

## NEW MEXICO OIL CONSERVATION COMMISSION

## APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>Shell Oil Company</b>		ADDRESS <b>Western Division, Midland, Texas, Box 1509</b>	
LEASE NAME <b>North Antelope Ridge Unit</b>	WELL NO. <b>1</b>	FIELD <b>North Antelope Ridge Unit</b>	COUNTY <b>Lea</b>
LOCATION UNIT LETTER <b>G</b> ; WELL IS LOCATED <b>1980</b> FEET FROM THE <b>North</b> LINE AND <b>1980</b> FEET FROM THE <b>East</b> LINE, SECTION <b>22</b> TOWNSHIP <b>23-S</b> RANGE <b>34-E</b> NMMP.			

## CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING <b>94# H-40</b>	<b>20"</b>	<b>360'</b>	<b>650 sax</b>	<b>Surface</b>	<b>Circulated</b>
INTERMEDIATE <b>72#, 68#, 61# J-55&amp;N-80</b>	<b>13-3/8"</b>	<b>5004'</b>	<b>1850 sx Lite-Wate +40 sx Class "C"</b>	<b>2815"</b>	<b>Temp. Survey</b>
LONG STRING <b>Cut and Pulled</b>	<b>9-5/8"</b>				
TUBING <b>EUE</b>	<b>3-1/2"</b>	<b>4950'</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker Model "R" @ 4950'</b>		

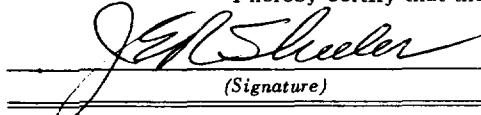
NAME OF PROPOSED INJECTION FORMATION <b>Delaware Mountain Sand</b>		TOP OF FORMATION <b>5018</b>	BOTTOM OF FORMATION <b>6500'</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>Tubing</b>		PERFORATIONS OR OPEN HOLE? <b>Open Hole</b>	PROPOSED INTERVAL(S) OF INJECTION <b>5018-6500'</b>
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>No</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>Devonian Completion</b>		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>Yes</b>

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH <b>Atoka 12,002-12,136' Cement Retainer and 205 sx Class "B" Regular</b>			
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>Ogallala approx 200'</b>		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>None</b>	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>Bone Spring 8537'</b>
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) <b>1200</b>	MINIMUM <b>1000</b>	MAXIMUM <b>3600</b>	OPEN OR CLOSED TYPE SYSTEM <b>Closed</b>
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - <b>Yes</b>		IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>Gravity</b>	APPROX. PRESSURE (PSI) <b>0</b>
WATER TO BE DISPOSED OF <b>Yes</b>		NATURAL WATER IN DISPOSAL ZONE <b>Yes</b>	ARE WATER ANALYSES ATTACHED? <b>No</b>

NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>L.B.M. Cattle Company, Box 1220, Carlsbad, New Mexico</b>	
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL <b>None</b>	

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? <b>Yes</b>	SURFACE OWNER <b>Yes</b>	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL <b>None</b>	THE NEW MEXICO STATE ENGINEER <b>Yes</b>
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) <b>Yes</b>	PLAT OF AREA <b>Yes</b>	ELECTRICAL LOG <b>Yes</b>	DIAGRAMMATIC SKETCH OF WELL <b>Yes</b>

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

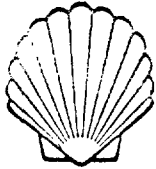
  
(Signature)

Division Production Manager

(Title)

(Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.



SHELL OIL COMPANY

WATER DIVISION  
P. O. BOX 1409  
MIDLAND, TEXAS 79701

September 16, 1966

Re: Disposal of Salt Water into  
North Antelope Ridge Unit No. 1  
NW/4 of NE/4 Section 22, T-23-S  
R-34-E, Lea County, New Mexico

L.B.M. Cattle Company  
P. O. Box 1270  
Carlsbad, New Mexico

Gentlemen:

Shell Oil Company proposes to inject the produced water from the Atoka, Morrow and Devonian zones in the Antelope Ridge Unit into the Delaware Mountain sand in the North Antelope Ridge Unit well No. 1. The well is located in the SW/4 of the NE/4 of Section 22, T-23-S, R-34-E, Lea County, New Mexico.

The subject well was originally drilled as a Devonian test by Shell but was abandoned as a dry hole after testing the Atoka. Shell would convert the well to facilitate injection into the open hole interval from 5018-6500 feet.

For your information you will find attached a copy of the NMOCC Form C-108, a plat of the area and a schematic drawing of the subject well.

If the proposed installation meets your approval, please return one copy of the attached waiver to this office. This waiver will be attached to the NMOCC Form C-108 at the time formal application is made. Should additional information be required, please contact W. T. Ouzts of our staff.

Yours very truly,

*K. W. Lagrone*  
For: J. E. R. Sheeler  
Division Production Manager

WTO:C

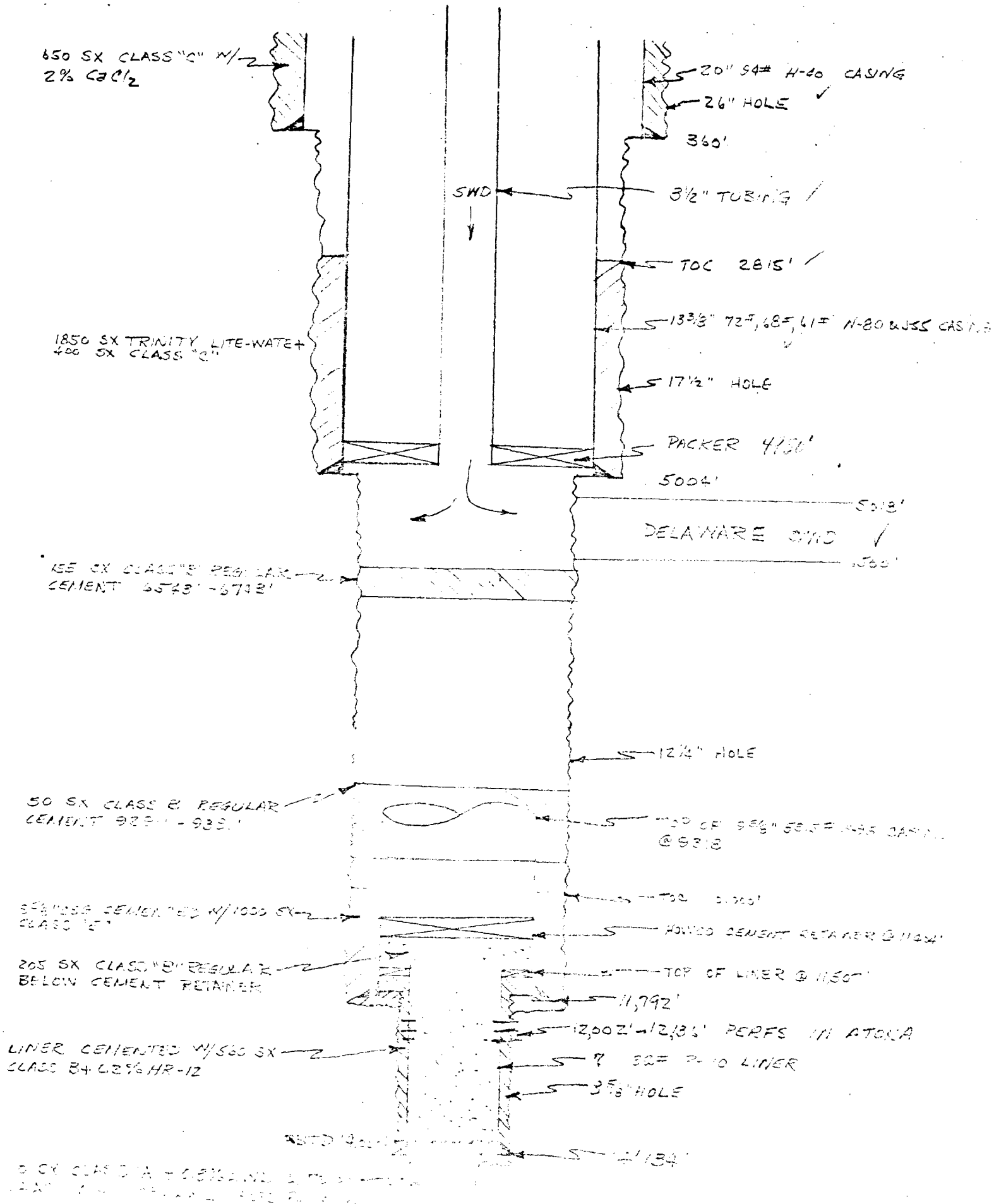
Attachments

We, L.B.M. Cattle Company have no objection to use of the subject well for salt water disposal as outlined above.

*W. T. Ouzts Pres*  
Name and Title

*Oct 6, 1966*  
Date

NORTH ANTELOPE RIDGE UNIT #1  
NORTH ANTELOPE RIDGE AREA  
SHELL OIL COMPANY





**STATE OF NEW MEXICO**

**STATE ENGINEER OFFICE**

**SANTA FE**

**S. E. REYNOLDS  
STATE ENGINEER**

October 11, 1966

ADDRESS CORRESPONDENCE TO:  
STATE CAPITOL  
SANTA FE, NEW MEXICO 87501

Mr. A. L. Porter, Jr.  
Secretary-Director  
Oil Conservation Commission  
Santa Fe, New Mexico

Dear Mr. Porter:

Reference is made to the application of Shell Oil Company dated September 16, 1966 which seeks administrative approval to convert their North Antelope Ridge Unit No. 1 located in Unit G of Sec. 22, T. 23 S., R. 34 E., to salt water disposal well.


This office offers no objection to the granting of the application, provided the well is completed in the manner shown by the diagrammatic sketch which accompanied the application.

FEI/ma  
cc-Shell Oil Co.  
P. O. Box 1509  
Midland, Texas 79701

F. H. Hennighausen

Yours truly,

S. E. Reynolds  
State Engineer

By:   
Frank E. Irby  
Chief  
Water Rights Div.

NOV 14 1966

OIL CONSERVATION COMMISSION  
1 DISTRICT

OIL CONSERVATION COMMISSION  
BOX 871  
SANTA FE, NEW MEXICO

DATE Nov. 8, 1966

Re: Proposed NSP \_\_\_\_\_  
Proposed Triple \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed NFO \_\_\_\_\_  
Proposed DC \_\_\_\_\_

SWD X

Gentlemen:

I have examined the application dated 11/7/66

for the Shell Oil Co. North Antelope Ridge Unit #1-G 22-23-34  
Operator Lease and Well No. S-T-R

and my recommendations are as follows:

O.K.----E.F.E.

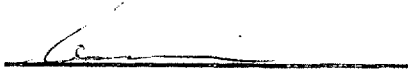
O.K.---J.W.R.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Yours very truly,



LARGE FORMAT  
EXHIBIT HAS  
BEEN REMOVED  
AND IS LOCATED  
IN THE NEXT FILE