

**STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:**

**CASE NO. 12961
ORDER NO. R-11897**

**APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L.P. FOR AN
EXCEPTION TO DIVISION ORDER NO. R-111-P, EDDY COUNTY, NEW
MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on November 14, 2002, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 10th day of February, 2003, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) By Division Order No. R-111 dated November 9, 1951, as amended by Orders No. R-111-A through R-111-P, the Division established the "*Potash Area*," being an area located in Lea and Eddy Counties, New Mexico, in which potash mining operations have occurred or are ongoing, or in which core tests indicate the presence of commercial potash reserves.

(3) In order to facilitate the safe and orderly development of both oil and gas and potash reserves within the "*Potash Area*," Division Order No. R-111, as amended, also established special rules governing oil and gas development in this area, including the following-described standards for casing and cementing oil and gas wells:

***Deep Wells**—Are defined as those wells drilled to a formation below the base of the Delaware Mountain Group, or below a depth of 5,000 feet, whichever is lesser.*

Surface Casing—Shall be set in the “Red Bed” section of the basal Rustler formation immediately above the salt section, or in the anhydrite at the top of the salt section. Cement on this casing string shall be circulated to the surface.

Salt Protection Casing—Shall be set not less than 100 feet nor more than 600 feet below the base of the salt section. Cement on this casing string shall be circulated to the surface.

Intermediate Casing—The operator shall have the option of running an intermediate string of casing in the well. If this string of casing is run, cement on this casing string shall be circulated to the surface.

Production Casing—Shall be set on top or through the oil and gas pay zone. The production casing string shall be cemented with a volume adequate to protect the pay zone and the casing above such zone; provided that if no intermediate string of casing is run in the well and cemented to surface, the production string shall be cemented to the surface.

(4) The applicant, Devon Energy Production Company, L.P. (“Devon”), seeks an exception to the casing cementing requirements established by Division Order No. R-111, as amended, for its deep wells located within the following-described area in Eddy County, New Mexico, such that it will not be required to circulate cement to the surface on the production casing:

Township 23 South, Range 31 East, NMPM

| | |
|-------------------|-----------|
| Section 10: | SE/4 SE/4 |
| Section 11: | All |
| Section 13: | N/2, SW/4 |
| Section 14: | S/2 |
| Section 15: | All |
| Sections 22 & 23: | All |

(5) Devon’s proposed exception area is located on the southeastern edge of the “Potash Area.”

(6) The evidence presented demonstrates that the N/2 NE/4, NW/4, and N/2 SW/4 of Section 11, the N/2 NE/4 and SE/4 NE/4 of Section 13, and the N/2 NW/4 and

SW/4 NW/4 of Section 15 are not located within the “*Potash Area*” and are therefore not subject to the special rules governing the development of oil and gas.

(7) The N/2 NE/4, NW/4, and N/2 SW/4 of Section 11, the N/2 NE/4 and SE/4 NE/4 of Section 13, and the N/2 NW/4 and SW/4 NW/4 of Section 15 should be dismissed from this application, and the proposed exception area should comprise the following-described acreage:

Township 23 South, Range 31 East, NMPM

| | |
|-------------------|--------------------------|
| Section 10: | SE/4 SE/4 |
| Section 11: | S/2 NE/4, SE/4, S/2 SW/4 |
| Section 13: | SW/4 NE/4, W/2 |
| Section 14: | S/2 |
| Section 15: | E/2, SW/4, SE/4 NW/4 |
| Sections 22 & 23: | All |

(8) With regards to potash leasing and potash development in this area, Devon presented evidence that demonstrates that:

- (a) there are currently no active potash leases within the proposed exception area;
- (b) the nearest Federal potash leases, held by IMC Potash Carlsbad Inc. (“IMC”), are located one mile to the west of the exception area in Sections 8, 17, 20 and 29, Township 23 South, Range 31 East, NMPM;
- (c) the nearest state potash leases, held by IMC, are located directly adjacent to the exception area in Sections 2 and 16, Township 23 South, Range 31 East, NMPM; however, Devon presented testimony that these state potash leases were to expire on November 15, 2002; and
- (d) the nearest area that has been mined for potash is located approximately four miles northwest of the exception area in Section 11, Township 23 South, Range 30 East, NMPM.

(9) Devon presented geologic evidence that demonstrates that:

- (a) the potash-bearing intervals are located within the Salado formation which is present in this area from a depth of 1,094 feet to 2,952 feet; and
- (b) the development of oil and gas in this area is occurring in the Brushy Canyon member of the Delaware formation from a depth of approximately 6,900 feet to 8,200 feet.

(10) Devon testified that if its application is approved, all Delaware wells within the exception area would be cased and cemented as follows:

- (a) 13 3/8-inch surface casing will be set in the Rustler formation at a depth of approximately 850 feet, and cement will be circulated to the surface;
- (b) 8 5/8-inch salt protection casing will be set at the top of the Delaware formation at a depth of approximately 4,400 feet, and cement will be circulated to the surface; and
- (c) 5 1/2-inch production casing will be set within the Bone Spring formation at a depth of approximately 8,500 feet. This casing will be cemented to a depth of approximately 3,400 feet, or 500-1000 feet above the salt protection casing shoe.

(11) Devon presented engineering evidence that demonstrates that:

- (a) extensive development of the oil and gas reserves within the Delaware formation has already occurred in the area surrounding the proposed exception area, including areas to the west lying directly on Federal potash leases;
- (b) within the exception area, it is likely that Devon will drill up to fifty-two (52) wells to develop the Delaware formation;

- (c) the requirement to circulate cement on the production casing will add approximately \$30,000 to the cost of drilling one of these Delaware wells;
- (d) the ultimate oil recovery from these Delaware wells is such that the economics of drilling these wells may be affected by the requirement to circulate cement on the production casing; and
- (e) if it is determined at some future time that potash mining operations will be conducted within the exception area, it will be possible for Devon to perform remedial cement operations on these wells in order to circulate cement on the production casing.

(12) Devon provided notice of its application to IMC. IMC did not appear at the hearing in opposition to the application.

(13) The evidence presented demonstrates that potash mining operations are located a considerable distance away from the proposed exception area, and that it is unlikely that such mining operations will progress towards or converge upon this area within the reasonably foreseeable future.

(14) The evidence presented further demonstrates that the method by which the Delaware wells are proposed to be drilled, cased and cemented by Devon, even to the exclusion of cementing the production casing to the surface, provides protection to the potash reserves.

(15) The application should be approved.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Devon Energy Production Company, L.P., is hereby granted an exception to the casing cementing requirements established by Division Order No. R-111, as amended, for its deep wells located within the following-described area in Eddy County, New Mexico, such that it will not be required to circulate cement to the surface on the production casing:

Township 23 South, Range 31 East, NMPM

| | |
|-------------------|--------------------------|
| Section 10: | SE/4 SE/4 |
| Section 11: | S/2 NE/4, SE/4, S/2 SW/4 |
| Section 13: | SW/4 NE/4, W/2 |
| Section 14: | S/2 |
| Section 15: | E/2, SW/4, SE/4 NW/4 |
| Sections 22 & 23: | All |

(2) The portion of Devon Energy Production Company, L.P.'s application for an exception to the casing cementing requirements established by Division Order No. R-111, as amended, for its deep wells located within the following described area in Eddy County, New Mexico, is hereby dismissed.

Township 23 South, Range 31 East, NMPM

| | |
|-------------|--------------------------|
| Section 11: | N/2 NE/4, NW/4, N/2 SW/4 |
| Section 13: | N/2 NE/4, SE/4 NE/4 |
| Section 15: | N/2 NW/4, SW/4 NW/4 |

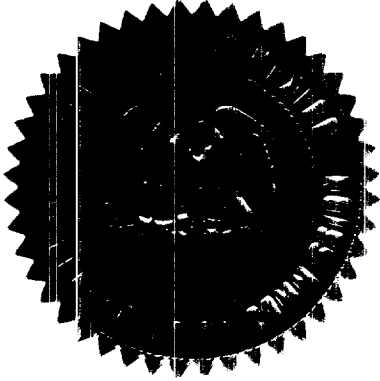
(3) Within the area described in Finding No. (1) above, Devon Energy Production Company, L.P. shall case and cement its wells in accordance with the procedure set forth in Finding No. (10) above. In addition, the production casing in these wells shall be cemented a minimum distance of 500 feet into the salt protection casing.

(4) All other provisions of Division Order No. R-111, as amended, especially regarding the casing and cementing requirements for the surface and salt protection casing strings, shall remain in full force and effect within the exception area.

(5) In the event that potash mining operations ultimately converge upon the exception area, the Division may, if it deems it necessary to protect potash reserves, require Devon Energy Production Company, L.P., or other successor operator to conduct remedial cement operations on the wells within the exception area.

(6) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Lori Wrotenbery
LORI WROTENBERY
Director