



TENNECO OIL COMPANY • P. O. BOX 1031 • 1800 WILCO BUILDING • MIDLAND, TEXAS 79701

August 3, 1967

WFX - 271

How for 20

New Mexico Oil Conservation Commission
A. L. Porter, Jr., Secretary Director
P. O. Box 2088
Santa Fe, New Mexico

Gentlemen:

Reference is made to Order R-3069 authorizing Tenneco to institute a waterflood project in the Grayburg Jackson Pool by injecting water into the four wells located in Section 28, T-17-S, R-29-E, Eddy County, New Mexico. The Order further provides for expansion by Administrative approval upon unitization. The G-J West Coop. Ut. was approved by Order No. R-3127.

Tenneco Oil Company hereby requests permission to expand the project by converting unit wells #23, #29, #33, #37, and #45 in Section 21 and #39 in Section 22 to water injection.

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The four wells initially placed on injection were to determine if the formation would accept water at a reasonable pressure and later four additional wells were converted to injection wells under Order WFX No. 245. Tenneco now wishes to commence injection into the north end of the unit in the San Andres and the Upper Grayburg Sands. All intervals are within the vertical limits of the field as defined by the Conservation Committee field rules.

Fresh water, purchased from Double Eagle Corporation, will be injected into the formations in each of the wells. It is anticipated that 500 barrels per day will be injected into each well.

The following is attached:

1. A plat showing the outline of the G-J West Coop. Ut. with the existing injection wells shown in red and the wells proposed to be converted to injection at this time shown in blue.
2. Log of Unit wells #23, #29, #33, #37, #39, and #45 with completion intervals marked.

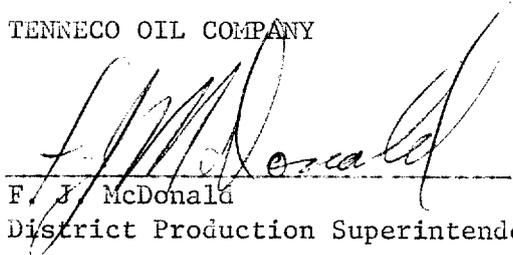
TENNECO OIL COMPANY

3. Diagrammatic sketches of the proposed injection wells showing all casing strings, amount of cement used, intervals to be injected into, tubing, type and location of packer, as well as other pertinent information.

We will appreciate your approval of this application as soon as possible.

Yours very truly,

TENNECO OIL COMPANY



F. J. McDonald
District Production Superintendent

GB:lr

cc: State Engineer Office
Capitol Building
Santa Fe, New Mexico

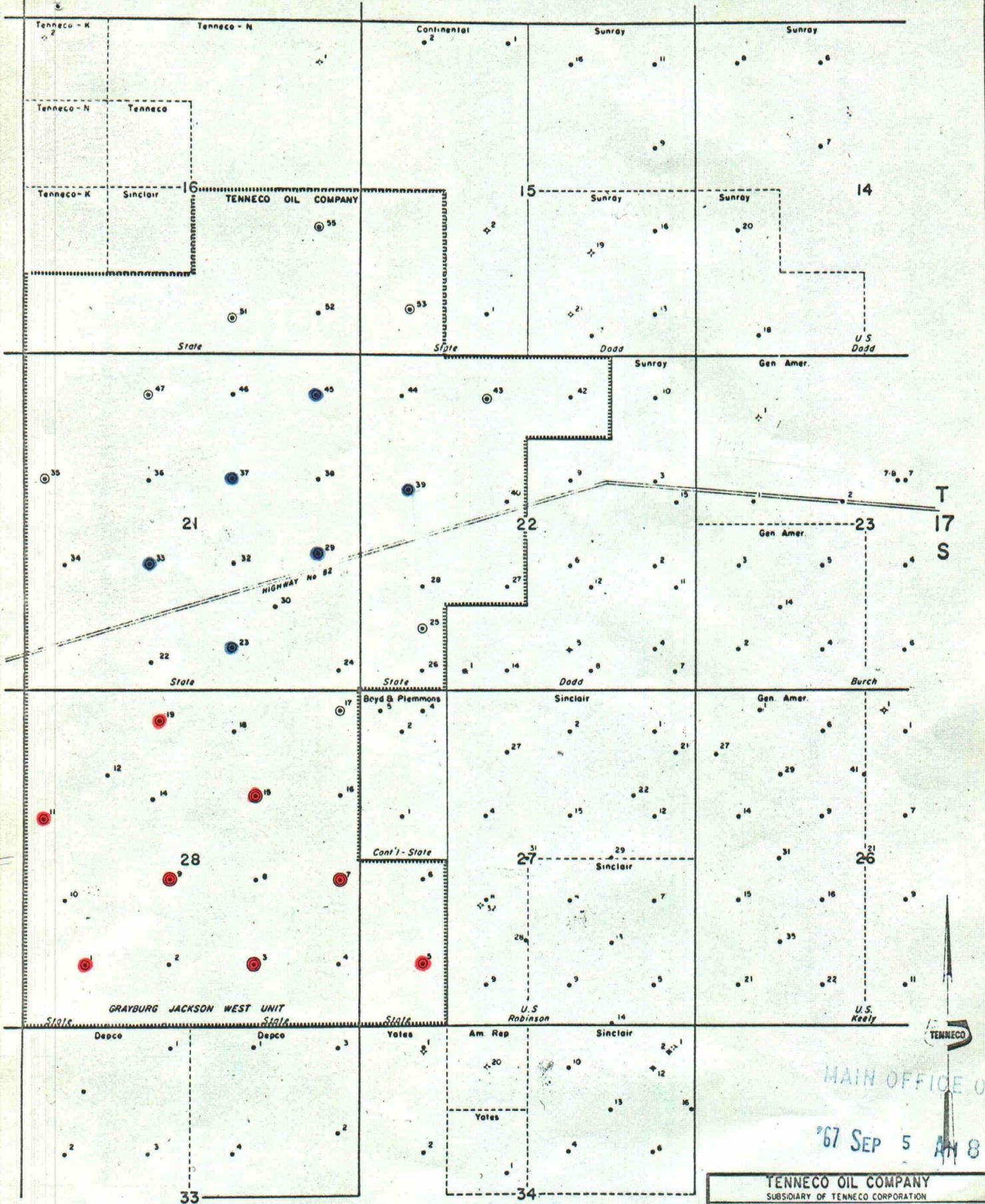
Boyd & Plenmons
P. O. Box 692
Artesia, New Mexico

Continental Oil Company
P. O. Box 460
Hobbs, New Mexico

Depco
325 Petroleum Club Bldg.
Denver, Colorado

Sinclair Oil & Gas Co.
P. O. Box 1470
Midland, Texas

Sunray DX Oil Company
P. O. Box 1416
Roswell, New Mexico



LEGEND
 ● INJECTION WELLS
 ○ PROPOSED INJECTION WELLS

TENNECO OIL COMPANY
 SUBSIDIARY OF TENNECO CORPORATION
GRAYBURG JACKSON FIELD
 EDDY COUNTY, NEW MEXICO

GRAYBURG JACKSON WEST UNIT
WATERFLOOD PROJECT

SCALE IN FEET
 1000 500 0 1000 2000

Top cement 1675'
By Temp. Survey

8-5/8" OD, 32#/ft csg set
@ 362' W/197 sks. cement

2-3/8" OD, 4.7#/ft TBG

1" non-upset TBG

Top Grayburg 1989'

Grayburg Sand Pay

Tension packer at approx. 2180'

2210'

Perfs.

2370'

Top San Andres 2370'

Seating nipple & hold down

Cup type packer at approx. 2420'

Top Lovington 2467'

2470'

Perfs.

2670'

Lovington & Oolitic Pay

PBTD 2867'
TD 2900'

4-1/2" OD, 10.5#/ft csg set
@ 2895' W/110 sks. cement

SEP 5 AM 3 11

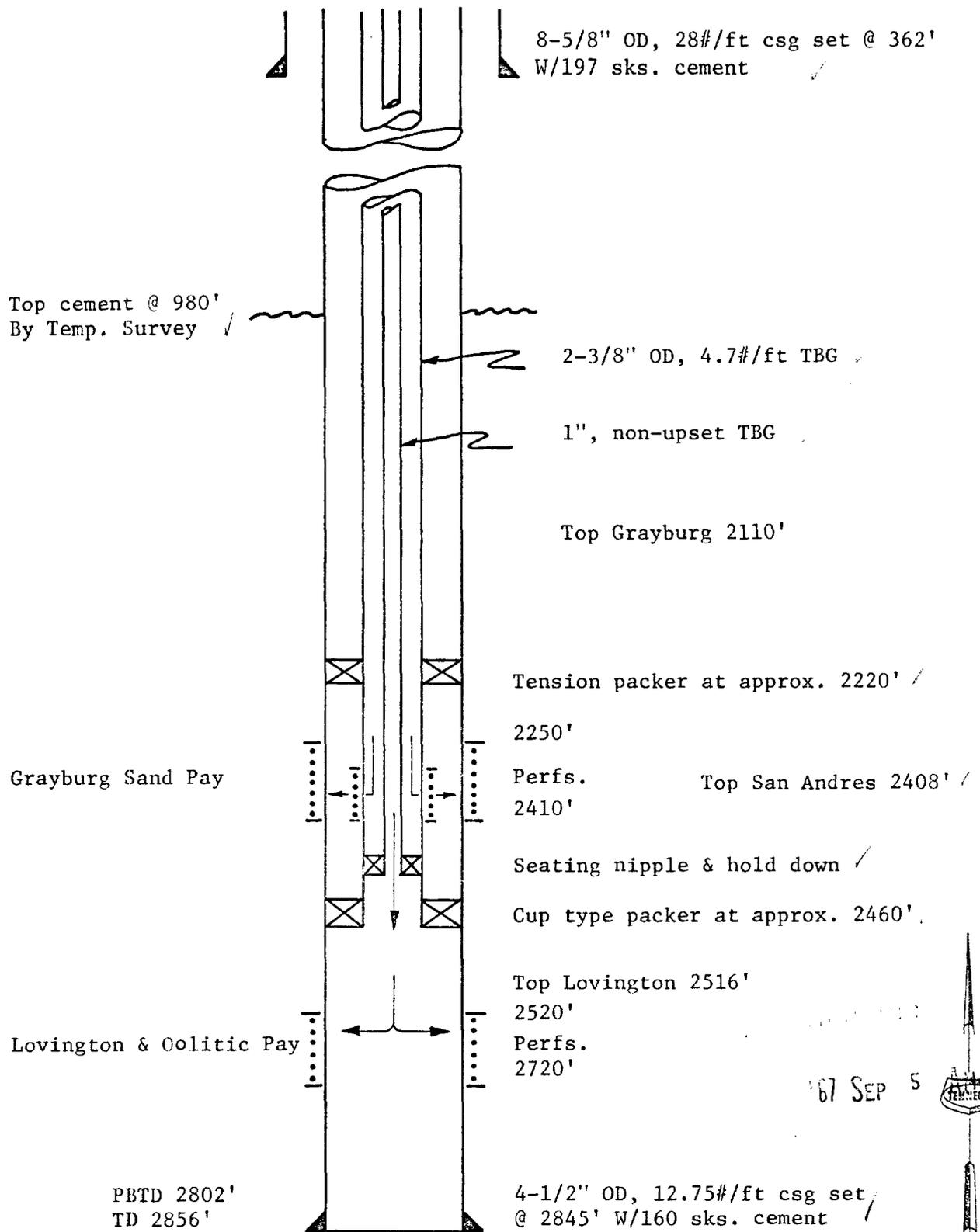


Water will be injected into the San Andres Oolitic Zone down 1" NUE tubing and below a seating nipple set inside the 2-3/8" EUE tubing. Water will be injected into the Grayburg Sands down the 1" NUE and 2-3/8" EUE annulus and between the 2-3/8" EUE and 4-1/2" CSG with packers set at 2180' and 2420'. The casing-tubing annulus above the packer set at 2180' will be loaded with corrosion-inhibited fluid.

TENNECO OIL COMPANY
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PROPOSED WI UNIT #23
Grayburg-Jackson Field

T-17-S, R-29-E, Eddy
County, New Mexico
Dual Water Injection Well



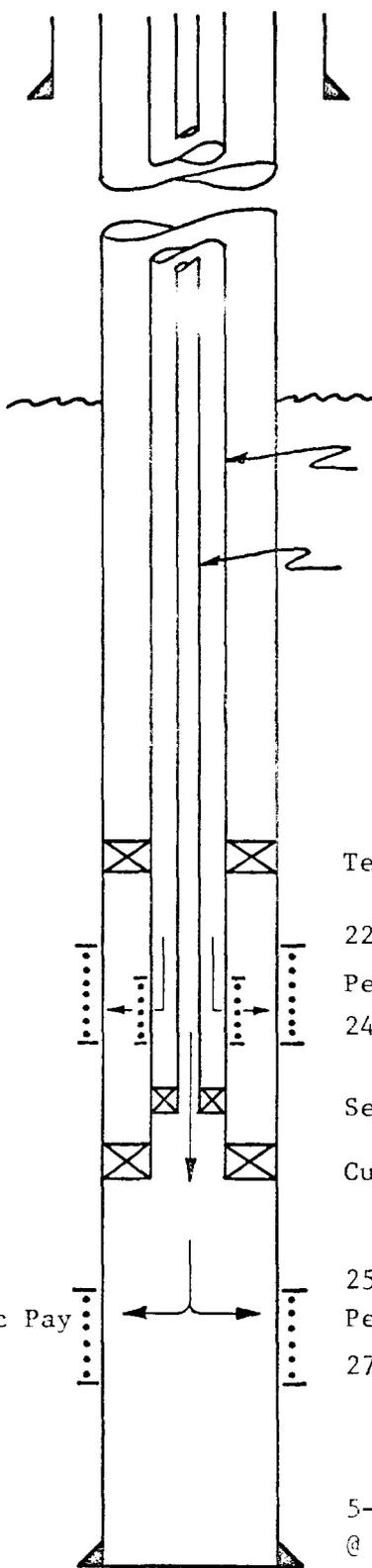
Water will be injected into the San Andres Oolitic Zone down 1" NUE tubing and below a seating nipple set inside the 2-3/8" EUE tubing. Water will be injected into the Grayburg Sands down the 1" NUE and 2-3/8" EUE annulus and between the 2-3/8" EUE and 4-1/2" CSG with packers set at 2220' and 2460'. The casing-tubing annulus above the packer set at 2220' will be loaded with corrosion-inhibited fluid.

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Grayburg-Jackson Field
PROPOSED WI UNIT #29

T-17-S, R-29-E, Eddy
County, New Mexico
Dual Water Injection Well

Top cement @ 925' /
By Temp. Survey



8-5/8" OD, 24#/ft csg set
@ 360' W/150 sks. cement

2-3/8" OD, 4.7#/ft TBG

1", non-upset TBG

Top Grayburg 2120'

Tension packer at approx. 2230'

2250'

Perfs.

Top San Andres 2406'

2410'

Seating nipple & hold down

Cup type packer at approx. 2450'

2500'

Perfs.

Top Lovington 2502'

2710'

Grayburg Sand Pay

Lovington & Oolitic Pay

PBTD 3642'
TD 3700'

5-1/2" OD, 15.5#/ft csg set
@ 3684' W/450 sks. cement

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Water will be injected into the San Andres Oolitic Zone down 1" NUE tubing and below a seating nipple set inside the 2-3/8" EUE tubing. Water will be injected into the Grayburg Sands down the 1" NUE and 2-3/8" EUE annulus and between the 2-3/8" EUE and 5-1/2" CSG with packers set at 2230' and 2450'. The casing-tubing annulus above the packer set at 2230' will be loaded with corrosion-inhibited fluid.

TENNECO OIL COMPANY
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PROPOSED WI UNIT #33
Grayburg-Jackson Field

T-17-S, R-29-E, Eddy
County, New Mexico
Dual Water Injection Well

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Handwritten scribbles



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Top cement 1680' /
By Temp. Survey

8-5/8" OD, 20#/ft csg set
@ 348' W/175 sks. cement

2-3/8" OD, 4.7#/ft TBG

1", non-upset TBG

Top Grayburg 2058'

Grayburg Sand Pay

Tension packer at approx. 2250'

2270'

Perfs.

Top San Andres 2443'

2450'

Seating nipple & hold down

Cup type packer at approx. 2490'

Lovington & Oolitic Pay

Top Lovington 2540'

2600'

Perfs.

2800'

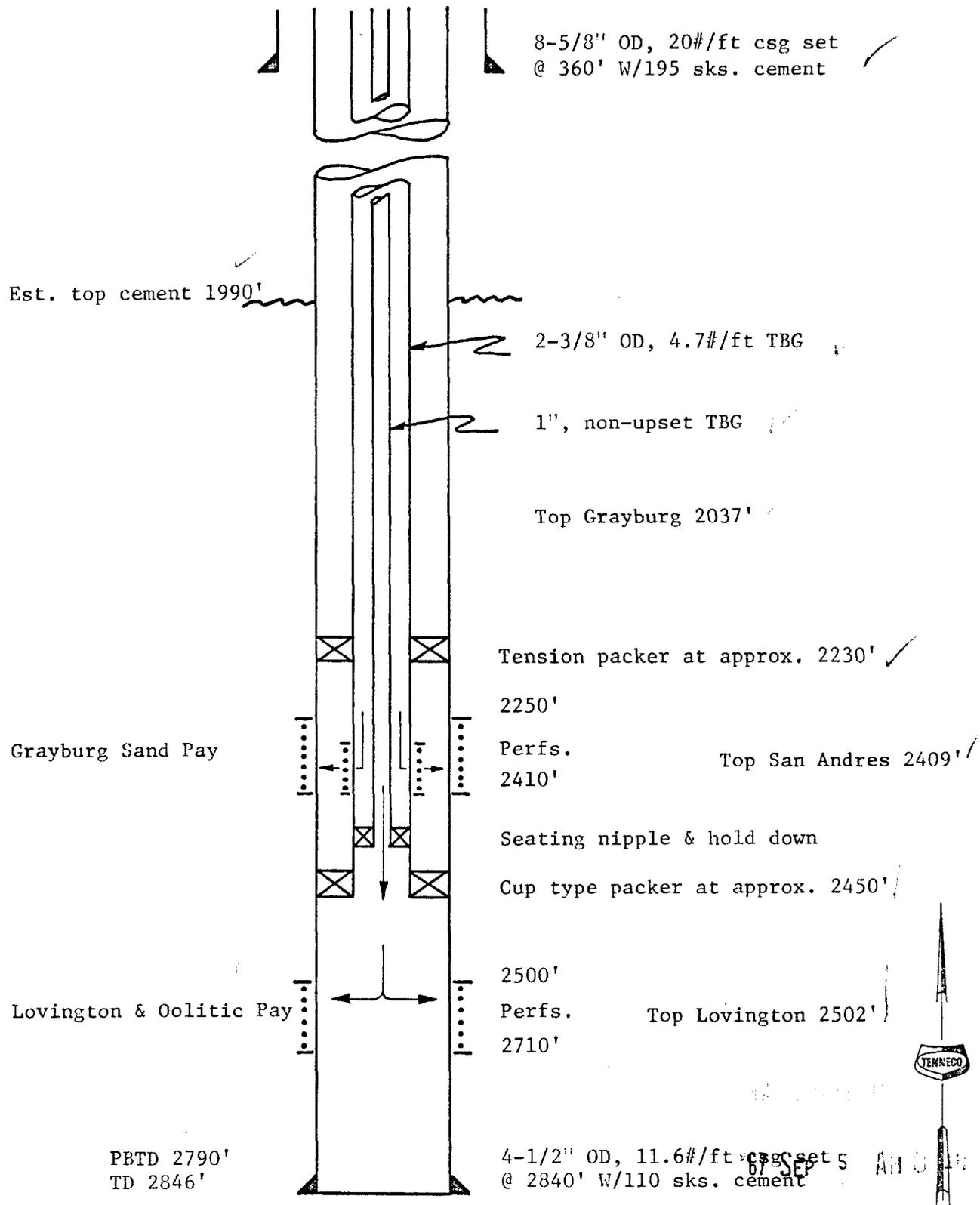
PBTD 2844'
TD 2900'

4-1/2" OD, 11.6#/ft csg set
@ 2889 W/110 sks. cement



Water will be injected into the San Andres Oolitic Zone down 1" NUE tubing and below a seating nipple set inside the 2-3/8" EUE tubing. Water will be injected into the Grayburg Sands down the 1" NUE and 2-3/8" EUE annulus and between the 2-3/8" EUE and 4-1/2" CSG with packers set at 2250' and 2490'. The casing-tubing annulus above the packer set at 2250' will be loaded with corrosion-inhibited fluid.

TENNECO OIL COMPANY SUBSIDIARY OF TENNECO CORPORATION
PROPOSED WI UNIT #39 Grayburg-Jackson Field
T-17-S, R-29-E, Eddy County, New Mexico Dual Water Injection Well



Water will be injected into the San Andres Oolitic Zone down 1" NUE tubing and below a seating nipple set inside the 2-3/8" EUE tubing. Water will be injected into the Grayburg Sands down the 1" NUE and 2-3/8" EUE annulus and between the 2-3/8" EUE and 4-1/2" CSG with packers set at 2230' and 2450'. The casing-tubing annulus above the packer set at 2230' will be loaded with corrosion-inhibited fluid.

TENNECO OIL COMPANY SUBSIDIARY OF TENNECO CORPORATION
PROPOSED WI UNIT #45 Grayburg-Jackson Field
T-17-S, R-29-E, Eddy County, New Mexico Dual Water Injection Well