

Gulf Oil Company - U.S.

EXPLORATION AND PRODUCTION DEPARTMENT
ROSWELL DISTRICT

T. W. Kidd
DISTRICT MANAGER
M. I. Taylor
DISTRICT PRODUCTION
MANAGER
P. E. Wyche
DISTRICT EXPLORATION
MANAGER
H. A. Rankin
DISTRICT SERVICES MANAGER

November 8, 1968

P. O. Drawer 1938
Roswell, New Mexico 88201

NOV 12 AM 8 03

Oil Conservation Commission
State of New Mexico
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. A. L. Porter, Jr.

Re: Application of Gulf Oil Corporation, as Operator of the Springs Unit, For Administrative Approval to Dispose of Produced Salt Water by Injection Into a Porous Formation, Eddy County, New Mexico

Gentlemen:

Gulf Oil Corporation, as Operator of the Springs Unit, respectfully requests administrative approval to dispose of produced salt water into the Springs Unit Well No. 2, a plugged and abandoned well located in Unit I of Section 27, T-20S, R-26E, Eddy County, New Mexico. This well was drilled to a total depth of 8800 feet as a development well in the Springs Upper Penn Gas Pool; however, it was dry and therefore was plugged and abandoned.

In support of this application, the following are attached:

- (1) Form C-108, Application to Dispose of Salt Water By Injection Into A Porous Formation.
- (2) Plat of the Springs Unit.
- (3) Log of the Springs Unit Well No. 2.
- (4) Water analysis of produced water from the Springs Unit Well No. 3.
- (5) Diagrammatic sketch of the proposed injection well.

Applicant proposes to re-enter this well by drilling the cement plugs and clean out to a depth of approximately 4580'. It is planned to inject approximately 365 barrels of salt water per day in the open hole interval 2715'-4580'. Injection is initially planned to be by gravity down 2-3/8" plastic coated tubing set at 2615' in a tension type packer set in the 8-5/8" intermediate casing. The casing-tubing annulus will be loaded with inhibited water.



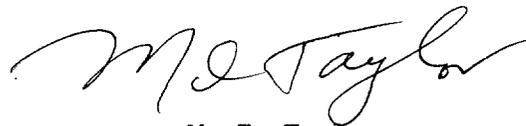
The water to be disposed of is produced water from the Springs Unit Wells No. 1 and 3 in the Springs Upper Penn Gas Pool.

The Springs Unit Well No. 2 is located within the Springs Unit boundary; therefore, all offset operators are working interest owners in the Springs Unit. There is no Bone Spring production within two miles. A copy of this application is also sent to the surface owner.

In view of the above, we believe that this application qualifies for administrative approval; however, if not, please set for an examiner hearing as soon as possible.

Respectfully submitted,

GULF OIL CORPORATION



M. I. Taylor

Attachments

JHH:sz

cc: New Mexico Oil Conservation Commission
Post Office Drawer DD
Artesia, New Mexico 88210

Mr. T. D. Hardesty
Post Office Box 242
Carlsbad, New Mexico 88220

Working Interest Owners
Springs Unit

NEW MEXICO OIL CONSERVATION COMMISSION

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

OPERATOR Gulf Oil Corporation		ADDRESS P. O. Box 1938, Roswell, New Mexico 88201	
LEASE NAME Springs Unit	WELL NO. 2	FIELD Springs Upper Penn. Gas Pool	COUNTY Eddy
LOCATION UNIT LETTER <u>I</u> : WELL IS LOCATED <u>1650</u> FEET FROM THE <u>South</u> LINE AND <u>754</u> FEET FROM THE <u>East</u> LINE, SECTION <u>27</u> TOWNSHIP <u>20S</u> RANGE <u>26E</u> NMPM.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	13-3/8"	197'	175 Sx	Circulated	-
INTERMEDIATE	8-5/8"	2715'	750 Sx	Circulated	-
LONG STRING	-	-	-	-	-
TUBING	2-3/8"	2615'	NAME, MODEL AND DEPTH OF TUBING PACKER Tension type packer set at 2615'		

NAME OF PROPOSED INJECTION FORMATION Bone Spring	TOP OF FORMATION 2345'	BOTTOM OF FORMATION 7605'
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IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing	PERFORATIONS OF OPEN HOLE? Open Hole	PROPOSED INTERVAL(S) OF INJECTION 2715' - 4580'
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IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Springs Upper Penn. Gas Pool	HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? Drilled to TD of 8800'
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LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH
Well P & A'd as follows: 75 Sx (8600'-8800'), 40 Sx (8045'-8145'), 45 Sx (7572'-7672'), 40 Sx (4552'-4652'), 45 Sx (2650'-2765'), 35 Sx (0-60')

DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA Below Top Bone Spring	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA 532'	DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 7996'
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ANTICIPATED DAILY INJECTION VOLUME (BBLS.) 365	MINIMUM 0	MAXIMUM 365	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Gravity	APPROX. PRESSURE (PSI) -
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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 No	WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes - Disposed Water Analysis Only
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NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)
T. D. Hardesty, P. O. Box 242, Carlsbad, New Mexico 88220

LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL
Cities Service Oil Company, Bartlesville, Oklahoma 74003

Phillips Petroleum Company, Phillips Building, Odessa, Texas 79760

Pan American Petroleum Corporation, P. O. Box 1410, Fort Worth, Texas 76101

Yates Petroleum Corporation, 309 Carper Building, Artesia, New Mexico 88210

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HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING? Yes	SURFACE OWNER Yes	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) Yes	PLAT OF AREA Yes	ELECTRICAL LOG Yes	DIAGRAMMATIC SKETCH OF WELL Yes

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

M. J. Taylor
(Signature)

District Production Manager
(Title)

November 8, 1968
(Date)

NOTE: Should waivers from 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.

HALLIBURTON DIVISION LABORATORY
HALLIBURTON COMPANY
MIDLAND DIVISION

~~LOIS
JGM
RCS~~
No. W1-430-67 FILE
COPY TO RWS
Date August 9, 1967

LABORATORY WATER ANALYSIS

To Gulf Oil Corporation
P. O. Box 670
Hobbs, New Mexico 88240
ATTENTION: Mr. Larry Turner

Date August 9, 1967

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by _____ Date Rec. 8-7-67

Well No. Springs Unit # 3 Depth _____ Formation Pennsylvanian

County Eddy Field Sec. 34-20S-26E Source Well Head

Resistivity294 @ 78° F.

Specific Gravity 1.019

pH 7.1

Calcium (Ca) 3,650 *MPL

Magnesium (Mg) 1,800

Chlorides (Cl) 15,000

Sulfates (SO₄) 2900

Bicarbonates (HCO₃) 470

Soluble Iron (Fe) nil

Remarks:

*Milligrams per liter.

Respectfully submitted,

Analyst: Frank Whitfield
cc:

HALLIBURTON COMPANY

By Frank Whitfield
DIVISION CHEMIST

NOTICE

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

GULF OIL CORPORATION
Springs Unit #2

Springs Unit No. 2, located 1650' FSL 754' FEL of Section 27-20S-26E, Eddy County, New Mexico

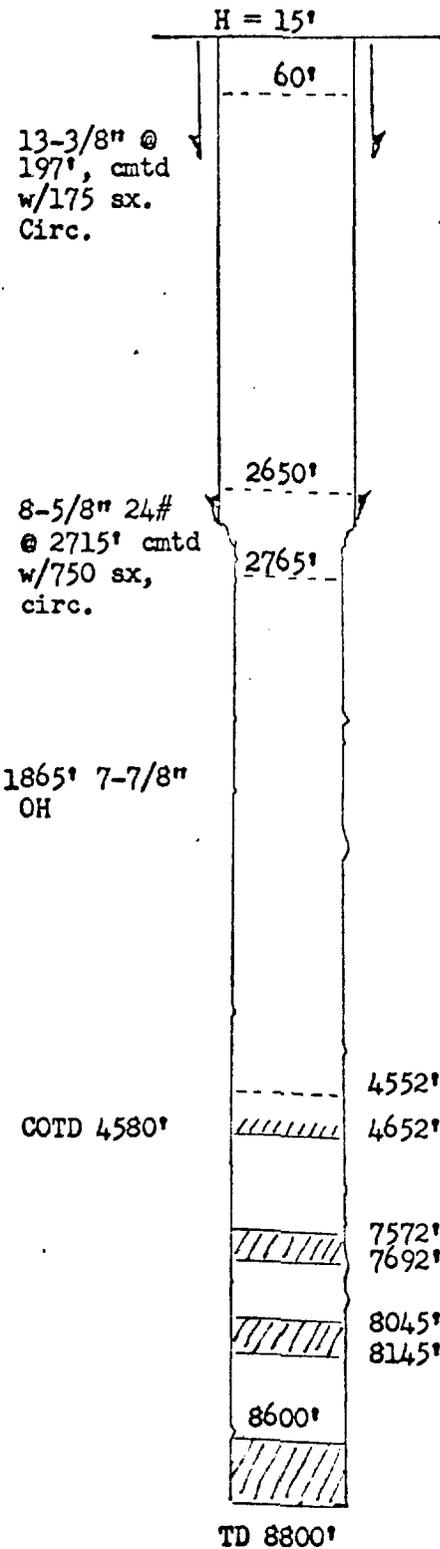
Re-enter Abandoned Well and Complete for Water Disposal Well:

Cement Plugs

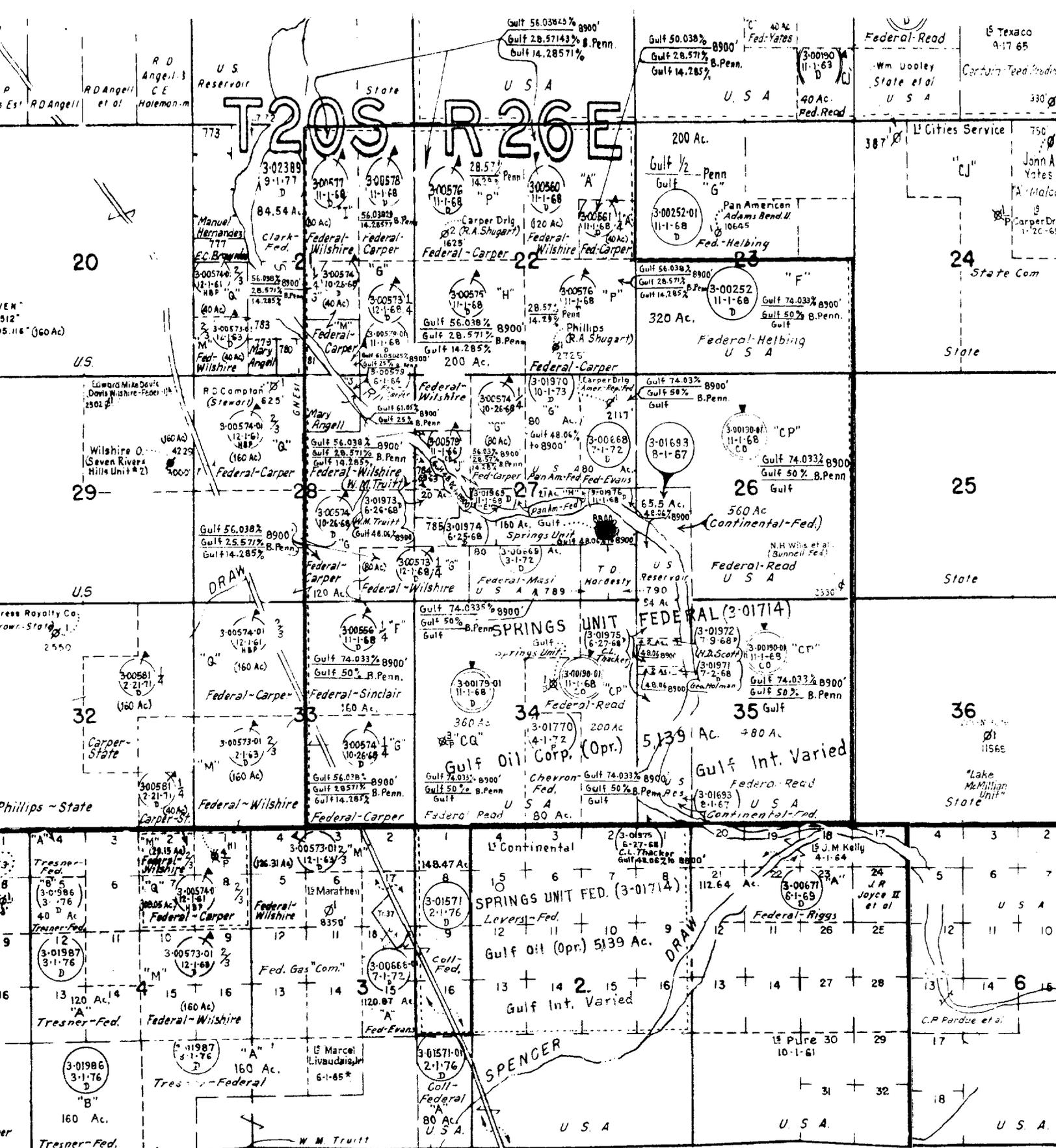
35 sacks	0 - 60'
45 sacks	2650-2765'
40 sacks	4552-4652'
45 sacks	7572-7672'
40 sacks	8045-8145'
75 sacks	8600-8800'

RECOMMENDED PROCEDURE

1. Drill out 0-30' with rat hole machine.
2. Drill out cement and clean out to 4580' KB. Reverse rig.
3. Wash well with fresh water, run injection test. Will consider acidizing if injection is unsatisfactory.
4. Run 2" plastic coated tubing and packer to complete for SWD. Load annulus with inert fluid.



RCS:ptg
Hobbs, N.M.
11-4-68



PLAT
 SPRINGERS UNIT
 Eddy County, New Mexico

- LEGEND -

— Unit Boundary
 ● Pertinent Well

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING P. O. BOX 1410

FORT WORTH, TEXAS—76101

November 14, 1968

File: GHF-590-986.510.1

Subject: Waiver for Gulf Oil Company's
Request for approval for
Salt Water Disposal into
Springs Unit Well No. 2
Springs Area, Eddy County,
New Mexico

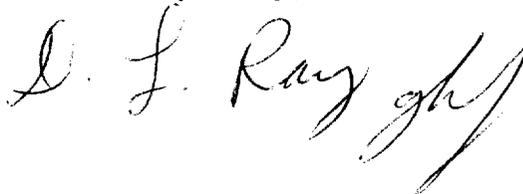
D. L. RAY
DIVISION ENGINEER

New Mexico Oil Conservation Commission
Post Office Box 871
Santa Fe, New Mexico 87501

Gentlemen:

We have been informed by Gulf Oil Company that they request approval for injection of produced water into the Bone Spring interval from approximately 2715' to 4580' in their Springs Unit Well No. 2. It is our understanding that this well is located 1650' FSL and 754' FEL, Section 27, T20S R26E, Eddy County, New Mexico. Pan American Petroleum Corporation hereby waives notice of hearing on the subject application.

Yours very truly,



WCW:jn

cc: Gulf Oil Company - U.S.
Drawer 1938
Roswell, New Mexico
Attn: Mr. M. I. Taylor