

Case
11762

Mike Stogner

From: Rick Foppiano
To: MikStogner
Subject: My comments on your proposed Rule 111 order
Date: Wednesday, June 04, 1997 9:58AM

Comments:

- In the findings section, paragraph (4), second subparagraph (a), I would change "normal" to "orthodox." I know you picked this off of one of my slides, but in retrospect I think "normal" is a poor choice of words on my part.

- Also in the findings section, paragraph (5), let me suggest an alternate for your consideration:

"The Division and the Work Group now recommend, based on their knowledge and experience, that Rule 111 be amended to reflect the following listed changes which are deemed desirable by the Division and the industry:

(a) General:

i) expand the definition of a 'project area' to include secondary recovery projects, and allow for project areas to be designated on the OCD Form C-102 for approval of the Districts;

ii) specify quality control measures for all directional surveys such as minimum shot-point spacing and OCD approval of the surveying company.

(b) Vertical Wells:

i) specify that a directional survey will be required for a vertical wells with excessive deviation, if the maximum horizontal displacement calculation reveal a possibility that the wellbore is outside of the unit boundaries;

ii) stipulate that a vertical well will be considered unorthodox when a required directional survey shows a proposed producing interval more than 50 feet from the surface location and encroaching on the outer boundary of the applicable unit;

iii) delete the formal application process for OCD approval of intentional deviations of vertical wells.

(c) Directional & Horizontal Wells:

i) eliminate the formal application process for orthodox producing intervals on directional and horizontal wellbores, and allow the Division's District Offices to process these requests;

ii) clarify that the producing interval of a horizontal or directional wells must be inside of the producing area, or it must be permitted as an unorthodox location under Rule 104 (F)(3).

iii) require that the producing interval of a horizontal or directional wellbore actually develop or traverse each proration unit in a project area consisting of multiple proration units in order to be eligible for multiple allowable."

I think that captures most if not all of the significant changes. The way you had it worded seemed to indicate that the 50' tolerance applied to any well drilled under Rule 111, when in fact in only applies to vertical wells with excessive deviation and reentries.

All in all, a nicely worded order, Mike. Let me know if you need

anything else.....

REF

Mike Stogner

Case
11762

From: Frank Chavez
To: Mike Stogner
Cc: Tim Gumm; Chris Williams
Subject: Comments on new Rule 111
Date: Wednesday, June 04, 1997 12:10PM

111.A.(4) and (10) I didn't catch this before but the rules currently use the terms "spacing unit", "drill tract", and "dedicated acreage". Couldn't we use one of these without creating a new one? Also, the expression "surface acreage" is incorrect.

111.A.(8). Substitute "The area that lies" for "all points that lie"

111.^C~~D~~.(1) We actually need the operator to send the C-102 not the C-101.

111.D.(3) Delete "when dealing with prorated pools" or substitute "within a prorated pool".



OXY USA Inc.

FACSIMILE COVER SHEET

DATE 6/3/97

TO: ADDRESSEE Mike Stogner

COMPANY NMOC

ADDRESSEE'S PHONE NUMBER _____

ADDRESSEE'S FACSIMILE NUMBER 505-827-~~XXXX~~^{1389 fax}

COMMENTS: Good catch! I don't know how it got dropped, but here it is!
Thanks!

Rick.

FROM: ORIGINATOR RICHARD E. FOPPIANO

ORIGINATOR PHONE NUMBER 915-685-5913

ORIGINATOR FACSIMILE NUMBER 915-685-5742

NUMBER OF PAGES (INCLUDING COVER PAGE) 2
(PLEASE NUMBER ALL PAGES)

Missing Piece of Paragraph C
June 3, 1997

(Note => [~~This indicates proposed deletions~~] This indicates proposed additions. *Changes from the docketed version are noted in bold italics.*)

111.C.3 Allowables for Project Areas that Consist of Multiple Proration Units. The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of 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. *Such maximum allowable shall be applicable to all production from the project area, including any vertical wellbores on standard proration units inside the project area.*



OXY USA Inc.

6 Desta Drive, Suite 6000, Midland, TX 79705, P.O. Box 50250, Midland, TX 79710-0250

Telephone 915 685-5600 Fax 915 685-5754

April 17, 1997

New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

*** BY EXPRESS MAIL ***

Attention: Mr. Michael E. Stogner, Chief Hearing Officer/Engineer

Re: *Proposed Changes to NMOCD Rule 111*

Dear Mike:

Please find enclosed our final version of the proposed changes to Rule 111. The response from the group to the last set of changes indicates no objections, so those changes have been incorporated. Please let me know if you need anything else.

Sincerely,

A handwritten signature in cursive script that reads "Rick".

Richard E. Foppiano, P.E.
Regulatory Affairs Advisor
Western Region – Midland

REF:ref
Attachments

Cc: Donna Williams
Wade Howard
George Sharpe
Randy Cates

(Note => [~~This indicates proposed deletions~~] This indicates proposed additions.)

RULE 111-Deviation Tests[~~Deviated Wells~~] and Directional Wells:

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

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

(2) [~~(1)~~] 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 [~~B and C~~].

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

(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 non-standard such units previously approved by the Division.

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

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

(7) [~~(9)~~] 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 within [~~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) [(13)] Producing Interval - [means] that portion of the wellbore drilled inside the vertical limits of a pool, between its penetration point and its terminus [~~and within the producing area~~].

(10) [(7)] 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 [~~means one or more drilling units which are to be dedicated to the project well~~].

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

(12) Terminus - [means] the farthest point attained along the wellbore.

(13) Unorthodox - any part of the producing interval which is located outside of the producing area.

(14) [(3)] Vertical Well - [means] a well that does not have an intentional departure or course deviation from the vertical.

(15) [(5)] 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, [and] the operator [Division] shall run [~~may 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 closer than the minimum setback requirements to 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 Division District Office, 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 [~~which was deviated in an indeterminate direction or toward the vertical~~] shall be directionally surveyed. The appropriate Division District Office 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.

~~[C.— Deviated Wellbores.—~~

~~(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:~~

~~—— (a) straighten a crooked hole by deviating towards the vertical;~~

~~—— (b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);~~

~~—— (c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.~~

~~(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.~~

~~(3) Applications for administrative approval for a deviated well shall:~~

~~—— (a) be filed in duplicate and shall be accompanied by plats showing [both] the~~

~~surface location of the subject well, its spacing unit and all adjoining spacing units;~~

~~— (b) state the reason(s) for deviating the subject well; and~~

~~— (c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.~~

~~(4) The bottomhole location of any deviated well shall be at an orthodox well location or an unorthodox location previously approved pursuant to Rule 104 and shall be considered acceptable if the actual subsurface location in the formation to be produced is orthodox or is no more than 50 feet from the approved subsurface location.~~

~~(5) The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.]~~

111.C. [D] Directional Wellbores:

~~[(1) The Division Director, shall have the authority without notice and hearing to administratively approve a directional wellbore project when:~~

~~— (a) the surface location of the proposed or existing project well is within the boundaries of the project area, consisting of a single or multiple drilling unit(s), substantially in the form of either a square or a rectangle, as applicable, being a legal subdivision of the U.S. Public Land Survey;~~

~~— (b) the producing interval of the wellbore(s) is totally confined to a producing area. The wellbore(s) may be re-oriented to any azimuth based upon a change in conditions either geologic or mechanical, which is encountered either before or after the commencement of a project, but only insofar as the producing interval(s) remains totally confined to the producing area;~~

~~(c) the project area includes either a single drilling unit or multiple contiguous drilling units; and,~~

~~(d) the project well includes either a single lateral or multiple laterals which conform to conditions (a) and (b) above.~~

~~(2) To obtain administrative approval to drill a directional well, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD District Supervisor, which shall include:~~

~~(1) a statement addressing the reason(s) for directionally drilling the subject well;~~

~~(2) a plat indicating the section, township and range in which the well is to be drilled, the project area, the proposed surface producing interval, the producing area for the project well, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;~~

~~(3) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool, degree of angle to be built in the project wellbore(s), the true vertical and the measured depth of the estimated kickoff point, the estimated penetration point and the lateral length;~~

~~(4) a horizontal plan view for the subject well and its spacing unit showing the drilling unit and drilling producing window, including the estimated azimuth and maximum length of the lateral(s) to be drilled;~~

~~(5) a type log section on which is identified the top and bottom of the subject pool; and,~~

~~(6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt~~

~~requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.]~~

(1) Directional Drilling Within a Project Area. A permit to directionally drill a wellbore may be granted by the appropriate Division District Office if the producing interval is entirely within the producing area or at an unorthodox location previously approved by the Division. Additionally, if the project area consists of a combination of drilling units and includes any State or Federal acreage, a copy of the application for a permit to drill shall be sent to the State Land Office or the Bureau of Land Management.

(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 Division District Office, and shall otherwise follow the normal process outlined in Rule 104 (F) (3).

→ (4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The appropriate Division District Office 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 Division District Office, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox location.

(5) Re-entry of Vertical or Deviated Wellbores for Directional Drilling Projects. These wellbores shall be considered orthodox provided the surface location is orthodox and the location of producing interval is within the tolerance allowed for deviated wellbores under Rule 111.B.(3).

~~[E.— Requirements/Conditions of Administrative Approval:~~

~~(1) The Division Director may approve the application upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the~~

Director:

(2) Any order issued by the Director approving an application for a directional wellbore shall require that:

- ~~_____ (a) the applicant shall conduct a directional survey on the wellbore after directional drilling operations in order that the direction, extent and terminus of said wellbore may be determined to be in compliance with the provision of any order with copies submitted to the Santa Fe NMOCD and to the NMOCD district office in which the well is located; and,~~
- ~~_____ (b) 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 a well until the operator has submitted an affidavit that all such directional surveys have been filed.]~~

111.D [F]. 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.]~~

(1) Directional surveys required under the provisions of this rule shall have shot points no more than 200 feet apart and shall be run by competent surveying companies that are approved by the Division Director. Exceptions to the minimum shot point spacing will be allowed provided the accuracy of the survey is still within acceptable limits.

(2) The Division Director, may, at his discretion, set any application for administrative approval [for public hearing.] whereby the operator shall submit appropriate information and give notice as requested by the Division Director. Unprotested applications may be approved administratively within 20 days of receipt of the application and supporting

information. If the application is protested, or the Division Director decides that a public hearing is appropriate, the application may be set for 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.

CLEAN VERSION

RULE 111-Deviation Tests and Directional Wells:

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

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

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

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

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

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

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

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

(8) Producing Area - all points that lie within a 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 - 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 - any well drilled, completed, produced or injected into as either a vertical well, deviated well or directional well.

(12) Terminus - the farthest point attained along the wellbore.

(13) Unorthodox - any part of the producing interval which is located outside of the producing area.

(14) Vertical Well - a well that does not have an intentional departure or course deviation from the vertical.

(15) Wellbore - 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 operator shall run a directional survey 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 closer than the minimum setback requirements to 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 Division District Office, 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 appropriate Division District Office 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 appropriate Division District Office if the producing interval is entirely within the producing area or at an unorthodox location previously approved by the Division. Additionally, if the project area consists of a combination of drilling units and includes any State or Federal acreage, a copy of the application for a permit to drill shall be sent to the State Land Office or the Bureau of Land Management.

(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 Division District Office, and shall otherwise follow the normal process outlined in Rule 104 (F) (3).

(4) Directional Surveys Required. A directional survey shall be required on each well drilled under the provisions of this section. The appropriate Division District Office 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 Division District Office, and shall otherwise follow the normal process outlined in Rule 104 (F) (3) to obtain approval of the unorthodox location.

(5) Re-entry of Vertical or Deviated Wellbores for Directional Drilling Projects. These wellbores shall be considered orthodox provided the surface location is orthodox and the location of producing interval is within the tolerance allowed for deviated wellbores under Rule 111.B.(3).

111.D [F]. Additional Matters:

(1) Directional surveys required under the provisions of this rule shall have shot points no more than 200 feet apart and shall be run by competent surveying companies that are approved by the Division Director. Exceptions to the minimum shot point spacing will be allowed provided the accuracy of the survey is still within acceptable limits.

(2) The Division Director, may, at his discretion, set any application for administrative approval whereby the operator shall submit appropriate information and give notice as requested by the Division Director. Unprotested applications may be approved administratively within 20 days of receipt of the application and supporting information. If the application is protested, or the Division Director decides that a public hearing is appropriate, the application may be set for 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.



MEMORANDUM
OCCIDENTAL OIL AND GAS

April 14, 1997

TO: Donna Williams (Burlington Resources)
George Sharpe (Merrion)
C. Wade Howard (Texaco)
Mike Stogner (NMOCD)
Randy Cate (Enron)

Fax #: 688-6007
Fax #: 505-326-5900
Fax #: 688-4831
Fax #: 505-827-8177
Fax #: 686-3773

FROM: Richard E. Foppiano *Rick*

SUBJECT: Our Meeting Tomorrow for one last look at Rule 111

I took the latest draft that we offered at the hearing and drafted some possible language to address Jamie's concerns. The bold italics identify it in the attachment. I also included the ENRON language to give us a starting point for our discussions. Mike will not be able to attend, but I thought we would try to call him on our conference phone when we get a consensus. George, if you have any thoughts on this new language, please call me so we can discuss.

The group did a fantastic job at the hearing! See ya tomorrow. (Randy, we plan on meeting with you around 1:00 in our office, if that is OK.)

REF:ref
Attachment

4-17-97
This issue was addressed when Enron brought it up earlier.
M. Stogner

2

C:\DATA\WP\DOCUME~1\1111_6.DOC

Draft No. 7Date: April 15, 1997

(Note => [~~This indicates proposed deletions~~] This indicates proposed additions. *Changes to the prior version are noted in bold italics.*)

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(4)

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.

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~~[C. — Deviated Wellbores:~~

~~(1) The Supervisor of the appropriate Division District may approve the written request of an operator to drill a deviated wellbore or to deviate an existing wellbore to:~~

- ~~—— (a) straighten a crooked hole by deviating towards the vertical;~~
- ~~—— (b) side track junk in the hole by deviating in an indeterminate direction (no intentional azimuth);~~
- ~~—— (c) side track an existing wellbore by deviating in an indeterminate direction (no intentional azimuth) for the purpose of recompleting into an existing producing formation or plugging the originally completed formation and recompleting into a different formation.~~

~~(2) The Supervisor of the appropriate Division District may require any request for a deviated well to be submitted for administrative approval by the Division Director.~~

~~(3) Applications for administrative approval for a deviated well shall:~~

- ~~—— (a) be filed in duplicate and shall be accompanied by plats showing [both] the surface location of the subject well, its spacing unit and all adjoining spacing units;~~
- ~~—— (b) state the reason(s) for deviating the subject well, and~~
- ~~—— (c) shall include a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit~~

~~in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.~~

~~(4) The bottomhole location of any deviated well shall be at an orthodox well location or an unorthodox location previously approved pursuant to Rule 104 and shall be considered acceptable if the actual subsurface location in the formation to be produced is orthodox or is no more than 50 feet from the approved subsurface location.~~

~~(5) The Division Director may approve the application for a deviated well upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.]~~

III.C. [D] Directional Wellbores:

~~[(1) The Division Director, shall have the authority without notice and hearing to administratively approve a directional wellbore project when:~~

~~— (a) the surface location of the proposed or existing project well is within the boundaries of the project area, consisting of a single or multiple drilling unit(s); substantially in the form of either a square or a rectangle, as applicable, being a legal subdivision of the U.S. Public Land Survey;~~

~~— (b) the producing interval of the wellbore(s) is totally confined to a producing area. The wellbore(s) may be re-oriented to any azimuth based upon a change in conditions either geologic or mechanical, which is encountered either before or after the commencement of a project, but only insofar as the producing interval(s) remains totally confined to the producing area;~~

~~— (c) the project area includes either a single drilling unit or multiple contiguous drilling units; and;~~

~~— (d) the project well includes either a single lateral or multiple laterals which conform to conditions (a) and (b) above.~~

~~(2) To obtain administrative approval to drill a directional well, the applicant shall file a written application in duplicate with the Division Director, copy to the appropriate OCD~~

District Supervisor, which shall include:

- ~~(1) a statement addressing the reason(s) for directionally drilling the subject well;~~
- ~~(2) a plat indicating the section, township and range in which the well is to be drilled; the project area, the proposed surface producing interval, the producing area for the project well, any existing wells in the applicable pool(s) in the proposed project area, all offsetting drilling units in the applicable pool(s) and their associated operator, and any wells in those units;~~
- ~~(3) a vertically oriented plan view (cross-sectional view) for the subject well including the true vertical depth of the top and bottom of the subject pool; degree of angle to be built in the project wellbore(s); the true vertical and the measured depth of the estimated kickoff point; the estimated penetration point and the lateral length;~~
- ~~(4) a horizontal plan view for the subject well and its spacing unit showing the drilling unit and drilling-producing window, including the estimated azimuth and maximum length of the lateral(s) to be drilled;~~
- ~~(5) a type log section on which is identified the top and bottom of the subject pool; and;~~
- ~~(6) a statement or plat showing the names and addresses of all operators of spacing units, or working interest owners of undrilled spacing units offsetting the unit in the applicable pool(s) in which the project is located and attesting that applicant, on or before the same date the application was submitted to the Division, has sent notification to all those parties by submitting a copy of the application to them by certified mail return receipt requested and advising them that if they have an objection, it must be filed in writing within twenty (20) days of the date notice was sent.]~~

(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. If the project area consists of a combination of drilling units and includes and State or Federal acreage, a copy of the application for a permit to drill (Form C-101) shall also be sent to the State Land Office and the Bureau of Land Management.

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(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).

(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.

(5) Use of Pre-existing Vertical or Deviated Wellbores for Directional Drilling Projects. The wellbore shall be considered orthodox if the results of the directional survey as required in 111.C.(4) indicate that the penetration point is no more than _____ feet outside of the producing area, the lateral has entered the producing area no more than 600 feet from the penetration point, and the remainder of the lateral is entirely within the producing area.

~~[E. Requirements/Conditions of Administrative Approval:~~

~~(1) The Division Director may approve the application upon receipt of waivers from all offset operators or owners of undrilled tracts or if no offset operator or owner has entered an objection to the project within 20 days after the application was received by the Director.~~

~~(2) Any order issued by the Director approving an application for a directional wellbore shall require that:~~

~~(a) the applicant shall conduct a directional survey on the wellbore after directional drilling operations in order that the direction, extent and terminus of said wellbore may be determined to be in compliance with the provision of any order with copies submitted to the Santa Fe NMOED and to the NMOED-district office in which the well is located; and,~~



~~(b) 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 a well until the operator has submitted an affidavit that all such directional surveys have been filed.]~~

LLD [F]. 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.]~~

(1) Directional surveys required under the provisions of this rule shall have shot points no more than 200 feet apart and shall be run by competent surveying companies that are approved by the Division Director. Exceptions to the minimum shot point spacing will be allowed provided the accuracy of the survey is still within acceptable limits.

(2) The Division Director, may, at his discretion, set any application for administrative approval [for public hearing:] whereby the operator shall submit appropriate information and give notice as requested by the Division Director. Unprotested applications may be approved administratively within 20 days of receipt of the application and supporting information. If the application is protested, or the Division Director decides that a public hearing is appropriate, the application may be set for 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.

CLEAN VERSION

RULE 111-Deviation Tests and Directional Wells:

- (1) Azimuth - the deviation in the horizontal plane of a wellbore expressed in terms of compass degrees.
- (2) Deviated Well - 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 - a wellbore which is intentionally deviated from vertical with an intentional azimuth. Any directional well is subject to Rule 111.C.
- (4) Drilling Unit - the surface acreage assigned to a wellbore in accordance with Rule 104. Included in this definition is a "unit of proration for oil or gas" as defined by the Division and all non-standard such units previously approved by the Division.
- (5) Kick-off Point - the point at which the wellbore is intentionally deviated from vertical.
- (6) Lateral - any portion of a wellbore past the point where the wellbore has been intentionally departed from the vertical.
- (7) Penetration Point - the point where the wellbore penetrates the top of the pool from which it is intended to produce.
- (8) Producing Area - all points that lie within a 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 - 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 - any well drilled, completed, produced or injected into as either a vertical well, deviated well or directional well.

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(12) Terminus - the farthest point attained along the wellbore.

(13) Unorthodox - any part of the producing interval which is located outside of the producing area.

(14) Vertical Well - a well that does not have an intentional departure or course deviation from the vertical.

(15) Wellbore - 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 operator shall run a directional survey 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 closer than the minimum setback requirements to 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. If the project area consists of a combination of drilling units and includes and State or Federal acreage, a copy of the application for a permit to drill (Form C-101) shall also be sent to the State Land Office and the Bureau of Land Management.

(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 that Consist of Multiple Proration Units. The maximum allowable assigned to the project area when dealing with prorated pools shall be based upon of 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. Such maximum allowable shall be applicable to all production from the project area, including any vertical wellbores on standard proration units inside 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.

(5) Use of Pre-existing Vertical or Deviated Wellbores for Directional Drilling Projects. The wellbore shall be considered orthodox if the results of the directional survey as required in 111.C.(4) indicate that the penetration point is no more than _____ feet outside of the producing area, the lateral has entered the producing area no more than 600 feet from the penetration point, and the remainder of the lateral is entirely within the producing area.

(12)

111.D. Additional Matters:

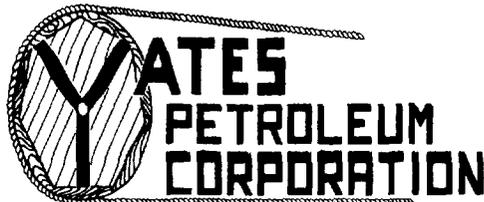
(1) Directional surveys required under the provisions of this rule shall have shot points no more than 200 feet apart and shall be run by competent surveying companies that are approved by the Division Director. Exceptions to the minimum shot point spacing will be allowed provided the accuracy of the survey is still within acceptable limits.

(2) The Division Director, may, at his discretion, set any application for administrative approval whereby the operator shall submit appropriate information and give notice as requested by the Division Director. Unprotested applications may be approved administratively within 20 days of receipt of the application and supporting information. If the application is protested, or the Division Director decides that a public hearing is appropriate, the application may be set for 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.

MARTIN YATES, III
1912 - 1985

FRANK W. YATES
1936 - 1986



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TREASURER

April 9, 1997

New Mexico Oil Conservation Division
Attention: Michael E. Stogner - New Rule 111
2040 South Pacheco Street
Santa Fe, New Mexico 87505

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

Dear Mr. Stogner:

Yates Petroleum Corporation offers the following comments on the proposed changes to the above referenced rule.

We are opposed to the removal of the notice requirement in the new proposed rule. Notice to the offset operators is important because the offset operator needs to know when to exercise the right to request a direction survey as provided in section 111.D. Additionally, we recommend that a time limitation be placed on how long the offset operator has to request such a survey.

Yates Petroleum Corporation respectfully submits these comments.

Very truly yours,

YATES PETROLEUM CORPORATION

A handwritten signature in cursive script, appearing to read 'Chuck Moran', is written over the printed name.

Chuck Moran
Associate Landman