



STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

September 23, 1964

Case 3126
MAIN OFFICE 00
SEP 25 PM 12 4
ADDRESS CORRESPONDENCE TO:
STATE CAPITOL
SANTA FE, N. M.

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 Murphy Oil Corporation which seeks authority to inject water into the Lower Gallup Sand for the purpose of pressure maintenance through the following wells:

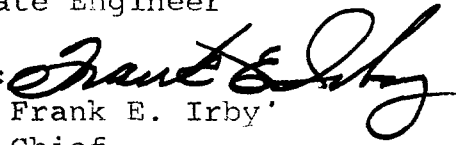
Navajo "AA" No. 4 shown on Exhibit B
Navajo "AA" No. 5 shown on Exhibit C
Navajo "AA" No. 6 shown on Exhibit D
Navajo "AA" No. 13 shown on Exhibit E
Navajo "AA" No. 18 WIW shown on Exhibit F

This office offers no objection to the granting of this application provided an effective packer is used in the annulus between the tubing and production casing, below the top of the cement surrounding the production casing, on each of the proposed injection wells.

Yours truly,

S. E. Reynolds
State Engineer

FEI/ma
cc-Atwood & Malone

By: 
Frank E. Irby
Chief
Water Rights Div.

Hold for app from Paul Porter for water flood & include in add.



200 JEFFERSON AVENUE
EL DORADO, ARKANSAS 71730

September 15, 1964

MAIN OFFICE
SEP 18 PM 1964

United States Geological Survey
P. O. Box 959
Farmington, New Mexico
ATTENTION: Mr. Phil McGraf

DOCKET MAILED

Date ~~_____~~

Case 3/26

New Mexico Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico
ATTENTION: Mr. Emery C. Arnold

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico
ATTENTION: Mr. A. L. Porter, Jr.

Gentlemen:

Enclosed are plats for Murphy Oil Corporation's proposed location of the Navajo "AA" Lease Well #18, San Juan County, New Mexico. This location violates the prescribed rules of 330' from the 40-acre quarter section lines. The terrain makes the cost of drilling this well on a regular spacing pattern almost prohibitive.

This well will be used as an injection well for the Navajo "AA" Lease Water Flood Project. Murphy Oil Corporation owns all offsetting leases. We ask that you grant us permission to drill on the above unorthodox location.

Very truly yours,

L. L. Duncan
L. L. Duncan

LLD:kd1

Enclosure: 1



ATWOOD & MALONE
LAWYERS

MAIN OFFICE
P. O. DRAWER 7
TELEPHONE 505 682-6221
SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO
88201

Chas 3/26
JEFF D. ATWOOD (1883-1960)
ROSS L. MALONE
CHARLES F. MALONE
RUSSELL D. MANN
PAUL A. COOTER
BOB F. TURNER
ROBERT A. JOHNSON

September 22, 1964

New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico

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

Dear Mr. Porter:

On behalf of Murphy Oil Corporation, we enclose herewith its Application for original authority for the injection of water into the Lower Gallup Sand to maintain the reservoir pressure in the Many Rocks-Gallup Pool, San Juan County. Attached to the Application are Exhibits "A" through "J". Would you please place the Application for Examiner hearing as soon as possible.

Appreciating your courtesy to us and with our best wishes, we are,

Very truly yours,


for ATWOOD & MALONE

PC/mm

Encl.

CC: Office of State Engineer
Santa Fe, New Mexico

United States Geological Survey
Roswell, New Mexico

Murphy Oil Corporation
El Dorado, Arkansas

DOCKET MAILED

Date 10-1-64
ji

H. M. SHEARIN
MANAGER, DOMESTIC OPERATIONS
W. P. SCHULTZ
MANAGER, FOREIGN OPERATIONS
JAMES L. MOORE
ASSISTANT MANAGER
I. F. ROEBUCK, JR.
ASSISTANT MANAGER

CORE LABORATORIES, Inc.
BOX 10185, DALLAS 7, TEXAS • CABLE: CORELAB

Engineering & Consulting Department

November 4, 1964

REPLY TO
SUITE 209 GULF BUILDING
BOX 223
MIDLAND, TEXAS

64-511.3

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

Attention: Mr. Elvis A. Utz, Examiner

Gentlemen:

Pursuant to the request of Examiner in the hearing of the application of Murphy Oil Corporation for authority to perform a water injection operation in their Navajo AA lease in the Many Rocks Pool, San Juan County, New Mexico, we submit a copy of the analysis performed on a water sample taken from the Entrada formation at a depth of approximately 3400 feet in the Guyer Oil Company-Navajo B-1 water well located in Section 28, Township 32 North, Range 17 West, San Juan County, New Mexico. As you recall, this is the water that will be used in the Many Rocks waterflood of both the Murphy Oil Corporation and the Guyer Oil Company properties. By a copy of this letter we are also transmitting a copy of the water analysis to Mr. Frank Irby, State Engineer for New Mexico.

Very truly yours,

CORE LABORATORIES, INC.



T. C. Carlson
Resident Engineer

TCC:fp
cc: Mr. Frank Irby
Mr. W. J. Thornton
Mr. Paul Cooter
Enclosure

H. M. SHEARIN
MANAGER, DOMESTIC OPERATIONS
W. P. SCHULTZ
MANAGER, FOREIGN OPERATIONS
JAMES L. MOORE
ASSISTANT MANAGER
I. F. ROEBUCK, JR.
ASSISTANT MANAGER

1964 OCT 19 AM 10

CORE LABORATORIES, INC.
BOX 10185, DALLAS 7, TEXAS • CABLE: CORELAB

Engineering & Consulting Department
October 15, 1964

REPLY TO
SUITE 209 GULF BUILDING
BOX 223
MIDLAND, TEXAS
64-511.3

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

Attention: Mr. E. A. Utz

Gentlemen:

As directed during the hearing of Case 3126 before the Oil & Gas Conservation Commission on October 13, 1964, we submit the location of the proposed injection wells on the Murphy Oil Corporation Navajo AA Lease in the Many Rocks Gallup Pool, San Juan County, New Mexico.

<u>Well Number</u>	<u>Location</u>	<u>Section</u>
4	2310'FNL & 330'FWL	17
13	660'FNL & 1980'FEL	20
(not yet drilled) 18	2474'FSL & 133'FEL	18

Tentative Water Injection Wells:

5	708'FNL & 1999'FEL	18
6	980'FNL & 2137'FWL	18

All of these wells are located in TWP 32-N RNG 17-W.

Very truly yours,

CORE LABORATORIES, INC.

T. C. Carlson
T. C. Carlson
Resident Engineer

LDS:fp
cc: Mr. W. J. Thornton

MAIN OFFICE
NOV 9 AM '64



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS
WATER ANALYSIS

File IWTL-6411

Company Guyar Oil Company Well Name _____ Sample No. 1
Formation _____ Depth _____ Sampled From Water Source Well
Location _____ Field Many Rocks County _____ State _____
Date Sampled 10-21-64 Date Analyzed 10-28-64 Engineer RAL

Total Dissolved Solids 22143 mg/L calculated

Sp. Gr. 1.015 @ 75 °F.

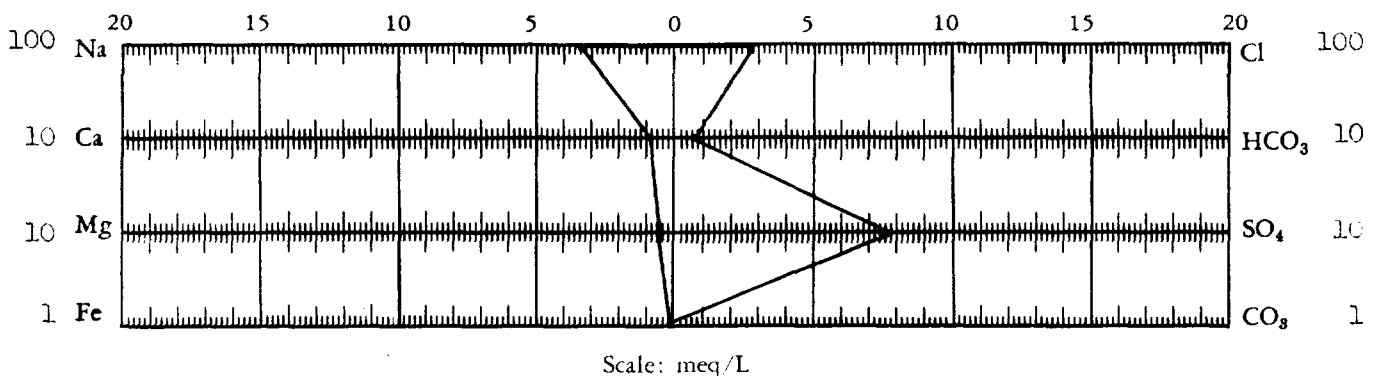
Resistivity 0.346 ohm-meters @ 74 °F. measured

Hydrogen Sulfide 0.0

pH 7.3

Constituents	meq/L	mg/L
Sodium	<u>346</u>	<u>7966</u>
Calcium	<u>8.68</u>	<u>173.95</u>
Magnesium	<u>5.50</u>	<u>66.9</u>
Iron	<u>0.093</u>	<u>2.6</u>
Barium	<u>0.0</u>	<u>0.0 (Grav.)</u>

Constituents	meq/L	mg/L
Chloride	<u>276.78</u>	<u>9815</u>
Bicarbonate	<u>6.72</u>	<u>409.9</u>
Sulfate	<u>77.13</u>	<u>3708 (Grav.)</u>
Carbonate	<u>0.0</u>	<u>0.0</u>
Hydroxide	<u>0.0</u>	<u>0.0</u>



All analyses except iron determination performed on a filtered sample.

GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
E. B. JOHNNY WALKER
MEMBER

P. O. BOX 2088
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

October 30, 1964

Mr. Paul Cooter
Atwood & Malone
Attorneys at Law
Post Office Box 700
Roswell, New Mexico

Re: CASE NO. 3126
ORDER NO. R-2795
APPLICANT Murphy Corporation

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ir/

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC x

OTHER Mr. Frank Irby
