IN THE MATTER OF THE APPLICATION OF SKELLY OIL
COMPANY, AS UNIT OPERATOR, FOR AN ORDER AUTHORIZING)
THE INJECTION OF FLUID FOR SECONDARY RECOVERY PUR—)
POSES INTO THE LANGLIE—MATTIX POOL ON ITS SKELLY
PENROSE "B" UNIT, LOCATED IN PORTIONS OF SECTIONS
31 AND 32, TOWNSHIP 22 SOUTH, RANGE 37 EAST, AND
PORTIONS OF SECTIONS 4, 5, 6, 7, 8 AND 9, TOWNSHIP
23 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO,
AND FOR THE PROMULGATION OF SPECIAL RULES GOVERN—
ING THE OPERATION OF SAID UNIT.

CASE NO. Z 32.66

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APPLICATION

Comes now Skelly Oil Company and alleges and states:

1. That it is the operator of the Skelly Penrose "B" Unit containing 2,612.16 acres, more or less, of State and Fee lands described as follows:

LEA COUNTY, NEW MEXICO TOWNSHIP 22 SOUTH, RANGE 37 EAST, MMPM Section 31: E/2 SE/4 Section 32: W/2, W/2 NE/4, and SE/4 TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM Section 4: 1/2 NW/4 Section 5: All NE/4 and E/2 SE/4Section 6: N/2 NE/4 Section 7: Section 8: N/2, N/2 SU/4, SE/4 SW/4, and SE/4 $\sqrt{N/2}$ Section 9:

- 2. That the Unit Agreement for said Unit was approved by this Commission by Order No. R-2915 pursuant to a hearing held on May 26, 1965, in Case No. 3257, and that said unit became effective on July 1, 1965.
- 3. That in order to carry out the secondary recovery operations as contemplated by the Unit Agreement, to prevent waste and to recover oil and associated hydrocarbons which would not otherwise be recovered, applicant desires to inject fluid into certain wells within the unit area for injection into the Langlie-Mattix Pool, pursuant to Rule 701 of this Commission.
- μ . That applicant proposes to convert, recomplete, or drill the following 33 wells and utilize same for injection purposes:

| UNIT WELL NO. | UNIT LOCATION | LOCATION |
|----------------------|---------------|--|
| ONIT ALLEN | ONIT HOURITON | Township 22 South, Range 37 East |
| 1 | В | Section 32 |
| 1 3 5 8 | D | Section 32 |
| 5 | F | Section 32 |
| 8 | J | Section 32 |
| 10 | L | Section 32 |
| 12 | P | Section 31 |
| 14 | N | Section 32 |
| 16 | P | Section 32 |
| | | |
| | | Township 23 South, Range 37 East |
| 17 | D | Section $l_{\scriptscriptstyle arphi}$ |
| 19 | 3 | Section 5 |
| 21 | D | Section 5 |
| 23 | В | Section 6 |
| 25 | Н | Section 6 |
| 27 | F | Section 5 |
| 29 | H | Section 5 |
| 32 | J | Section 5 |
| 34 | ${f L}$ | Section 5 |
| 36 | P | Section 6 |
| 34 36 38 40 | N | Section 5 |
| | P | Section 5 |
| 42 | | Section 9 |
| 45 | | Section 8 |
| 47 | В | Section 7 |
| | | |

| (Continued) | | |
|---------------------------|---------------|----------------------------------|
| UNIT WELL NO. | UNIT LOCATION | LOCATION |
| | | Township 23 South, Range 37 East |
| 50 | H | Section 8 |
| 52 | F | Section 9 |
| 54 | ${\mathtt L}$ | Section 9 |
| 56 | ${f L}$ | Section 8 |
| 57 | N | Section පි |
| 59 | P | Section 8 |
| 61 | N | Section 9 |
| Reentry, Old Abandoned He | ole B | Section 8 |
| Reentry, Old Abandoned Ho | ole F | Section 3 |
| To Be Drilled | J | Section 8 |
| | | All in Lea County, New Mexico |

- 5. That attached hereto and made a part hereof is a map, labeled Exhibit "A", which shows the location of the proposed injection wells and the location of all other wells within a radius of two miles from said proposed injection wells, and the formation from which said wells are producing, and that also indicated on said exhibit are the lessees within said two-mile radius.
- 6. That attached hereto and made a part hereof is Exhibit "B" which contains the diagrammatic sketches of the proposed injection wells showing the casing strings, including diameter and setting depths, quantities used and top of cement, perforated or open hole intervals, tubing strings, including diameters and setting depths, and the type and location of packers.
- 7. That the formation sought to be waterflooded and into which injection will be made is the Langlie-Mattix Pool, which is described as that interval underlying the unit area, the vertical limits of which extend from a point 100 feet above the base of the Seven Rivers formation to the base of the Queen. This interval has been found to occur heretofore in Unit Well No. 61 (formerly Skelly's No. 11 Harrison "B" well), located in the SE/4 SM/4 Section 9, Township 23 South, Range 37 East, Lea County, at an indicated depth of 3,721 to 3,663 feet as recorded on the Gamma Ray Neutron log taken February 9, 1960.
- 8. That the fluid sought to be injected is brackish water, and the anticipated volumes to be injected are 8,000 barrels per day, and that the source of said injection fluid is from the Seven Rivers and Capitan Reef formations. Applicant, also, contemplates reinjection of produced water.

MHEREFORE, PREMISES CONSIDERED, applicant prays that this Commission, after the giving of notice as required by law, set this matter down for hearing, and that at the conclusion of said hearing based on the evidence adduced enter its order granting the applicant permission to conduct a waterflood project on its Skelly Penrose "B" Unit by utilizing as injection wells the wells above described, with said secondary recovery project to be governed by the provisions of Rule 701, for permission to expand or change the waterflood program by administrative means without the necessity of a separate hearing, for appropriate field rules if necessary, and for such other orders, rules and regulations as may be necessary in the premises.

Respectfully submitted,

SKELLY OIL COMPANY

George W. Selinger Its Attorney

Of Counsel:
L. C. White
White, Gilbert, Koch & Kelly
P. O. Box 787
Santa Fe, New Mexico