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THE ATLANTIC REFINING COMPANY
Incorporated - 1870
Petroleum Products

Domestic Producing Department
West Texas-New Mexico Region

P. O. Box 1610
Midland, Texas

December 21, 1959

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

ATTENTION: Mr. A. L. Porter

Re: Conversion of Shell's Pacific Royalty No. 4 Well to Salt Water Disposal Well, Denton Field, Lea County, New Mexico

Gentlemen:

Attached is Atlantic's application for permission to recomplete the Shell Pacific Royalty No. 4 Well as a salt water disposal well to be used by the Denton Field operators. The well is located in the NE/4 SE/4 of Section 10, T-15-S, R-37-E and was drilled as a dry Devonian test in 1954. It is proposed to inject water in the Pennsylvanian formation within the interval 9920-11,078'.

This well has been purchased jointly by the Denton Field operators. It will serve as a standby injection well and will be recompleted as an injection well at such time as it is needed. It will also serve as a second disposal well, if needed, because of water volumes. To complete the well as a salt water disposal well, approximately 9920' of 7" casing and 9,910' of 5" tubing will be installed.

By copies of this application, the State Engineer, the offset operators, and surface owners, as listed on the attached application, are being notified of our plans to make the Pacific Royalty No. 4 a disposal well.

In lieu of a waiver from the surface owner, we are attaching a copy of an executed lease between the Atlantic Refining Company and J. M. and Iva L. Denton, surface owners, covering 2.066 acres surrounding the Shell Pacific Royalty No. 4 Well. It is stated in this lease that the Atlantic Refining Company and other operators in the Denton Field have the right to use this surface acreage in salt water disposal operations for the field.

Yours very truly,

THE ATLANTIC REFINING COMPANY

P. E. Fletcher

P. E. Fletcher
Regional Operations Manager

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

APPLICATION
TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION
NOT PRODUCTIVE OF OIL OR GAS

POOL Name Denton and Denton Wolfcamp County Lea

Operator Atlantic

Address P. O. Box 1038, Denver City, Texas

Lease Name Shell-Pacific Royalty Well No. 4

Depth to top of injection zone 9920'

Depth to base of injection zone 11,078'

Size of surface casing 13-3/8" O. D.

Length of surface casing 332'

Number of sacks of cement used on surface casing 350

Size of long string 7" has been pulled from 10,309' to surface; 7" will be re-run during comp.

Length of long string 7" will be set at approximately 9920'

Number of sacks of cement used on long string approximately 600 sacks will be used

Size of tubing 5" Length of tubing 9910'

Depth of tubing packer setting None

Name and model of packer None

Is injection through tubing or long string or annulus? tubing

Is injection through perforations or open hole? open hole

Was the well drilled for salt water disposal purposes? no

List perforated intervals and number of sacks of cement used on any squeeze cementing operations None. 7" csg. remaining in well now will be adequately squeezed, if necessary.

What is depth of the shallowest zone productive of oil or gas in this Pool Wolfcamp at 9270'

What is depth of the deepest zone containing fresh water in this Pool? 200'

Are there any other salt water disposal wells in this Pool using this same zone for injection purposes? Yes If so, list operator, lease and well number

Atlantic Refining Company Dickinson A-13 SWD No. 1

What is the approximate volume of salt water to be injected daily? 10,000 barrels

Will system be open or closed type? closed

Will injection be by gravity or pump pressure? pump

If by pump pressure, give approximate number of pounds per square inch 150 psi

Will it be necessary for water to be filtered or chemically treated? no

Is this well so cased and completed that water can enter no other formation than the above setout injection zone? It will be after recompletion.

1. Attach a complete full-scale electrical log of this well (one Copy to OCC only).

2. List names and addresses of all offset operators and surface owners.

Shell Oil Company, Box 845, Roswell, New Mexico, Attn: Mr. S. B. Deal

Phillips Petroleum Company, Box 2105, Hobbs, New Mexico, Attn: Mr. F. C. Morgan

Ohio Oil Company, Box 552, Midland, Texas, Attn: Mr. C. S. Mills

Mr. J. M. Denton, 902 West Avenue H, Lovington, New Mexico

Mr. Steve Reynolds, State Engineer, Box 1079, Sante Fe, New Mexico

3. Have notices of this application been sent by registered mail or given to all offset operators, surface owners and to the N. M. State Engineer? yes

4. Attach waivers from all offset operators.

5. Attach waivers from surface owners of land on which well is located or a letter from company making application to the surface owner explaining said application and requesting waiver.

6. No application will be processed until Item 1 has been attached to the application. Should all necessary waivers not accompany application, the Commission shall hold such application for a period of fifteen (15) days from date of receipt in the Santa Fe Office. If, after said fifteen (15) day period, no protest or request for hearing is received in the Santa Fe Office, the application will then be processed.

THE ATLANTIC REFINING COMPANY
Operator

P. E. Fletcher
By P. E. Fletcher,
Regional Operations Manager

THE STATE OF Texas

COUNTY OF Midland

BEFORE ME, The undersigned authority, on this day personally appeared P. E. Fletcher known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein and that said report is true and correct.

SUBSCRIBED AND SWORN TO before me, this the 21st day of December 1959.

E. L. Macdonald
E. L. Macdonald
Notary Public in and for Midland County, Texas

ILLEGIBLE

Said tract is to be used by Atlantic for any purpose convenient in connection with the aforementioned "System."

V.

This surface lease is a paid up lease and shall remain in force and effect for such period of time as any well or wells are connected to such "System"; and further, until such time that the Operators of said "System" place and instrument of record in the Records of Lea County, New Mexico, formally terminating this surface lease.

VI.

Atlantic shall have the right at all times either during or after the terms of this agreement, to remove any and all property which may be placed on the tract of land above described. Atlantic agrees to clear said premises of all dangerous and/or deleterous substances, as well as junk and other debris, within a reasonable time after termination of this surface agreement.

Nothing herein shall in any way affect any oil and gas [illegible] covering said property.

VII.

While Atlantic is the only "Operator" mentioned in this agreement, the rights and obligations hereinafter set out pertain to and apply to all "Operators" (as well as Atlantic) who execute the "AGREEMENT FOR THE INSTALLATION AND OPERATION OF THE DENTON FIELD SALT WATER DISPOSAL SYSTEM."

IN WITNESS WHEREOF, this instrument is executed effective as of July 1st, 1959.

INDIVIDUAL ACKNOWLEDGMENT

STATE OF NEW MEXICO)
County Of LEA) ss

The foregoing instrument was acknowledged before me [illegible] day of July, 1959 by J. M. Denton and Iva L. Denton, [illegible] and Wife.

ILLEGIBLE

SURFACE LEASE FOR DENTON FIELD
SALT WATER DISPOSAL SYSTEM

STATE OF NEW MEXICO]

COUNTY OF LEA]

I.

Several of the operators of oil and gas properties in Denton Field, Lea County, New Mexico, and surrounding area, are in the process of completing a contract called "AGREEMENT FOR THE INSTALLATION AND OPERATION OF THE DENTON FIELD SALT WATER DISPOSAL SYSTEM," hereinafter sometimes referred to as "System." The Atlantic Refining Company (Atlantic) will be "Operator" of said "System."

II.

The purpose of said "System" is to provide for the disposition of salt water and other deleterious substances produced by wells in the Denton Field and surrounding area, including also any deleterious substances that are or may be used incident to such producing operations, by injecting such substances underground by means of a salt water disposal well or wells, hereinafter called "Disposal Well," into a formation or formations barren of oil or gas, or both, in economic quantities, and fresh water. Such "System" is subject to the approval of the New Mexico Oil Conservation Commission.

III.

It is contemplated that the Shell's-Pacific Royalty Company No. 4 well, located NE/4 SE/4 Section 10, Township 15 South, Range 37 East, Lea County, New Mexico, will be converted into a disposal well. It is recognized that a certain amount of surface acreage will be needed in and around the Disposal Well for the placing of equipment and for other uses incident to said "System."

IV.

Therefore, the undersigned, as surface owners, for and in the consideration of One Hundred Fifty and No/100 ($150.00) - - - the receipt of which is acknowledged, and for the benefit to this and other property of the undersigned, do hereby lease, let and demise unto The Atlantic Refining Company, their successors and assigns, a surface lease in and to the following described tract of land situated in Lea County, New Mexico, to wit:

Being a 2.066 acre tract of land out of Section 10, T15S, R37E and being more particularly described as follows: Beginning at the Southeast corner of Section 10, R37E, T15S; Thence north 0° 04' west along the East line of said Section 10, a distance of 2,158.0 ft. to a point; thence north 89° 45' west along a line parallel to the South line of said Section 10, a distance of 179.7 ft. to a point for the Southeast corner of this tract; thence north 89° 45' west a distance of 300.0 ft. to a point for S.W. corner; thence north 0° 04' west a distance of 300.0 ft. to a point for N.W. corner; thence south 89° 45' east a distance of 300.0 ft. to a point for N.E. corner; thence south 0° 04' east a distance of 300.0 ft. to the point of beginning; and containing 2.066 acres more or less.

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

ADDRESS CORRESPONDENCE TO:
P. O. BOX 1079
SANTA FE, N. M.

January 19, 1960

Oil Conservation Commission
Santa Fe, New Mexico

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

Dear Mr. Porter:

Reference is made to the application of The Atlantic Refining Company dated December 21, 1959 seeking conversion of Shell's Pacific Royalty No. 4 Well to Salt Water Disposal Well, Denton Field, Lea County, New Mexico. I have reviewed this application and discussed it with your staff and reached the conclusion that the proposal will not constitute a threat to the quality of waters found in this area. Therefore, this office offers no objection to the granting of this application.

Very truly yours,

S. E. Reynolds
State Engineer

By: Frank E. Irby
Frank E. Irby
Chief
Water Rights Division

FEI/bv

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

Electrical Log

COUNTY Lea
FIELD or LOCATION Denton
WELL Pacific Royalty # 4
COMPANY Shell Oil Co.

COMPANY SHELL OIL CO.

WELL PACIFIC ROYALTY # 4

FIELD DENTON

LOCATION SEC. 10-15S-37E

COUNTY LEA

STATE NEW MEXICO

Location of Well
2310' f SL
330' f EL
Sec. 10-15S-37E

ES-GRL
(ML-SG-GRN)

Elevation: D.F.: 3812
K.B.:
or G.L.:

FILING No.

RUN No.	1	2	3	4	
Date	12-3-53	12-21-53	1-25-54	1-31-54	
First Reading	11070	11601	12668	12798	
Last Reading	4778	11318	11601	12668	
Feet Measured	6292	283	1067	130	
Csg. Schlum.	4778	11318		11318	
Csg. Driller	4772	11322		11322	
Depth Reached	11073	11604	12671	12801	
Bottom Driller	11315	11604	12672	12802	
Depth Datum	1' Abv. RT				
Mud Nat.	Gel-Oil-Chem-Lost circulation Material				
" Density	7.9	8.3	8.8	8.7	
" Viscosity	80	46	49	59	
" Resist.	*3.2@46 °F	2.8@54 °F	1.78@62 °F	2.3@58 °F	@ °F
" Res. BHT	@ °F	@163°F	.69@172°F	.75@173°F	@ °F
" pH	@ °F	@ °F	@ °F	9.5@ °F	@ °F
" Wtr. Loss	CC 30 min.	CC 30 min.	CC 30 min.	5.6CC 30 min.	CC 30 min.
Max. Temp. °F	158	163	172	173	
Bit Size	8 3/4"	6"	6"	6"	
Spcgs.—AM	10"	10"	10"	10"	
A	32" LS	32" LS	32" LS	32" LS	
AO	19'	19'	19'	19'	
Opr. Rig Time	5 Hrs.	1 Hr.	4 Hrs.	2 Hrs.	
Truck No.	1762-Hobbs-1759		1759-Hobbs-1762-Hobbs		
Recorded By	Reinders Rodgers		Bayless	Reinders	
Witness By	Christian		Christian	Christian	

FOLD HERE

REMARKS * Mud pit sample - 3.2 @ 46 F
Run 1: Numerous scale changes due to changes in mud resistivity.

120-0

120-0