

December 18, 1950

Mr. J. W. House
Humble Oil & Refining Company
Box 1600
Midland, Texas

Dear Mr. House:

We enclose herewith, signed copy of Order R-37, issued in connection with Case 239, heard in Santa Fe, New Mexico, on November 21, 1950.

Very truly yours,

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

R. R. Spurrier
Secretary-Director

RRS:bw
encls.

December 18, 1950

Mr. R. T. German
Magnolia Petroleum Company
Box 633
Midland, Texas

Dear Mr. German:

We enclose herewith, signed copy of Order R-37, issued in connection with Case 239, heard in Santa Fe, New Mexico, on November 21, 1950.

Very truly yours,

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

R. R. Spurrier
Secretary-Director

RRS:bw
encls.

December 18, 1950

Mr. Paxton Howard
Shell Pipe Line Corporation
Petroleum Building
Midland, Texas

Dear Mr. Howard:

We enclose herewith, signed copy of Order B-39, issued by the Oil Conservation Commission, in connection with Case No. 238, heard in Santa Fe, New Mexico, on November 21, 1950.

Very truly yours,

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

R. R. Spurrier
Secretary-Director

RRS:bw
encl.

December 18, 1950

Mr. A. L. Porter, Jr.
Oil Conservation Commission
P. O. Box 1545
Hobbs, New Mexico

Dear Pete:

We enclose herewith, signed copies of Orders R-37 and R-99, issued by the Oil Conservation Commission, in connection with Cases 239 and 238 respectively, heard in Santa Fe, New Mexico, on November 21, 1950.

Very truly yours,

R. R. Spurrier
Secretary-Director

RRS:bw
encls.

HUMBLE OIL & REFINING COMPANY
MIDLAND, TEXAS

J. W. HOUSE

June 13, 1950

Rowan Oil Company
Box 1873
Midland, Texas

Gentlemen:

The Humble Oil & Refining Company is the owner of an oil, gas and mineral lease dated April 28, 1927 from M. W. Coll (Humble's J. L. Greenwood lease) covering 320 acres being the S/2 of Section 9, T-22-S, R-37-E, Lea County, New Mexico which lease is recorded in Book 9, Page 122 of the Oil and Gas Lease Records of said county.

The Humble Oil & Refining Company desires to produce from said lease, with the aid of an artificial water drive, in order to increase the recovery of oil from the producing sands underlying said land because of the decrease in the reservoir pressure in such sands and for such purpose propose to convert wells Nos. 3, 5 and 6 on said land covered by said lease into water injection wells and to inject water by means of said wells into the producing sands underlying said land.

It is believed that under the conditions in the field in which said lease is situated the creation or attempted creation of an artificial water drive in the producing sands in said field is a reasonable producing and engineering practice.

In view of the fact that your company is the owner of a certain oil, gas and mineral lease, or leases, in the vicinity of said land it is requested that you consent and agree to the above mentioned operations. Will you please execute a copy of this letter in the space provided indicating waiver of any objections you might have to the proposed production procedure. This waiver applies only to the producing sands of the Penrose-Skelly zone.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

BY 
J. W. HOUSE - Division Superintendent

EMB:ewc

APPROVED:

ROWAN OIL COMPANY

BY 
Position: President

HUMBLE OIL & REFINING COMPANY
MIDLAND, TEXAS

J. W. HOUSE

August 3, 1950

Thosman Estate

Albuquerque National Bank & Trust Company
Albuquerque, New Mexico

Attention: Mr. Fred Lathy

Dear Mr. Lathy:

The Humble Oil & Refining Company is the owner of an oil, gas and mineral lease dated April 28, 1927 from M. W. Bell (Humble's J. L. Greenwood Lease) covering 320 acres being the S/2 of Section 9, T-22-S, R-27-E, Lea County, New Mexico, which lease is recorded in Book 9, Page 122 of the Oil and Gas Lease Records of said county.

The Humble Oil & Refining Company desires to produce from said lease, with the aid of an artificial water drive, in order to increase the recovery of oil from the producing sands underlying said land because of the decrease in the reservoir pressure in such sands and for such purpose propose to construct wells Nos. 3, 5 and 6 on said land covered by said lease into water bearing sands and to inject water by means of said wells into the producing sands underlying said land.

It is believed that under the conditions in the field in which said lease is situated the creation or attempted creation of an artificial water drive in the producing sands in said field is a reasonable producing and engineering practice.

In view of the fact that you are the owner of an interest in a certain oil, gas and mineral lease, or leases, in the vicinity of said land it is requested that you consent and agree to the above mentioned operations. Will you please return a copy of this letter in the space provided indicating either of any objections you might have to the proposed production procedure.

Yours very truly,

[Signature]
J. W. HOUSE, VICE PRESIDENT

J. W. HOUSE, VICE PRESIDENT

REB:ore

APPROVED:

KARLSON ESTATE

BY ALBUQUERQUE NATIONAL BANK

[Signature]
Albuquerque, New Mexico
August 3, 1950

HUMBLE OIL & REFINING COMPANY
MIDLAND, TEXAS

August 3, 1950

J. W. MOORE

Two States Oil Company
1001 King Building
Dallas, Texas

Attention: Mr. Howard P. Holmes

Gentlemen:

The Humble Oil & Refining Company is the owner of an oil, gas and mineral lease dated April 26, 1927 from M. M. Gull (Humble's J. L. Grunwald lease) covering 320 acres being the S/2 of Section 9, T-22-S, R-37-E, Lea County, New Mexico, which lease is recorded in Book 9, Page 122 of the Oil and Gas Lease Records of said county.

The Humble Oil & Refining Company desires to produce from said lease, with the aid of an artificial water drive, in order to increase the recovery of oil from the producing sands underlying said land because of the decrease in the reservoir pressure in such sands and for such purpose propose to construct wells Nos. 1, 2 and 3 on said land covered by said lease and water injection wells and to inject water by means of said wells into the producing sands underlying said land.

It is believed that under the conditions in the field in which said lease is situated the construction and subsequent operation of an artificial water drive in the producing sands in said field is a reasonable producing and engineering practice.

In view of the fact that your company is the owner of a certain oil, gas and mineral lease, or leases, in the vicinity of said land it is requested that you consent and agree to the above mentioned operations. Will you please execute a copy of this letter indicating waiver of any objections you might have to the proposed production procedure.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

J. P. Mochan
J. P. MOCHAN - Acting Division Superintendent

MB:ccc

APPROVED:

Howard P. Holmes
TWO STATES OIL COMPANY,
Dallas, Texas

Howard P. Holmes
President

HUMBLE OIL & REFINING COMPANY
MIDLAND, TEXAS
June 13, 1950

J. W. HOUSE

Continental Oil Company
Box 431
Midland, Texas

Gentlemen:

The Humble Oil & Refining Company is the owner of an oil, gas and mineral lease dated April 28, 1927 from M. W. Coll (Humble's J. L. Greenwood lease) covering 320 acres being the S/2 of Section 9, T-22-S, R-37-E, Lea County, New Mexico which lease is recorded in Book 9, Page 122 of the Oil and Gas Lease Records of said county.

The Humble Oil & Refining Company desires to produce from said lease, with the aid of an artificial water drive, in order to increase the recovery of oil from the producing sands underlying said land because of the decrease in the reservoir pressure in such sands and for such purpose propose to convert wells Nos. 3, 5 and 6 on said land covered by said lease into water injection wells and to inject water by means of said wells into the producing sands underlying said land.

It is believed that under the conditions in the field in which said lease is situated the creation or attempted creation of an artificial water drive in the producing sands in said field is a reasonable producing and engineering practice.

In view of the fact that your company is the owner of a certain oil, gas and mineral lease, or leases, in the vicinity of said land it is requested that you consent and agree to the above mentioned operations. Will you please execute a copy of this letter in the space provided indicating waiver of any objections you might have to the proposed production procedure.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

EMB:ewc

BY 
J. W. HOUSE - Division Superintendent

APPROVED:

CONTINENTAL OIL COMPANY

BY 

Position: Regional Manager
Fort Worth Region
Production Department

HUMBLE OIL & REFINING COMPANY
MIDLAND, TEXAS

J. W. HOUSE

June 13, 1950

Skelly Oil Company
Box 993
Midland, Texas

Gentlemen:

The Humble Oil & Refining Company is the owner of an oil, gas and mineral lease dated April 28, 1927 from M. W. Coll (Humble's J. L. Greenwood lease) covering 320 acres being the S/2 of Section 9, T-22-S, R-37-E, Lea County New Mexico which lease is recorded in Book 9, Page 122 of the Oil and Gas Lease Records of said county.

The Humble Oil & Refining Company desires to produce from said lease, with the aid of an artificial water drive, in order to increase the recovery of oil from the producing sands underlying said land because of the decrease in the reservoir pressure in such sands and for such purpose propose to convert wells Nos. 3, 5 and 6 on said land covered by said lease into water injection wells and to inject water by means of said wells into the producing sands underlying said land.

It is believed that under the conditions in the field in which said lease is situated the creation or attempted creation of an artificial water drive in the producing sands in said field is a reasonable producing and engineering practice.

In view of the fact that your company is the owner of a certain oil, gas and mineral lease, or leases, in the vicinity of said land it is requested that you consent and agree to the above mentioned operations. Will you please execute a copy of this letter in the space provided indicating waiver of any objections you might have to the proposed production procedure.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

BY 
J. W. HOUSE - Division Superintendent

EMB:ewc

APPROVED:

SKELLY OIL COMPANY

BY 
Position: Vice President

STANOLIND OIL AND GAS COMPANY

FAIR BUILDING

FORT WORTH, TEXAS

July 11, 1950

C. F. BEDFORD
DIVISION PRODUCTION SUPERINTENDENT

File: BRL-8882-174

Subject: Request for waiver by
Humble Oil and Refining
Company, Lea County, New Mexico.

New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Gentlemen:

We have been advised by the Humble Oil Company of its intention to inject water into Wells Nos. 3, 5, and 6 on its J. L. Greenwood Lease in Section 9, T-22-S, R-37-E, Lea County, New Mexico.

As the operator of an offset lease, we hereby waive rights of objection to the above procedure.

Very truly yours,



LHB/ek

HUMBLE OIL & REFINING COMPANY
MIDLAND, TEXAS

June 13, 1950

J. W. HOUSE

Neville G. Penrose, Incorporated
Fair Building
Fort Worth, Texas

Gentlemen:

The Humble Oil & Refining Company is the owner of an oil, gas and mineral lease dated April 28, 1927 from M. W. Coll (Humble's J. L. Greenwood lease) covering 320 acres being the S/2 of Section 9, T-22-S, R-37-E, Lea County, New Mexico which lease is recorded in Book 9, Page 122 of the Oil and Gas Lease Records of said county.

The Humble Oil & Refining Company desires to produce from said lease, with the aid of an artificial water drive, in order to increase the recovery of oil from the producing sands underlying said land because of the decrease in the reservoir pressure in such sands and for such purpose propose to convert wells Nos. 3, 5 and 6 on said land covered by said lease into water injection wells and to inject water by means of said wells into the producing sands underlying said land.

It is believed that under the conditions in the field in which said lease is situated the creation or attempted creation of an artificial water drive in the producing sands in said field is a reasonable producing and engineering practice.

In view of the fact that your company is the owner of a certain oil, gas and mineral lease, or leases, in the vicinity of said land it is requested that you consent and agree to the above mentioned operations. Will you please execute a copy of this letter in the space provided indicating waiver of any objections you might have to the proposed production procedure.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

BY J. W. House
J. W. HOUSE - Division Superintendent

EMB:ewc

APPROVED:

NEVILLE G. PENROSE, INCORPORATED

BY [Signature]
Position:

HUMBLE OIL & REFINING COMPANY
MIDLAND, TEXAS
June 13, 1950

J. W. HOUSE

Magnolia Petroleum Company
Box 633
Midland, Texas

Gentlemen:

The Humble Oil & Refining Company is the owner of an oil, gas and mineral lease dated April 28, 1927 from M. W. Coll (Humble's J. L. Greenwood lease) covering 320 acres being the S/2 of Section 9, T-22-S, R-37-E, Lea County, New Mexico which lease is recorded in Book 9, Page 122 of the Oil and Gas Lease Records of said county.

The Humble Oil & Refining Company desires to produce from said lease, with the aid of an artificial water drive, in order to increase the recovery of oil from the producing sands underlying said land because of the decrease in the reservoir pressure in such sands and for such purpose propose to convert wells Nos. 3, 5 and 6 on said land covered by said lease into water injection wells and to inject water by means of said wells into the producing sands underlying said land.

It is believed that under the conditions in the field in which said lease is situated the creation or attempted creation of an artificial water drive in the producing sands in said field is a reasonable producing and engineering practice.

In view of the fact that your company is the owner of a certain oil, gas and mineral lease, or leases, in the vicinity of said land it is requested that you consent and agree to the above mentioned operations. Will you please execute a copy of this letter in the space provided indicating waiver of any objections you might have to the proposed production procedure.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

BY J. W. HOUSE
J. W. HOUSE - Division Superintendent

EMB:owc

APPROVED:

MAGNOLIA PETROLEUM COMPANY

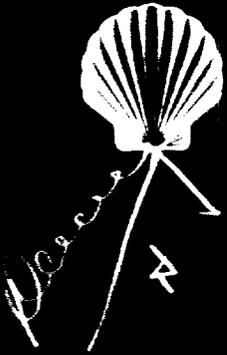
BY D. E. Olvain
Position:

*rmj
D.V.C.
mred*

B

Er

Va



SHELL OIL COMPANY

MIDLAND AREA

MAILING ADDRESS
P. O. BOX 1509
MIDLAND, TEXAS

GENERAL OFFICES
PETROLEUM BUILDING
MIDLAND, TEXAS

June 15, 1950

Re: Lea County, New Mexico
Penrose-Skelly Field
Proposed Humble Water Flood

Humble Oil & Refining Company
Midland, Texas

Gentlemen:

In reply to your letter of June 13, 1950, wherein you requested that Shell Oil Company indicate a waiver of any objections that it might have to your proposed injection of water into the Penrose-Skelly formation under the south half of Section 9, Township 22 South, Range 37 East, Lea County, New Mexico, into wells number 3, 5 and 6 on said land, this is to advise that Shell Oil Company hereby waives any objections to your proposed water injection into the said formation under the said land.

Yours very truly,

M. C. Brunner
M. C. Brunner
Production Manager

cc: Mr. F. R. Lovering - Hobbs

Penrose Skelly Field
Midland, Texas
September 21, 1950

Midland, Texas
September 21, 1950

1950

3-14

File: 3-14
Re: Proposed Water Injection
Penrose Skelly Field

New Mexico Conservation Commission
Santa Fe, New Mexico

Gentlemen:

Permission is requested to inject water in the Grayburg reservoir, Penrose-Skelly Field, Lea County, New Mexico, on the Humble Oil & Refining Company - J. L. Greenwood Lease and the Magnolia Petroleum Company - Brunson-Argo lease. This is a dolomite reservoir producing under a combination of dissolved gas and gas-cap drive and is practically depleted by primary means. In March 1950, the average Grayburg production on each lease was 4 bbl/day/well. Primary recovery on the Greenwood lease has been approximately 1100 bbl/acre and on the Brunson lease approximately 1200 bbl/acre. Prior to abandonment of any wells it is believed desirable to conduct a water injection experiment to determine the possibilities of increasing the ultimate recovery by secondary recovery methods.

The accompanying Figure 1 shows the location of the 4 proposed intake wells and the location of all oil and gas wells, including drilling wells and dry holes, and the names of lessees within one-half mile of the intake wells, and each offset operator. Wells are producing from the Grayburg, San Angelo, Clear Fork and Ellenburger pays. Since there are 4 pays producing in this area, Figure 2 has been prepared to show only those wells currently completed in the Grayburg pay. Water injection will be in the Grayburg pay, which is a crystalline dolomite at a depth of approximately 3600 feet.

Only one well, Greenwood 5, has an electric log, which is attached. Very little information on the pay sections is available. Completion data on the proposed injection wells are listed in the accompanying Table 1. Also the casing programs on the injection wells are given in Table 1.

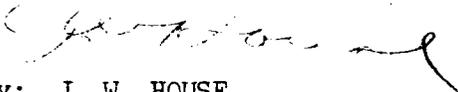
New Mexico Conservation Commission
Santa Fe, New Mexico
September 21, 1950
Page 2

It is proposed to test the casing by bailing. Water will be obtained from shallow fresh water wells on the leases. The amount of water to be injected will depend on the capacity of the input wells. It is estimated that approximately 2000 bbl/day will be available when injection starts.

The operators initially injecting water will be Humble Oil & Refining Company, Box 1600, Midland, Texas, and Magnolia Petroleum Company, Box 633, Midland, Texas. It is requested that a date be set for an open hearing to give an opportunity to present evidence in this matter, in order to obtain permission to conduct the operations outlined in this letter.

Yours very truly,

HUMBLE OIL & REFINING COMPANY



By: J. W. HOUSE
Division Superintendent

MAGNOLIA PETROLEUM COMPANY



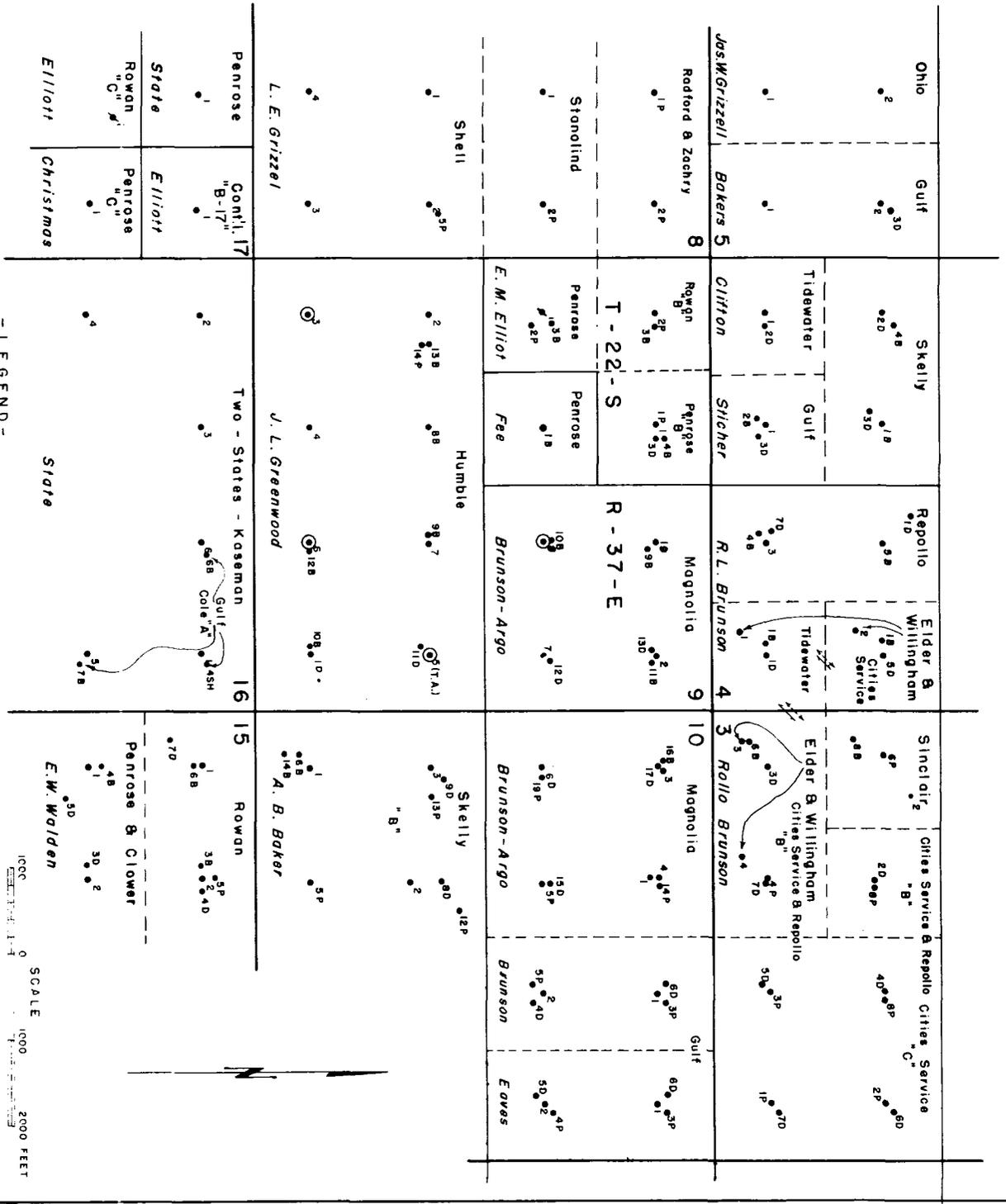
By: R. T. GERMAN
Division Superintendent

WLC/rs

TABLE 1
COMPLETION DATA - PROPOSED INJECTION WELLS - PENROSE-SKELLY FIELD

Company Lease & Well No.	Completion Date	Total Depth -Ft.	Surface		Oil String		Top of Pay -Feet	Feet of Pay	Initial Production Bbl/ Day	GOR	Gallons Acid	Shot -qt.	Size Open Hole
			String Size -In.	Depth	String Size -In.	Depth							
<u>Humble</u> J. L. Greenwood 3	10-24-38 7-21-47	3705	9-5/8	439	7	3600	3605	100	192	2453	none	none	6-1/4
									4	--	none	36 qt 90 ft marbles	
J. L. Greenwood 5	3-28-40 5-12-49	3725 3748	9-5/8	426	7	3629 3748*	3662	63	384	1742	3000	none	6-1/4
													Deepened to Paddock, plugged P.B. Abd. back to temp. abd.
J. L. Greenwood 6	4-20-40	3715	9-5/8	447	7	3624	3630	85	468	1239	3000	none	6-1/4
<u>Magnolia</u> Brunson-Argo 8	1-15-40 1941 1946	3740	9-5/8	1171	7	3610	3618	30	75	--	--	250 380	6-1/4
											300		

* 5-1/2-inch liner 3531 to 5246, plug back depth 3748 ft.



- LEGEND -

B - Brunson
D - Drinkard
P - Paddock
SH - South Hole
(T.A.) - Temp. Aband

⊙ Proposed Injection Well

Figure 1

PENROSE-SKELLEY FIELD AREA
 ADJACENT TO J. L. GREENWOOD LSE.
 HUMBLE OIL & REFINING COMPANY
 CIVIL ENGINEERING DIVISION
 MIDLAND, TEXAS
 DRAWN BY: R. BEIGHTS
 SCALE: 1"=1000'
 DATE: 8-24-63
 REVISION: _____
 FILE NO.: WT-B 316

J C H L U M B E R & C O

WELL SURVEYING CORPORATION

Location of Well <div style="text-align: center; font-size: 2em; font-weight: bold;">31</div> 1980' FSL & 660' FEL SEC. 9 22S-37E Elevation: D.F.: K.B.: or G.L.:	COMPANY: HUMBLE OIL & REFINING... COMPANY: WELL: J. L. GREENWOOD #5 FIELD: PADDOCK LOCATION: SEC. 9 22S-37E COUNTY: LEA STATE: NEW MEXICO FILING No.	COUNTY: LEA FIELD OR LOCATION: PADDOCK WELL: J. L. GREENWOOD #5 COMPANY: HUMBLE OIL & REFINING...
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RUN NO.	I	II	III	IV	V	VI	VII	VIII	IX	X
Date	4-25-49									
First Reading	5113 5113									
Last Reading	3627 0									
Footage Measured	1516 5113									
Csg Shoe Schlum	3627									
Csg Shoe Driller	3629									
Max. Depth Reached	5116									
Bottom Driller	5110									
Depth Datum	1' above RT									
Mud Nature	Caustic water									
" Density	9.1									
" Viscosity	35									
" Resistivity	66 @ 53									
" Resistivity BHT	"									
" pH	"									
" Water Loss	CC 30 Min	CC 30 Min	CC 30 Min	CC 30 Min	CC 30 Min	CC 30 Min	CC 30 Min	CC 30 Min	CC 30 Min	CC 30 Min
Maximum Temp. F	122									
Bit Size	6 1/2									
Spacings - AM	10"									
A										
AO	32"									
E.S. Rig Time	5 hours									
Truck No.	277									
Recorded By	Cargill									
Witnessed By										

REMARKS

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Spontaneous-Potential millivolts	DEPTHS	Resistivity -ohms. m ² m.
- 5 +		NORMAL
	0	300
	100	200
		LATERAL
RADIOACTIVITY	0	75
INCREASES →		

