



SKELLY OIL COMPANY

EXPLORATION & PRODUCTION DEPARTMENT
WEST CENTRAL DISTRICT

June 26, 1970

ADDRESS REPLY TO:
P. O. BOX 1351
MIDLAND, TEXAS 79701

A. B. CARY, EXPLORATION & PRODUCTION MANAGER
V. E. BARTLETT, EXPLORATION MANAGER
P. L. NUNLEY, PRODUCTION MANAGER
J. R. AVENT, ADMINISTRATIVE COORDINATOR

File: Lovington Paddock Unit General

Re: Application to Expand Injection

Mr. A. L. Porter
Secretary-Director
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

WFX - 343
Hue July 17

Dear Mr. Porter:

Skelly Oil Company respectfully requests administrative approval to expand the Lovington Paddock Unit water injection system by converting four additional wells to injection. This Unit was established by Oil Conservation Order No. R-3124 issued September 30, 1966, with the approval of 22 injection wells. Only 18 of the 22 wells were converted at that time, with the remaining four (Nos. 2, 25, 34, & 53) continuing as producers.

The Unit was expanded by Commission Order R-3352 issued December 4, 1967, with approval of seven more wells. Six wells were converted leaving Well No. 8 as a producer.

Presently we plan to convert to injection Wells No. 2, 8, 36, 38, 55 and 57. Commission approval has been received previously to convert Wells No. 2 and 8. Therefore, we now request approval to inject water into the Lovington Glorieta (Paddock) formation through the following described wells in Lea County, New Mexico:

TOWNSHIP 16 SOUTH RANGE 37 EAST
Lovington Paddock Unit Well No. 36, Unit O Section 31
Lovington Paddock Unit Well No. 38, Unit M Section 31

TOWNSHIP ①6¹⁷ SOUTH RANGE 37 EAST
Lovington Paddock Unit Well No. 55, Unit G Section 6
Lovington Paddock Unit Well No. 57, Unit E Section 6

The reasons for this request are: (1) To provide for a greater injection capacity for the Unit. Individual well injection capacities continue to decrease as cumulative injected volumes increase. (2) To test a five spot

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pattern. This proposal will provide three completely enclosed five spot center producers. If the five spot pattern proves more effective than the presently employed inverted nine spot, plans are to convert to a five spot pattern throughout the Unit area.

The current injection rate is approximately 6900 barrels of water per day through 24 injection wells. We desire to inject 8500 to 9000 barrels per day.

Attached are an ownership map showing all wells with their producing horizon within a two mile radius; a Unit plat showing the injection wells that have Oil Conservation Commission approval for conversion to injection and the wells proposed for approval herein. Also attached are diagrammatic sketches of the proposed injection wells and copies of logs on the proposed injection wells.

Casing-tubing annulus will be filled with an inert fluid and left open to detect leaks.

Case *Order # R-3352*
~~Order~~ No. 3692 provides for administrative approval for additional wells in this Unit without the necessity of showing a response to injection.

Very truly yours,

Audra B. Cary
Audra B. Cary

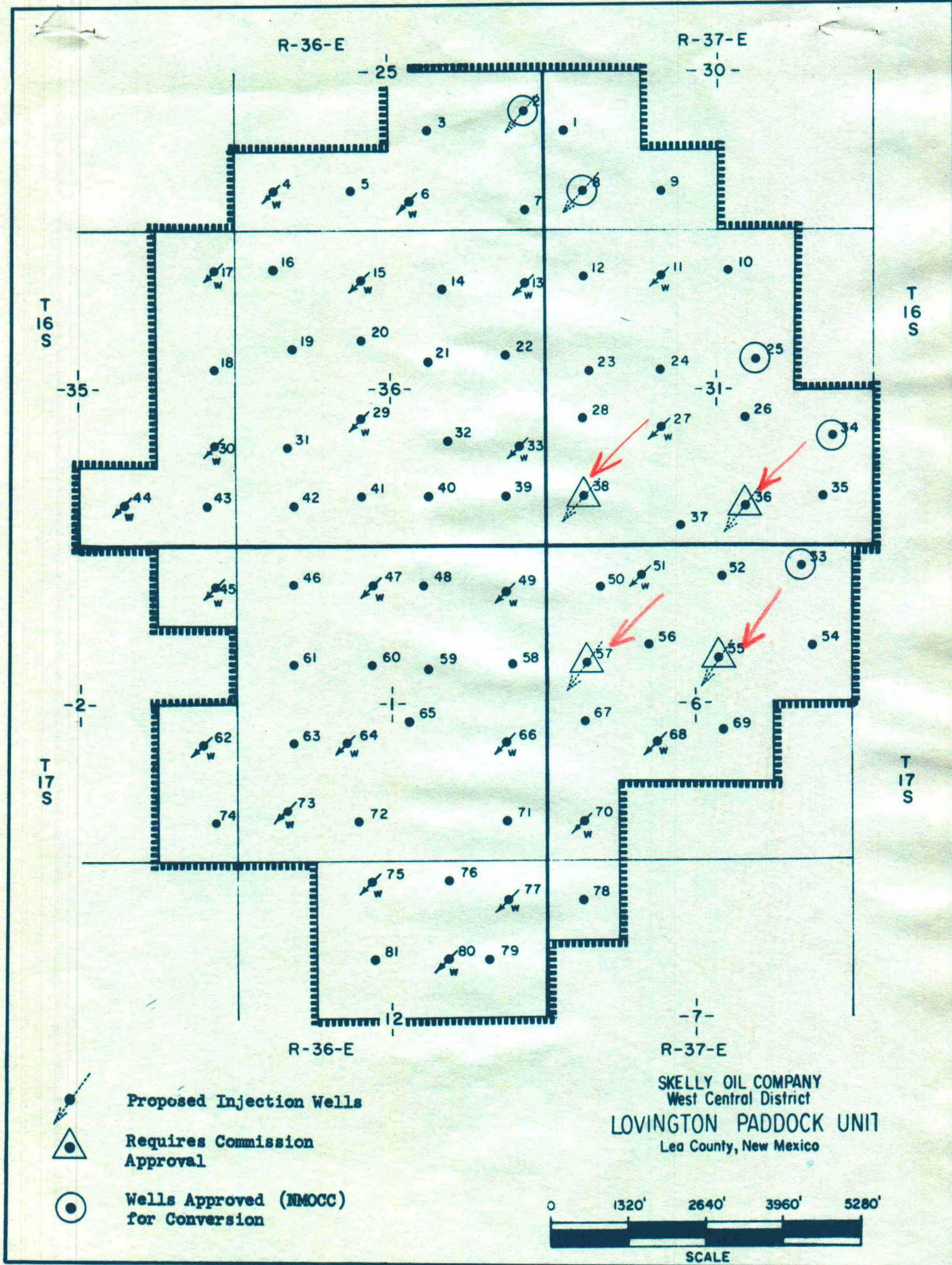
BOB/scc

Attachments

cc: D. E. Smith
Tulsa, Oklahoma

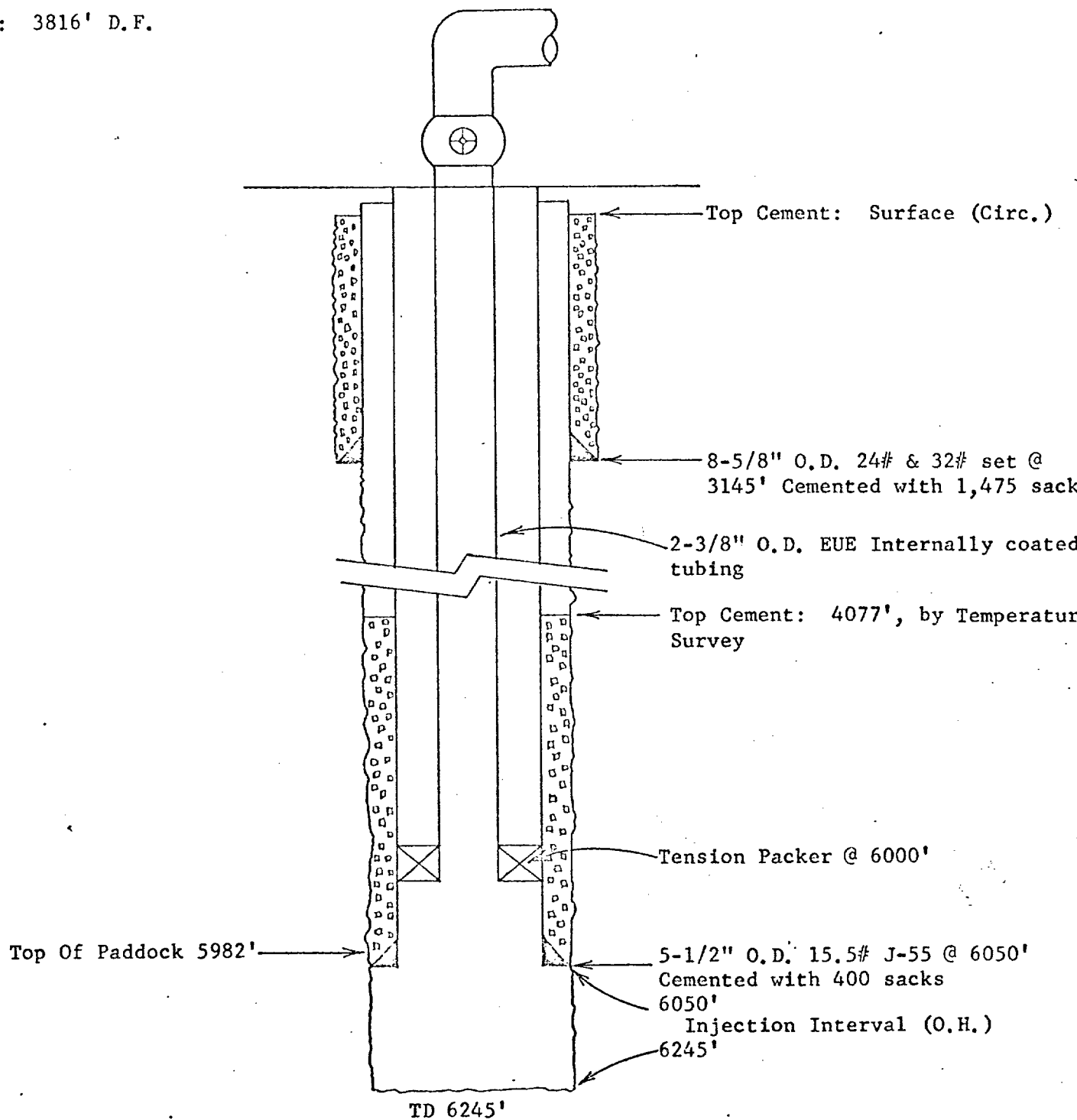
United States Geological Survey
P. O. Drawer 1857
Roswell, New Mexico 88201

Commissioner of Public Lands
State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico 87501



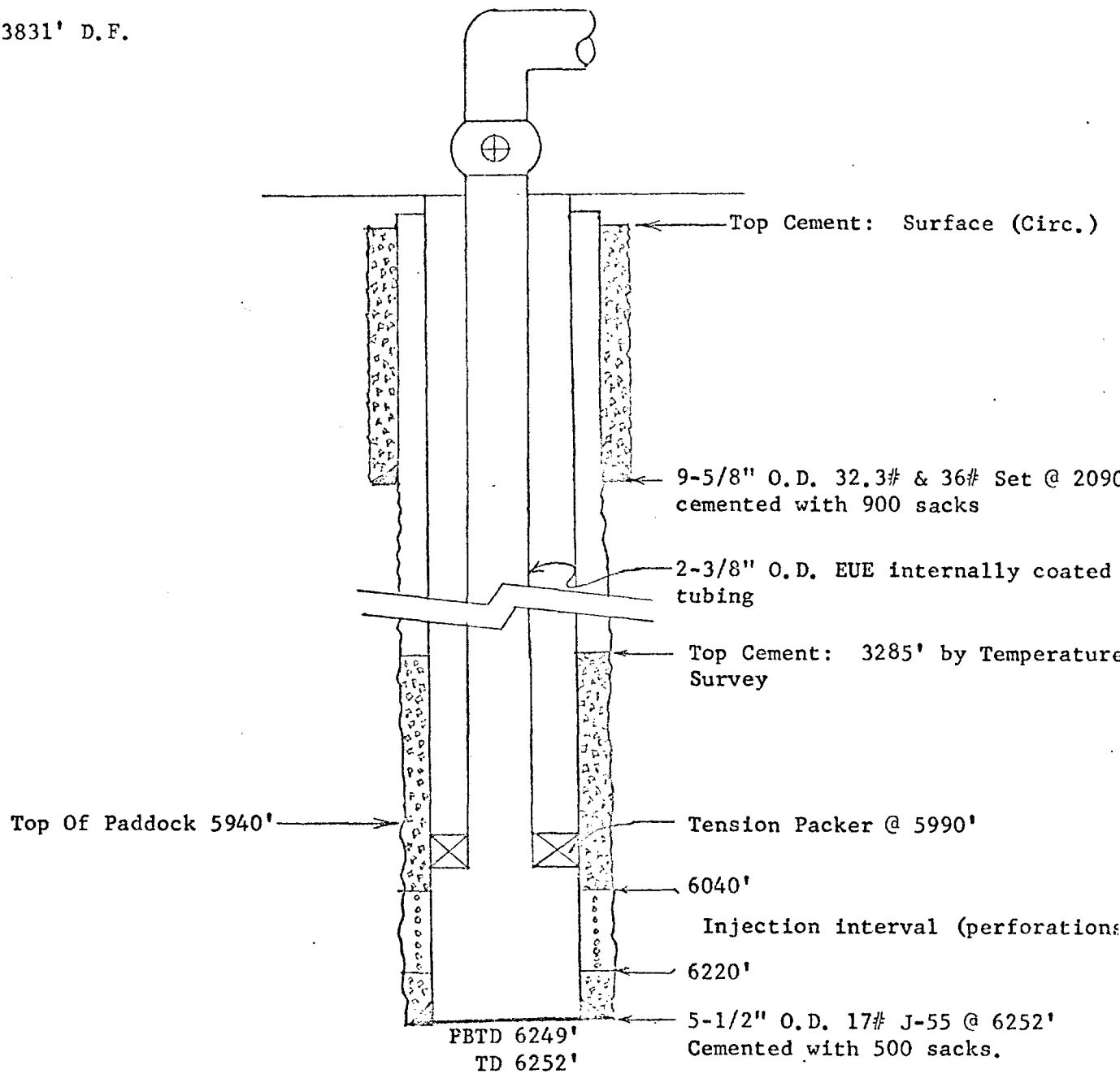
DIAGRAMMATIC SKETCH
 Skelly Oil Company
 Lovington Paddock Unit No. 36
 2160' FEL & 660' FSL, Section 31-16S-37E

Elevation: 3816' D.F.



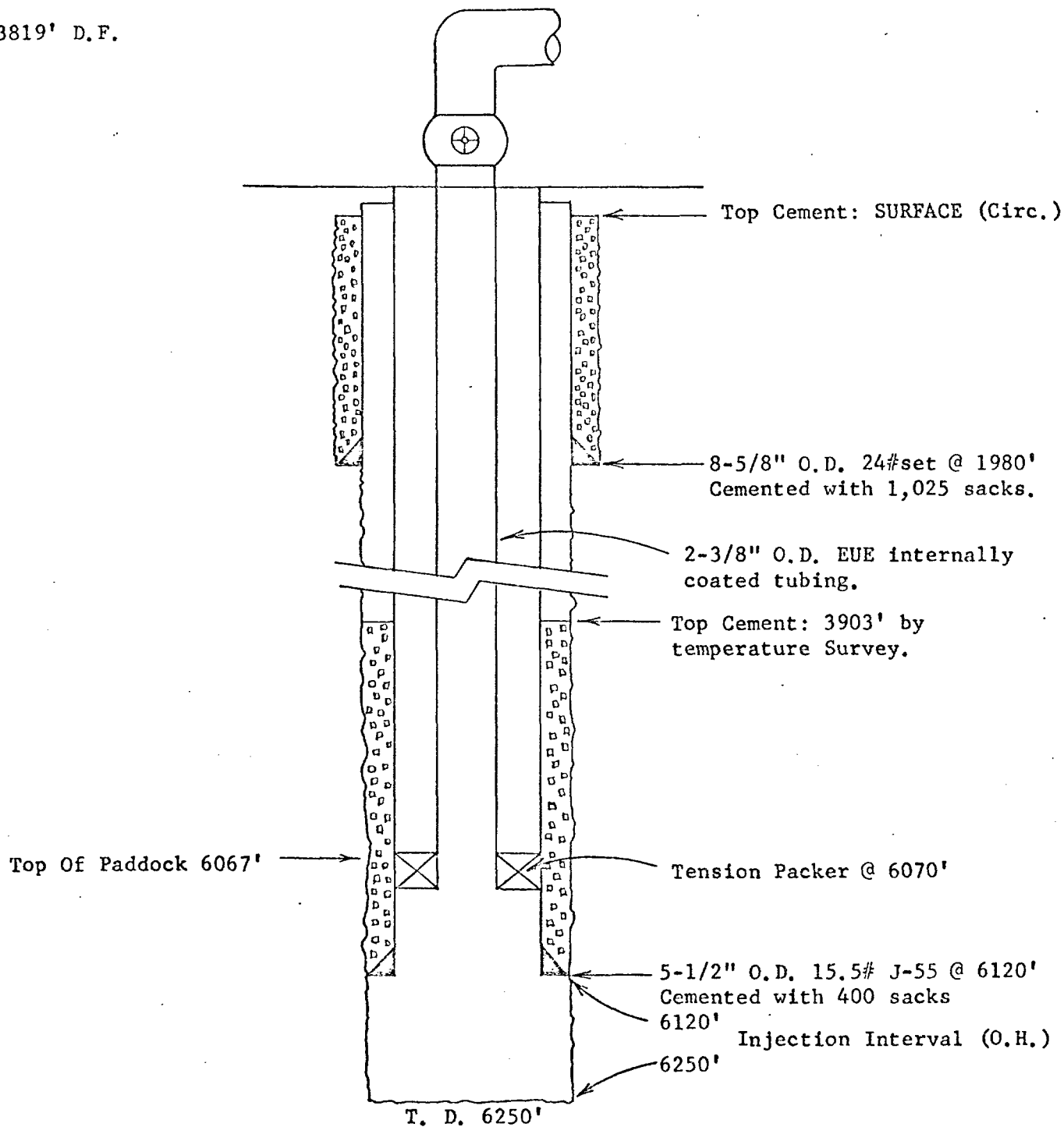
DIAGRAMMATIC SKETCH
 Skelly Oil Company
 Lovington Paddock Unit No. 38
 810' FSL & 665' FWL, Section 31-16S-37E

Elevation: 3831' D.F.



DIAGRAMMATIC SKETCH
 Skelly Oil Company
 Lovington Paddock Unit No. 55
 1879' FNL & 2248' FEL, Section 6-17S-37E

Elevation: 3819' D.F.



DIAGRAMMATIC SKETCH
 Skelly Oil Company
 Lovington Paddock Unit No. 57
 1980' FNL & 695' FWL, Section 6-17S-37E

Elevation: 3814' G.L.
 3829' K.B.

