GASOLINE COMPANY

Refiners and Marketers

REFINERIES:
DETROIT, MICHIGAN
ELSIE, MICHIGAN

15911 WYOMING AVENUE
DETROIT 21, MICH.

UNIVERSITY 3-5800

REPLY TO:
MIDLAND, TEXAS BRANCH OFFICE
240 CENTRAL BUILDING
MIDLAND, TEXAS
TELEPHONE: 4-4282

January 29, 1954

OIL CONSERVATION COMM.
SANTA FE, N. M.
FEB 1 1954
RECEIVED

Mr. W. B. Macey
Fhief Engineer
Oil Conservation Comm.
P. O. Box 871
Santa Fe, New Mexico

Ref: Case 608 - Well Data

Dear Mr. Macey:

Enclosed, as per your request, a summary of costs on our # 1 Browning and our # 1 Rocket-Cain.

Very truly yours,

AURORA GASOLINE COMPANY

Jack Shier
Division Manager
Midland, Texas

JS:dg

SUMMARY OF COST
BROWNING #1 & ROCKET-CAIN #1 WELLS

BROWNING #1		
Drilling cost	$ 32,126.29	
Material cost	15,391.14	
Special services	2,204.14	
TOTAL		$ 49,721.57
ROCKET-CAIN #1		
Drilling cost	$ 30,969.78	
Material cost	15,322.51	
Special services	2,226.37	
TOTAL		$ 48,518.66

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Aurora Gasoline Co.
240 Central Building
Midland, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. *If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.*

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Browning	1	East Hobbs San Andres	4454
Rocket-Cain	1	East Hobbs San Andres	4462

CARPER DRILLING COMPANY, INC.

OIL PRODUCTION AND DRILLING

EMERY CARPER, PRESIDENT
STANLEY CARPER, EXEC. VICE-PRES. & TREAS.
MARSHALL ROWLEY, VICE-PRES.
NELLE BOOKER, SECRETARY

ARTESIA, NEW MEXICO
CARPER BUILDING
TELEPHONE 147 L. O. 847

February 2, 1954

W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

We are listing cost data on Ohio-Jones Well #3 as requested in your letter of January 6, 1954:

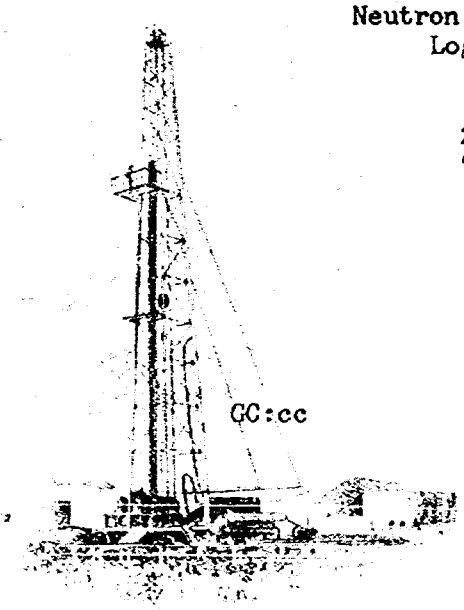
Date drilled: 1953
Lease: Ohio-Jones #3
Depth: 4278' - Maljamar Pool
Drilling Cost: $22,096.54
Material Cost: $14,647.00
Special Services: $741.23

Total $37,484.77

OIL CONSERVATION COMMISSION
FEB 4 1954
RECEIVED

Special Services are made up of the following:

1. Geological Service	$109.14
2. Lane-Wells Co. - Gamma Ray & Neutron Log - service chg.	150.00
Logging chg. from surface to 4270'	469.70
	$728.84
2% tax on $619.70	12.39
Total	$741.23



Yours truly,

CARPER DRILLING COMPANY, INC.

Glenn Caskey

Glenn Caskey, Accountant

GC:cc

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Carper Drlg. Co., Inc.
Carper Building
Artesia, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Ohio-Jones	3 ✓	Maljamar	4278

LAWTON OIL CORPORATION

P. O. BOX 620

MAGNOLIA, ARKANSAS

January 16, 1954

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
JAN 19 1954

Oil and Gas Commission
State of New Mexico
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. W. B. Macey

Gentlemen:

In reply to your inquiry of January 6, we submit the following drilling and completion costs on our State R-2 well in the Saunders pool:

Drilling Cost -	$94,836.53.
All other costs	74,927.29
Total	$169,763.82

Yours very truly,

LAWTON OIL CORPORATION

D. R. TEIS

DRT:jh

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

Jab

January 6, 1954

Case 608 - Well Data

Lawton Oil Corp.
P. O. Box 620
Magnolia, Ark.

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

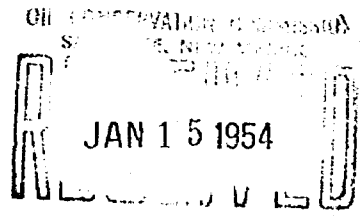
Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State R	2 ✓	Saunders	9905

608

TIDE WATER ASSOCIATED OIL COMPANY

P.O. Box 547
Hobbs, New Mexico
January 12, 1954



New Mexico Oil Conservation Commission
P.O. Box 871
Santa Fe, New Mexico

Attention: Mr. W.B. Macey

Subject: Case 608
Well Data

Dear Sir:

In your letter of January 6, 1954, regarding the above case, you requested drilling cost data on two wells that we operate. The tabulation below contains the information that you wish on the two wells concerned:

			Drilling Cost Summary			
Lease	Well	Field	Drilling	Material	Services	Total
Shipp	1	Lovington Abo	$70,189	$41,357	$11,932	$123,478
State "M"	4	Lovington Paddock	$38,895	$34,571	$ 5,434	$ 78,900 ✓

The above data do not include expenditure necessary to equip the lease with such facilities as separators, treaters and stock tanks.

Yours very truly,

TIDE WATER ASSOCIATED OIL COMPANY

H.P. Shackelford

cc. - R.H. Coe
D.E. Logan
J.B. Holloway
E.E. Tucker

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Tide Water Assoc. Oil Co.
P. O. Box 547
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State M	4 ✓	Lovington-Paddock	6150

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Tide Water Assoc. Oil Co.
P. O. Box 547
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Shipp	1 ✓	Lovington-Abo	8470

FORM 470 1-38

STANOLIND OIL AND GAS COMPANY

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
RECEIVED
FEB 15 1954

Roswell, New Mexico
February 13, 1954

File: SHS-3140-175

Subject: Well Cost Data
Case No. 608

Mr. W. B. Macey
New Mexico Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico

Dear Sir:

The following has reference to your several letters of January 6, 1954, addressed to our Hobbs Office and requesting cost data on 11 specific wells drilled and completed by Stanolind during 1953. We are attaching hereto a tabulation furnishing the cost data requested. You will note that total cost figures for the completed wells has been broken down into three brackets, i.e., drilling cost, material cost, and special services.

Since it is assumed that the cost data furnished herewith is to be used in conjunction with the Commission's Case No. 608 and may, therefore, be used as basis for the revision of proportional factors used in the allocation of allowables, we believe it pertinent to point out certain qualifications which should be considered when reviewing the cost data on wells you have selected. First, the Hobbs Field wells drilled by Stanolind during 1953 were located on the flank of the structure and completion costs are probably in excess of those which would be normally incurred in drilling and completing wells at the depths these wells were completed. On these particular wells, an attempt was made to evaluate the many possible zones of production in the San Andres. Since these locations are near the oil-water contact, the cost was excessive due to selective testing and squeeze cementing of many zones of indicated porosity.

Also referring to the cost data furnished on the well drilled in the Dollarhide-Drinkard field, we have noted that this well was drilled for a cost of some 22% less than the cost of the average field well, and consequently, is therefore not entirely representative of the cost of a well drilled to this depth. The same situation also occurs in the Gladiola-Wolfcamp field where the cost of the specific well selected was approximately 20% under the average cost of a development well. We consider the two wells selected in the Fowler-Ellenburger Field to be representative. The wells selected in the Lovington-Abo Field are also considered to be representative.

We regret any inconvenience that may have been caused by our delay in furnishing this cost data. Should additional information be desired on the wells for which we have furnished cost data, please advise.

Yours very truly,

C. L. KELLEY,
District Superintendent
Stanolind Oil and Gas Company

SHS/jl
Attach

COST DATA-STANOLIND OIL AND GAS COMPANY'S WELLS DRILLED-1953

WELL	FIELD	DRILLING COSTS	MATERIAL COSTS	SPECIAL SERVICES	TOTAL COST
South Mattix Unit No. 9	Fowler	$213,624	$56,531	$8,238	$278,393
South Mattix Unit No. 8	Fowler	$180,492	$49,746	$3,589	$233,827
State "E" Tract 18 No. 16	Lovington-Abo	$ 83,024	$49,638	$3,300	$135,962
State "E" Tract 18 No. 19	Lovington-Abo	$ 80,532	$41,206	$2,844	$124,402
State 'E' Tract 18 No. 20	Lovington-Abo	$ 82,365	$45,379	$2,681	$130,425
State 'E' Tract 18 No. 21	Lovington-Abo	$ 79,871	$39,547	$2,058	$121,476
Lois Wingerd No. 7	Gladiola-Wolfcamp	$ 85,683	$42,299	$2,357	$130,339
State "Y" No. 6	Dollarhide-Drinkard	$ 71,547	$34,377	$3,121	$109,045
State "A" Tract 4 No. 8	Hobbs	$ 34,446	$13,135	$1,423	$ 50,004
State "A" Tract 4 No. 24	Hobbs	$ 29,633	$14,637	$1,092	$ 45,462
State "A" Tract 6 No. 24	Hobbs	$ 38,483	$15,255	$1,410	$ 55,148

COST DATA-STANOLIND OIL AND GAS COMPANY'S WELLS DRILLED-1953

WELL	FIELD	DRILLING COSTS	MATERIAL COSTS	SPECIAL SERVICES	TOTAL COST
South Mattix Unit No. 9	Fowler	$213,624	$56,531	$8,238	$278,393
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GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Stanolind Oil & Gas Co.
P. O. Box 68
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State Y	6	Dollarhide-Drinkard	7020

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Stanolind Oil & Gas Co.
P. O. Box 68
Hobbs, New Mexico

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State E tr 18	16	Lovington-Abo	8534
State E tr 18	19	Lovington-Abo	8530
State E tr 18	20	Lovington-Abo	8525
State E tr 18	21	Lovington-Abo	8470

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Stanolind Oil & Gas Co.
P. O. Box 68
Hobbs, New Mexico

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With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Wingard	7	Gladiola-Wolfcamp	9820

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Stanolind Oil & Gas Company
P. O. Box 68
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
South Mattix Unit	8	Fowler	10295
South Mattix Unit	9	Fowler	10430

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Stanolind Oil & Gas Co.
P. O. Box 68
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State A tr 4	8	Hobbs	4310
State A tr 4	24	Hobbs	4313
State A tr 6	24	Hobbs	4310

MIDLAND, TEXAS
502 V. & J. TOWER

January 25, 1954

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
RECEIVED
FEB 1 1954

RE: Case 608 - Well Data

Mr. W. B. Macey
Chief Engineer
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Macey:

Listed below is the information which you requested in your letter of January 6, 1954, regarding certain cost figures from the Moore-Devonian Field on Samedan Oil Corporation's John H. Moore "B" Lease Wells Number 1 and 2:

	Moore "B" #1	Moore "B" #2
Drilling Cost	$ 140,541.74	$ 134,154.77
Material Cost	62,314.42	60,955.97
Special Services	24,121.11	28,226.27
TOTALS	$226,977.27	$223,337.01

There were additional supervision and overhead costs involved in the drilling of these wells; however, as you requested, these costs have been removed from these figures submitted to the Commission.

If there anything further please let us know.

Yours very truly,

SAMEDAN OIL CORPORATION

Ed Noble

EN:kb

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Sawedan Oil Corp.
502 V & J Tower
Midland, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Moore B	2	Moore-Devonian	10593
Moore B	1	Moore-Devonian	10557

SINCLAIR OIL & GAS COMPANY

SINCLAIR OIL BUILDING

TULSA, OKLAHOMA

J. N. JOHNSON
VICE-PRESIDENT

January 29, 1954.

Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
Post Office Box #871
Santa Fe, New Mexico

Dear Sir:

Your letter of the sixth inst., File - Case 608 - Well Data, addressed to our Company at Hobbs, New Mexico, in which you request certain data on two of our wells in the Grayburg-Jackson Pool, which were drilled in 1953, has been referred to the undersigned for attention.

Attached, hereto, please find a statement, prepared by our Production Department, which shows the information you have requested.

Very truly yours,

LJF:CMF
Att.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
FEB 3 1954

LEASE	WELL NO.	POOL	TOTAL DEPTH	AUTHORIZED DRILLING COST	AUTHORIZED SPECIAL SERVICES	AUTHORIZED MATERIAL COST	TOTAL AUTHORIZED LESS DISTRICT EXPENSE
H. E. West "B"	10	Grayburg-Jackson	3626	20,625	4,303	16,949	41,877
J. L. Keel "A"	11	Grayburg-Jackson	3482	21,650	3,176	27,989	52,815

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

Jot

January 6, 1954

Case 608 - Well Data

Sinclair Oil & Gas Co.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
West B	10	Grayburg-Jackson	3626
Keel A	11	Grayburg-Jackson	3482

SINCLAIR OIL & GAS COMPANY

SINCLAIR OIL BUILDING

TULSA, OKLAHOMA

J. N. JOHNSON
VICE-PRESIDENT

January 29, 1954.

Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
Post Office Box #871
Santa Fe, New Mexico

Dear Sir:

Your letter of the sixth inst., File - Case 608 - Well Data, addressed to our Company at Hobbs, New Mexico, in which you request certain data on one of our wells in the Lovington-Paddock Pool, which was drilled in 1953, has been referred to the undersigned for attention.

Attached, hereto, please find a statement, prepared by our Production Department, which shows the information you have requested.

Very truly yours,

John Johnson

LJF:CMF
Att.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
FEB 3 1954

LEASE	WELL NO.	POOL	TOTAL DEPTH	AUTHORIZED DRILLING COST	AUTHORIZED SPECIAL SERVICES	AUTHORIZED MATERIAL COST	TOTAL AUTHORIZED LESS DISTRICT EXPENSE
State 182-A	5	Lovington-Paddock	6275	52,325	10,587	50,758	113,670

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

Job

January 6, 1954

Case 608 - Well Data

Sinclair Oil & Gas Co.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State-182A	5	Lovington-Paddock	6275

SINCLAIR OIL & GAS COMPANY

SINCLAIR OIL BUILDING

TULSA, OKLAHOMA

J. N. JOHNSON
VICE-PRESIDENT

January 29, 1954.

Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
Post Office Box #871
Santa Fe, New Mexico

Dear Sir:

Your letter of the sixth inst., File - Case 608 - Well Data, addressed to our Company at Hobbs, New Mexico, in which you request certain data on one of our wells in the Dollarhide-Drinkard Pool, which was drilled in 1953, has been referred to the undersigned for attention.

Attached, hereto, please find a statement, prepared by our Production Department, which shows the information you have requested.

Very truly yours,

LJF:CMF
Att.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
FEB 3 1954

LEASE	WELL NO.	POOL	TOTAL DEPTH	AUTHORIZED DRILLING COST	AUTHORIZED SPECIAL SERVICES	AUTHORIZED MATERIAL COST	TOTAL AUTHORIZED LESS DISTRICT EXPENSE
J. H. McClure	2	Dollarhide-Drinkard	6700	55,425	10,913	36,378	102,716

Job

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Sinclair Oil & Gas Co.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February 1954 hearing.

Very truly yours,

W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
McClure	**2**	**Dollarhide-Drinkard**	**6700**

SINCLAIR OIL & GAS COMPANY

SINCLAIR OIL BUILDING

TULSA, OKLAHOMA

J. N. JOHNSON
VICE-PRESIDENT

January 29, 1954.

Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
Post Office Box #871
Santa Fe, New Mexico

Dear Sir:

Your letter of the sixth inst., File - Case 608 - Well Data, addressed to our Company at Hobbs, New Mexico, in which you request certain data on three of our wells in the Denton Pool, which were drilled in 1953, has been referred to the undersigned for attention.

Attached, hereto, please find a statement, prepared by our Production Department, which shows the information you have requested.

Very truly yours,

John N. Johnson

LJF:CMF
Att.

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
FEB 3 1954

LEASE	WELL NO.	POOL	TOTAL DEPTH	AUTHORIZED DRILLING COST	AUTHORIZED SPECIAL SERVICES	AUTHORIZED MATERIAL COST	TOTAL AUTHORIZED LESS DISTRICT EXPENSE
Lee Whitman	1	Denton	12,575	200,300	17,122	48,224	265,646
Lee Whitman	2	Denton	12,660	195,650	16,824	62,729	275,203
T. D. Pope	1	Denton	12,640	196,950	17,994	56,641	271,585

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S. WALKER
MEMBER
STATE GEOLOGIST R.R. SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Sinclair Oil & Gas Co.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Whitman	2	Denton	12660
Pope	1	Denton	12640
Whitman	1	Denton	12575

SINCLAIR OIL & GAS COMPANY

SINCLAIR OIL BUILDING

TULSA, OKLAHOMA

J. N. JOHNSON
VICE-PRESIDENT

January 29, 1954.

Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
Post Office Box #871
Santa Fe, New Mexico

Dear Sir:

Your letter of the sixth inst., File - Case 608 - Well Data, addressed to our Company at Hobbs, New Mexico, in which you request certain cost data on three of our wells in the Monument-Blinebry Pool, which were drilled in 1953, has been referred to the undersigned for attention.

Attached, hereto, please find a statement, prepared by our Production Department, which shows the information you have requested.

Very truly yours,

J. N. Johnson

LJF:CMF
Att.

OIL CONSERVATION COMMISSION
SANTA FE
FEB 3 1954
RECEIVED

LEASE	WELL NO.	POOL	TOTAL DEPTH	AUTHORIZED DRILLING COST	AUTHORIZED SPECIAL SERVICES	AUTHORIZED MATERIAL COST	TOTAL AUTHORIZED LESS DISTRICT EXPENSE
Bertha J. Barber	9	Monument-Blinebry	5700	65,200	8,165	34,662	108,027
Bertha J. Barber	10	Monument-Blinebry	5690	132,852	14,839	41,670	189,361
Joseph R. Phillips "A"	7	Monument-Blinebry	5714	57,463	8,141	23,767	89,371

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

Jab

January 6, 1954

Case 608 - Well Data

Sinclair Oil & Gas Co.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Phillips A	7	Monument-Blinebry	5714
Barber	9	Monument-Blinebry	5700
Barber	10	Monument-Blinebry	5690

Jab

SOUTHERN PRODUCTION COMPANY, INC.

FORT WORTH NATIONAL BANK BUILDING

FORT WORTH, TEXAS

January 13, 1954

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
JAN 15 1954

Mr. W. B. Macey
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

RE: Case 608 - Well Data

Dear Mr. Macey:

With reference to your letters of January 6, we are glad to give you the requested information in regard to the cost of six of our recently completed wells, as follows:

Lease	Well No.	Pool	Drilling Cost	Material Cost	Special Services	Total Cost
Turner "B"	40	Fren	$ 9,945.98	$ 7,646.12	$1,014.62	$18,606.72
Turner "A"	26	Fren	$ 9,466.62	$ 6,837.26	$ 979.01	$17,282.89
Turner "A"	27	Fren	$ 9,085.41	$10,046.34	$1,200.03	$20,331.78
Turner "A"	28	Fren	$ 9,194.33	$ 9,438.27	$ 280.56	$18,913.16
Turner "A"	29	Fren	$ 8,561.32	$10,412.22	$1,108.55	$20,082.09
Turner "B"	41	Grayburg-Jackson	$19,179.42	$10,381.10	$4,939.78	$34,500.30

The above figures do not include any provision for overhead or supervision.

Yours very truly,

SOUTHERN PRODUCTION COMPANY, INC.

W. A. Schaeffer, jr.

WAS: jw

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Southern Production Co., Inc.
P. O. Box 670
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Turner B	41	Grayburg-Jackson	3455

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Southern Production Co., Inc.
P. O. Box 670
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Turner B	40	Fren	1992
Turner A	26	Fren	1971
Turner A	27	Fren	1997
Turner A	28	Fren	1949
Turner A	29	Fren	1977

REPUBLIC NATURAL GAS COMPANY

311 SOUTH AKARD STREET
DALLAS 2, TEXAS

January 22, 1954

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEX CO.
RECEIVED
JAN 2 5 1954

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Re: Case 608 - Well Data

Attention: Mr. W. B. Masey, Chief Engineer

Gentlemen:

We wish to thank you for your letter of January 18, 1954, in answer to ours of the 13th. As per your original request of January 6, 1954, we are listing the cost data on our jointly owned White Ranch #2 well.

Drilling Cost	-	$ 92,116.56
Equipment Cost	-	29,120.46
Special Services & Other	-	27,381.13
Total		$148,618.15

If any additional information is desired, we will be willing to cooperate with you in any way possible.

Yours very truly,

Harry Green

Harry Green
Assistant Treasurer

HG:pc
c.c. E. B. Ray
Box 195
Midland, Texas

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Republic Natural Gas &
Seaboard Oil Co.
Box 195
Midland, Texas
Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
White Ranch	2	White Ranch Siluro-Devonian	8810

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

January 18, 1954

Mr. Harry Green, Assistant Treasurer
Republic Natural Gas Company
311 South Akard Street
Dallas 2, Texas

Dear Sir:

Reference is made to your letter of January 13th pertaining to this Commission's request for well cost information. The purpose of our request is in connection with Case No. 608, which case calls for a revision of Rule 505 of this Commission's rules and regulations.

Rule 505 sets up proportional factors at various depth ranges from 0 to 5,000 feet and 1,000 foot increments below 5,000 feet. In allocating production this Commission establishes a unit allowable for the 0 to 5,000 foot interval which is given a proportional factor of 1.00. The other depth ranges increase proportionately, e. g., during the month of January, 1954 our basic unit allowable was 40 barrels per day. The 13 to 14 thousand foot depth range which has a proportional factor of 8.00 obtains 8.00 times 40 or 320 barrels per day allocation.

These factors which are in our present rules were established in 1945 before New Mexico had any volume of deep drilling. They were established for comparing well costs at all depth ranges and the proportional factors which we operate under at present, were devised from these well costs. It is the Commission's feeling that the possibility exists that deep drilling is not as expensive proportionately now, as it was in 1945, and therefore they have set up a list of approximately 125 wells in all depth ranges and are attempting to obtain the cost information in order to compare the figures and arrive at a decision as to whether or not the present factors are proper.

We would appreciate it very much if you could see your way clear to furnish us with the requested information.

Very truly yours,

WBM:vc

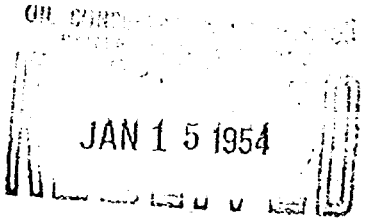
W. B. Macey
Chief Engineer

COPY

REPUBLIC NATURAL GAS COMPANY

311 SOUTH AKARD STREET
DALLAS 2, TEXAS

January 13, 1954



New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. W. B. Masey, Chief Engineer

Re: Case 608 - Well Data

Gentlemen:

We acknowledge receipt of your letter of January 6, 1954 in regard to data on our White Ranch Well #2.

We wish to advise that we are compiling the necessary information which should be completed at an early date. In the meantime we would appreciate your advising the particulars of Case 608 and upon receipt thereof we will forward the information desired.

Yours very truly,

Harry Green

Harry Green
Assistant Treasurer

cc: E. B. Ray
HG:cb

HUMBLE OIL & REFINING COMPANY
POST OFFICE BOX 2180
HOUSTON 1, TEXAS

Jan. 20, 1954

File 6-1
New Mexico

Re: Cost Data on Wells

Mr. W. B. Macey
Chief Engineer
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

In answer to your request of January 6, please find attached statement showing drilling costs on Humble Oil and Refining Company's Greenwood #15, State #T-2, Cain #2 and #3, and Townsend #2, all of which were drilled in 1953.

Very truly yours,

W. E. Hubbard

WEH-AS
Attachment

WELL DRILLING COST
NEW MEXICO
HUMBLE OIL & REFINING COMPANY

Item	Drinkard Greenwood #15	W. Lovington State #T-2	E.Hobbs-San Andres Cain #2	Cain #3	Eidson-Penn Townsend #2
Drilling Cost	$47,261.21	$32,952.06	$29,363.36	$31,324.50	$108,693.27
Material "	26,587.23	20,863.40	20,759.23	21,859.81	55,710.17
Special Services	16,092.74	12,489.02	8,772.69	8,063.00	22,684.13
Total Cost (Less District Supervision & Expense)	$89,941.18	$66,304.48	$58,895.28	$61,247.31	$187,087.57
Amount Charged for District Supervision & Expense	$ 3,121.20	$ 2,220.81	$ 1,119.33	$ 1,437.26	$ 3,869.73
Total Well Cost - Form P-1738	$93,062.38	$68,525.29	$60,014.61	$62,684.57	$190,957.30
Total Depth	6500'	5080'	4479'	4465'	10,756'

1/20/54

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Humble Oil & Refining Co.
P. O. Box 2180
Houston, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Cain	2	East Hobbs San Andres	4479
Cain	3	East Hobbs San Andres	4465

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Humble Oil & Ref. Co.
P. O. Box 2180
Houston, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State T	2 ✓	West Lovington	5080

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Humble Oil & Rfg. Co.
P. O. Box 2180
Houston, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Greenwood	15	Drinkard	6500

Jak

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Humble Oil & Rfg. Co.
P. O. Box 2180
Houston, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Townsend	2	Eidson-Penn.	10756

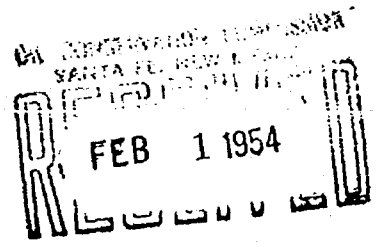
Leonard Oil Company

BOX 708

Roswell, New Mexico

ROBERT J. LEONARD
PRESIDENT

January 29, 1954



Mr. W. B. Macey, Chief Engineer
New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

RE: Case 608 - Well Data

Dear Mr. Macey:

In compliance with your request of January 6th, the following covers cost data on our B. M Justis #4 well, located in the $NE\frac{1}{4}NE\frac{1}{4}$ Section 19-25S-37E, Lea County, New Mexico:

Drilling Cost:	$ 18,807.74
Special Services: (Cementing, trucking, labor, roads, supplies & geological)	8,464.87
Equipping Cost: 7.00 2800 (Pipe, separator, tank battery and well head)	11,140.05
Total:	$ 38,412.66

If we can be of further assistance, please advise.

Yours very truly,

LEONARD OIL COMPANY

By Robert J. Leonard

Robert J. Leonard

RJL/o.

Cost of tank batt: 2800 10
" " sep. 700 00 — phone

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Leonard Oil Co.
P. O. Box 708
Roswell, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Justis	4	Langlie-Mattix	3380

PETROLEUM AND ITS PRODUCTS

GULF OIL CORPORATION

P. O. DRAWER 1290 · FORT WORTH 1, TEXAS

H. M. BAYER
VICE-PRESIDENT

FORT WORTH
PRODUCTION DIVISION

February 2, 1954

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Attention: Mr. W. B. Macey
Chief Engineer

Gentlemen:

In response to your request for well cost data to be used in connection with Oil Conservation Commission Case No. 608, we have shown on the attached tabulation the actual cost of Gulf wells which were listed in your letters of January 6, 1954.

As you suggested, these data have been limited solely to the cost of drilling, equipping and completing the well, with no charge being shown for overhead or supervision. However, in our opinion, overhead and supervision incurred while drilling a particular well should be considered as a part of the total cost of such well. For your information, these latter two expense items represent an average of 1.6% additional cost for each of the wells drilled.

Please advise if we can be of any further assistance.

Yours very truly,

H. M. BAYER

LEASE & WELL NO.	POOL	TOTAL DEPTH	DRILLING COST	MATERIAL	SPECIAL SERVICES	TOTAL
Naomi Keenum No. 2	Drinkard	7,193	61,198	26,704	3,429	91,331
Harry Leonard "A" No. 21	Dollarhide-Devonian	7,990	79,988	44,264	3,883	128,135
Harry Leonard "A" No. 22	Dollarhide-Devonian	8,127	96,481	54,657	5,390	156,528
Harry Leonard "A" No. 23	Dollarhide-Drinkard	6,878	70,104	42,411	1,888	114,403
Harry Leonard "A" No. 27	Terry--Blinebry	5,970	56,383	17,801	109	74,293
Carr No. 5	Fowler	10,570	170,219	71,889	6,630	248,738
E. C. Hill No. 4	Teague-Ellenburger	9,743	120,586	41,634	4,994	167,214
Harry Leonard "A" No. 20	Brunson	8,285	111,921	50,021	4,957	166,899
Harry Leonard "A" No. 24	Hare	8,700	81,910	52,126	4,977	139,013
Carrie O. Davis No. 2	East Hobbs-San Andres	4,470	27,531	22,916	1,612	52,059
W. A. Simpson et al No. 1	Denton	12,131	194,670	79,286	4,694	278,650
Harry Leonard "A" No. 19	Dollarhide-Fusselman	8,780	117,304	62,966	5,720	185,990
Lea State "AV" No. 2	Gladiola	11,955	173,677	96,817	5,583	276,077
W. A. Simpson et al No. 2	Denton	12,500	193,544	112,896	6,065	312,505
Davis No. 3	East Hobbs-San Andres	4,471	38,521	12,310	2,030	52,861
Whitmire No. 5 B-1	Monument-Blinebry	5,700	72,618	30,916	-	103,534
Matthews No. 8	Monument-Blinebry	5,720	76,659	71,388	3,243	151,290
Lea State "BT" No. 1 (Operated by McElroy Ranch Company)	Mescalero-Penn	9,469	101,366	51,407	51,827	204,600

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Gulf Oil Corp.
Hobbs, New Mexico

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Simpson et al	2	Denton	12500
Simpson et al	1-D	Denton	12131

GOVERNOR EDWIN L. MECHEM
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New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Gulf Oil Corp.
Hobbs, New Mexico

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Lease	Well No.	Pool	Total Depth
Lea State AV	2	Gladiola	11955

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Lease	Well No.	Pool	Total Depth
Carr	5	Fowler	10570

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Lease	Well No.	Pool	Total Depth
Hill A	4	Teague-Ellenburger	9743

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Lease	Well No.	Pool	Total Depth
State BT	1	Mescalero-Penn.	9469

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Lease	Well No.	Pool	Total Depth
Leonard A	19	Dollarhide-Fusselman	8780

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Lease	Well No.	Pool	Total Depth
Leonard A	20	Brunson	8285
Leonard A	24	Brunson	8700

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Lease	Well No.	Pool	Total Depth
Keenum	2	Wantz-Abo	7193

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Lease	Well No.	Pool	Total Depth
Leonard A	21	Dollarhide-Devonian	7990
Leonard A	22	Dollarhide-Devonian	8127

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Lease	Well No.	Pool	Total Depth
Leonard A	23	Dollarhide-Drinkard	6878

New Mexico
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W. B. Macey
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Lease	Well No.	Pool	Total Depth
Leonard A	27	Terry-Blinebry	5970

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Chief Engineer

Lease	Well No.	Pool	Total Depth
Matthews	8	Monument-Blinebry	5720
Whitmire	5	Monument-Blinebry	5700

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W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Davis	2	East Hobbs San Andres	4470
Davis	3	East Hobbs San Andres	4471

SUBJECT: CASE 608

Attached is a tabulation of well costs furnished the Commission by operators in conjunction with Case 608. Extra copies of the tabulation may be obtained from this office upon request.

DEPTH RANGE - 0 - 5000

Well Nos.	Totai Depth	Drilling Cost	Material Cost	Special Services	Total
1	1992	$9945.98	$7646.12	$1014.62	$18606.72
2	1971	9466.62	6837.26	979.01	17282.89
3	1997	9085.41	10046.34	1200.03	20331.78
4	1949	9194.33	9438.27	280.56	18913.16
5	1977	8561.32	10412.22	1108.55	20082.09
6	2831	12456.80	8392.92		20849.72
7	2736	16080.08	16855.93	2642.92	35578.83
8	3550	36492.00	18933.00	-	55425.00
9	3573	31393.97	11213.32	15698.74	58306.03
10	3752	33725.00	19677.00	-	51402.00
11	3760	17466.66	13347.54	13050.16	43854.36
12	3228	24376.00	10831.00	-	35207.00
13	3626	20625.00	16949.00	4303.00	41877.00
14	3482	21650.00	27989.00	3176.00	52815.00
15	3455	19179.42	10381.10	4939.78	34500.30
16	3404	16583.39	16897.18	11341.77	44822.34
17	3380	18807.74	11140.05	8464.87	38412.66
18	3690	15387.00	5290.10	5989.72	26666.82
19	3630	23182.00	12526.00	-	35708.00
20	3925	23094.00	15657.65	10676.53	49428.18
21	3879	34038.00	14323.00	-	48361.00
22	3846	28309.72	14886.50	1392.94	44589.16

Depth Range - 0 - 5000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
23	4454	$32126.29	$15391.14	$2204.14	$49721.57
24	4462	30969.78	15322.51	2226.37	48518.66
25	4470	27531.00	22916.00	1612.00	52059.00
26	4471	38521.00	12310.00	2030.00	52861.00
27	4479	29363.36	20759.23	8772.69	58895.28
28	4465	31324.50	21859.81	8063.00	61247.31
29	4310	34446.00	13135.00	1423.00	50004.00
30	4313	29633.00	14637.00	1092.00	45462.00
31	4310	38483.00	15255.00	1410.00	55148.00
32	4278	22096.54	14647.00	741.23	37484.77
33	4340	22000.00	18000.00	9200.00	49200.00
34	4459	24300.00	18600.00	3800.00	46700.00
		DEPTH RANGE: 5000 - 6000			
35	5711	49895.16	35173.34	47037.66	132106.16
36	5710	61854.00	25045.00	-	86899.00
37	5720	76659.00	71388.00	3243.00	151290.00
38	5700	72618.00	30916.00	-	103534.00
39	5714	57463.00	23767.00	8141.00	89371.00
40	5700	65200.00	34662.00	8165.00	108027.00
41	5690	132852.00	41670.00	14839.00	189361.00
42	6015	49756.00	20658.00	4777.00	75191.00
43	5970	56383.00	17801.00	109.00	74293.00
44	5080	32952.06	20863.40	12489.02	66304.48

Depth Range 6000 - 7000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
45	6878	$70104.00	$42411.00	$ 1888.00	$114403.00
46	6700	55425.00	36378.00	10913.00	102716.00
47	6900	63454.00	28655.00	-	92109.00
48	7020	71547.00	34377.00	3121.00	109045.00
49	6800	44202.29	31783.38	22692.92	98678.59
50	7009	52249.12	38242.20	24338.27	108285.59
51	6500	47261.21	26587.23	16092.74	89941.18
52	7125	51001.11	35438.30	37126.73	123566.14
53	7110	42783.74	25498.44	20249.29	88531.47
54	6280	50308.55	52634.80	21575.41	124518.76
55	6250	43179.20	53472.15	14590.54	111241.89
56	6230	47400.00	33500.00	22780.00	103680.00
57	6275	52325.00	50758.00	10587.00	113670.00
58	6279	74112.00	34671.00	-	108783.00
59	6150	38895.00	34571.00	5434.00	78900.00
		DEPTH RANGE 7000 - 8000			
60	7990	79988.00	44264.00	3883.00	128135.00
61	8127	96481.00	54657.00	5390.00	156528.00
62	8114	84004.00	40140.00	-	124144.00
63	8285	102425.00	46877.00	-	149302.00
64	8033	84032.00	32674.00	2391.00	119097.00
65	7575	139238.00	39872.00	-	179110.00
66	7193	61198.00	26704.00	3429.00	91331.00
67	7443	58400.00	37000.00	20800.00	116200.00

Depth Range 8000 - 9000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
68	8285	$111921.00	$50021.00	$4957.00	$166899.00
69	8700	81910.00	52126.00	4977.00	139013.00
70	8780	117304.00	62966.00	5720.00	185990.00
71	9022	136007.00	40856.00	13930.00	190793.00
72	8650	143855.00	40509.00	-	184364.00
73	8468	69386.97	55042.61	23613.44	148043.02
74	8440	67738.12	42010.51	16413.50	126162.13
75	8460	115267.00	26058.00	13350.00	154675.00
76	8429	91998.00	31175.00	-	123173.00
77	8534	83024.00	49638.00	3300.00	135962.00
78	8530	80532.00	41206.00	2844.00	124402.00
79	8525	82365.00	45379.00	2681.00	130425.00
80	8470	79871.00	39547.00	2058.00	121476.00
81	8470	70189.00	41357.00	11932.00	123478.00
82	8810	92116.56	29120.46	27381.13	148618.15
		DEPTH RANGE 9000 - 10,000			
83	9980	122503.00	55961.00	-	178464.00
84	9171	106043.89	40181.16	27879.46	174104.51
85	9639	215408.00	29407.00	31985.00	276800.00
86	9602	94562.00	29549.00	11966.00	136077.00
87	9212	103948.63	55300.48	5608.95	164858.06

Depth Range 9000 - 10,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
88	9438	$141348.50	$56510.43	$82225.36	$280084.29
89	9820	85683.00	42299.00	2357.00	130339.00
90	9760	64205.08	47431.49	21474.25	133110.82
91	9469	101366.00	51407.00	51827.00	204600.00
92	9905	94836.53	74927.29	-	169763.82
93	9743	120586.00	41634.00	4994.00	167214.00
94	9730	64549.02	52154.12	21725.76	138428.90
95	9755	81546.46	42873.63	21475.06	145895.15
		DEPTH RANGE 10,000 - 11,000			
96	10750	111402.90	58361.55	17856.55	187621.00
97	19756	108693.27	55710.17	22684.13	187087.57
98	10727	137985.00	48587.00	-	186572.00
99	10736	149250.00	46325.00	-	195575.00
100	10755	130006.00	48587.00	-	178593.00
101	10570	170219.00	71889.00	6630.00	248738.00
102	10295	180492.00	49746.00	3589.00	233827.00
103	10430	213624.00	56531.00	8238.00	278393.00
104	10650	108039.70	43472.03	21612.64	173124.37
105	10671	103871.72	49557.42	25447.72	178876.86
106	10593	134154.77	60955.97	28226.27	223337.01
107	10577	140541.74	62314.42	24121.11	226977.27

Depth Range 10,000 - 11,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
108	10600	$96301.01	$51044.73	$25503.41	$172849.15
109	10585	129055.38	49144.33	10188.78	188388.49
110	10600	146000.00	60700.00	34800.00	241500.00
		DEPTH RANGE 11,000 - 12,000			
111	11890	143911.08	58945.57	21989.04	224845.69
112	11228	154634.35	45422.10	18600.00	218656.45
113	11302	146703.45	48694.25	19217.34	214615.04
114	11255	124994.62	52701.07	27621.16	205406.85
115	11250	124782.06	56595.50	20496.87	201874.43
116	11230	144700.00	55600.00	26300.00	226600.00
117	11228	172300.00	51900.00	36900.00	261100.00
118	11228	120576.40	42937.00	31775.84	195289.24
119	11272	114389.98	45820.06	31916.10	192126.14
120	11235	107899.94	57160.22	27666.41	192726.57
121	11310	188112.10	52970.78	30025.20	270108.08
122	11750	118200.00	59500.00	29300.00	207000.00
123	11698	115882.91	45627.02	32328.64	193838.57
124	11955	173677.00	96817.00	5583.00	276077.00
		DEPTH RANGE 12,000 - 13,000			
125	12212	205184.00	39344.00	8435.00	252963.00
126	12571	203618.00	126336.00	15364.00	345318.00

Depth Range 12,000 - 13,000

Well Nos.	Total Depth	Drilling Cost	Material Cost	Special Services	Total
127	12500	$193544.00	$112896.00	$6065.00	$312505.00
128	12131	194670.00	79286.00	4694.00	278650.00
129	12475	183781.05	42151.45	5530.22	231462.72
130	12560	173850.76	42967.09	4567.09	221384.94
131	12640	304927.00	45987.00	29702.00	380616.00
132	12630	253852.00	45175.00	24173.00	323200.00
133	12343	240584.00	40192.00	7699.00	288475.00
134	12650	172400.00	58800.00	31400.00	262600.00
135	12876	213800.00	75500.00	53000.00	342300.00
136	12660	195650.00	62789.00	16824.00	275203.00
137	12640	196950.00	56641.00	17994.00	271585.00
138	12575	200300.00	48224.00	17122.00	265646.00
		DEPTH RANGE 13,000 - 14,000			
139	13703	290472.00	62776.00	1583.00	354831.00
140	13540	266358.00	69996.00	-	336354.00

CA 2
Case 608

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Amon G. Carter
P. O. Box 1036
Ft. Worth, Texas

No Show

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Hill	2-M	Teague	9370

OIL CONSERVATION COMMISSION
JAN 25 1954

SAM K. VIERSEN
PHONE 605 - BOX 880
OKMULGEE, OKLAHOMA

Jan. 21, 1954

New Mexico Oil Conservation Commission
P.O. Box 871
Santa Fe, New Mexico.

Re: Case 608 - Well Data

Gentlemen:

The cost data on our Laney #3 well drilled in the East Hobbs San Andres Pool, Total Depth 4459' is as follows:

Drilling Cost	$24,300.00
Material Cost	18,600.00
Special Services	3,800.00
Total	46,700.00

Yours very truly,

SAM K. VIERSEN

By J.A. Mock

JAM/wb

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Sam K. Vierson
P. O. Box 280
Okmulgee, Oklahoma

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Laney	3 ✓	East Hobbs San Andres	4459

Wilson Oil Company

INCORPORATED UNDER THE LAWS OF NEW MEXICO

P. O. BOX 627
SANTA FE, NEW MEXICO
TELEPHONE 66

February 3, 1954

New Mexico Oil Conservation Commission
P.O. Box 871
Santa Fe, New Mexico

Att: Mr. W. B. Macey, Chief Engineer

Re: Case 608 - Well Data

Gentlemen:

As requested in your letter of January 6, I am furnishing below cost data for our Wilson No. 1-A well drilled to 3,846 feet during 1953.

The costs are as follows:

Drilling cost	$28,309.72
Oil well servicing cost	1,392.94
Well equipment	14,886.50
	$44,589.16

We will gladly furnish you cost data on any of our wells drilled in the past.

Very truly yours,

R. J. Gaskin

RJG:smc

FEB 4 1954

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

706

January 6, 1954

Case 608 - Well Data

Wilson Oil Co.
P. O. Box 627
Santa Fe, New Mexico

Gentlemen:

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It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State	1-A	Wilson	3846

THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS

PRODUCING DEPARTMENT
WEST TEXAS DIVISION
L. F. SHIPLET, ASSISTANT DIVISION MANAGER

P. O. BOX 1720
FORT WORTH 1, TEXAS

January 29, 1954

CASE 608 - WELL DATA

New Mexico Oil
Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Gentlemen: ATTENTION MR. W. B. MACEY

In accordance with requests in your letters of January 6, 1954, subject as above, we are attaching hereto a statement of the cost of drilling certain wells in the State of New Mexico during the year 1953.

Yours very truly,

L F Shiplet

HLB-EH
Enclosure

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.
RECEIVED
FEB 3 1954

STATEMENT OF DRILLING COST

WELL	DRILLING (FOOTAGE & DAY WORK)	SPECIAL SERVICES	MATERIAL	TOTAL COST
State "AR" #2	$ 115,882.91	$ 32,328.64	$ 45,627.02	$ 193,838.57
State "BB" NCT-1 #2	120,576.40	31,775.84	42,937.00	195,289.24
State "BN" NCT-1 #3	114,389.98	31,916.10	45,820.06	192,126.14
State "BH" NCT-1 #4	107,899.94	27,666.41	57,160.22	192,726.57
State "BO" #2	96,301.01	25,503.41	51,044.73	172,849.15
State "AS" NCT-1 #3	81,546.46	21,475.06	42,873.63	145,895.15
State "BA" NCT-9 #1	69,386.97	23,613.44	55,042.61	148,043.02
C. H. Lockhart NCT-1 #3	51,001.11	37,126.73	35,438.30	123,566.14
C. H. Lockhart NCT-1 #5	42,783.74	20,249.29	25,498.44	88,531.47
J. B. McGhee #4	17,456.66	13,050.16	13,347.54	43,854.36
J. B. McGhee #6	44,202.29	22,692.92	31,783.38	98,678.59
M. B. Weir "B" #1	23,094.00	10,676.53	15,657.65	49,428.18
B. V. Lynch (a) #9	15,387.00	5,989.72	5,290.10	26,666.82

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

Jah

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
McGhee	4 ✓	Dollarhide-Queen	3760

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

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Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Lynch A	9	Lynch	3690

New Mexico

OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN

LAND COMMISSIONER E.S. WALKER
MEMBER

STATE GEOLOGIST R.R. SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

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Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Weir B	1	Skaggs	3925

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
McGhee	6 ✓	Dollarhide-Drinkard	6800

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

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Very truly yours,
W R Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
Lockhart	3	Drinkard	7125
Lockhart	5	Drinkard	7110

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
Box 1720
Ft. Worth, Texas

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State BA NCT-9	1	East Caprock-Wolfcamp	8468

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State AS NCT-1	3	Tulk-Wolfcamp	9755

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

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Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State BO	2	Moore-Devonian	10600

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State BB NCT-1	2	East Caprock	11228
State BH NCT-1	3	East Caprock	11272
State BH NCT-1	4	East Caprock	11235

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

The Texas Co.
P. O. Box 1720
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State AR	2	Echols	11698

TEXAS PACIFIC COAL AND OIL COMPANY

GENERAL OFFICES
FORT WORTH 1
TEXAS

February 3, 1954

OIL CONSERVATION COMMISSION
FEB 5 1954
RECEIVED

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

Attention: Mr. W. B. Macey, Chief Engineer

As requested in your letters dated January 6, we are giving you below Cost Data under Case No. 608 of three of our wells in New Mexico.

Lease	Well No.	Total Depth	Pool Name	COSTS Drilling	Material	Spec. Services
State "E" A/c 1	1	11,310	E.Caprock	$188,112.10	52,970.78	30,025.20
State "C" A/c 1	6	9,171	Bagly-Penn	106,043.89	40,181.16	27,879.46
State "A" A/c 1	36	3,573	Cooper-Jal	31,393.97	11,213.32	15,698.74

Jah.

Yours very truly,

TEXAS PACIFIC COAL AND OIL COMPANY
By J. R. Teague

Manager of Production

J.R.Teague:S:ps

FORM 3 160M 8-50

TEXAS PACIFIC COAL AND OIL COMPANY

GENERAL OFFICES
FORT WORTH 1
TEXAS

February 3, 1954

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

Attention: Mr. W. B. Macey, Chief Engineer

As requested in your letters dated January 6, we are giving you below Cost Data under Case No. 606 of three of our wells in New Mexico.

Lease	Well No.	Total Depth	Pool Name	COSTS Drilling	Material	Spec. Services
State "B" A/c 1	1	11,310	E.Caprock	$188,112.10	52,970.78	30,025.20
State "C" A/c 1	6	9,171	Bagly-Penn	106,045.89	40,181.16	27,879.46
State "A" A/c 1	36	3,573	Coopen-Jal	31,393.99	11,213.32	15,698.74

Yours very truly,

TEXAS PACIFIC COAL AND OIL COMPANY
By J. R. Teague

Manager of Production

J.R.Teague:S:ps

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Texas Pacific Coal & Oil Co.
P. O. Box 2110
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

It is therefore requested that you furnish this office with the cost data on the wells listed below. Cost data should be limited solely to cost of drilling, equipping and completing wells and should not contain any amount for overhead or supervision. If possible please break the total cost down into three brackets: i. e., drilling cost, material cost and special services.

We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State NM E ac/1	1	East Caprock	11310

New Mexico
OIL CONSERVATION COMMISSION

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Texas Pacific Coal & Oil Co.
P. O. Box 2110
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

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We would appreciate receiving this information by February 5, 1954 so that the data can be tabulated for presentation at the February, 1954 hearing.

Very truly yours,
W. B. Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State C ac/1	6 ✓	Bagley-Penn.	9171

GOVERNOR EDWIN L. MECHEM
CHAIRMAN
LAND COMMISSIONER E.S.WALKER
MEMBER
STATE GEOLOGIST R.R.SPURRIER
SECRETARY AND DIRECTOR

New Mexico
OIL CONSERVATION COMMISSION

P. O. BOX 871
SANTA FE, NEW MEXICO

January 6, 1954

Case 608 - Well Data

Texas Pacific Coal & Oil Co.
P. O. Box 2110
Ft. Worth, Texas

Gentlemen:

With respect to the above captioned case the Oil Conservation Commission has directed me to assemble certain cost data on a number of wells drilled in 1953.

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Very truly yours,
W B Macey
W. B. Macey
Chief Engineer

Lease	Well No.	Pool	Total Depth
State A ac/1	36	Cooper Jal	3573

CASE 608

YOST: Swearing in of two witnesses and qualifying both witnesses.

YOST: Mr. Macey in connection with Case 608 at the December hearing you made reference to a list of wells of various depth ranges ~~which were~~ compiled by the Commission staff. That list was never introduced in evidence in this case, nor given an exhibit number. Is this the list to which you have reference?

MACEY: Yes.

YOST: I would like to have that Exhibit marked as Exhibit 1

(Marked Exhibit 1)

YOST: In connection with this list of wells, you wrote a form letter to all of the operators requesting ~~them~~ information on well costs. Do you have a copy of that letter with you?

MACEY: Yes.

(Marked Exhibit 2)

YOST: At the January hearing of the Commission it was stated that a tabulation of these well costs was to be submitted to all of the operators. Do you have a copy of the tabulation with you?

MACEY: Yes.

(Marked Exhibit 3)

YOST: Is this tabulation exactly correct?

MACEY: No - there are some minor mistakes in addition.

YOST: Would you mind - for the benefit of the audience - correcting those mistakes so that everyone will have the correct figures?

(MACEY CORRECTS THE FIGURES)

YOST: Mr. Rhodes, in connection with the tabulation which is marked Exhibit 3, ~~have~~ have you prepared a graph showing those various well costs and depths?

RHODES: Yes, I have.

YOST: I would like that graph marked as Exhibit 4. (Marked) Will you explain what the black circles represent?

RHODES: The graph is plotted with the depth in thousand foot increments ~~horizontally~~ horizontally. The well cost in hundred thousand dollar increments vertically. The cost and depth ~~point~~ of each well was plotted on the graph in

accordance with the information which we received from the operators.

YOST: Adjacent to each black circle in pencil is a number. What does that number represent?

RHODES: That number corresponds to the well number [redacted] in the tabulation.

YOST: I notice that you also have some black circles with red centers in each depth bracket. What does that indicate?

RHODES: The black circle with the red center is the average [redacted] in each depth bracket of the wells drilled in that bracket. For example we totalled the cost of all the wells drilled in the 6 to 7 thousand bracket. We also totalled the total depths of all the wells drilled in this bracket and obtained an average cost at an average depth [redacted] in each bracket. The black circle with the red center is this average point, [redacted].

YOST: I notice that in the 5 to 6 thousand foot bracket you have three wells which have red circles around them. What do those indicate?

RHODES: Those wells were eliminated from the average for that depth bracket because it was found upon examination that the costs of drilling these wells was very excessive due to mechanical difficulties and blowouts. It was not our intention to include [redacted] wells in the tabulation that encountered difficulty, [redacted] but rather to use an average well in each case.

[redacted]

YOST: Will you tell the Commission what the red line on the graph indicates?

RHODES: The red line is an average of all of the points and is a curve drawn as uniformly as possible through each one of the points or as near as possible to the points.

YOST: In some instances the curve misses some of the points and in other places it goes exactly through the point. Is that correct?

RHODES: Yes.

YOST: In connection with this exhibit did you determine what the average payout for an average well in each depth bracket was?

RHODES: We determined the [redacted] payout of an average well in each bracket below 5,000 feet.

YOST: How did you go about this calculation?

RHODES: In determining the average payout in each bracket we made a number of assumptions. First of all we assumed that the average well in the 5 to 6 thousand foot bracket would be drilledto the midpoint of that bracket, for example the 5 to 6 thousand foot bracket the average depth used was 5500 feet. We determined the cost of an average well drilled to the midpoint of each depth bracket, and came up with the following costs at the following depths:

At 5500 feet the average cost was $82,650.00

6 to 7,000 feet $104,250.00

7 to 8,000 feet $126,100.00

8 to 9,000 feet $148,100.00

9 to 10,000 feet $169,900.00

10 to 11,000 feet $194,000.00

11 to 12,000 feet $230,750.00

12 to 13,000 feet $280,000.00

13 to 14,000 feet $344,650.00

YOST: Now, from those costs you determined the payout, is that correct?

RHODES: That is correct.

YOST: How did you go about that calculation?

RHODES: We assumed that the well was producing under the present allowable system with the proportional factors as they are at present. We also assumed that oil was valued at $2.69 per barrel and that the operator had a 7/8 interest in that oil. [redacted]

By dividing the cost of the well by the net yearly income we determined the payout in each depth bracket in terms of years

YOST: Will you read to the Commission the payouts which you calculated in each depth bracket starting at the 5 to 6 thousand foot bracket?

RHODES: The payout 5 to 6,000 feet - 1.782 years

6 to 7,000 feet - 1.709

7 to 8,000 feet - 1.562

8 to 9,000 feet - 1.437

9 to 10,000 feet - 1.301

10 to 11,000 feet - 1.208

11 to 12,000 feet - 1.183

12 to 13,000 feet - 1.209

13 to 14,000 feet - 1.254

YOST: Did you then average those payouts?

RHODES: Yes we did and the average payout of the wells drilled from 5,000 to 14,000 was 1.406 years.

YOST: In connection with these payouts you used the proportional factors which are presently in effect, is that correct?

RHODES: Yes.

YOST: In connection with this graph have you prepared NEW proportional factors?

RHODES: Yes.

YOST: How did you arrive at the new proportional factors?

RHODES: In arriving at the new proportional factors we reversed the mathematical calculation used to determine the original payouts, using an average payout of 1.406 years which we found to be the average under the present allocation system. We calculated the number of barrels of oil which each well would have to produce each day in order to return enough money to the operator of this well to pay out in 1.406 years. We then assumed the present normal unit allowable of 40 barrels and from that we determine what the factor should be.

YOST: You use the same basic assumptions in determining the new factors as you did in arriving at the payouts under the present system?

RHODES: Yes. We used 365 days per year - oil at $2.69 per barrel with a 7/8 interest.

YOST: Will you tell the Commission what the new factors you arrived at are?

RHODES: Yes; they are as follows:

5 to 6,000 feet - 1.70

6, to 7,000 feet - 2.15

7 to 8,000 feet - 2.60

8 to 9,000 feet - 3.05

9 to 10,000 feet - 3.50

10 to 11,000 feet - 4.00

11 to 12,000 feet - 4.75

12 to 13,000 feet - 5.80

13 to 14,000 feet - 7.15

YOST: Do you have a graph comparing the proposed factors with the present factors?

RHODES: Yes (Refer to Exhibit 5)

YOST: Now in connection with the zero to 5,000 bracket, did you determine what the payout was on wells in this bracket?

RHODES: We determined an average point at a depth of 3601 feet the cost to average $41,800.00

YOST: You obtained that point by averaging all of the wells in the zero to 5,000 bracket as to cost and depth? Isthat correct?

RHODES: Yes.

YOST: What point did you use in determining the payout of wells in that depth bracket?

RHODES: We examined the production records and the allowables assigned the wells upon which we requested cost information and found that only one well drilled to a depth less than 3,000 feet was capable of producing the present top unit allowable of 40 barrels per day. Therefore we decided to average the cost of the wells and the depth of the wells in the 3 to 4,000 foot bracket and average the cost and depth of the wells in the 4 to 5,000 foot bracket.

YOST: What were these averages for these brackets?

RHODES: The average cost of the 15 wells in the 3 to 4,000 bracket was $44,091.00 at an average depth of 3612 feet. The average of wells in the 4 to 5,000 foot bracket was $50,252.00 at an average depth of 4420 feet. We then assumed that the average well drilled in the 3 thousand to 5 thousand bracket all of which have a standard unit allowable of 40 barrels would be drilled to 4,000 feet and we determined what that ~~point~~ cost would be.

YOST: What was the cost of the well drilled at 4,000 feet?

RHODES: The cost is $47,500.00

YOST: What is the payout under the present allocation system assuming the same factors that you assumed on the other depth brackets?

[illegible]

RHODES: The payout on this well costing $47,500.00 at 4,000 feet is 1.382 years.