



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

August 11, 2000

Queen Sand Operating Company
13760 Noel Road, Suite 1030, L.B. #44
Dallas, Texas 75240-7336

Attn: Mr. James L. Hull, Jr.

**RE: *Injection Pressure Increase,
Drickey Queen Sand Unit Waterflood
Chaves County, New Mexico***

Reference is made to your request dated August 10, 2000 to increase the surface injection pressure on the following wells. This request is based on a step rate tests conducted on July 18, 19 and 20, 2000. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on the following wells is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following wells:

<i>Well and Location</i>	<i>Maximum Surface Injection Pressure Water</i>
<i>DQSU Well No. 54 (API No. 30-005-21156) Unit P, Section 15, Township 14 South, Range 31 East</i>	<i>1784 PSIG</i>
<i>DQSU Well No. 55 (API No. 30-005-21157) Unit M, Section 15, Township 14 South, Range 31 East</i>	<i>1633 PSIG</i>
<i>DQSU Well No. 56 (API No. 30-005-21153) Unit D, Section 15, Township 14 South, Range 31 East</i>	<i>1556 PSIG</i>

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<i>Well and Location</i>	<i>Maximum Surface Injection Pressure Water</i>
<i>DQSU Well No. 57 (API No. 30-005-21154) Unit A, Section 15, Township 14 South, Range 31 East</i>	<i>1809 PSIG</i>
<i>Chaves County, New Mexico.</i>	

The Division Director may rescind this injection pressure increases if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

In addition to the operator name, well name and test data; please include the legal location of the well, the name of a contact person, a phone number and a return address with any future requests for pressure increase.

Sincerely,



Lori Wrotenberg
Director

LW/MWA/kv

cc: Oil Conservation Division - Hobbs
Files: Case No. 1356 (Order No. R-1128), WFX-746, IPI 3rd QTR-2000



ADMINISTRATIVE ORDER NO. WFX-746

**APPLICATION OF NORTHLAND OPERATING COMPANY TO EXPAND ITS
WATERFLOOD PROJECT IN THE CAPROCK-QUEEN POOL IN LEA COUNTY,
NEW MEXICO.**

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Division Order R-1128, as amended, Northland Operating Company has made application to the Division on November 30, 1998 for permission to reinstate and expand its Drickey Queen Sand Unit Waterflood Project in the Caprock-Queen Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been filed in due form.
- (2) Satisfactory information has been provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection wells are eligible for conversion to injection under the terms of Rule 701.
- (5) The proposed expansion of the above referenced waterflood project will not cause waste nor impair correlative rights.
- (6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, Northland Operating Company, be and the same is hereby authorized to inject water into the Queen formation at approximately 3052 feet (true vertical depth) through 3 1/2-inch plastic lined tubing set in a packer located as deep as possible in the vertical section of the hole (approximately 2800 feet) in the following described wells for purposes of secondary recovery to wit:

Drickey Queen Unit Well No.54
API No. not yet assigned
140' FSL & 330' FEL – Unit 'P'
Injection Interval: 3052 feet – TVD
Lateral Open Hole Completion from
Approximately 3500 feet to 5990 feet MVD
Packer Setting: 2800 feet
Maximum Injection Pressure: 610 psig

Drickey Queen Unit Well No.56
API No. not yet assigned
140' FNL & 380' FWL – Unit 'D'
Injection Interval: 3052 feet – TVD
Lateral Open Hole Completion from
Approximately 3500 feet to 5990 feet MVD
Packer Setting: 2800 feet
Maximum Injection Pressure: 610 psig

Drickey Queen Unit Well No.55
API No. not yet assigned
140' FNL & 330' FWL – Unit 'M'
Injection Interval: 3052 feet – TVD
Lateral Open Hole Completion from
Approximately 3500 feet to 5990 feet MVD
Packer Setting: 2800 feet
Maximum Injection Pressure: 610 psig

Drickey Queen Unit Well No.57
API No. not yet assigned
140' FNL & 330' FEL – Unit 'A'
Injection Interval: 3052 feet – TVD
Lateral Open Hole Completion from
Approximately 3500 feet to 5990 feet MVD
Packer Setting: 2800 feet
Maximum Injection Pressure: 610 psig

All wells located in Section 15, Township 14 South, Range 31 East, Lea County, New Mexico.

IT IS FURTHER ORDERED THAT:

Prior to commencing with drilling operations, the operator shall obtain all necessary permits for locating the wells and horizontal completions within the subject wellbores.

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.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no greater than .2 psi per foot of depth to the true vertical depth of the completion.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Grayburg formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity tests so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

The subject wells shall be governed by all provisions of Division Order No. R-1128, as amended, and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

PROVIDED FURTHER THAT, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

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

DONE at Santa Fe, New Mexico, on this 19th day of January, 1999.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



LORI WROTENBERY
Director

S E A L

LW/BES/kv

cc: Oil Conservation Division - Hobbs
Case File No.1356

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 1704
Order No. R-1128-B

APPLICATION OF CITIES SERVICE OIL
COMPANY FOR AN AMENDMENT OF ORDER
NOS. R-1128 AND R-1128-A TO PRO-
VIDE FOR CAPACITY ALLOWABLES FOR
EIGHT WELLS IN THE PROJECT AREA
OF ITS WATER FLOOD PROJECT IN THE
CAPROCK-QUEEN POOL, LEA AND CHAVES
COUNTIES, NEW MEXICO, AND TO PRO-
VIDE FOR A CAPACITY ALLOWABLE FOR
ONE WELL OFFSETTING SAID PROJECT
AREA, AND TO ESTABLISH AN ADMIN-
ISTRATIVE PROCEDURE WHEREBY THE
PROJECT AREA MAY BE EXPANDED AND
ADDITIONAL WELLS CONVERTED TO
WATER INJECTION WITHOUT NOTICE
AND HEARING

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 8:00 o'clock a.m. on June 24, 1959, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 7th day of July, 1959, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Cities Service Oil Company, was authorized by Order Nos. R-1128 and R-1128-A to institute a water flood project in the Caprock-Queen Pool, Lea and Chaves Counties, New Mexico, on its Government Lease comprising Section 3 and the N/2 of Section 10, Township 14 South, Range 31 East, N.M.P.M., Chaves County, New Mexico.

Case No. 1704
Order No. R-1128-B

(3) That the applicant seeks an amendment of said Order Nos. R-1128 and R-1128-A to provide for capacity allowables for the following-described nine wells, eight of which are on the Government "B" Lease and thus within the project area, the other of which is located on applicant's State "AN" Lease offsetting the water flood project area:

Government B Well No. 2, SW/4 NE/4 of Section 10
Government B Well No. 3, NE/4 NE/4 of Section 10
Government B Well No. 11, NE/4 NW/4 of Section 10
Government B Well No. 8, SW/4 SE/4 of Section 3
Government B Well No. 9, NE/4 SE/4 of Section 3
Government B Well No. 12, SW/4 NE/4 of Section 3
Government B Well No. 15, NE/4 SW/4 of Section 3
Government B Well No. 19, SW/4 SW/4 of Section 3
State AN Well No. 1, SW/4 SW/4 of Section 2

all in Township 14 South, Range 31 East, Caprock-Queen Pool, Chaves County, New Mexico.

(4) That the applicant further seeks an amendment of said Order Nos. R-1128 and R-1128-A to establish an administrative procedure whereby the project area may be expanded and whereby additional wells may be converted to water injection without notice and hearing.

(5) That the evidence indicates that said water flood project has caused an increase in the producing capacity of the eight above-described wells located on applicant's Government "B" Lease to the extent that they are now or soon will be individually capable of producing in excess of the top unit allowable for the Caprock-Queen Pool and/or that they are now or soon will be collectively capable of producing in excess of the project allowable authorized by Order No. R-1128-A.

(6) That the evidence further indicates that the water flood project has caused an increase in the producing capacity of said State "AN" Well 1, which offsets the water flood project area, to the extent that it is capable of producing in excess of top unit allowable for the Caprock-Queen Pool.

(7) That there is a possibility that waste will occur if production from the above-described wells is restricted.

(8) That the subject application should be approved.

IT IS THEREFORE ORDERED:

(1) That the following-described wells in and offsetting the applicant's Water Flood Project in the Caprock-Queen Pool, Lea and Chaves Counties, New Mexico, be and the same are hereby granted allowables equal to their net capacity to produce:

Or
Caj
"B"
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Government B Well No. 2, SW/4 NE/4 of Section 10
Government B Well No. 3, NE/4 NE/4 of Section 10
Government B Well No. 11, NE/4 NW/4 of Section 10
Government B Well No. 8, SW/4 SE/4 of Section 3
Government B Well No. 9, NE/4 SE/4 of Section 3
Government B Well No. 12, SW/4 NE/4 of Section 3
Government B Well No. 15, NE/4 SW/4 of Section 3
Government B Well No. 19, SW/4 SW/4 of Section 3
State AN Well No. 1, SW/4 SW/4 of Section 2

all in Township 14 South, Range 31 East, Chaves County, New Mexico.

(2) That an administrative procedure be and the same is hereby established whereby the project area of said Water Flood Project may be expanded without notice and hearing.

PROVIDED HOWEVER, That notice of the application for expansion shall be submitted to all operators offsetting the proposed expansion. If no objection is received from any such offset operator within fifteen (15) days, the Secretary-Director may grant approval of the proposed expansion for good cause shown. The Secretary-Director may grant immediate approval of the proposed expansion upon receipt of waivers of objection from all operators offsetting the proposed expansion.

(3) That an administrative procedure be and the same is hereby established to provide that additional wells in said Project may be converted to water injection without notice and hearing.

PROVIDED HOWEVER, That no well located in said Water Flood Project shall be eligible for administrative approval for conversion to water injection unless it is established to the satisfaction of the Secretary-Director that the proposed water injection well has experienced a substantial response to the water flood project or is directly offset by a producing well which has experienced such response; and that it is located on a water injection pattern which will result in a thorough and efficient sweep of oil by said water flood.

PROVIDED FURTHER, That to obtain administrative approval for the conversion of any well to water injection, applicant shall submit to the Commission in triplicate a request for such administrative approval, setting forth therein all the facts pertinent to the need for converting additional wells to water injection, and attaching thereto Commission Form C-116, showing production tests of the affected well or wells both before and after stimulation by water flood. Applicant shall also attach plats of the water flood project area and immediate surrounding area, indicating thereon the owner of each lease and the location of all water injection wells and producing wells, and shall submit evidence that a copy of the application to convert additional wells to water injection has been sent to each operator offsetting the proposed injection well.

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Case No. 1704
Order No. R-1128-B

The Secretary-Director of the Commission may, if in his opinion there is need for the conversion of additional wells to water injection, authorize said conversion without notice and hearing, provided no offset operator objects to said conversion within fifteen (15) days. The Secretary-Director may grant immediate approval of the conversion to water injection upon receipt of waivers of objection from all operators offsetting the proposed water injection well.

(4) That the project allowable provision of Order No. R-1128-A be and the same is hereby superseded.

(5) That this order shall become effective at 7:00 o'clock a.m., Mountain Standard Time, July 7, 1959.

(6) That the Commission hereby retains jurisdiction in this cause to amend all or any part of this order and further to enter any additional order or orders deemed necessary.

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

**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**

JOHN BURROUGHS, Chairman

S E A L

MURRAY E. MORGAN, Member

A. L. PORTER, Jr., Member & Secretary

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OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

May 5, 1958

Mr. Howard Bratton
Hervey, Dow & Hinkle
P.O. Box 547
Roswell, New Mexico

Dear Mr. Bratton:

On behalf of your client, Cities Service Oil Company, we enclose two copies of Order R-1128-A issued May 5, 1958, by the Oil Conservation Commission in Case 1356, which was heard on April 9th before an examiner at Santa Fe.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

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