The application of the gas-oil ratio adjustment shall be as follows:

(a) The oil allocation shall be distributed to the various pools in the same manner used prior to February 1, 1940.

(b) In each pool, except Hobbs and Monument, the total amount of oil allocated to marginal ~~limits~~ units not subject to the gas-oil ratio adjustment shall first be subtracted from the pool total oil allocation. Each remaining unit shall be given a percentage rating the value of such rating depending upon its gas-oil ratio. Each unit having a gas-oil ratio equal to or less than the maximum permitted that pool shall be rated at 100. The rating of units having a gas-oil ratio in excess of the permitted maximum shall be calculated according to the following fraction:

$$\text{Rating} = \frac{\text{pool maximum gas-oil ratio} \times 100}{\text{unit gas-oil ratio}}$$

The remaining oil shall be distributed to each remaining unit in the ratio that the rating of each unit bears to the sum of all ratings in the pool.

(c) In the Hobbs and Monument Pools the proration schedule shall be calculated in the normal manner according to the order of the Commission for that field. Each unit having an allowable equal to or less than the average ~~unit~~ allowable for the pool shall be allowed to produce an amount of gas equal to the product of the permitted maximum gas-oil ratio of the pool multiplied by the average ~~unit~~ allowable; provided that a unit, the oil allowable of which has been penalized by high gas-oil ratio shall not exceed the allowable as determined by the proration formula for that particular field.

From the pool allocation shall be deducted the amount of oil allocated to marginal and wells penalized for high gas-oil ratio. The remaining oil shall be distributed to the remaining unpenalized wells in accordance with the pool proration plan.

Substitute (c) In the Hobbs or Monument Pools the proration schedule shall be calculated in the normal manner according to the order of the Commission for that pool. Units allocated average allowable or more shall be rated as in paragraph (b) above. Wells allocated less than average allowable shall be rated by the following formula:

$$\text{Rating} = \frac{\text{pool average oil allowable} \times 100 \times \text{pool max. gas-oil ratio}}{\text{unit oil allowable} \times \text{unit gas-oil ratio}}$$

Provided that no unit shall be rated more than 100. Marginal units not subject to the gas-oil ratio adjustment shall not be rated.

The tentative allowable of all rated units shall be totaled. (A) The allowable of each unit shall be multiplied by its rating B and the total of all such products (C) shall be deducted from the total (A) above. The difference shall be divided by the total products (C) above and the quotient multiplied by the product of each unit and the resulting product (D) when added to the previous product (C) shall constitute the allowable of the well

EXAMPLE

tentative allowable		Rating (B)		Product$_1$		Product$_2$	current allowable
50	X	100 %	=	50 x .2727	=	13	63
40	X	80	=	32 "	=	9	41
30	X	60	=	18 "	=	5	23
20	X	50	=	10 "	=	3	13
140 A				110 (C)			140

140
110
30

30 ÷ 110 = .2727

To apply W [illegible]

GAS-OIL RATIO PLAN - EXAMPLE

CONTINENTAL PROPERTIES

EUNICE POOL

MARGINAL WELLS	WELL	NO. WELLS	RATING	MARG. ALLOW.	CURRENT ALLOW.		
Meyer B-8	1	1		38	38	4412	Total company allocation
						38	Total unadjusted marginal allow.
						4374	
NON-MARGINAL HIGH GAS-OIL RATIO WELLS							
Lock. A-18	4	1	59.508 X Factor		28		
Meyer B- 8	3	1	75.373 "		35		
State D-15	7	1	76.943 "		36		
Lock. B-31	1	1	15.992 "	10	7		
"	2	1	38.474 "	40	18		
			266.290				
NON-MARGINAL WELLS							
		91	9100 --		4277		47 bbls. per day None marg Top
		97	9366.290		4439		
					4412		
					27		over allocated due to fractional bbls.

4374 ÷ 9366.290 = .4668 factor

It is my belief that par. C be used (Hobbs & Monument.) because substitute C would necessitate the working the proration schedule 3 times.

RECOMMENDATION FOR CONSOLIDATION OF

LYNN AND COOPER POOLS, LEA COUNTY

NEW MEXICO

2063 B

TEXAS PACIFIC COAL AND OIL COMPANY

C. E. YAGER
VICE PRESIDENT

FORT WORTH,
TEXAS

March 1, 1940

In re: Recommendation for
Consolidation of Lynn and
Cooper Pools, Lea County,
New Mexico

New Mexico Conservation Commission
Santa Fe, New Mexico

Gentlemen:

Attention of Mr. Andreas

For several years the Lynn and Cooper Pools have been classified as separate and distinct pools. Attention is hereby called to the fact that they are in reality one and the same pool producing from a common reservoir.

The north line of Township 24 South has been designated as the north line of the Cooper Pool and the south line of the Lynn Pool; yet several wells in the Lynn Pool are direct offsets to those in the Cooper Pool.

We are enclosing herewith a subsurface map and a geologic cross section covering the north part of the Cooper Pool and across all of the Lynn Pool. The subsurface map is contoured on top of the "Yates Sand", which is one of the most reliable structural markers in the area. It is clearly evident from this map that the two pools are in reality one common reservoir, as there is no evidence of either structural closure or stratigraphic change between them. The geologic cross section shows that the producing horizons are the same, and there is nothing to indicate two separate pools.

It is our understanding that the recent orders of the Commission set up an allowed gas-oil ratio in the Cooper Field of 10,000 cubic feet per barrel; whereas in the Lynn Pool it is only 3,000 cubic feet per barrel. This disparity, we feel, should be remedied since the recent gas-oil ratio survey shows that the ratios in the two pools are comparable.

We trust that you, after examination of these maps, will see the necessity of consolidating the Lynn and Cooper Pools into one and designating it as the Cooper-Lynn Pool and set up a permissable gas-oil ratio of 10,000 cubic feet per barrel.

Yours very truly,

CEY:DK
CC:Mr. Glenn Staley