

## BEFORE EXAMINER NUTTER

CEILING HEIGHT

DATE NO. 2

CASE NO. 3902

Form C-108  
Revised 1-1-65

## NEW MEXICO OIL CONSERVATION COMMISSION

## APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

|                                                                                                                                                                                                    |               |                                            |               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------|---------------|
| OPERATOR<br>Continental Oil Company                                                                                                                                                                |               | ADDRESS<br>P. O. Box 460 Hobbs, New Mexico |               |
| LEASE NAME<br>Stevens "B"                                                                                                                                                                          | WELL NO.<br>8 | FIELD<br>Langlie Mattix                    | COUNTY<br>Lea |
| LOCATION<br>UNIT LETTER <u>A</u> ; WELL IS LOCATED <u>660</u> FEET FROM THE <u>N</u> LINE AND <u>660</u> FEET FROM THE <u>E</u> LINE, SECTION <u>12</u> TOWNSHIP <u>23S</u> RANGE <u>36E</u> NMPM. |               |                                            |               |

## CASING AND TUBING DATA

| NAME OF STRING | SIZE  | SETTING DEPTH | SACKS CEMENT                                                                           | TOP OF CEMENT | TOP DETERMINED BY |
|----------------|-------|---------------|----------------------------------------------------------------------------------------|---------------|-------------------|
| SURFACE CASING | 7 5/8 | 336           | 200                                                                                    | surface       | circulated        |
| INTERMEDIATE   | 4 1/2 | 3735          | 684                                                                                    | 1405          | Temp. survey      |
| LONG STRING    |       |               |                                                                                        |               |                   |
| TUBING         | 2 3/8 | 3600          | NAME, MODEL AND DEPTH OF TUBING PACKER<br>Baker tension Model AD or equivalent @ 3600' |               |                   |

|                                                            |                                                                                      |                                             |                                                                                      |
|------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------|
| NAME OF PROPOSED INJECTION FORMATION<br>Queen              |                                                                                      | TOP OF FORMATION<br>3608'                   | BOTTOM OF FORMATION<br>est. 3900'                                                    |
| IS INJECTION THROUGH TUBING, CASING, OR ANNULUS?<br>tubing |                                                                                      | PERFORATIONS OR OPEN HOLES?<br>perforations | PROPOSED INTERVAL(S) OF INJECTION<br>3644-3662, 3694-3706, 3712-3718                 |
| IS THIS A NEW WELL DRILLED FOR DISPOSAL?<br>No             | IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED?<br>producing oil well |                                             | HAS WELL EVER BEEN PERFORATED IN ANY ZONE OTHER THAN THE PROPOSED INJECTION ZONE? No |

LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH

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|                                                                                                                                                       |                |                                                                     |                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------|-----------------------------------------------------------------|
| DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA<br>300'                                                                                      |                | DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA<br>3400 | DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA<br>None |
| ANTICIPATED DAILY INJECTION VOLUME (BBL'S.)<br>150                                                                                                    | MINIMUM<br>300 | MAXIMUM<br>closed                                                   | IS INJECTION TO BE BY GRAVITY OR PRESSURE?<br>pressure          |
| APPROX. PRESSURE (PSI)<br>1000                                                                                                                        |                |                                                                     |                                                                 |
| ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE - |                | WATER TO BE DISPOSED OF<br>yes                                      | NATURAL WATER IN DISPOSAL ZONE<br>yes                           |
| ARE WATER ANALYSES ATTACHED?<br>no                                                                                                                    |                |                                                                     |                                                                 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND)<br>E. F. King, 723 East Green Acres, Hobbs, New Mexico                                                                                                                                                                                                                                                                                                            |  |  |  |
| LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL<br>Sun Oil Company, Box 1861, Midland, Texas<br>Sinclair Oil & Gas Company, Box 1920, Hobbs, New Mexico<br>Albert Gackle, Box 2038, Hobbs, New Mexico<br>Texas Pacific Oil Company, Box 1069, Hobbs, New Mexico<br>Getty Oil Company, Box 547, Hobbs, New Mexico<br>Dalport Oil Corporation, 3471 First National Bank Building, Dallas, Texas |  |  |  |

|                                                                       |                     |                                                       |                                     |
|-----------------------------------------------------------------------|---------------------|-------------------------------------------------------|-------------------------------------|
| HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?   | SURFACE OWNER<br>no | EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL<br>no | THE NEW MEXICO STATE ENGINEER<br>no |
| ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B) | PLAT OF AREA<br>yes | ELECTRICAL LOG<br>no                                  | DIAGRAMMATIC SKETCH OF WELL<br>no   |

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Asst. Division Manager

September 26, 1968

(Signature)

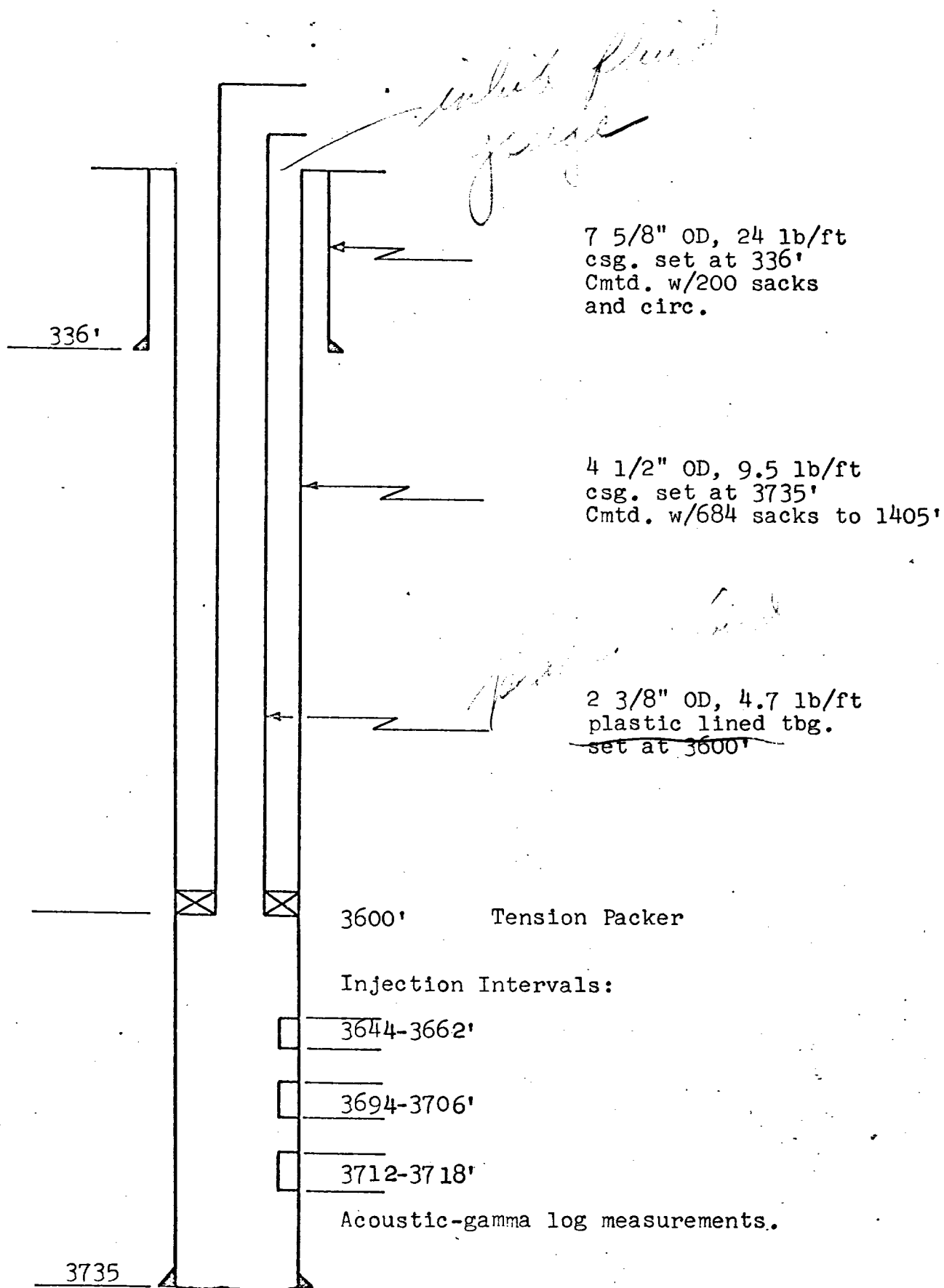
(Title)

(Date)

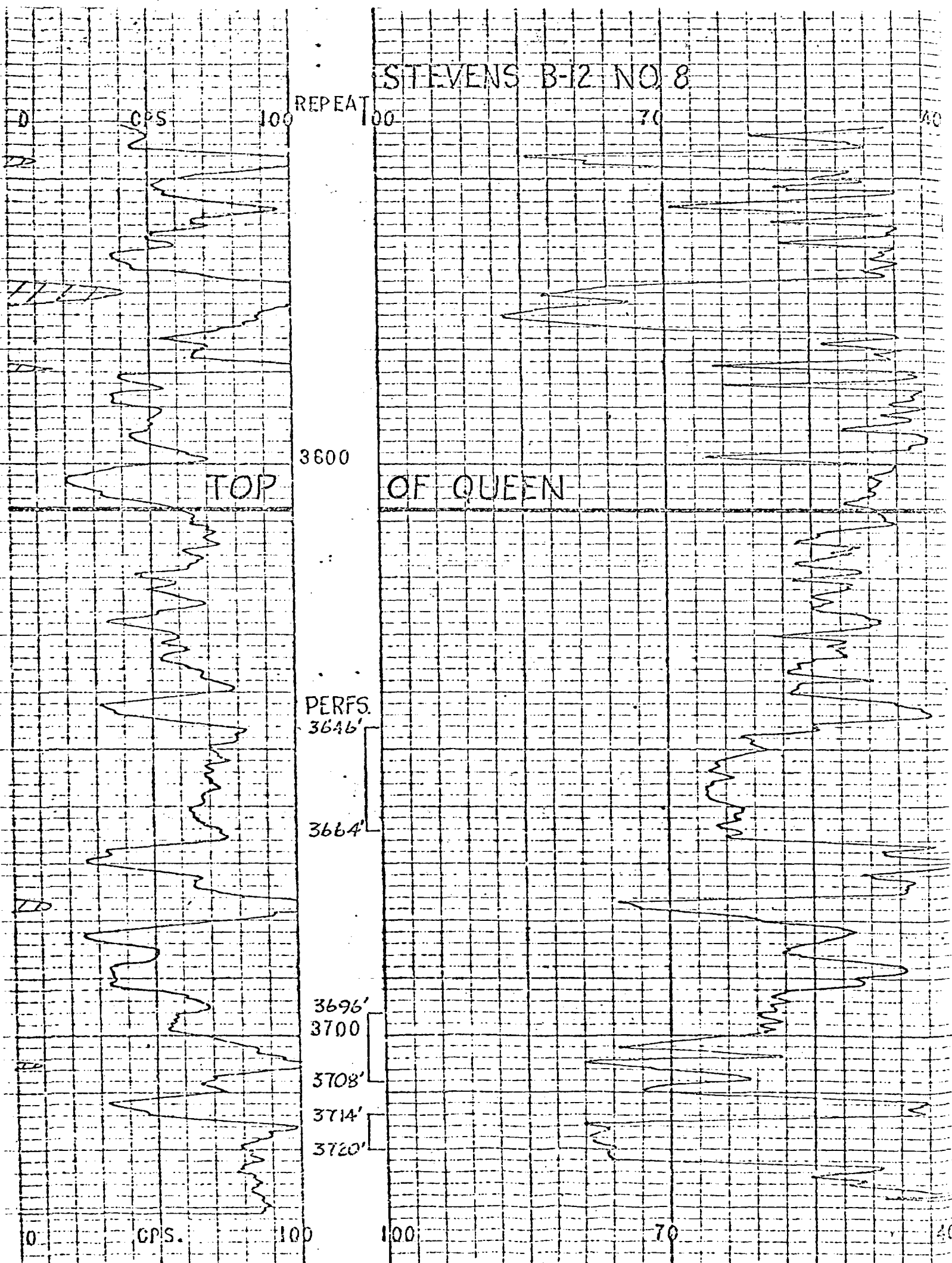
NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well, not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.

EXHIBIT NO. 2

Stevens "B" No. 8  
660' FNL & 660' FEL, Sec. 12, T-23S, R-36E  
Lea County, New Mexico



|                         |  |
|-------------------------|--|
| BEFORE EXAMINED & UTTER |  |
| OIL CONSERVATION        |  |
| EXHIBIT NO. <u>3</u>    |  |
| CASE NO. <u>3412</u>    |  |



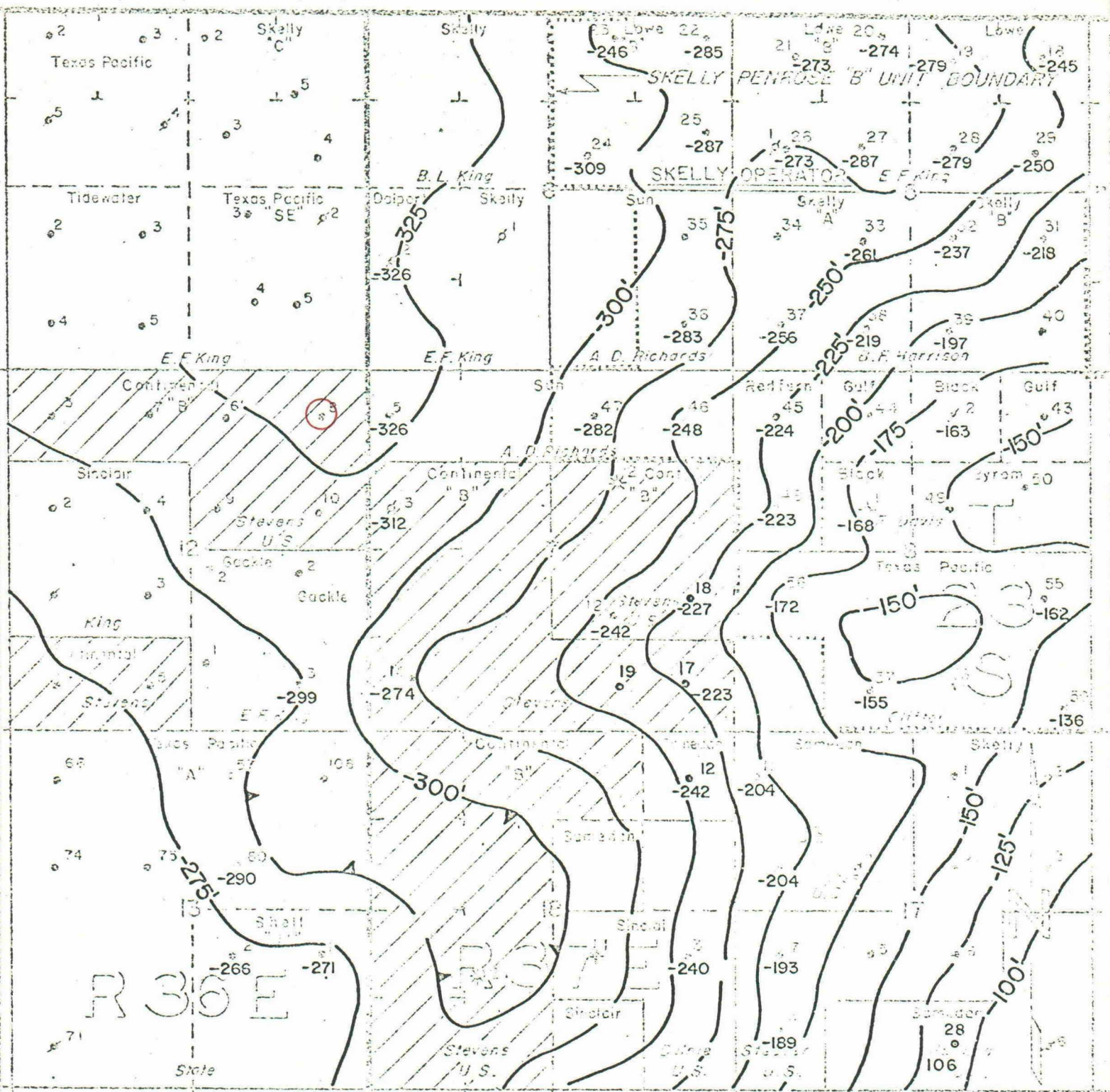
BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. 4

CASE NO. 3702

EXHIBIT NO. 4



BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

app. EXHIBIT NO. 5

CASE NO. 3902

CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT--HOBBS DISTRICT

LANGLIE MATTIX MULTIZONE POOL

LEA COUNTY, NEW MEXICO

PENROSE SAND STRUCTURE MAP

Contour Interval: 25'

SCALE

0' 1000' 2000'

Rev. NGC 1/67

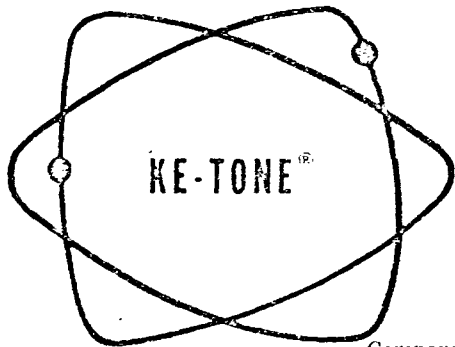
EXHIBIT NO. 5

STEVENS "B" LEASE

|                                   |                   |
|-----------------------------------|-------------------|
| Average Porosity                  | 18%               |
| Initial Oil Saturation            | 54%               |
| Residual Oil Saturation           | 33%               |
| Formation Volume Factor           | 1.09              |
| Average NEP                       | 6 feet            |
| Primary Production to 9-1-68      |                   |
| Stevens B-12 Lease                | 198,834           |
| Project Area                      | 259,918           |
| Estimated Secondary               |                   |
| Stevens B-12 Lease                | 139,200           |
| Project Area                      | 181,300           |
| Current Production (project area) | 308 barrels oil   |
|                                   | 143 barrels water |
|                                   | 1,583 MCF gas     |

|                        |                      |
|------------------------|----------------------|
| BEFORE EXAMINER MUTTER |                      |
| OIL CONFIRMATION COPY  |                      |
| <u>app</u>             | EXHIBIT NO. <u>6</u> |
| CASE NO.               | <u>3902</u>          |

TELEPHONE: HOBBS 393-6215



UNITED CHEMICAL CORPORATION  
OF NEW MEXICO

601 NORTH LEECH

P. O. BOX 1499

HOBBS, NEW MEXICO 88240

Company Continental Oil Co.  
Field Langlie Mattix  
Lease Stevens B-21 Sampling Date 11/4/67  
Type of Sample \_\_\_\_\_

WATER ANALYSIS

| IONIC FORM                                              | me/l * | mg/l * |
|---------------------------------------------------------|--------|--------|
| Calcium (Ca++)                                          | 45.91  | 920    |
| Magnesium (Mg++)                                        | 71.88  | 874    |
| Sodium (Na+) (calculated)                               | 227.60 | 5233   |
| Iron                                                    |        | 1      |
| Bicarbonate (HCO <sub>3</sub> )                         | 22.40  | 1366   |
| Carbonate (CO <sub>3</sub> -)                           | NOT    | FOUND  |
| Hydroxide (OH-)                                         | NOT    | FOUND  |
| Sulphate (SO <sub>4</sub> -)                            | 18.43  | 885    |
| Chloride (Cl-)                                          | 304.56 | 10,800 |
| 7.0 pH c 68 ° F                                         |        |        |
| Dissoived Solids on Evap. at 103° - 105° C              |        |        |
| Hardness as Ca CO <sub>3</sub>                          | 117.79 | 5890   |
| Carbonate Hardness, as CaCO <sub>3</sub> (temporary)    | 22.40  | 1120   |
| Non-Carbonate Hardness as CaCO <sub>3</sub> (permanent) | 95.39  | 4770   |
| Alkalinity as CaCO <sub>3</sub>                         | 22.40  | 1120   |
| Specific Gravity c 68° F 1.010                          |        |        |

\* mg/l = milligrams per Liter  
\* me/l = milliequivalents per Liter

BEFORE EXAMINER NUTTER  
OIL CONSERVATION DISTRICT  
af EXHIBIT NO. 7  
CASE NO. 222

EXHIBIT No. 7

~~~~~ Makes Water Work ~~~~~