

**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. 12364
ORDER NO. R-11371**

**APPLICATION OF DUGAN PRODUCTION CORP. FOR SALT WATER
DISPOSAL, SAN JUAN COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 20, 2000, at Santa Fe, New Mexico, before Examiner Mark W. Ashley.

NOW, on this 17th day of May, 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) The applicant, Dugan Production Corp. ("Dugan"), seeks authority 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) Division records and evidence presented by the applicant indicate that the Stella Needs A Com Well No. 1 was drilled in July, 1961, to a total depth of 6019 feet to test the Dakota formation, Basin-Dakota Prorated Gas Pool. The well was perforated in the Dakota formation from 5,851 feet to 5,899 feet. The well was cased and cemented as follows:

<u>Casing Size</u>	<u>Setting Depth</u>	<u>Top of Cement</u>
8 5/8"	246'	Circulated to Surface
4 1/2"	6019'	5,200' (calculated)

(4) In March of 1981, a casing leak in the 4 1/2 casing at 3,554 feet was cement squeezed. The top of cement from the squeeze was calculated to be approximately 2,950 feet.

(5) In March of 2000, Dugan submitted an application to the Santa Fe Division Office to convert its Stella Needs A Com Well No. 1 to injection for disposal purposes into the Point Lookout member of the Mesaverde formation.

(6) Dugan's application could not be approved administratively because the 4 1/2 casing was not cemented across the proposed injection zone. There is no cement behind the 4 1/2 casing from approximately 3,554 feet to 5,200 feet.

(7) Dugan presented evidence indicating that it plans to plug and abandon the Dakota perforations and set cement plugs inside and outside casing at the top of the Gallup member of the Mancos formation prior to perforating the proposed injection zone. Dugan further testified that once recompleted, the Stella Needs A Com Well No. 1 would be adequately isolated so as to limit injection to the Point Lookout member of the Mesaverde formation.

(8) No offset operator or interest owner appeared at the hearing in opposition to the application.

(9) Before injection operations begin, Dugan should be required to run a cement bond log to determine the location of cement behind the casing. If the cement bond log indicates that any part of the casing above and below the proposed injection interval is not adequately cemented, Dugan should be required to perform additional operations to ensure that the proposed injection zone will be adequately isolated.

(10) The Division's Aztec District Office should be notified of the approximate date and time that the cement bond log is to be conducted. Copies of the log should be submitted to the Aztec District Office.

(11) Injection should be accomplished through 2 3/8 inch plastic-lined tubing installed in a packer located at approximately 3,590 feet; the casing-tubing annulus should

be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(12) Before injection operations begin, the casing in the subject well should be pressure-tested throughout the interval from the surface down to the proposed packer setting depth to ensure the integrity of such casing.

(13) The injection well or system should be equipped with a pressure limiting switch or other acceptable device that will limit the surface pressure on the injection well to no more than 738 psi.

(14) The Director of the Division may administratively 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 Point Lookout member of the Mesaverde formation.

(15) The operator should notify the supervisor of the Division's Aztec District Office of the date and time of the installation of disposal equipment and of the performance of the mechanical integrity pressure test so that they may be witnessed.

(16) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(17) Approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

(18) 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 applicant, Dugan Production Corp., is hereby authorized 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.

(2) Before injection operations begin, Dugan must run a cement bond log to determine the location of cement behind the casing. If the cement bond log indicates that any part of the proposed injection interval is not adequately isolated, Dugan must perform additional operations to ensure that the proposed injection zone will be adequately isolated.

(3) The Division's Aztec District Office shall be notified of the approximate date and time that the cement bond log is to be conducted. Copies of the log shall be submitted to the Aztec District Office.

(4) Injection shall be accomplished through 2 3/8 inch plastic-lined tubing installed in a packer set at approximately 3,590 feet; the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge or approved leak detection device shall be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(5) Before injection operations begin, the casing in the subject well shall be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to ensure the integrity of such casing.

(6) The injection well or system shall be equipped with a pressure limiting switch or other acceptable device that will limit the surface pressure on the injection well to no more than 738 psi.

(7) The Director of the Division may administratively 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 Point Lookout member of the Mesaverde formation.

(8) The operator shall notify the supervisor of the Division's Aztec District Office of the date and time of the installation of disposal equipment and of the performance of the mechanical integrity pressure test so they may be witnessed.

(9) The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(10) The operator shall immediately notify the supervisor of the Division's Aztec District Office of the failure of the tubing, casing, or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

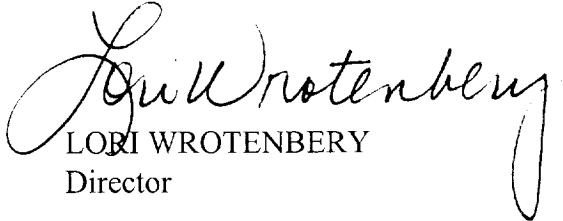
(11) The applicant shall submit monthly reports of the disposal operations on C-115, in accordance with Division Rules 702 through 706, 708 and 1120.

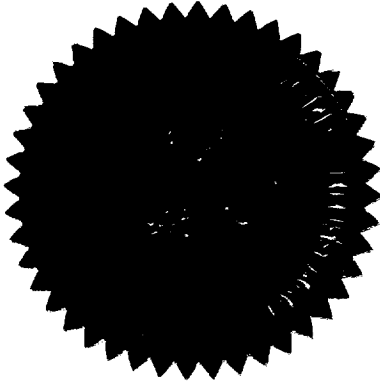
(12) The injection authority granted herein shall terminate one year after the effective date of this order if the applicant has not commenced injection operations into the subject well, provided however the Division, upon written request by the applicant, may grant an extension thereof for good cause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

(13) 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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