REPORT OF EXECUTIVE COMMITTEE TO THE STOCKHOLDERS OF THE LOCO HILLS PRESSURE MAINTENANCE ASS'N. INC.

October 29, 1943.

The Executive Committee of your Association was delegated to make a study of the operation of the Loco Hills Pressure Maintenance project and to prepare recommendations concerning the future operation of that project. The Executive Committee hired a Petroleum Engineer some two months ago who has since that time worked in conjunction with the Executive Committee in formulating a proposal for the future operation of the Loco Hills field.

The findings of the Executive Committee are set out on the following pages which cover the main questions which must be passed upon if the pressure maintenance project is to be carried out in an orderly and profitable manner.

Summing up the findings of the Executive Committee the following points are listed:

(1) To conduct field operations to promote maximum ultimate recovery from the field as a whole, and to preserve the various equities in the field, it is desirable, if not mandatory, that a cooperative plan of centralized field operation be adopted. If maximum oil recovery is obtained, it will be necessary to either adopt the Executive Committee Cooperative unit plan or the various equities in the field will have to be completely unitized.

(2) The Executive Committee recommends that a cooperative unit plan be adopted and that authority over operations in the field be vested in the Executive Committee of the Association who will in turn delegate power to the Chief Engineer of the Association.

(3) The plan of organization recommended by the Executive Committee is set out upon Exhibit 1 hereto attached.

(4) To reduce expenditures involved in some properties of the operators having a small number of wells in the field, the Executive Committee advocates combining several of these leases insofar as switching labor is concerned. Exhibit No. 2 hereto attached sets out some ten operators having a total of thirty-six wells, and also contains tentative suggestion as to how these various operators could group the properties so as to reduce the number of switches involved. This suggestion is to be carried out by the individual operators and will of course not be under the Association.

(5) The Executive Committee recognizes the matter of injection wells as of great concern and important to the stockholders and that some change in the plan of injection wells is needed, therefore a proposal is advanced as a recommendation by which the Association would reimburse the contributors of injection wells on a basis of 75% of the value of the normal allowable. The question of whether or not 75% is the correct percentage is of little concern to the Executive Committee and should be decided upon by the Stockholders in general, however, the Executive Committee does feel that the plan should be adopted. Exhibits 3 and 4 are a detailed brief of such plan.

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(6) In the pressure maintenance field the gas oil ratios will inevitably increase, in some cases, due to injection of gas. In order to maintain pressure it is necessary to enforce a rather strict gas oil ratio limitation, therefore in some cases certain equity owners in the field will undergo a hardship. To alleviate such situation the Executive Committee recommends the adoption of a plan whereby the Association would reimburse such equity owner. This reformendation is set out in Exhibit 5. (?) The capacity of the present compressor is such that approximately three and a half million cubic feet can be reinjected into the reservoir. At the present time approximately seven million cubic feet of gas is being produced from the field. It is a recommendation of the Executive Committee that additional compressors be installed so as to raise the capacity to such an extent that seven million cubic feet of gas can be injected into the reservoir. The installation of the additional compressors should cost approximately \$80,000.00. Detailed estimates are available in the office of the Pressure Maintenance Association.

(a) To help defray the expenses of the Pressure Maintenance Association, the Executive Committee recommends the installation of a gasoline extraction plant at an approximate cost of \$70,000.00. At the present time Petroleum Engineering of Tulsa, Oklahoma, is checking the design of such an installation and preparing detailed specifications and cost. These detailed figures will be available at the time the Stockholders' meeting reconvenes on November 8.

(9) To insure the success of the cooperative unit operation plan certain authority must be vested in the Chief Engineer who will be directly responsible to the General Manager, who is also Chairman of the Executive Committee. Exhibit 6 sets out a proposed set of rules which delegates certain authority to the Chief Engineer and also sets out the manner in which the various operators can appeal the decisions of the Chief Engineer.



OPERATORS HAVING 6 WELLS OR LESS

Aston & Fair	2
Bassett & Birney	6
Bo-ers	1
Brainard-Guy	6
Carper	5
Cone, Gordon	5
Montgomery	2
Randel	1
Texas Trading	2
Yates, S. P.	6
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PROPOSED COMBINATIONS

SWITCHER # 1		SWITCHER # 2		SUITCHER # 3		
Carper	3	Texas Trading	2	S. P. Yates	6	
Bowers & Bowers	1	Carper	2	Brainard & Guy	6	
Aston & Fair	2	Rand el	1	-		
B. & Birney	5	Cone	5			
Montgomery	2	Bassett & Birncy	1			

PRESENT SWITCHERS IN THE FIELD

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Lease-Orners

Switchers

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Premier Joolley Franklin & Aston & Fair	1 1 1
Dixon & Yates)	-
Yates et al (1
Sallee & Yates	ĩ
Carper)	_
Bowers (1
Continental	1
S. P. Yates	1
Continental & M. Yates	ī
Allen. Fiir & Pope)	-
R. W. Fair (2
Montgomery	ĩ
Rassett & Birney	2
Brainard & Guy	ĩ
Banner)	-
Sanders Bros.	1
Me-Tex)	-
Kleiner (٦
Cone	ī
Randel	- 1
Stroup & Yates	-
Flynn, Welch & Yates (1
	20

INJECTION WELLS

The injection well plan now in use in Loco Hills allows an operator to make up the allowable for an injection well out of other wells on the same lease. In that case the operator secures an immediate return on his investment as well as ultimate good through pressure maintenance.

Objection to this plan is that the lease owner having an injection well will definitely be giving the surrounding leases a free ride. The presence of the injection well will increase recovery on the immediate lease, thus, it is beneficial to have one, however, each operator should participate in the expense.

One possible solution is adoption of a plan similar to the one in use in Maljamar. That is, for the Association to compensate the owner of an injection well on a monthly basis. Under such plan the Production Engineer of the Association will be empowered to select injection wells from time to time as the need arises and will have authority to inject gas into such wells. The selection will be based upon detailed engineering studies and the Engineer will make a written report to the Executive Committee at the time of selecting a well or wells.

Payment to the owner of an injection well would be made by the Association by remitting 75% of the value of the normal allowable which the well would ordinarily have.

The normal allowable of the injection well would be computed by the Association's Production Engineer and will be the average of the allowable of all producing wells within the boundary described when mid points, between the well in question and all surrounding injection wells, are connected by a series of straight lines, however, said normal allowable shall not be greater than the well was capable of producing prior to its conversion to an injection well.

As stated above, the Association would pay 75% of the value of the normal allowable, however, such 75% is to include all royalty and over-ride payments. After all royalty and over-ride interesta are met, the Association would compensate the operator up to the 75% limitation.

With 20 injection wells and a 30 barrel top allowable the payments for injection - ells could cost \$2094 monthly. Prorated against a 3,300 barrel allowable, the assessment would be about 9.2¢ per bbl.

This appears very high at first but it must be remembered that it merely amounts to a redistribution of funds among the operators themselves. If an operator contributes injection wells in proportion to his field holdings he will break even.

LOCO HILLS PRESSURE MAINTENANCE ASSOCIATION, INC.

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Artesia, New Mexico

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October 28, 1943

SUMMARY OF INPUT WELL PROPOSAL

	Actual	Probable	Charges	Credit
	August	Runs	at 9.2¢	for input
•	Runs	π ith 30	bbl. in	wells in
Operators	in bbls	Top	<u>dellars</u>	<u>dollars</u>
Allen & Fair	2588	2588	238	
Aston & Fair	5965	5921	544	530
Banner Oil Company	481	481	44	
Bassett & Birney	4582	4372	402	580
Bowers & Bowers	761	930	85	
Brainard & Guy	2846	3007	276	266
Bright & Gordon	321	321	30	
Carper Drilling Co & C-M-T	2959	3427	315	
Cone, Gordon	2200	2200	202	97
Continental Oil Co.	4487	3927	361	492
Continental & S. P. Yates	2000	2000	184	47
Dixon & Yates	6594	69 75	641	605
G air & Bright	768	930	85	
Fair, R. W.	770	930	85	
Flynn, Jelch & ^Y ates	1357	1357	125	
Franklin Petroleum Corp.	13669	13640	1255	1740
Friendship Oil Co	765	930	85	
Franklin & Yates	769	930	85	
Grayburg Oil Co.	780	930	85	
Kinfolks Trust	855	930	85	
Me-Tex Supply Co.	1540	1540	141	240
Premier Petroleum Corp.	5335	4619	425	945
Randel, O. H.	257	257	24	
Rose City Oil Corp.	460	460	42	
Sallee & Yates	4486	4185	384	605
Sanders Brother	3956	3956	364	485
Stroup & Yates	1939	1939	178	420
Wooley, R. R.	2344	2 790	256	
Yates, Harvey E.	251	251	23	
M. Yates & Continental	3076	3720	342	
Yates. S. P.	2750	2728	251	243
Yates, et al	3054	2790	256	606
Fair, N.N. & F. Brainard	2133	2133	196	193
	97009	00004	¢ 0004	÷ 0004
TOTAL ASSOCIATION Metal Outside Association	0006	100034	\$ 0024	Ø 0V34
Total Outside Association	9000	10006		
Fleid Total	30104	20020		

EXCESSIVE GAS-OIL RATIO RULE .

EXHIBIT 5

"HEREAS: The Loco Hills Pressure Maintenance Association, Inc. is a cooperative enterprise with the main purpose of injecting gas into the Loco Hills field, so as to maintain bottom-hole pressure. The Association has erected gas compressor equipment and contemplates installing additional equipment to enable it to reinject residue gas into the reservoir, the cost of compressing and reinjecting said gas costing approximately 5ϕ per MCF for operating expense alone.

GTHEREAS: Some wells have already developed high gas-oil ratios, and in the future other wells will undoubtedly develop high gas-oil ratios, the result being production of gas beyond the capacity of the Association equipment.

THEREAS: To reduce the total gas produced from the field, the operators have voluntarily accepted a gas limitation rule which limits the volume of gas produced from any one well to that volume allowed to the highest allowable well in the field. Such rule effectively reduces total gas production and lends emphasis to gas-oil ratio control. In some cases the gas-oil ratio cannot be corrected and in a pressure maintenance project the ratio of each well will necessarily eventually become excessive. Enforcement of a severe gas limitation rule is to the definite benefit of the field as a whole, however, such enforcement can be very objectionable to the royalty and lease owners in a field having diversified ownership.

THEREFORE: To compensate the operator for a severely penalized well, to promote maximum recovery from the field as a whole, and to prevent uneconomic compression charges per barrel of oil produced, the herein described compensatory scheme has been adopted.

1. The Association's Production Engineer will have authority, after making a careful study, to shut in any well having a gas-oil ratio in excess of 7,500 cu. feet per barrel. The execution of such an order will be promotly reported to the Executive Committee by means of a written report.

2. The Association's Production Engineer will prepare an evaluation as to the future recovery possible to obtain from the shut-in well had it not been closed in. Such evaluation will be submitted to the Executive Committee for subsequent approval by the Association.

3. The Loco Hills Pressure Maintenance Association, Inc. will reimburse the orner of the shut-in well by making monthly payments at a rate amounting to 75% of the crude price and based on the be the set of a late anounting to 70% of the crude price and based on the penalized allowable using the gas-oil ratio at the time of closing in the well, except that the allowable so used shall not be less than 10 bbls. for each allowable day. The payments will be made until the operator has been credited with the amount of future recovery estimated by the Production Engineer and approved by the Association.

> The Operator shall have the option of testing such 4. a closed in well at the end of each six month period and of producing the well so long as the gas-oil ratio remains under 7,500 cu. feet per barrel of oil . At such time as the ratio again exceeds 7,500 cu. feet the well will again be closed in and payments resumed by the Association. A new evaluation will Not be made after such a flow period but payments will be resumed on the basis of the agreement made at the time of originally closing in the well.

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PLAN FOR COOPERATIVE FIELD OPERATION LOCO HILLS FIELD

Authority over producing operations of all properties included in the Loco Hills Pressure Maintenance Association shall be vested in the Executive Committee of the Board of Directors of the Loco Hills Pressure Maintenance Association.

The actual operation of the various properties is to be handled by the owners as at present, however, operations, insofar as producing of crude oil and gas are concerned, are to be carried out under the direction of the Executive Committee or person designated by the Executive Committee.

Should any operator desire to protest a decision of the Executive Committee he shall have the privilege of appealing to the Board of Directors of the Loco Hills Pressure Maintenance Association, Inc. at time of the regular meeting of that body.

To supervise producing operations of the Loco Hills field and to supervise the pressure maintenance program, the Association shall hire a Petroleum Engineer to serve in the capacity of "Chief Engineer" of the Loco Hills Pressure Maintenance Association, Inc. The "Chief Engineer" will report directly to the Chairman of the Executive Committee and will be charged with such responsibilities as may be designated by the Chairman of the Executive Committee. Certain responsibilities which shall be designated to the "Chief Engineer", although not necessarily the only one, are listed in the following topics.

1. The Chief Engineer will compute the volumes of gas to be injected into each injection well and will direct the Plant to follow such procedure.

2. The Chief Engineer will select injection wells as needed to properly produce the field under the pressure maintenance program. In the selection of injection wells the Chief Engineer will give proper consideration to the various theoretical engineering aspects and also give weight to equities so as to reduce, insofar as possible, inequitable conditions.

3. The Chief Engineer will direct the execution of the "Injection Well Plan" as approved by the Stockholders of the Loco Hills Pressure Maintenance Association, Inc.

4. The Chief Engineer will direct the execution of the "Excessive Gas-Oil ratio Rule" as approved by the stockholders of the Loco Hills Pressure Maintenance Association, Inc.

5. The Chief Engineer will be responsible for the taking of the official gas-oil ratios and will report such ratios to the New Mexico Conservation Commission for use in the allocation of oil allowable. An official ratio survey is to be taken approximately three times per year, but the exact number of surveys is to be determined by the Executive Committee.

6. The Chief Engineer will be responsible for the taking of bottom-hole pressures. A complete field survey is to be taken at least twice a year and oftener at the discretion of the Executive Committee. The Chief Engineer will notify the well owners to place their wells in proper condition so that a pressure gauge can be run at least 15 days prior to the time the pressure is to be secured. In case of pumping wells or flowing wells having devices preventing the running of a pressure gauge, the bottom hole pressures will be secured by the use of a sound-wave deflection recording device such as the Echometer. 7. The Chief Engineer will prepare operation schedules setting out time and method of producing each well so as to secure the optimum oil production with the optimum gas production and to insure an even flow of gas to the plant.

8. The Chief Engineer will study the intlividual leases and wells and vill recommend remedial or corrective work to the owners of the wells. Under no circumstances shall the Chief Engineer have authority to direct a well owner to undertake remedial or corrective works other than such work as is necessary to permit the taking of bottom hole pressures and/or gas-oil ratios.

9. The Chief Engineer will be responsible for the Artesia office of the Loco Hills Pressure Maintenance Association, Inc.

10. In order to carry out the obligation of the operator to properly produce his wells to prevent masting of gas and to deliver proper flow of gas to the plant, it is agreed that the chief engineer shall report to the ExecutiveCommittee any well permitting the wasting of gas or which fails to deliver the proper amount of gas to the system and the Executive Committee shall authorize the Engineer to order said well to be shut in until such practices are remedied. In the event such an order is made, and the operator fails to comply with the order, then such operator shall not be entitled to receive any payments from the Association for injection wells and shall not be entitled to receive any shares of stock or any other privileges or benefits so long as such harmful practices are continued. If an order is issued by the Engineer to shut in a well, the Engineer shall serve a written notice upon the operator by delivering a copy thereof to the person in charge of the wells for the operator and by mailing a copy thereof to the office of the operator as shown by the books of the Association. Such notice shall state the well to be shut in and the practices which are objectionable in the opinion of the Engineer and the steps required to correct such practices. The operator may appeal any such order to the Executive Committee and/or to the Board of Directors.

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EXHIBIT 7

- BUDGET--

DISBURSEMENTS		RECEIPTS	
Operating Expense	\$ 5,000.00	8¢ per bbl. (for bank)	\$7,200. 0 0
Bank Note & Interest	7,200,00 *	7¢ per bbl. (for input	6,300.00
Input wells	8,100,00	Sale Gas & Butane	10,500.00
Wells shut in	1,800,00		
	\$ 22,100.00		\$ 24,000.00

* Repayment of loan to bank - approximately four years.