

**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. 12505  
ORDER NO. R-11371-A**

**APPLICATION OF DUGAN PRODUCTION CORPORATION TO AMEND  
DIVISION ORDER NO. R-11371 FOR PRODUCED WATER DISPOSAL, SAN  
JUAN COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on October 19, 2000, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 9th day of November, 2000, 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-11371 issued in Case No. 12364 on May 17, 2000, the Division authorized Dugan Production Corporation to utilize its Stella Needs A Com Well No. 1 (**API No. 30-045-08994**) located 1650 feet from the South and West lines (Unit K) of Section 36, Township 30 North, Range 14 West, NMPM, San Juan County, New Mexico, to dispose of produced water into the Point Lookout member of the Mesaverde formation through the perforated interval from approximately 3,690 feet to 3,820 feet.

(3) The applicant, Dugan Production Corporation ("Dugan"), seeks to amend Division Order No. R-11371, to authorize the expansion of the injection interval in the Stella Needs A Com Well No. 1 to include the Menefee member of the Mesaverde formation from approximately 2,950 feet to 3,690 feet.

(4) This case was styled such that "In the Absence of Objection, this Application Will be Taken Under Advisement."

(5) The applicant did not appear at the hearing, but presented evidence to support its application.

(6) No other party appeared at the hearing.

(7) The evidence presented by the applicant demonstrates that:

- (a) upon attempting to complete the Stella Needs A Com Well No. 1 for disposal into the Point Lookout member of the Mesaverde formation, Dugan discovered leaks in the production casing within the Menefee interval;
- (b) Dugan cement squeezed the Menefee interval in an attempt to repair the production casing in the well, but the remedial cement job was unsuccessful;
- (c) the production casing in the well has demonstrated mechanical integrity from the surface to a depth of 2,950 feet; and
- (d) expansion of the injection zone to include the Menefee interval will allow Dugan to enhance the well's capability to accept produced water by perforating and utilizing additional sands within the Menefee interval.

(8) Division records demonstrate that the nearest production within the Mesaverde formation is approximately 2.5 miles southwest of the Stella Needs A Com Well No. 1.

(9) Order No. R-11371 required Dugan, prior to commencing injection operations, to run a cement bond log on the Stella Needs A Com Well No. 1 to determine whether the production casing in the well was adequately cemented above and below the Point Lookout interval to ensure the injected fluid is confined to the authorized injection interval.

(10) Division records demonstrate that Dugan ran a cement bond log on the well on June 20, 2000, and submitted a copy of this log to the Aztec District Office of the Division on June 21, 2000.

(11) Dugan has not yet submitted a Division Form C-103 (Sundry Notice) detailing the remedial cement operations conducted on the Stella Needs A Com Well No. 1.

(12) The results of the cement bond log conducted on the well do not conclusively demonstrate that injected fluid will be confined to the proposed injection interval.

(13) The evidence presented in this case demonstrates that approval of the application, subject to certain stipulations, will enable the applicant to utilize the Stella Needs A Com Well No. 1 for disposal, will not cause the waste of hydrocarbons, and will not violate correlative rights.

(14) Dugan's application should be approved subject to the following provisions:

- (a) within 10 days following first injection into the Stella Needs A Com Well No. 1, Dugan should be required to conduct a radioactive tracer survey on the well in order to demonstrate no fluid movement out of the authorized injection interval behind the production casing. This radioactive tracer survey should be conducted as per Division guidelines;
- (b) Dugan should advise the supervisor of the Division's Aztec District Office of the date and time the radioactive tracer survey is to be conducted so that this operation may be witnessed; and
- (c) in the event the radioactive tracer survey indicates fluid movement out of the authorized injection interval behind the casing, the Division may administratively suspend injection authority and require additional work on the well to ensure that injected fluid is confined to the approved injection interval.

(15) Injection should be accomplished through 2 3/8 inch plastic-lined tubing installed in a packer located at approximately 2,900 feet.

(16) The injection well or system should be equipped with a pressure limiting switch or other acceptable device that will limit the surface injection pressure on the well to no more than 590 psi.

(17) The Director of the Division may approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the Menefee and Point Lookout members of the Mesaverde formation.

(18) Prior to commencing injection operations, Dugan should be required to obtain a formation water sample from the Menefee interval within the subject well and submit an analysis of this formation water to the Santa Fe Office of the Division.

(19) All other provisions contained within Division Order No. R-11371 that are not inconsistent with the directives of this order should remain in full force and effect.

(20) The injection authority granted herein should terminate one year after the effective date of this order if the applicant has not commenced injection operations into the subject well, provided however the Division, upon written request by the applicant, may grant an extension thereof for good cause shown.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Dugan Production Corporation ("Dugan") to amend Division Order No. R-11371 is hereby approved.

(2) Dugan is hereby authorized to expand the injection interval in its Stella Needs A Com Well No. 1 (**API No. 30-045-08994**) located 1650 feet from the South and West lines (Unit K) of Section 36, Township 30 North, Range 14 West, NMPM, San Juan County, New Mexico, to include the Menefee member of the Mesaverde formation from approximately 2,950 feet to 3,690 feet.

(3) Injection into the Point Lookout and Menefee members of the Mesaverde formation shall be accomplished through 2 3/8 inch plastic-lined tubing installed in a packer located at approximately 2,900 feet.

(4) The injection well or system shall be equipped with a pressure limiting switch or other acceptable device that will limit the surface injection pressure on the well to no more than 590 psi.

(5) The Director of the Division may approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected fluid from the Menefee and Point Lookout members of the Mesaverde formation.

(6) Prior to commencing injection operations, Dugan shall obtain a formation water sample from the Menefee interval within the subject well and submit an analysis of this formation water to the Santa Fe Office of the Division.

(7) Within 10 days following first injection into the Stella Needs A Com Well No. 1, Dugan shall conduct a radioactive tracer survey on the well in order to demonstrate no fluid movement out of the authorized injection interval behind the production casing. This radioactive tracer survey shall be conducted as per Division guidelines.

(8) Dugan shall advise the supervisor of the Division's Aztec District Office of the date and time the radioactive tracer survey is to be conducted in order that this operation may be witnessed.

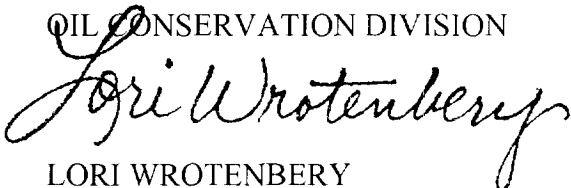
(9) In the event the radioactive tracer survey indicates fluid movement out of the authorized injection interval behind the casing, the Division may administratively suspend injection authority and require additional work be done on the well to ensure that injected fluid is confined to the approved injection interval.

(10) All other provisions contained within Division Order No. R-11371 that are not inconsistent with the directives of this order shall remain in full force and effect.

(11) The injection authority granted herein shall terminate one year after the effective date of this order if the applicant has not commenced injection operations into the subject well, provided however the Division, upon written request by the applicant, may grant an extension thereof for good cause shown.

(12) 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  
  
LORI WROTENBERY  
Director

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