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MANAGER, DOMESTIC OPERATIONS
W. P. SCHULTZ
MANAGER, FOREIGN OPERATIONS
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ASSISTANT MANAGER
I. F. ROEBUCK, JR.
ASSISTANT MANAGER

CORE LABORATORIES, INC.
BOX 10185, DALLAS 7, TEXAS · CABLE: CORELAB

Engineering & Consulting Department

February 26, 1965

REPLY TO
SUITE 209 GULF BUILDING
BOX 223
MIDLAND, TEXAS

64-523.1

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

Attention: Mr. A. L. Porter, Jr.

Re: Many Rocks - Gallup Pressure
Maintenance Project No. 4
Case No. 3036
Order No. R-2700

Dear Mr. Porter:

On behalf of Guyer Oil Company, we hereby submit a request for administrative approval to increase the number of injection wells authorized for the Many Rocks - Gallup Pressure Maintenance Project No. 4 on the Navajo lease in the Many Rocks Gallup Pool. Approval is also sought to inject water down the casing of all injection wells in the project area. Project approval was granted under Order No. R-2700 by the New Mexico Oil Conservation Commission.

Approval is requested for water injection into wells Navajo 1-A-27 and 6-27 as shown on the attached plat, Exhibit A. Water injection into these wells in addition to the three wells already approved would allow waterflood operations to be conducted on a five-spot pattern. No loss of sweep efficiency or ultimate recovery is expected from this change in waterflood pattern.

Attached to this letter application are the schematic diagrams of wells 1-A-27 and 6-27, labeled Exhibits B and C, in accordance with Rule 701-B. It is proposed that Entrada Formation water

would be injected into wells 1-A-27 and 6-27 through the existing perforations at a depth of approximately 1250 feet in the Lower Gallup Sand with a maximum wellhead pressure of 900 psi and rates of 87 and 105 barrels per day, respectively.

Logs on the subject wells are attached as Exhibits D and E. The entire section above the Gallup formation in this field is composed of the Mancos shale and the Point Lookout sandstone. No fresh water productive zones have been observed in these formations in this field.

In regard to the request for approval to inject water down the casing of the injection wells within the project area, we should like to respectfully direct your attention to the fact that the Skelly Many Rocks-Gallup Pressure Maintenance Project No. 3 (Order No. R-2664) and the Murphy Oil Corporation North Many Rocks-Gallup Pressure Maintenance Project No. 1 (Order No. R-2795) have been granted this permission. Both of these projects are producing from the same Lower Gallup sandstone as the Guyer Project, and the overlying formations are the same. Schematic diagrams indicate that injection well completions are similar for all three projects. In addition, two of the three wells authorized by Order No. R-2700 for injection on this project have been approved for injection through 2 7/8" O. D. casing.

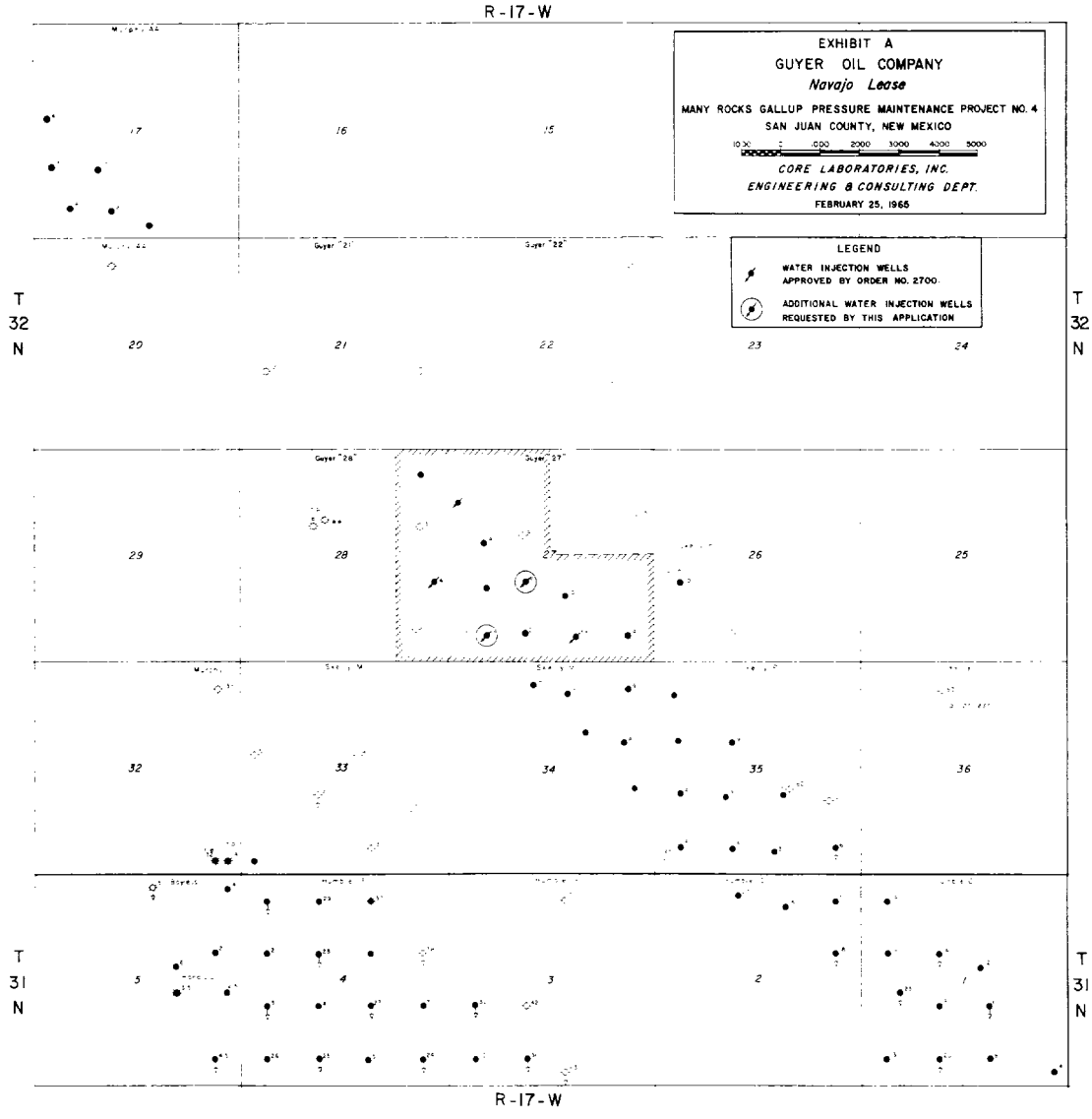
Based upon the above facts, Guyer Oil Company respectfully requests permission to inject water down the casing of all the approved injection wells on the Many Rocks-Gallup Pressure Maintenance Project No. 4. This request includes well 3-27-X which in the original order called for the use of tubing and a packer. The attached Exhibit F presents a schematic diagram of the proposed completion of well 3-27-X.

Respectfully submitted,

CORE LABORATORIES, INC.
Agent for GUYER OIL COMPANY

by T. C. Carlson
T. C. Carlson

cc: State Engineer, State of New Mexico
Skelly Oil Company
United States Geological Survey


R-17-W
EXHIBIT A
GUYER OIL COMPANY
Navajo Lease
MANY ROCKS GALLUP PRESSURE MAINTENANCE PROJECT NO. 4
SAN JUAN COUNTY, NEW MEXICO
1000 0 1000 2000 3000 4000 5000
CORE LABORATORIES, INC.
ENGINEERING & CONSULTING DEPT.
FEBRUARY 25, 1965
LEGEND
WATER INJECTION WELLS APPROVED BY ORDER NO. 2700.
ADDITIONAL WATER INJECTION WELLS REQUESTED BY THIS APPLICATION
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R-17-W

EXHIBIT A

PROPOSED WATER INJECTION WELL
GUYER OIL COMPANY
NAVAJO NO. 1A-27
MANY ROCKS GALLUP POOL, SEC. 27, T32N, R17W
SAN JUAN COUNTY, NEW MEXICO

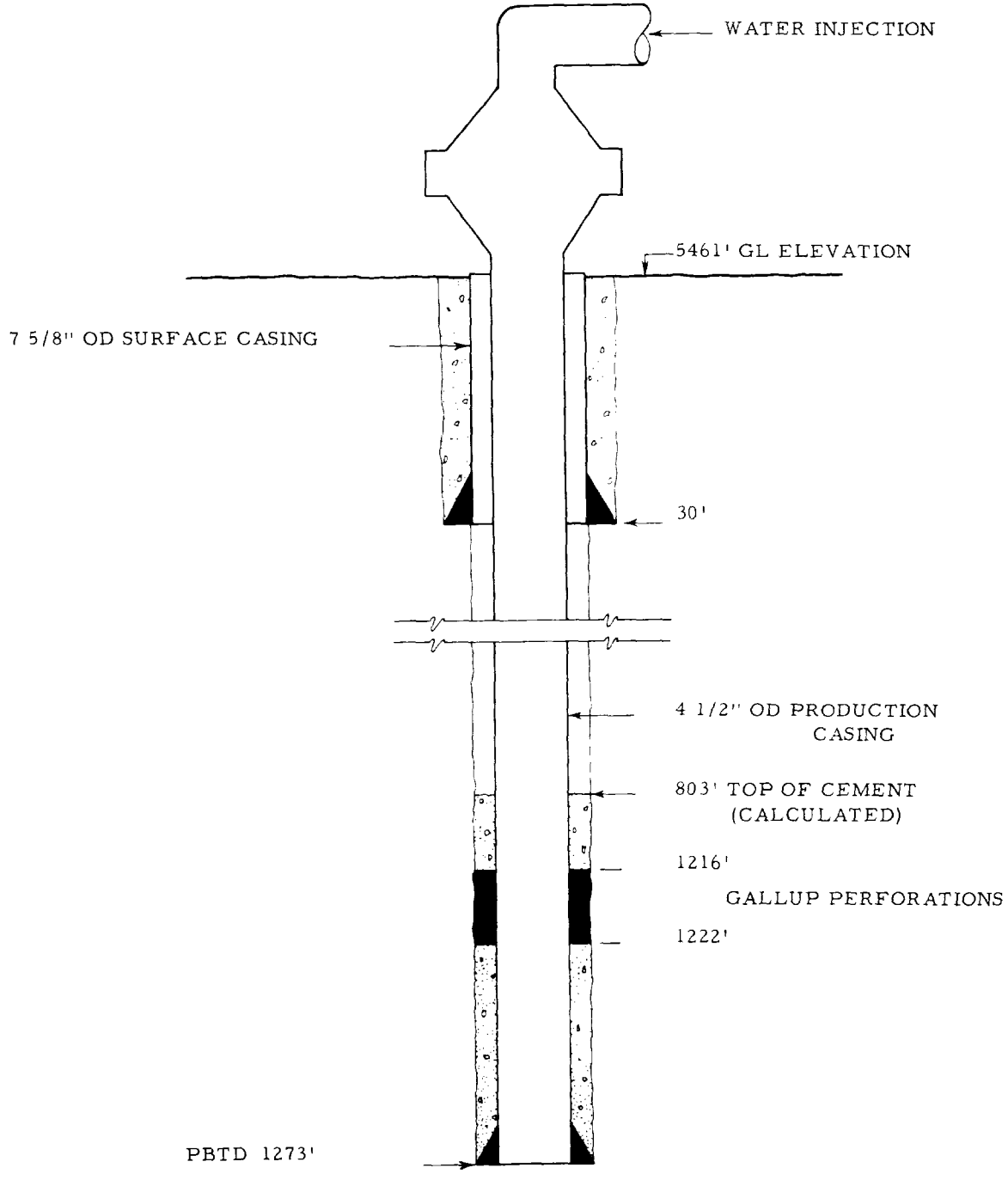

EXHIBIT NUMBER B

PROPOSED WATER INJECTION WELL
GUYER OIL COMPANY
NAVAJO NO. 6-27
MANY ROCKS GALLUP POOL, SEC. 27, T32N, R17W
SAN JUAN COUNTY, NEW MEXICO

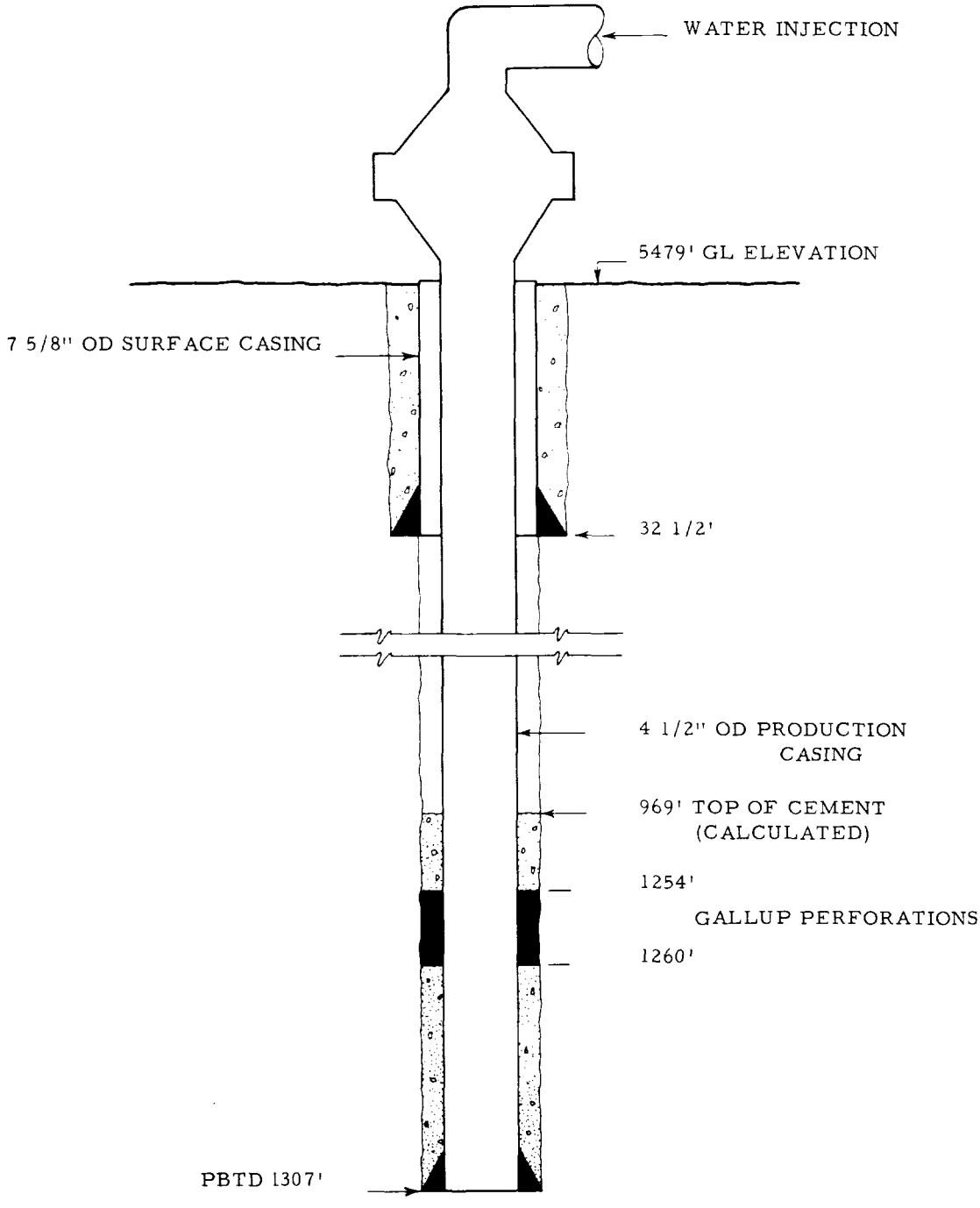

EXHIBIT NUMBER C

PROPOSED WATER INJECTION WELL
GUYER OIL COMPANY
NAVAJO NO. 3X-27
MANY ROCKS GALLUP POOL, SEC. 27, T32N, R17W
SAN JUAN COUNTY, NEW MEXICO

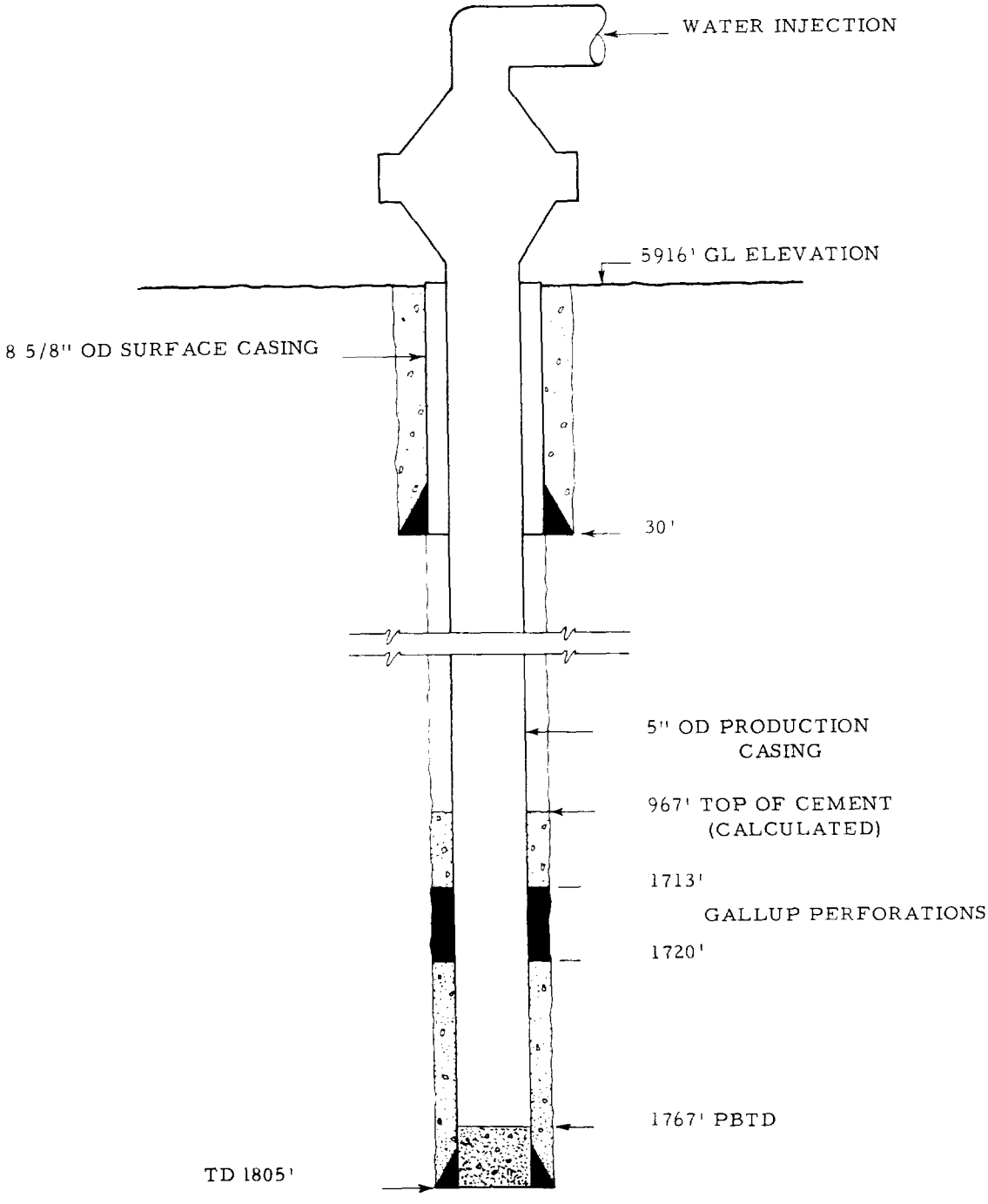

EXHIBIT NUMBER F