



WFX- 390  
Due June 13

# SKELLY OIL COMPANY

P.O. Box 730, Hobbs, New Mexico 88240  
May 23, 1968

Re: Application for Waterflood Expansion  
Skelly Unit  
Grayburg Jackson Pool  
Eddy County, New Mexico

New Mexico Oil Conservation Commission  
State Land Office Building  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Gentlemen:

Skelly Oil Company respectfully requests administrative approval to expand its Skelly Unit Waterflood in the Grayburg Jackson Pool, Eddy County, New Mexico. The Skelly Unit Waterflood was established by the Oil Conservation Commission Order No. R-2900 dated May 4, 1965 and amended under Order No. R-3214 dated April 11, 1967.

The subject waterflood is governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Grayburg-Jackson Skelly Unit Waterflood Project to include additional wells, within said unit area, on water injection as may be necessary to complete an efficient waterflood pattern.

Skelly initiated a six injection well eighty-acre five-spot pilot project in April, 1965. The successful response to the water injection led Skelly to expand the project. By March, 1968 the original pilot area had been expanded to include a total of 25 injection wells.

Skelly Oil Company desires to expand the waterflood to encompass the entire Skelly Unit with the exception of lease line injection wells and requests administrative approval to convert the following wells to water injection:

Township 17 South, Range 31 East

Unit Well No. 64, Unit F, Section 21  
Unit Well No. 66, Unit H, Section 21  
Unit Well No. 67, Unit J, Section 21  
Unit Well No. 75, Unit N, Section 21  
Unit Well No. 77, Unit P, Section 21  
Unit Well No. 87, Unit D, Section 27  
Unit Well No. 89, Unit B, Section 28  
Unit Well No. 93, Unit F, Section 28  
Unit Well No. 95, Unit H, Section 28



Skelly Unit  
NMOCC, Santa Fe, N.M.  
May 23, 1968

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Under Order R-3214 Skelly Oil Company was authorized to effect a water-flood project in the Grayburg-Jackson Pool in the Skelly Unit by the selective injection of water into various zones throughout the Grayburg-Jackson producing interval. Selectivity of injection is to be achieved by dual injection utilizing the casing-tubing annulus. Skelly Oil Company requests approval to selectively inject throughout the Skelly Unit; however, it is our intention to equip the proposed injectors as single injection wells and utilize the separation of zones in only the wells where it is deemed necessary to achieve the most efficient vertical distribution of injected fluid.

Attached is a map showing all wells within a two mile radius, a Unit plat showing the present and proposed injection wells, along with schematic diagrams, and copies of the logs, on the wells included in this application.

No appreciable response to water injection has been noted in the area of the proposed expansion. The proposed injection wells' producing capacity at the start of the pilot (April, 1965) and the current (April, 1968) producing rates may be shown by the following tabulation:

<u>Unit Well No.</u>	<u>Daily Average Production</u>			
	<u>April, 1965</u>		<u>April, 1968</u>	
	<u>Oil</u>	<u>Water</u>	<u>Oil</u>	<u>Water</u>
64	7	0	11	0
66	16	5	11	11
67	8	0	6	0
75	6	0	10	0
77	7	0	7	0
87	7	0	18	0
89	10	0	6	0
93	22	0	15	0
95	4	0	6	0
TOTAL	87	5	90	11

Although Skelly Oil Company is the only operator directly offsetting the proposed injection wells, the operators adjoining the Skelly Unit in the area of the proposed expansion have been notified by a copy of this application.

Very truly yours,  
SKELLY OIL COMPANY



V. E. Fletcher  
District Superintendent

LRH/bh  
attachments

CC: Operators-Mailing List Attached  
G. W. Selinger, Tulsa, Oklahoma



Mailing List  
SKELLY UNIT

May 23, 1968

Sinclair Oil and Gas Company  
P.O. Box 1920  
Hobbs, New Mexico 88240

Getty Oil Company  
P.O. Box 1231  
Midland, Texas 79701

Attn: R. H. Coe

Kersey and Company  
808 West Grand  
Artesia, New Mexico 88210

Mercherson and Closuit  
% Mr. Ernest Closuit  
1019 Fort Worth National Bank Building  
Fort Worth 2, Texas 76100



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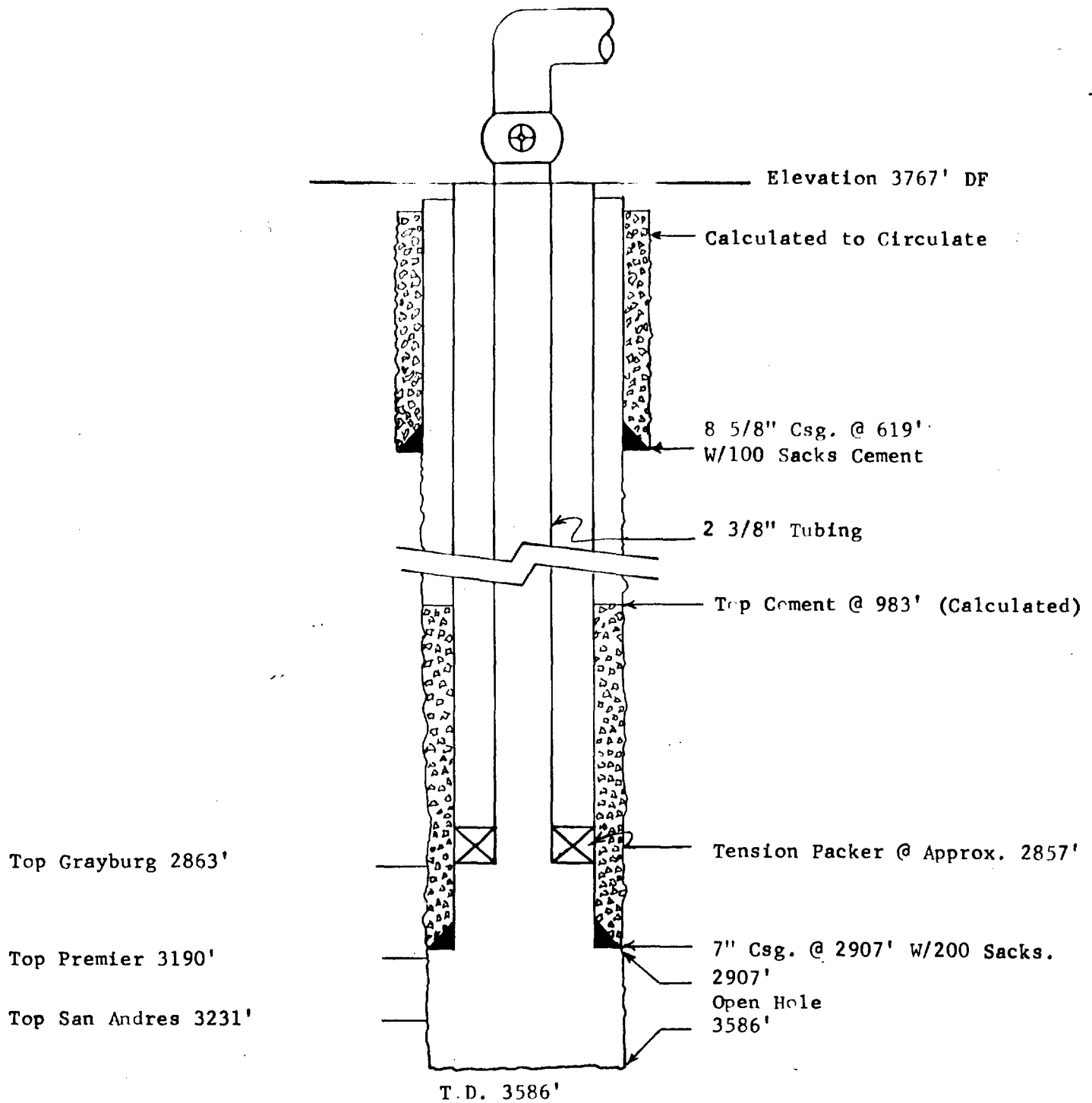






SKELLY OIL COMPANY

SKELLY UNIT NO. 64  
1980' FNL & 1980' FWL, Section 21-17S-31E  
GRAYBURG JACKSON INJECTION WELL

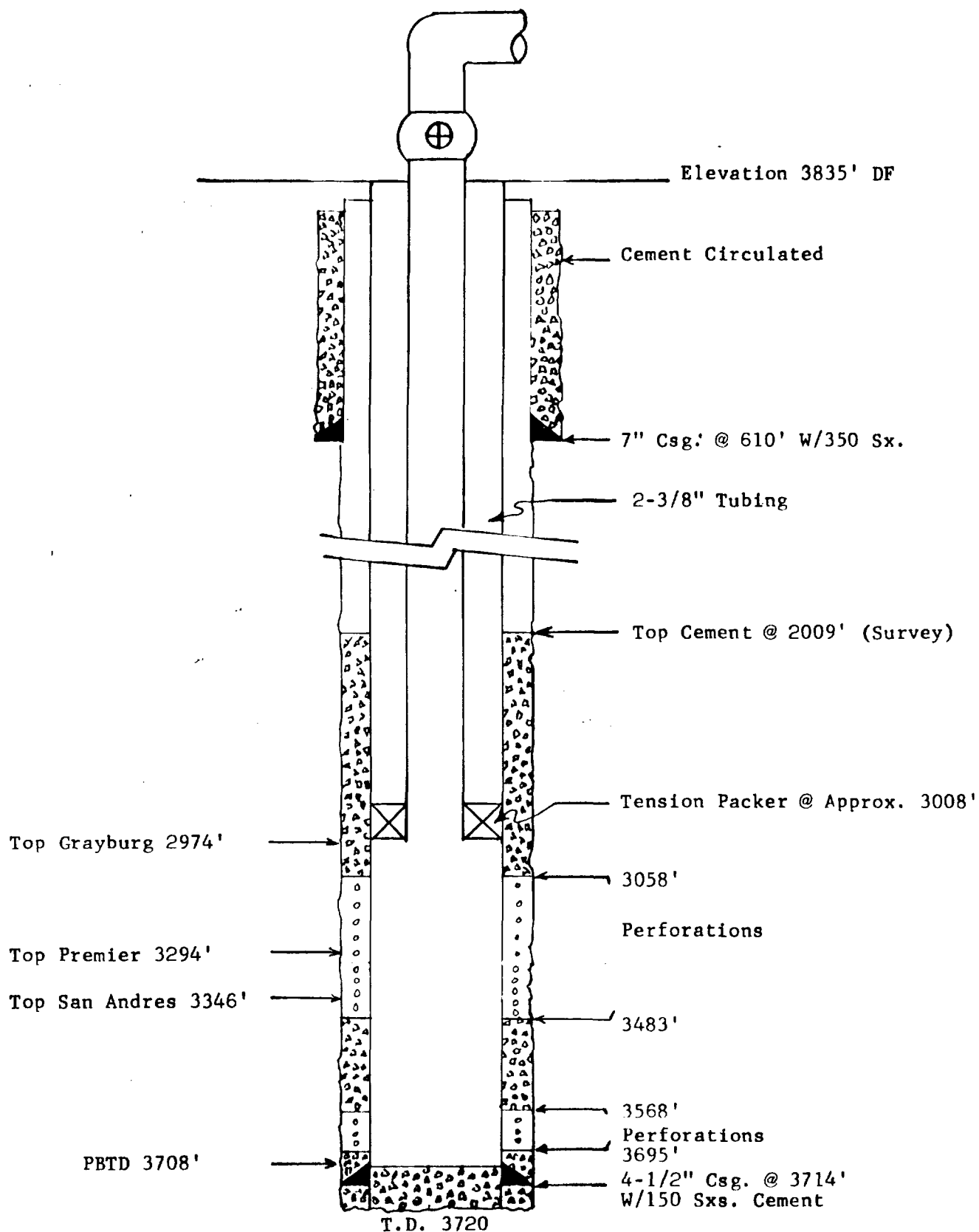




SKELLY OIL COMPANY

SKELLY UNIT NO. 66

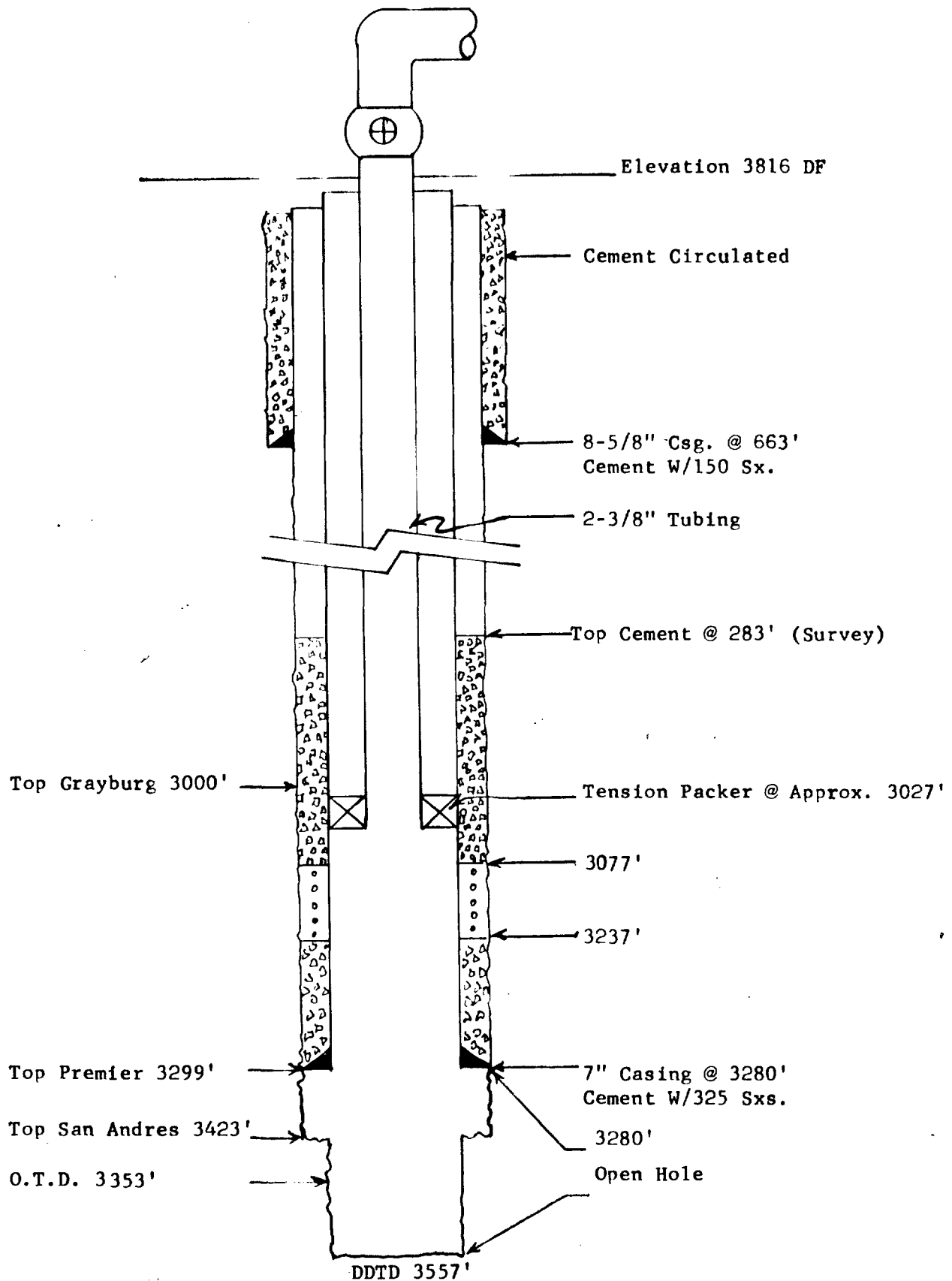
2080' FNL & 710' FEL, Section 21-17S-31E  
GRAYBURG JACKSON INJECTION WELL





SKELLY OIL COMPANY

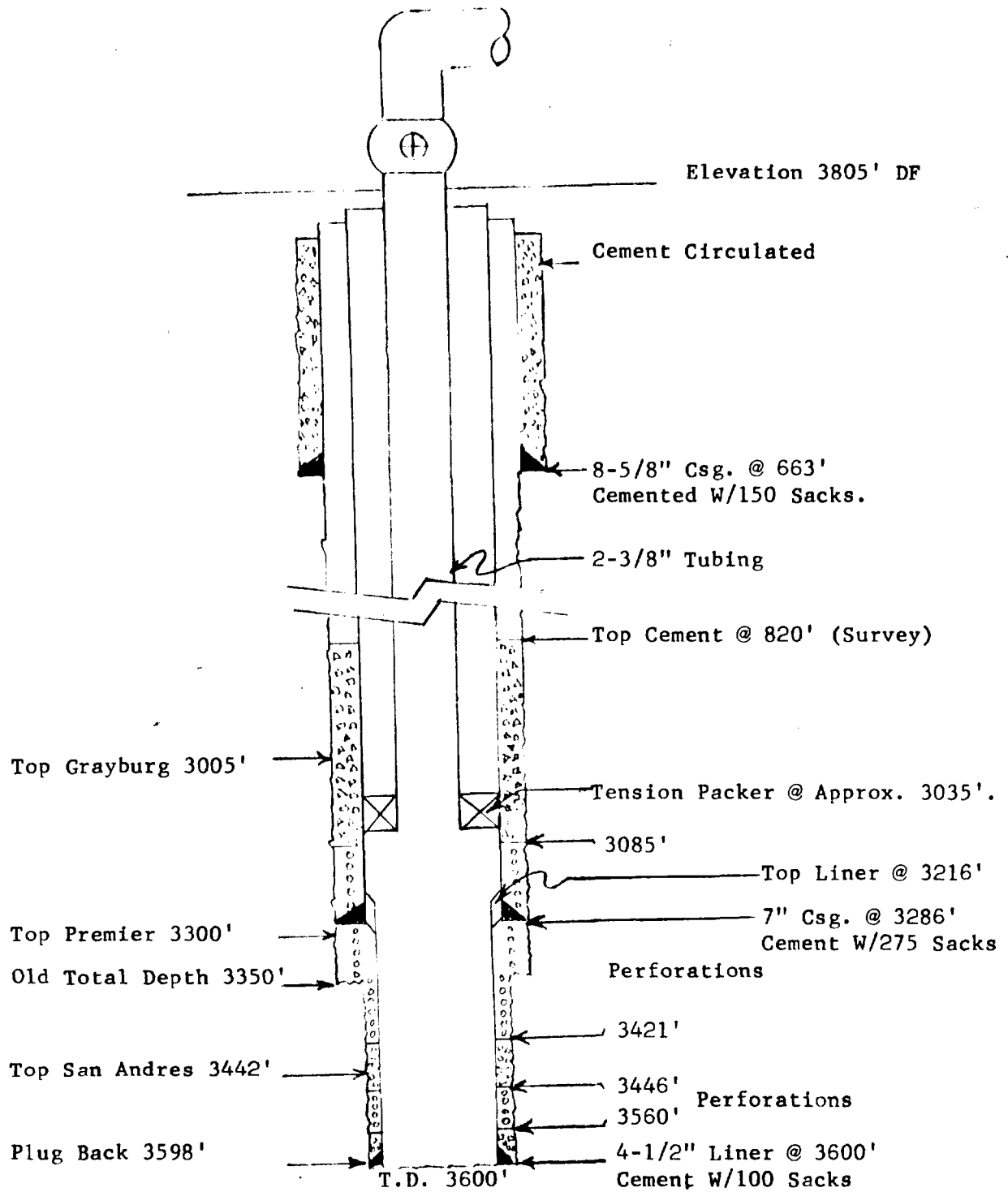
SKELLY UNIT NO. 67  
1650' FNL & 1980' FEL, Section 21-17S-31E  
GRAYBURG JACKSON INJECTION WELL





SKELLY OIL COMPANY

SKELLY UNIT NO. 75  
1650' FWL & 660' FSL, Section 21-17S-31E  
GRAYBURG JACKSON INJECTION WELL



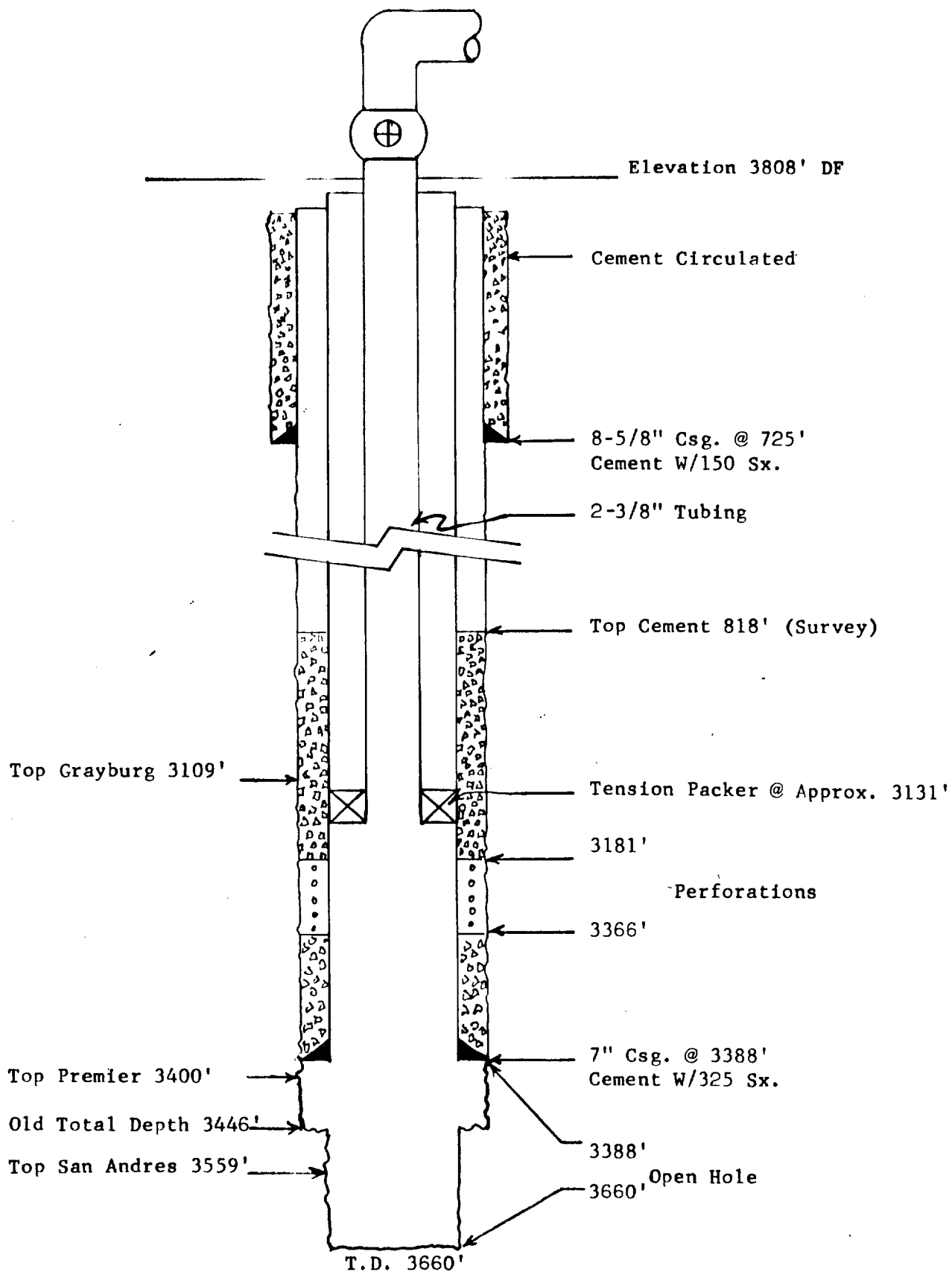


SKELLY OIL COMPANY

SKELLY UNIT NO. 77

660' FEL & 330' FSL, Section 21 - 17S - 31E

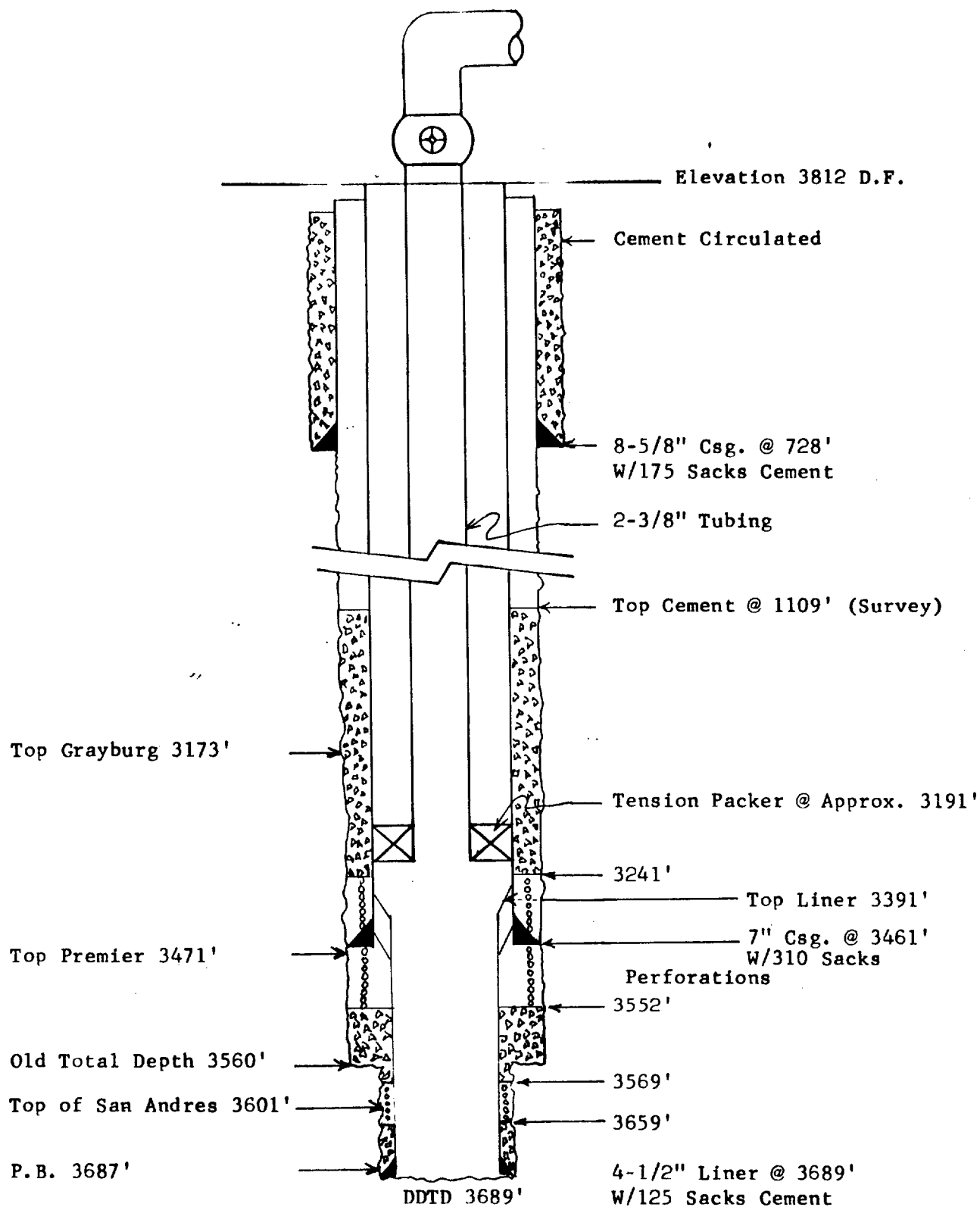
GRAYBURG JACKSON INJECTION WELL





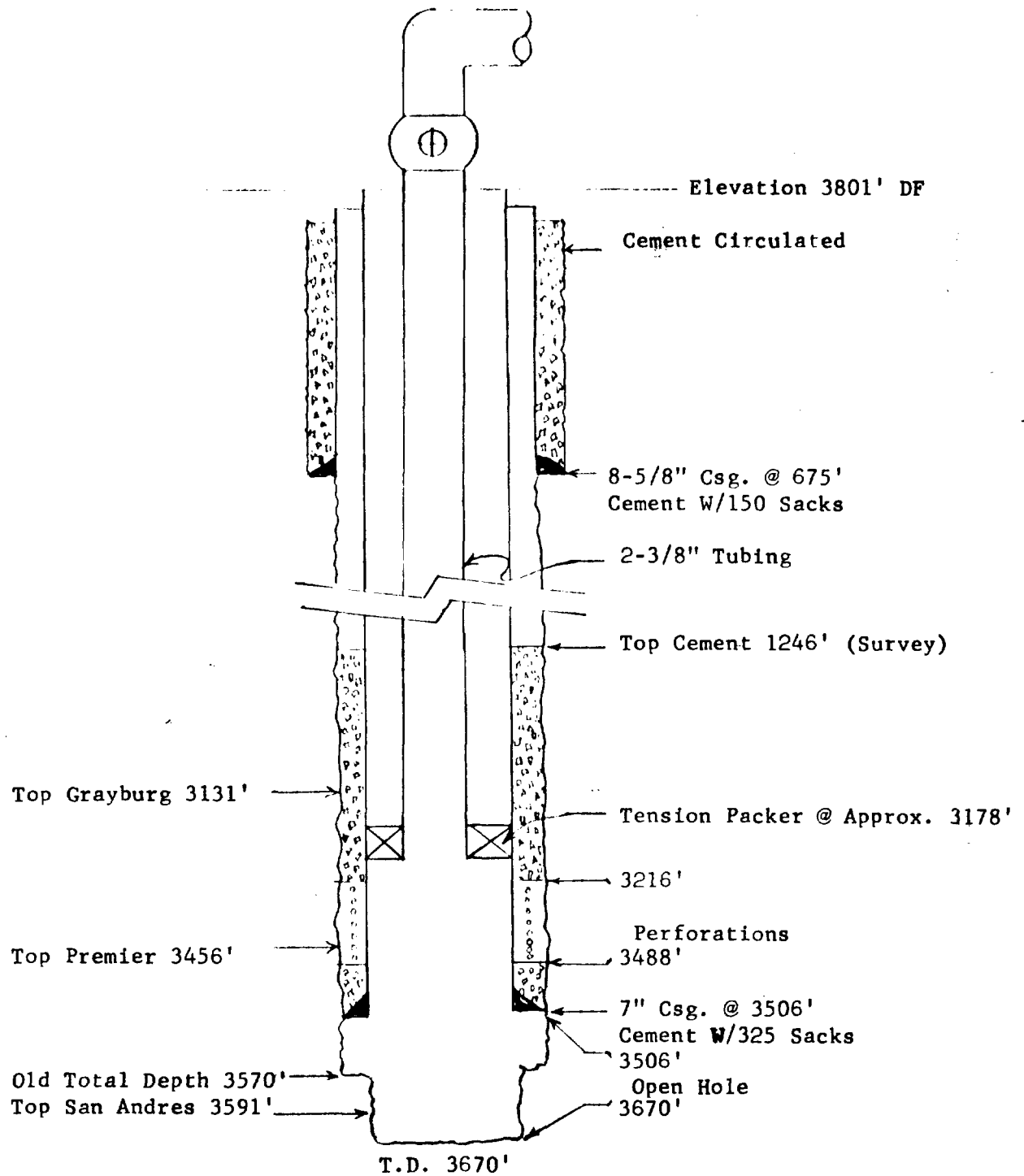
SKELLY OIL COMPANY

SKELLY UNIT NO. 87  
330' FNL & 330' FWL, Section 27-17S-31E  
GRAYBURG JACKSON INJECTION WELL





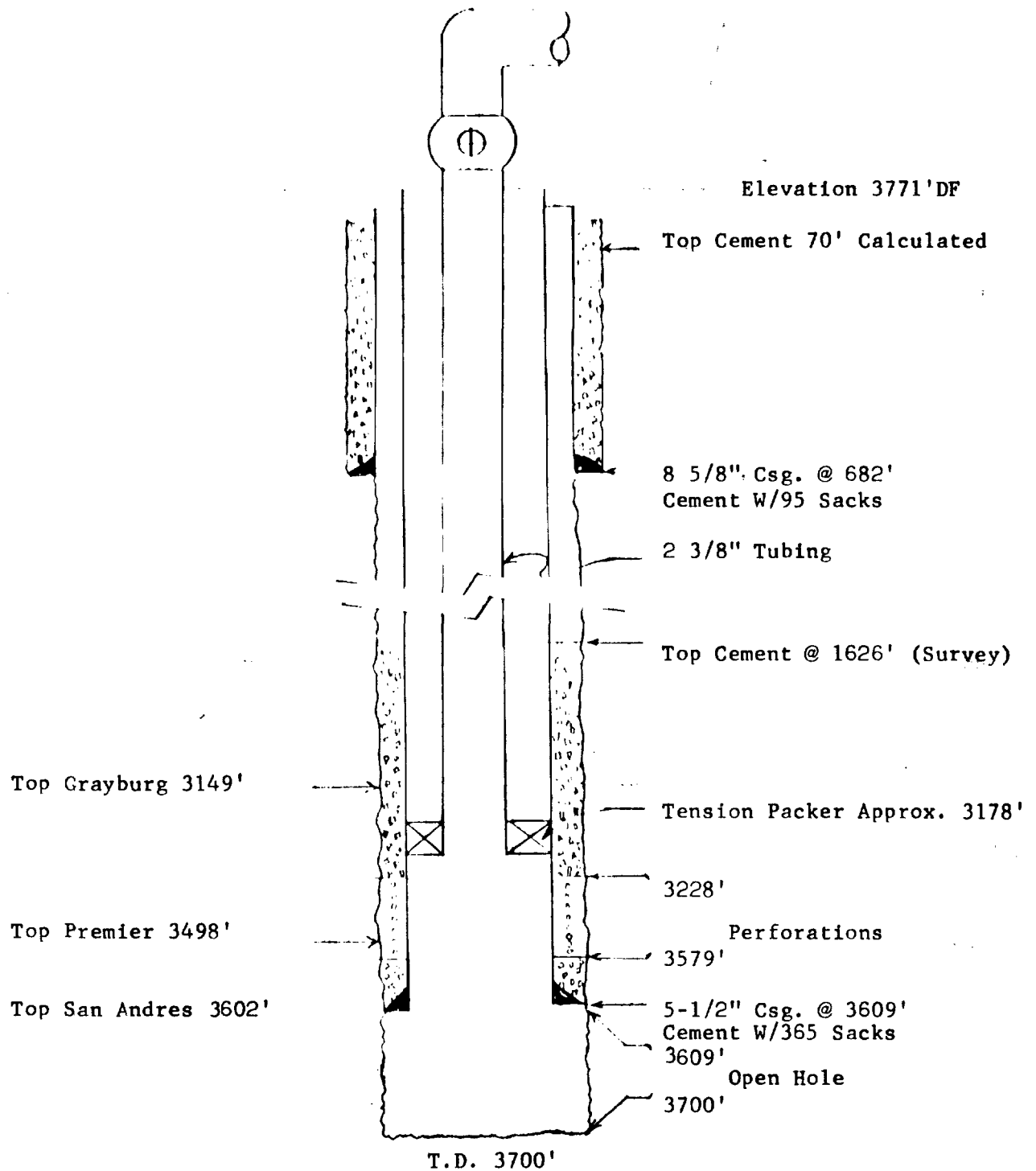
SKELLY OIL COMPANY  
 SKELLY UNIT NO. 89  
 660' FNL & 1980' FEL, Section 28-17S-31E  
 GRAYBURG JACKSON INJECTION WELL





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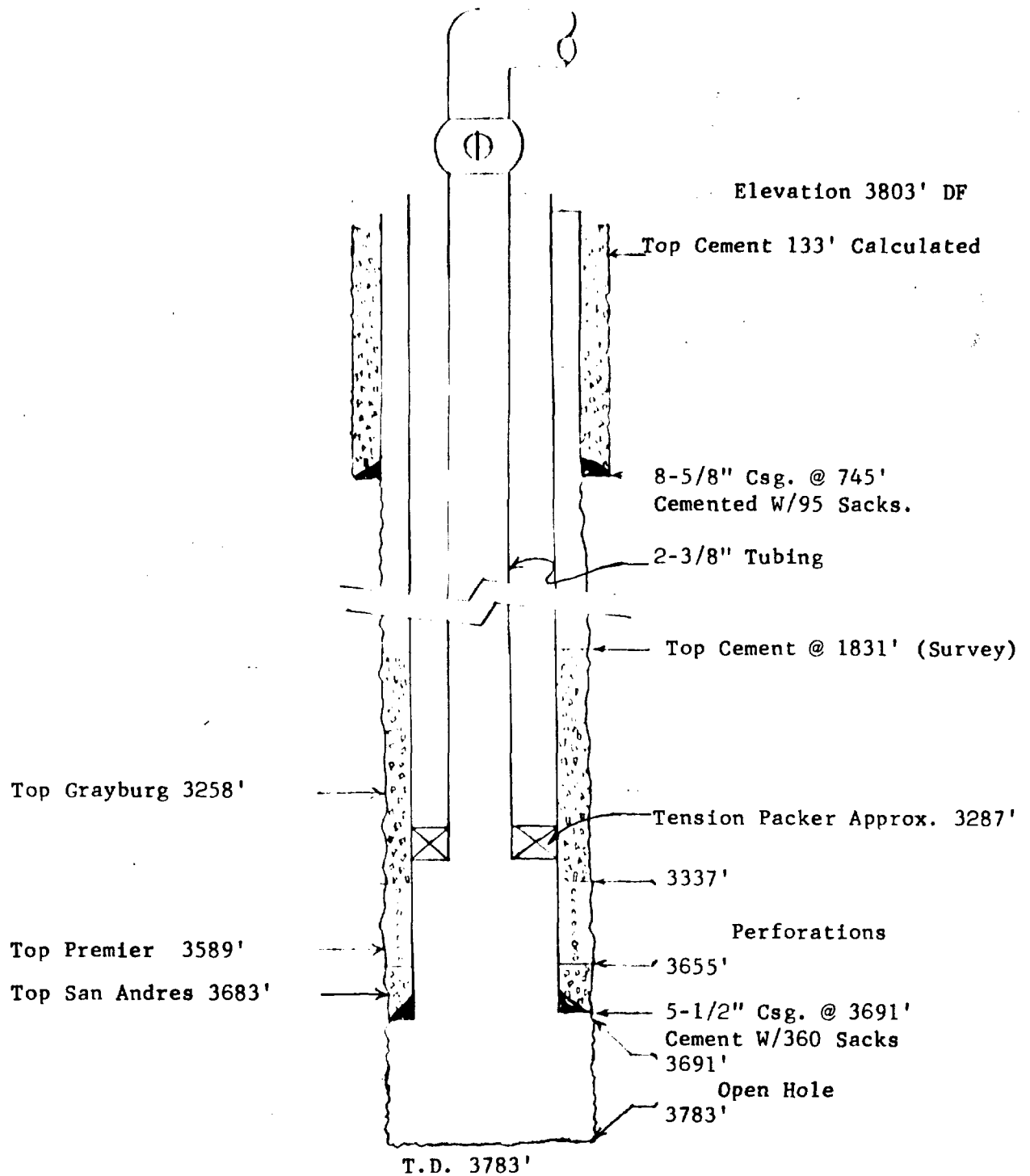
Skelly Unit No. 93  
1980' FNL & 1980' FWL, Section 28-17S-31E  
GRAYBURG JACKSON INJECTION WELL





SKELLY OIL COMPANY

SKELLY UNIT NO. 95  
1980' FWL & 660' FEL, Section 28 - 17S-31E  
GRAYBURG JACKSON INJECTION WELL





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