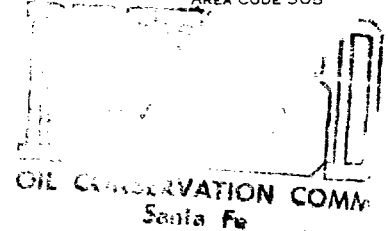


LAW OFFICES OF  
JENNINGS, CHRISTY & COPPLE  
1012 SECURITY NATIONAL BANK BUILDING  
P. O. BOX 1180  
ROSWELL, NEW MEXICO 88201

JAMES T. JENNINGS  
SIM B. CHRISTY IV  
ROGER L. COPPLE  
BRIAN W. COPPLE

TELEPHONE 622-8432  
AREA CODE 505



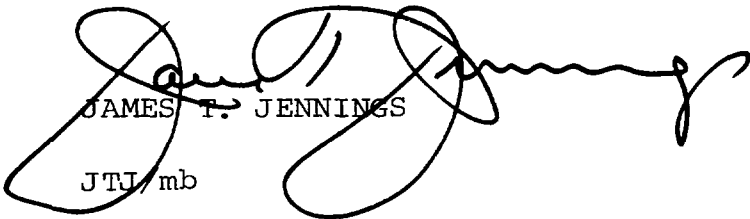
May 27, 1972

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

RE: SHENANDOAH APPLICATION FOR ADMINISTRATIVE APPROVAL  
SHENANDOAH SHUGART WATERFLOOD PROJECT, SHUGART POOL

Enclosed herewith you will find in triplicate an Application for Administrative Approval of five additional injection wells in the Shenandoah Shugart Flood. In accordance with the Rules of the Commission, we have forwarded copies of this Application to all of the offset operators and a copy of our letter transmitting the Application to the various offset operators is also enclosed.

We hope that you find the enclosed Application in order; if you need some additional information, please call us.

  
JAMES T. JENNINGS

JTJ/mb

Encl.

cc: Shenandoah Oil Corporation

W-1 371

1.11.1970 14

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

RECEIVED

11-11-1970

OIL CONSERVATION CO  
Santa Fe

IN THE MATTER OF THE APPLICATION OF  
SHENANDOAH OIL CORPORATION TO CONVERT  
FIVE ADDITIONAL WELLS TO WATER INJECTION  
WELLS IN THE SHENANDOAH SHUGART WATERFLOOD  
PROJECT IN THE SHUGART POOL, EDDY COUNTY,  
NEW MEXICO.

APPLICATION FOR ADMINISTRATIVE APPROVAL  
OF ADDITIONAL WATER INJECTION WELLS

Comes now Applicant, Shenandoah Oil Corporation, and hereby makes application for administrative approval of the conversion of five additional wells to water injection in the Shenandoah Shugart Waterflood Project pursuant to Rule 701 E-5 of the Rules and Regulations of the Commission and in support thereof states:

1. That by Order No. R-3431 the Commission authorized the Applicant herein to institute a waterflood project in the Shugart Pool by the injection of water into the Yates, Seven Rivers, Queen and Grayburg formations and the Commission designated the waterflood project as the Shenandoah Shugart Waterflood Project.

2. That by Administrative Order No. WFX 332 dated January 29, 1970, the Applicant, Shenandoah Oil Corporation, was authorized to inject water into the Yates, Seven Rivers, Queen and Grayburg formations in the following described wells:

Shugart A Well No. 9 located in Unit I of Section 29,  
Shugart D Well No. 7 located in Unit D of Section 30,  
Shugart D Well No. 9 located in Unit M of Section 20,  
Shugart A (APCO) Well No. 2 located in Unit B of Section 29,  
Shugart A (APCO) Well No. 4 located in Unit F of Section 29,  
and Kenwood-Federal (Mayer) Well No. 1 located in Unit N of Section 19,  
all in Township 18 South, Range 31 East, N.M.P.M.

3. That the conversion of five additional wells to water injection wells is necessary for an efficient injection pattern and will insure the protection of correlative rights and will result in the increased ultimate recovery of oil and prevent waste.

4. That the Applicant desires to convert the following described wells to water injection wells:

<u>WELL NUMBER</u>	<u>LOCATION</u>
Federal Keohane "B" #1	Unit E Section 28, T-18S, R-31E
Shugart "B" #5	Unit D Section 32, T-18S, R-31E
New Mexico State "Y" #1	Unit G Section 32, T-18S, R-31E
Monterey State "B" #4	Unit F Section 32, T-18S, R-31E
Monterey State #5	Unit O Section 32, T-18S, R-31E

5. That Applicant will inject fresh to brackish water and produced water into the Yates, Seven Rivers, Queen and Grayburg formations and that the injection wells will be completed in the same manner as other injection wells on the project, in that Applicant will use plastic coated tubing and downhole Baker flow regulator control valves and packers.

6. In support of this application and in accordance with the provisions of Rule 701-B, Applicant has heretofore submitted in connection with its original application for waterflood project a plat marked as Exhibit A therein showing the location of Applicant's project relative to the ownership of all other leases within a two-mile radius which are producing from one or more of the same geologic formations, and Applicant hereby adopts said exhibit by reference and Applicant hereby submits the following exhibits:

- Exhibit B: A plat showing the field pattern of the wells which have been heretofore converted to water injection wells and the five additional wells which Applicant proposes to convert to water injection wells, also outlining the Applicant's leases in the area.
- Exhibit C-1 thru C-5: Diagramatic sketch of the proposed injection wells showing tops of cement, casing program, perforations and depths of the five wells.
- Exhibit D-1 thru D-5: Logs of the five wells which Applicant proposes to convert to water injection wells.
- Exhibit E: Production chart showing water injection and oil and water production from project.

7. Simultaneous with the filing of this application Applicant has mailed copies of the application to the offset operators, who are:

J. J. Travis, Box 5614, Midland, Texas, 79701  
Tex-Am Oil Corporation, 506 Mutual Savings Building,  
Fort Worth, Texas, 76102  
Kern County Land Company, Box 2401, Denver, Colorado, 80200  
Humble Oil & Refining Company, Box 1600, Midland, Texas, 79701  
Amoco Production Company, Box 591, Tulsa, Oklahoma, 74102  
Texaco, Inc., Box 3109, Midland, Texas, 79701

WHEREFORE, Applicant requests that the Secretary-Director of the Commission approve the expansion of the Shenandoah Shugart Waterflood Project to include the five injection wells described above, and that the Applicant be authorized to inject water into the Yates, Seven Rivers, Queen and Grayburg formations in the above described injection wells located in Sections 28, 32 and 33, Township 18 South, Range 31 East, N.M.P.M.

Respectfully submitted,

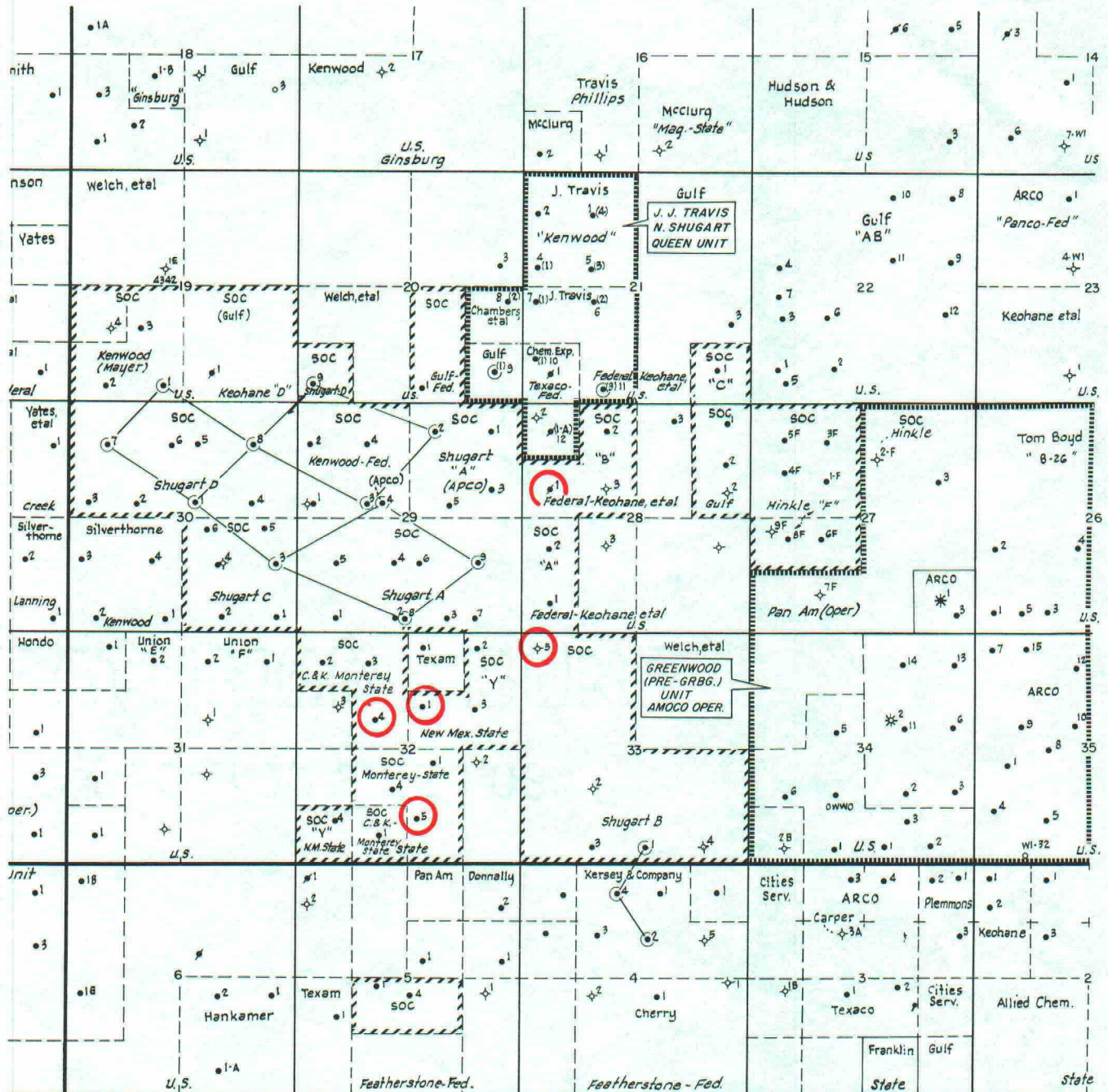
SHENANDOAH OIL CORPORATION

By 

FOR JENNINGS, CHRISTY & COPPLE  
Attorneys for Applicant  
P. O. Box 1180  
Roswell, New Mexico 88201

R 31 E

T 18 S



- LEGEND -

- Lease Boundaries
- Injection Well
- Injection Pattern
- Proposed Injection Well

**SOC**  
**SHENANDOAH OIL CORPORATION**

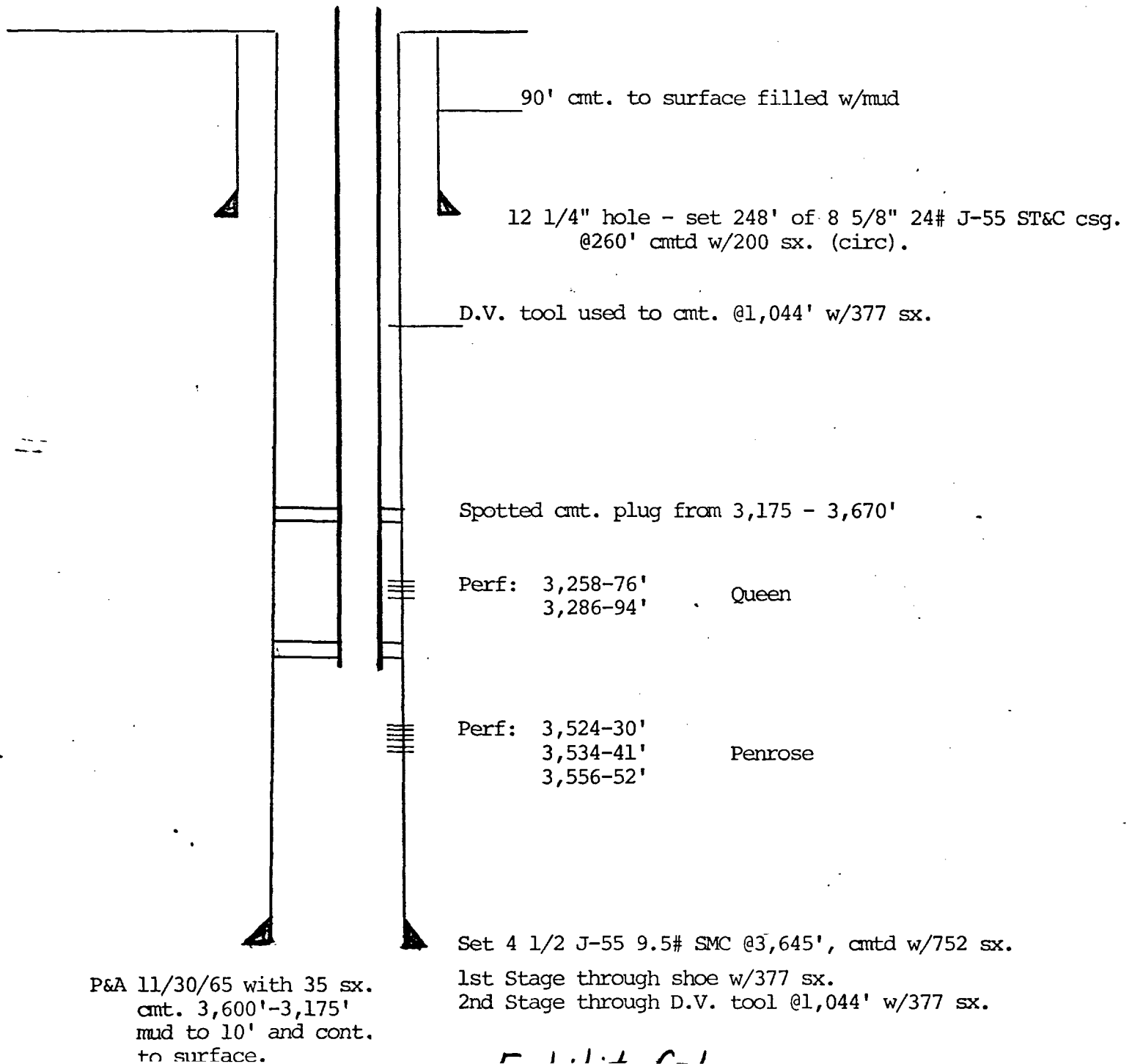
FLOOD NO. 4  
**SHUGART**  
EDDY COUNTY, NEW MEXICO

SCALE  
0 1/2 1 MI.  
MAY, 1972

*Exhibit B*

FEDERAL KEOHANE et al "B" No. 1  
Unit E 1,980' FNL & 660' FWL  
Section 28, T-18S, R-31E  
Eddy County, New Mexico

LC 029390(a)



SHUGART "B" #5 NM 025778  
 Unit D, 330' FNL & 330' FWL  
 Section 33, T-18S, R-31E  
Eddy County, New Mexico

P R E S E N T

P R O P O S E D \*

Filled w/mud & 5  
 sx. cmt. plug to  
 surface

600' pulled

Orig. ran 700'  
 of 8 5/8" csg.  
 w/60 sx.

1,800' Pulled

Cmt. w/26 sx. @2,000'

PB to 3,400'  
 w/25 sx. cmt.

Orig. Perf.:

3,749 - 51

3,754 - 61

3,765 - 73

Sqzd.

Ran 3,855' of 5 1/2"  
 csg., cmt. w/300 sx.

To run 600'  
 of 7 1/2" surface  
 csg. & cmt. to  
 surface.

To run 5 1/2" csg.  
 & latch into old  
 csg. @1,800' to  
 sqz. cmt. w/250 sx.

2 3/8" O.D.  
 Plastic coated  
 tbg. to 2,650'

Tension type  
 Packer

2,660

2,680

TO PERF.  
 YATES FM.

2,712

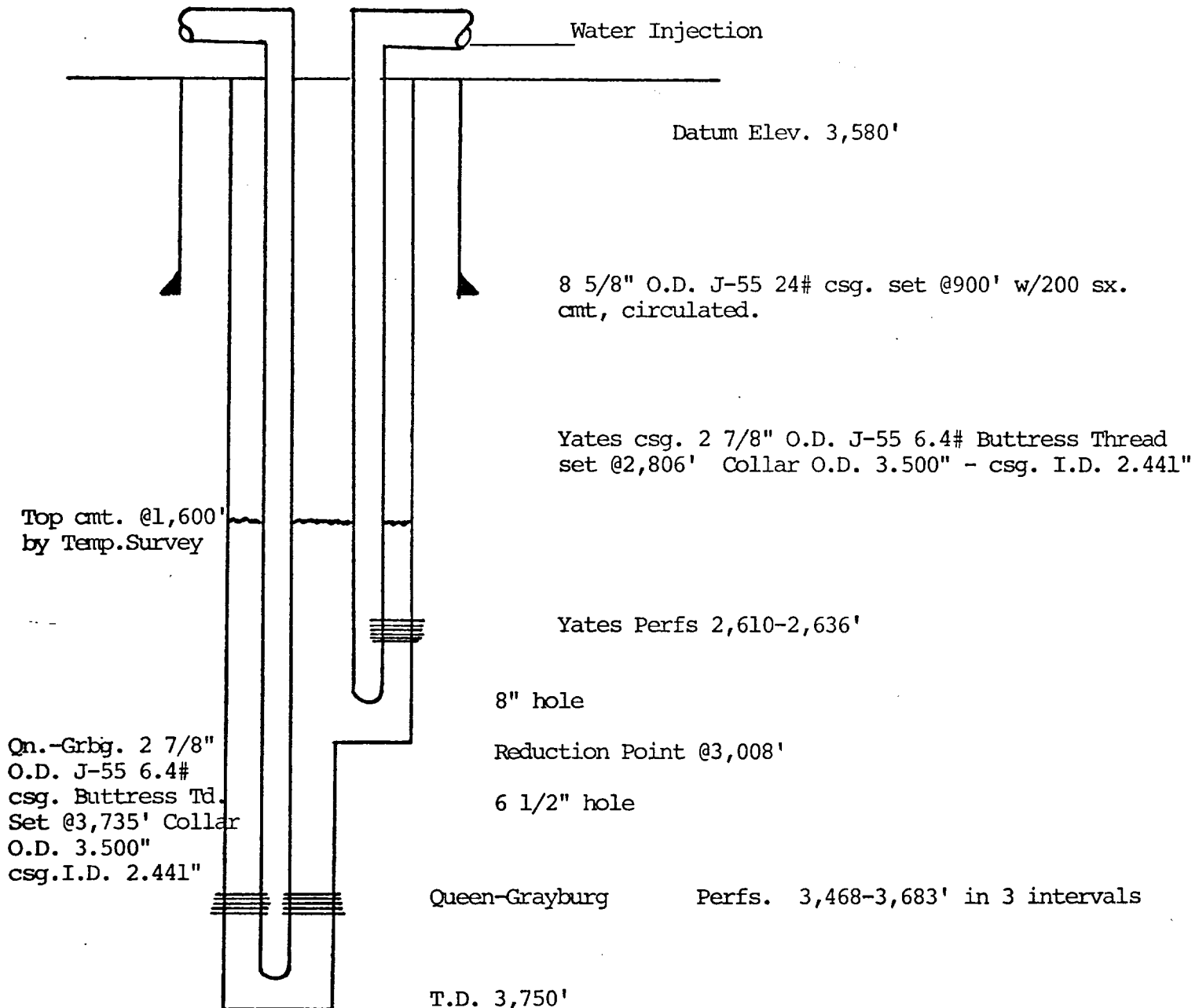
2,731

Sqzd.

\*In the event the well cannot be re-entered and properly recompleted,  
 a new well will be drilled.

NEW MEXICO "Y" STATE NO. 1  
Unit G 1,650' FNL & 2,310' FEL  
Section 32, T-18S, R-31E  
Eddy County, New Mexico

E-10001



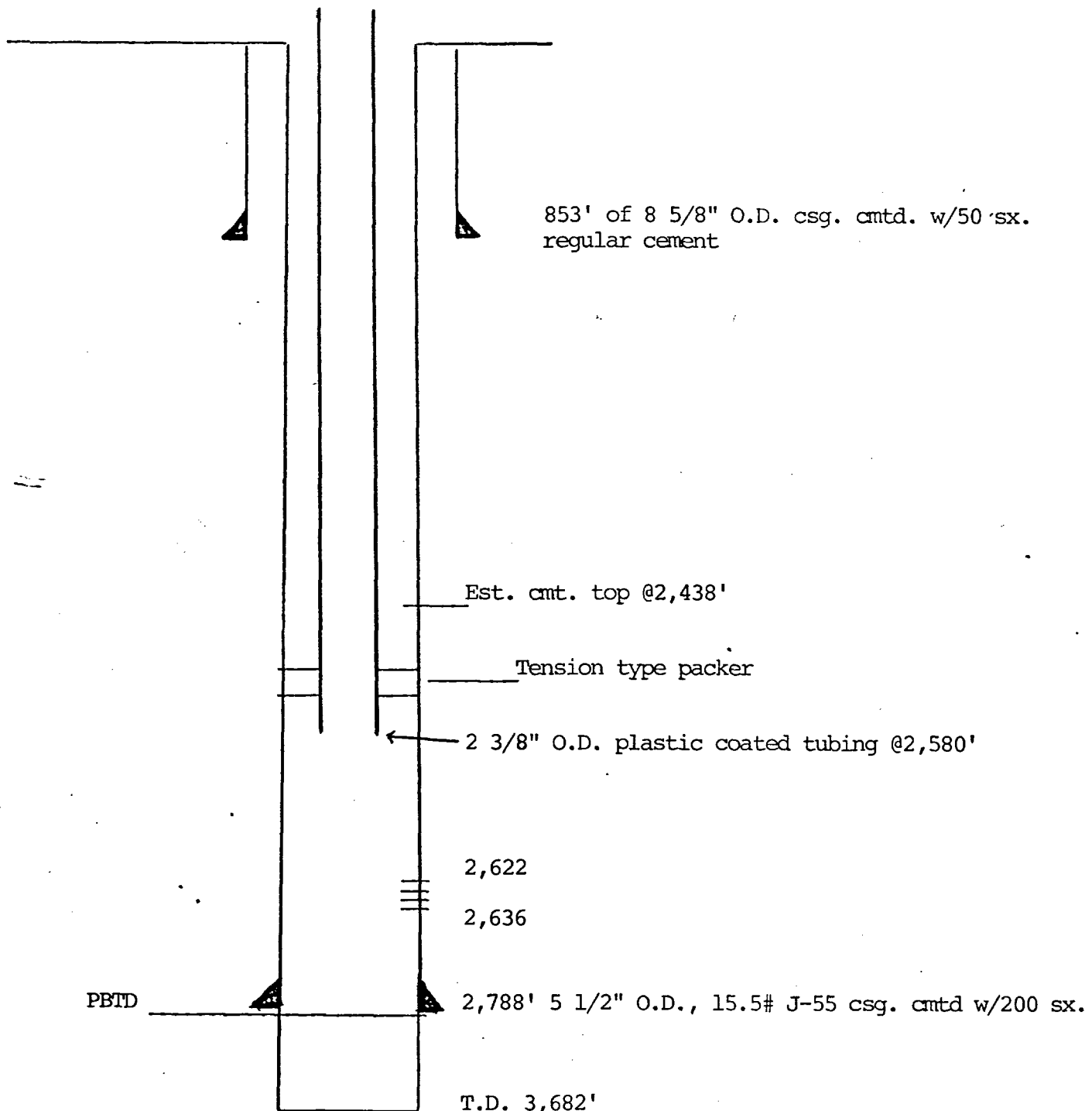
- NOTES: 1. Centralizers installed on long string from 3,735' to 3,104' on 30' spacing. Turbulizers installed on 30' spacing 2,700' to 2,100'.
2. Cemented down long string w/160 sx. Incor Pozmix 2% Gel and immediately switched to short string and cemented w/250 sx. Incor Pozmix 2% Gel.
3. Perforated long string with conventional tool. Perforated short string with orientation tool while holding pressure on long string. No pressure change at shot.

Exhibit C-3



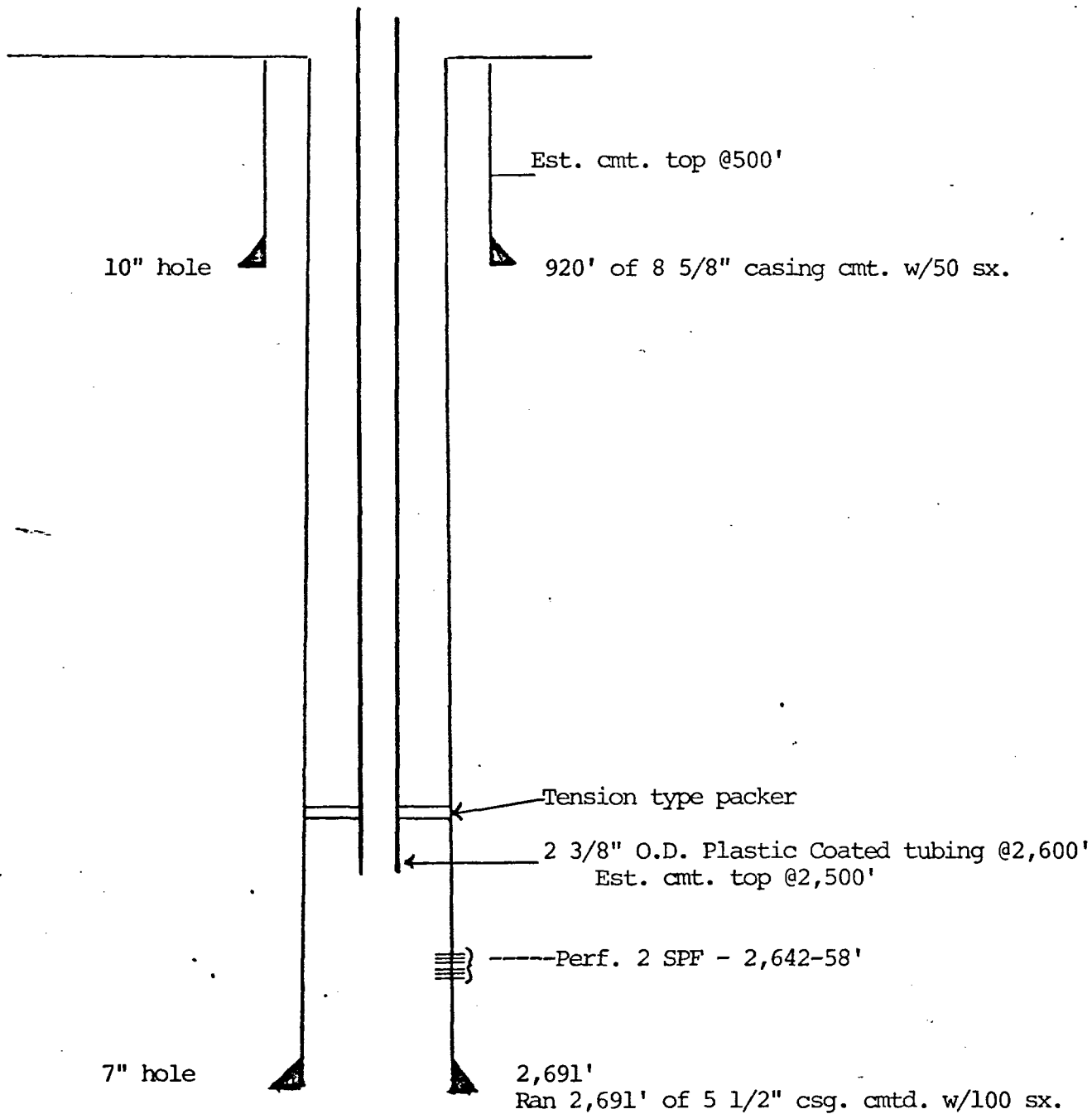
C&K MONTERREY "B" STATE NO. 4  
Unit F 1,980' FNL & 1,980' FWL  
Section 32, T-18S R-31E  
Eddy County, New Mexico

(E 6947)



E. 1:1:7 C-4

MONTEREY STATE #5 B9646  
Unit O 990' FSL & 2,310' FEL  
Section 32, T-18S, R-31E  
Eddy County, New Mexico

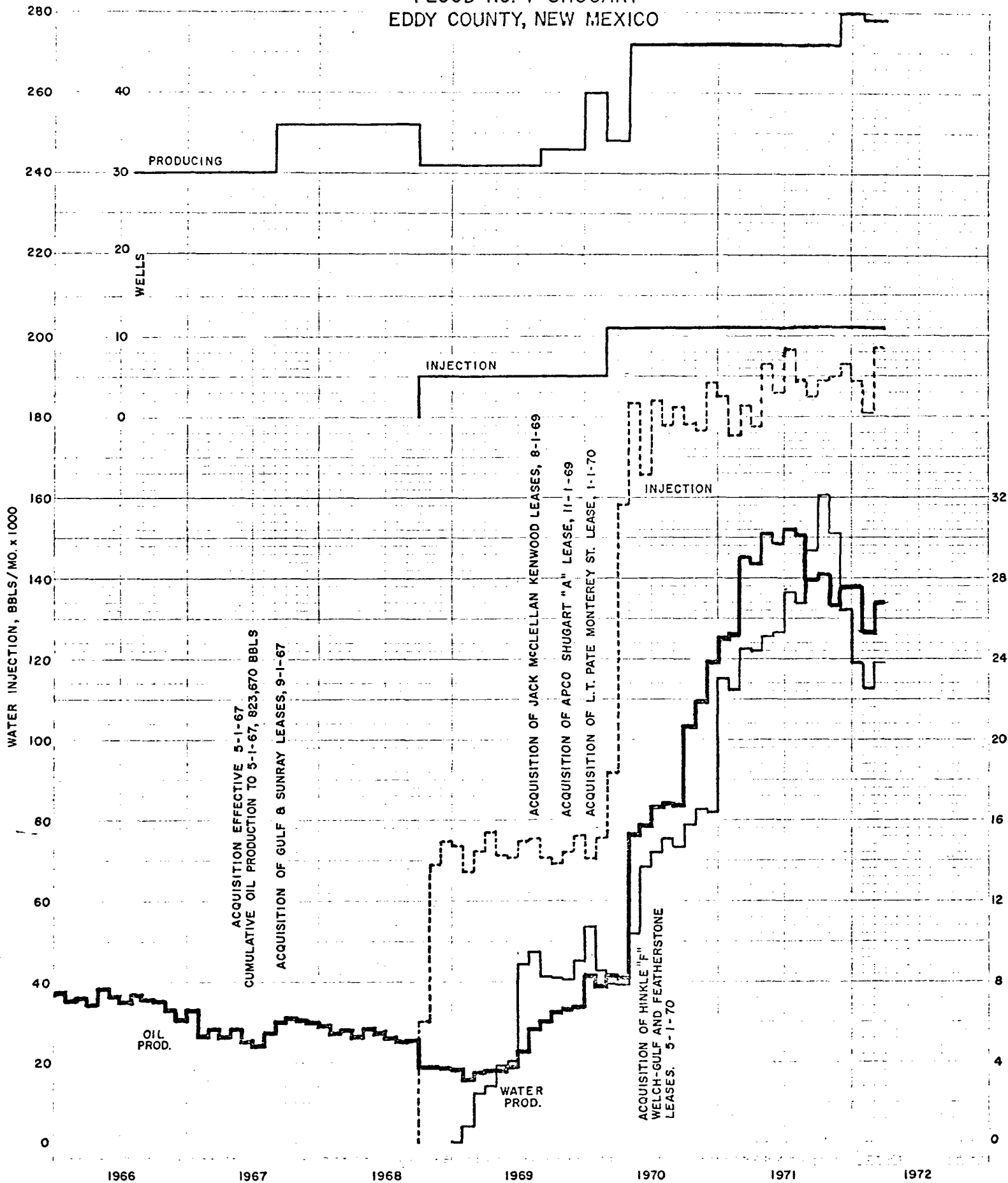


E. 1.1.4 C-5



# SHENANDOAH OIL CORPORATION

FLOOD NO. 4 SHUGART  
EDDY COUNTY, NEW MEXICO



JAMES T. JENNINGS  
SIM B. CHRISTY IV  
ROGER L. COPPLE  
BRIAN W. COPPLE

LAW OFFICES OF  
JENNINGS, CHRISTY & COPPLE  
1012 SECURITY NATIONAL BANK BUILDING  
P. O. BOX 1180  
ROSWELL, NEW MEXICO 88201

TELEPHONE 622-8432  
AREA CODE 505

May 26, 1972

J. J. Travis, Box 5614, Midland, Texas, 79701  
Tex-Am Oil Corporation, 506 Mutual Savings Building, Fort Worth,  
Texas, 76102  
Kern County Land Company, Box 2401, Denver, Colorado, 80200  
Humble Oil & Refining Company, Box 1600, Midland, Texas, 79701  
Amoco Production Company, Box 591, Tulsa, Oklahoma, 74102  
Texaco, Inc., Box 3109, Midland, Texas, 79701

RE: SHENANDOAH OIL CORPORATION APPLICATION FOR ADMINISTRATIVE  
APPROVAL OF ADDITIONAL WATER INJECTION WELLS

Gentlemen:

Enclosed herewith you will find a copy of an Application which is being filed today on behalf of Shenandoah Oil Corporation for administrative approval of five additional wells to water injection wells in the Shugart Pool. A copy of the Application is sent to you as an operator offsetting the proposed injection wells in accordance with the provisions of Oil Conservation Commission Rule 701-E-5.

JAMES T. JENNINGS

JTJ/mb

Encl. - Logs not enclosed, copies will be furnished upon request.

cc: Oil Conservation Commission