



INFORMATIONAL MEMORANDUM

TO: All Oil and Gas Operators

FROM: Michael E. Stogner, Chief Hearing Examiner/Engineer (OCD)

SUBJECT: Revised Division General Rule 111 - Deviation Test and Directional Wells.

DATE: February 7, 1997

Attached is a copy of proposed revisions to Division General Rule 111 in its entirety. These rule changes were the product of a work group that included myself and four industry representatives from both Southeast and Northwest New Mexico and are to be considered by the New Mexico Oil Conservation Commission at its formal hearing scheduled for April 10, 1997.

WHAT DO THESE RULE CHANGES DO?

The proposed rule changes will serve to simplify the regulatory process by eliminating the requirements for notice, application, and a possible hearing strictly because a proposed well or existing recompletion is directional or horizontal. However, if the bottomhole location or the subsurface location of the wellbore within a producing interval is unorthodox then an exception to Rule 104 or special pool rules will still be required. These changes also serve to clarify the requirements for wells with excessive deviation. Finally, the unnecessary and often tedious requirements for intentionally deviated wells are removed.

Written comments, proposed changes, and suggestions are welcomed. Please submit to:

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Proposed Changes to Rule 111: Directional Drilling

February 7, 1997

111 DEVIATION TESTS AND DIRECTIONAL WELLS

111.A. Definitions: the following definitions shall apply to this Rule only:

(1) Azimuth - means the deviation in the horizontal plane of a wellbore expressed in terms of compass degrees.

(2) Deviated Well - means any wellbore which is intentionally deviated from vertical but not with an intentional azimuth. Any deviated well is subject to Rule 111-B.

(3) Directional Well - means a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111-C.

(4) Drilling Unit - means the surface acreage assigned to a vertical wellbore in accordance with NMOCD Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all such non-standard units previously approved by the Division.

(5) Kick-off Point - means the point at which the wellbore is intentionally deviated from vertical.

(6) Lateral - means any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.

(7) Penetration Point - means the point where the wellbore penetrates the top of the pool from which it is intended to produce.

(8) Producing Area - means all points that lie along a rectangular or square window formed by plotting the measured distance from the North, South, East and West boundaries of a project area, inside of which a vertical wellbore can be drilled and produced in conformity with the setback requirements from the outer boundary of a standard spacing and proration unit for the applicable pool(s).

(9) Producing Interval - means that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus.

(10) Project Area - an area designated on Form C-102 that is enclosed by the outer boundaries of a drilling unit, a combination of complete drilling units, or an approved secondary, tertiary or pressure maintenance project.

(11) Project Well - means any well drilled, completed, produced or injected into as either a deviated well or as a directional well.

- (12) Terminus - means the farthest point attained along the wellbore.
- (13) Unorthodox - means any part of the producing interval which is located outside of the producing area.
- (14) Vertical Well - means a well that does not have an intentional departure or course deviation from the vertical.
- (15) Wellbore - means the interior surface of a cased or open hole through which drilling, production, or injection operations are conducted.

111.B. Deviated Wellbores:

(1) **Deviation Tests Required.** Any vertical or deviated well which is drilled or deepened shall be tested at reasonably frequent intervals to determine the deviation from the vertical. Such tests shall be made at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, "Request for Allowable and Authorization to Transport Oil and Natural Gas".

(2) **Excessive Deviation.** When the deviation averages more than five degrees in any 500-foot interval, the operator shall include the calculations of the maximum possible horizontal displacement of the hole. When the maximum possible horizontal displacement exceeds the distance to the nearest outer boundary line of the appropriate unit, the District Supervisor shall require that a directional survey be run to establish the location of the producing interval(s).

(3) **Unorthodox Locations.** If the results of the directional survey indicate that the producing interval is more than 50 feet from the approved surface location and less than the minimum setback requirements from the outer boundaries of the applicable unit, then the well shall be considered unorthodox. To obtain authority to produce such well, the operator shall file an application with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104.F(3) to obtain approval of the unorthodox location.

(4) **Directional Survey Requirements.** Upon request from the Division Director, any vertical or deviated well shall be directionally surveyed. The Supervisor of the appropriate Division District shall be notified of the approximate time any directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed.

111.C. Directional Wellbores:

(1) **Directional Drilling Within a Project Area.** A permit to directionally drill a wellbore may be granted by the Supervisor of the appropriate Division District if the producing interval is entirely within the producing area or at an unorthodox location previously approved by the Division.

(2) **Unorthodox Wellbores.** If all or part of the producing interval of any directional wellbore is projected to be outside of the producing area, the wellbore shall be considered unorthodox. To obtain approval for such wellbore, the applicant shall file a written application in duplicate

with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104.F(3).

(3) Allowables for Project Areas With Multiple Proration Units. The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon the number of standard proration units (or approved non-standard proration and spacing units) that are developed or traversed by the producing interval of the directional wellbore or wellbores, plus any standard proration units that are developed by vertical wellbores within the project area.

(4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The Supervisor of the appropriate Division District shall be notified of the approximate time all directional surveys are to be conducted. All directional surveys run on any well in any manner for any reason must be filed with the Division upon completion of the well. The Division shall not assign an allowable to the well until all such directional surveys have been filed. If the directional survey indicates that any part of the producing interval is outside of the producing area, or, in the case of an approved unorthodox location, less than the approved setback requirements from the outer boundary of the applicable unit, then the operator shall file an application with the Division Director, copy to the appropriate OCD District Supervisor, and shall otherwise follow the normal process outlined in Rule 104.F(3) to obtain approval of the unorthodox location.

111.D. Additional Matters:

(1) The Division Director, at the request of an offset operator, may require any operator to make a directional survey of any well. The directional survey and all associated costs shall be at the expense of the requesting party and shall be secured in advance by a \$5,000 indemnity bond posted with and approved by the Division. The requesting party may designate the well survey company and the survey may be witnessed by the Division and the operator.

(2) The Division Director, may, at his discretion, set any application for administrative approval or public hearing.

(3) Permission to deviate or directionally drill any wellbore for any reason or in any manner not provided for in this rule shall be granted only after notice and opportunity for hearing.