

# Tenneco Oil Company

A Tenneco Company

The Galleria-Penthouse  
720 South Colorado Blvd.  
Denver, Colorado 80222  
(303) 758-7130



July 24, 1978

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

Attention: Joe D. Ramey  
Secretary

WEX - 465  
Aug 11 -

Re: Application for Additional  
Waterflood Operations  
Leonard Area  
Lea County, New Mexico

Gentlemen:

Pursuant to paragraph 11 of New Mexico Oil Conservation Commission Order No. R-5675, Tenneco Oil Company hereby makes application to convert five wells into injection wells in order to increase secondary recovery operations on the Leonard Federal lease and Leonard Brothers lease covering lands in Sections 13 and 14, Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico.

The five proposed injection wells are: Leonard Federal #12, #5 and #8, and Leonard Brothers #5 and #3. Before injection will begin in any of the five wells for which this application for approval is filed, the following projects will be completed:

1. Internally coated tubing will be installed in a packer which will be set no more than 100 feet above the perforations.
2. The casing-tubing annulus in each well will be filled with an inert fluid and a pressure gauge will be attached to the annulus to permit determination of leakage.
3. The injection wells or system will be equipped with a pressure limiting device which will limit the surface injection pressure to no more than 680 psi.
4. The wells will be equipped so as to facilitate periodic testing of the bradenhead for pressure or fluid production.

One of the proposed wells (Leonard Federal #12) is located within one-half mile of one of the five wells requiring replugging as identified in Exhibit "A" of New Mexico Oil Conservation Order No. R-5675. In accordance with that order, injection pressure in Leonard Federal #12 will be limited to hydrostatic until the offset well, Midwest Refining Farnsworth #19, Unit M, Section 14, is replugged to the satisfaction of the New Mexico Oil Conservation Commission.

In support of this application we have enclosed:

- (a) a plat showing the location of the proposed wells, all wells within the project area and offset operators;
- (b) a schematic drawing of each of the proposed injection wells which fully describes the casing, tubing, perforated interval, depth and a demonstration that the proposed injection wells will meet construction, pressure and monitoring provisions;

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State of New Mexico Oil  
Conservation Commission

July 24, 1978

- (c) a copy of a letter sent to all offset operators in which said operators were furnished a complete copy of this application.

The foregoing meets the requirements contained in Order No. R-5675; therefore, we respectfully request approval of this application.

Yours very truly,

TENNECO OIL COMPANY

By: D.D. Myers  
D.D. Myers  
Division Production Manager *SGP*

DDM/SJP/ps

Encls.

cc: Texas Pacific Oil Company, Inc.  
1700 One Main Place, Dallas, Texas 75250

El Paso Natural Gas Company  
P.O. Box 1492, 304 Texas Street, El Paso, Texas 79978

Texaco Inc.  
P.O. Box 3109, Midland, Texas 79702

The Petroleum Corporation  
3303 Lee Parkway, Dallas, Texas 75219

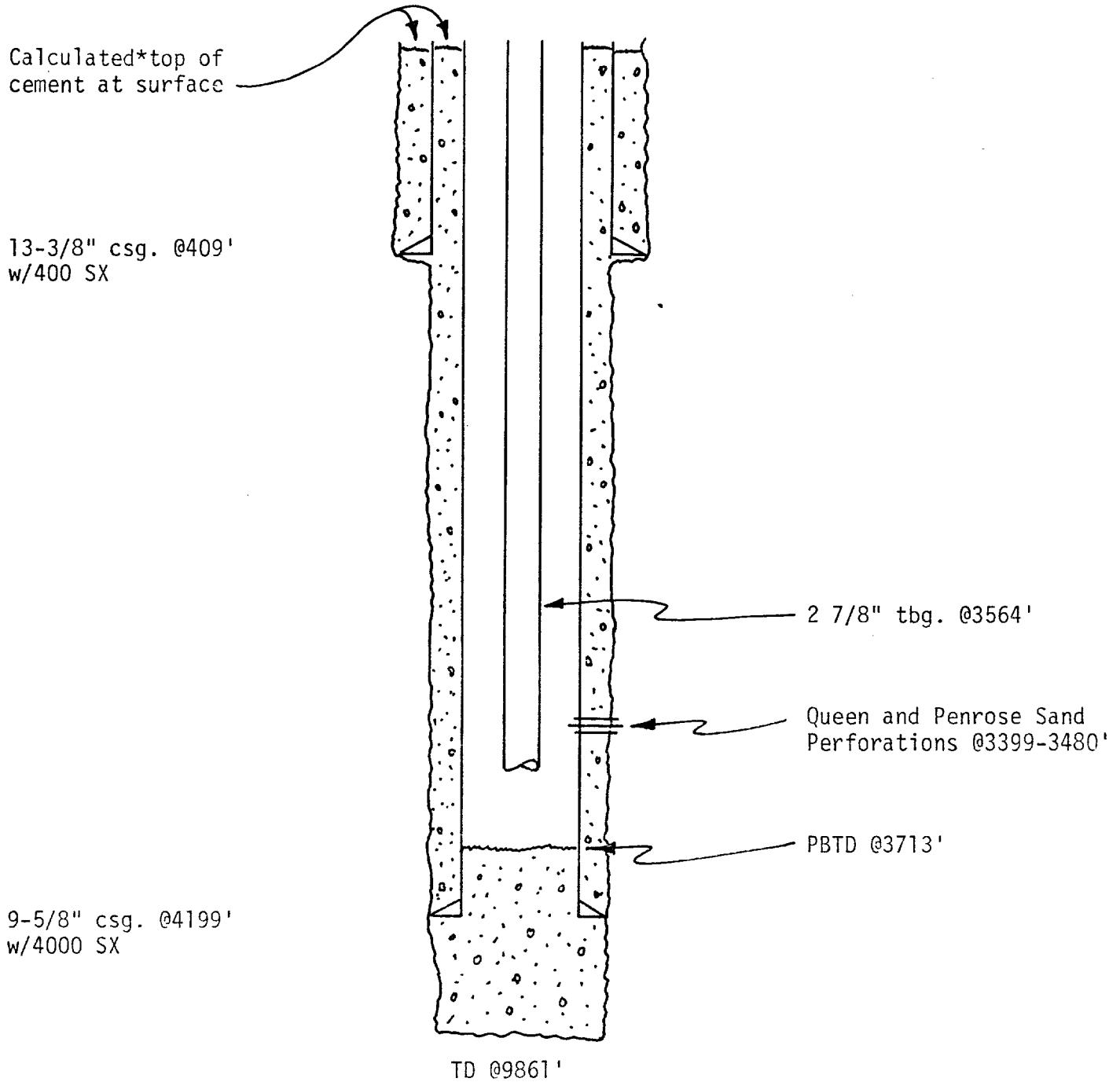
Bettis, Boyle, and Stovall  
Box 1168, Graham, Texas 76046

Herman J. Ledbetter  
1002 Sayles Boulevard, Abilene, Texas 79605

Yates Petroleum Corporation  
207 South 4th Street, Artesia, New Mexico 88210

# WELL SCHEMATIC

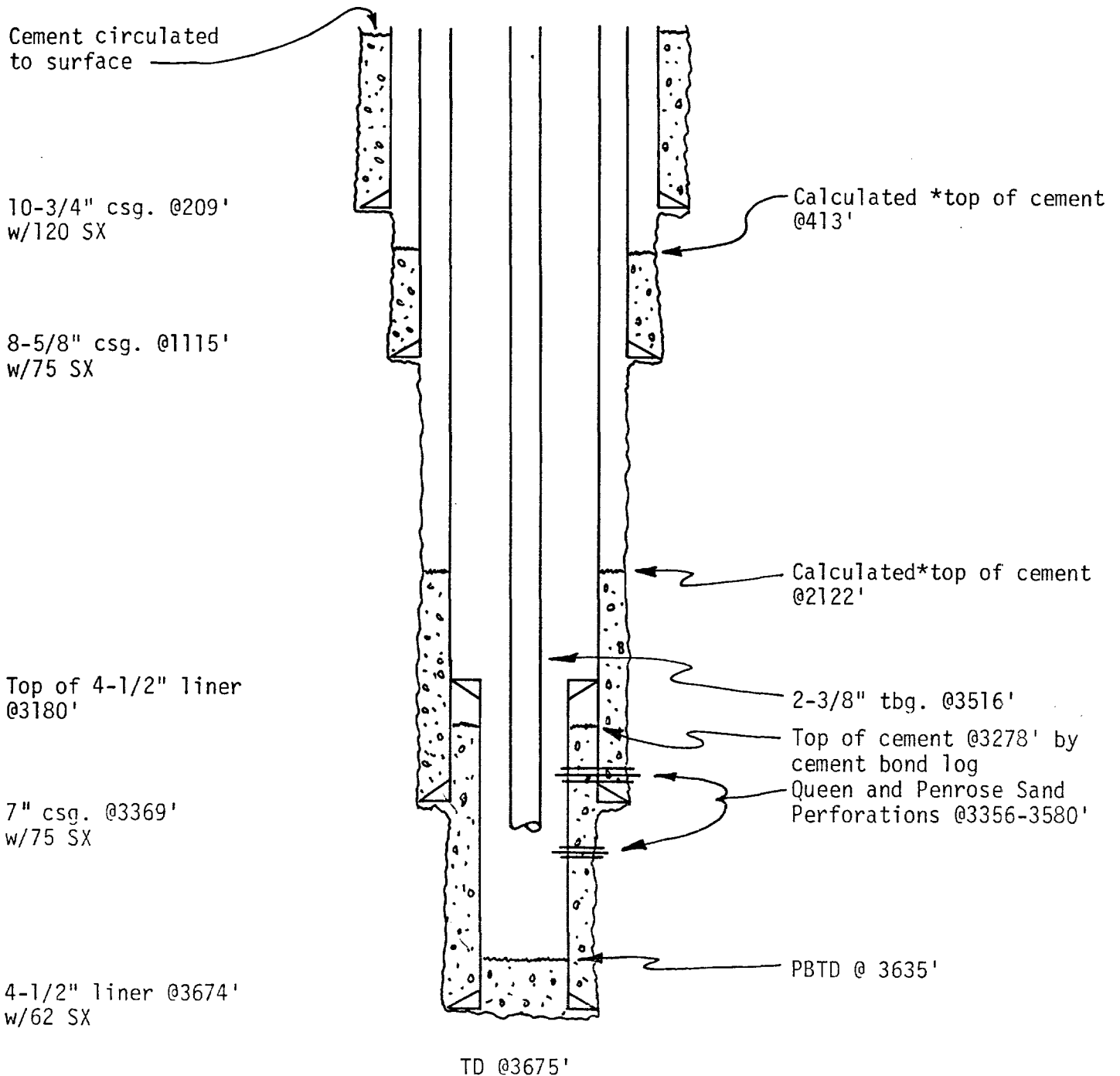
TENNECO OIL COMPANY  
LEONARD BROTHERS 3  
UNIT G, SEC. 13, T26S, R37E



\*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.

# WELL SCHEMATIC

TENNECO OIL COMPANY  
LEONARD FEDERAL 5  
UNIT I, SEC. 14, T26S, R37E



\* Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.

# WELL SCHEMATIC

TENNECO OIL COMPANY  
LEONARD FEDERAL 8  
UNIT 0, SEC. 14, T26S, R37E

Calculated\*top of  
cement at surface

13-3/8" csg. @422'  
w/450 SX

9-5/8" csg. @3842'  
w/1300 SX

2-7/8" tbg. @3515'

Queen Sand Perforations  
@3453-90'

PBTD @3800'

TD @ 10,650'

\*Theoretical calculation based on hole size, sacks of cement used, and a yield of 1.18 cubic feet of fill per sack of cement.

# WELL SCHEMATIC

TENNECO OIL COMPANY  
LEONARD FEDERAL 12  
UNIT K, SEC. 14, T26S, R37E

Cement circulated  
to surface

Calculated\*top of cement  
at surface

8-5/8" csg. @536'  
w/500 SX

2-7/8" tbg. @3555'

Penrose Sand Perforations  
@3522-84'

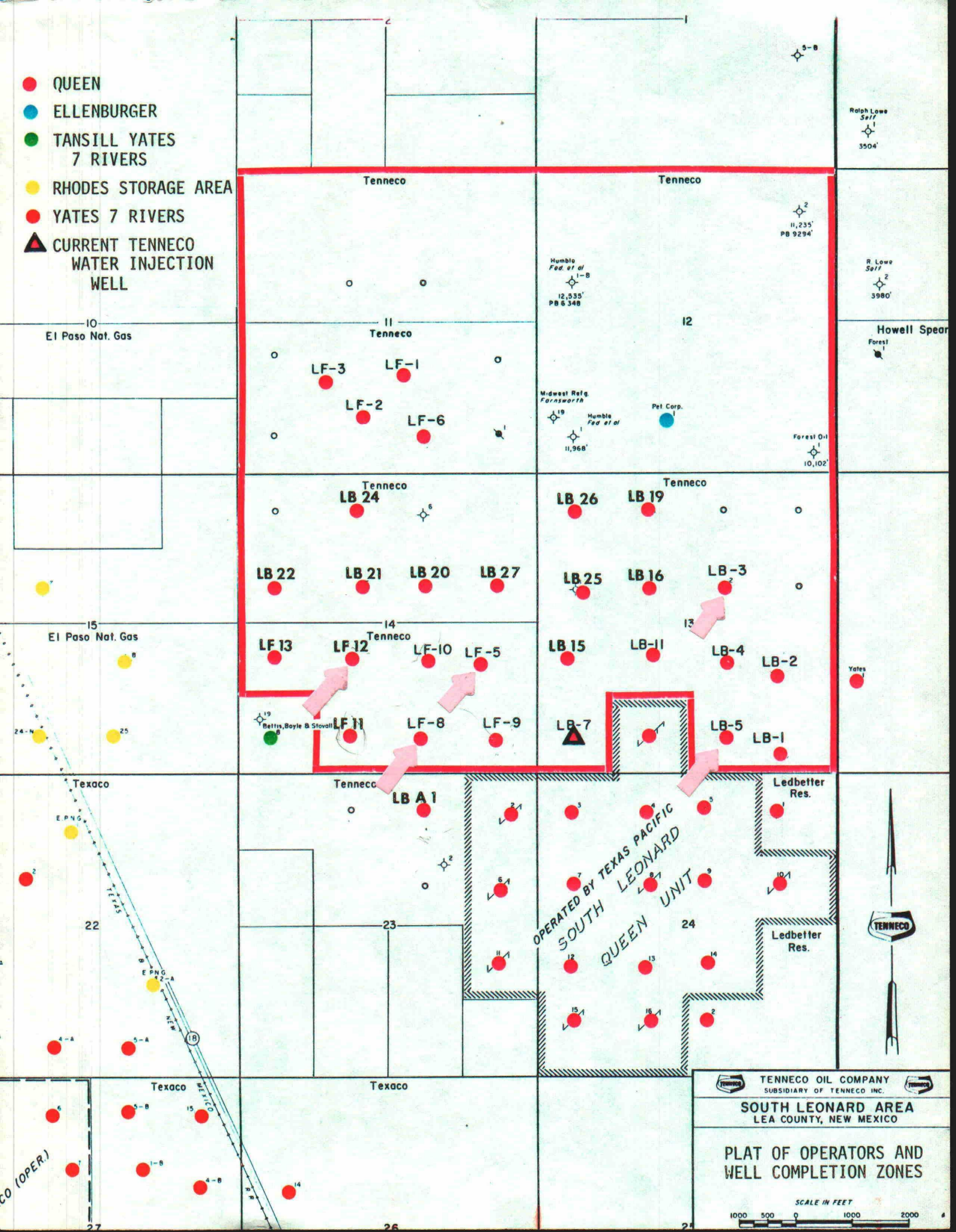
5-1/2" csg. @3640'  
w/1360 SX

PBTD @3640'

TD @3640'

\* Theoretical calculation based on hole size, sacks of cement used, and 1.18 cubic feet of fill per sack of cement.

- QUEEN
- ELLENBURGER
- TANSILL YATES 7 RIVERS
- RHODES STORAGE AREA
- YATES 7 RIVERS
- ▲ CURRENT TENNECO WATER INJECTION WELL



**TENNECO OIL COMPANY**  
SUBSIDIARY OF TENNECO INC.

**SOUTH LEONARD AREA**  
LEA COUNTY, NEW MEXICO

**PLAT OF OPERATORS AND WELL COMPLETION ZONES**

SCALE IN FEET  
1000 500 0 1000 2000

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1700 One Main Place  
Dallas, Texas 75250

El Paso Natural Gas Company  
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El Paso, Texas 79978

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The Petroleum Corporation  
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1002 Sayles Boulevard  
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Yates Petroleum Corporation  
207 South 4th Street  
Artesia, New Mexico 88210

Re: Application for Additional  
Waterflood Operations  
Leonard Area  
Lea County, New Mexico

Gentlemen:

Pursuant to Section 11(c) of New Mexico Oil Conservation Commission Order No. R-5675, we are notifying you (as an offset operator) of proposed additional waterflood operations in the Leonard Queen Area, Lea County, New Mexico.

Enclosed please find an Application with enclosure which we will file with the New Mexico Oil Conservation Commission, proposing additional injection wells for our waterflood operations on the Leonard Federal and Leonard Brothers leases, which cover, among other lands, Sections 13 and 14, Township 26 South, Range 37 East, Leonard Queen Pool, Lea County, New Mexico.

Yours very truly,

TENNECO OIL COMPANY

D.D. Myers  
Division Production Manager *380*

DDM/SJP/ps

Encl.



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Yours very truly,

TENNECO OIL COMPANY

D.D. Myers  
Division Production Manager *300*

DDM/SJP/ps

Encl.

OIL CONSERVATION COMMISSION  
HOBBS DISTRICT

OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO

DATE July 31, 1978

RE: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX X \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated \_\_\_\_\_  
for the Tenneco Oil Company \*See Below  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

\*Leonard Bros. #3-G 13-26-37, #5-0 13-26-37

Leonard Fed. #5-I 14-26-37, #8-0 14-26-37, #12-K 14-26-37

O.K.---J.S.

Yours very truly,

