

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 2242
Order No. R-1957

APPLICATION OF THE OIL CONSERVATION
COMMISSION ON ITS OWN MOTION TO CON-
SIDER CERTAIN CHANGES IN THE DEFINI-
TION SECTION OF ITS RULES AND CERTAIN
CHANGES IN THE DEFINITIONS IN RULE 107,
AND TO CONSIDER AMENDING RULE 112 TO
PROVIDE, AMONG OTHER THINGS, FOR ADMIN-
ISTRATIVE APPROVAL FOR MULTIPLE SLIM-
HOLE COMPLETIONS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on
April 13, 1961, at Hobbs, New Mexico, before the Oil Conserva-
tion Commission of New Mexico, hereinafter referred to as the
"Commission."

NOW, on this 28th day of April, 1961, the Commission, a
quorum being present, having considered the testimony presented
and the exhibits received at said hearing, and being fully
advised in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That certain changes should be made in the definitions,
rules and regulations of the Commission pertaining to multiple
completions in order to improve nomenclature and facilitate the
administration of requests for approval of multiple completions.

(3) That the numbering system of the definition section of
the Commission's rules and regulations should be abolished.

(4) That the definition of "Dual Completion" should be
deleted from the definition section of the Commission's rules
and regulations.

(5) That the terms "Conventional Completion", "Tubingless
Completion", "Multiple Completion (Conventional)", "Multiple
Completion (Tubingless)", and "Multiple Completion (Combination)"
should be defined for nomenclature purposes.

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(6) That Rule 107 (e) should be amended to conform to the newly defined nomenclature.

(7) That Rule 112-A should be revised to provide for administrative approval of multiple completions meeting certain minimum standards.

IT IS THEREFORE ORDERED:

(1) That the numbering system of the definition section of the Commission's rules and regulations is hereby abolished.

(2) That the definition of "Dual Completion" is hereby deleted from the definition section of the Commission's rules and regulations.

(3) That the following definitions are hereby adopted and made a part of the definition section of the Commission's rules and regulations:

CONVENTIONAL COMPLETION shall mean a well completion in which the production string of casing has an outside diameter in excess of 2.875 inches.

TUBINGLESS COMPLETION shall mean a well completion in which the production string of casing has an outside diameter of 2.875 inches or less.

MULTIPLE COMPLETION (CONVENTIONAL) shall mean a completion in which two or more common sources of supply are produced through one or more strings of tubing installed within a single casing string, with the production from each common source of supply completely segregated by means of packers.

MULTIPLE COMPLETION (TUBINGLESS) shall mean a completion in which two or more common sources of supply are produced through an equal number of casing strings cemented in a common well-bore, each such string of casing having an outside diameter of 2.875 inches or less, with the production from each common source of supply completely segregated by use of cement.

MULTIPLE COMPLETION (COMBINATION) shall mean a multiple completion in which two or more common sources of supply are produced through a combination of two or more conventional diameter casing strings cemented in a common well-bore, or a combination of small diameter and conventional diameter casing strings cemented in a common well-bore, the conventional diameter strings of which might or might not be a Multiple Completion (Conventional).

(4) That Rule 107 (e) is hereby amended to read in its entirety as follows:

The Commission's District Supervisors or their representatives shall have authority to approve tubingless completions without the necessity of administrative approval or notice and hearing when the following conditions exist:

- (1) The well is to be completed with a total depth of 5,000 feet or less,
- (2) The well is not a wildcat (it is not more than one mile from an existing well producing from the same common source of supply to which it is projected),
- (3) No known corrosive or pressure problems exist which might make the tubingless method of completion undesirable,
- (4) The well will not be a dual completion,
- (5) The tubing used as a substitute for casing will be either 2 3/8-inch OD or 2 7/8-inch OD.

(5) That Rule 112-A is hereby revised to read in its entirety as follows:

RULE 112-A - MULTIPLE COMPLETIONS

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

II. DUAL COMPLETIONS (CONVENTIONAL)

The Secretary-Director of the Commission shall have the authority to grant an exception to the requirements of Rule 112-A (I) and approve the dual completion of a well without notice and hearing where the application has been filed in due form; and

- (a) The well is to be dually completed within the limits of two defined pools or within one mile thereof, and the Commission has previously authorized the similar dual completion of a well in the same zone as proposed, after notice and hearing; or the well

is to be dually completed outside the limits of a defined pool and there is a similar dual completion in the same zones within one mile of the proposed dual completion which has previously been authorized by the Commission after notice and hearing, provided however that in Rio Arriba, San Juan, Sandoval, and McKinley Counties, a proposed gas-gas dual completion may be approved even though it is not within defined pools nor within one mile of a previously authorized dual completion of similar nature, if both the upper zone and the lower zone of the proposed dual completion have been recognized by the Commission as being gas producing zones suitable for dual completion; and

(b) The applicant proposes to utilize one of the mechanical installations described below:

1. The well is to be completed as a gas-gas dual completion and the hydrocarbons from each of the two zones can be safely and efficiently produced through parallel strings of tubing or through a single string of tubing and the tubing-casing annulus.
2. The well is to be completed as a gas over oil dual completion and the hydrocarbons from each of the two zones can be safely and efficiently produced through parallel strings of tubing or through the tubing-casing annulus and a single string of tubing respectively.
3. The well is to be completed as an oil over gas dual completion and the hydrocarbons from each of the two zones can be safely and efficiently produced through parallel strings of tubing or through a single string of tubing and the tubing-casing annulus respectively by means of a crossover flow assembly.
4. The well is to be completed as an oil-oil dual completion and the hydrocarbons from each of the two zones can be safely and efficiently produced through parallel strings of tubing; and

(c) All strings of tubing used for the production of oil in the proposed dual completion will have a nominal inside diameter of not less than 1.670 inches nor greater than 2.50 inches; and

(d) The packer used to segregate the separate zones of the dual completion shall be a production-type packer

and shall effectively prevent communication between all producing zones.

III. MULTIPLE COMPLETIONS (TUBINGLESS AND COMBINATION)

The Secretary-Director of the Commission shall have the authority to grant an exception to the requirements of Rule 112-A (I) and approve the multiple completion of a well without notice and hearing where application has been filed in due form; and

(a) The well is to be a multiple completion (tubingless or combination) within the limits of defined pools or within one mile thereof, and the Commission has previously authorized the similar multiple completion of a well in the same zones as proposed, after notice and hearing; or the well is to be so multiply completed outside the limits of a defined pool and there is a similar multiple completion in the same zones within one mile of the proposed multiple completion which has previously been authorized by the Commission after notice and hearing, provided however that in Rio Arriba, San Juan, Sandoval, and McKinley Counties, any such proposed multiple completion may be authorized even though it is not within defined pools nor within one mile of a previously authorized multiple completion of similar nature, if a similar multiple completion within the same zones as proposed has been authorized after notice and hearing; and

(b) The applicant proposes to employ one of the following methods of completion:

1. Multiple Completion (Tubingless) utilizing two or more small diameter casing strings (2.875 inches OD or less), one to each common source of supply, all cemented in a common well-bore.

2. Multiple Completion (Combination) utilizing a combination of small diameter (2.875 inches OD or less) and conventional diameter (greater than 2.875 inches) casing strings, all cemented in a common well-bore. Provided however, that if any conventional diameter casing in said multiple completion is used for the production of two separate common sources of supply, the rules pertaining to Dual Completions (Conventional) in Rule 112-A II (b) (c) and (d) above shall also apply; and

(c) Sufficient cement shall be used in said multiple

completion to extend throughout each pay and a minimum of 100 feet above; and

(d) Centralizers and/or turbolizers shall be installed on each joint of casing throughout each pay and on a minimum of three joints above; and

(e) Directional perforating equipment shall be used in perforating all intervals in any casing string in said multiple completion which intervals are in a zone through which one or more other casing strings pass.

(f) The requirements of paragraphs (c) and (d) may be modified for multiple completions within given common sources of supply and within a given area if, in the opinion of the Secretary-Director, circumstances warrant such modification.

IV. ADMINISTRATIVE PROCEDURE

Application for administrative approval of a multiple completion shall be made in quadruplicate, with two copies of the application to be mailed to the Commission's Santa Fe office, and two copies to the District office for the area in which the well is located. Application shall be made on the Commission Form entitled, "Application for Multiple Completion," and shall be accompanied by the following:

(a) Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location of packers, side door chokes, and such other information as may be pertinent.

(b) Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.

(c) Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.

(d) Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as hereinafter provided.)

The Secretary-Director may approve the multiple completion if, after a period of 20 days following the filing of the application, no operator has filed objection to the proposed multiple completion.

- V. Application for public hearing to authorize a multiple completion shall be made in triplicate to the Commission's Santa Fe office. Application shall be made on the Commission Form entitled "Application for Multiple Completion," and shall set forth all material facts relative to the common sources of supply involved and the manner and method of completion proposed. Application shall be accompanied by an exhibit showing the location of all wells on applicant's lease and all offset wells on offset leases.
- VI. All multiple completions, whether approved after hearing or by administrative procedure, shall be subject to the following rules:
- (a) Prior to actual multiple completion of a well, operator shall make adequate pressure tests of the casing to determine that no casing leaks exist. Results of casing tests shall be reported to the Commission on Form C-103.
 - (b) The well shall be completed and thereafter produced in such a manner that there will be no commingling of hydrocarbons from the separate strata.
 - (c) The operator shall commence a segregation test and/or packer leakage test not later than seven days after actual multiple completion of the well. Segregation tests and/or packer leakage tests shall also be made any time the packer is disturbed and at such other intervals as the Commission may prescribe. The operator shall also make all other tests and determinations deemed necessary by the Commission. Offset operators as well as the Commission shall be notified of the time such tests are to be commenced. Tests may be witnessed by representatives of offset operators and of the Commission at their election. Results of such tests shall be filed with the Commission within 15 days after the completion of tests; provided however, that in the event a segregation test or packer leakage test indicates that there is communication between the separate strata, the operator shall immediately notify the Commission and commence remedial action on the well.
 - (d) A packer setting affidavit shall accompany the report of the initial segregation test and packer leakage test, if applicable.

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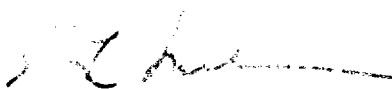
(e) The well shall be so equipped that reservoir pressures may be determined for each of the separate strata and further be so equipped that meters may be installed and the gas, oil and gas, and oil produced from each of the separate strata may be accurately measured, and the gas-oil ratio or the gas-liquid ratio thereof determined.

(f) Within 15 days after the completion of the well, the operator shall furnish the Commission with a diagrammatic sketch of the mechanical installation which was actually used in completing the well together with a report of the gravity, gas-oil ratio or gas-liquid ratio, and reservoir pressure for each of the separate zones, and the log of the well if the same has not been previously submitted.

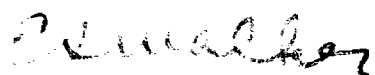
(6) That the effective date of this order shall be May 1, 1961.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



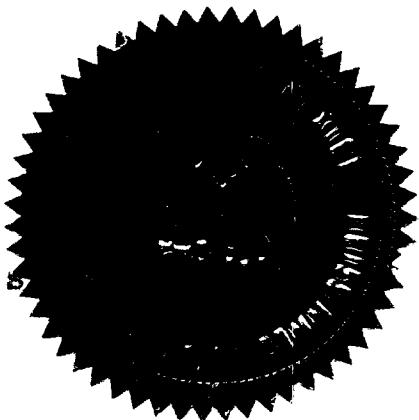
EDWIN L. MECHEM, Chairman



E. S. WALKER, Member



A. L. PORTER, Jr., Member & Secretary



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