

**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. 13406  
ORDER NO. R-12297**

**APPLICATION OF SEELY OIL COMPANY FOR AMENDMENT OF THE  
REMEDIAL CEMENTING REQUIREMENTS OF DIVISION ORDER NO. R-  
11929, WHICH ORDER APPROVED WATERFLOOD OPERATIONS IN THE  
EK PENROSE SAND UNIT, LEA COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION;**

This case came on for hearing at 8:15 a.m. on February 17, 2005, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 28<sup>th</sup> day of February, 2005, 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 Order No. R-11929 issued in Case No. 12964 on April 16, 2003, the Division authorized Seely Oil Company to institute a **waterflood** project within the EK Penrose Sand Unit Area ("Unit Area"), located in portions of Township 18 South, Ranges 33 and 34 East, NMPM, Lea County, New Mexico, by the injection of water into the Penrose sand member of the Queen formation, EK Yates-Seven Rivers-Queen Pool, through nine initial **injection** wells to be located within the Unit Area.

(3) Order No. R-11929 further stipulated that prior to commencing injection operations into the Seely Oil Company Howe "TG" Federal Well No. 1 (API No. 30-025-27759) located 1980 feet from the South line and 1830 feet from the West line (Unit K) of Section 30, Township 18 South, Range 34 East, NMPM, the applicant was required to perform remedial cement operations on the Yates Petroleum Corporation Howe "TG" Federal Well No. 2 (API No. 30-025-29038) located 810 feet from the South line and

1830 feet from the West line (Unit N) of Section 30, and on the C. W. Trainer McElvain Federal Well No. 3 (API No. 30-025-28557) located 766 feet from the South line and 731 feet from the West line (Unit M) of Section 30.

(4) The applicant, Seely Oil Company ("Seely"), seeks to amend Division Order No. R-11929 by deleting the requirement that it perform remedial cement operations on the aforesaid C. W. Trainer McElvain Federal Well No. 3 prior to commencing injection operations into its Howe "TG" Federal Well No. 1.

(5) Division records show that the McElvain Federal Well No. 3, which was drilled in 1984 by C. W. Trainer, is cased and cemented as follows:

13 3/8-inch surface casing is set at a depth of 352 feet and cemented to surface;

8 5/8-inch intermediate casing is set at a depth of 3,710 feet and cemented to surface;

5 1/2-inch production casing is set at a depth of 9,717 feet and cemented with 650 sacks of cement. The cement top behind the 5 1/2-inch casing is at a depth of 6,600 feet as determined by cement bond log.

(6) The proposed Penrose sand injection interval within Seely's Howe "TG" Federal Well No. 1, which has yet to be determined, will likely be within the vertical interval from approximately 4,600 feet to 4,900 feet.

(7) In Case No. 12964 the Division determined that since the McElvain Federal Well No. 3 was not cemented across the proposed injection interval, the wellbore could serve as a conduit for **injected** fluid to escape to other formations. Accordingly, the Division required Seely to cement the production casing in this well above, across and below the proposed injection interval.

(8) Seely presented geologic evidence that demonstrates that:

(a) the Yates Petroleum Corporation Howe "TG" Federal Well No. 2 contains approximately four (4) feet of net sand in the Penrose sand member of the Queen formation; and

- (b) the Penrose sand member of the Queen formation is not present in the C. W. Trainer McElvain Federal Well No. 3.

(9) Seely testified that since the Penrose sand member of the Queen formation is present within the Yates Petroleum Corporation Howe "TG" Federal Well No. 2, it intends to perform remedial cement operations on this well in accordance with Order No. R-1 1929 in order to preclude the migration of injected fluid from the proposed injection interval.

(10) Seely further testified that since the Penrose sand member of the Queen formation is not present within the C. W. Trainer McElvain Federal Well No. 3, this wellbore does not provide an avenue of escape for injected fluid.

(11) The evidence presented by the applicant demonstrates that the C. W. Trainer McElvain Federal Well No. 3 is geologically isolated from the waterflood injection interval in Seely's EK Penrose Sand Unit Waterflood Project, and that this wellbore will therefore not serve as a conduit for the escape of injection fluid from the injection interval.

(12) The remedial cementing requirements for the C. W. Trainer McElvain Federal Well No. 3 are unnecessary, and therefore the application of Seely in this case should be approved.

**IT IS THEREFORE ORDERED THAT :**

(1) The application of Seely Oil Company to amend Division Order No. R-11929 to delete the requirement that it perform remedial cement operations on the C. W. Trainer McElvain Federal Well No. 3 (API No. 30-025-28557) located 766 feet from the South line and 731 feet from the West line (Unit M) of Section 30, Township 18 South, Range 34 East, NMPM, Lea County, New Mexico, prior to commencing injection operations into its Howe "TG" Federal Well No. 1 (API No. 30-025-27759) located 1980 feet from the South line and 1830 feet from the West line (Unit K) of Section 30, is hereby approved.

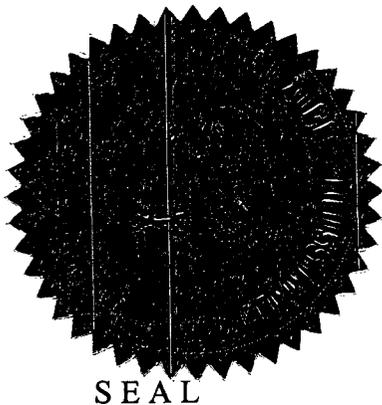
(2) Decretory Paragraphs No. (8) and (9) of Division Order No. R-1 1929 are hereby amended to read as follows:

“ (8) Prior to commencing injection operations into the Howe "TG" Federal Well No. 1, the applicant shall perform remedial cement operations on the Yates Petroleum Corporation Howe "TG" Federal Well No. 2 (API No. 30-025-29038) located 810 feet from the South line and 1830 feet from the West line (Unit N) of Section 30, Township 18 South, Range 34 East, NMPM, in order to effectively isolate the Penrose sand member of the Queen formation within this well.

(9) Subsequent to completing the remedial work on the aforesaid Edith Federal Well No. 2 and the Howe "TG" Federal Well No. 2, the applicant shall provide documentation to the Santa Fe and Hobbs offices of the Division that such work has been successfully completed."

(3) 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.



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.  
Director