

TEXACO
INC.

PETROLEUM PRODUCTS



DRAWER 728

HOBBS, NEW MEXICO 88240

November 8, 1968

MAIL OFFICE 000

'68 Nov 12 AM 7 59

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Application For S&W
TEXACO Inc.
B. E. Spencer "B" Federal Well No. 1
Little Lucky Lake Pool Area
Chaves County, Texas

Gentlemen:

Attached please find an "Application to Dispose of Salt Water By Injection Into A Porous Formation" for TEXACO'S B. E. Spencer "B" Federal Well No. 1. The subject well was drilled as a test of the Devonian formation and was plugged and abandoned as a dry hole on January 10, 1961. It is now proposed to reenter this well and commence salt water disposal into the Queen formation from 2450' to 2782'. Although TEXACO has no water analysis of the water in this zone, a wireline test at 2705' run by Schlumberger during the drilling of the well indicates that the water contains 7950 ppm chlorides.

This disposal well will serve TEXACO'S properties in the Little Lucky Lake Devonian Pool. Current water production is 650 barrels of water per day and it is anticipated that water production will reach a maximum of 2650 BWP. Injection will be down 2-3/8" O.D. internally plastic coated tubing set on a packer at approximately 2400 feet.

TEXACO Inc. does not currently have an Oil and Gas Lease on the lands on which the subject well is located. Therefore, TEXACO has made application to the U. S. Department of Interior, Bureau of Land Management, for right of way and a special use permit to enable TEXACO to use the well for S&W purposes. The Bureau of Land Management has advised that a copy of the New Mexico Oil Conservation Commission Order approving TEXACO'S proposed S&W operations is necessary before they will take further action on TEXACO'S applications.

November 8, 1968

It is respectfully requested that the New Mexico Oil Conservation Commission issue an order as soon as the required waiting period has elapsed, so that TEXACO may meet the January 1, 1969 deadline date on discontinuing disposal of salt water into unlined surfaced pits. Your usual cooperation will be appreciated.

Yours very truly,



E. D. Raymond
District Superintendent

EDMc/ndd

RDH

NMOCC-Hobbs

Attachments

MAIL OFFICE

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NEW MEXICO OIL CONSERVATION COMMISSION
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

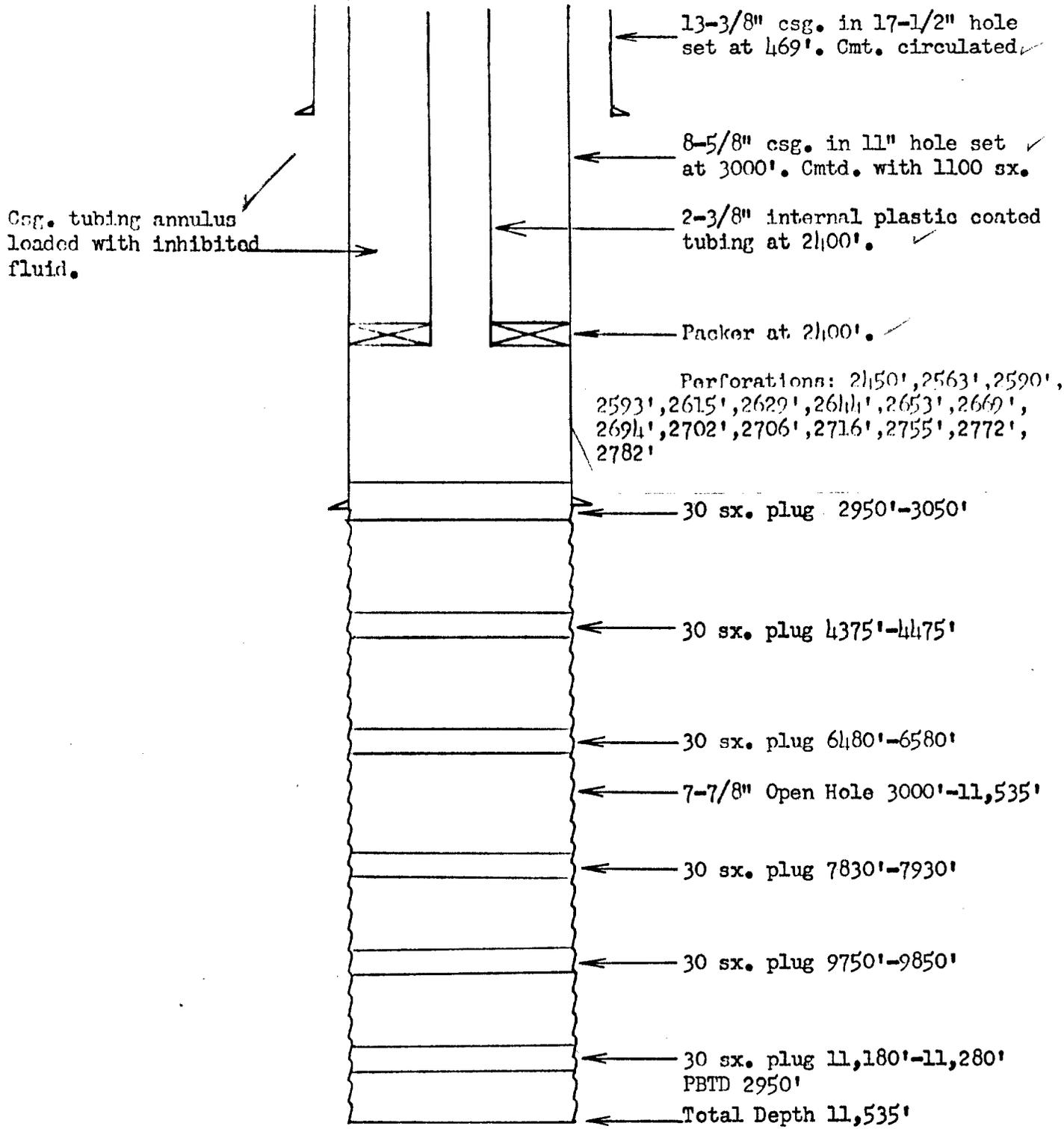
OPERATOR TEXACO Inc.		ADDRESS Box 728 - Hobbs, New Mexico	
LEASE NAME B.E. Spencer 'B' Federal	WELL NO. 1	FIELD Little Lucky Lake Area	COUNTY Chaves
LOCATION UNIT LETTER <u>D</u> ; WELL IS LOCATED <u>660</u> FEET FROM THE <u>North</u> LINE AND <u>330</u> FEET FROM THE <u>West</u> LINE, SECTION <u>28</u> TOWNSHIP <u>15 South</u> RANGE <u>30 East</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"	469'	600 sxs.	Surface	Visual
INTERMEDIATE	8-5/8"	3000'	1100 sxs.	Unknown	Calculates 3950' of fill w/50% fillup factor
LONG STRING	-				
TUBING	2-3/8"	2400'	NAME, MODEL AND DEPTH OF TUBING PACKER Tension Type (probably Baker Model 'AD') @ 2400'		
NAME OF PROPOSED INJECTION FORMATION Queen Sand			TOP OF FORMATION 2428'	BOTTOM OF FORMATION 2822'	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? Tubing		PERFORATIONS OR OPEN HOLE? Perforations	PROPOSED INTERVAL(S) OF INJECTION 2450'-2782'		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? No	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? Oil Well (P&A on completion)		HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No		
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA 250'		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA None		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA 11,050'	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) 650	MINIMUM 650	MAXIMUM 2650	OPEN OR CLOSED TYPE SYSTEM Closed	IS INJECTION TO BE BY GRAVITY OR PRESSURE? Pressure	APPROX. PRESSURE (PSI) 2000 Max.
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 -		WATER TO BE DISPOSED OF Yes	NATURAL WATER IN DISPOSAL ZONE Yes	ARE WATER ANALYSES ATTACHED? Yes (for water to be disposed)	
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) Federal (Bogle Farms, Inc., Dexter, N.M)					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL Pan American Petroleum Corp. - P.O. Box 68, Hobbs, New Mexico 88240					
MAIN OFFICE 00					
'68 Nov 12 AM 8					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER Yes		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL Yes		THE NEW MEXICO STATE ENGINEER No
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)	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.

 (Signature) Asst. District Superintendent (Title) November 8, 1968 (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.



TEXACO INCORPORATED
 Schematic Diagram
 Proposed Salt Water Disposal Completion
 SPENCER FEDERAL "B" NO. 1
 CHAVES COUNTY, NEW MEXICO

November 8, 1968

Bogle Farms, Inc.
Dexter, New Mexico 88230

Re: REQUEST FOR WAIVER
SWD Application
Little Lucky Lake Pool Area
Chaves County, New Mexico

Gentlemen:

Attached please find an application for salt water disposal into the Queen formation in TEXACO's plugged and abandoned B. E. Spencer "B" Federal Well No. 1, Chaves County, New Mexico. It is believed that the application and the letter of transmittal will explain TEXACO's proposal in full, however, if you have any questions please advise.

Since the "no-pit" order deadline is very close it would be appreciated if you would sign the attached waiver, forward one (1) copy to the NMOCC and one(1) to TEXACO Inc. at your earliest convenience.

Yours very truly,

H. D. Raymond
District Superintendent

EDMc-cmc

Attachment

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT
5712 S. DICKINSON DRIVE

PHYSICS 551
LECTURE 10
SPECIAL RELATIVITY
PART 1

1978-79

The special theory of relativity is a theory of the structure of space and time. It is a theory of the relationship between the measurements of space and time made by different observers moving relative to each other. The theory is based on two postulates: (1) the principle of relativity, which states that the laws of physics are the same in all inertial frames of reference, and (2) the constancy of the speed of light, which states that the speed of light in vacuum is the same in all inertial frames of reference.

The theory leads to several important results, including time dilation, length contraction, and the relativity of simultaneity. These results show that space and time are not absolute, but are relative to the observer. The theory also leads to the famous equation $E=mc^2$, which shows that energy and mass are equivalent.

Special relativity

Special relativity
Lecture 10

1978

1978

November 8, 1968

Pan American Petroleum Corp.
P. O. Box 68
Hobbs, New Mexico 88240

Re: REQUEST FOR WAIVER
SWD Application
Little Lucky Lake Pool Area
Chaves County, New Mexico

Gentlemen:

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Yours very truly,

H. D. Raymond
District Superintendent

EDMc-cmc

Attachment

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New Mexico Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: SWD Application
TEXACO Inc. B.E. Spencer 'B' Fed.
Well No. 1
Chaves County, New Mexico

Gentlemen:

TEXACO Inc. has advised by copy of an application with attachments of their proposal to re-enter their B.E. Spencer 'B' Federal Well No. 1, located 660' FNL and 330' FWL of Section 28, T-15-S, R-30-E, Chaves County, New Mexico, and complete it as a SWD well in the Queen Formation from 2450' to 2782'.

The undersigned, as an Operator within one-half mile of the proposed SWD well, or as surface lessee, hereby waives objection to TEXACO's described application.

Signed _____

Company _____

Date _____

EDMc-bh

HALLIBURTON DIVISION LABORATORY

HALLIBURTON COMPANY

LOVINGTON, NEW MEXICO

No. WL-62-62

LABORATORY REPORT

Date February 12, 1962

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.

To Texaco, Inc

Box 727

Lovington, New Mexico

Date Received

Well & Lease Peery Fed # 2

Depth

Formation Devonian

Location Little Lucky Lake

Field

Source Well Head

Specific gravity 1.038

60/60 °F

Color. filtrate

pH 6.9

Resistivity

°F

ppm (mpl)

Chlorides, Cl 27,700

Sulfates, SO₄ Med (2500)

Alkalinity, HCO₃ 425

Calcium, Ca 1,840

Magnesium, Mg 925

Iron, Fe Negl.

Sodium, Na* 15,400

Sulfides, H₂S Negl.

Remarks:

ppm equals Parts per million uncorrected or milligrams per liter

* includes Potassium as Na.

Laboratory Analyst

Brewer

Respectfully submitted

HALLIBURTON COMPANY

By

Dave Sutton
Dave Sutton, Division Chemist

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