

Case No.

62 File #1

Application, Transcript,  
Small Exhibits, Etc.

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED



PETROLEUM AND ITS PRODUCTS

## GULF OIL CORPORATION

P. O. DRAWER 1290 · FORT WORTH 1, TEXAS

B. E. THOMPSON  
DIVISION PRODUCTION  
SUPERVISOR

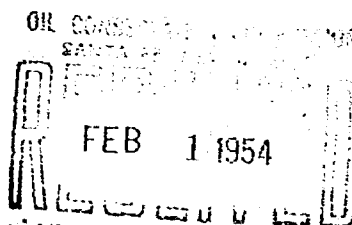
D. B. COURVILLE  
M. I. TAYLOR  
ASST. DIVISION PRODUCTION  
SUPERVISORS

A. L. HOLLAND, JR.  
DIVISION PETROLEUM ENGINEER

L. J. GILNAGH  
ASST. TO DIVISION PRODUCTION  
SUPERVISOR

FORT WORTH  
PRODUCTION DIVISION

January 28, 1954



New Mexico Oil Conservation Commission  
125 Mabry Hall, Capitol Building  
Santa Fe, New Mexico

Gentlemen:

Attention: Miss Nancy Royal

Returned herewith is a copy of the transcript of Case No. 62, which was heard May 14, 1945 before the Oil Conservation Commission of the State of New Mexico. We wish to thank you for granting us the privilege of photostating this transcript for our record.

Yours very truly,

*B. E. Thompson*  
B. E. THOMPSON *G. H. 7/6*

JDW:crs

EXHIBIT "B"

SAMPLE CALCULATION SHOWING THE TIME REQUIRED  
TO PAYOUT ALL DRILLING AND OPERATING COSTS  
OF A 10,000' WELL AND A 7000' WELL WITH AN  
ALLOWABLE OF 45 B/D IN LEA COUNTY, NEW MEXICO

Estimated cost of drilling and completing, equipping to  
flow, and installing tank battery for a 10,000' well---\$270,000

Estimated operating cost (flowing)-----\$120/mo.

Daily allowable----- 45 B/D

Monthly Revenue as follows:

45 x 30.4 x 0.875 x 0.95 x 1.02 = \$1160/mo.  
Less operating expense = 120/mo.  
Net Profit = \$1040/mo.

Payout Time (undiscounted) =  $\frac{\$270,000}{1040}$  = 259 months = 21.6 yrs.

Estimated cost of drilling and completing, equipping to  
flow, and installing tank battery for a 7000' well-----\$130,000

Payout Time (undiscounted) =  $\frac{\$130,000}{1040}$  = 125 months = 10.4 yrs.

Payout Time (discounted at 5% per year) = 14.5 yrs.

# THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS



PRODUCING DEPARTMENT  
WEST TEXAS DIVISION  
C. B. WILLIAMS, DIVISION MANAGER

P. O. BOX 1720  
FORT WORTH 1, TEXAS  
May 18, 1945

Hon. Carl B. Livingston  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Dear Carl:

In the confusion following the presentation of The Texas Company statement at the hearing on May 14, 1945, I inadvertently failed to leave for the Commission's records the signed original copy of the statement which I read into the record. I recall distributing some carbon copies to the members of the Commission and the reporter, but in order that the Commission's records may contain the original, I am enclosing it herewith. Will you kindly see that this copy finds its proper place in the record.

Many thanks again for the consideration and kindness extended me during my recent visit in Santa Fe. Your assistance and understanding were invaluable. I am looking forward to our next visit.

Yours very truly,

THE TEXAS COMPANY

BY

*A. E. Williams*  
Division Engineer

AEW-ESP  
Encls.



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO  
MAY 14, 1945

IN THE MATTER OF: THE PETITION OF THE GULF OIL  
CORPORATION FOR REVISION OF STATEWIDE PRORATION  
ORDER NO. 538 TO PROVIDE FOR INCREASING THE  
OIL ALLOWABLE PROGRESSIVELY ACCORDING TO DEPTH  
FOR POOLS PRODUCING BELOW 5000 FEET.

The Texas Company respectfully requests leave to file this statement in its behalf in connection with the hearing called to consider the subject matter.

On August 3, 1943, a hearing was held on the application of the New Mexico Oil Conservation Commission upon its own motion on this same matter. At that hearing considerable testimony and evidence were introduced which are pertinent to a further consideration of this matter. We respectfully request that the record of that hearing be made a part of and considered by the Commission in addition to the testimony to be offered on May 14.

Experience has shown that the cost of drilling and operation of wells varies in some proportion with the depth. Experience, however, has shown that this variation is not pre-determined and varies considerably from one area to another as shown by the testimony in the hearing of August 3, 1943. It is generally known that the deeper the well the higher drilling and operating costs will be. We are in accord with recommendations made heretofore that some recognition in the form of higher allowables be accorded wells drilled to deeper depths. We feel, however, that the measure of such consideration should be carefully determined by the Commission in accord with the authority vested in it by the New Mexico Conservation Statutes. We refer to and quote for your ready reference Paragraph 2 of Section 12 of the Session Laws of New Mexico, 1935, Chapter 72.

"No owner of a property in a pool should be required by the Commission, directly or indirectly, to drill more wells than are reasonably necessary to secure his proportionate part of the production. To avoid the drilling of unnecessary wells, a proration unit for each pool may be fixed, such being the area which may be efficiently and economically drained and developed by one well. The drilling of unnecessary wells creates fire and other hazards conducive to waste, and unnecessarily increases the cost of the products to the ultimate consumer".

Much constructive work has been done on the problem of well spacing, and since as far back as 1936 there has been a definition of unnecessary drilling which is generally recognized by Oil Operators and the Oil Industry. The following is a pertinent quotation from the report of an I.P.A.A. Sub-Committee of Nine on "Unnecessary and Excessive Drilling" which appeared in the Oil Weekly of December 28, 1936.

" It is generally recognized that much of the drilling in proven fields in most of the oil-producing states can be classified as "unnecessary or excessive drilling" in that from the wells already drilled or from a fewer number of wells properly spaced approximately the same amount of oil could be recovered, therefore the drilling of additional wells would not, and will not, materially increase the ultimate recovery from the field. In other words, in most fields the data are amply sufficient at an early stage in the development of the field to determine to reasonable accuracy the efficient and economical drainage area of a well. The drilling of more than one well to drain such area results in excessive or unnecessary drilling as those terms are used herein".

The area which may be effeciently and economically drained by any particular well, regardless of depth, will vary with the physical characteristics of the reservoir from which such well produces, and these characteristics may not be determined with any exactitude until such well has been brought into production and the pertinent factors have been determined. We, therefore, recommend and strongly urge to the Commission that no arbitrary, pre-determined allowable be assigned to deeper wells until testimony and evidence by competent parties has been introduced and considered in the case of each separate reservoir. Such evidence would necessarily include, among other things, the cost of drilling and operating wells of the particular depth under consideration and would be considered in determining the allowable of wells drilled in that particular field. Thereupon, from such hearings the Commission may determine, under the requirements of Section 12 quoted above, the proper spacing and proration unit, and, further, under Section 11 of the same Statutes, may "allocate or distribute the allowable production among the fields of the State.....on a reasonable basis.....". Thus, an Operator in undertaking the drilling of a deep well would have the assurance, prior to the commencement of the well, that the costs peculiar to and encountered in the drilling and operation of his well would be given due consideration in fixing the allowable for such well.

It is recognized that, before the pertinent physical characteristics of the reservoir may be determined, it is desirable to have available the data from a number of wells in a new reservoir. During the interim from the drilling of the discovery well and the further wells required for the reasonable determination of the reservoir's characteristics, we recommend the application of a modified form of the present "Bonus Discovery Allowable" Order No. 573 of the New Mexico Oil Conservation Commission adopted September 6, 1944. Modifications of this Order should include:

1. Reasonable daily top allowable rates based on various depth brackets for the discovery well.
2. The application of such top daily allowables to the next subsequent four wells completed in the same reservoir within the eighteen months or two year period next following the completion of the discovery well.
3. Prior to the expiration of the period adopted for bonus discovery allowables, the Commission will call a hearing to determine the proper spacing, proration unit, and regular top allowables to be assigned to all wells in such field. The regular top allowable so determined may thereafter be maintained in an amount in the same proportion theretofore assigned to other fields.

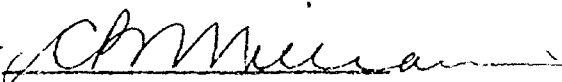
We further respectfully submit that the pre-determined allowables for deeper wells submitted by the applicant in this cause are arbitrary and, as pointed out before, do not take into consideration the pertinent data necessary and available only after completion of a sufficient number of wells in a given reservoir.

In conclusion, we wish further to recommend that the adoption and application of both bonus and regular allowables contemplated under this cause be made subject to the prevention of avoidable physical waste.

Respectfully submitted,

THE TEXAS COMPANY

BY



May 14, 1945



PETROLEUM AND ITS PRODUCTS

## GULF OIL CORPORATION

TULSA, OKLAHOMA

GYPSY  
DIVISION

July 18, 1945

Carl B. Livingston  
Chief Clerk and Legal Advisor  
Oil Conservation Commission  
Santa Fe, New Mexico

Re: Case 82, Application of Gulf Oil Corporation to Revise  
State-Wide Proration Order No. 538 so as to increase Al-  
lowable for Deep Wells on a Graduated Scale

Dear Carl:

Reference is made to your letter of May 31, 1945. When I first read the letter I assumed it would require no answer, however, upon rereading it today I believe it might be well to make a few comments. Our purpose in suggesting spacing greater than 40 acres was to have a frame-work in the state-wide order such that individual pools could be adjusted as conditions warranted by holding hearings on the individual pool only. It is my understanding that unless the state-wide order recognized other spacings, in event any individual pool appeared to justify 80 or 160-acre spacing, it would require a state-wide hearing since it would affect the allocation to all prorated areas.

If the sample order, as submitted by Gulf, were approved by the Commission a portion of the economic situation so far as high-cost drilling would be taken care of and for that reason there would be less justification for doubling and quadrupling the unit allowable in the event 80 acres or 160-acre proration units be approved in the future. Possibly the following would meet objections to our previous suggestion:

Provided that subsequent to discovery and after hearing and approval of plan by the Commission, pools having a depth classification of 7000' or more may be permitted a proration unit consisting of 80 acres and further providing that pools having a depth classification of 10,000' or more may be permitted a proration unit of 160 acres and for this purpose section 2(c) may be modified. In no event, however, shall the 80-acre proration unit be allowed more than 150% of the allowable for a 40-acre tract for such depth classification and further providing that a 160-acre proration unit shall not be allowed more than 200% of the allowable of a 40-acre proration unit for that depth classification.

If there is anything further we can do to assist in this matter please do not hesitate to call on us. With best personal regards, I am

Yours very truly,

Lloyd L. Gray  
Lloyd L. Gray  
Chief Production Engineer

LLG:MLV

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

July 24, 1945

MEMORANDUM TO GOVERNOR DEMPSEY:

Attached is the Gulf Oil Corporation's recommendation of July 16 with respect to an enlarged spacing factor in connection with the deep drilling order that has been under consideration for some time. It is noted that the proration unit, which is normally 40 acres, is to be raised to 80 acres for pools of a depth classification of 7000 or more and 160 acres for a well depth classification of 10,000 or more.

COMMENT: Some operators may not be successful in obtaining acreage sufficient for the suggested enlarged proration unit for the respective pool depth classification and may result in inequities.

The Gulf, the petitioner, in its petition did not ask for an increased allowable for deep wells by an enlarged proration unit but based the deep well allowable as follows: On the 40-acre allowable basis to amend the existing State-wide proration order to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet. Accordingly, as provided by law, the hearing was advertised in accordance with the petition -- no enlarged proration unit being specified.

RECOMMENDATION: The proposed enlarged proration unit be not considered insofar as this particular petition and hearing are concerned.

OIL CONSERVATION COMMISSION

BY

Chief Clerk & Legal Adviser

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CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 27, 1945

MEMORANDUM TO COMMISSIONER OF PUBLIC LANDS  
JOHN E. MILES:

Re: Case 62 - Petition of Gulf Corporation to provide for increasing oil allowable progressively according to depth for pools below 5000 feet.

Attached is the Gulf's petition in the above captioned matter. The petitioner asks for an increase of allowable for deep wells in all the fields now under proration rather than for any particular pool. That will preclude the necessity of other petitions and hearings to accomplish the same thing.

The petitioner has proposed an order, a copy of which is herewith attached for your information. Many of the operators should now be familiar with the provisions of the proposed order inasmuch as Lea County Operators Committee under date of February 14 sent out mimeographed copies to operators. The proposed order is simply a revision of the existing State-wide Proration Order No. 538 so as to permit an increased allowable for wells and pools below 5000 feet. I must, however, call your attention to an error in the proposed order -- the spacing requirement in Section 1(a) which proposes: "No well shall be drilled closer to any unit boundary line than 300 feet or less than 660 feet from any other well".

The existing order which has been in use for some time uses 330 feet instead of 300 feet. I see no reason for any change. I communicated with F. H. Bohart of the Gulf who drew the order to inquire the reason for the change. He advised that the 300 feet was a typographical error and that 330 feet was intended. With the correction made it is my belief that the proposed order has considerable merit.

Of the five cases to be heard on May 14, this case is by far the most important and with your lief I will put it last on the agenda so those attending the hearing will remain to hear the testimony in all the cases.

Chief Clerk & Legal Adviser

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W L CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 27, 1945

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Chief Clerk & Legal Adviser

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C E R T I F I C A T E

I, Vastie Fowler, Reporter for the Oil Conservation Commission, hereby certify that I took down the statements made at the hearing held before the Commission on May 14, 1945, in the Matter of the Petition of the Gulf Oil Corporation for revision of Statewide Proration Order No. 538 to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet, and that the foregoing transcript constitutes, to the best of my knowledge and belief, a true and correct copy of all the oral statements and exhibits presented before the Commission.

Vastie Fowler  
Vastie Fowler, Reporter.

[illegible][illegible]



Lloyd L. Gray  
L. G. Gallagher  
A. D. Hahn

Gulf Oil Corp  
Gulf Oil Corp  
N. M. Bureau of Mines & Mineral Resources

Tulsa, Okla.  
Hobbs, N. Mex  
Socorro, N. M.

Memorandum *mm*

A. E. WILLIG

Fort Worth 1, Texas,

6/21/45

6-30-45

J. M. Carl B. Livingston

Dear Carl;

I trust this  
contribution to  
Cause No. 62 does  
not arrive too late  
for consideration.

You know we here  
dwell in a semi-tropical  
climate - not an in-  
vigorating one such  
as you are blessed  
with - and consequently  
we practice conserva-  
tion of physical as  
well as natural energy.  
And that takes time -  
Hence, the delay -

Regards to you and  
your cohorts -

AL.

June 20, 1945

NEW MEXICO OIL CONSERVATION  
COMMISSION OF THE STATE OF  
NEW MEXICO  
CASE NO. 62

RE: THE PETITION OF THE GULF OIL CORPORATION  
FOR REVISION OF STATEWIDE PRODUCTION ORDER  
NO. 538 TO PROVIDE FOR INCREASING THE OIL  
ALLOWABLE PROGRESSIVELY ACCORDING TO DEPTH  
FOR POOLS PRODUCING BELOW 5000 FEET

Hon. John J. Dempsey, Chairman  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Hon. John E. Miles, Member  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Gentlemen:

On May 14, 1945, subject matter came up for hearing before your honorable body at Santa Fe, New Mexico. At that hearing, together with other operators, The Texas Company submitted for your consideration a statement bearing on this subject. At the close of the hearing the Commission invited further written suggestions of the operators.

We have prepared and herewith respectfully submit data which we hope may be helpful to the Commission in considering the numerous factors relevant to this subject.

The Texas Company has drilled and completed numerous producing wells in proven fields throughout the Permian basin of West Texas and New Mexico of various depths. We have compiled from our records of recently completed wells, drilling and equipment costs which we feel are representative in these cases. The results are as follows:

DEPTH  
4500'  
5050'  
5200'  
7200'

AV. COST  
\$ 31,000.00  
32,000.00  
51,000.00  
83,000.00

The above costs cover drilling, surface and sub-surface, and lease equipment for flowing wells.

We have drilled and completed deeper wells which were dry holes, and are now drilling deeper wells which will result in commercial producers. However, the cost of these dry holes and initial deep wells will not be representative of development costs in proven deep fields, and consequently they are not shown. Your attention is respectfully directed to the cost of drilling 7200' wells which we have experienced, which is at considerable variance with estimated cost of \$130,000.00 submitted by an operator at the May 14, 1945, hearing. As was pointed out at that time, this cost seemed excessive. We believe the chief value and significance of the experience costs tabulated above is that, although costs vary with depth, their magnitude is not pre-determinable. As pointed out in our statement submitted to the Commission on May 14, 1945, it may only be generally stated that the deeper the well the higher the drilling and operating costs will be. The character, particularly the hardness and thickness of formations which must be penetrated to tap an oil reservoir determine the drilling costs of wells. Labor costs and wear and tear on drilling equipment are directly proportional to the time consumed in drilling a well bore. In certain areas our experience has shown that the cost of drilling one foot of extremely hard formation may exceed the cost of drilling one hundred feet or more of softer formation. Only by actual development can the relative thickness of the various strata it is necessary to penetrate be determined. Consequently, in a new field actual development costs can only be determined from the drilling of several wells.

Likewise, the recoverable reserves in a new field may not be estimated with any degree of precision until sufficient wells have been completed to furnish the necessary data. Until at least some approximate estimate of such reserves can be made, it is impossible to adopt a final and sound spacing and allocation rule for a field. Reserves in all fields are exhaustible; that is, in each case there is an ultimate amount which will be produced. The amount may ultimately prove to be insufficient to repay the cost of drilling the initial well. But whatever the amount, current returns through individual well allowables will not be the criterion of efficient and economical recovery. If, for example, the ultimate recovery from a field is 5000 barrels per acre and one well will efficiently and economically produce 400,000 barrels of oil, the drilling of two wells to produce this same volume of oil would result in actual loss to the operator and an increase in cost to the ultimate consumer.

As pointed out before, these important factors are not pre-determinable and must necessarily be derived from data observed in a number of wells in each new field. Since these important factors, that is, cost of development, magnitude of reserves, and other physical factors of each reservoir vary widely, it is important that careful consideration be given each separate case.

Hon. John J. Dempsey  
Hon. John E. Miles

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6-20-45

Consequently, we respectfully urge that the Commission give careful consideration to the suggestion outlined in the statement filed by The Texas Company on May 14, 1945, which for your convenience is quoted below:

" It is recognized that, before the pertinent physical characteristics of the reservoir may be determined, it is desirable to have available the data from a number of wells in a new reservoir. During the interim from the drilling of the discovery well and the further wells required for the reasonable determination of the reservoir's characteristics, we recommend the application of a modified form of the present "Bonus Discovery Allowable" Order No. 573 of the New Mexico Oil Conservation Commission adopted September 6, 1944. Modifications of this order should include:

1. Reasonable daily top allowable rates based on various depth brackets for the discovery well.
2. The application of such top daily allowables to the next subsequent four wells completed in the same reservoir within the eighteen months or two year period next following the completion of the discovery well.
3. Prior to the expiration of the period adopted for bonus discovery allowables, the Commission will call a hearing to determine the proper spacing, proration unit, and regular top allowables to be assigned to all wells in such field, { The regular top allowable so determined may thereafter be maintained in an amount in the same proportion theretofore assigned to other fields."

----- (It is) "recommended that the adoption and application of both bonus and regular allowables contemplated under this cause be made subject to the prevention of avoidable physical waste."

We sincerely hope that the further data submitted herein may be of some assistance to the Commission in considering the subject application. We will be pleased, at your request, to furnish any additional data we may have in connection with this subject.

Yours very truly,

THE TEXAS COMPANY

BY \_\_\_\_\_  
DIVISION MANAGER

Blind cc- Hon. Carl B. Livingston

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

July 24, 1945

MEMORANDUM TO COMMISSIONER OF PUBLIC LANDS MILES:

Attached is the Gulf Oil Corporation's recommendation of July 16 with respect to an enlarged spacing factor in connection with the deep drilling order that has been under consideration for some time. It is noted that the proration unit, which is normally 40 acres, is to be raised to 80 acres for pools of a depth classification of 7000 or more and 160 acres for a well depth classification of 10,000 or more.

COMMENT: Some operators may not be successful in obtaining acreage sufficient for the suggested enlarged proration unit for the respective pool depth classification and may result in inequities.

The Gulf, the petitioner, in its petition did not ask for an increased allowable for deep wells by an enlarged proration unit but based the deep well allowable as follows: On the 40-acre allowable basis to amend the existing State-wide proration order to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet. Accordingly, as provided by law, the hearing was advertised in accordance with the petition — no enlarged proration unit being specified.

RECOMMENDATION: The proposed enlarged proration unit be not considered insofar as this particular petition and hearing are concerned.

OIL CONSERVATION COMMISSION

BY

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Re: Case 62. Allowable for deep pools.

A suggested formula for applying the deep well advisory committee's recommendation No. 2 to Gulf Oil Corporation's deep well order. Said recommendation reads:

"The Committee recommends that a minimum allowable of 25 barrels of oil daily for wells in Lea and Eddy Counties below which non-marginal wells will not be shut, due to extra allowable to wells drilled below 5000'".

Formula for applying said recommendation: at the end of Section 2-C insert the following additional paragraph:

PROVIDED:

That the daily allowable for non-marginal units above the 5000' depth range shall not be reduced below 25 barrels by reason of the increased allowable for units below such depths. When the daily allowable for such non-marginal units falls below 25 barrels by virtue of the computational formula hereinabove in this section, then the top unit allowable for each non-marginal unit below 5000' shall be reduced in even number of barrels sufficient to bring the daily allowable for non-marginal units above 5000' up to 25 barrels, any fraction of a barrel shall be regarded as a full barrel.

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SAMPLE CALCULATION OF ALLOCATION TO LEA AND EDDY COUNTIES  
CASE WHERE NORMAL UNIT ALLOWABLE IS LESS THAN 30 BARRELS/DAY

Assume: Total State allocation to Lea and Eddy Counties on basis of calculated non-marginal allowable plus marginal well allowable--100,000 bbls.

Total allocation to Lea <sup>and Chavez</sup> and Eddy Counties, non-marginal units----- 76,700 bbls.

Total allocation to Lea <sup>and Chavez</sup> and Eddy Counties, marginal units----- 23,300 bbls.

Total-----100,000 bbls.

$$\text{Normal Unit Allowable} = \frac{76,700}{3,746.30} = 21 \text{ B/D}$$

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Pool	Depth Classification	Total Proration Units	No. of Marginal Units	Allocation To Marginal Units	No. of Non-Marginal Units	Depth Factor	Depth Factor Times No. of Non-Marginal Units (6) x (7)	Top Unit Allowable	Corrected Top Unit Allowable	Pool Allowable (6) x (10) Plus (5)
A	0- 5000'	1,500	800	13,200	700	1.00	700.00	21	25	30,700
B	5000- 6000'	300	100	2,000	200	1.33	266.00	28	27	7,400
C	6000- 7000'	600	100	2,600	500	1.77	885.00	36	37	21,100
D	9000-10000'	300	50	2,500	250	3.77	942.50	80	77	21,750
E	11000-12000'	110	30	3,000	80	5.66	452.80	119	114	12,120
F	13000-14000'	50	0	0	50	8.00	400.00	168	161	8,050
TOTAL LEA, AND <sup>Chavez</sup> EDDY COUNTIES		2,860	1,080	23,300	1,780		3646.30			101,120*

$$(2) \text{ Correction Factor} = \frac{(B - \frac{30}{25U})}{(\frac{28}{38} - N) + (B - \frac{25U}{35})} = \frac{(76,700 - \frac{30}{25} \times 700)}{(\frac{28}{38} - 21)700 + (76,700 - \frac{25}{35} \times 700)} = 0.9548$$

$$(1) \text{ Corrected Top Allowable} = \text{Top Allowable} \times \text{Correction Factor} = 28 \times 0.9548 = 27 \text{ B/D}$$

\* Difference due to fractional barrels = 1120 barrels.



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

February 21, 1946

Honorable J. O. Seth  
Santa Fe, New Mexico

Re: Case No. 62  
Order No. 637

My dear Judge Seth:

Here are the two mimeographed copies of the "deep-well"  
order that you requested.

Very truly yours,

Chief Clerk & Legal Adviser

CEL:MS

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IL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

February 21, 1946

Colonel J. D. Atwood  
Atwood & Malone  
J. P. White Building  
Roswell, New Mexico

Re: Case No. 62  
Order No. 637

Dear Colonel Atwood:

Replying to your letter of February 19, please accept my sincere apology for the oversight in not sending you, as attorney for the petitioner, a copy of the above captioned order. When the order was promulgated I was out of town. An original went to the petitioner, addressed to Mr. Sanderson on February 8. The oversight in not sending one directly to you was that of no one but myself and I therefore reiterate my regret in this respect.

The order has now been mimeographed and two copies are enclosed.

A carbon copy of this letter is going forward to Mr. Glenn Staley of the Proration Office where the mimeographing is done as a request to send you several copies for distribution as you have indicated.

Enclosed is a copy of another order that may be of some interest to you -- Order No. 633, Case No. 70, revising the fields definition order in some respects.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS  
cc Glenn Staley

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Y

ATWOOD & MALONE  
LAWYERS

JEFF D. ATWOOD  
ROSS L. MALONE, JR.

J. P. WHITE BUILDING  
ROSWELL, NEW MEXICO

February 19, 1946

Oil Conservation Commission,  
Santa Fe,  
New Mexico.

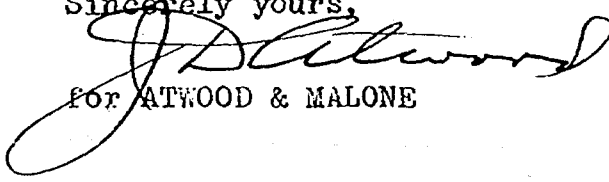
ATTENTION: Mr. Livingston

Dear Carl:

Through oversight on the part of some one in your office I have not received a copy of the order pertaining to deep well allowables although as you recall I was attorney of record for the petitioner Gulf Oil Corporation. If the order has been mimeographed I will appreciate your furnishing several copies so that I may distribute them to interested parties.

With best wishes, I am

Sincerely yours,

  
for ATWOOD & MALONE

JDA:IH

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

February 8, 1946

Mr. S. G. Sanderson  
Gulf Oil Corporation  
P. O. Box 661  
Tulsa 2, Oklahoma

Re: Case No. 62 - Order No. 637

Dear Mr. Sanderson:

Enclosed please find a signed copy of Order No. 637, which is in effect the deep allowable order. I regret very much the circumstances which caused your petition submitted last May to be delayed for final action until this date. We hope very much that such protracted delay will never occur again.

I wish to take this opportunity to thank you sincerely for the assistance your company gave in promulgating this order. I am very well satisfied with the order with perhaps one exception. I believe you will agree with me that the proportional factors are perhaps a little high. You will note that the order is so drawn to afford the Commission the opportunity to change the proportional factors as economic conditions warrant.

Any comments you may have on this order will be respectfully received.

Very truly yours,

RRS:MS

cc Glenn Staley  
Foster Morrell

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U. S. CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

February 8, 1946

Mr. Hugh Sawyers  
New Mexico Oil and Gas Association  
Roswell, New Mexico

Re: Case No. 62 - Order No. 637

Dear Hugh:

Enclosed please find copy of Order No. 637, which is in effect the deep allowable order that Gulf petitioned for last May.

Very truly yours,

RRS:MS

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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AIRMAIL  
SPECIAL

October 11, 1945

Honorable Glenn Staley  
Proration Office  
Hobbs, New Mexico

Re: Case 62. Allowable for deep pools.

Dear Glenn:

One copy of your committee's recommendation was received at the Governor's office. It has now been copied for the Oil Conservation office. No original recommendation has been received at the Commission's office.

Noting your No. 2 recommendation concerning the prohibitions against non-marginal units being cut below 25 barrels because of the extra allowable granted to deep wells, it becomes necessary to devise some simple formula for the applying of that recommendation to Gulf's proposed order. To that end I have formulated a suggested proviso to be inserted in a separate paragraph at the end of Section 2-C of Gulf's proposed order. A copy of the suggested proviso is herewith attached.

Very truly yours,

Chief Clerk & Legal Adviser

CHL:MS

P.S. Please advise as soon as possible any suggestions you may have.

**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

A. N. WILLIAMS  
PRESIDENT

1201

**SYMBOLS**  
DL - Day Letter  
NL - Night Letter  
LC - Deferred Cable  
NLT - Cable Night Letter  
Ship Radiogram

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.

1A394 LG SER PD=WUX TULSA OKLA 16 423P

CARL B LIVINGSTON=

OCT 16 PM 4:13

OIL CONSERVATION COMMISSION

WE ARE SENDING AN AIRMAIL LETTER TODAY WITH A SUGGESTED  
FORMULA THAT PROVIDES A METHOD OF CALCULATION TO KEEP  
NONMARGINAL INITS ABOVE 5,000 FEET FROM BEING CUT BELOW 25  
BARRELS DAILY=

S G SANDERSON.

DUPLICATE OF TELEGRAM TELEPHONED

OCT 15 PM 4 32		
No.	At	To Ex
By		

5,000 25.

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

2246

Charge to the account of

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
NIGHT LETTER	NIGHT LETTER

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

# WESTERN UNION

1217

A. N. WILLIAMS  
PRESIDENT

CHECK
ACCOUNTING INFORMATION
TIME FILED

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

SANTA FE NEW MEXICO OCTOBER 11, 1945

FOR VICTORY  
BUY  
WAR BONDS  
TODAY

COPY

P. M. BOHART  
GULF OIL CORPORATION  
TULSA, OKLAHOMA

DEEP POOL ADVISORY COMMITTEE RECOMMENDED SUBSTANTIALLY GULF'S FIGURES IN ITS PROPOSED ORDER PROVIDING NON MARGINAL UNITS ABOVE 5000 SHALL NOT BE CUT BELOW 25 BARRELS DAILY BECAUSE OF INCREASED ALLOWABLES GIVEN TO DEEP POOLS. HOW CAN SUCH PROVISIO BE WORKED INTO THE CALCULATION FORMULA IN SECTION 2-C OF YOUR PROPOSED ORDER. PLEASE ADVISE IMMEDIATELY.

CARL B. LICINGSTON  
CHIEF CLERK & LEGAL ADVISER

SEND: DAY LETTER  
CHG: OIL CONSERVATION COMMISSION



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

October 11, 1945

AIRMAIL  
SPECIAL

Mr. P. H. Bohart  
Gulf Oil Corporation  
Tulsa, Oklahoma

Re: Case 62. Allowable for deep pools.

Dear Mr. Bohart:

The No. 2 recommendation of the deep well advisory committee provides that no non-marginal unit shall be cut below 25 barrels on account of the extra allowable granted to units in deep pools.

The recommendation is one thing and the applying it to Gulf's proposed order for purposes of calculation is quite another. To that end I have devised a suggested proviso to be inserted in a separate paragraph at the end of Section 2-C of Gulf's proposed State-wide proration order. A copy of the proviso is hereto attached.

Please examine this suggested proviso and make any suggestion you deem workable as soon as possible.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

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Re: Case 62. Allowable for deep pools.

A suggested formula for applying the deep well advisory committee's recommendation No. 2 to Gulf Oil Corporation's deep well order. Said recommendation reads:

"The Committee recommends that a minimum allowable of 25 barrels of oil daily for wells in Lea and Eddy Counties below which non-marginal wells will not be dut, due to extra allowable to wells drilled below 5000' ".

Formula for applying said recommendation: at the end of Section 2-C insert the following additional paragraph:

PROVIDED:

That the daily allowable for non-marginal units above the 5000' depth range shall not be reduced below 25 barrels by reason of the increased allowable for units below such depths. When the daily allowable for such non-marginal units falls below 25 barrels by virtue of the computation formula hereinabove in this section, then the top unit allowable for each non-marginal unit below 5000' shall be reduced in even number of barrels sufficient to bring the daily allowable for non-marginal units above 5000' up to 25 barrels, any fraction of a barrel shall be regarded as a full barrel.



PETROLEUM AND ITS PRODUCTS

# GULF OIL CORPORATION

P. O. BOX 661 · TULSA 2, OKLAHOMA

GYPSY  
DIVISION

October 16, 1945

AIR-MAIL  
SPECIAL

Mr. Carl B. Livingston  
Oil Conservation Commission  
Santa Fe, New Mexico

Dear Sir:

Re: Case No. 62, Application of Gulf Oil Corporation to  
Revise State-Wide Proration Order No. 538 so as to  
increase Allowable for Deep Wells on a Graduated Scale.

Reference is made to your letter and wire of October 11 in regard  
to the recommendation of the Deep Well Advisory Committee that non-marginal  
units above 5,000 feet shall not be cut below 25 barrels daily.

As an alternative to your suggested proviso, we have worked out a  
formula that will provide for the mathematical computation of a corrected top  
allowable for each depth classification. The method used is to arbitrarily  
place the top allowable at 25 barrels per day on non-marginal units within  
the depth range of 0 to 5,000 feet in the event that the normal unit allowable  
should ever fall below 25 barrels per day and then a correction factor deter-  
mined from the suggested formula below is multiplied by top unit allowables  
calculated from Section 2 (c). A corrected top allowable is thus obtained for  
each depth classification. The remainder of the formula has not been changed.

It is our suggestion that Section 2 (d) be deleted and a new  
Section 2 (d) be inserted to read as follows:

The top unit allowables so determined in Section 2 (c)  
shall be assigned to the respective pools in accordance with each  
pool's depth range. The sum of all marginal units plus the sum of  
the top allowables for all non-marginal units in each pool shall  
constitute the allocation for each pool. In the event that the  
normal unit allowable as calculated in Section 2 (c) is found to be  
less than 25 barrels per day for any month, the top allowable for  
the depth range of 0 to 5,000 feet shall be set at 25 barrels per day  
and a corrected top allowable shall be computed for all other depth  
ranges below 5,000 feet by the following formulae:

(1) Corrected top allowable = top allowable times correction factor

(2) Correction factor = 
$$\frac{(B - 25)}{(25 - N)U + (B - 25U)}$$

30

30



DATE 10-16-45

FROM S. G. Sanderson

TO Carl B. Livingston

SHEET NO. 2

where:

B = Total allocation to Lea, ~~and~~ <sup>and changes</sup> Eddy Counties, non-marginal units

N = Normal unit allowable as calculated in Section 2 (c)

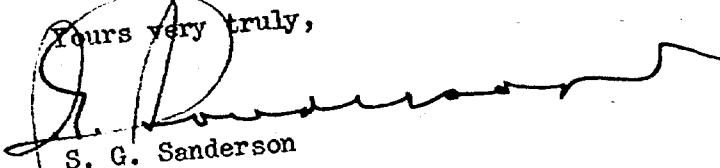
U = Number of non-marginal units within the depth range of 0 to 5,000 feet

The allocation for each pool shall then be computed as described hereinabove, using the corrected top allowables in place of the top allowables.\*

*The figure 30 as used in this section is subject to change as in 5*  
The above formula is very simple to use and, of course, only one computation is required to obtain the correction factor. I am preparing a sample calculation similar to the one formerly submitted for a case where the normal unit allowable is less than 25 barrels per day. This sample calculation will be sent to you tomorrow.

We would appreciate any comments that you might have on our suggested revision of Section 2 (d).

Yours very truly,

  
S. G. Sanderson

ACG:MK



PETROLEUM AND ITS PRODUCTS

## GULF OIL CORPORATION

P.O. BOX 661 · TULSA 2, OKLAHOMA

GYPSY  
DIVISION

April 24, 1945


The Honorable Carl B. Livingston, Attorney  
Oil Conservation Commission  
Santa Fe, New Mexico

Dear Sir:

Thank you for your letter of April 19 calling my attention to the wording of the Sample Order submitted with our letter of April 9. The 300 feet, as shown, was in error and was the result of our copying Order 538 from a mimeographed form of the Proration Office at Hobbs. It was not our intent to change the footage and the Sample Order should read "No well shall be drilled closer to any unit boundary than 330 feet or less than 660 feet from any other well except ....."

Thank you for calling this matter to my attention.

Yours very truly,

  
P. H. Bohart  
Attorney-in-Fact

LLG:MDW

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 19, 1945

P. H. Bohart, Esquire  
Gulf Oil Corporation  
P. O. Box 661  
Tulsa 2, Oklahoma

Re: Case 62 - Gulf's petition to revise State-wide  
Proration Order 538.

Dear Mr. Bohart:

In reply to your letter of April 9 accompanying the Gulf's petition in the above captioned matter you included with your letter a proposed order. Your attention is called to Section 1 (a) in which you state: "No well shall be drilled closer to any unit boundary line than 300 feet or less than 660 feet from any other well except ~~xxx~~". Was the 300 feet intended or was that a typographical error?

The existing Order 538 provides 330 feet. I am not questioning the advisability of the 300 feet provision in your proposed order but desire to know whether 300 feet was intended. If 300 feet is intended as a change from the 330 feet in the existing order 538, please so advise. If you intended it as 300 feet evidently you had a good reason for it - for without committing the Commission in any way personally I think the proposed order is skillfully drawn.

Very truly yours,

Carl B. Livingston

CBL:MS

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PETROLEUM AND ITS PRODUCTS

## GULF OIL CORPORATION

P.O. BOX 661 · TULSA 2, OKLAHOMA

GYPSY  
DIVISION

July 16, 1945

Carl B. Livingston  
Chief Clerk and Legal Advisor  
Oil Conservation Commission  
Santa Fe, New Mexico

Re: Case 62, Application of Gulf Oil Corporation to Revise  
State-Wide Proration Order No. 538 so as to increase Al-  
lowable for Deep Wells on a Graduated Scale

Dear Carl:

Reference is made to your letter of May 31, 1945. When I first read the letter I assumed it would require no answer, however, upon rereading it today I believe it might be well to make a few comments. Our purpose in suggesting spacing greater than 40 acres was to have a frame-work in the state-wide order such that individual pools could be adjusted as conditions warranted by holding hearings on the individual pool only. It is my understanding that unless the state-wide order recognized other spacings, in event any individual pool appeared to justify 80 or 160-acre spacing, it would require a state-wide hearing since it would affect the allocation to all prorated areas.

If the sample order, as submitted by Gulf, were approved by the Commission a portion of the economic situation so far as high-cost drilling would be taken care of and for that reason there would be less justification for doubling and quadrupling the unit allowable in the event 80 acres or 160-acre proration units be approved in the future. Possibly the following would meet objections to our previous suggestion:

Provided that subsequent to discovery and after hearing and approval of plan by the Commission, pools having a depth classification of 7000' or more may be permitted a proration unit consisting of 80 acres and further providing that pools having a depth classification of 10,000' or more may be permitted a proration unit of 160 acres and for this purpose section 2(c) may be modified. In no event, however, shall the 80-acre proration unit be allowed more than 150% of the allowable for a 40-acre tract for such depth classification and further providing that a 160-acre proration unit shall not be allowed more than 200% of the allowable of a 40-acre proration unit for that depth classification.

If there is anything further we can do to assist in this matter please do not hesitate to call on us. With best personal regards, I am

Yours very truly,

*Lloyd L. Gray*  
Lloyd L. Gray  
Chief Production Engineer

LLG:MDW

CASE NO. 62

BEFORE THE OIL CONSERVATION COMMISSION OF THE  
STATE OF NEW MEXICO

In the matter of the petition of the Gulf Oil Corporation for revision of Statewide Proration Order No. 538 to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet.

Pursuant to notice by the Commission, duly made and published setting May 14, 1945, at 10 o'clock A. M., for hearing in the above entitled matter, said hearing was convened on said day, at said hour, in the Coronado Room of the La Fonda, Santa Fe, New Mexico, the Commission sitting as follows:

HON. JOHN J. DEMISEY, Governor, Chairman.  
HON. JOHN E. MILES, State Land Commissioner, Member  
HON. CARL B. LIVINGSTON, Chief Clerk & Legal Adviser

R E G I S T E R

<u>NAME</u>	<u>COMPANY</u>	<u>ADDRESS</u>
Hugh L. Sawyers	New Mexico Oil & Gas Ass'n.	Roswell, N. M.
J. L. Griffith	Humble Oil Company	Midland, Texas
Leo R. Manning	Barney Cockburn	Maljamar
R. J. Heard	Grayburg Oil Company	Loco Hills
Glenn Staley	Lea County Operators	Hobbs, N. M.
Barney Cockburn	Cockburn Oil Company	Artesia, N. M.
W. R. Bollinger	Shell Oil Company, Inc.	Hobbs, N. M.
Chas. C. Roripaugh	Shell Oil Company, Inc.	Midland, Texas
H. K. McKinnon	Shell Oil Company, Inc.	Midland, Texas
J. C. Gordon	Byrd Frost, Inc., and Plains Products Company	Dallas, Texas
W. E. Scott	Buffalo Oil Company	Artesia, N. M.
Robert L. Bates	State Bureau of Mines & Mineral Resources	Socorro, N. M.
John M. Kelly	G. P. Livermore, Inc.	Lubbock, Texas
Harry Leonard	Leonard Oil Company	Roswell, N. M.
D. A. Powell	Drilling & Exploration Co.	Hobbs, N. M.
Chas. Schmitz	Sole Owner	San Francisco
Joe Dexter	Grayburg Oil Company of I.M.	Artesia, N. M.
T. J. Dorsey	Atlantic Refining Company	Dallas, Texas
G. H. Gray	Repollo Oil Company	Midland, Texas
Harve H. Mayfield	Magnolia Petroleum Company	Kermit, Texas
D. D. Christner	Continental Oil Company	Ft. Worth, Texas
W. C. Stout	Continental Oil Company	Ft. Worth, Texas
John R. Moran	Continental Oil Company	Houston, Texas
George M. Sellinger	Skelly Oil Company	Tulsa, Okla.
J. N. Dunlavey	Skelly Oil Company	Hobbs, N. M.
H. B. Hurley	c/o Continental Oil Company	Ft. Worth, Texas
M. H. Dubrow	Continental Oil Company	Ft. Worth, Texas
S. V. McCallum	Continental Oil Company	Ft. Worth, Texas
L. F. Shiplet	The Texas Company	Midland, Texas
A. E. Willig	The Texas Company	Ft. Worth, Texas
C. B. Williams	The Texas Company	Ft. Worth, Texas
W. E. Hubbard	Humble Oil Company	Houston, Texas
Neville G. Penrose	Neville G. Penrose, Inc.	Ft. Worth, Texas



2

REGISTER (cont'd)

<u>NAME</u>	<u>COMPANY</u>	<u>ADDRESS</u>
Weldon Brigrance	Rowan Drilling Company	Ft. Worth, Texas
J. W. House	Humble Oil Company	Midland, Texas
Roy O. Yarbrough	Oil Conservation Commission	Hobbs, N. M.
Foster Morrell	U. S. Geological Survey	Hobbs, N. M.
A. K. Montgomery	Stanolind Oil & Gas Company	Santa Fe, N. M.
W. T. Hoey	Stanolind Oil & Gas Company	Midland, Texas
Jas. M. Murray Sr.	Me-Tex	Hobbs, N. M.
L. F. Peterson	Stanolind Oil & Gas Company	Ft. Worth, Texas
S. G. Sanderson	Gulf Oil Corporation	Tulsa, Oklahoma
J. D. Atwood, Atty.	Gulf Oil Corporation	Roswell, N. M.
Lloyd L. Gray	Gulf Oil Corporation	Tulsa, Oklahoma
E. J. Gallagher	Gulf Oil Corporation	Hobbs, N. M.
A. D. Hahn	N. M. Bureau of Mines & Miner 1 Resources	Socorro, N. M.

"NOTICE FOR PUBLICATION  
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

The Oil Conservation Commission as provided by law hereby gives notice of the following hearing to be held at Santa Fe, New Mexico, at 10 A.M., May 14, 1945:

CASE NO. 62.

In the matter of the petition of the Gulf Oil Corporation for revision of Statewide Proration Order No. 538 to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet.

Given under the seal of said Commission at Santa Fe, New Mexico on April 13th, 1945.

OIL CONSERVATION COMMISSION

BY (SGD)

JOHN J. LEMPSEY  
CHAIRMAN

JOHN E. MILES  
MEMBER

SEAL"

P R O C E E D I N G S

BY MR. J. D. ATWOOD: Gentlemen of the Commission, I appear in behalf of the Petitioner, and request the permission of the Commission for Mr. Sanderson, General Superintendent of the Gulf Oil Corporation to explain the reasons and situation which has caused the Company to file this petition, and I introduce Mr. Sanderson.

MR. SANDERSON: Recently the Gulf Company drilled four wells in the Drinkard area in Lea County, 5,000 to 7,000 feet in depth. At the present time the Company is drilling four additional wells on short term leases in that particular area. These wells cost from 1,000 to 150,000 dollars, depending of the depth of them. It is the desire of the Gulf to develop these deeper reserves, but under present allowable set up, 45 to 46 barrels per well, it will be uneconomical for the Company or any other operators to develop these reserves. Therefore, we thought that the deeper wells should have some additional consideration in regard to allowable, and over the past several months the matter has been discussed with my operators. So far as I know none of the operators object or disagree with the idea. In order to bring the matter to a head, the Company decided to file an application with the Commission for a hearing on the matter, in addition to clarifying the situation. For the convenience of the Commission and other operators, the Company decided to draw up a proposed order and submit to the Commission, which was done. This order was circulated to the various operators in the field. It was not with the idea this would be the same order, but rather it would clarify the situation and give something definite to work on. We realized from the beginning there will doubtless have to be some modifications of this order in order to conform with the present orders of the Commission, but we thought this was a better way to handle it. That is the reason for the Gulf's application for hearing on the additional allowables for the deeper well at this time.

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GOVERNOR LEMPSEY: Mr. Sanderson this scale between five and six thousand feet, you will get a rate over the allowable for the lesser depth well?

MR. SANDERSON: Yes sir.

GOVERNOR LEMPSEY: If a well at three or four thousand feet, if the allowable was raised or decreased, would you raise or decrease with that?

MR. SANDERSON: Yes sir.

GOVERNOR LEMPSEY: What time would that continue?

MR. SANDERSON: Indefinitely. We made some calculations in some of those deeper wells - it would require 20 years to pay out. I think from a conservation standpoint it is desirable to develop these deeper reserves because the present fields are exhausting I think rather rapidly. I was surprised with many marginal wells in Lea County, at this time I think thirty of them - I think we should encourage the development of these deeper horizons.

GOVERNOR LEMPSEY: You think there should be no limit of time as to how long this allowable is permitted?

MR. SANDERSON: The way we have the thing figured out, is to make the pay out on these deeper wells approximately the same as on the shallow wells. This present proposal does not quite accomplish that, it is a little too low.

GOVERNOR LEMPSEY: You think <sup>after</sup> ~~the~~ the period when you have recovered the additional amount you should still have the additional allowable?

MR. SANDERSON: Yes sir.

GOVERNOR LEMPSEY: Colonel do you think the Commission has the authority in the present law to do this?

MR. ATWOOD: It is my opinion under the present conservation law the Commission can make classifications for pro rating purposes and for extension of development, so long as the classifications are on a reasonable basis, no complaint can be made. We have now allowance for discovery wells that the

5

discovery gets when the person who offsets him does not get it. The Commission did that because it is in the Compensation Act that guarantees that every operator will be treated just exactly alike. I understand the Gulf people want to establish a depth as the so-called deeper production, as distinguished from the shallow production. The Gulf thought 5,000 feet would be the proper basis. Of course, a well 4,995 feet wouldn't get the bonus, where 5,001 feet would. There must be some way to draw a line (this is merely a suggestion of the Gulf, 5,000 feet for the beginning of the so-called deep production).

As I understand it, this plan is not so much to take care of the 5,000 foot situation as it is to take care of the deeper stuff, and we have a witness with figures we would like to put in the record, but first would like to have the Commission or anyone interested to ask any questions.

GOVERNOR DEMPSEY: We now have an allowable to deep wells as discovery wells, should that continue with this as additional?

MR. SANDERSON: Yes sir, I think so. Because the original well, just one well in the pool gets the allowable.

GOVERNOR DEMPSEY: For a term, a certain period - What would be the effect upon the discovery well in this condition?

MR. SANDERSON: Wouldn't be affected at all. The discovery gives a certain number of barrels of oil which must be produced within a years' time.

GOVERNOR DEMPSEY: You contemplate they get both?

MR. SANDERSON: Yes.

MR. ATWOOD: It is my understanding a discovery well nearly always costs more than the subsequent wells. That is the reason for giving the bonus is to offset that unusual cost.

GOVERNOR DEMPSEY: Any other persons desire to ask any question?

MR. NEVILLE PENROSE: You estimate your cost on your present development one to one hundred fifty thousand dollars?

MR. SANDERSON: That is right.

MR. PENROSE: In that area there are approximately 800 producing wells of about 4,000 barrels, what would you estimate the cost was?

MR. SANDERSON: Around 30,000 dollars.

MR. PENROSE: About 80 of those wells are still in the red, and some of them are 7 or 8 years old?

MR. SANDERSON: I don't know about that.

MR. PENROSE: In an effort to get a release, would the Gulf Company apply to the OPA for an increase for the price of the oil?

MR. SANDERSON: Not that I know of.

MR. GEORGE SELLINGER: Governor, in answer directly to your question in regards to the Commission, in my opinion sections 11 and 12 give you the authority to grant the application as set forth by the Gulf. I believe under those two sections you can grant that authority.

(After being duly sworn to tell the truth, the whole truth and nothing but the truth, Mr. Lloyd Gray testified as follows)

MR. ATWOOD: Where do you live?

MR. GRAY: Tulsa.

MR. ATWOOD: What is your official connection with the Gulf?

MR. GRAY: Chief production engineer.

MR. ATWOOD: For how long?

MR. GRAY: 17 years.

MR. ATWOOD: How long in the present capacity?

MR. GRAY: 5 or 6 years.

MR. ATWOOD: You have heard the introductory statement by Mr. Sanderson with reference to the increased cost of drilling to deeper depths, have you compiled any figures on samples of drilling costs in New Mexico, in the area in which your Company operates?

MR. GRAY: Yes sir.

MR. ATWOOD: Gentlemen of the Commission, we offer Exhibit A, in evidence, after first having it identified by the witness. - Is this exhibit a graph showing the increase in cost of increasing depth?

7

MR. GRAY: Yes sir.

MR. ATWOOD: You prepared that?

MR. GRAY: I had it prepared.

MR. ATWOOD: Will you make a detailed explanation to the Commission of this graph?

MR. GRAY: The line that goes diagonally across the page shows the cost for varying distances down to 12,000 feet on the right hand side of the curve is shown the figures for distances actually drilled wells at the present time.

GOVERNOR DEMPSEY: Wildcat I presume?

MR. GRAY: No not wild cat figures.

It has the cost of a completed well. Starts around 3,800 for \$29,000, 7,000 feet \$130,000, 10,000 feet estimate cost \$207,000. These cost figures, I believe, will fairly represent an exploration mark. The cost of drilling these deep wells is enormous. I don't believe at the present time the return on investment is satisfactory. As a matter of fact, it is entirely possible if the allowable is not increased the natural resources might not be exploited.

MR. ATWOOD: Any member of the Commission desire to ask any question?

(No questions)

MR. ATWOOD: Have you prepared any estimate or sample costs for wells at 7 and 10 thousand feet, to show the time required for paying off on those costs on the present allowable basis?

MR. GRAY: Yes sir.

(Exhibit B presented to the Commission)

MR. ATWOOD: The figures for the 10,000 foot well, go ahead and explain those items.

MR. GRAY: This is a sample calculation showing the required pay for wells of a greater depth than the present wells. One is 10,000 feet and the other is 7,000 feet. The 10,000 foot well is estimated at \$270,000 and the estimated operating cost for it \$120 a month, I believe that would be conservative.

MR. ATWOOD: On the assumption it is a flowing well?

MR. GRAY: Yes sir, an allowable of 35 barrels per day, revenue of \$1,040 per month - 21.6 years.

MR. ATWOOD: If discounted at 5%, approximately what increase would there be in time?

MR. GRAY: 25 to 27 years. 7,000 feet, \$130,000 on the same basis as the one previously would pay out in 10.4 years, at a discount of 5% per year would pay out in a period of 14.5 years.

MR. ATWOOD: On the assumption both wells are flowing the allowable?

MR. GRAY: Yes sir.

MR. ATWOOD: If the wells should not flow you would have a pumping cost in addition to the cost you have shown here?

MR. GRAY: That is correct.

MR. ATWOOD: Any member of the Commission have any question on that exhibit?

GOVERNOR DEMPSEY: No.

MR. ATWOOD: Mr. Gray, based upon these figures, I believe you have stated it is doubtful there will be any general development on the present allowable basis.

MR. GRAY: That is correct.

MR. ATWOOD: With these figures set forth in a petition, using the present allowable as the basic unit, and step up as suggested in the petition by increasing the depth, about how much time would be required then?

MR. GRAY: I have not made a calculation on that, but I would estimate in the neighborhood of 7 or 8 years.

MR. ATWOOD: What is the normal pay out time the Company figures on the wells?

MR. GRAY: I don't believe they could operate much longer than 7 or 8 years.

MR. ATWOOD: You heard Mr. Sanderson's statement - how many deep wells the Gulf is drilling in Lea County - are there any other wells they are drilling?

MR. GRAY: I believe about 17.

MR. ATWOOD: Drilling wildcatting or necessity?

MR. GRAY: Quite a number through necessity.

MR. ATWOOD: In order to hold the lease. If the allowable is not increased is there any likelihood these companies drilling these wells will proceed to develop the pools?

MR. GRAY: With the low return I don't believe they would be justified.

MR. ATWOOD: The fact that some of these companies drill through necessity, is there any likelihood another company would drill through necessity.

MR. GRAY: That is correct.

MR. ATWOOD: State whether or not in your opinion economic waste results in using funds in drilling wells that will not pay out in 20 years.

MR. GRAY: I think that is right.

MR. ATWOOD: These figures here represent the nearest expense incurred in drilling company wells?

MR. GRAY: Correct.

MR. ATWOOD: Doesn't that consider risks sustained in drilling dry holes?

MR. GRAY: No sir.

MR. ATWOOD: Is that item likely to be a considerable item in the Lea County area.

MR. GRAY: It usually is a sizeable item in the early stages.

MR. ATWOOD: Hasn't there been a number of dry wells drilled already in Lea County?

MR. GRAY: I think that is correct.

MR. ATWOOD: That is all for me gentlemen.

GOVERNOR DEMPSEY: Any questions from any of you gentlemen?

(No questions)

MR. SELLINGER: In drilling a well through necessity by offsetting operator where economically would not be justified, would that in your opinion be termed drilling of an unnecessary well?

MR. GRAY: Not necessarily that, but are unprofitable.

MR. SELLINGER: Economically it would not pay the operator to operate that well?

MR. GRAY: Yes sir.



MR. SELLENER: But at the same time would have a tendency of not permitting full development of that reservoir?

MR. GRAY: I believe that is correct.

MR. ATWOOD: (Next witness)

Please State Your name.

MR. WILLIAMS. C. B. Williams.

MR. ATWOOD: I believe you estimate the cost of a 7,000 foot well at \$130,000.

MR. WILLIAMS: That is correct.

MR. ATWOOD: It occurs to me to be rather high, but I just wondered is that your estimate of the cost of the wildcat well or discovery well?

MR. WILLIAMS: On our original well \$150,00 was the cost, and the 2000 foot well \$135,000. That would not be on regular exploitation. Those other figures were drilling cost and service equipment.

MR. ATWOOD: Do you believe after a discovery is made in the field where the depth is 7,000 feet the cost of the subsequent wells and development of the field would average \$130,000?

MR. WILLIAMS: I don't believe it would miss it very far.

MR. ATWOOD: Your estimate is based on the operation in the Drinkard Area?

MR. WILLIAMS: That is correct.

MR. ATWOOD: Do you feel one could go far enough to predict a 7,000 foot well in some other part of Lea County would cost the same?

MR. WILLIAMS. I think the drilling conditions in the various portions of the County would be essentially the same.

MR. ATWOOD: Then you feel the allowable proposed should be set up as a basis for determining the permanent allowables of all future wells drilled in those tracts?

MR. WILLIAMS: That is correct. These figures on the left hand side of this graph show a cost of a 3000 foot well, for example a 7,000 foot well is going to cost 4.48 times as a 3000 foot well. In the same order a 7,000 foot well is

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---from 6 to 7 thousand feet, for 1.77 the ratio we put on allowable is not anywhere near where the actual cost ratio is. I think for that reason you are justified in making that permanent allowable.

MR. ATWOOD: These estimates are made under present conditions?

MR. WILLIAMS: That is right.

MR. ATWOOD: Do you not think of the cost of development under present conditions as being abnormally high?

MR. WILLIAMS: That is right.

MR. ATWOOD: In the past years the wells have cost a good deal less than they do now, is that right?

MR. WILLIAMS: That is right. I feel the ratio of cost for various depths is right. In a few years when there are normal conditions the ratio of 7,000 feet and 3800 feet will probably be similar.

MR. ATWOOD: Your factors are based primarily on economics or reasonable profits?

MR. WILLIAMS: Yes sir.

MR. ATWOOD: Do you not feel there are many other factors in determining the permanent allowable of the field other than just the depth of the well?

MR. WILLIAMS: I don't know how they could be brought into form. New Mexico has been outstanding. They have had a formula for allocation and so far as I have been able to observe everybody has been quite happy with the use of the formula. What we have tried to do is to cut this depth factor into the old formula.

MR. ATWOOD: Yes I agree our basis of allocation of allowables in the past has been quite satisfactory, but in order to determine the efficient rate on which a well should be set, should one consider the character of the reservoir. The type of the reservoir, type of energy you have with the formation such as water deposit or gas deposit.

MR. WILLIAMS: I think those items should be considered, but the study of that will naturally be taken care of by individual pools.

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MR. ATWOOD: I am not trying to find objection to your idea for your allowable for new wells or new pools, but it occurs to me that as more wells are drilled and we have more technical information on the field, that those things should be considered in fixing the state allowable any higher than the formula based just on depth alone might be very far out of line in some pools. Do you not feel the rate of production you have proposed in some cases, those were too low, for others, they might be entirely too high in order to get sufficient recovery of the oil.

MR. WILLIAMS: I think that is possible, but still feel that should be taken care of by individual pools.

MR. ATWOOD: I understand you proposed to set these factors up to hold as a general rule, to fix the permanent allowable to wells - Do I understand after the first 4 or 5 or 6 wells in a pool are completed and more information on the type of reservoirs is available, it would be hard to consider those various factors in order to determine for the allowables for those wells?

MR. WILLIAMS: I think that could be done. To my knowledge we have never gone back and studied the matter.

GOVERNOR MILES: What do you refer to about formula?

MR. WILLIAMS: Our allocation formula, regular formula for individual well and also allowable for pool.

GOVERNOR MILES: The object of the past development, generally speaking, most of that production has come from the sand area section, it is quite likely the character of the reservoir is more uniform than at the deeper zones.

MR. WILLIAMS: The reservoir energy of the deeper pools is substantially greater than on the shallow horizons. 7,000 feet probably for 2200 or 2800. The gas in the solution on shallow horizons are from 400 to 600 Cu. Ft. I think in general the deeper horizons wells support higher rates.

GOVERNOR MILES: Do you think as deeper development progresses it may be found from the spacing of wells proposed in your order might be preferable and afford a better basis for allocation, taking into account the economics and the rate to which wells should be produced and of course economically I refer to the rate of return on your investment, also the ultimate rate and that it might be some other spacing of wells might be desirable.

When you talk about spacing - this proposal you will have as I understand is based on one well to 40 acres and the spacing is 300.

MR. WILLIAMS: The area should be 330.

GOVERNOR DEMPSEY: That is the boundary line - 360 is the boundary line?

MR. WILLIAMS: So far as that state is concerned, but then again I believe that should be taken care of on individual pool.

MR. PENROSE: Isn't there a possibility if this request is granted it might not work a hardship on many of the smaller operators in New Mexico?

MR. WILLIAMS: I do not believe it work any hardship - at the present time there is a number of wells in Lea County unable to make their allowable. I believe we should discover more wells to maintain the wells in the state.

MR. PENROSE: There are a lot of operators in Lea County I don't suppose have \$150,000 to drill a well. A lot of wells in Eddy and Lea County still in the red - when was your application made?

MR. WILLIAMS: About a month ago.

MR. PENROSE: In the length of time there has been a great many changes in the world conditions and in the oil business, and I would say we have every reason to believe we will get smaller allowables sooner or later as the allowables of the state are reduced it is going to have to be proportioned with the owners of the smaller wells. In the last two or three weeks there have been two or three places in Texas crude has gone into storage, no demand for it.

MR. WILLIAMS: I think the additional allowable for deep wells has been shown to be justified. In Oklahoma one field the allowable is 150 is 150 barrels a day, so we are well within what other states allow.

MR. PENROSE: Our allowable is now 110 barrels. Suppose it would have to be cut, wouldn't the people with the smaller wells have to take a lower allowable?

MR. WILLIAMS: It is going to affect them either way. I think you will find the decrease in the allowable - the decrease in capacity will take care of these pools.

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MR. SANDERSON: In regard to Mr. Williams' statement, due to high gas-oil ratios, perhaps we should not have a flat allowable. You have provided in this order that where there are special pool allocations that they will conform to that, subject to progress.

MR. WILLIAMS: That is correct.

MR. SANDERSON: If some wells should be allowed to produce more than others, this would prohibit that.

GOVERNOR DEMPSEY: Assume the Commission would grant this order. If a deep well was drilled and expended - do you think it would be good on the part of the Commission to cut them back?

MR. SANDERSON: I see no reason why these general orders should be expected to last indefinitely.

GOVERNOR DEMPSEY: That was the first you asked for.

MR. SANDERSON: I think that as conditions change, it is necessary that these orders be changed, as Mr. Williams suggested, the cost of drilling should drop to half what it is at the present time it would be uneconomical to use these old figures, I think the Commission should take care of those conditions.

GOVERNOR DEMPSEY: Don't you think that qualification should be included in this order?

MR. SANDERSON: Yes sir.

MR. ATWOOD: I understood Mr. Sanderson to say, Governor, when you asked him if this should be permanent - I understood him to say permanent until changed by the Commission.

GOVERNOR DEMPSEY: Yes.

MR. ATWOOD: The situation has arisen now that was not when the original program was set up. Now we have conditions which call for the method and basis of allocation conditions, and in the future will call for another change. There is no order that cannot be set aside or modified by the Commission at a future date.

GOVERNOR DEMPSEY: I think the Commission should have more time on that, and include it in the order and not cause any misunderstanding. I do not agree that this allowable is going to drop

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to 74,000 barrels a day after the first year, I think they do not like to have you increase it not. We have set the allowable at a smaller amount than Senator            has requested.

MR. SANDERSON: What I understood was this - that ~~XX~~ <sup>after</sup> a well is paid out, then it should automatically be set back to the normal allowable.

GOVERNOR DEMPSEY: That was one question following the other question.

MR. SANDERSON: I think the Commission should retain jurisdiction regarding the conditions which the order should be changed.

MR. ATWOOD: Much has been made here of the considerable number of marginal wells in Lea County, and the Chairman of the Commission has just referred to the fact that we have called for a higher allowable than the Commission has been allowed to grant, is that due to normal production?

MR. SANDERSON: No, I do not think so, those pools are getting very old.

MR. ATWOOD: In the future, if in our new reserves or discoveries when this is reclaimed by reason of old age - would be still less allowable to meet the allowable as at the present time.

MR. SANDERSON: That is correct.

MR. ATWOOD: Where, in your opinion, lies the best chance for developing - large or deeper reserves, or shallow or deeper drilling?

MR. SANDERSON: Deeper drilling is the best opportunity right now.

MR. ATWOOD: You are going right back into the areas that have been contoured and bring in these deeper wells?

MR. SANDERSON: That is correct.

GOVERNOR DEMPSEY: Should the Commission increase the allowable, wouldn't that be detrimental to the conservation program?

MR. SANDERSON: I think that depends somewhat on the type of well.

GOVERNOR DEMPSEY: Don't you feel the Commission in the past, the course they have taken is mostly responsible for the recovery we are getting in New Mexico?

MR. SANDERSON: I think so. We submitted a sample letter of our letter of transmittal and should have been a couple of corrections - in the first paragraph 300 feet should have been 330 - the matter of form of one of the other paragraphs should be revised.

Governor DEMPSEY: In that matter I suggest you revise it and submit to the Commission.

MR. SANDERSON: Paragraph (e) provides for the Department classification to be on the basis of the average depth - I think it would be less confusing if they would just take the depth of the first well - wouldn't have to be working on averages.

MR. ATWOOD: The sample order here is just something given to the Commission to assist in starting a from, and if you do consider it, whatever change the Commission thinks should be put in there we will be glad to cooperate in any way we can, I would like for other operators affected to offer any suggestions they have. This order as drawn applies only to Eddy and Lea Counties. The petition makes no reference to counties. The rest, I am not sure about.

MR. LIVINGSTON: What the Gulf asked for was revision of state wide proration order 485, with the depth factor of the proration order only proration in Lea and Eddy Counties, so nothing was advertised as to changing the proration status in the other counties.

MR. ATWOOD: At present that problem is not in other counties. The Commission can make the order to apply to any other county in which deep wells should be drilled.

MR. W. E. HUBBARD - Humble Oil Company.

We agree in principal with the goal of the Gulf. Certainly if your resources of the state are to be developed the greater risk on the investment has got to be taken into consideration or they won't be developed. The order as I read it, does not provide for a unit any larger than 40 acres, does not say it can be anymore than 40 acres. Our thought is that undoubtedly we are faced with a wider drilling than 40 acres on the basis there not being enough oil down there, other wells of 40 acres. Economically we feel probably most of these deeper

pools will be based on approximately 80 acres and may go to 160, I should like to see that part amended so that the unit would not be less than 40 acres, and allow us to go above 40 acres if the situation warrants it. We have had much information develop since the war started as to the maximum efficient rate that pools can go without waste. I notice in the table of the Gulf, it allows wells of 40 acres to produce up to 308 barrels, which is almost 7 barrels per acre. I don't know of any pool where that had been exceeded or even approached. Our pools in East Texas, the maximum rate in those pools is about 3 barrels per acre. Some wells over there, Yates probably, the best pool is between  $2\frac{1}{2}$  and 3 barrels. I am afraid the Commission will be faced with the duty, after these wells are drilled, of having to cut them back on account of wasting the reservoir. Our engineers came to the conclusion that after a pool has been drilled, as it can produce about as much per day whether on a 20, 40, 10 or 80 acre basis. A well or the pool would not waste anymore. For that reason I should also like to see put in the formula something about acreage. If the wells could produce more without waste I think they should do so. Don't know how that could be worked in the formula, but would like to have that.

MR. WILLIAMS: I agree with it. I think the question of acreage would be a matter that the Commission could operate on a basis of depth or economics alone. In other words, assume that 40 acres is the unit on all the other fields above 4,000 feet, then if the deep ones were drilled 1 to 80 you could double the allowable and still keep an equitable basis between the deep and the shallow ones. Assume the very deep wells were spaced 1 to 160, you could give more profitably from an economical standpoint, and from a conservation standpoint and the Commission should not adopt an order that was not based on both.

GOV RICH DENTSEY: Wouldn't that be a question for the individual pools?



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MR. WILLIAMS: Yes sir, after three or four wells you would know what you could do. You shouldn't tie yourself down and it should be variable, so that when the fields were drilled up, you could vary in accordance. It is very important to these that have shallow production.

MR. A. E. WILLIG - The Texas Company.

I have a statement to read and submit as part of the record from the Texas Company:

"CASE NO. 52

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO  
MAY 14, 1945

IN THE MATTER OF: THE PETITION OF THE GULF OIL CORPORATION FOR REVISION OF STATEWIDE PRORATION ORDER NO. 538 TO PROVIDE FOR INCREASING THE OIL ALLOWABLE PROGRESSIVELY ACCORDING TO DEPTH FOR POOLS PRODUCING BELOW 5000 FEET.

"The Texas Company respectfully requests leave to file this statement in its behalf in connection with the hearing called to consider the subject matter.

"On August 3, 1943, a hearing was held on the application of the New Mexico Oil Conservation Commission upon its own motion on this same matter. At that hearing considerable testimony and evidence were introduced which are pertinent to a further consideration of this matter. We respectfully request that the record of that hearing be made a part of and considered by the Commission in addition to the testimony to be offered on May 14.

"Experience has shown that the cost of drilling and operation of wells varies in some proportion with the depth. Experience, however, has shown that this variation is not pre-determined and varies considerably from one area to another as shown by the testimony in the hearing of August 3, 1943. It is generally known that the deeper the well the higher drilling and operating costs will be. We are in accord with recommendations made heretofore that some recognition in the form of higher allowables be accorded wells drilled to deeper depths. We feel, however, that the measure of such consideration should be carefully determined by the Commission in accord with the authority vested in it by the New Mexico Conservation Statutes. We refer to and quote for your ready reference Paragraph 2 of Section 12 of the Session Laws of New Mexico, 1935, Chapter 72.

"No owner of a property in a pool should be required by the Commission, directly or indirectly, to drill more wells than are reasonably necessary to secure his proportionate part of the production. To avoid the drilling of unnecessary wells, a proration unit for each pool may be fixed and such being the area which may be efficiently and economically drained and developed by one well. The drilling of unnecessary wells creates fire and other hazards conducive to waste, and unnecessarily increases the cost of products to the ultimate consumer'.

"Much constructive work has been done on the problem of well spacing, and since as far back as 1936 there has been a definition of unnecessary drilling which is generally recognized by Oil Operators and the Oil Industry. The following is a pertinent quotation from the report of an I.P.A.A. Sub-Committee of Mine on 'Unnecessary and Excessive Drilling' which appeared in the Oil Weekly of December 23, 1936.

"It is generally recognized that much of the drilling in proven fields in most of the oil-producing states can be classified as 'unnecessary or excessive drilling' in that from the wells already drilled or from a fewer number of wells properly spaced approximately the same amount of oil could be recovered, therefore the drilling of additional wells would not, and will not, materially increase the ultimate recovery from the field. In other words, in most fields the data are amply sufficient at an early stage in the development of the field to determine to reasonable accuracy the efficient and economical drainage area of a well. The drilling of more than one well to drain such area results in excessive or unnecessary drilling as those terms are used herein'.

"The area which may be efficiently and economically drained by any particular well, regardless of depth, will vary with the physical characteristics of the reservoir from which such well produces, and these characteristics may not be determined with any exactitude until such well has been brought into production and the pertinent factors have been determined. We, therefore, recommend and strongly urge to the Commission that no arbitrary, pre-determined allowable be assigned to deeper wells until testimony and evidence by competent parties has been introduced and considered in the case of each separate reservoir. Such evidence would necessarily include, among other things, the cost of drilling and operating wells of the particular depth under consideration and would be considered in determining the allowable of wells drilled in that particular field. Thereupon, from such hearings the Commission may determine, under the requirements of Section 12 quoted above, the proper spacing and proration unit, and, further, under Section 11 of the same Statutes, may 'allocate or distribute the allowable production among the fields of the State.....on a reasonable basis.....'. Thus, an Operator in undertaking the drilling of a deep well would have the assurance, prior to the commencement of the well, that the costs peculiar to and encountered in the drilling and operation of his well would be given due consideration in fixing the allowable for such well.

"It is recognized that, before the pertinent physical characteristics of the reservoir may be determined, it is desirable to have available the data from a number of wells in a new reservoir. During the interim from the drilling of the discovery well and the further wells required for the reasonable determination of the reservoir's characteristics, we recommend the application of a modified form of the present 'Bonus Discovery Allowable' Order No. 573 of the New Mexico Oil Conservation Commission adopted September 6, 1944. Modifications of this Order should include:

- "1. Reasonable daily top allowable rates based on various depth brackets for the discovery well.
- "2. The application of such top daily allowables to the next subsequent four wells completed in the same reservoir within the eighteen months or two year period next following the completion of the discovery well.
- "3. Prior to the expiration of the period adopted for bonus discovery allowables, the Commission will call a hearing to determine the proper spacing, proration unit, and regular top allowables to be assigned to all wells in such field. The regular top allowable so determined may thereafter be maintained in an amount in the same proportion theretofore assigned to other fields.

"We further respectfully submit that the pre-determined allowables for deeper wells submitted by the applicant in this cause are arbitrary and, as pointed out before, do not take into consideration the pertinent data necessary and available only after completion of

a sufficient number of wells in a given reservoir.

"In conclusion, we wish further to recommend that the adoption and application of both bonus and regular allowables contemplated under this cause be made subject to the prevention of avoidable physical waste.

Respectfully submitted,

THE TEXAS COMPANY

BY: /s/ C. B. WILLIAMS

May 14, 1945"

GOVERNOR DEMPSEY: You are requesting that this Commission make part of this record of hearing held in August 1943, that would be very inconsistent.

MR. WILLIG: Yes sir.

GOVERNOR DEMPSEY: There may be part of the hearing of August 1943 that the men here today know nothing about. If there is any of the hearing of August 1943 not consistent with the hearing held here today, I would be glad to have you point it out. I think it is well to call the Commission's attention so that they can do that, but cannot put part of that hearing into this one.

MR. WILLIAMS: I shall be glad to briefly qualify Mr. Willig so that he may testify.

(After being sworn to tell the truth, whole truth and nothing but the truth, Mr. Willig testified as follows:)

MR. WILLIAMS: You are employed by the Texas Company?

MR. WILLIG: Yes sir.

MR. WILLIAMS: How long have you been employed by this Company?

MR. WILLIG: 25 years.

MR. WILLIAMS: In what capacity now?

MR. WILLIG: Divisional engineer for West Texas Division.

MR. WILLIAMS: State your responsibility in that capacity to take care of matters on behalf of the Company in connection with the proration, allocation of wells and matters that come under the subject of this order here you propose to file with the Commission - a copy of this statement you have just read.

Does that statement represent your views with reference to the subject matter of this hearing?

MR. WILLIG: It does.

MR. WILLIAMS: I questioned Mr. Gray about factors of depth, I believe the letter you just read generally reviews the thoughts you have in connection with the various factors to be considered in the allocation of production does it not?

MR. WILLIG: Yes sir.

MR. WILLIAMS: Do you feel that the allowables of wells should be based on depth alone?

MR. WILLIG: No sir, I think the cost of wells of the same depth may vary considerably, depending on the area in which they are drilled. I think the efficient drainage of a well considering the economics involved should be considered.

MR. WILLIAMS: Do you think the ultimate recovery, kind of reservoir and type of energy should be given due consideration?

MR. WILLIG: Yes sir they are all important factors.

MR. WILLIAMS: All these factors cannot be known of course.

MR. WILLIG: No, it will take several years to determine that degree of exactitude.

MR. WILLIAMS: Then you are in accord with the proposal that some higher allowable than the allowable at the present time being followed in Lea County be temporarily assigned to these deeper wells do you not.

MR. WILLIG: Yes, I think it would help the development of deeper fields.

MR. WILLIAMS: As the composition of several wells in a pool, it is your recommendation that the factors then known regarding that pool be considered regarding the allocation of production in that pool.

MR. WILLIG: That is right.

GOVERNOR MILES: The allocation of production you talk about, the allowable space or both factors?

MR. WILLIG: The allowable.

GOVERNOR MILES: You think the matter of proper spacing of wells should also be considered?

MR. WILLIG: Yes sir.

GOVERNOR MILES: Should include the amount of acreage and distance between wells?

MR. WILLIG: That is right.

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GOVERNOR DEMPSEY: Any other questions?

(No further questions)

MR. H. B. HURLEY - Continental Oil Company.

I wish to go on record and state the Continental Oil Company favors in principal the plan as submitted by the Gulf here today.

MR. CHAS. KORIPAUGH - Shell Oil Company

We are also in favor of the principals as set out in the Gulf's order. I think that possibly some of the controversy on the problem might be alleviated somewhat if consideration was given to insertion in the order as proposed that permanent fields would be adopted before a hearing through the Commission.

MR. T. J. DORSEY - Atlantic Refining Company

The Atlantic Refining Company also agrees with the Gulf order in principal.

MR. HARVE R. MAYFIELD - Magnolia Petroleum Company.

The Magnolia Petroleum Company also agrees with the Gulf's order in principal.

MR. GEORGE M. SELLINGER - Skelly Oil Company agrees in principal with the Gulf Oil Corporation, we favor the allocation of of wells based on a scale as to depth, I don't know what the other operators have in mind with reference to principal, but I imagine they feel like we do. The question of waste or proper spacing, that the Commission should call a hearing to determine that. The Commission itself can call the hearing, or the operator of any single well in the field or any interested wells, and if there is waste being made by the drilling of unnecessary wells (or a small spacing) in that matter, can be presented at that time. The well spacing and the allocation of allowable can likewise be brought up. I think all operators are agreeable - these particular matters are not known until enough wells in the field. I think the Commission should put a schedule so the operator would know what the allowable would be. If conditions should arise so that this could not be maintained, there would be no bad break in the Commission, in the meantime, more than the small wells being cut. This jurisdiction is continuing and all allowables are based according to the conditions.

GOVERNOR DEMPSEY: Gentlemen if that is all who desire to be heard we will bring this meeting to a close.

The Commission will approve Cases 63, 64 and 66. Take this 62 under advisement.

MR. SELLINGER: If it is in order I think it would be good idea if the operators in Eddy County would be allowed to file a statement of information regarding these deep wells. We are planning on drilling a deep well and I don't think anything would come up that would interfere with us if we can send a statement I believe it would help.

GOVERNOR DEMPSEY: We would be happy to have a statement from any of the operators in either Lea or Eddy County.

MR. ATWOOD: In case any of the Gulf people have a copy of any operators files, that statement could be sent to me.

GOVERNOR DEMPSEY: That would be all right to send Colonel Atwood a Statement.



PETROLEUM AND ITS PRODUCTS

## GULF OIL CORPORATION

P.O. BOX 661 · TULSA 2, OKLAHOMA

GYPSY  
DIVISION

October 17, 1945

AIR-MAIL

Mr. Carl B. Livingston  
Oil Conservation Commission  
Santa Fe, New Mexico

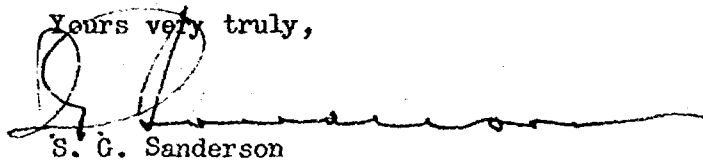
Dear Sir:

Re: Case No. 62, Deep Pool Allowables.

I am attaching hereto two copies of a sample calculation of allocation to Lea and Eddy Counties for a case where the normal unit allowable is less than 25 barrels per day.

This is the sample calculation which I promised to send you in my letter of October 16.

Yours very truly,



S. C. Sanderson

ACG:MK

Att'd.

SAMPLE CALCULATION OF ALLOCATION TO LEA AND EDDY COUNTIES  
CASE WHERE NORMAL UNIT ALLOWABLE IS LESS THAN 30 BARRELS/DAY

Assume: Total State allocation to Lea and Eddy Counties on basis of calculated non-marginal allowable plus marginal well allowable--100,000 bbls.

Total allocation to Lea, <sup>and Chavez</sup> Eddy Counties, non-marginal units----- 76,700 bbls.  
 Total allocation to Lea, <sup>and Chavez</sup> Eddy Counties, marginal units----- 23,300 bbls.  
 Total-----100,000 bbls.

$$\text{Normal Unit Allowable} = \frac{76,700}{3646.30} = 21 \text{ B/D}$$

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Pool	Depth Classification	Total Proration Units	No. of Marginal Units	Allocation To Marginal Units	No. of Non-Marginal Units	Depth Factor	Depth Factor Times No. of Non-Marginal Units (6) x (7)	Top Unit Allowable (7) x 21	Corrected Top Unit Allowable	Pool Allowable (6) x (10) Plus (5)
A	0- 5000'	1,500	800	13,200	700	1.00	700.00	21	25	30,700
B	5000- 6000'	300	100	2,000	200	1.33	266.00	28	27	7,400
C	6000- 7000'	600	100	2,600	500	1.77	885.00	38	37	21,100
D	9000-10000'	300	50	2,500	250	3.77	942.50	80	77	21,750
E	11000-12000'	110	30	3,000	80	5.66	452.80	119	114	12,120
F	13000-14000'	50	0	0	50	8.00	400.00	168	161	8,050
TOTAL LEA, <sup>and Chavez</sup> EDDY, COUNTIES		2,860	1,080	23,300	1,780		3646.30			101,120*

$$(2) \text{ Correction Factor} = \frac{(B - N) + (B - 250)}{(28 - 21)700 + (76,700 - 25 \times 700)} = \frac{(23,300 - 1,780) + (23,300 - 250)}{(28 - 21)700 + (76,700 - 25 \times 700)} = 0.9548$$

$$(1) \text{ Corrected Top Allowable} = \text{Top Allowable} \times \text{Correction Factor} = 28 \times 0.9548 = 27 \text{ B/D}$$

\* Difference due to fractional barrels = 1120 barrels.





PETROLEUM AND ITS PRODUCTS

## GULF OIL CORPORATION

P. O. BOX 661 · TULSA 2, OKLAHOMA

GYPSY  
DIVISION

April 9, 1945

→ Honorable John J. Dempsey, Governor  
Chairman, Oil Conservation Commission

Honorable John E. Miles  
Commissioner of Public Lands  
Member, Oil Conservation Commission

Honorable A. B. Hahn, State Geologist  
Member, Oil Conservation Commission

Honorable Carl Livingston  
Attorney, Oil Conservation Commission

Santa Fe, New Mexico

Gentlemen:

I am enclosing to each of you a copy of application of the Gulf Oil Corporation requesting a hearing pertaining to replacing state-wide proration order No. 538 with a new order that will designate and define top unit allowables for each of several ranges of well depths.

I believe this problem is a matter of interest to the Oil Conservation Commission in view of the hearing it called on its motion regarding allowables for various depth ranges about a year and half ago. It is, of course, of immediate interest to the Gulf Oil Corporation and a number of other operators which have drilled or are drilling at this time wells to depths that are greater than 5000'. So far as Gulf is concerned our major interest is in the Drinkard area of Lea County but since so many other operators are also interested in deeper drilling, it would probably be desirable to have a state-wide hearing in the matter rather than one for Gulf only to cover the Drinkard Pool.

We have been considering this matter seriously over the past two years and have done quite a bit of engineering work. In order to see whether the proposal we recommend would not interfere with other portions of present orders we have taken the liberty of revising order No. 538, which is attached hereto and labeled "Sample Order". The preparation of this sample order was intended in no way to encroach on the prerogatives of the Commission but instead to see whether our proposal would conflict with other orders.

We have also taken the liberty to contact a number of the other operators who were drilling wells deeper than 5000' and although there has not been complete agreement, the sample order incorporates majority opinion of the operators contacted. Some representatives contacted felt that the drilling unit size



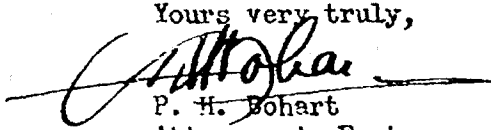
DATE 4-9-45 FROM P. H. Bohart TO Oil Conservation Comm. SHEET NO. 2

should be incorporated into any allocation increase for the greater depths. I believe the size of the drilling unit is an important consideration, however, it is my personal opinion that it would be undesirable to attempt to incorporate drilling unit size into an allocation order. On the other hand, since it is an important consideration, particularly in drilling to depths greater than 10,000', I believe the matter could most easily be handled by a hearing immediately following the completion of the first two or three wells in the pool. At that time we would be in much better position to determine whether the size drilling unit recommended could adequately be drained by the well. We, of course, will present supporting evidence at the hearing regarding these points discussed. I am mentioning them to you informally since it may be helpful to you in understanding our trend of thought in the matter.

Since this is a matter of interest to all operators in Lea County and to some extent to operators in other counties it should be desirable to have a conference of the operators the day prior to the date of the hearing. Such a conference should tend to crystalize thought in the matter and save considerable time of the Commission at the hearing.

The Lea County Operators Committee wish to hold a meeting immediately following the Commission hearing in order to pass upon a set of by-laws and to transact such other business as may properly come before the Committee. Through Mr. Staley I understand that 10:00 A.M. May 14 would be a convenient time for the hearing and accordingly Mr. S. G. Sanderson, Temporary Chairman of the Lea County Operators Committee, has submitted an application to hold the meeting at 2:00 P.M. May 14 with the War Committee on Conventions. I shall be glad if you will advise at your early convenience what date will be satisfactory for the hearing so that Mr. Sanderson may send out notices of the Lea County Operators Committee meeting and, if necessary, advise the War Committee on Conventions of the change in the date.

Yours very truly,

  
P. H. Bohart  
Attorney-in-Fact

LLG:MDW

Enc

SAMPLE ORDER

1. (a) The unit of proration shall consist of 40 acres or lots in accordance with the legal sub-divisions of the United States Public Lands Surveys, on which is at least one producing well. No well shall be drilled closer to any unit boundary line than <sup>(330)</sup>~~300~~ feet or less than 660 feet from any other well except upon petition, notice and hearing as provided by law, provided such unorthodox well location will create neither waste nor hazards conducive to waste.

(b) A marginal unit is a unit that will not produce the top unit allowable for the pool.

(c) A non-marginal unit is a unit that will produce the top unit allowable for the pool.

(d) The top unit allowables in accordance with various depth ranges to be used for the purpose of making allocations to the respective pools and for the purpose of distributing or prorating the pool allocations to the units within the pool, except for those pools having proration plans of their own; shall be as defined in the computation for making allocations to pools as set forth in Section 2 hereinbelow.

(e) The normal unit allowable to be used for the purpose of computing the top unit allowables for each of several ranges of depth shall be as defined in Section 2 (c) hereinbelow.

(f) The proration month shall be the calendar month which shall begin at 7 A. M., on the first day of such month.

2. (a) The total allowable for pools in Lea and Eddy Counties shall be in terms of total barrels daily for each calendar month and shall be allocated to the respective pools by the following computation.

(b) From the total allowable shall be deducted the sum of the allowables for all marginal units. The remainder shall be divided among the non-marginal units in a proportion as set forth in Section 2 (c).

(c) Top unit allowables shall be calculated for each of several ranges of depth in the following proportions:

0'- 5,000'	1.00
5,000'- 6,000'	1.33
6,000'- 7,000'	1.77
7,000'- 8,000'	2.33
8,000'- 9,000'	3.00
9,000'-10,000'	3.77
10,000'-11,000'	4.66
11,000'-12,000'	5.66
12,000'-13,000'	6.77
13,000'-14,000'	8.00
14,000'-15,000'	9.33

The calculation of the respective top unit allowables for each depth range shall be made in the following manner: Multiply the number of non-marginal units within each depth range by the above corresponding proportional factors. Add all of the products so obtained. Divide this total of the products into the total allocation for all non-marginal units. The quotient thus obtained shall be the normal unit allowable. Top unit allowables for each range of depth shall then be determined by multiplying the normal unit allowable by the proportional factor for each depth range as set out in the table hereinabove; any fraction of a barrel shall be regarded as a full barrel for both normal and top unit allowables.

(d) The top unit allowables so determined in Section 2 (c) shall be assigned to the respective pools in accordance with each pool's depth range. The sum of all marginal units plus the sum of the top allowables for all non-marginal units in each pool shall constitute the allocation for each pool.

(e) The depth classification for each pool shall be determined from the average depth of all wells measured to the top of the producing formation. In event the casing is set into or through the producing formation, the depth to the casing shoe or the top perforation in the casing, whichever is the highest, shall be the assumed top of the formation for purposes of computing the average depth. When such depth range for a pool has been established, all non-marginal units in that pool shall have the same top unit allowable.

(f) Thereupon the allocation to each pool shall in turn be prorated or distributed to the respective units in each pool in accordance with the proration plan of the particular pool where any such plan exists. Where no proration plan for any pool exists, then the pool allocation shall be distributed or prorated to the respective marginal and non-marginal units therein as determined hereinabove.

(g) At the beginning of each calendar month, the distribution or proration to the respective units in each pool shall be changed in order to take into account all new wells which have been completed and were not in the proration schedule during the previous calendar month. Where any well is completed between the first and sixteenth of the calendar month, its unit shall be assigned an allowable, in accordance with whether such unit is marginal or non-marginal, beginning at 7 A. M., on the sixteenth and for the remainder of that calendar month.

3. Fields in counties, other than Lea and Eddy, shall be permitted to produce their market demand as long as such can be done without waste.

4. The Order herein replaces Order No. 538, State-Wide Proration Order, and Order No. 413, Eddy County Fields Proration Order. Order No. 235, the Proration Schedule Order, is retained as supplemental to the order herein.

Who knows  
why to  
downsize?

5. Reservation of jurisdiction of this cause is made herein for the purpose of promulgating a further order authorizing and directing any common purchaser to take or purchase 100% from wells which produce only 10 barrels or less daily of crude petroleum, in lieu of ratable purchases or takings, in order to preclude premature abandonment of such wells .

That this order shall become effective on the first day of the proration month next succeeding the month in which said Order is adopted.

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

SAMPLE CALCULATION OF ALLOCATION TO LEA AND EDDY COUNTIES

Assume: Total State allocation to Lea and Eddy Counties on basis of calculated non-marginal allowable plus marginal well allowable—100,000 bbls.

Total allocation to Lea and Eddy Counties, non-marginal units—— 76,700 bbls.

Total allocation to Lea and Eddy Counties, marginal units—— 23,300 bbls.

Total——100,000 bbls.

$$\text{Normal Unit Allowable} = \frac{76,700}{1709.20} = 45 \text{ B/D}$$

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Pool	Depth Classi- fication	Total Proration Units	No. of Marginal Units	Allocation To Marginal Units	No. of Non- Marginal Units	Depth Factor	Depth Factor Times No. of Non-Marginal Units (6) x (7)	Top Unit Allowable	Pool Allowable (6) x (9) Plus (5)
A	0- 5000'	1,500	770	18,600	730	1.00	730.00	45	51,450
B	5000- 6000'	130	30	1,200	100	1.33	133.00	60	7,200
C	6000- 7000'	125	25	1,250	100	1.77	177.00	80	9,250
D	9000-10000'	70	10	1,250	60	3.77	226.20	170	11,450
E	11000-12000'	55	5	1,000	50	5.66	283.00	255	13,750
F	13000-14000'	20	0	0	20	8.00	160.00	360	7,200
TOTAL LEA AND EDDY COUNTIES		1,900	840	23,300	1,060		1,709.20		100,300*

\*Difference due to fractional bbls. = 300 bbls.

Assuming a normal unit allowable of 45 barrels per day, the following table shows the top unit allowables and increases of allowable for each depth interval.

<u>Depth Interval</u>	<u>Depth Factor</u>	<u>Top Unit Allowable Bbl.</u>	<u>Allowable Increase Above 0 - 5000' Interval Bbl.</u>	<u>Allowable Increase above pre-ceeding 1000' bracket Bbl.</u>
To 5000'	1.00	45	0	0
5000 - 6000'	1.33	60	15	15
6000 - 7000'	1.77	80	35	20
7000 - 8000'	2.33	105	60	25
8000 - 9000'	3.00	135	90	30
9000 - 10,000'	3.77	170	125	35
10,000 - 11,000'	4.66	210	165	40
11,000 - 12,000'	5.66	255	210	45
12,000 - 13,000'	6.77	305	260	50
13,000 - 14,000'	8.00	360	315	55
14,000 - 15,000'	9.33	420	375	60



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION :  
OF THE GULF OIL CORPORATION to  
Replace State-Wide Proration Order :  
No. 538 with a New Order that will  
Designate and Define Top Unit Allow- :  
ables for Each of Several Ranges of  
Depth :

A P P L I C A T I O N

COMES NOW THE GULF OIL CORPORATION, hereinafter called the applicant,  
and shows to the Honorable Oil Conservation Commission of the State of New  
Mexico that:

1. Gulf Oil Corporation is incorporated in the State of Pennsylvania  
and is duly authorized to do business in the State of New Mexico.
2. Gulf Oil Corporation is actively engaged in the exploration, develop-  
ment and production of oil and gas in the State of New Mexico, and that Gulf  
Oil Corporation is one of the larger producers of crude oil in that state.
3. There is no provision in Proration Order No. 538 or any other order  
of the Oil Conservation Commission of the State of New Mexico for a greater top  
unit allowable to those fields which now produce, or may subsequently discover  
oil, from the deeper reservoirs. The Bonus Discovery Allowable Order No. 573  
provides for an increased allowable for a period of one year but only to the  
discovery well in a pool or to a well extending a known oil pool for a distance  
of at least two miles. Order No. 573 does, however, recognize depth as a  
factor in determining the amount of Bonus or discovery allowable.
4. As the depth of drilling wells is increased the cost of drilling is  
increased, as well as the cost of lifting oil and other operating expense. The  
cost of drilling an oil well to 6500' is approximately four times the cost of  
drilling a well to only 3800'. In the opinion of the applicant a greater allow-  
able for the deeper wells would in no way effect correlative rights since it  
would not change the manner of calculating the allowables for the older reser-  
voirs producing at depths less than 5000 feet nor produce any inequality as to  
wells less than 5000 feet deep since it would only affect the deeper reservoirs.  
A greater allowable for the deeper reservoirs should likewise be equitable as

- 2 -

[REDACTED]

NOTICE FOR PARTICIPATION  
DEPARTMENT OF LAND AND MINES  
OIL CONSERVATION COMMISSION

The Oil Conservation Commission as provided by law hereby gives notice of the following hearing to be held at Santa Fe, New Mexico, at 10 A.M., May 14, 1945:

CASE NO. 62

✓ In the matter of the petition of the Gulf Oil Corporation for revision of Statewide Proration Order No. 538 to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet.

CASE NO. 63

In the matter of the application of Stanolind Oil and Gas Company for an order of approval of the Mascho Area Unit Agreement, Lea County, New Mexico, embracing as the Unit Area:

"In Township 21 South, Range 33 East

All of Section 36

In Township 21 South, Range 34 East

All of Sections 31 and 32

In Township 22 South, Range 33 East

All of Section 1

In Township 22 South, Range 34 East

All of Sections 5 and 6

Embracing 3835.20 acres."

CASE NO. 64

In the matter of the application of the Continental Oil Company for an order of approval of the Alston Unit Agreement, Roosevelt County, New Mexico, embracing as the Unit Area:

"In Township 7 South, Range 35 East

All of sections 7, 8, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29 and 30

Section 9 - S/2

Section 15 - S/2 E/2 and S/2

Embracing 9059.52 acres".

CASE NO. 65

In the matter of the petition of F & G Drilling Company for an unorthodox spacing of F & G Drilling Company - Santa Fe No. 1,  $\frac{1}{2}$  NE $\frac{1}{4}$  Sec. 31-18N-SW, Hospah Field, McKinley County, as follows: 369 feet South of the North line and 40 feet West of the East line of said Section 31 -- said location having been made by surveying error and substantial footage of hole having been made before discovery of error.

CASE NO. 66

In the matter of the petition of C. W. Colgrove, supplemented by the petition of Charles Schmitz, for an unorthodox spacing for C. W. Colgrove - State well No. 1, in NE $\frac{1}{4}$  Section 31, Township 20S, Range 11W, N.M.P.M., Grant County, New Mexico. Said well is 1450 feet South of the North line and 50 feet East of the West line of said section -- said location having been made by error and substantial hole having been made before discovery of error.

Given under the seal of said Commission at Santa Fe, New Mexico, on April 13th, 1945.

OIL CONSERVATION COMMISSION

BY (SGD)

JOHN J. DEMPSEY, CHAIRMAN

John E. Miles.

JOHN E. MILES, SECRETARY

GULF OIL CORPORATION

LAW DEPARTMENT

TULSA, OKLAHOMA

April 16, 1945

JAMES B. DIGGS  
DIVISIONAL ATTORNEY  
WILLIAM C. LIEDTKE  
RUSSELL G. LOWE  
REDMOND S. COLE  
CYRUS L. BILLINGS  
JAMES B. DIGGS, JR.  
ASSISTANTS

Mr. Carl B. Livingston,  
Chief Clerk and Legal Adviser  
Oil Conservation Commission,  
Santa Fe, New Mexico.

Dear Mr. Livingston:

Thanks for yours of the 18th enclosing copy of  
notice of hearing on application of Gulf Oil Corporation  
for increased allowable from wells producing below 5000 feet.

With very kindest of personal regards, I am,

Sincerely yours,

*Russell G. Lowe*

RGL:W  
CC-Mr. L.L. Gray

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 12, 1945

MEMORANDUM TO GOVERNOR DEMPSEY:

Submitted herewith for signature is legal advertisement of accumulated matters for hearing on May 14.

One is the Gulf's petition for an increased allowable for deep pools, which will be of considerable interest to operators.

There are two unit agreements -- one is that of the Continental in Roosevelt County and the other the Stanolind's in Lea County.

There are two unorthodox well locations -- one in McKinley County, the other in Grant County. Both locations were made by error and the purpose of the hearing is to legalize said locations.

An extra copy of the advertisement is attached for your files.

OIL CONSERVATION COMMISSION

BY: Carl B. Livingston

CBL:MS

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 12, 1945

MEMORANDUM TO COMMISSIONER OF PUBLIC LANDS  
JOHN E. MILES:

Submitted herewith for signature is legal advertisement of accumulated matters for hearing on May 14.

One is the Gulf's petition for an increased allowable for deep pools, which will be of considerable interest to operators.

There are two unit agreements — one is that of the Continental in Roosevelt County and the other the Stanolind's in Lea County.

There are two unorthodox well locations — one in McKinley County, the other in Grant County. Both locations were made by error and the purpose of the hearing is to legalize said locations.

An extra copy of the advertisement is attached for your files.

OIL CONSERVATION COMMISSION

BY: Carl B. Livingston

CBL:MS

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 13, 1945

AIRMAIL

Honorable Glenn Staley  
Proration Office  
Hobbs, New Mexico

Re: Notice for Publication

Dear Glenn:

Enclosed is a copy of the Notice for Publication  
in Cases Nos. 62, 63, 64, 65 and 66, for a hearing to be  
held May 14.

With kindest personal regards.

Very truly yours,

Chief Clerk & Legal Adviser

CSL:MS

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WILSON CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 13, 1945

Honorable J. O. Seth  
Santa Fe, New Mexico

Re: Notice for Publication

Dear Judge Seth:

Enclosed is a copy of the Notice for Publication  
in Cases 62, 63, 64, 65 and 66, for a hearing to be held  
May 14.

With kindest personal regards.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:KS

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 13, 1945

Hobbs Daily News Sun  
Hobbs, New Mexico

Re: Notice for Publication  
Cases 62 and 63

Gentlemen:

Please publish the enclosed notices once, immediately.  
Please proof read the notices carefully and send a copy of  
the paper carrying such notices.

UPON COMPLETION OF THE PUBLICATION, PLEASE SEND  
PUBLISHER'S AFFIDAVIT.

For payment please submit statement in duplicate  
accompanied by voucher executed in duplicate. The vouchers  
must be signed by a notary in the space provided on the back  
of the voucher. The necessary blanks are enclosed.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:KS

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WILSON CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 13, 1945

Santa Fe New Mexican  
Santa Fe, New Mexico

Re: Notice for Publication

Gentlemen:

Please publish the enclosed notice once, immediately.  
Please proof read the notice carefully and send a copy of  
the paper carrying such notice.

UPON COMPLETION OF THE PUBLICATION, PLEASE SEND  
PUBLISHER'S AFFIDAVIT.

For payment please submit statement in duplicate  
accompanied by voucher executed in duplicate. The vouchers  
must be signed by a notary in the space provided on the back  
of the voucher. The necessary blanks are enclosed.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

April 13, 1945

Artesia Advocate  
Artesia, New Mexico

Re: Notice for Publication - Case No. 62

Gentlemen:

Please publish the enclosed notice once, immediately.  
Please proof read the notice carefully and send a copy of  
the paper carrying such notice.

UPON COMPLETION OF THE PUBLICATION, PLEASE SEND  
PUBLISHER'S AFFIDAVIT.

For payment please submit statement in duplicate  
accompanied by voucher executed in duplicate. The vouchers  
must be signed by a notary in the space provided on the back  
of the voucher. The necessary blanks are enclosed.

Very truly yours,

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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April 13, 1945

R. G. Lowe, Esquire  
Gulf Oil Corporation  
Tulsa, Oklahoma

Re: Case No. 62

My dear Judge Lowe:

Attached is Notice for Publication in the above  
captioned matter.

With kindest personal regards.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

NOTICE FOR PUBLICATION  
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

The Oil Conservation Commission as provided by law hereby gives notice of the following hearing to be held at Santa Fe, New Mexico, at 10 A.M., May 14, 1945:

CASE NO. 62

In the matter of the petition of the Gulf Oil Corporation for revision of Statewide Proration Order No. 538 to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet.

Given under the seal of Said Commission at Santa Fe, New Mexico on April 13th, 1945.

OIL CONSERVATION COMMISSION

BY (SGD)

JOHN J. DENESKY  
CHAIRMAN

JOHN E. HILES  
MEMBER

SEAL

**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

1220

**SYMBOLS**  
DL = Day Letter  
NL = Night Letter  
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Ship Radiogram

R. B. WHITE  
PRESIDENT

NEWCOMB CARLTON  
CHAIRMAN OF THE BOARD

J. C. WILLEVER  
FIRST VICE-PRESIDENT

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.

Received at

VL215 DL PD=WUX TULSA OKLA 11 413P

CARL LIVINGSTON, ATTY=

14  
05 APR 11 PM 4 03

OIL CONSERVATION COMMISSION

REGARDING TELEPHONE CONVERSATION TODAY, GULF APPLICATION PROPOSES REVISION OF STATE WIDE ORDER NO 530 TO PROVIDE FOR INCREASING THE OIL ALLOWABLE PROGRESSIVELY ACCORDING TO DEPTH FOR POOLS PRODUCING BELOW 5,000 FEET. APPLICANT STATES THE PROPOSED PLAN WILL IN NO WAY EFFECT CORRELATIVE RIGHTS PARTICULARLY WITH REFERENCE TO THE OLDER RESERVOIRS, WILL PERMIT MORE EQUITABLE RATES OF RETURN OF THE HEAVY INVESTMENT COST OF THE DEEPER WELLS, AND SHOULD RESULT IN ADDITIONAL PRODUCIBLE OIL BEING RECOVERED WHICH COULD NOT BE EXPLOITED PROFITABLY AT PRESENT ALLOWABLE RATES=

R G LOWE.

530 5,000.

AGENDA  
OIL CONSERVATION COMMISSION  
HEARING

MAY 14, 1945

1. Recommendations of Field Nomenclature Committee for additions to present fields and designations of new fields by reason of new developments.
2. Recommendations of Lea County Operators Committee to change time of taking gas-oil ratio tests due to shortage of equipment and manpower.
3. Case 63. Petition of Stanolind Oil and Gas Company for an order of approval of the Mascho Area Unit Agreement, Lea County, New Mexico.
4. Case 64. Petition of the Continental Oil Company for an order of approval of the Alston Unit Agreement, Roosevelt County, New Mexico.
5. Case 65. Petition of F & G Drilling Company for an unorthodox spacing of that company's Santa Fe Pacific Well No. 1, Hespah Field, McKinley County.
6. Case 66. Petition of C. W. Colgrove, supplemented by that of Chas. Schmits, for unorthodox spacing for Colgrove State Well No. 1, Grant County.
7. Case 62. Petition of Gulf Oil Corporation for a revision of State-wide

*Modification*  
*produce* ~~produce~~ *claim*. Proration Order 538, to provide for increasing the oil allowable  
"If each other,  
part. condition progressively according to depth of pools producing below 5000 feet.  
change, then each should change," said S. G. Sanderson.  
"Larger acreage pools should be considered as a unit to let up  
laws, according to economic situation."



Case No.

62 File #2

Application, Transcript,  
Small Exhibits, Etc.

X

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY  
THE OIL CONSERVATION COMMISSION OF THE  
STATE OF NEW MEXICO FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 62

ORDER NO. 637

THE PETITION OF THE GULF OIL  
CORPORATION FOR REVISION OF STATEWIDE  
PRORATION ORDER NO. 538 TO PROVIDE FOR  
INCREASING THE OIL ALLOWABLE PROGRESSIVELY  
ACCORDING TO DEPTH FOR POOLS PRODUCING BELOW  
5000 FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at ten o'clock A.M., May 14, 1945, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this 7<sup>th</sup> day of February 1946, the Commission having before it for consideration the testimony adduced at the hearing of said case and being fully advised in the premises;

IT IS THEREFORE ORDERED that:

The order herein shall be known as:

THE STATE-WIDE PRORATION ORDER  
(with deep-pool adaptation)

1. (a) i. The unit of proration shall consist of 40 acres or lot in accordance with the legal sub-divisions of the United States Public Lands Surveys, on which is at least one producing well. No well shall be drilled closer to any unit boundary line than 330 feet or less than 660 feet from any other well except upon petition, notice and hearing as provided by law, provided such unorthodox well location will create neither waste nor hazards conducive to waste.

(a) ii. Where, however, a given proration unit appears to be underlain by more than one pool, each a separate common reservoir, and it is sought to produce from more than one such pool, no well shall be drilled and completed in the same pool closer to the unit boundary line than 330 feet nor less than 660 feet from any other well completed in the same pool. In these cases, within the discretion of the Commission, wells may have a surface proximity closer to each other than 660 feet to permit twinning, tripling, and so on in accordance with the number of such pools lying above or below the other. In any case in this paragraph mentioned, in addition to the information now required in Form C-101, Notice of Intention to Drill, there must also be shown in said notice the distance of the proposed location from any other well nearer on the surface than 660 feet.

(b) A marginal unit is a unit that will not produce the top unit allowable for the pool.

(c) A non-marginal unit is a unit that will produce the top unit allowable for the pool.

(d) The top unit allowables in accordance with various depth ranges to be used for the purpose of making allocations to the respective pools and for the purpose of distributing or prorating the pool allocations to the units within the pool, except for those pools having proration plans of their own, shall be as defined in the computation for making allocations to pools as set forth in Section 2 hereinbelow.

(e) The normal unit allowable to be used for the purpose of computing the top unit allowables for each of several ranges of depth shall be as defined in Section 2 (c) hereinbelow.

(f) The proration month shall be the calendar month which shall begin at 7 A.M., on the first day of such month.

2. (a) The total allowable for pools in Lea, Eddy and Chaves Counties shall be in terms of total barrels daily for each calendar month and shall be allocated to the respective pools by the following computation:

(b) From the total allowable shall be deducted the sum of the allowables for all marginal units. The remainder shall be divided among the non-marginal units in a proportion as set forth in Section 2 (c).

(c) Top unit allowables shall be calculated for each of several ranges of depth in the following proportions:

<u>Pool Depth Range</u>	<u>Proportional Factor</u>	
From 0 to 5000'	1.00	
Below 5000 to 6000'	1.33	
" 6000 to 7000'	1.77	
" 7000 to 8000'	2.33	
" 8000 to 9000'	3.00	
" 9000 to 10,000'	3.77	
" 10,000 to 11,000'	4.67	4.66
" 11,000 to 12,000'	5.67	5.66

(Figures subject to change as in Section 5)

The calculation of the respective top unit allowables for each pool depth range shall be made in the following manner: Multiply the number of non-marginal units within each depth range by the above corresponding proportional factors (subject to Section 4). Add all of the products so obtained. Divide this total of the products into the total allocation for all non-marginal units. The quotient thus obtained shall be the normal unit allowable. Top unit allowables for each range of depth shall then be determined by multiplying the normal unit allowable for the proportional factor for each depth range as set out in the table hereinabove: any fraction of a barrel shall be regarded as a full barrel for both normal and top unit allowables.

(d) The top unit allowables so determined in Section 2 (c) shall be assigned to the respective pools in accordance with each pool's depth range. The sum of all marginal units plus the sum of the top unit allowables for all non-marginal units in each pool shall constitute the allocation for each pool. In the event that the normal unit allowable as calculated in Section 2 (c) is found to be less than 30 barrels per day for any month, the top allowable for the depth range from 0 to 5000 feet shall be set at 30 barrels per day and a corrected top allowable shall be computed for all other depth ranges below 5,000 feet by the following formulae:

(1) Corrected top allowable = top allowable times correction factor

(2) Correction factor = 
$$\frac{(E - 30)}{(30 - E)U + (E - 30)}$$

Where:

B = Total allocation to Lea, Eddy and Chaves Counties, non-marginal units.

N = Normal unit allowable as calculated in Section 2 (c)

U = Number of non-marginal units within the depth range of 0 to 5,000 feet.

The allocation for each pool shall then be computed as described hereinabove, using the corrected top allowables in place of the top allowables.

(The figure 30 as used in this section is subject to change as in Section 5)

(e) The depth classification for each pool shall be determined from the depth of the first well measured to the top of the producing formation. In event the casing is set into or through the producing formation, the depth to the casing shoe or the top perforation in the casing, whichever is the highest, shall be the assumed top of the formation for purposes of determining the depth. When such depth classification for a pool has been established, all non-marginal units in that pool shall have the same top unit allowable.

(f) Thereupon the allocation to each pool shall in turn be prorated or distributed to the respective units in each pool in accordance with the proration plan of the particular pool where any such plan exists. Where no proration plan for any pool exists, then the pool allocation shall be distributed or prorated to the respective marginal and non-marginal units therein as determined hereinabove.

(g) At the beginning of each calendar month, the distribution or proration to the respective units in each pool shall be changed in order to take into account all new wells which have been completed and were not in the proration schedule during the previous calendar month. Where any well is completed between the first and sixteenth day of the calendar month, its unit shall be assigned an allowable in accordance with whether such unit is marginal or non-marginal, beginning at 7 A.M., on the sixteenth and for the remainder of that calendar month.

3. For convenience, pools with depth range from 0 to 5000 feet may be referred to as "ordinary pools" and the allowables computed for proration units therein, as "ordinary pool" allowables; and pools with depth range below 5000 feet may be referred to as "deep pools" and the allowables computed for proration units there, as "deep pool" allowables--notwithstanding the fact that the allowable for any proration unit may be marginal or non-marginal for the particular pool in accordance with pool depth range.

4. No proration unit in any pool with pool depth range below 5000 ft. shall have both a deep pool allowable and a bonus discovery allowable, by reason of Order 573, at the same time. At the operator's option the operator may either waive such bonus allowable so as to permit the deep pool allowable; or the operator may first make full use of any such bonus allowable to which he may be entitled before receiving a deep pool allowable. In case of the latter alternative, the deep pool allowable shall be calculated as for an ordinary pool allowable pending the making use of such bonus allowable.

5. Any of the figures in Section 2 (c) and Section 2 (d) is subject to revision to prevent waste, to meet changed conditions, and to preclude inequities, upon petition and hearing as provided by law; however, the Commission retains jurisdiction of this case for the purpose of providing in executive session an equitable proportional factor in Section 2 (c) applicable to any pool that may be discovered at any depth range below 12,000'.

6. Pools in counties other than Lea, Eddy and Chaves, shall be permitted to produce their market demand as long as such can be done without waste, until production in such other counties is deemed sufficient to warrant proration determinable by hearing as provided by law.

7. The Order herein replaces Order No. 538, State-Wide Proration Order, and Order No. 413, Eddy County Fields Proration Order. Order No. 235, the Proration Schedule Order, is retained as supplemental to the order herein.

This order shall become effective on March 1, 1946.

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

OIL CONSERVATION COMMISSION

*John J. Dempsey*  
JOHN J. DEMPSEY, CHAIRMAN

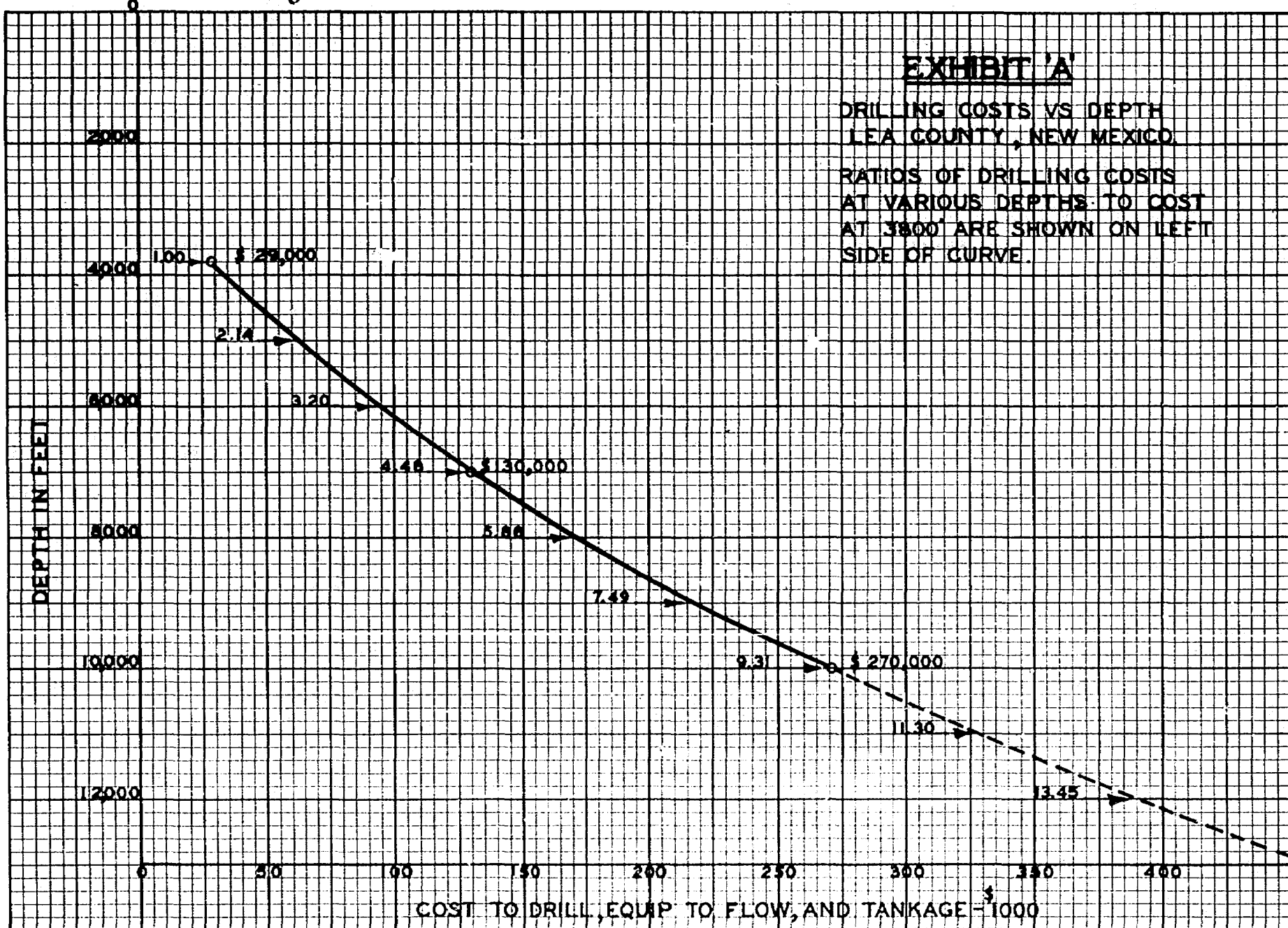
*John E. Miles*  
JOHN E. MILES, MEMBER

*R. R. Spurrier*  
R. R. SPURRIER, SECRETARY.

SEAL



*well  
Ex A  
Core 62*



July  
Ex B  
Copy Case 62

EXHIBIT "B"

SAMPLE CALCULATION SHOWING THE TIME REQUIRED  
TO PAYOUT ALL DRILLING AND OPERATING COSTS  
OF A 10,000' WELL AND A 7000' WELL WITH AN  
ALLOWABLE OF 45 B/D IN LEA COUNTY, NEW MEXICO

Estimated cost of drilling and completing, equipping to  
flow, and installing tank battery for a 10,000' well---\$270,000

Estimated operating cost (flowing)-----\$120/mo.

Daily allowable----- 45 B/D

Monthly Revenue as follows:

$$\begin{aligned} 45 \times 50.4 \times 0.875 \times 0.95 \times 1.02 &= \$1160/\text{mo.} \\ \text{Less operating expense} &= \underline{120/\text{mo.}} \\ \text{Net Profit} &= \$1040/\text{mo.} \end{aligned}$$

$$\text{Payout Time (undiscounted)} = \frac{\$270,000}{1040} = 259 \text{ months} = \underline{21.6 \text{ yrs.}}$$

Estimated cost of drilling and completing, equipping to  
flow, and installing tank battery for a 7000' well-----\$130,000

$$\text{Payout Time (undiscounted)} = \frac{\$130,000}{1040} = 125 \text{ months} = \underline{10.4 \text{ yrs.}}$$

$$\text{Payout Time (discounted at 5\% per year)} = \underline{14.5 \text{ yrs.}}$$

# L CONSERVATION COMMISSIO

SANTA FE, NEW MEXICO

LEA COUNTY OPERATORS COMMITTEE

DRAWER I

HOBBS, NEW MEXICO

To New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Gentlemen:-

Re: Case 62 - Allowable for deep pools

In accordance with your letter of September 18, 1945, the undersigned called a meeting of the committee. This meeting was held at the La Fonda Hotel in Santa Fe, New Mexico on September 28, 1945, at 2:00 P.M. A list of the persons present, absent or represented by an alternate is as follows:

James M. Murray	Me-Tex Supply Co.	Hobbs, N.M.	Absent
S. G. Sanderson	Gulf Oil Corp.	Tulsa, Okla.	Alternate
E. G. Gallagher		Hobbs, N. M.	
Harve H. Mayfield	Magnolia Pet. Co.	Kermit, Texas	Alternate
Dan C. Williams, Jr.		Dallas, Texas	
C. B. Williams	The Texas Co.	Fort Worth, Tex.	Alternate
A. E. Willig		" " "	
Hiram M. Dow	Attorney	Roswell, N.M.	Absent
Col. J. D. Atwood	Gulf Attorney	" " "	Present
Harry Leonard	Leonard Oil Co.	"	Absent
D. D. Bodie	Cities Service	Hobbs, N.M.	Present
Weldon Brigance	Rowan Drig. Co.	Fort Worth, Tex.	Present
Hugh Sawyers	N.M. Oil & Gas Assn.	Roswell, N.M.	Present
Francis Wilson	Wilson Oil Co.	Santa Fe	Absent
Bert Aston	Aston & Fair	Roswell	Present
Van Welch	F.W. & Y. Oil Co.	Artesia	Absent
Glenn Staley	Lea Co. Operators	Hobbs	Present
C. P. Roripaugh	Shell Oil Co.	Midland, Tex	Present
C. A. Daniel	Phillips Petr.	Okla City	Present
Barney Cockburn		Artesia	Absent
Paul B. English	A	Artesia	Absent
Sam Sanders	Sanders Bros	Artesia	Present
Foster Morrell	U.S.G.S.	Roswell	Absent
W. E. Scott	Buffalo Oil Co.	Artesia	Present
Raymond Lamb	Continental Oil Co.	Hobbs	Present
John House	Humble Oil Co.	Midland, Tex	Alternate
R. S. Dewey		Midland	
C. P. Miller	Penrose, Inc.	Hobbs, N.M.	Alternate
David Donaghue		Fort Worth	
Lloyd Beddick	Samedan Oil Co.	Ardmore, Okla	Alternate
A. A. Kemnitz		Hobbs	
Fred Turner		Midland	Absent
George Card	Stanolind Oil & Gas	Fort Worth, Tex.	Present



L. CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Case 62-1211

Edgar Kraus Atlantic Oil & Rfg. Co. Dallas, Texas Present

Visitors:

Chas. E. Yager T.P. Coal & Oil Co. Fort Worth  
John M. Kelly Consulting Engineer Roswell  
J. O. Seth Attorney Santa Fe

The Committee's report is as follows:

1. That the committee recommends to the commission that the factors submitted by the Gulf at the hearing May 14, 1945, Re: Case No. 62, be considered as a maximum, and be used in determining the allowable for deep wells in Lea and Eddy Counties, New Mexico.

The factors are as follows:

Depth Range	FACTOR
To 5000'	1.00
5000-6000'	1.33
6000-7000'	1.77
7000-8000'	2.33
8000-9000'	3.00
9000-10,000'	3.77
10,000-11,000'	4.67 ✓
11,000-12,000'	5.67 ✓
12,000-13,000'	6.77 ✓
13,000-14,000'	8.00
14,000-15,000'	9.33

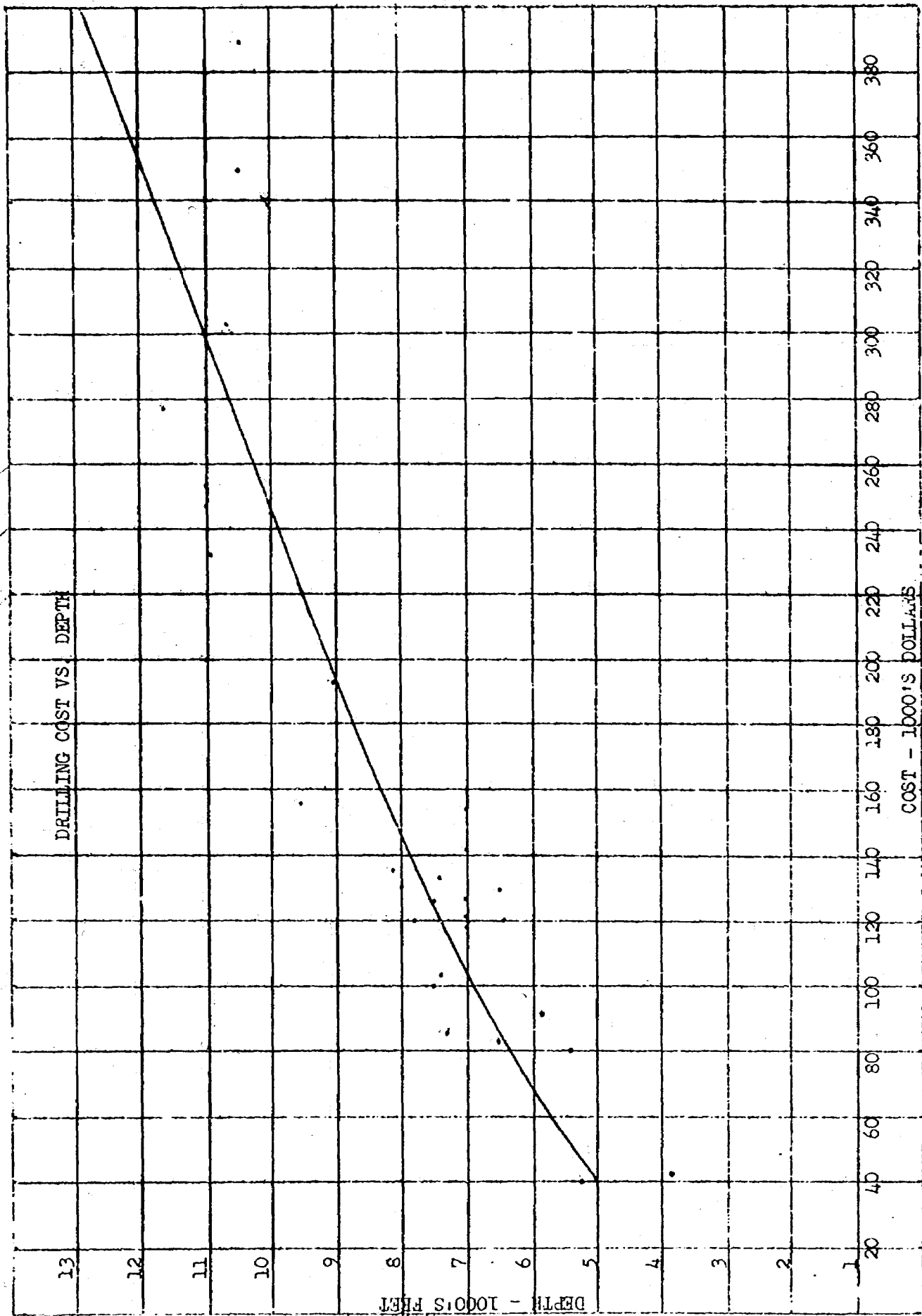
Top unit allowables for each range depth shall be determined by multiplying the normal unit allowable by the proportional factor for each depth range as set out in the table herein above.

2. The Committee recommends that a minimum allowable of 25 barrels of oil daily for wells in Lea and Eddy Counties below which non-marginal wells will not be cut, due to extra allowable to wells drilled below 5000'.

Respectfully submitted

(SGD) Glenn Staley  
Chairman

C  
O  
P  
Y



COSTS TAKEN FROM CURVE

<u>Depth</u>	<u>Cost</u>
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

## EXAMPLE

## PROPOSAL # 1

Depth Range	Factor
To 5000'	1.00
5000-6000'	1.33
6000-7000'	1.77
7000-8000'	2.33
8000-9000'	3.00
9000-10,000'	3.77
10,000-11,000'	4.67
11,000-12,000'	5.67
12,000-13,000'	6.77
13,000-14,000'	8.00
14,000-15,000'	9.33

EXAMPLE

Assuming top allowable per well to 5000 feet in depth is 45 barrels per day:

Depth Interval	Factor	Allowable Bbl.	Allowable Increase above 0-5000' Interval Bbl.	Allowable Increase above preceeding 1000' bracket Bbl.
To 5000'	1.0	45	-	-
5000-6000'	1.33	60	15	15
6000-7000'	1.77	80	35	20
7000-8000'	2.33	105	60	25
8000-9000'	3.00	135	90	30
9000-10,000'	3.77	170	125	35
10,000-11,000'	4.67	210	165	40
11,000-12,000'	5.67	255	210	45
12,000-13,000'	6.77	305	260	50
13,000-14,000'	8.00	360	315	55
14,000-15,000'	9.33	420	375	60

MARGINAL AND NON-MARGINAL WELLS IN SOUTHEASTERN NEW MEXICO AS OF SEP. 1945  
 44 BBLs. TOP ALLOWABLE FOR SEPTEMBER, 1945  
 STATE ALLOCATION 108,000 BBLs. DAILY

FIELD	COUNTY	NO. OF NON- MARG. WELLS	NO. OF MARG- INAL WELLS	DAILY MARGINAL WELL ALLOCATION	AVG. DAILY MARGINAL ALLOCATION PER WELL
				215 bbls.	9.77 bbls.
Anderson	Eddy	1	22	240 "	18.46 "
Arrowhead	Lea	111	13	505 "	3.6 "
Artesia	Eddy	4	140	2 "	2 "
Atoka	Eddy		1	129 "	16.12 "
Barber	Eddy	2	8	90 "	30 "
Benson	Eddy	1	3	9 "	9 "
Caprock	Lea	16	1	1361 "	14.79 "
Cooper-Jal	Lea	28	92	10 "	5 "
Corbin	Lea		2	7 "	7 "
Daugherty	Eddy		1	73 "	5.61 "
Dayton	Eddy		13	12 "	12 "
East Dayton	Eddy		1		
Drinkard-Yeso	Lea	8			
Dublin-Ellenberger	Lea	1		103 "	20.60 "
Eaves	Lea	18	5	272 "	3.88 "
Empire	Eddy	2	70	4320 "	16.94 "
Eunice-Monument	Lea	720	255	929 "	14.51 "
Eunice, South	Lea	13	64	150 "	25 "
Eunice, West	Lea	20	6	156 "	22.28 "
Getty	Eddy	1	7	3966 "	17.39 "
Grayburg-Jackson	Eddy	45	228	40 "	13.33 "
Halfway	Lea	3	3	322 "	8.47 "
Hardy	Lea		38	2 "	2 "
Henshaw	Eddy		1		
High Lonesome	Eddy		1	4 "	4 "
High Lonesome, South	Eddy		17	393 "	23.11 "
Hobbs	Lea	235	298	3356 "	11.26 "
Langlie-Mattix	Lea	17	1	5 "	5 "
Lea	Lea		6	43 "	7.16 "
Leo	Eddy		11	100 "	9.09 "
Loco Hills	Eddy	1	146	2834 "	19.41 "
Loco Hills Repress.	Eddy	(36)	20	516 "	25.80 "
Lovington	Lea	29			
Lovington, West	Lea	41		40 "	13.33 "
Lusk	Lea & Ed.	1	3	52 "	13 "
Lusk, East	Lea		4	27 "	13.5 "
Lusk, West	Eddy		2	40 "	13.33 "
Lynch	Lea	6	3	14 "	14 "
Lynch, North	Lea		1	1545 "	25.32 "
Maljamar	Lea		61	4199 "	28.29 "
Maljamar Repress.	Lea		159	8 "	4 "
Maljamar, North	Lea		2	31 "	15.5 "
Maljamar, South	Lea		2		
Paddock	Lea	3		121 "	20.16 "
P.C.A.	Eddy	1	6	2468 "	7.05 "
Penrose-Skelly	Lea	5	350	1236 "	17.91 "
Premier	Eddy	6	69	408 "	11.65 "
Red Lake	Eddy	8	35	464 "	16.57 "
Rhodes	Lea	15	28	45 "	22.5 "
Roberts	Lea		2		
Roberts, West	Lea	2		71 "	5.91 "
Robinson	Eddy	2	12		

FIELD	COUNTY	NO. OF NON- MARG. WELLS	NO. OF MARG- INAL WELLS	DAILY MARGINAL WELL ALLOCATION	AVG. DAILY MARGINAL ALLOCATION PER WELL
Russell	Eddy	13	1	6	6 bbls.
Salt Lake	Lea	1	9	174	19.33 "
San Simon	Lea		2	14	7 "
Shugart	Eddy	1	10	251	25.10 "
Shugart, North	Eddy		21	161	7.66 "
Skaggs	Lea		3	62	20.66 "
Skaggs Deep	Lea	2			16.17 "
Square Lake	Eddy	16	164	2652	
Tonto	Lea	1		98	10.88 "
Turkey Track	Eddy		9	1684	15.59 "
Vacuum	Lea	250	108		
Young	Lea	1			
TOTALS		1654	2576	36335	14.10

Top allowable Marginal 1654 @ 44 bbls. ea. - 72776 bbls.  
 2576 @ - 36335 "  
 4230 109111 Daily alloc. for September, 1945

fraction gained on top allow. wells - .672  
 1654 x .672 = 1111

OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

Jamon M. Murray Sr. ✓  
Ke-TeX Supply Co.,  
Hobbs, N.M.

C.B. Williams ✓  
District Manager  
Texas Company  
Fort Worth, Texas

Hiram M. Dow  
Roswell, N.M.

S.G. Sanderson  
Asst. to Vice-President  
Gulf Oil Corporation  
Tulsa, Okla.

Col. J.D. Atwood ✓  
Roswell, N.M.

Harry Leonard  
Leonard Oil Co.,  
Roswell, N.M.

D.D. Bodie ✓  
Cities Service Oil Co.,  
Hobbs, N.M.

Weldon Brigance ✓  
Rowan Drilling Co.,  
Commercial Standard Bldg.,  
Fort Worth, Texas

Hugh Snygers ✓  
N.M. Oil and Gas Assn.,  
Roswell, N.M.

Francis Wilson  
Wilson Oil Co  
Santa Fe, N.M.

Bert Aston ✓  
Aston & Fair Inc.,  
Roswell, N.M.

Van Welch  
Flynn, Welch & Yates Oil Co.,  
Artesia, N.M.

Glenn Staley ✓  
Lea County Operators  
Hobbs, N.M.

Norme Mayfield  
Magnolia Oil Co  
Kerned, Texas

Charles P. Roripaugh ✓  
Division Manager  
Shell Oil Co.,  
Midland, Texas

Charles A. Daniel ✓  
General Manager  
Phillips Petroleum Co.,  
Oklahoma City, Okla.

Barney Cockburn  
Artesia, N.M.

Paul B. English  
Artesia, N.M.

Sam Sanders ✓  
Sanders Brothers  
Artesia, N.M.

Foster Morrell  
U.S.G.S.  
Roswell, N.M.

W.E. Scott ✓  
Buffalo Oil Co.,  
Artesia, N.M.

Raymond Lamb ✓  
Continental Oil Co  
Hobbs, N.M.

Mr. John House ✓  
Humble Oil Co.,  
Midland, Texas

G.P. Miller ✓  
Neville Perrose Inc.,  
Hobbs, N.M.

Lloyd Biddick ✓  
Samedon Oil Co.,  
Ardmore, Okla.

Fred Turner  
Midland, Texas

George Card ✓  
Stanolind Oil Co.,  
Fort Worth, Texas

Edgar Kraus  
Atlantic Oil & Refining Co  
Dallas, Texas

CASE NO. 62

BEFORE THE OIL CONSERVATION COMMISSION OF THE  
STATE OF NEW MEXICO

In the matter of the petition of the Gulf Oil Corporation for revision of Statewide Proration Order No. 538 to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet.

Pursuant to notice by the Commission, duly made and published setting May 14, 1945, at 10 o'clock A. M., for hearing in the above entitled matter, said hearing was convened on said day, at said hour, in the Coronado Room of the La Fonda, Santa Fe, New Mexico, the Commission sitting as follows:

HON. JOHN J. DEMPSEY, Governor, Chairman.  
HON. JOHN E. MILES, State Land Commissioner, Member  
HON. CARL B. LIVINGSTON, Chief Clerk & Legal Adviser

R E G I S T E R

<u>NAME</u>	<u>COMPANY</u>	<u>ADDRESS</u>
Hugh L. Sawyers	New Mexico Oil & Gas Ass'n.	Roswell, N. M.
J. L. Griffith	Humble Oil Company	Midland, Texas
Leo R. Manning	Barney Cockburn	Maljamar
R. J. Heard	Grayburg Oil Company	Loco Hills
Glenn Staley	Lea County Operators	Hobbs, N. M.
Barney Cockburn	Cockburn Oil Company	Artesia, N. M.
W. R. Bollinger	Shell Oil Company, Inc.	Hobbs, N. M.
Chas. C. Roripaugh	Shell Oil Company, Inc.	Midland, Texas
H. K. McKinnon	Shell Oil Company, Inc.	Midland, Texas
J. C. Gordon	Byrd Frost, Inc., and Plains Products Company	Dallas, Texas
W. E. Scott	Buffalo Oil Company	Artesia, N. M.
Robert L. Bates	State Bureau of Mines & Mineral Resources	Socorro, N. M.
John M. Kelly	G. P. Livermore, Inc.	Lubbock, Texas
Harry Leonard	Leonard Oil Company	Roswell, N. M.
D. A. Powell	Drilling & Exploration Co.	Hobbs, N. M.
Chas. Schmitz	Sole Owner	San Francisco
Joe Dexter	Grayburg Oil Company of N.M.	Artesia, N. M.
T. J. Lorsey	Atlantic Refining Company	Dallas, Texas
G. H. Gray	Repollo Oil Company	Midland, Texas
Harve H. Mayfield	Magnolia Petroleum Company	Kermit, Texas
D. D. Christner	Continental Oil Company	Ft. Worth, Texas
W. C. Stout	Continental Oil Company	Ft. Worth, Texas
John R. Moran	Continental Oil Company	Houston, Texas
George M. Sellinger	Skelly Oil Company	Tulsa, Okla.
J. N. Dunlavey	Skelly Oil Company	Hobbs, N. M.
H. B. Hurley	c/o Continental Oil Company	Ft. Worth, Texas
M. H. Dubrow	Continental Oil Company	Ft. Worth, Texas
S. V. McCullum	Continental Oil Company	Ft. Worth, Texas
L. F. Shiplet	The Texas Company	Midland, Texas
A. E. Willig	The Texas Company	Ft. Worth, Texas
C. B. Williams	The Texas Company	Ft. Worth, Texas
W. E. Hubbard	Humble Oil Company	Houston, Texas
Neville G. Penrose	Neville G. Penrose, Inc.	Ft. Worth, Texas



REGISTER (cont'd)

<u>NAME</u>	<u>COMPANY</u>	<u>ADDRESS</u>
Weldon Brigrance	Rowan Drilling Company	Ft. Worth, Texas
J. W. House	Humble Oil Company	Midland, Texas
Roy O. Yarbrough	Oil Conservation Commission	Hobbs, N. M.
Foster Morrell	U. S. Geological Survey	Hobbs, N. M.
A. K. Montgomery	Stanolind Oil & Gas Company	Santa Fe, N. M.
W. T. Hoey	Stanolind Oil & Gas Company	Midland, Texas
Jas. M. Murray Sr.	Me-Tex	Hobbs, N. M.
L. F. Peterson	Stanolind Oil & Gas Company	Ft. Worth, Texas
S. G. Sanderson	Gulf Oil Corporation	Tulsa, Oklahoma
J. D. Atwood, Atty.	Gulf Oil Corporation	Roswell, N. M.
Lloyd L. Gray	Gulf Oil Corporation	Tulsa, Oklahoma
E. J. Gallagher	Gulf Oil Corporation	Hobbs, N. M.
A. D. Hahn	N. M. Bureau of Mines & Mineral Resources	Socorro, N. M.

"NOTICE FOR PUBLICATION  
STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

The Oil Conservation Commission as provided by law hereby  
gives notice of the following hearing to be held at Santa Fe,  
New Mexico, at 10 A.M., May 14, 1945:

CASE NO. 62.

In the matter of the petition of the Gulf Oil  
Corporation for revision of Statewide Proration  
Order No. 538 to provide for increasing the oil  
allowable progressively according to depth for  
pools producing below 5000 feet.

Given under the seal of said Commission at Santa Fe,  
New Mexico on April 13th, 1945.

OIL CONSERVATION COMMISSION

BY (SGD)

JOHN J. DEMPSEY  
CHAIRMAN

JOHN E. MILES  
MEMBER

SEAL"

P R O C E E D I N G S

BY MR. J. D. ATWOOD: Gentlemen of the Commission, I appear  
in behalf of the Petitioner, and request the permission of  
the Commission for Mr. Sanderson, General Superintendent of  
the Gulf Oil Corporation to explain the reasons and situation  
which has caused the Company to file this petition, and I  
introduce Mr. Sanderson.

MR. SANDERSON: Recently the Gulf Company drilled four wells in the Drinkard area in Lea County, 5,000 to 7,000 feet in depth. At the present time the Company is drilling four additional wells on short term leases in that particular area. These wells cost from 1,000<sup>00</sup> to 150,000 dollars, depending of the depth of them. It is the desire of the Gulf to develop these deeper reserves, but under present allowable set up, 45 to 46 barrels per well, it will be uneconomical for the Company or any other operators to develop these reserves. Therefore, we thought that the deeper wells should have some additional consideration in regard to allowable, and over the past several months the matter has been discussed with my operators. So far as I know none of the operators object or disagree with the idea. In order to bring the matter to a head, the Company decided to file an application with the Commission for a hearing on the matter, in addition to clarifying the situation. For the convenience of the Commission and other operators, the Company decided to draw up a proposed order and submit to the Commission, which was done. This order was circulated to the various operators in the field. It was not with the idea this would be the same order, but rather it would clarify the situation and give something definite to work on. We realized from the beginning there will doubtless have to be some modifications of this order in order to conform with the present orders of the Commission, but we thought this was a better way to handle it. That is the reason for the Gulf's application for hearing on the additional allowables for the deeper well at this time.

GOVERNOR DEMPSEY: Mr. Sanderson this scale between five and six thousand feet, you will get a rate over the allowable for the lesser depth well?

MR. SANDERSON: Yes sir.

GOVERNOR DEMPSEY: If a well at three or four thousand feet, if the allowable was raised or decreased, would you raise or decrease with that?

MR. SANDERSON: Yes sir.

GOVERNOR DEMPSEY: What time would that continue?

MR. SANDERSON: Indefinitely. We made some calculations in some of those deeper wells - it would require 20 years to pay out. I think from a conservation standpoint it is desirable to develop these deeper reserves because the present fields are exhausting I think rather rapidly. I was surprised with many marginal wells in Lea County, at this time I think thirty of them - I think we should encourage the development of these deeper horizons.

GOVERNOR DEMPSEY: You think there should be no limit of time as to how long this allowable is permitted?

MR. SANDERSON: The way we have the thing figured out, is to make the pay out on these deeper wells approximately the same as on the shallow wells. This present proposal does not quite accomplish that, it is a little too low.

GOVERNOR DEMPSEY: You think <sup>after</sup> ~~the~~ the period when you have recovered the additional amount you should still have the additional allowable?

MR. SANDERSON: Yes sir.

GOVERNOR DEMPSEY: Colonel do you think the Commission has the authority in the present law to do this?

MR. ATWOOD: It is my opinion under the present conservation law the Commission can make classifications for pro rating purposes and for extension of development, so long as the classifications are on a reasonable basis, no complaint can be made. We have now allowance for discovery wells that the

discovery gets when the person who offsets him does not get it. The Commission did that because it is in the Compensation Act that guarantees that every operator will be treated just exactly alike. I understand the Gulf people want to establish a depth as the so-called deeper production, as distinguished from the shallow production. The Gulf thought 5,000 feet would be the proper basis. Of course, a well 4,995 feet wouldn't get the bonus, where 5,001 feet would. There must be some way to draw a line (this is merely a suggestion of the Gulf, 5,000 feet for the beginning of the so-called deep production).

As I understand it, this plan is not so much to take care of the 5,000 foot situation as it is to take care of the deeper stuff, and we have a witness with figures we would like to put in the record, but first would like to have the Commission or anyone interested to ask any questions.

GOVERNOR DEMPSEY: We now have an allowable to deep wells as discovery wells, should that continue with this as additional?

MR. SANDERSON: Yes sir, I think so. Because the original well, just one well in the pool gets the allowable.

GOVERNOR DEMPSEY: For a term, a certain period - What would be the effect upon the discovery well in this condition?

MR. SANDERSON: Wouldn't be affected at all. The discovery gives a certain number of barrels of oil which must be produced within a years' time.

GOVERNOR DEMPSEY: You contemplate they get both?

MR. SANDERSON: Yes.

MR. ATWOOD: It is my understanding a discovery well nearly always costs more than the subsequent wells. That is the reason for giving the bonus is to offset that unusual cost.

GOVERNOR DEMPSEY: Any other persons desire to ask any question?

MR. NEVILLE PENROSE: You estimate your cost on your present development one to one hundred fifty thousand dollars?

MR. SANDERSON: That is right.

MR. PENROSE: In that area there are approximately 800 producing wells of about 4,000 <sup>barrels</sup> barrels, what would you estimate the cost was?

MR. SANDERSON: Around 30,000 dollars.

MR. PENROSE: About 80 of those wells are still in the red, and some of them are 7 or 8 years old?

MR. SANDERSON: I don't know about that.

MR. PENROSE: In an effort to get a release, would the Gulf Company apply to the OPA for an increase for the price of the oil?

MR. SANDERSON: Not that I know of.

MR. GEORGE SELLINGER: Governor, in answer directly to your question in regards to the Commission, in my opinion sections 11 and 12 give you the authority to grant the application as set forth by the Gulf. I believe under those two sections you can grant that authority.

(After being duly sworn to tell the truth, the whole truth and nothing but the truth, Mr. Lloyd Gray testified as follows)

MR. ATWOOD: Where do you live?

MR. GRAY: Tulsa.

MR. ATWOOD: What is your official connection with the Gulf?

MR. GRAY: Chief production engineer.

MR. ATWOOD: For how long?

MR. GRAY: 17 years.

MR. ATWOOD: How long in the present capacity?

MR. GRAY: 5 or 6 years.

MR. ATWOOD: You have heard the introductory statement by Mr. Sanderson with reference to the increased cost of drilling to deeper depths, have you compiled any figures on samples of drilling costs in New Mexico, in the area in which your Company operates?

MR. GRAY: Yes sir.

MR. ATWOOD: Gentlemen of the Commission, we offer Exhibit A, in evidence, after first having it identified by the witness. - Is this exhibit a graph showing the increase in cost of increasing depth?

MR. GRAY: Yes sir.

MR. ATWOOD: You prepared that?

MR. GRAY: I had it prepared.

MR. ATWOOD: Will you make a detailed explanation to the Commission of this graph?

MR. GRAY: The line that goes diagonally across the page shows the cost for varying distances down to 12,000 feet on the right hand side of the curve is shown the figures for distances actually drilled wells at the present time.

GOVERNOR DEMPSEY: Wildcat I presume?

MR. GRAY: No not wild cat figures.

It has the cost of a completed well. Starts around 3,800 for \$29,000, 7,000 feet \$130,000, 10,000 feet estimate cost \$207,000. These cost figures, I believe, will fairly represent an exploration mark. The cost of drilling these deep wells is enormous. I don't believe at the present time the return on investment is satisfactory. As a matter of fact, it is entirely possible if the allowable is not increased the natural resources might not be exploited.

MR. ATWOOD: Any member of the Commission desire to ask any question?

(No questions)

MR. ATWOOD: Have you prepared any estimate or sample costs for wells at 7 and 10 thousand feet, to show the time required for paying off on those costs on the present allowable basis?

MR. GRAY: Yes sir.

(Exhibit B presented to the Commission)

MR. ATWOOD: The figures for the 10,000 foot well, go ahead and explain those items.

MR. GRAY: This is a sample calculation showing the required pay for wells of a greater depth than the present wells. One is 10,000 feet and the other is 7,000 feet. The 10,000 foot well is estimated at \$270,000 and the estimated operating cost for it \$120 a month, I believe that would be conservative.

MR. ATWOOD: On the assumption it is a flowing well?

MR. GRAY: Yes sir, an allowable of 35 barrels per day, revenue of \$1,040 per month - 21.6 years.

MR. ATWOOD: If discounted at 5%, approximately what increase would there be in time?

MR. GRAY: 25 to 27 years. 7,000 feet, \$130,000 on the same basis as the one previously would pay out in 10.4 years, at a discount of 5% per year would pay out in a period of 14.5 years.

MR. ATWOOD: On the assumption both wells are flowing the allowable?

MR. GRAY: Yes sir.

MR. ATWOOD: If the wells should not flow you would have a pumping cost in addition to the cost you have shown here?

MR. GRAY: That is correct.

MR. ATWOOD: Any member of the Commission have any question on that exhibit?

GOVERNOR DEMPSEY: No.

MR. ATWOOD: Mr. Gray, based upon these figures, I believe you have stated it is doubtful there will be any general development on the present allowable basis.

MR. GRAY: That is correct.

MR. ATWOOD: With these figures set forth in a petition, using the present allowable as the basic unit, and step up as suggested in the petition by increasing the depth, about how much time would be required then?

MR. GRAY: I have not made a calculation on that, but I would estimate in the neighborhood of 7 or 8 years.

MR. ATWOOD: What is the normal pay out time the Company figures on the wells?

MR. GRAY: I don't believe they could operate much longer than 7 or 8 years.

MR. ATWOOD: You heard Mr. Sanderson's statement - how many deep wells the Gulf is drilling in Lea County - are there any other wells they are drilling?

MR. GRAY: I believe about 17.

MR. ATWOOD: Drilling wildcatting or necessity?

MR. GRAY: Quite a number through necessity.

MR. ATWOOD: In order to hold the lease. If the allowable is not increased is there any likelihood these companies drilling these wells will proceed to develop the pools?

MR. GRAY: With the low return I don't believe they would be justified.

MR. ATWOOD: The fact that some of these companies drill through necessity, is there any likelihood another company would drill through necessity.

MR. GRAY: That is correct.

MR. ATWOOD: State whether or not in your opinion economic waste results in using funds in drilling wells that will not pay out in 20 years.

MR. GRAY: I think that is right.

MR. ATWOOD: These figures here represent the nearest expense incurred in drilling company wells?

MR. GRAY: Correct.

MR. ATWOOD: Doesn't that consider risks sustained in drilling dry holes?

MR. GRAY: No sir.

MR. ATWOOD: Is that item likely to be a considerable item in the Lea County area.

MR. GRAY: It usually is a sizeable item in the early stages.

MR. ATWOOD: Hasn't there been a number of dry wells drilled already in Lea County?

MR. GRAY: I think that is correct.

MR. ATWOOD: That is all for me gentlemen.

GOVERNOR DEMPSEY: Any questions from any of you gentlemen?

(No questions)

MR. SELLINGER: In drilling a well through necessity by offsetting operator where economically would not be justified, would that your opinion be termed drilling of an unnecessary well?

MR. GRAY: Not necessarily that, but are unprofitable.

MR. SELLINGER: Economically it would not pay the operator to operate that well?

MR. GRAY: Yes sir.



MR. SELLENGER: But at the same time would have a tendency of not permitting full development of that reservoir?

MR. GRAY: I believe that is correct.

MR. ATWOOD: (Next witness)

Please State Your name.

MR. WILLIAMS. C. B. Williams.

MR. ATWOOD: I believe you estimate the cost of a 7,000 foot well at \$130,000.

MR. WILLIAMS: That is correct.

MR. ATWOOD: It occurs to me to be rather high, but I just wondered is that your estimate of the cost of the wildcat well or discovery well?

MR. WILLIAMS: On our original well \$150,00 was the cost, and the 2000 foot well \$135,000. That would not be on regular exploitation. Those other figures were drilling cost and service equipment.

MR. ATWOOD: Do you believe after a discovery is made in the field where the depth is 7,000 feet the cost of the subsequent wells and development of the field would average \$130,000?

MR. WILLIAMS: I don't believe it would miss it very far.

MR. ATWOOD: Your estimate is based on the operation in the Drinkard Area?

MR. WILLIAMS: That is correct.

MR. ATWOOD: Do you feel one could go far enough to predict a 7,000 foot well in some other part of Lea County would cost the same?

MR. WILLIAMS. I think the drilling conditions in the various portions of the County would be essentially the same.

MR. ATWOOD: Then you feel the allowable proposed should be set up as a basis for determining the permanent allowables of all future wells drilled in those tracts?

MR. WILLIAMS: That is correct. These figures on the left hand side of this graph show a cost of a 3800 foot well, for example a 7,000 foot well is going to cost 4.48 times as a 3800 foot well. In the sample order a 7,000 foot well is

---from 6 to 7 thousand feet, for 1.77 the ratio we put on allowable is not anywhere near where the actual cost ratio is. I think for that reason you are justified in making that permanent allowable.

MR. ATWOOD: These estimates are made under present conditions?

MR. WILLIAMS: That is right.

MR. ATWOOD: Do you not think of the cost of development under present conditions as being abnormally high?

MR. WILLIAMS: That is right.

MR. ATWOOD: In the past years the wells have cost a good deal less than they do now, is that right?

MR. WILLIAMS: That is right. I feel the ratio of cost for various depths is right. In a few years when there are normal conditions the ratio of 7,000 feet and 3800 feet will probably be similar.

MR. ATWOOD: Your factors are based primarily on economics or reasonable profits?

MR. WILLIAMS: Yes sir.

MR. ATWOOD: Do you not feel there are many other factors in determining the permanent allowable of the field other than just the depth of the well?

MR. WILLIAMS: I don't know how they could be brought into form. New Mexico has been outstanding. They have had a formula for allocation and so far as I have been able to observe everybody has been quite happy with the use of the formula. What we have tried to do is to cut this depth factor into the old formula.

MR. ATWOOD: Yes I agree our basis of allocation of allowables in the past has been quite satisfactory, but in order to determine the efficient rate on which a well should be set, should one consider the character of the reservoir. The type of the reservoir, type of energy you have with the formation such as water deposit or gas deposit.

MR. WILLIAMS: I think those items should be considered, but the study of that will naturally be taken care of by individual pools.

MR. ATWOOD: I am not trying to find objection to your idea for your allowable for new wells or new pools, but it occurs to me that as more wells are drilled and we have more technical information on the field, that those things should be considered in fixing the state allowable any higher than the formula based just on depth alone might be very far out of line in some pools. Do you not feel the rate of production you have proposed in some cases, those were too low, for others, they might be entirely too high in order to get sufficient recovery of the oil.

MR. WILLIAMS: I think that is possible, but still feel that should be taken care of by individual pools.

MR. ATWOOD: I understand you proposed to set these factors up to hold as a general rule, to fix the permanent allowable to wells - Do I understand after the first 4 or 5 or 6 wells in a pool are completed and more information on the type of reservoirs is available, it would be hard to consider those various factors in order to determine for the allowables for those wells?

MR. WILLIAMS: I think that could be done. To my knowledge we have never gone back and studied the matter.

GOVERNOR MILES: What do you refer to about formula?

MR. WILLIAMS: Our allocation formula, regular formula for individual well and also allowable for pool.

GOVERNOR MILES: The object of the past development, generally speaking, most of that production has come from the sand area section, it is quite likely the character of the reservoir is more uniform than at the deeper zones.

MR. WILLIAMS: The reservoir energy of the deeper pools is substantially greater than on the shallow horizons. 7,000 feet probably for 2200 or 2300. The gas in the solution on shallow horizons are from 400 to 600 Cu. Ft. I think in general the deeper horizons wells support higher rates.

GOVERNOR MILES: Do you think as deeper development progresses it may be found from the spacing of wells proposed in your order might be preferable and afford a better basis for allocation, taking into account the economics and the rate to which wells should be produced and of course economically I refer to the rate of return on your investment, also the ultimate rate and that it might be some other spacing of wells might be desirable.

When you talk about spacing - this proposal you will have as I understand is based on one well to 40 acres and the spacing is 300.

MR. WILLIAMS: The area should be 330.

GOVERNOR DEMPSEY: That is the boundary line - 360 is the boundary line?

MR. WILLIAMS: So far as that state is concerned, but then again I believe that should be taken care of on individual pool.

MR. PENROSE: Isn't there a possibility if this request is granted it might not work a hardship on many of the smaller operators in New Mexico?

MR. WILLIAMS: I do not believe it work any hardship - at the present time there is a number of wells in Lea County unable to make their allowable. I believe we should discover more wells to maintain the wells in the state.

MR. PENROSE: There are a lot of operators in Lea County I don't suppose have \$150,000 to drill a well. A lot of wells in Eddy and Lea County still in the red - when was your application made?

MR. WILLIAMS: About a month ago.

MR. PENROSE: In the length of time there has been a great many changes in the world conditions and in the oil business, and I would say we have every reason to believe we will get smaller allowables sooner or later as the allowables of the state are reduced it is going to have to be proportioned with the owners of the smaller wells. In the last two or three weeks there have been two or three places in Texas crude has gone into storage, no demand for it.

MR. WILLIAMS: I think the additional allowable for deep wells has been shown to be justified. In Oklahoma one field the allowable is 150 (is 150) barrels a day, so we are well within what other states allow.

MR. PENROSE: Our allowable is now 110 barrels. Suppose it would have to be cut, wouldn't the people with the smaller wells have to take a lower allowable?

MR. WILLIAMS: It is going to affect them either way. I think you will find the decrease in the allowable - the decrease in capacity will take care of these pools.

MR. SANDERSON: In regard to Mr. Williams' statement, due to high gas-oil ratios, perhaps we should not have a flat allowable. You have provided in this order that where there are special pool allocations that they will conform to that, subject to progress.

MR. WILLIAMS: That is correct.

MR. SANDERSON: If some wells should be allowed to produce more than others, this would prohibit that.

GOVERNOR DEMPSEY: Assume the Commission would grant this order. If a deep well was drilled and expended - do you think it would be good on the part of the Commission to cut them back?

MR. SANDERSON: I see no reason why these general orders should be expected to last indefinitely.

GOVERNOR DEMPSEY: That was the first you asked for.

MR. SANDERSON: I think that as conditions change, it is necessary that these orders be changed, as Mr. Williams suggested, the cost of drilling should drop to half what it is at the present time it would be uneconomical to use these old figures, I think the Commission should take care of those conditions.

GOVERNOR DEMPSEY: Don't you think that qualification should be included in this order?

MR. SANDERSON: Yes sir.

MR. ATWOOD: I understood Mr. Sanderson to say, Governor, when you asked him if this should be permanent - I understood him to say permanent until changed by the Commission.

GOVERNOR DEMPSEY: Yes.

MR. ATWOOD: The situation has arisen now that was not when the original program was set up. Now we have conditions which call for the method and basis of allocation conditions, and in the future will call for another change. There is no order that cannot be set aside or modified by the Commission at a future date.

GOVERNOR DEMPSEY: I think the Commission should have more time on that, and include it in the order and not cause any misunderstanding. I do not agree that this allowable is going to drop

to 74,000 barrels a day after the first year, I think they do not like to have you increase it not. We have set the allowable at a smaller amount than Senator                      has requested.

MR. SANDERSON: What I understood was this - that ~~XX~~ <sup>after</sup> a well is paid out, then it should automatically be set back to the normal allowable.

GOVERNOR DEMPSEY: That was one question following the other question.

MR. SANDERSON: I think the Commission should retain jurisdiction regarding the conditions which the order should be changed.

MR. ATWOOD: Much has been made here of the considerable number of marginal wells in Lea County, and the Chairman of the Commission has just referred to the fact that we have called for a higher allowable than the Commission has been allowed to grant, is that due to normal production?

MR. SANDERSON: No, I do not think so, those pools are getting very old.

MR. ATWOOD: In the future, if in our new reserves or discoveries when this is reclaimed by reason of old age - would be still less allowable to meet the allowable as at the present time.

MR. SANDERSON: That is correct.

MR. ATWOOD: Where, in your opinion, lies the best chance for developing - large or deeper reserves, or shallow or deeper drilling?

MR. SANDERSON: Deeper drilling is the best opportunity right now.

MR. ATWOOD: You are going right back into the areas that have been contoured and bring in these deeper wells?

MR. SANDERSON: That is correct.

GOVERNOR DEMPSEY: Should the Commission increase the allowable, wouldn't that be detrimental to the conservation program?

MR. SANDERSON: I think that depends somewhat on the type of well.

GOVERNOR DEMPSEY: Don't you feel the Commission in the past, the course they have taken is mostly responsible for the recovery we are getting in New Mexico?

MR. SANDERSON: I think so. We submitted a sample letter of our letter of transmittal and should have been a couple of corrections - in the first paragraph 300 feet should have been 330 - the matter of form of one of the other paragraphs should be revised.

GOVERNOR DEMPSEY: In that matter I suggest you revise it and submit to the Commission.

MR. SANDERSON: Paragraph (e) provides for the Department classification to be on the basis of the average depth - I think it would be less confusing if they would just take the depth of the first well - wouldn't have to be working on averages.

MR. ATWOOD: The sample order here is just something given to the Commission to assist in starting a from, and if you do consider it, whatever change the Commission thinks should be put in there we will be glad to cooperate in any way we can, I would like for other operators affected to offer any suggestions they have. This order as drawn applies only to Eddy and Lea Counties. The petition makes no reference to counties. The rest, I am not sure about.

MR. LIVINGSTON: What the Gulf asked for was revision of state wide proration order 485, with the depth factor of the proration order only proration in Lea and Eddy Counties, so nothing was advertised as to changing the proration status in the other counties.

MR. ATWOOD: At present that problem is not in other counties. The Commission can make the order to apply to any other county in which deep wells should be drilled.

MR. W. E. HUBBARD - Humble Oil Company.

We agree in principal with the goal of the Gulf. Certainly if your resource of the state are to be developed the greater risk on the investment has got to be taken into consideration or they won't be developed. The order as I read it, does not provide for a unit any larger than 40 acres, does not say it can be anymore than 40 acres. Our thought is that undoubtedly we are faced with a wider drilling than 40 acres on the basis there not being enough oil down there, other wells of 40 acres. Economically we feel probably most of these deeper

pools will be based on approximately 80 acres and may go to 160, I should like to see that part amended so that the unit would not be less than 40 acres, and allow us to go above 40 acres if the situation warrants it. We have had much information develop since the war started as to the maximum efficient rate that pools can go without waste. I notice in the table of the Gulf, it allows wells of 40 acres to produce up to 308 barrels, which is almost 7 barrels per acre. I don't know of any pool where that had been exceeded or even approached. Our pools in East Texas, the maximum rate in those pools is about 3 barrels per acre. Some wells over there, Yates probably, the best pool is between  $2\frac{1}{2}$  and 3 barrels. I am afraid the Commission will be faced with the duty, after these wells are drilled, of having to cut them back on account of wasting the reservoir. Our engineers came to the conclusion that after a pool has been drilled, it can produce about as much per day whether on a 20, 40, 10 or 80 acre basis. A well or the pool would not waste anymore. For that reason I should also like to see put in the formula something about acreage. If the wells could produce more without waste I think they should do so. Don't know how that could be worked in the formula, but would like to have that.

MR. WILLIAMS: I agree with it. I think the question of acreage would be a matter that the Commission could operate on a basis of depth or economics alone. In other words, assume that 40 acres is the unit on all the other fields above 4,000 feet, then if the deep ones were drilled 1 to 80 you could double the allowable and still keep an equitable basis between the deep and the shallow ones. Assume the very deep wells were spaced 1 to 160, you could give more profitably from an economical standpoint, and from a conservation standpoint and the Commission should not adopt an order that was not based on both.

GOVERNOR DEMPSEY: Wouldn't that be a question for the individual pools?



MR. WILLIAMS: Yes sir, after three or four wells you would know what you could do. You shouldn't tie yourself down and it should be variable, so that when the fields were drilled up, you could vary in accordance. It is very important to these that have shallow production.

MR. A. E. WILLIG - The Texas Company.

I have a statement to read and submit as part of the record from the Texas Company:

"CASE NO. 62

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO  
MAY 14, 1945

IN THE MATTER OF: THE PETITION OF THE GULF OIL CORPORATION FOR REVISION OF STATEWIDE PRORATION ORDER NO. 538 TO PROVIDE FOR INCREASING THE OIL ALLOWABLE PROGRESSIVELY ACCORDING TO DEPTH FOR POOLS PRODUCING BELOW 5000 FEET.

"The Texas Company respectfully requests leave to file this statement in its behalf in connection with the hearing called to consider the subject matter.

"On August 3, 1943, a hearing was held on the application of the New Mexico Oil Conservation Commission upon its own motion on this same matter. At that hearing considerable testimony and evidence were introduced which are pertinent to a further consideration of this matter. We respectfully request that the record of that hearing be made a part of and considered by the Commission in addition to the testimony to be offered on May 14.

"Experience has shown that the cost of drilling and operation of wells varies in some proportion with the depth. Experience, however, has shown that this variation is not pre-determined and varies considerably from one area to another as shown by the testimony in the hearing of August 3, 1943. It is generally known that the deeper the well the higher drilling and operating costs will be. We are in accord with recommendations made heretofore that some recognition in the form of higher allowables be accorded wells drilled to deeper depths. We feel, however, that the measure of such consideration should be carefully determined by the Commission in accord with the authority vested in it by the New Mexico Conservation Statutes. We refer to and quote for your ready reference Paragraph 2 of Section 12 of the Session Laws of New Mexico, 1935, Chapter 72.

"No owner of a property in a pool should be required by the Commission, directly or indirectly, to drill more wells than are reasonably necessary to secure his proportionate part of the production. To avoid the drilling of unnecessary wells, a proration unit for each pool may be fixed and such being the area which may be efficiently and economically drained and developed by one well. The drilling of unnecessary wells creates fire and other hazards conducive to waste, and unnecessarily increases the cost of products to the ultimate consumer'.

"Much constructive work has been done on the problem of well spacing, and since as far back as 1936 there has been a definition of unnecessary drilling which is generally recognized by Oil Operators and the Oil Industry. The following is a pertinent quotation from the report of an I.P.A.A. Sub-Committee of Nine on 'Unnecessary and Excessive Drilling' which appeared in the Oil Weekly of December 28, 1936.

"It is generally recognized that much of the drilling in proven fields in most of the oil-producing states can be classified as 'unnecessary or excessive drilling' in that from the wells already drilled or from a fewer number of wells properly spaced approximately the same amount of oil could be recovered, therefore the drilling of additional wells would not, and will not, materially increase the ultimate recovery from the field. In other words, in most fields the data are amply sufficient at an early stage in the development of the field to determine to reasonable accuracy the efficient and economical drainage area of a well. The drilling of more than one well to drain such area results in excessive or unnecessary drilling as those terms are used herein'.

"The area which may be efficiently and economically drained by any particular well, regardless of depth, will vary with the physical characteristics of the reservoir from which such well produces, and these characteristics may not be determined with any exactitude until such well has been brought into production and the pertinent factors have been determined. We, therefore, recommend and strongly urge to the Commission that no arbitrary, pre-determined allowable be assigned to deeper wells until testimony and evidence by competent parties has been introduced and considered in the case of each separate reservoir. Such evidence would necessarily include, among other things, the cost of drilling and operating wells of the particular depth under consideration and would be considered in determining the allowable of wells drilled in that particular field. Thereupon, from such hearings the Commission may determine, under the requirements of Section 12 quoted above, the proper spacing and proration unit, and, further, under Section 11 of the same Statutes, may 'allocate or distribute the allowable production among the fields of the State.....on a reasonable basis.....'. Thus, an Operator in undertaking the drilling of a deep well would have the assurance, prior to the commencement of the well, that the costs peculiar to and encountered in the drilling and operation of his well would be given due consideration in fixing the allowable for such well.

"It is recognized that, before the pertinent physical characteristics of the reservoir may be determined, it is desirable to have available the data from a number of wells in a new reservoir. During the interim from the drilling of the discovery well and the further wells required for the reasonable determination of the reservoir's characteristics, we recommend the application of a modified form of the present 'Bonus Discovery Allowable' Order No. 573 of the New Mexico Oil Conservation Commission adopted September 6, 1944. Modifications of this Order should include:

- "1. Reasonable daily top allowable rates based on various depth brackets for the discovery well.
- "2. The application of such top daily allowables to the next subsequent four wells completed in the same reservoir within the eighteen months or two year period next following the completion of the discovery well.
- "3. Prior to the expiration of the period adopted for bonus discovery allowables, the Commission will call a hearing to determine the proper spacing, proration unit, and regular top allowables to be assigned to all wells in such field. The regular top allowable so determined may thereafter be maintained in an amount in the same proportion theretofore assigned to other fields.

"We further respectfully submit that the pre-determined allowables for deeper wells submitted by the applicant in this cause are arbitrary and, as pointed out before, do not take into consideration the pertinent data necessary and available only after completion of

a sufficient number of wells in a given reservoir.

"In conclusion, we wish further to recommend that the adoption and application of both bonus and regular allowables contemplated under this cause be made subject to the prevention of avoidable physical waste.

Respectfully submitted,

THE TEXAS COMPANY

BY: /s/ C. B. WILLIAMS

May 14, 1945"

GOVERNOR DEMPSEY: You are requesting that this Commission make part of this record of hearing held in August 1943, that would be very inconsistent.

MR. WILLIG: Yes sir.

GOVERNOR DEMPSEY: There may be part of the hearing of August 1943 that the men here today know nothing about. If there is any of the hearing of August 1943 not consistent with the hearing held here today, I would be glad to have you point it out. I think it is well to call the Commission's attention so that they can do that, but cannot put part of that hearing into this one.

MR. WILLIAMS: I shall be glad to briefly qualify Mr. Willig so that he may testify.

(After being sworn to tell the truth, whole truth and nothing but the truth, Mr. Willig testified as follows:)

MR. WILLIAMS: You are employed by the Texas Company?

MR. WILLIG: Yes sir.

MR. WILLIAMS: How long have you been employed by this Company?

MR. WILLIG: 25 years.

MR. WILLIAMS: In what capacity now?

MR. WILLIG: Divisional engineer for West Texas Division.

MR. WILLIAMS: State your responsibility in that capacity to take care of matters on behalf of the Company in connection with the proration, allocation of wells and matters that come under the subject of this order here you propose to file with the Commission - a copy of this statement you have just read.

Does that statement represent your views with reference to the subject matter of this hearing?

MR. WILLIG: It does.

MR. WILLIAMS: I questioned Mr. Gray about factors of depth, I believe the letter you just read generally reviews the thoughts you have in connection with the various factors to be considered in the allocation of production does it not?

MR. WILLIG: Yes sir.

MR. WILLIAMS: Do you feel that the allowables of wells should be based on depth alone?

MR. WILLIG: No sir, I think the cost of wells of the same depth may vary considerably, depending on the area in which they are drilled. I think the efficient drainage of a well considering the economics involved should be considered.

MR. WILLIAMS: Do you think the ultimate recovery, kind of reservoir and type of energy should be given due consideration?

MR. WILLIG: Yes sir they are all important factors.

MR. WILLIAMS: All these factors cannot be known of course.

MR. WILLIG: No, it will take several years to determine that degree of exactitude.

MR. WILLIAMS: Then you are in accord with the proposal that some higher allowable than the allowable at the present time being followed in Lea County be temporarily assigned to these deeper wells do you not.

MR. WILLIG: Yes, I think it would help the development of deeper fields.

MR. WILLIAMS: As the composition of several wells in a pool, it is your recommendation that the factors then known regarding that pool be considered regarding the allocation of production in that pool.

MR. WILLIG: That is right.

GOVERNOR MILES: The allocation of production you talk about, the allowable space or both factors?

MR. WILLIG: The allowable.

GOVERNOR MILES: You think the matter of proper spacing of wells should also be considered?

MR. WILLIG: Yes sir.

GOVERNOR MILES: Should include the amount of acreage and distance between wells?

MR. WILLIG: That is right.

GOVERNOR DEMPSEY: Any other questions?

(No further questions)

MR. H. B. HURLEY - Continental Oil Company.

I wish to go on record and state the Continental Oil Company favors in principal the plan as submitted by the Gulf here today.

MR. CHAS. RORIPAUGH - Shell Oil Company

We are also in favor of the principals as set out in the Gulf's order. I think that possibly some of the controversy on the problem might be alleviated somewhat if consideration was given to insertion in the order as proposed that permanent fields would be adopted before a hearing through the Commission.

MR. T. J. DORSEY - Atlantic Refining Company

The Atlantic Refining Company also agrees with the Gulf order in principal.

MR. HARVE H. MAYFIELD - Magnolia Petroleum Company.

The Magnolia Petroleum Company also agrees with the Gulf's order in principal.

MR. GEORGE M. SELLINGER - Skelly Oil Company agrees in principal with the Gulf Oil Corporation, we favor the allocation of wells based on a scale as to depth, I don't know what the other operators have in mind with reference to principal, but I imagine they feel like we do. The question of waste or proper spacing, that the Commission should call a hearing to determine that. The Commission itself can call the hearing, or the operator of any single well in the field or any interested wells, and if there is waste being made by the drilling of unnecessary wells (or a small spacing) in that matter, can be presented at that time. The well spacing and the allocation of allowable can likewise be brought up. I think all operators are agreeable - these particular matters are not known until enough wells in the field. I think the Commission should put a schedule so the operator would know what the allowable would be. If conditions should arise so that this could not be maintained, there would be no bad break in the Commission, in the meantime, more than the small wells being out. This jurisdiction is continuing and all allowables are based according to the conditions.

GOVERNOR DEMPSEY: Gentlemen if that is all who desire to be heard we will bring this meeting to a close.

The Commission will approve Cases 63, 64 and 66. Take this 62 under advisement.

MR. SELLINGER: If it is in order I think it would be good idea if the operators in Eddy County would be allowed to file a statement of information regarding these deep wells. We are planning on drilling a deep well and I don't think anything would come up that would interfere with us if we can send a statement I believe it would help.

GOVERNOR DEMPSEY: We would be happy to have a statement from any of the operators in either Lea or Eddy County.

MR. ATWOOD: In case any of the Gulf people have a copy of any operators files, that statement could be sent to me.

GOVERNOR DEMPSEY: That would be all right to send Colonel Atwood a Statement.

**NOTICE FOR PUBLICATION  
STATE OF NEW MEXICO  
OIL CONSERVATION  
COMMISSION**

The Oil Conservation Commission as provided by law hereby gives notice of the following hearing to be held at Santa Fe, New Mexico, at 10 a. m., May 14, 1945:

**CASE No. 62**

In the matter of the petition of the Gulf Oil Corporation for revision of Statewide Proration Order No. 538 to provide for increasing the oil allowable progressively according to depth for pools producing below 5,000 feet.

**CASE No. 63**

In the matter of the application of Stanolind Oil and Gas Company for an order of approval of the Mascho Area Unit Agreement, Lea County, New Mexico, embracing as the Unit Area:

"In Township 21 South, Range 33 East

All of Section 36

In Township 21 South, Range 34 East

All of Sections 31 and 32

In Township 22 South, Range 33 East

All of Section 1

In Township 22 South, Range 34 East

All of Sections 5 and 6  
Embracing 3535.20 acres."

**CASE No. 64**

In the matter of the application of the Continental Oil Company for an order of approval of the Alston Unit Agreement, Roosevelt County, New Mexico, embracing as the Unit Area:

"In Township 7 South, Range 35 East

All of sections 7, 8, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29 and 30

Section 9-S/2

Section 15-S/2 N/2 and S/2  
Embracing 9069.52 acres."

**CASE No. 65**

In the matter of the petition of F & G Drilling Company for an unorthodox spacing of F & G Drilling Company—Santa Fe No. 1, E½ NENE, 31-18N-8W, Hoshah Field, McKinley County, as follows: 360 feet South of the North line and 40 feet West of the East line of said section 31—said location having been made by surveying error and substantial footage of hole having been made before discovery of error.

**CASE No. 66**

In the matter of the petition of C. W. Colgrove, supplemented by the petition of Charles Schmitz, for an unorthodox spacing for C. W. Colgrove—State well No. 1, in NW¼, Section 31, Township 20S, Range 11W, N.M.P.M., Grant County, New Mexico. Said well is 1450 feet South of the North Line and 50 feet East of the West line of said section—said location having been made by error and substantial hole having been made before discovery of error.

Given under the seal of said Commission at Santa Fe, New Mexico, on April 13, 1945.

**OIL CONSERVATION  
COMMISSION,**

By (Sgd.) JOHN J. DEMPSEY,

SEAL Chairman

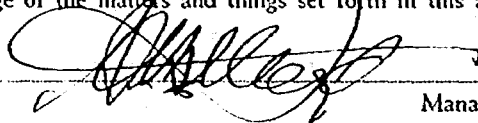
JOHN E. MILES, Member.

Pub April 14, 1945

**Affidavit of Publication**

State of New Mexico, } ss.  
County of Santa Fe }

I, C. B. Floyd, being first duly sworn, declare and say that I am the (Business Manager) (Editor) of the Santa Fe New Mexican, a daily newspaper, published in the English Language, and having a general circulation in the City and County of Santa Fe, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937; that the publication, a copy which is hereto attached, was published in said paper once each week for one time consecutive weeks, and on the same day of each week in the regular issue of the paper during the time of publication, and that the notice was published in the newspaper proper, and not in any supplement, once each week for one time weeks consecutively, the first publication being on the 14th day of April, 1945, and the last publication on the 14th day of April, 1945; that payment for said advertisement has been (duly made), or (assessed as court costs); that the undersigned has personal knowledge of the matters and things set forth in this affidavit.

  
Manager

Subscribed and sworn to before me, this 16th day of April, A.D., 1945  
Anna T. Armadée  
Notary Public.

My Commission expires

June 11, 1946

BILL

time at \$ 6.88

times, \$ \_\_\_\_\_

Tax \$ \_\_\_\_\_

... \$ 6.88

File  
Case 62

**AFFIDAVIT OF PUBLICATION**

State of New Mexico,  
County of Lea

*Thomas L. Summers*  
Publisher

Of the Hobbs Daily News-Sun, a  
daily newspaper published at Hobbs,  
New Mexico, do solemnly swear that  
the clipping attached hereto was  
published once a week in the regular  
and entire issue of said paper, and  
not in a supplement thereof for a

period of one issue  
weeks

beginning with the issue dated \_\_\_\_\_

April 16, 1945

and ending with the issue dated \_\_\_\_\_

*Thomas L. Summers*  
Publisher.

Sworn and subscribed to before me

this 16th day of \_\_\_\_\_

April, 1945

*Blanche Springer*  
Notary Public.

My commission expires \_\_\_\_\_

June 15, 1946

(Seal)

This newspaper is duly qualified  
to publish legal notices or ad-  
vertisements within the mean-  
ing of Section 3 Chapter 167,  
Laws of 1937, and payment of  
fees for said publication has  
been made.

(April 16)  
**NOTICE FOR PUBLICATION**  
**STATE OF NEW MEXICO**  
**OIL CONSERVATION**  
**COMMISSION**  
The Oil Conservation Commis-  
sion as provided by law hereby  
gives notice of the following hear-  
ing to be held at Santa Fe, New  
Mexico, at 10 A. M., May 14, 1945.  
**CASE NO. 62**  
In the matter of the petition  
of the Gulf Oil Corporation  
for revision of Statewide Pro-  
duction Order No. 538 to pro-  
vide for increasing the oil al-  
lowable progressively accord-  
ing to depth for pools produc-  
ing below 5000 feet.  
Given under the seal of said  
Commission at Santa Fe, New  
Mexico on April 13th, 1945.  
Oil Conservation Commission  
By John J. Dempsey,  
Chairman.  
John E. Miles,  
Member.  
(SEAL)



File:  
Case 62

## PROOF OF PUBLICATION

STATE OF NEW MEXICO }  
County of Eddy } ss.

A. L. BERT, being duly sworn deposes and says that he is the editor of  
THE ARTESIA ADVOCATE, a newspaper published in Artesia, Eddy  
County, New Mexico, that the notice of

a copy of which is hereto attached was first published in said newspaper  
in its issue dated  
and was published in the weekly issue of said newspaper, and not in any  
supplement, thereafter for the full period of  
secutive weeks, the last publication thereof being in the issue dated

### NOTICE FOR PUBLICATION STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

The Oil Conservation Commis-  
sion as provided by law hereby  
gives notice of the following hear-  
ing to be held at Santa Fe, New  
Mexico, at 10 A. M., May 14, 1945:

#### CASE NO. 62

In the matter of the peti-  
tion of the Gulf Oil Corpora-  
tion for revision of Statewide  
Proration Order No. 538 to  
provide for increasing the oil  
allowable progressively ac-  
cording to depth for pools pro-  
ducing below 5000 feet.

Given under the seal of Said  
Commission at Santa Fe, New  
Mexico on April 13th, 1945.

OIL CONSERVATION  
COMMISSION  
(SEAL) By (SGD.)  
JOHN J. DEMPSEY,  
Chairman.  
JOHN E. MILES,  
Member.

16-10

A. L. Bert

Subscribed and sworn to before me on

4-26-45

Leahue D. Cocker  
Notary Public

my Commission 12/24/45  
Publishers Fees \$2.24

C E R T I F I C A T E

I, Vastie Fowler, Reporter for the Oil Conservation Commission, hereby certify that I took down the statements made at the hearing held before the Commission on May 14, 1945, in the Matter of the Petition of the Gulf Oil Corporation for revision of Statewide Proration Order No. 538 to provide for increasing the oil allowable progressively according to depth for pools producing below 5000 feet, and that the foregoing transcript constitutes, to the best of my knowledge and belief, a true and correct copy of all the oral statements and exhibits presented before the Commission.

Vastie Fowler

Vastie Fowler, Reporter.

Return to file 2  
Deep allowable

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

October 17, 1945

Mr. C. B. Williams  
The Texas Company  
P. O. Box 1720  
Fort Worth 1, Texas

Re: Case 62 - Allowable for deep pools.

My dear Charlie:

Your joint letter to Governor Dempsey and Commissioner of Public Lands Miles has come to the writer's attention.

Mr. Glenn Staley, Chairman of the deep well advisory committee, told the writer on October 11 that he was then sending out the committee's recommendation. Doubtless you have received this recommendation by now; however, enclosed is a copy of the one which I received here on October 13.

With kindest personal regards.

Very truly yours,

Chief Clerk & Legal Advisor

CHL:HS

cc. Dempsey  
Miles  
Staley

C  
O  
P  
Y

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

C  
O  
P  
Y

October 17, 1945

MEMORANDUM TO GOVERNOR JOHN J. DEMPSEY:

Re: Case 62 - Allowable for deep pools.

The attached communication from Mr. C. B. Williams of The Texas Company and member of your deep well advisory committee is in the nature of a protest. He states he has not received a copy of the committee's recommendation. Having not received one either I called Mr. Staley's attention to this when he called me on long distance telephone on October 14, stating he was sending out mimeographed copies of the committee's recommendation. Mr. Williams has no doubt by now received a copy; however, I have today sent him by airmail a copy of the recommendation I received in the office on October 13.

Most of the matters which Mr. Williams recommends in his minority report — such as a larger proration unit and a bonus allowable for the first four wells in new deep fields — were not within the Gulf's petition and therefore not within the scope of the published call.

OIL CONSERVATION COMMISSION

By

Chief Clerk & Legal Adviser

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

C  
O  
P  
Y

October 17, 1945

MEMORANDUM TO COMMISSIONER OF PUBLIC LANDS JOHN E. MILES:

Re: Case 62 - Allowable for deep pools.

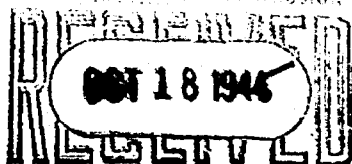
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Most of the matters which Mr. Williams recommends in his minority report — such as a larger proration unit and a bonus allowable for the first four wells in new deep fields — were not within the Gulf's petition and therefore not within the scope of the published call.

OIL CONSERVATION COMMISSION

By

Chief Clerk & Legal Adviser



October 15, 1945

Re: New Mexico Oil Conservation Commission  
Case No. 62  
Allowable for Deep Pools at Various  
Depths

Hon. John J. Dempsey, Chairman  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Hon. John E. Miles, Member  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Gentlemen:

Our representative, Mr. A.E. Willig, serving as an alternate for the writer attended the meeting of the Advisory Committee appointed by your honorable body to consider "WHAT SHOULD BE THE ALLOWABLE FOR DEEP POOLS AT VARIOUS DEPTHS" at Santa Fe on September 28, 1945. We have not as yet received a copy of the recommendation which was to be prepared by a committee of three to represent the outcome of this meeting, which has no doubt been furnished you by this time. Since a shorthand reporter was not available to set down the entire proceedings of the Advisory Committee's discussions we presume no complete transcript of the meeting will be furnished you. Consequently, the recommendation of the Committee furnished you may not indicate that our representative and others of the Committee did not vote for nor approve the recommendations finally adopted by the group. We are, therefore, asking your indulgence in submitting directly to you this minority report in which we are inviting other members of the Advisory Committee to join us.

At the very outset of the meeting in Santa Fe there seemed to exist some confusion as to the interpretation of the instructions under which the Advisory Committee was to act. There was a difference of opinion as to just how far the Committee could go in their discussions and recommendations concerning "WHAT SHOULD BE THE ALLOWABLE FOR DEEP POOLS AT VARIOUS DEPTHS"? It was averred by some of the Committee members and apparently became the consensus of the

Hon. John J. Lunsby  
Hon. John A. Miles

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10-1545

majority that the deliberations of the Committee were to be limited only to the number of barrels per day to be assigned to wells of various depths below 5000' relative to allowables assigned to wells of depths less than 5000', without regard to acreage or spacing of wells. This opinion among the Committee members persisted in spite of the announcement made by the Gulf representative that their original plan had been modified so as to permit the consideration of acreage in the allocation of allowables.

Our representative maintained that spacing and allocation of allowables on the basis of acreage assignment could and should be considered by the Committee. Because the majority of the Committee construed the instructions to the effect that no consideration be given to these important factors, none was given. We consider the proper recognition of the numerous other factors, among them the spacing and recoverable reserves in each individual reservoir, of such importance that we would be remiss in our duties as a Committee member if we failed to take this opportunity again to call these matters to your attention.

In our letter of June 20, 1945, we furnished your Commission with the average cost of wells varying in depth from 4500' to 7200' which we had experienced in numerous wells drilled in west Texas and New Mexico. These costs it will be recalled are at considerable variance with the costs theretofore submitted and which were incorporated in the factors used at the Committee's meeting on September 26. For your ready reference we set these costs out below:

<u>DEPTH</u>	<u>AVERAGE COST</u>
4500'	\$ 31,000.00
5050'	32,000.00
5200'	31,000.00
7200'	33,000.00

The above costs cover drilling, surface and sub-surface and lease equipment for flowing wells.

It should be noted that the depth of wells alone does not govern drilling costs. Relative density and hardness and the thickness of formations encountered contribute priced fully toward the cost of wells. Allowables based upon depth alone would therefore not necessarily represent or even approach a fair distribution of values among wells. And upon depth alone allowables for 7200' wells in one field might be more or less than 7200' wells in another field are fairly entitled to.

In order to give proper consideration to the important factors of spacing and recoverable reserves in each individual reservoir it is necessary to have pertinent physical characteristics of the reservoir which may be obtained only after a number



Hon. John J. Dempsey  
Hon. John D. Miles

-3-

10-1545

of wells have been completed in such reservoir. It is for this reason that we have consistently maintained that, until further development of deeper areas in New Mexico has furnished these important data, no general order fixing allowables for deep wells on depth alone should be adopted.

To serve as an inducement for the development of new areas and yet to discourage the drilling of unnecessary wells, we concur in and recommend the application of a modified form of the present "Bonus Discovery Allowable" Order No. 373 of the New Mexico Oil Conservation Commission adopted September 8, 1944, with the following recommended modifications:

1. The assignment of daily top allowable rates for the discovery well of each pool is now set out in the aforementioned order.
2. The application of such top daily allowables to the next subsequent 4 wells located in the same reservoir and completed within the 18 months period next following the completion of the discovery well.
3. Prior to the expiration of the 18 months bonus discovery allowable period, the Commission will call a hearing to determine the proper spacing, proration unit, and regular top allowable to be assigned to all wells in each such newly discovered reservoir. The regular top allowable for each newly discovered reservoir so determined to be maintained thereafter in a fixed ratio proportionate to the top allowable assigned from time to time to wells 5000' or less in depth.
4. All bonus discovery allowances and allowables fixed after individual field hearings shall be subject to the prevention of avoidable physical waste.

We are convinced that the careful consideration of the important physical characteristics of each reservoir is the only sound basis for determining fairly the allowable of each field. We are confident that your honorable body will bear with us and give this minority report the consideration to which it deserves.

Respectfully,  
Very truly,

WJD:mj

LEA COUNTY OPERATORS COMMITTEE  
Drawer I

Hobbs, New Mexico

October 10, 1945

Mr. A. E. Willig  
The Texas Company  
Fort Worth, Texas

Re: Case 62 - Allowable for Deep Pools

Dear Sir:

I have your letter of October 6, in which you call attention to several errors and omissions in the minutes of the Committee Meeting held in Santa Fe, September 28, 1945.

The statement on page three that "the factors as submitted in the original Gulf proposal were found to be an average of the factors presented by the Texas Co., Shell, Humble, Atlantic, Phillips and Continental" is not correct as factors were not submitted by some of the companies, including the Texas Company. In discussing the matter with the two committee members who assisted in writing the minutes, it was their opinion that the use of the term "factors" instead of "cost figures" left an erroneous impression.

Technically, the term "unanimous" should not have been used in reporting the results of voting on the two motions. This point was discussed at length and one authority consulted by the committee members working up the minutes stated that when all of the votes cast were in favor of, or against a motion, the vote was "unanimous".

The results of the voting for the two motions were as follows:

19 members of the committee were present.  
2 members of the committee, the Chairman and Secretary, did not vote, leaving 17 members to participate.

Results of motion to set a minimum allowable of 25 bbls. below which no well should be cut by reason of extra allowable to deep wells; was 15 for, none against, 2 not voting.

Results of motion to adopt the Gulf Oil Company factors to be used in determining allowable for deep wells at various depths were as follows; 14 in favor, none against, leaving 3 not voting.

10-10-45

-2-

A.E. Willig

After the Committee Meeting adjourned, two members of the committee appointed stated that they would not be able to assist in making up the recommendations of the committee to be submitted to the New Mexico Oil Conservation Commission. Therefore, it was decided that the Chairman would use such members of the committee as would be available in Hobbs. This procedure was followed.

In order that all members of the Committee may have knowledge of the omissions and corrections in the writing up of the minutes, I am taking the liberty of supplying all members with a copy of your letter and my reply, also a copy of the committee report to the Oil Conservation Commission.

Very truly yours,

GLENN STALEY  
Chairman

GS/eg

October 6, 1945

NEW MEXICO OIL CONSERVATION COMMISSION  
ADVISORY COMMITTEE  
Allowable For Deep Pools At Various Depths

Mr. Glenn Staley  
Lea County Operators Committee  
Hobbs, New Mexico

Dear Sir:

I am just in receipt of the minutes of the Oil Conservation Commission Advisory Committee meeting which was held at Santa Fe, New Mexico, on September 28, 1945.

Since a shorthand secretary was not available to make a complete transcript of this meeting, we understand why the minutes covering the three hour and forty-five minute meeting are so brief. However, the minutes also contain several errors and omissions which we would like to call to your attention with the request that corrections be made.

On Page 3 it is stated that "the factors as submitted in the original Gulf proposal were found to be an average of the factors presented by The Texas Company, Sholl, Humble, Atlantic, Phillips and Continental". The Texas Company has not at any meeting nor did they at this meeting submit any "factors". The Texas Company did, however, submit to the Commission and before the Advisory Committee meeting on September 28 its experience costs of drilling wells between the depths of 4500' and 7200'. These costs as we recall them were materially lower than the costs submitted by the Gulf and other Companies.

Of the 28 appointed Committee members, the minutes indicate that 19 were present. We recall that a count was made of each vote taken and we believe the minutes in fairness should reflect the total number voting on each proposition. Even though the voting in each case reported in your minutes may be termed "unanimous", we recall that all representatives did not vote for each proposition.

I also recall that the last proceedings consisted of the Chairman appointing a Committee of three, Messrs. Edgar Kraus, Raymond Lamb and E. G. Gallagher to draw up formal recommendations of the Committee for submission to the Conservation Commission. This latter

Mr. Glenn Staley

-2-

10-6-45

action is not included in the minutes of the meeting.

We feel sure that on a matter of this importance you will wish to correct and complete the minutes in accordance with the above suggestions.

Yours very truly,

THE TEXAS COMPANY  
C. B. Williams  
Division Manager

By:

A. E. Willig  
Division Engineer

AEW-ESP

*Copy  
Original Mailed  
Oct 1st. 1945  
But not sent*

*11-1-45  
registered 10-15-45*

# LEA COUNTY OPERATORS COMMITTEE

DRAWER I

HOBBS, NEW MEXICO

October 10, 1945

To New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Gentlemen:-

Re: Case 62 - Allowable for deep pools

In accordance with your letter of September 18, 1945, the undersigned called a meeting of the committee. This meeting was held at the La Fonda Hotel in Santa Fe, New Mexico on September 28, 1945, at 2:00 P. M. A list of the persons present, absent or represented by an alternate is as follows:

James M. Murray	Me-Tex Supply	Hobbs, N. M.	Absent
S. G. Sanderson	Gulf Oil Corp.	Tulsa, Okla.	Alternate
E. G. Gallagher		Hobbs, N. M.	Alternate
Harve H. Mayfield	Magnolia Pet. Co.8	Kermit, Texas	
Dan C. Williams, Jr.		Dallas, Texas	
C. B. Williams	The Texas Co.	Fort Worth, Texas	Alternate
A. E. Willig		Fort Worth, Texas	
Hiram M. Dow	Attorney	Roswell, N. M.	Absent
Col. J. D. Atwood	Gulf Attorney	Roswell, N. M.	Present
Harry Leonard	Leonard Oil Co.	Roswell, N. M.	Absent
D. D. Bodie	Cities Service	Hobbs, N. M.	Present
Weldon Brigance	Rowan Drlg. Co.	Fort Worth, Texas	Present
Hugh Sawyer	N. M. Oil & Gas Ass'n.	Roswell, N. M.	Absent
Francis Wilson	Wilson Oil Co.	Santa Fe, N. M.	Present
Bert Aston	Aston & Fair	Roswell, N. M.	Absent
Van Welch	F.W. & Y. Oil Co.	Artesia, N. M.	Present
Glenn Staley	Lea Co. Operators	Hobbs, N. M.	Present
C. P. Roripaugh	Shell Oil Co.	Midland, Texas	Present
C. A. Daniel	Phillips Pet.	Okla. City, Okla.	Present
Barney Cockburn		Artesia, N. M.	Absent
Paul B. English		Artesia, N. M.	Absent
Sam Sanders	Sanders Bros.	Artesia, N. M.	Present
Foster Morrell	U.S.G.S.	Roswell, N. M.	Absent
W. E. Scott	Buffalo Oil Co.	Artesia, N. M.	Present
Raymond Lamb	Continental Oil Co.	Hobbs, N. M.	Present
John House	Humble Oil Co.	Midland, Texas	Alternate
R. S. Dewey		Midland, Texas	
C. P. Miller	Penrose, Inc.	Hobbs, N. M.	Alternate
David Donaghue		Fort Worth, Texas	
Lloyd Beidick	Samedan Oil Co.	Ardmore, Okla.	Alternate
A. A. Kemnitz		Hobbs, N. M.	Absent
Fred Turner	Stanolind Oil & Gas	Midland, Texas	Present
George Card	Atlantic Oil & Rfg. Co.	Fort Worth, Texas	Present
Edgar Kraus		Dallas, Texas	

Visitors:  
Chas. E. Yager  
John M. Kelly  
J. O. Seth

T. P. Coal & Oil Co.  
Consulting Engineer  
Attorney

Fort Worth, Texas  
Roswell, N. M.  
Santa Fe, N. M.

The Committee's report is as follows:

1. That the committee recommend to the commission that the factors submitted by the Gulf at the hearing May 14, 1945, Re: Case No. 62, be considered as a maximum, and be used in determining the allowable for deep wells in Lea and Eddy Counties, New Mexico.

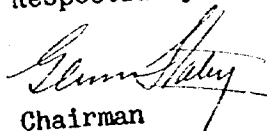
The factors are as follows:

<u>Depth Range</u>	<u>Factor</u>
To 5000'	1.00
5000-6000'	1.33
6000-7000'	1.77
7000-8000'	2.33
8000-9000'	3.00
9000-10,000'	3.77
10,000-11,000'	4.67
11,000-12,000'	5.67
12,000-13,000'	6.77
13,000-14,000'	8.00
14,000-15,000'	9.33

Top unit allowables for each range depth shall be determined by multiplying the normal unit allowable by the proportional factor for each depth range as set out in the table herein above.

2. The Committee recommends that a minimum allowable of 25 barrels of oil daily for wells in Lea and Eddy Counties below which non-marginal wells will not be cut, due to extra allowable to wells drilled below 5000'.

Respectfully submitted

  
Chairman

MINUTES OF OIL CONSERVATION COMMISSION ADVISORY COMMITTEE

On September 13, 1945 the Oil Conservation Commission named an advisory committee for the purpose of advising the Commission upon the following,

"What should be the Allowable for Deep Pools at Vacuum Depths?"

On September 18, 1945, the following letter was received from the Conservation Commission:

Mr. Glenn Staley  
Lea County Operators  
Hobbs, New Mexico

Dear Sir:-

Re: Case 62 - Allowable for deep pools.

The Commission desires that you call a meeting at the earliest possible time of the Commission's Advisory Committee, and have the Committee to organize by electing a chairman and secretary in order that the Committee may proceed upon the point - "What Should be the allowable for deep pools at various depths?"

Very truly yours,

Carl B. Livingston  
Chief Clerk & Legal Adviser

The following persons were named on the above committee:

James K. Murray, Sr. Hobbs, N. M.	Hugh Sawyers Roswell, N. M.	P. B. English Artesia, N. M.	C. B. Williams Fort Worth, Tex.
Francis Wilson Santa Fe, N. M.	Sam Sanders Artesia, N. M.	Hiram M. Dow Roswell, N. M.	Bert Aston Roswell, N. M.
Foster Herrell Roswell, N. M.	S. G. Sanderson Tulsa, Okla.	Van Welch Artesia, N. M.	W. E. Scott Artesia, N. M.
J. D. Atwood Roswell, N. M.	Glenn Staley Hobbs, N. M.	Raymond Lamb Hobbs, N. M.	Harry Leonard Roswell, N. M.
C. C. Röripaugh Midland, Texas	John House Midland, Texas	D. D. Bodie Hobbs, N. M.	C. A. Daniels Oklahoma City
C. P. Miller Hobbs, N. M.	Weldon Brigance Fort Worth, Tex.	Barney Cockburn Artesia, N. M.	Lloyd Beddick Ardmore, Okla.
Fred Turner Midland, Texas	George Card Fort Worth, Tex.	Edgar Kraus Dallas, Texas	Harve H. Mayfield Kermit, Texas

In accordance with the Commission instructions a meeting of the committee was called for September 23, 1945, 2:00 P. M., La Fonda Hotel, Santa Fe, New Mexico.

The meeting was called to order promptly at 2:00 P. M., September 28.



The following list indicates the members present, absent or represented by an alternate:

James H. Murray	Ho-Tox Supply	Hobbs, N. M.	Absent
S. G. Sanderson	Gulf Oil Corp.	Tulsa, Okla.	Alternate
E. G. Gallagher		Hobbs, N. M.	
Harvo H. Hayfield	Magnolia Pet. Co.	Kermit, Texas	Alternate
Dan C. Williams, Jr.		Dallas, Texas	
C. B. Williams	The Texas Co.	Fort Worth, Texas	Alternate
A. E. Willig		Fort Worth, Texas	
Hiram H. Dow	Attorney	Roswell, N. M.	Absent
Col. J. D. Atwood	Gulf Attorney	Roswell, N. M.	Present
Harry Leonard	Leonard Oil Co.	Roswell, N. M.	Absent
D. D. Bodie	Citios Service	Hobbs, N. M.	Present
Weldon Brigance	Rovan Drlg. Co.	Fort Worth, Texas	Present
Hugh Sawyer	N. M. Oil & Gas Ass'n.	Roswell, N. M.	Present
Francis Wilson	Wilson Oil Co.	Santa Fe, N. M.	Absent
Bert Aston	Aston & Fair	Roswell, N. M.	Present
Van Welch	F. W. & Y. Oil Co.	Artesia, N. M.	Absent
Glenn Staley	Loa Co. Operators	Hobbs, N. M.	Present
C. P. Roripaugh	Shell Oil Co.	Midland, Texas	Present
C. A. Daniel	Phillips Petr.	Okla. City, Okla.	Present
Barney Cockburn		Artesia, N. M.	Absent
Paul B. English		Artesia, N. M.	Absent
Sam Sanders	Sanders Bros.	Artesia, N. M.	Present
Foster Morrell	U.S.G.S.	Roswell, N. M.	Absent
W. E. Scott	Buffalo Oil Co.	Artesia, N. M.	Present
Raymond Lamb	Continental Oil Co.	Hobbs, N. M.	Present
John Houso	Humble Oil Co.	Midland, Texas	Alternate
R. S. Dowey		Midland, Texas	
C. P. Miller	Penrose, Inc.	Hobbs, N. M.	Alternate
Davis Donaghue		Fort Worth, Texas	
Lloyd Beddick	Samodan Oil Co.	Ardmore, Okla.	Alternate
A. A. Kennitz		Hobbs, N. M.	
Fred Turner		Midland, Texas	Absent
George Card	Stanolind Oil & Gas	Fort Worth, Texas	Present
Edgar Kraus	Atlantic Oil & Rfg. Co.	Dallas, Tex.	Present

#### Visitors:

Chas. E. Yager	T. P. Coal & Oil Co.	Fort Worth, Texas
John H. Kelly	Consulting Engineer	Roswell, N. M.
J. O. Soth	Attorney	Santa Fe, N. M.

Mr. Edgar Kraus was appointed temporary chairman and Mr. Raymond Lamb appointed temporary secretary.

The temporary chairman asked that the list of members be read.

Mr. Staley was elected permanent chairman by acclamation.

Mr. Lamb was elected permanent secretary by acclamation.

The purpose for which the meeting was called was stated.

Letters from various members who were unable to attend the meeting were read.

After considering the commissions instructions to the committee it was

agreed that only the allowables for deep pools at various depths should be considered.

The original proposal of the Gulf which dealt with additional oil allowable for production from wells deeper than 5000' was read and discussed.

Its relationship to allowable for non-marginal wells shallower than 5000' was discussed.

It was the opinion of the committee that measures should be taken to protect the allowable for shallower wells and that a minimum point should be selected.

Mr. Brigance made the following motion: "Minimum allowable of 25 barrels oil daily for wells in Lea and Eddy Counties below which non-marginal wells will not be cut due to extra allowable to wells drilled below 5000'."

Mr. Aston seconded the above motion.

The Committee unanimously agreed to accept the above motion.

Drilling costs of wells below 5000' and the pay out of these wells were discussed at length.

The factors as submitted in the original Gulf proposal were found to be an average of the factors presented by the Texas Co., Shell, Humble, Atlantic, Phillips and Continental.

A joint wire from Mr. Francis C. Wilson and Mr. Neville Penrose stating that in their opinion, final recommendation for deep well allowable should not be made until after the first of the year, due to unsettled conditions. ✓

Mr. Roripaugh made the following motion, "That the committee recommend to the commission that the factors submitted by the Gulf at the hearing May 14, 1945, Re: Case No. 62, be considered as a maximum and be used in determining the allowable for deep wells in Lea and Eddy Counties, New Mexico." Mr. Dawcy seconded the above motion.

The committee unanimously agreed to make the above recommendation to the commission.

Mr. Kraus made a motion that chairman prepare and submit the findings of this committee to the New Mexico Oil Conservation Commission.

Mr. Brigance seconded the above motion. The motion carried unanimously.  
The meeting was adjourned at 5:45 P. M.

Respectfully submitted

*Edwin Dittley*  
Chairman

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

May 31, 1945

MEMORANDUM TO COMMISSIONER OF PUBLIC LANDS  
JOHN E. MILES:

Re: Case 62 - Application Gulf Oil Corporation  
to revise State-wide Proration Order 538 so  
as to increase allowables for deep pools on  
graduated scale.

Attached please find the following matters in  
connection with the above captioned case which was heard on  
May 14:

Letter from the Gulf Oil Corporation dated May 28,  
enclosing: revised State-wide proration order, along the lines  
mentioned at the hearing, and on a separate sheet "Suggested  
addition to paragraph 1-A of sample order to provide for 80-  
and 160-acre spacing for deep wells in New Mexico".

Regarding the latter matter I have answered Mr. Gray  
of the Gulf upon the matter of a portion of the language used.  
This for legal reasons and consistency. A copy of said letter  
is also annexed.

OIL CONSERVATION COMMISSION

BY:

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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May 31, 1945

MEMORANDUM TO GOVERNOR DEMPSEY:

Re: Case 62 - Application Gulf Oil Corporation  
to revise State-wide Proration Order 538 so  
as to increase allowables for deep pools on  
graduated scale.

Attached please find the following matters in  
connection with the above captioned case which was heard on  
May 14:

Letter from the Gulf Oil Corporation dated May 28,  
enclosing: revised State-wide proration order, along the lines  
mentioned at the hearing, and on a separate sheet "Suggested  
addition to paragraph 1-A of sample order to provide for 80-  
and 160-acre spacing for deep wells in New Mexico".

Regarding the latter matter I have answered Mr. Gray  
of the Gulf upon the matter of a portion of the language used.  
This for legal reasons of consistency. A copy of said letter  
is also annexed.

OIL CONSERVATION COMMISSION

BY

Chief Clerk & Legal Adviser

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

May 31, 1945

Mr. Lloyd L. Gray  
Chief Production Engineer  
Gulf Oil Corporation  
P. O. Box 661  
Tulsa 2, Oklahoma

Re: Case 62 - Application Gulf Oil Corporation to revise  
State-wide Proration Order 538 so as to increase  
allowables for deep pools on graduated scale.

Dear Lloyd:

Reference is made to your letter of May 28, submitting a revised  
sample order along the lines mentioned at the case hearing before the  
Commission on May 14, and a separate sheet entitled "Suggested addition  
to paragraph 1-A of sample order to provide for 80- and 160-acre spacing  
for deep wells in New Mexico".

Concerning the latter matter please permit me to point out the  
following:

The meaning is, to me, sufficiently clear but I believe some of  
the language should be changed. I refer to that part of the suggested  
paragraph "one well" to so many acres "may be permitted". The Oil Con-  
servation Act, Section 12, does not authorize the Commission to limit  
the number of wells to any proration unit. It does provide, however,  
that for the purpose of precluding the necessity of drilling unnecessary  
wells the Commission may prorate the allowable to proration units the  
size of which shall be approximately what one well would drain. There-  
fore, on all proration orders the allocation has always been to the  
proration unit, leaving the number of wells upon such unit to the  
individual decision of the particular operator. What I think you intended  
to say was simply that the allocation shall be to a tract of a certain  
size for the purpose of deep wells.

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Lloyd L. Gray

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5-31-45

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I was the author of the existing State-wide Proration Order. The Gulf's proposed revised State-wide proration order follows the language of said present order closely and adapts that order to the deep drilling matter giving an increased allowable on a graduated scale. In both the existing State-wide order and the Gulf's proposed order the allocation is always to the proration unit with no limitation to the number of wells.

While no one would probably ever desire to drill a second well on a ~~deep well~~ proration unit, yet I do think the language of the paragraph on the separate sheet proposing an increased size of proration unit should be consistent.

With kindest personal regards.

Very truly yours,

Chief Clerk & Legal Adviser

CEL:MS

cc Governor J. J. Dempsey  
John E. Miles



PETROLEUM AND ITS PRODUCTS

## GULF OIL CORPORATION

P. O. BOX 661 · TULSA 2, OKLAHOMA

GYPSY  
DIVISION

May 28, 1945

Oil Conservation Commission  
Santa Fe, New Mexico

Gentlemen:

Reference is made to Case 62, application of the Gulf Oil Corporation to replace state-wide proration Order No. 538 for a new order that would designate and define top unit allowables for each of several ranges of depths, and to a hearing of this Case before the Commission on May 14, 1945. In accordance with the request of the Commission I have corrected the Sample Order, which was submitted with our letter of April 9 transmitting the Gulf application, and enclose three copies herewith. These corrections are:

- (1) In paragraph 1 (a) the distance of a well to be drilled from any unit boundary line is changed from 300' to 330'.  
(This was a typographical error.)
- (2) Paragraph 2 (e) was changed so that the depth classification is determined from the first well in the pool instead of from the average of all wells. This revision was made at the suggestion of a number of operators and the change is satisfactory to Gulf.

Prior to the hearing several operators objected to the plan as submitted by Gulf because it did not permit wider spacing for the deeper wells. Gulf, on the other hand, objected to the inclusion of a spacing program other than 40 acres because it was doubted that all wells greater than 5000' in depth would need spacing greater than 40 acres and since it was believed the broader spacing, if adopted, should be based on a study of the individual pool rather than making it automatic with depth. Another serious objection was that an attempt to bring in spacing would unduly complicate the rather simple formula of allocation which has been used in the past and the rather simple modification for the depth factor which was suggested in the Sample Order.

It is recognized that under certain conditions it would probably be desirable to have a spacing program greater than 40 acres, particularly when the value of the anticipated recovery from 40 acres approaches the cost of developing. For this reason I am attaching three copies of a suggested addition to paragraph 1 (a) of the Sample Order. Gulf will have no objection to the inclusion of this paragraph and I believe it will probably eliminate the objections expressed at the hearing by Mr. Fillig and Mr. Williams of the Texas Company and Mr. Hubbard of the Humble Oil & Refining Company.





DATE 5-28-45

FROM Lloyd L. Gray

TO Oil Conserv. Comm.

SHEET NO. 2

If there is anything further that I or any member of this organization can do to assist in this matter, either here or in New Mexico, I shall be glad if you will advise me. This matter is one of vital interest to Gulf in New Mexico and we shall be glad to lend any assistance which would tend to an early decision.

Yours very truly,

A handwritten signature in cursive script that reads "Lloyd L. Gray".

Lloyd L. Gray  
Chief Production Engineer

LLG:MDW

Encls

SUGGESTED ADDITION TO PARAGRAPH 1-A OF  
SAMPLE ORDER TO PROVIDE FOR 80- AND 160-  
ACRE SPACING FOR DEEP WELLS IN NEW MEXICO

Provided, that subsequent to discovery and after hearing and approval of plan by the Commission, pools having a depth classification of 7000 feet or more may be permitted one well to 80 acres and further providing that pools having a depth classification of 10,000 feet or more may be permitted one well to 160 acres and for this purpose section 2(c) may be modified. In no event, however, shall the additional 40-acre tract making the 80 acres be allowed more than 50% of the allowable of a 40-acre tract for the depth classification and further providing that the three additional 40-acre tracts making the 160 acres be allowed more than  $33\frac{1}{3}\%$  of the allowable of a 40-acre tract for the depth classification.

SAMPLE ORDER

1. (a) The unit of proration shall consist of 40 acres or lot in accordance with the legal sub-divisions of the United States Public Lands Surveys, on which is at least one producing well. No well shall be drilled closer to any unit boundary line than 550 feet or less than 660 feet from any other well except upon petition, notice and hearing as provided by law, provided such unorthodox well location will create neither waste nor hazards conducive to waste.

(b) A marginal unit is a unit that will not produce the top unit allowable for the pool.

(c) A non-marginal unit is a unit that will produce the top unit allowable for the pool.

(d) The top unit allowables in accordance with various depth ranges to be used for the purpose of making allocations to the respective pools and for the purpose of distributing or prorating the pool allocations to the units within the pool, except for those pools having proration plans of their own, shall be as defined in the computation for making allocations to pools as set forth in Section 2 hereinbelow.

(e) The normal unit allowable to be used for the purpose of computing the top unit allowables for each of several ranges of depth shall be as defined in Section 2 (c) hereinbelow.

(f) The proration month shall be the calendar month which shall begin at 7 A.M., on the first day of such month.

2. (a) The total allowable for pools in Lea, <sup>Chaves</sup> and Eddy, Counties shall be in terms of total barrels daily for each calendar month and shall be allocated to the respective pools by the following computation.

(b) From the total allowable shall be deducted the sum of the allowables for all marginal units. The remainder shall be divided among the non-marginal units in a proportion as set forth in Section 2 (c).

(c) Top unit allowables shall be calculated for each of several ranges of depth in the following proportions:

0'- 5,000'	1.00
5,000'- 8,000'	1.33
8,000'- 7,000'	1.77
7,000'- 8,000'	2.33
8,000'- 9,000'	3.00
9,000'-10,000'	3.77
10,000'-11,000'	4.66
11,000'-12,000'	5.33
12,000'-13,000'	6.77
13,000'-14,000'	8.00
14,000'-15,000'	9.33

*Substitute  
Rich's figures*

The calculation of the respective top unit allowables for each depth range shall be made in the following manner: Multiply the number of non-marginal units within each depth range by the above corresponding proportional factors. <sup>(subject to 5)</sup> Add all of the products so obtained. Divide this total of the products into the total allocation for all non-marginal units. The quotient thus obtained shall be the normal unit allowable. Top unit allowables for each range of depth shall then be determined by multiplying the normal unit allowable by the proportional factor for each depth range as set out in the table hereinabove: any fraction of a barrel shall be regarded as a full barrel for both normal and top unit allowables.

*do not underline*

*Pool's  
allocation  
is based on  
this form*

(d) The top unit allowables so determined in Section 2 (c) shall be assigned to the respective pools in accordance with each pool's depth range. The sum of all marginal units plus the sum of the top allowables for all non-marginal units in each pool shall constitute the allocation for each pool.

✓  
(e) The depth classification for each pool shall be determined from the depth of the first well measured to the top of the producing formation. In event the casing is set into or through the producing formation, the depth to the casing shoe or the top perforation in the casing, whichever is the highest, shall be the assumed top of the formation for purposes of determining the depth. When such depth classification for a pool has been established, all non-marginal units in that pool shall have the same top unit allowable.

(f) Thereupon the allocation to each pool shall in turn be prorated or distributed to the respective units in each pool in accordance with the proration plan of the particular pool where any such plan exists. Where no proration plan for any pool exists, then the pool allocation shall be distributed or prorated to the respective marginal and non-marginal units therein as determined hereinabove.

(g) At the beginning of each calendar month, the distribution or proration to the respective units in each pool shall be changed in order to take into account all new wells which have been completed and were not in the proration schedule during the previous calendar month. Where any well is completed between the first and sixteenth of the calendar month, its unit shall be assigned an allowable, in accordance with whether such unit is marginal or non-marginal, beginning at 7 A.M., on the sixteenth and for the remainder of that calendar month.

✓✓  
3. <sup>Per 10</sup> Fields in counties, other than <sup>Lea, Eddy, and Chaves</sup> ~~Lea and Eddy~~, shall be permitted to produce their market demand as long as such can be done without waste.

4. The Order herein replaces Order No. 538, State-Wide Proration Order, and Order No. 413, Eddy County Fields Proration Order. Order No. 235,

the Proration Schedule Order, is retained as supplemental to the order herein.

*put* { 5. Reservation of jurisdiction of this cause is made herein for the purpose of promulgating a further order authorizing and directing any common purchaser to take or purchase 100 per cent from wells which produce only 10 barrels or less daily of crude petroleum, in lieu of ratable purchases or takings, in order to preclude premature abandonment of such wells.

*Change* { That this order shall become effective on the first day of the proration month next succeeding the month in which said Order is adopted.

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

SAMPLE CALCULATION OF ALLOCATION TO LEA AND EDDY COUNTIES

Assume: Total State allocation to Lea and Eddy Counties on basis of calculated non-marginal allowable plus marginal well allowable—100,000 bbls.

Total allocation to Lea and Eddy Counties, non-marginal units—— 76,700 bbls.

Total allocation to Lea and Eddy Counties, marginal units—— 23,300 bbls.

Total——100,000 bbls.

$$\text{Normal Unit Allowable} = \frac{76,700}{1709.20} = 45 \text{ B/D}$$

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Pool	Depth Classi- fication	Total Proration Units	No. of Marginal Units	Allocation To Marginal Units	No. of Non- Marginal Units	Depth Factor	Depth Factor Times No. of Non-Marginal Units (6) x (7)	Top Unit Allowable	Pool Allowable (6) x (9) Plus (5)
A	0- 5000'	1,500	770	18,600	730	1.00	730.00	45	51,450
B	5000- 6000'	130	30	1,200	100	1.53	153.00	60	7,200
C	6000- 7000'	125	25	1,250	100	1.77	177.00	80	9,250
D	8000-10000'	70	10	1,250	80	3.77	288.20	170	11,450
E	11000-12000'	55	5	1,000	50	5.66	283.00	255	13,750
F	13000-14000'	20	0	0	20	8.00	160.00	360	7,200
TOTAL LEA AND EDDY COUNTIES		1,900	840	23,300	1,080		1,709.20		100,800*

\* Difference due to fractional bbls. = 300 bbls.

Assuming a normal unit allowable of 45 barrels per day, the following table shows the top unit allowables and increase of allowable for each depth interval.

<u>Depth Interval</u>	<u>Depth Factor</u>	<u>Top Unit Allowable</u> Bbl.	<u>Allowable Increase Above 0 - 5000'</u> <u>Interval</u> Bbl.	<u>Allowable Increase Above Preceding 1000'</u> <u>Bracket</u> Bbl.
To - 5,000'	1.00	45	0	0
5,000 - 6,000'	1.33	60	15	15
6,000 - 7,000'	1.77	80	35	20
7,000 - 8,000'	2.33	105	60	25
8,000 - 9,000'	3.00	135	90	30
9,000 - 10,000'	3.77	170	125	35
10,000 - 11,000'	4.66	210	165	40
11,000 - 12,000'	5.66	255	210	45
12,000 - 13,000'	6.77	305	260	50
13,000 - 14,000'	8.00	360	315	55
14,000 - 15,000'	9.33	420	375	60



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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January 22, 1946

Mr. W. E. Scott  
Buffalo Oil Company  
Artesia, New Mexico

Dear Scott:

Enclosed is a rough draft of the deep allowable order and a copy of letter addressed to Foster Morrell. A similar letter is going forward to Glenn Staley.

I will be glad to have any comment you wish to make and when you have finished with the rough draft, please return it to this office.

With kindest personal regards.

Very truly yours,

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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January 22, 1946

Mr. Foster Morrell  
U. S. Geological Survey  
Roswell, New Mexico

Dear Mr. Morrell:

Enclosed please find a rough draft of the deep allowable order. Your corrections, additions and comments will be appreciated. It seems to me that it is almost impossible to write a perfect order; however, Carl has written the order with that in mind and we expect that the order may have to be changed within a year.

With reference to spacing it is my idea that twinned or trippled wells should be at the center of the 40 acre unit from 100' to 150' apart. The order does not so designate the spacing but I wonder if we could write a note of explanation to be distributed with the order.

With reference to bonus allowable I did not believe that the best interests of conservation could be reached by awarding both the bonus allowable and the deep allowable factor to the same well at the same time.

If you will telephone your reaction to the order we will re-write it for publication as soon as possible.

Very truly yours,

RRS:MS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

January 22, 1946

Mr. Glenn Staley  
Proration Office  
Hobbs, New Mexico

Dear Glenn:

Enclosed please find a rough draft of the deep allowable order. Your corrections, additions and comments will be appreciated. It seems to me that it is almost impossible to write a perfect order; however, Carl has written the order with that in mind and we expect that the order may have to be changed within a year.

With reference to spacing it is my idea that twinned or trippled wells should be at the center of the 40 acre unit from 100' to 150' apart. The order does not so designate the spacing but I wonder if we could write a note of explanation to be distributed with the order.

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If you will telephone your reaction to the order we will re-write it for publication as soon as possible.

Very truly yours,

RRS:MS

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"Deep" unit allowables instead  
of "Top"

108984

63-69

4258-  
0-5000

15-6-7

2 7-8

1 8-9

1 11-12

42910

2531 34431

1760

37	98330	20.16
58	700	26.55
66	990	4.66
87	174	3.00
111	111	5.67
210	210	
	1727.00	0-5000
	1787.04	

NOTES

Deep allowable

Twin wells must observe  
330'

where Deep allow is given  
cut Bonus

1. (a) any well shall ~~be~~ have a  
proportion if drilled less  
than 330'

Anderson - Pritchard  
S 5 - 235 - 38E NENW  
20 acre - hold hearings

2. If in these cases wells  
shall not be drilled &  
completed in same pool  
(closes than 460 - no closer to  
the unit boundary than 330).

*South  
please return*

*Rough Draft -*

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY  
THE OIL CONSERVATION COMMISSION OF THE  
STATE OF NEW MEXICO FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 62

ORDER NO. \_\_\_\_\_

THE PETITION OF THE GULF OIL  
CORPORATION FOR REVISION OF STATEWIDE  
PRORATION ORDER NO. 538 TO PROVIDE FOR  
INCREASING THE OIL ALLOWABLE PROGRESSIVELY  
ACCORDING TO DEPTH FOR POOLS PRODUCING BELOW  
5000 FEET.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at ten o'clock A.M., May 14, 1945, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission".

NOW, on this \_\_\_\_\_ day of \_\_\_\_\_, 1946, the Commission having before it for consideration the testimony adduced at the hearing of said case and being fully advised in the premises;

IT IS THEREFORE ORDERED that:

The order herein shall be known as "THE STATE-WIDE PRORATION ORDER".

1. (a) The unit of proration shall consist of 40 acres or lot in accordance with the legal sub-divisions of the United States Public Lands Surveys, on which is at least one producing well. No well shall be drilled closer to any unit boundary line than 330 feet or less than 660 feet from any other well except upon petition, notice and hearing as provided by law, provided such unorthodox well location will create neither waste nor hazards conducive to waste.

Where, however, a given proration unit appears to be underlain by more than one pool, each a separate common reservoir, and it is sought to produce from more than one such pool, then within the discretion of the Commission wells may have a surface proximity closer to each other than 660 feet to permit twinning, tripling, and so on in accordance with the number of such pools lying above or below the other. In this case the applicant must also indicate the distance of the proposed location from any other well nearer on the surface than 660'.

(b) A marginal unit is a unit that will not produce the top unit allowable for the pool.

(c) A non-marginal unit is a unit that will produce the top unit allowable for the pool.

(d) The top unit allowables in accordance with various depth ranges to be used for the purpose of making allocations to the respective pools and for the purpose of distributing or prorating the pool allocations to the units within the pool, except for those pools having proration plans of their own, shall be as defined in the computation for making allocations to pools as set forth in Section 2 hereinbelow.

(e) The normal unit allowable to be used for the purpose of computing the top unit allowables for each or several ranges of depth shall be as defined in Section 2 (c) hereinbelow.

(f) The proration month shall be the calendar month which shall begin at 7 A.M., on the first day of such month.

2. (a) The total allowable for pools in Lea, Eddy and Chaves Counties shall be in terms of total barrels daily for each calendar month and shall be allocated to the respective pools by the following computation.

(b) From the total allowable shall be deducted the sum of the allowables for all marginal units. The remainder shall be divided among the non-marginal units in a proportion as set forth in Section 2 (c).

(c) Top unit allowables shall be calculated for each of several ranges of depth in the following proportions:

<u>Pool Depth Range</u>	<u>Proportional Factor</u>
From 0 to 5000'	1.00
5000-6000'	1.33
6000-7000'	1.77
7000-8000'	2.33
8000-9000'	3.00
9000-10,000'	3.77
10,000-11,000'	4.67
11,000-12,000'	5.67

(Figures subject to change as in 6)

The calculation of the respective top unit allowables for each depth range shall be made in the following manner: Multiply the number of non-marginal units within each depth range by the above corresponding proportional factors (subject to 5). Add all of the products so obtained. Divide this total of the products into the total allocation for all non-marginal units. The quotient thus obtained shall be the normal unit allowable. Top unit allowables for each range of depth shall then be determined by multiplying the normal unit allowable by the proportional factor for each depth range as set out in the table hereinabove: any fraction of a barrel shall be regarded as a full barrel for both normal and top unit allowables.

(d) The top unit allowables so determined in Section 2 (c) shall be assigned to the respective pools in accordance with each pool's depth range. The sum of all marginal units plus the sum of the top allowables for all non-marginal units in each pool shall constitute the allocation for each pool. In the event that the normal unit allowable as calculated in Section 2 (c) is found to be less than 30 barrels per day for any month, the top allowable for the depth range of 0 to 5,000 feet shall be set at 30 barrels per day and a corrected top allowable shall be computed for all other depth ranges below 5,000 feet by the following formulae:

(1) Corrected top allowable = top allowable times correction factor

(2) Correction factor = 
$$\frac{(B - 30U)}{(30 - H)U + (T - 30U)}$$

where:

B = Total allocation to Lea, Eddy and Chaves Counties, non-marginal units  
H = Normal unit allowable as calculated in Section 2 (c)  
U = Number of non-marginal units within the depth range of 0 to 5,000 feet

The allocation for each pool shall then be computed as described hereinabove, using the corrected top allowables in place of the top allowables.

(The figure 30 as used in this section is subject to change as in 6)

(e) The depth classification for each pool shall be determined from the depth of the first well measured to the top of the producing formation. In event the casing is set into or through the producing formation, the depth to the casing shoe or the top perforation in the casing, whichever is the highest, shall be the assumed top of the formation for purposes of determining the depth. When such depth classification for a pool has been established, all non-marginal units in that pool shall have the same top unit allowable.

(f) Thereupon the allocation to each pool shall in turn be prorated or distributed to the respective units in each pool in accordance with the proration plan of the particular pool where any such plan exists. Where no proration plan for any pool exists, then the pool allocation shall be distributed or prorated to the respective marginal and non-marginal units therein as determined hereinabove.

(g) At the beginning of each calendar month, the distribution or proration to the respective units in each pool shall be changed in order to take into account all new wells which have been completed and were not in the proration schedule during the previous calendar month. Where any well is completed between the first and sixteenth of the calendar month, its unit shall be assigned an allowable, in accordance with whether such unit is marginal or non-marginal, beginning at 7 A.M., on the sixteenth and for the remainder of that calendar month.

3. Pools in counties, other than Lea, Eddy and Chaves, shall be permitted to produce their market demand as long as such can be done without waste.

4. The Order herein replaces Order No. 538, State-Wide Proration Order, and Order No. 413, Eddy County Fields Proration Order. Order No. 235, the Proration Schedule Order, is retained as supplemental to the order herein.

5. No proration unit in any pool with depth range from 5000' and below shall have both an enlarged top unit allowable and a bonus-for-discovery allowable at the same time. The top unit allowable for any such proration unit shall be calculated in 2 (c) as for depth range from 0 to 5000', and then the bonus allowable may be applied as in the bonus allowable order. The operator may elect to waive any bonus allowable or to make complete use of the bonus allowable as indicated above in this section before applying for such enlarged top unit allowable.

6. Any of the figures in 2 (c) and 2 (d) is subject to revision to prevent waste, to meet changed conditions, and to preclude inequities, upon petition and hearing as provided by law; however, the Commission retains jurisdiction of this case for the purpose of providing in executive session an equitable proportional factor in 2(c) applicable to any pool that may be discovered at any depth range below 12000'.

March 1, 1946

This order shall become effective on XXXXXXXXXXXXXXXXXXXXXXXXXXXX  
XX

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

OIL CONSERVATION COMMISSION

JOHN A. DUFFELL, CHAIRMAN

JOHN W. MEYER, MEMBER

H. A. STANLEY, SECRETARY



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

W. E.

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SALIENT POINTS FOR THE DEEP WELL ALLOWABLE ORDER

1. Pool Depth Range

Proportional Factor  
Normal allowable

from 0 To 5000'	1.00
5000-6000'	1.33
6000-7000'	1.77
7000-8000'	2.33
8000-9000'	3.00
9000-10,000'	3.77
10,000-11,000'	4.67
11,000-12,000'	5.67

(Figures subject to change as in 6)

2. A 30 barrel minimum below which non-marginal wells in pool depth range above 5000 feet shall not be cut due to extra allowable to wells in pools of a depth range below 5000 feet.

3. A flexible provision by which the Commission in executive session may revise any of the above figures to meet changed conditions to prevent inequities, which is to say: to lower the extra allowable ratios named above or change the 30 barrel minimum for wells above 5000 feet, if the Commission deems a change necessary, and to add an allowable for wells in pools below 12,000 feet, should there be discoveries in sufficient amounts made below 12,000 feet that would warrant an appropriate extra allowable.

4. Applicability

Ability to produce without water

Name pool only with water in pool above top of producing formation

5. Water bonus allowable

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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4. Bonus or premium allowable will be granted provided it can be done without waste. If deep allowable is granted, no bonus will be given.

Bonus for 10,000 ft. discovery would be 50,000 bbls. Cost of 10,000 ft. well is about \$200,000.

40 - 10,000 foot wells would cut allowable about two bbls.

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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October 8, 1945

AIRMAIL  
SPECIAL DELIVERY

Honorable Glenn Staley  
Proration Office  
Hobbs, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Glenn:

Your committee's recommendation in the above captioned matter has not as yet been received. In view of the very unsatisfactory service at the Santa Fe post office I thought perhaps the recommendation could have been sent and placed in the box of some one else since every day the Commission receives a high percentage of mail that belongs to other people.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
NIGHT LETTER	NIGHT LETTER

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary radiogram.

# COPY OF WESTERN UNION TELEGRAM

SANTA FE NEW MEXICO SEPTEMBER 27, 1945

C. A. DANIELS  
REGIONAL SUPERINTENDENT  
PHILLIPS PETROLEUM COMPANY  
OKLAHOMA CITY, OKLAHOMA

COMMITTEE MEETING SANTA FE SEPTEMBER 28 AT 2 P.M. STALEY SENT YOU

NOTICE.

CARL B. LIVINGSTON

SEND: STRAIGHT TELEGRAM  
CHG: OIL CONSERVATION COMMISSION

**PHILLIPS PETROLEUM COMPANY**

Oklahoma City, Oklahoma

September 24, 1945

Mr. Carl B. Livingston  
Chief Clerk and Legal Advisor  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Dear Carl:

Replying to your letter of September 18, 1945, I will be glad to serve as a member of the Commission's advisory committee in the matter of helping to determine oil allowables for deep wells in the State of New Mexico.

Please advise what date and place this committee will meet to discuss this matter, and who has been selected to act as chairman.

With kindest personal regards, I am

Very truly yours,



C. A. Daniels  
Regional Superintendent  
Northern Region

CAD:sjc

**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

A. N. WILLIAMS  
PRESIDENT

1201

SYMBOLS
DL = Day Letter
NL = Night Letter
LC = Deferred Cable
NLT = Cable Night Letter
Ship Radiogram

VA190 9=CASPER WYO 25 1154A

CARL LIVINGSTON=

=CONSERVATION COMMISSION CAPITTL BLDG SF=

WILL ATTEND ADVISORY COMMITTEE MEETING SANTA FE 26TH. REGARDS=

=EDGAR KRAUS.

.28.

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

ATWOOD & MALONE  
LAWYERS

JEFF D. ATWOOD  
ROSS L. MALONE, JR.

J. P. WHITE BUILDING  
ROSWELL, NEW MEXICO

September 17, 1945

Hon. Carl B. Livingston  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Re: Case 62  
Allowable for  
deep pools

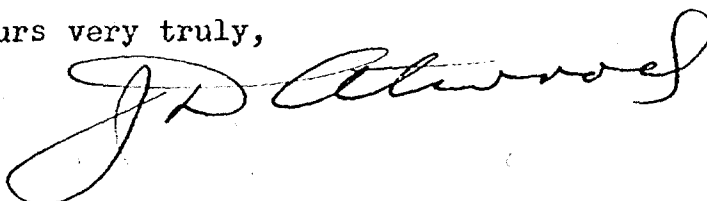
Dear Mr. Livingston:

Receipt is acknowledged of your letter of the 13th informing me of my appointment on the advisory committee which the Commission has appointed for a study of this matter. I will be glad to serve as a member of this committee but, of course, with the understanding that I will have full freedom to represent my client, Gulf Oil Corporation, in connection with its pending petition in this case.

May I suggest that the Commission call the initial meeting of this committee specifying time and place? This meeting should be held at the earliest possible time.

It is assumed that no action will be taken on Gulf's petition until after the report of this committee has been filed. It is my belief that favorable action upon the Gulf petition will act as a stimulus to deeper drilling, and it is therefore desirable that interested operators know as soon as possible what increased allowable, if any, is to be granted by the Commission.

Yours very truly,



jda/bw

cc: Mr. Sanderson  
Mr. Lowe

## THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS

PRODUCING DEPARTMENT  
WEST TEXAS DIVISION  
C. B. WILLIAMS, DIVISION MANAGER



FORT WORTH 1, TEXAS

September 17, 1945.

Mr. Carl B. Livingston,  
Santa Fe, New Mexico.

Dear Mr. Livingston:

I acknowledge your letter of September 13, 1945, informing me that I have been named upon the Advisory Committee which has been appointed by Governor Dempsey and Land Commission John E. Miles, to consider and make recommendations regarding the allowable for deep pools at various depths.

You state that the Commission wishes that the Committee meet and submit report as soon as possible. Neither your letter nor the attached list indicates who is Chairman of the Committee. I shall appreciate it if you will advise me the name of the Chairman of the Committee in order that I may contact him as to the date and place of the meeting of the Committee.

I shall be very glad to serve on the Committee. However, in the event that I should be unable to attend any meeting I should like to have Mr. A. E. Willig attend as alternate if this will be satisfactory to the Commission.

Very truly yours,

A handwritten signature in dark ink, appearing to read "C. B. Williams", written in a cursive style.

CBW-ECW

9-19-45 - Answered.



V. S. Welch  
Oil Producer and Operator  
Artesia, N. M.

September 16, 1945.


Mr. Carl B. Livingston,  
Chief Clerk & Legal Adviser,  
New Mexico Oil Conservation Comm.,  
Santa Fe, New Mexico.

Dear Carl:

I have yours of September 13th advising  
me that I have been named upon an advisory  
committee for the purpose of determining the  
amount of allowable production for wells at  
various depths.

I will be glad to serve on this committee  
if I can be of any service.

With kind personal regards, I am

Yours very truly,  
  
V. S. WELCH

VSN/c

# Wilson Oil Company

INCORPORATED UNDER THE LAWS OF NEW MEXICO



P. O. BOX 627  
SANTA FE, NEW MEXICO  
TELEPHONE 66

September 14, 1945

New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

Attention: Mr. Livingston, Chief Clerk and Legal Adviser

Dear Mr. Livingston:

In re: Your Number -Case 62  
Allowable for Deep Pools

I have your letter of September 13th notifying me that I have been named upon the Advisory Committee for advising as to what should be allowed for deep pools at various depths in New Mexico fields.

I shall be glad to be of service in this capacity and therefore accept the designation.

Yours very truly,

A handwritten signature in cursive script that reads "Francis C. Wilson".

Francis C. Wilson  
President, Wilson Oil Company

FCW:w

CLASS OF SERVICE DESIRED	
DOMESTIC	CABLE
TELEGRAM	ORDINARY
DAY LETTER	URGENT RATE
SERIAL	DEFERRED
NIGHT LETTER	NIGHT LETTER

Patrons should check class of service desired; otherwise the message will be transmitted as a telegram or ordinary cablegram.

## COPY OF WESTERN UNION TELEGRAM

**SANTA FE N M SEPT 28 1945**

**MR HARVE MAYFIELD  
DIVISION ENGINEER  
MAGNOLIA OIL COMPANY  
KERNET TEXAS**

**GOVERNOR DEMPSEY HAS NAMED YOU ON THIS COMMISSION'S ADVISORY COMMITTEE ON QUESTION: WHAT SHOULD BE THE ALLOWABLE FOR DEEP POOLS AT VARIOUS DEPTHS? GLENN STALEY HAS BEEN REQUESTED TO CALL COMMITTEE TOGETHER. HE HAS CALLED COMMITTEE MEETING AT SANTA FE SEPTEMBER TWENTYEIGHTH**

**OIL CONSERVATION COMMISSION**

**BY CARL B LIVINGSTON**

**\*\*\*\*\***

**Charge to Oil Conservation Commission**

*Committee list attached  
msg. Western Union refuted Harve Mayfield on 30-day vacation & was  
delivered to Frank Pickens - 3:48 P.M. 9-28-45*

Continental. <sup>from Houston</sup> Raymond Tamm  
Hobbs.

Humble Oil Co. <sup>Victim</sup> John Hance  
Midland  
Tex.

Merl Rouse Inc.  
O.P. Miller  
Hobbs

Lamedan Oil Co  
Boyd Biddeck  
Ardmore Okla

Fred Turner  
Midland  
Tex.

Stanolind Oil Co <sup>George</sup>  
George Card  
P.O. Worth  
Tex

<sup>Edgar</sup> Atlantic Oil & Ref Co  
Edgar Kross  
Dallas Tex.

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

<i>Jim</i>	James M. Murray, Sr. Me-Tex Supply Co. Hobbs, N. M.	<i>Glenn</i>	Glenn Staley Lea County Operators Hobbs, N. M.
<i>Charlie</i>	C. B. Williams District Manager Texas Company Fort Worth, Texas		Charles P. Roripaugh Division Manager Shell Oil Co. Midland, Texas
<i>C</i>	Hiram M. Dow Roswell, N. M.	<i>Charlie</i>	Charles A. Daniel <del>District Manager</del> General Manager Phillips Petroleum Co. <del>Butler, Okla.</del> Oklahoma City
<i>O</i>	S. G. Sandersen Asst. to Vice President Gulf Oil Corp., Tulsa, Okla.		Barney Cockburn Artesia, N. M.
<i>Q</i>	Col. J. D. Atwood Roswell, N. M.		Paul B. English Artesia, N. M.
<i>P</i>	Harry Leonard Leonard Oil Co. Roswell, N. M.		Sam Sanders Sanders Brothers Artesia, N. M.
<i>have</i>	D. D. Bodie Cities Service Oil Co. Hobbs, N. M.		Foster Morrell U.S.O.S. Roswell, N. M.
<i>Y</i>	Weldon Brigance Roman Drilling Co. <del>2229 Glendon Avenue</del> Commercial Fort Worth, Texas <i>Stanley Bly</i>		W. E. Scott Buffalo Oil Co. Artesia, N. M.
<i>Heugh</i>	Hugh Sawyers N. M. Oil & Gas Assoc. Roswell, N. M.		Harne Mayfield Magnolia Oil & Hermet Tex
	Francis Wilson Wilson Oil Co. Santa Fe, N. M.		
<i>Bert</i>	Bert Aston Aston & Fair, Inc. Roswell, N. M.		
<i>Van</i>	Van Welch Flynn, Welch & Yates Oil Co. Artesia, N. M.		

*Carl Livingston*

Hobbs, New Mexico  
Drawer I  
September 21, 1945

TO ALL MEMBERS OIL CONSERVATION COMMISSION'S  
ADVISORY COMMITTEE:

James M. Murray, Sr. Hobbs, N.M.	Hugh Sawyers Roswell, N.M.	P.B. English Artesia, N.M.	C.B. Williams Ft. Worth, Texas
Francis Wilson Santa Fe, N.M.	Sam Sanders Artesia, N.M.	Hiram M. Dow Roswell, N.M.	Bert Aston Roswell, N.M.
Foster Morrell Roswell, N.M.	S.G. Sanderson Tulsa, Okla.	Van Welch Artesia, N.M.	W.E. Scott Artesia, N.M.
J.D. Atwood Roswell, N.M.	Glenn Staley Hobbs, N.M.	Raymond Lamb Hobbs, N.M.	Harry Leonard Roswell, N.M.
C.C. Roripaugh Midland, Texas	John House Midland, Texas	D.D. Bodie Hobbs, N.M.	C.A. Daniels Oklahoma City
C.P. Miller Hobbs, N.M.	Weldon Brigance Ft. Worth, Tex.	Barney Cockburn Artesia, N.M.	Lloyd Biddick Ardmore, Okla.
Fred Turner Midland, Texas	George Card Ft. Worth, Tex.	Edgar Kraus Dallas, Texas	

The following letter has been received from the Oil Conservation Commission of the State of New Mexico:

"Mr. Glenn Staley  
Hobbs, N.M.

The Commission desires that you call a meeting at the earliest possible time of the Commission's Advisory Committee, and have the Committee to organize by electing a chairman and secretary in order that the Committee may proceed upon the point 'WHAT SHOULD BE THE ALLOWABLE FOR DEEP POOLS AT VARIOUS DEPTHS'?

Carl B. Livingston"

In accordance with the above request, the Committee will meet at the La Fonda in Santa Fe, September 28 at 2 P.M.

The La Fonda management is setting aside 10 double rooms for the accommodation of this Committee for the night of September 28 only. Each member please notify the La Fonda if he wishes reservations.

Yours very truly,

*Glenn Staley*  
Glenn Staley

GS:M

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Glenn Staley  
Lea County Operators  
Hobbs, New Mexico

Dear Glenn:

Re: Case 62 - Allowable for deep pools.

The Commission desires that you call a meeting at the earliest possible time of the Commission's Advisory Committee, and have the Committee to organize by electing a chairman and secretary in order that the Committee may proceed upon the point - "What should be the allowable for deep pools at various depths?"

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

James M. Murray Sr.,  
Me-Tex Supply Co.,  
Hobbs, N.M.

C.B. Williams  
District Manager  
Texas Company  
Fort Worth, Texas

Hiram M. Dow  
Roswell, N.M.

S.G. Sanderson  
Asst. to Vice-President  
Gulf Oil Corporation  
Tulsa, Okla.

Col. J.D. Atwood  
Roswell, N.M.

Harry Leonard  
Leonard Oil Co.,  
Roswell, N.M.

D.D. Bodie  
Cities Service Oil Co.,  
Hobbs, N.M.

Weldon Brigance  
Rowan Drilling Co.,  
Commercial Standard Bldg.,  
Fort Worth, Texas

Hugh Sawyers  
N.M. Oil and Gas Assn.,  
Roswell, N.M.

Francis Wilson  
Wilson Oil Co  
Santa Fe, N.M.

Bert Anton  
Anton & Fair Inc.,  
Roswell, N.M.

Van Welch  
Flynn, Welch & Yates Oil Co.,  
Artesia, N.M.

Glenn Staley  
Los County Operators  
Hobbs, N.M.

Charles P. Roripaugh  
Division Manager  
Shell Oil Co.,  
Midland, Texas

Charles A. Daniel  
General Manager  
Phillips Petroleum Co.,  
Oklahoma City, Okla.

Barney Cockburn  
Artesia, N.M.

Paul B. English  
Artesia, N.M.

Sam Sanders  
Sanders Brothers  
Artesia, N.M.

Foster Morrell  
U.S.G.S.  
Roswell, N.M.

W.E. Scott  
Buffalo Oil Co.,  
Artesia, N.M.

Raymond Lamb  
Continental Oil Co  
Hobbs, N.M.

Mr. John House  
Humble Oil Co.,  
Midland, Texas

A.P. Miller  
Neville Penrose Inc.,  
Hobbs, N.M.

Lloyd Biddick  
Samedon Oil Co.,  
Ardmore, Okla.

Fred Turner  
Midland, Texas

George Card  
Stanolind Oil Co.,  
Fort Worth, Texas

Edgar Kraus  
Atlantic Oil & Refining Co  
Dallas, Texas



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. George Card  
Stanolind Oil Company  
Fort Worth, Texas

Re: Case 62 - Allowable for deep pools.

Dear George:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles, in an Executive Meeting of the Oil Conservation Commission, have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company designate someone. A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours

GBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Edgar Kraus  
Atlantic Oil and Refining Company  
Dallas, Texas.

Re: Case 62 - Allowable for deep pools.

Dear Edgar:

Governor John J. Dempsey and Commissioner of Public Lands, John E. Miles, in an Executive Meeting of the Oil Conservation Commission, have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company designate someone. A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

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Mr. Raymond Lamb  
Continental Oil Company  
Hobbs, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Raymond:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles, in an Executive Meeting of the Oil Conservation Commission, have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company designate someone. A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours

Chief Clerk & Legal Adviser

CBL:d

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

C  
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Mr. John House  
Humble Oil Company  
Midland, Texas

Re: Case 62 - Allowable for deep pools.

Dear John:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles, in an Executive Meeting of the Oil Conservation Commission, have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company designate someone. A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours

Chief Clerk & Legal Adviser

CBL:d

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 19, 1945

C  
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Y

Neville Penrose Inc.,  
Mr. A.P. Miller  
Hobbs, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Miller:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles, in an Executive Meeting of the Oil Conservation Commission, have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company designate someone. A list of this committee is attached.

It is the Commission's wish that your Committee meet and submit report to the Commission as soon as possible.

Very truly yours

Chief Clerk & Legal Adviser

CBL:d

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18m 1945

Mr. Lloyd Biddick  
Sarnedon Oil Company  
Ardmore, Oklahoma.

Re: Case 62 - Allowable for deep pools.

Dear Mr. Biddick:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles, in an Executive Meeting of the Oil Conservation Commission, have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company designate someone. A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Fred Turner  
Midland, Texas

Re: Case 62 - Allowable for deep pools.

Dear Mr. Turner:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles, in an Executive Meeting of the Oil Conservation Commission, have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company designate someone. A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 17, 1945

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Mr. James M. Murray  
Mo-Tex Supply Company  
Hobbs, New Mexico.

Re: Case 62 - Allowable for deep pools.

Dear Jim:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CHL:VD

Chief Clerk & Legal Adviser.



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 16, 1945

Mr. Glenn Staley  
Lea County Operators  
Hobbs, New Mexico

Dear Glenn:

Case 62 - Allowable for deep pools.

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Advisor

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Charles P. Roripaugh  
Division Manager  
Shell Oil Company  
Midland, Texas

Re: Case 62 - Allowable for deep pools.

Dear Mr. Roripaugh:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Charles A. Daniel  
General Manager  
Phillips Petroleum Company  
Oklahoma City, Oklahoma.

Re: Case 62 - Allowable for deep pools.

Dear Charlie:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Barney Cockburn  
Artesia, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Barney:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

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Mr. Paul B. English  
Artesia, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. English:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

Chief Clerk & Legal Adviser

CBL:d

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Sam Sanders  
Sanders Brothers  
Artesia, New Mexico

Re: Case 62 Allowable for deep pools.

Dear Sam:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what the allowable should be for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Foster Morrell  
U.S.G.S.  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Morrell:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CEL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. W.E. Scott  
Buffalo Oil Company  
Artesia, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Scott:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. C.B. Williams  
District Manager  
Texas Company  
Fort Worth, Texas.

Re: Case 62 - Allowable for deep pools.

Dear Charlie:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

GBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Hiram M. Dow  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Sir:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours,

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. S.G. Sanderson  
Asst. to Vice-President  
Gulf Oil Corporation  
Tulsa, Oklahoma.

Re: Case 62 - Allowable for deep pools.

Dear Mr. Sanderson:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours,

CRL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Col. J.D. Atwood  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Colonel:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

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Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Harry Leonard  
Leonard Oil Company  
Roswell, New Mexico.

Re: Case 62 - Allowable for deep pools.

Dear Harry:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

Chief Clerk & Legal Adviser

CBL:d

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

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Mr. D.D. Bodie  
Cities Service Oil Company  
Hobbs, New Mexico

RE: Case 62 - Allowable for deep pools.

Dear Dan:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk and Legal Adviser

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

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Mr. Weldon Brigance  
Rowan Drilling Company  
Commercial Standard Building  
Fort Worth, Texas

Re: Case 62 - Allowable for deep pools.

Dear Weldon:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

Chief Clerk & Legal Adviser

CHL:d

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Hugh Sawyers  
N.M. Oil and Gas Assn.,  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Hugh:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Francis Wilson  
Wilson Oil Company  
Santa Fe, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Wilson:

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Bert Aston  
Aston & Fair  
Roswell, New Mexico

Dear Bert:

Re: Case 62 - Allowable for deep pools.

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours

CBL:d

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 18, 1945

Mr. Van Welch  
Flynn, Welch & Yates Oil Co.,  
Artesia, New Mexico

Dear Van:

Case 62 - Allowable for deep pools.

Under date of September 13, you were sent a list of the members of the Commission's Advisory Committee to advise the Commission upon what should be the allowable for deep wells at various depths.

Enclosed find a revised list of said committee containing a number of additional names.

Very truly yours,

CBL:d

Chief Clerk & Legal Adviser

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**NEW MEXICO  
OIL CONSERVATION COMMISSION**

GOVERNOR JOHN J. DEMPSEY  
CHAIRMAN  
LAND COMMISSIONER JOHN E. MILES  
MEMBER  
STATE GEOLOGIST R. R. SPURRIER  
SECRETARY AND DIRECTOR



*Santa Fe, New Mexico*

September 13, 1945

MEMORANDUM TO GOVERNOR JOHN J. DEMPSEY:

Re: Case 62 - Allowable for deep pools.

Attached please find suggested form of letter to be sent out to the respective persons to compose the advisory committee in connection with allowable for deep pools of various depths.

Also annexed is a list of the committee as named yesterday, plus five additional names which I have obtained in going through the files, one of whom is Foster Morrell, in order to give the U. S. G. S., representation since your Commission does prorate oil produced from U. S. lands because of the provisions in the Connally Act, and also because of Mr. Morrell's cooperation with your Commission.

OIL CONSERVATION COMMISSION

*Carl B. Livingston*

Chief Clerk & Legal Adviser

CBL:MS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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James M. Murray, Sr.  
Me-Tex Supply Co.  
Hobbs, N. M.

C. B. Williams  
District Manager  
Texas Company  
Fort Worth, Texas.

Hiram M. Dow  
Roswell, N. M.

S. G. Sanderson  
Asst. to Vice President  
Gulf Oil Corp.,  
Tulsa, Okla.

Col. J. D. Atwood  
Roswell, N. M.

Harry Leonard  
Leonard Oil Co.  
Roswell, N. M.

D. D. Bodie  
Cities Service Oil Co.  
Hobbs, N. M.

Weldon Brigance  
Rowan Drilling Co.  
~~2220 Glenco Terrace~~  
Fort Worth, Texas

Hugh Sawyers  
N. M. Oil & Gas Assoc.  
Roswell, N. M.

Francis Wilson  
Wilson Oil Co.  
Santa Fe, N. M.

Bert Aston  
Aston & Fair, Inc.  
Roswell, N. M.

Van Welch  
Flynn, Welch & Yates Oil Co.  
Artesia, N. M.

Glenn Staley  
Lea County Operators  
Hobbs, N. M.

Charles P. Roripaugh  
Division Manager  
Shell Oil Co.  
Midland, Texas

Charles A. Daniel  
~~Division Supt.~~ General Mgr  
Phillips Petroleum Co.  
 ~~Bartlesville, Okla.~~  
 ~~Oklahoma City~~  
Barney Cockburn  
Artesia, N. M.

Paul B. English  
Artesia, N. M.

Sam Sanders  
Sanders Brothers  
Artesia, N. M.

Foster Morrell  
U.S.G.S.  
Roswell, N. M.

W. E. Scott  
Buffalo Oil Co.  
Artesia, N. M.

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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September 13, 1945

Mr. C. B. Williams  
District Manager  
Texas Company  
Fort Worth, Texas

Re: Case 62 - Allowable for deep pools.

Dear Mr. Williams:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company to designate some one. A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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September 13, 1945

MEMORANDUM TO COMMISSIONER OF PUBLIC LANDS FILES:

Re: Case 62 - Allowable for deep pools.

Attached please find suggested form of letter to be sent out to the respective persons to compose the advisory committee in connection with allowable for deep pools of various depths.

Also annexed is a list of the committee as named yesterday, plus five additional names which I have obtained in going through the files, one of whom is Foster Morrell, in order to give the U. S. G. S., representation since your Commission does prorate oil produced from U. S. lands because of the provisions in the Connally Act, and also because of Mr. Morrell's cooperation with your Commission.

OIL CONSERVATION COMMISSION

Chief Clerk & Legal Adviser

CBL:MS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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September 13, 1945

MEMORANDUM TO GOVERNOR JOHN J. DEMPSEY:

Re: Case 62 - Allowable for deep pools.

Attached please find suggested form of letter to be sent out to the respective persons to compose the advisory committee in connection with allowable for deep pools of various depths.

Also annexed is a list of the committee as named yesterday, plus five additional names which I have obtained in going through the files, one of whom is Foster Morrell, in order to give the U. S. G. S., representation since your Commission does prorate oil produced from U. S. lands because of the provisions in the Connally Act, and also because of Mr. Morrell's cooperation with your Commission.

OIL CONSERVATION COMMISSION

Chief Clerk & Legal Adviser

CBL:MS



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Hugh Sawyers  
N. M. Oil & Gas Assoc.  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Sawyers:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company to designate some one. A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Weldon Brigance  
Rowan Drilling Company  
2220 Glenco Terrace  
Fort Worth, Texas

Re: Case 62 - Allowable for deep pools.

Dear Mr. Brigance:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company to designate some one. A list of this committee is attached.

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Very truly yours,

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Charles P. Roripaugh  
Division Manager  
Shell Oil Company  
Midland, Texas

Re: Case 62 - Allowable for deep pools.

Dear Mr. Roripaugh:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

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Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Van Welch  
Flynn, Welch & Yates Oil Company  
Artesia, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Welch:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Very truly yours,

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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September 13, 1945

Mr. Bert Aston  
Aston & Fair, Inc.  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Aston:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company to designate some one. A list of this committee is attached.

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Very truly yours,

Chief Clerk & Legal Adviser

CBL:KS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Francis Wilson  
Wilson Oil Company  
Santa Fe, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Wilson:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Colonel J. D. Atwood  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Colonel Atwood:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

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Very truly yours,

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. D. D. Bodie  
Cities Service Oil Company  
Hobbs, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Dan:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Very truly yours,

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Harry Leonard  
Leonard Oil Company  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Harry:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

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Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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September 13, 1945

Honorable James M. Murray, Sr.  
Me-Tex Supply Company  
Hobbs, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Jim:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company to designate some one. A list of this committee is attached.

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Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Charles A. Daniel  
Division Supt.  
Phillips Petroleum Company  
Bartlesville, Oklahoma

Re: Case 62 - Allowable for deep pools.

Dear Mr. Daniel:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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September 13, 1945

Mr. S. G. Sanderson  
Asst. to Vice President  
Gulf Oil Corporation  
Tulsa, Oklahoma

Re: Case 62 - Allowable for deep pools.

Dear Mr. Sanderson:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. W. E. Scott  
Buffalo Oil Company  
Artesia, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Scott:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Very truly yours,

Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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September 13, 1945

Mr. Sam Sanders  
Sanders Brothers  
Artesia, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Sanders:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Foster Morrell  
U. S. G. S.  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Foster:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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September 13, 1945

Mr. Paul B. English  
Artesia, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. English:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

A list of this committee is attached.

It is the Commission's wish that your committee meet and submit report to the Commission as soon as possible.

Very truly yours,

Chief Clerk & Legal Adviser

CBL:MS



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Mr. Barney Cockburn  
Artesia, New Mexico

Re: Case 62- Allowable for deep pools.

Dear Mr. Cockburn:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Chief Clerk & Legal Adviser

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OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

September 13, 1945

Honorable Glenn Staley  
Lea County Operators  
Hobbs, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Glenn:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

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Chief Clerk & Legal Adviser

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SANTA FE, NEW MEXICO

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September 13, 1945

Honorable H. M. Dow  
Hervey, Dow, Hill & Hinkle  
Roswell, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Sir:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles in an Executive Meeting of the Oil Conservation Commission have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

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Chief Clerk & Legal Adviser

CBL:MS

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

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James M. Murray, Sr.  
Me-Tex Supply Co.  
Hobbs, N. M.

C. B. Williams  
District Manager  
Texas Company  
Fort Worth, Texas

Hiram M. Dow  
Roswell, N. M.

S. G. Sanderson  
Asst. to Vice President  
Gulf Oil Corp.,  
Tulsa, Okla.

Col. J. D. Atwood  
Roswell, N. M.

Harry Leonard  
Leonard Oil Co.  
Roswell, N. M.

D. D. Bodie  
Cities Service Oil Co.  
Hobbs, N. M.

Weldon Brigrance  
Rowan Drilling Co.  
2220 Glenco Terrace  
Fort Worth, Texas

Hugh Sawyers  
N. M. Oil & Gas Assn.  
Roswell, N. M.

Francis Wilson  
Wilson Oil Co.  
Santa Fe, N. M.

Bert Aston  
Aston & Fair, Inc.  
Roswell, N. M.

Van Welch  
Flynn, Welch & Yates Oil Co.  
Artesia, N. M.

Glenn Staley  
Lea County Operators  
Hobbs, N. M.

Charles P. Roripaugh  
Division Manager  
Shell Oil Co.  
Midland, Texas

Charles A. Daniel  
Division Supt.  
Phillips Petroleum Co.  
Bartlesville, Okla.

Barney Cockburn  
Artesia, N. M.

Paul B. English  
Artesia, N. M.

Sam Sanders  
Sanders Brothers  
Artesia, N. M.

Foster Morrell  
U.S.G.S.  
Roswell, N. M.

W. E. Scott  
Buffalo Oil Co.  
Artesia, N. M.

ADVISORY COMMITTEE \* OIL CONSERVATION  
COMMISSION

Weldon Brigrance  
Rowan Drilling Co.  
2220 Glenco Terrace  
Fort Worth, Texas

Hugh Sawyers  
N. M. Oil & Gas Assoc.  
Roswell, N. M.

Francis Wilson  
Wilson Oil Co.  
Santa Fe, N. M.

Bert Aston  
Aston & Fair, Inc.  
Roswell, N. M.

Van Welch  
Flynn, Welch & Yates Oil Co.  
Artesia

✓ Glenn Staley  
Lea County Operators  
Hobbs, N. M.

Charles P. Roripaugh  
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Shell Oil Co.  
Midland, Texas

Charles A. Daniel  
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Bartlesville, Okla

✓ C. B. Williams  
District Manager  
Texas Company  
Fort Worth, Texas

~~James M. Murray, Sr.  
Me-lex Supply Co.  
Hobbs, N. M.~~

✓ Hiram M. Dow  
Roswell, N. M.

✓ Col. J. D. Atwood  
Roswell, N. M.

✓ Harry Leonard  
Leonard Oil Co.  
Roswell, N. M.

✓ D. D. Bodie  
Cities Service Oil Co.  
Hobbs, N. M.

Additional names

✓ Barney Cockburn  
Artesia, N. M.

✓ Paul B. English  
Artesia, N. M.

Sam Sanders  
Sanders Brothers  
Artesia, N. M.

✓ Foster Morrell  
U.S.G.S.  
Roswell, N. M.

W. E. Scott  
Durillo Oil Co.  
Artesia, N. M.

✓ S. G. Sanderson  
Asst. to V.P.  
Gulf Oil Corp.  
Tulsa, Okla.

*James  
Roripaugh  
Artesia*

*Paul  
Flynn  
Artesia*

EXECUTIVE OFFICE

SANTA FE, NEW MEXICO

September 12 1945

Respectfully referred to Carl Livingston

for such action and report as in his opinion may seem necessary.

John J. Dempsey  
GOVERNOR

REMARKS:

This copy is sent to you for your information as I would like to discuss the letter with you and then take action.

GULF OIL CORPORATION

Tulsa 2, Oklahoma

August 28, 1945

The Honorable John J. Dempsey  
Governor of New Mexico, and  
Chairman Oil Conservation Commission  
Santa Fe, New Mexico

My dear Governor Dempsey:

On April 9, 1945 Gulf Oil Corporation filed with your Honorable Commission an application requesting revision of state-wide Proration Order No. 538 to provide increasing oil allowables progressively according to depth for pools producing below 5000 feet. Case Numbered 62 was heard in accordance with the notice of hearing on May 14, 1945.

Gulf Oil Corporation is now preparing its budget and formulating its plans for drilling in 1946. In the Drinkard Pool Gulf owns leases covering about 2,000 acres of which approximately 1,700 acres are undeveloped. The producing formation in the Drinkard area is found at depths ranging from 6000 feet to 7000 feet. It costs approximately \$140,000 to drill and equip a well to produce in that area. Under the present allowable of 45 barrels per day, market price of \$1.10 and taking into consideration operating costs, it will require about ten years to return the investment. When this payout is compared to a payout of wells drilled in the shallower areas in New Mexico, and particularly with wells drilled in other states, drilling in the Drinkard area is very unattractive.

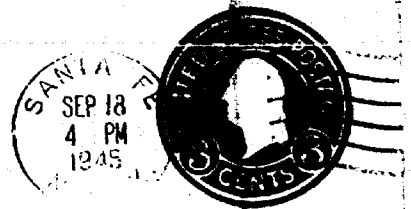
Under the plan proposed by Gulf in its application, the wells in the Drinkard area would be given an allowable of 80 barrels per day. This would reduce the time required to pay out the cost of drilling and equipping wells to between five and six years. While payout of five to six years is not too attractive, I believe it would induce operators to do more development work in the Drinkard area. The obvious result is large areas would remain undeveloped and the natural resources of the state not utilized unless development is encouraged.

An early consideration of the evidence presented in the above mentioned case and a decision by your Honorable Commission will be appreciated.

Yours very truly,

(Signed) Rush Greenslade  
Vice-President

After 15 days, return to  
OIL CONSERVATION COMMISSION,  
Box 871,  
SANTA FE, NEW MEXICO.



REASON  
Undelivered  
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Moved, left no address  
No such office in state

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Writer

SEP 26 1945

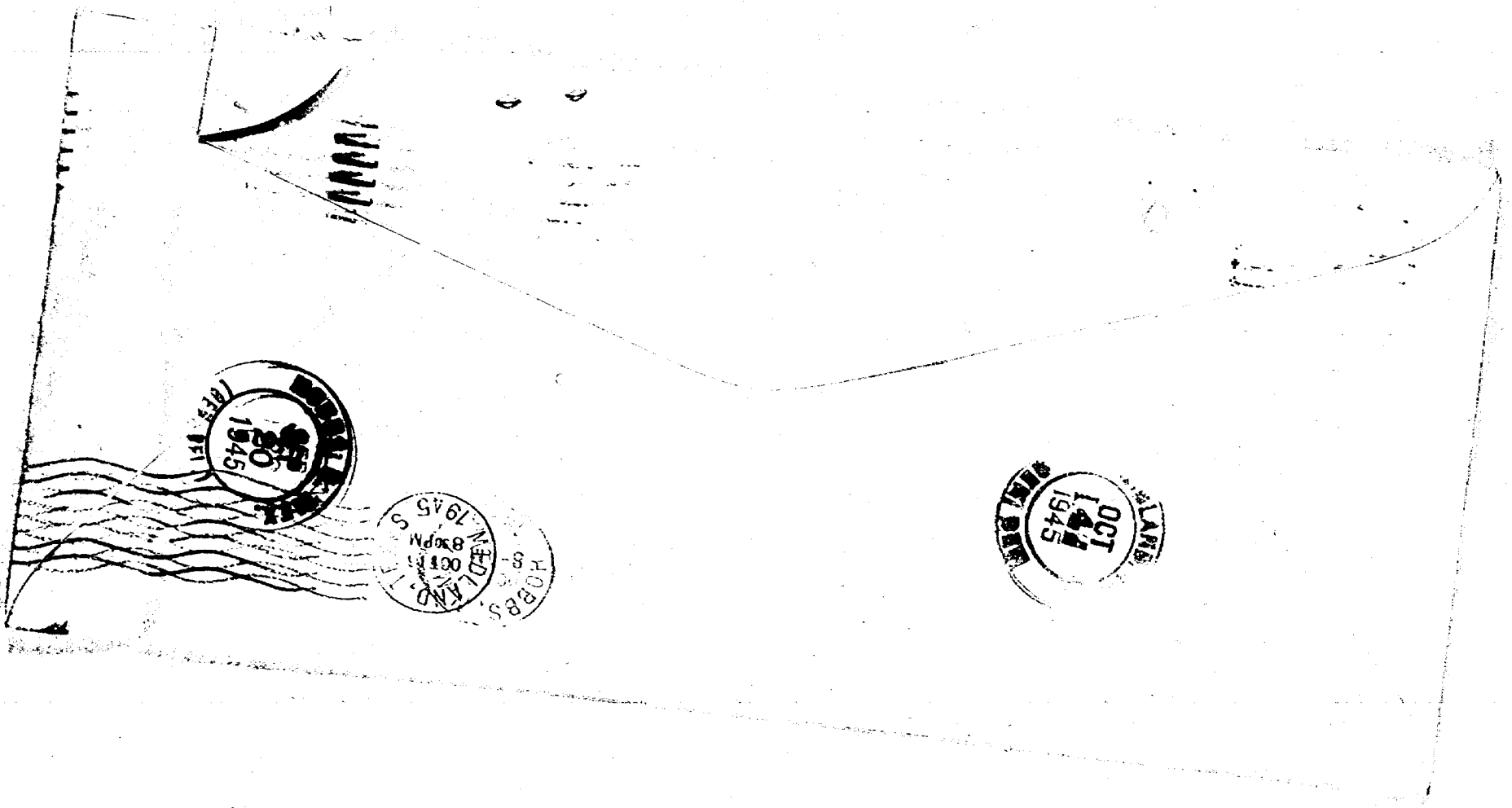
OCT 14

Mr. E.P. Miller  
Neville-Peterson Inc.,  
Heets, N.M.

*Miller*

*JS*

NOT IN DIRECTORY





**NEW MEXICO  
OIL CONSERVATION COMMISSION**

GOVERNOR JOHN J. DEMPSEY  
CHAIRMAN  
LAND COMMISSIONER JOHN E. MILES  
MEMBER  
STATE GEOLOGIST R. R. SPURRIER  
SECRETARY AND DIRECTOR



*Santa Fe, New Mexico*

September 18, 1945

Neville Penrose Inc.,  
Mr. A.P. Miller  
Hobbs, New Mexico

Re: Case 62 - Allowable for deep pools.

Dear Mr. Miller:

Governor John J. Dempsey and Commissioner of Public Lands John E. Miles, in an Executive Meeting of the Oil Conservation Commission, have named you upon the advisory committee for the following purpose:

What should be the allowable for deep pools at various depths?

If for any reason you cannot serve, please have your company designate someone. A list of this committee is attached.

It is the Commission's wish that your Committee meet and submit report to the Commission as soon as possible.

Very truly yours

*Carl B. Livingston*

Chief Clerk & Legal Adviser

CBL:d

OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

James M. Murray Sr.,  
Me-Tex Supply Co.,  
Hobbs, N.M.

C.B. Williams  
District Manager  
Texas Company  
Fort Worth, Texas

Hiram M. Dow  
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Col. J.D. Atwood  
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Leonard Oil Co.,  
Roswell, N.M.

D.D. Bodio  
Cities Service Oil Co.,  
Hobbs, N.M.

Weldon Brigance  
Rovan Drilling Co.,  
Commercial Standard Bldg.,  
Fort Worth, Texas

Hugh Stuyvesant  
N.M. Oil and Gas Assn.,  
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Foster Morrell  
U.S.G.S.  
Roswell, N.M.

W.E. Scott  
Buffalo Oil Co.,  
Artesia, N.M.

Raymond Lamb  
Continental Oil Co  
Hobbs, N.M.

Mr. John House  
Humble Oil Co.,  
Midland, Texas

A.P. Miller  
Neville Penrose Inc.,  
Hobbs, N.M.

Lloyd Biddick  
Samedon Oil Co.,  
Ardmore, Okla.

Fred Turner  
Midland, Texas

George Card  
Stanolind Oil Co.,  
Fort Worth, Texas

Edgar Kraus  
Atlantic Oil & Refining Co  
Dallas, Texas

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

January 18, 1946

Mr. F. W. Brigance  
Rowan Drilling Company  
Fort Worth 2, Texas

Dear Weldon:

Your letter of January 16 arrived this morning. I should like to compliment you for a fine letter which will be of great assistance to me. I am filing it in the deep well allowable file for future reference.

I should like to further compliment you for crystallizing your ideas and writing me about them. You may be surprised to know that the majority of operators do not bother to advise us what they are thinking until they have some destructive criticism.

Your comments on 25 barrels vs 30 barrels are well taken but you no doubt understand why 30 instead of 25.

The paragraphs on tank battery requirements are so pertinent to me that I am going to gather more information on the subject with the idea of a hearing to change the present concept. Economics, after all, is the beginning and end of oil production — waste cannot be prevented by police power altogether and therefore great expense to prevent the small amount of cheating that may go on is not justified.

I will expect to hear your ideas on our deep allowable order which should be Staley's hands for mimeographing next week.

Hope to see you soon. Best regards.

Very truly yours,

RRS:MS

ROWAN DRILLING COMPANY  
FORT WORTH 2, TEXAS

C o p y

January 16, 1946

AIR MAIL

Mr. R. E. Spurrier, State Geologist,  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

My dear Dick:

Conforming with our telephone conversation this morning, I of course, would personally have preferred to see the flow on the shallow wells left at 25 barrels; however, I cannot see too great an objection to 30 barrels, as I realize that we are going to have to start from some given point and see how this entire matter works out. I am very happy to know that you expect to get the order issued covering allocation of allowables to deeper wells this week.

Concerning tank battery requirements for separate producing horizons upon the same well, I can see no difference between permitting an operator to produce a well from two separate horizons into a common battery as opposed to permitting an operator to produce more than one well from the same horizon into a common battery. If an operator desires to cheat on proration and take advantage of his fellow offset operators by taking more oil from one horizon than he is supposed to, I do not think that there is enough police control in the state of New Mexico to keep him from doing so. I do think that if an operator was permitted to produce into a common battery from wells producing from separate zones that a periodic check might be necessary to ascertain definitely whether the wells were capable of making their allowable. Even this, of course, would not guarantee that an operator would not cheat.

I am sure that the average independent operator and all of the companies are above deliberate violation of proration. I think that in the state of New Mexico you have been particularly fortunate in having this kind of operator. Confidence, of course, breeds respect, and I think that the confidence that has been exhibited by the Conservation Commission toward the oil operators operating in the state of New Mexico and their fairness in their dealings toward these operators has certainly earned the respect of all the operators in the oil industry.

I am sure that you will find after you have been in the office which you now hold a good many years that there will be only a few instances in which you will not be accorded the fullest cooperation by these operators. It is only natural, of course, for an operator or operating company to protect their interests and sometimes in attempting to do this it possibly might seem that they are seeking an advantage over their fellow operators. I maybe wrong, but from observation have very seldom found this to be the case.

In summing up the problem, I think that you realize that to set separate tank batteries and separators on a 40 acre lease which had a well producing from the Paddock Zone and one from the Vivian Zone would incur a considerable additional investment. So far in my judgment the problem of tanks and handling sulphur crude has not been whipped. Wood tanks have their disadvantages and steel tanks are frequently destroyed by the content of the sour crude. Tank maintenance over the life of the property is high, and if some method could be devised whereby the operators would be permitted to use a common tank battery on each lease it would save the operator a considerable investment and maintenance charge of tank batteries. At the same time, I do not believe that the violation of the proration schedule would amount to anything of importance, as it is hard for me to believe that any of the operators would cheat. The Commission could certainly, and I think it is their duty to do so, devise some method whereby an operator would sooner or later be caught if he were violating the use of the common tank battery as easily as if he were violating the use of a common tank battery where more than one well is being flowed into it from wells producing from the same horizon.

Very truly yours,

ROWAN DRILLING COMPANY

F. W. Brigance

FWB:fjm

*File in Case 62 - as matter of information arising subsequent to hearing & before promulgation of deep well rules.*

CHAS. L. ROWAN  
PRESIDENT

H. ROWAN  
VICE PRES. & GEN'L MGR.

F. W. BRIG.  
VICE PRESIDENT

B. S. BRANTS  
SECTY.-TREAS.

## ROWAN DRILLING COMPANY

### OIL WELL CONTRACTORS

FORT WORTH 2, TEXAS

TELEPHONE 2-2394  
L. D. 193

January 16, 1946

AIR MAIL

Mr. R. R. Spurrier, State Geologist,  
New Mexico Oil Conservation Commission  
Santa Fe, New Mexico

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Mr. R. R. Spurrier

January 16, 1946

Page Two

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ROWAN DRILLING COMPANY

F. W. Brigance

*F. W. Brigance*

FNB:fjm