

CASE 3714: Appli. of CONTINENTAL
for the dual completion of STATE
"O" WELL #1 - Lea County.

Continued to Feb. 21

Ex. Hearing

Case No.

3714

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3714
Order No. R-3386

APPLICATION OF CONTINENTAL OIL COMPANY
FOR A DUAL COMPLETION, LEA COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 28, 1969,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 11th day of March, 1968, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Continental Oil Company, seeks
authority to dually complete its State "O" Well No. 1, located
in Unit F of Section 16, Township 17 South, Range 32 East, NMPM,
Lea County, New Mexico, in such a manner as to permit the produc-
tion of gas from the perforated interval from approximately 3140
feet to 3160 feet, Maljamar-Queen Gas Pool, through 2-inch tubing,
and the injection of water for secondary recovery purposes into
the Grayburg-San Andres formations in the interval from approxi-
mately 3700 feet to 4050 feet through a parallel string of 2-inch
tubing, with separation of zones by a packer set at approximately
3600 feet.

(3) That the applicant was authorized by Administrative
Order WFX No. 281 to inject water into the Grayburg-San Andres
formations through the subject well.

-2-
CASE No. 3714
Order No. R-3386

(4) That the mechanics of the proposed dual completion are feasible and in accord with good conservation practices.

(5) That approval of the proposed dual completion will prevent the drilling of unnecessary wells, and will otherwise prevent waste and protect correlative rights.

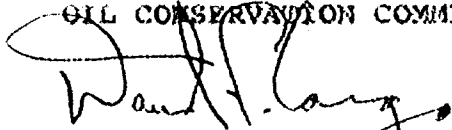
IT IS THEREFORE ORDERED:


(1) That the applicant, Continental Oil Company, is hereby authorized to dually complete its State "O" Well No. 1, located in Unit F of Section 16, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, in such a manner as to permit the production of gas from the perforated interval from approximately 3140 feet to 3160 feet, Maljamar-Queen Gas Pool, through 2-inch tubing, and the injection of water for secondary recovery purposes into the Grayburg-San Andres formations in the interval from approximately 3700 feet to 4050 feet through a parallel string of 2-inch tubing, with separation of zones by a packer set at approximately 3600 feet.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


A. L. PORTER, Jr., Member & Secretary


ear/

State of New Mexico
Oil Conservation Commission



STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

March 11, 1968

Re: Case No. 3714
Order No. R-3386
Applicant: _____
Continental Oil Company

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

Hobbs OCC_____x
 Artesia OCC_____
 Aztec OCC_____
 Other_____

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 28, 1968

9 A.M. - OIL CONSERVATION COMMISSION, CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or
Elvis A. Utz, Alternate Examiner:

CASE 3714: (Continued from the January 24, 1968, Examiner Hearing)

Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "O" Well No. 1 located in Unit F of Section 16, Township 17 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the perforated interval 3140 to 3160 feet, Maljamar-Queen Gas Pool, and the injection of water for secondary recovery purposes into the Grayburg-San Andres formations in the interval from 3700 to 4050 feet through parallel strings of 2-inch tubing.

CASE 3724: Application of El Paso Natural Gas Company for a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its San Juan 27-4 Unit Well No. 30 (GD) located in Unit N of Section 32, Township 27 North, Range 4 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of gas from the Gallup formation and the Basin-Dakota Pool through tubing and the casing-tubing annulus, respectively, by means of a cross-over.

CASE 3725: Application of Continental Oil Company for two non-standard gas proration units and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the following two non-standard gas proration units in the Jalmat Gas Pool:

A 160-acre unit comprising the E/2 E/2 of Section 1, Township 25 South, Range 36 East, Lea County, New Mexico, to be dedicated to its Wells B-1 Well No. 1 located 660 feet from the North and East lines of said Section 1; and a 200-acre unit comprising the W/2 E/2 and NE/4 NW/4 of said Section 1 to be dedicated to its Wells B-1 Well No. 3 located at an unorthodox location 660 feet from the North line and 1650 feet from the West line of said Section 1.

February 26, 1968, Examiner Hearing

CASE 3726: Application of John Yuronka and Robert Chandler for compulsory pooling, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order force-pooling all mineral interests from the surface down to a depth of 7400 feet underlying the E/2 SW/4 of Section 7, Township 22 South, Range 38 East, Lea County, New Mexico, to form two 40-acre proration units for Drinkard, Paddock, Blinbry, Tubb or other oil production to be dedicated to two wells to be drilled in Units K and N of said Section 7, or to form an 80-acre non-standard gas proration unit in the event gas production is encountered in the Tubb Gas Pool. Also to be considered will be the costs of drilling said wells and a charge for the risk involved, and a provision for the allocation of actual operating costs and the establishment of charges for supervision of said wells.

CASE 3727: Application of Monsanto Company for an unorthodox gas well location, a non-standard proration unit, a dual completion, and temporary special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its Rock Tank Unit Well No. 1 located 560 feet from the North line and 920 feet from the West line of Section 7, Township 23 South, Range 25 East, Eddy County, New Mexico, said well to be dedicated to the proposed non-standard proration unit comprising the W/2 of said Section 7 and the E/2 of Section 12, Township 23 South, Range 24 East. Applicant also seeks approval of the dual completion (conventional) of said well to produce gas from the Upper Morrow and Lower Morrow formations through the casing-tubing annulus and the tubing, respectively. Applicant further seeks the creation of Upper Morrow and Lower Morrow gas pools for said well and the promulgation of temporary special rules therefor, including a provision for 640-acre spacing.

CASE 3728: Application of Tenneco Oil Company for an amendment to Order No. R-3127, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3127 for the expansion of the Grayburg-Jackson West Cooperative Unit Area by some 400 additional acres of State land in Section 16, Township 17 South, Range 29 East, Eddy County, New Mexico.

CASE 3729: Application of Pan American Petroleum Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to

February 28, 1968, Examiner Hearing

CASE 3729: (Continued from Page 2)

drill a well at an unorthodox location 510 feet from the South line and 1830 feet from the East line of Section 15, Township 24 South, Range 37 East, Fowler-Ellenburger Pool, Lea County, New Mexico, in exception to the pool rules that require that wells be drilled in the NW/4 or the SE/4 of the quarter section.

CASE 3730: Application of Tamarack Petroleum Company, Inc., for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the South Pearl Queen Unit Area comprising 1523 acres, more or less, of Fee and Federal lands in Township 20 South, Range 35 East, Lea County, New Mexico.

CASE 3731: Application of Tamarack Petroleum Company, Inc., for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation through 14 wells in its South Pearl Queen Unit, Township 20 South, Range 35 East, Pearl-Queen Pool, Lea County, New Mexico.

CASE 3732: Application of Weier Drilling Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Grayburg-San Andres formations through its V. L. Foster Well No. 6 located 2310 feet from the North line and 1650 feet from the East line of Section 17, Township 17 South, Range 31 East, Grayburg-Jackson Pool, Eddy County, New Mexico.

CASE 3733: Application of Daryl Davis to re-enter a well, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to re-enter the State "A" Well No. 1 located 1980 feet from the South and West lines of Section 1, Township 4 South, Range 26 East, Chaves County, New Mexico, and attempt to complete said well as a producer from the San Andres formation.

*Continued to
Feb. 28th*



CONTINENTAL OIL COMPANY

P. O. Box 460

HOBBS, NEW MEXICO 88240

January 8, 1968

Case 3714

PRODUCTION DEPARTMENT
HOBBS DIVISION
L. P. THOMPSON
Division Manager
G. C. JAMIESON
Assistant Division Manager

1001 NORTH TURNER
TELEPHONE 393-4141

MAIN OFFICE ONE

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

'68 JAN 10 PM 1 21

Attention of Mr. A. L. Porter, Jr. - Secretary-Director

Re: Application for Dual Completion
State "O" Well No. 1, F-16-17-32
Lea County, New Mexico

Gentlemen:

Mr. Jason Kellahin has advised that the captioned application has been set for hearing on the January 24th Examiner Docket. This application was filed in conjunction with our application for administrative approval to expand the MCA Waterflood Project.

Present plans are to perform the actual dual completion at a somewhat later date. In view of this and the heavy demand on engineering personnel at the present time, it is respectfully requested that this matter be reset to the second examiner hearing in February, 1968.

Your cooperation on this matter is sincerely appreciated.

Yours very truly,

L. P. Thompson

LPT-JS
cc: RLA JJB JWK

DOCKET MAILED

Date *2-15-68*

OIL CONSERVATION COMMISSION
I DISTRICT

OIL CONSERVATION COMMISSION
BOX 871
SANTA FE, NEW MEXICO

DATE Jan. 3, 1968

Re: Proposed NSP _____
Proposed Triple _____
Proposed NSL _____
Proposed NFO _____
Proposed DC X

Gentlemen:

I have examined the application dated 12/26/67
for the Continental Oil Co. State "O" #1 16-17-32
Operator Lease and Well No. S-T-R

and my recommendations are as follows:

O.K.---E.F.E.

O.K.---J.W.R.

MAIN OFFICE OCC

68 JAN 5 AM 8 32

Yours very truly,





CONTINENTAL OIL COMPANY

P. O. Box 460

HOBBS, NEW MEXICO 88240

December 22, 1967

PRODUCTION DEPARTMENT

HOBBS DIVISION

L. P. THOMPSON

Division Manager

G. C. JAMIESON

Assistant Division Manager

1001 NORTH TURNER
TELEPHONE 393-4141

MAIN OFFICE 000

'67 DEC 26 AM 8 22

✓ New Mexico Oil Conservation Commission

P. O. Box 2088

Santa Fe, New Mexico

Attention of Mr. A. L. Porter, Jr. Secretary-Director

Re: Application to Dual Complete
State "O" No. 1 - F-16-17-32,
Lea County, New Mexico

W/FX 281

Gentlemen:

Forwarded herewith is application in duplicate for authority to effect a Maljamar Queen - Maljamar G-SA water injection dual completion in our State "O" Well No. 1 located in Unit F, Section 16, 17S, 32E, Lea County, New Mexico. We should appreciate your giving this administrative approval if this is possible under your rules. If not, please set the matter for hearing at your earliest Examiner Hearing.

Two copies of this application are being furnished your Hobbs District office and a copy is being furnished by certified mail to the only offset operator.

Please note that this is one of the injection wells included in our application to expand the MCA Waterflood Project being filed concurrently. The well is to be deepened and the log will be run and furnished at that time.

Yours very truly,

V. T. Eyon
V. T. EYON
Supervising Conservation
Engineer

VTL-JS

cc: E. C. Donohue (Certified)
NMOCC-Hobbs
RLA JWK JJB

DOCKET MAILED

Date 1-11-68

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

5-1-61

APPLICATION FOR MULTIPLE COMPLETION

Case 3714

Operator Continental Oil Company		County Lea	Date December 22, 1967
Address P. O. Box 460 Hobbs, N. M.		Lease State "O"	Well No. 1
Location or Well	Unit F	Section 16	Township 17S Range 32E

1. Has the New Mexico Oil Conservation Commission heretofore authorized the multiple completion of a well in these same pools or in the same zones within one mile of the subject well? YES ☒ NO ☐

2. If answer is yes, identify one such instance: Order No. R-1318; Operator, Lease, and Well No.: MCA No. 111
(formerly E. G. Woods Federal-Simon No. 1)

3. The following facts are submitted:	Upper Zone	Intermediate Zone	Lower Zone
a. Name of Pool and Formation	Maljamar-Queen		Maljamar Grayburg-San Andres
b. Top and Bottom of Pay Section (Perforations)	3140-3160		Proposed Perf. 3700-4050(overall)
c. Type of production (Oil or Gas)	Gas		Water injection
d. Method of Production (Flowing or Artificial Lift)	F		

4. The following are attached. (Please mark YES or NO)

- Yes a. Diagrammatic Sketch of the Multiple Completion, showing all casing strings, including diameters and setting depths, centralizers and/or turbolizers and location thereof, quantities used and top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- Yes b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- Yes c. Waivers consenting to such multiple completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- No d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

E. C. Donohue Estate, Drawer 1372, El Paso, Texas 79948

MAIN OFFICE DEC

'67 DEC 26 AM 8 22

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ . If answer is yes, give date of such notification December 22, 1967

CERTIFICATE: I, the undersigned, state that I am the Supervising Conservation Engineer of the Continental Oil Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

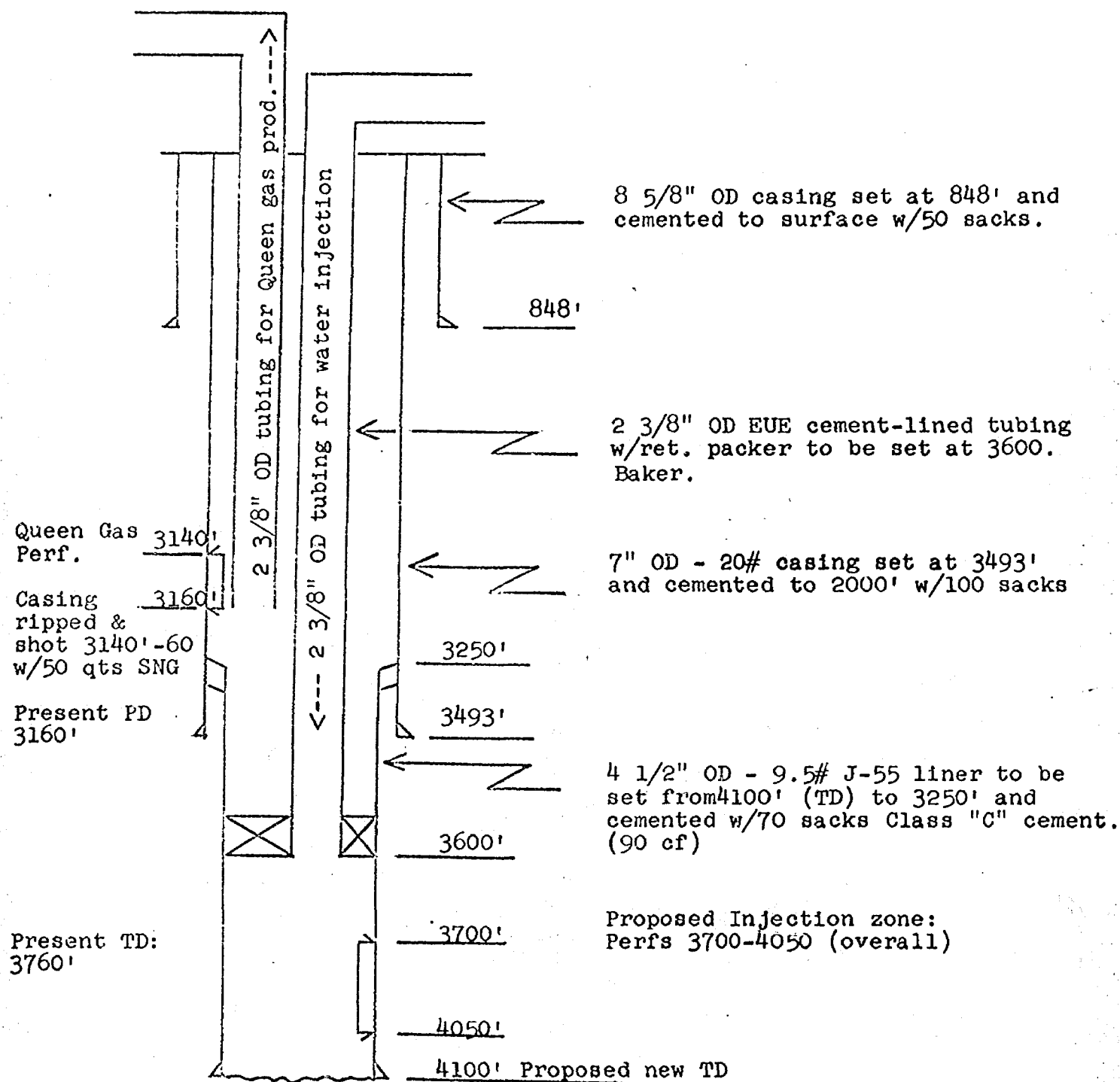
[Signature]
Signature

* Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.

NOTE: If the proposed multiple completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

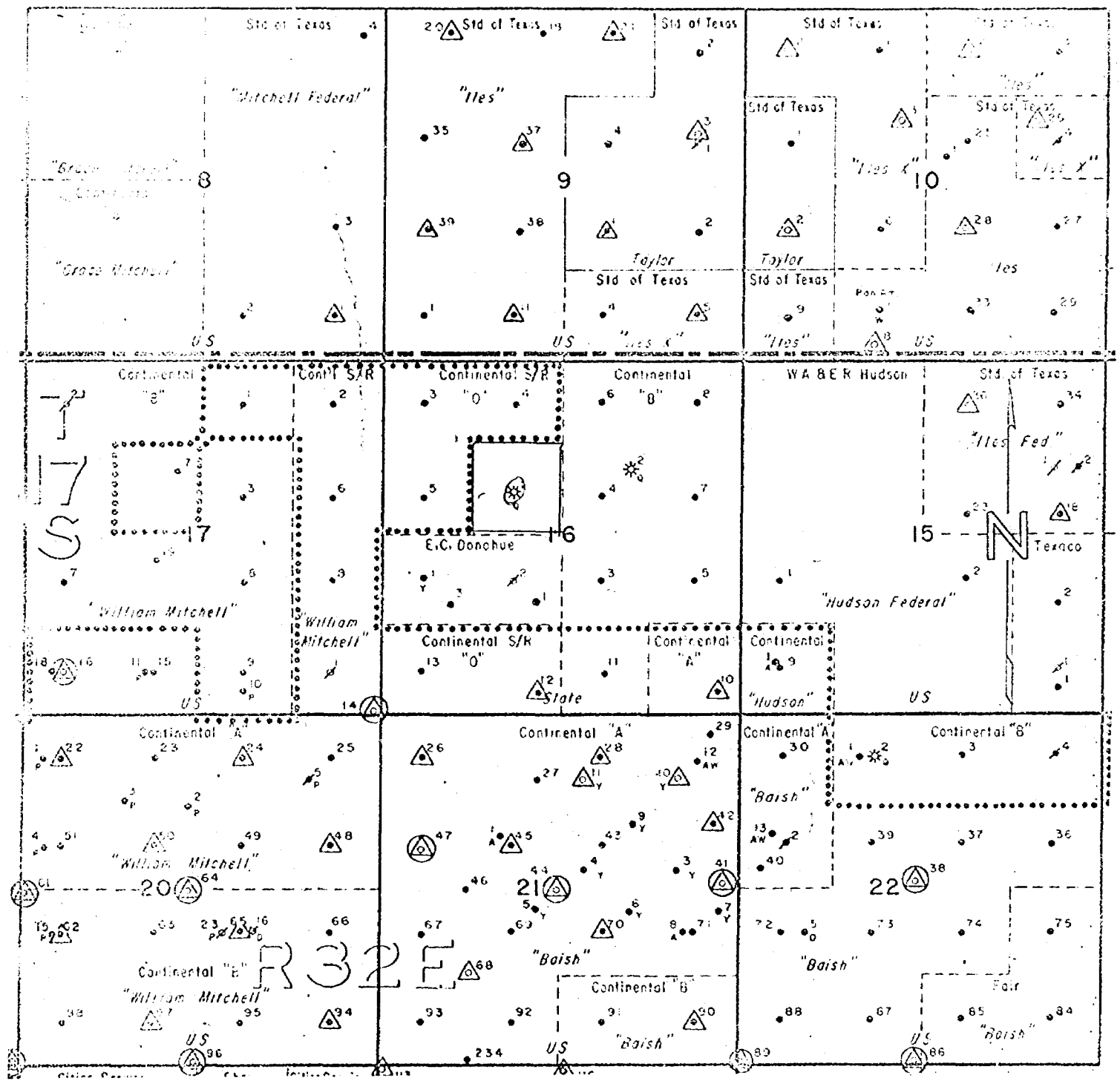
Can 3714

WATER INJECTION WELL DATA
 State "O" No. 1
 (Queen Gas Well)
 Unit F - 1980' FNL & 1980' FWL Sec. 16-17S-32E
 Elev. DF - 4065'



Proposed Procedure

1. Kill well with oil.
2. Rig up to drill w/gas.
3. Drill to new TD of 4100'. Load hole with oil.
4. Run gamma ray-neutron log w/caliper 4100 (TD) to 3100'.
5. Run 850' of 4 1/2" OD 9.5# J-55 as liner and set from 3250' to 4100'. Cement w/70 sx Class "C" cement (as determined from caliper survey)
6. Perf selected intervals and treat w/20,000# 20,000 gal sand-water frac w/400# Guar 500# ADOMITE AQUA and 20 gal ADOMITE ADOMALL. Swab back load for 8 hours.
7. Run tubing with packer to be set at 3600' for water injection.
8. Run tubing to be set at 3150' for gas production. Swab in gas.



CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT—HOBBS DIVISION

STATE O LEASE
LEA COUNTY, NEW MEXICO

SCALE

0 1000 2000

Case 3714

Docket No. 3-68

DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 24, 1968

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or
Elvis A. Utz, Alternate Examiner:

CASE 3704 (Continued from the December 20, 1967, Examiner Hearing)

Application of New Mexico Salt Water Disposal Company, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Bough "D" zone of the Pennsylvanian formation in the perforated interval from 9844 to 9875 feet in its Ainsworth Well No. 1 located in Unit H of Section 19, Township 9 South, Range 34 East, Vada-Pennsylvanian Pool, Lea County, New Mexico.

CASE 3711: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider the amendment of Rule 509 of the Commission Rules and Regulations and Commission Form C-109 to permit the production of the bonus discovery oil allowable assigned to multiple discovery wells to be produced from any discovery zone in any proportion; and to further amend said rule to permit applications for the bonus discovery allowable to be heard on dockets other than the regular pool nomenclature docket in instances where the applicant will present the evidence.

CASE 3712: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider the amendment of Rule 701 of the Commission Rules and Regulations and secondary recovery Orders Nos. R-1244, R-1311, R-1456, R-1470, R-1505, R-2064, R-2178-B, R-2268-A, R-2269, R-2403, R-2541, R-2622, R-2664, R-2700, and R-2795, to delete therefrom all references to the State Engineer or the State Engineer Office.

CASE 3713: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider the amendment to Rule 103 of the Commission Rules and Regulations to require that well identification signs for wells drilled hereafter shall designate the location of said wells by quarter-quarter section rather than quarter section as now required.

CASE 3714: Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State "O" Well No. 1 located in Unit F of Section 16, Township 17 South, Range 32 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the perforated interval 3140 to 3160 feet, Maljamar-Queen Gas Pool and the injection of water for secondary recovery purposes into the Grayburg-San Andres formations in the interval from 3700 to 4050 feet through parallel strings of 2-inch tubing.

CASE 3715: Application of Gulf Oil Corporation for an amendment to Order No. R-3345, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3345, which order authorized the Gulf Stuart Langlie Mattix Unit Waterflood Project. Applicant proposes to substitute the Stuart "B" Well No. 2 located in Unit I and the Stuart "C" Well No. 3 located in Unit K as water injection wells in said project in lieu of the Stuart "A" Well No. 1 located in Unit J and the Stuart "D" Well No. 4 located in Unit L, all in Section 10, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico.

CASE 3716: Application of Carter Foundation Production Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Ellenburger formation through the perforated interval from 9580 to 9680 feet in its E. C. Hill "E" Federal Well No. 5 located in Unit E of Section 35, Township 23 South, Range 37 East, Teague-Ellenburger Pool, Lea County, New Mexico.

CASE 3651 (Reopened):

Application of Tenneco Oil Company for an amendment to Order No. R-3315, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the re-opening of Case No. 3651 and the amendment of Order No. R-3315 entered therein which order promulgated temporary pool rules for the North Morton-Pennsylvanian Pool, Lea County, New Mexico, including the establishment of 80-acre proration units for a period of one year. Applicant now seeks the amendment of said order to provide for 160-acre spacing and proration units on a temporary basis.

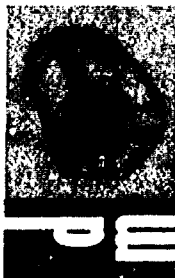
CASE 3717: Application of Aztec Oil & Gas Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the authority to dually complete its State "AJ" Well No. 2 located in Unit N of Section 1, Township 18 South, Range 36 East, Arkansas Junction-San Andres Pool, Lea County, New Mexico, in such a manner as to permit the production of oil from the Upper San Andres formation in the interval from 5047 to 5079 feet and to permit the disposal of produced salt water in the Lower San Andres formation in the interval from 5430 to 5462 feet through parallel strings of 2-inch tubing.

CASE 3718: Application of Cabot Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Wolfcamp, Pennsylvanian, Mississippian, and Devonian formations in the overall interval from 9406 to 12,689 feet in its H. L. Lowe "C" Well No. 1 located in Unit N of Section 26, Township 13 South, Range 37 East, King-Devonian Pool, Lea County, New Mexico.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
January 24, 1968

IN THE MATTER OF:

Application of Continental
Oil Company for a dual completion,
Lea County, New Mexico.

Case No. 3714

Before: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: The hearing will come to order, please. Cases 3711, 3712 and 3713 will be taken first on this docket. Then Mr. Nutter will take over and take the rest of the cases. For the convenience of those present, I will at this time call for any dismissals or continuances.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox, Santa Fe. Continental Oil Company's application in Case 3714 I believe there's a request in the file that that case be continued until the last examiner hearing in February.

MR. UTZ: Is there objection to the continuance of Case 3714 until the last examiner hearing in February? Case 3714 will be continued to the February 28th examiner hearing. Any others?

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand and seal this 19th day of February, 1968.

Ada Dearnley
 Ada Dearnley
 Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Bernalillo County Oil Case No. 3214 heard by me on Jan. 24, 1968.
[Signature]
 New Mexico Oil Conservation Commission

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 28, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil
Company for a dual completion,
Lea County, New Mexico.
(continued from January 24,
1968, Examiner Hearing)

Case No. 3714

BEFORE: DANIEL S. NUTTER, Examiner

TRANSCRIPT OF HEARING

Case 3714

Page 1

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 28, 1968TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
VICTOR T. LYON	CONTINENTAL OIL CO	HOBBS
JESSE D. STORTS	CONTINENTAL OIL CO.	HOBBS.
Edward S. Hammond	Weyer Selg &	MONAHANS TEX
John F. Russell	T-P Oil	Roswell
Ron Freels	Texas Pacific Oil Co.	Dallas, Texas
P.G. ANDERSON	MONSANTO CO.	MIDLAND, TEX
James A. Helt	W. H. Helt & Co.	Midland, TEX
John Yvonka	John Yvonka	Midland, Texas
Curtis C. McFarland	Mabe Royalties, Inc	Midland, Texas
Jason Kellahi	Kellahi & Fox	Santa Fe
Guy BOELL	Pan Am	FORT WORTH
GEORGE FORD	✓ ✓	✓ ✓
J. F. Cornes	Tenneco Oil	Midland
James H. Hirsch	" & Tenneco	Roswell
John H. Hirsch		Midland
Sudesh Arora	Southern Union Red Co	Dallas
Albert Metcalfe	TAHARA RICK	MIDLAND

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOHearing Date FEBRUARY 28, 1968 TIME: 9 A.M.

NAME	REPRESENTING	LOCATION
REPINSON, JR. N. DUHAIME	TAMARACIC RW BYRAM	MIDLAND Santa Fe

MR. NUTTER: The Hearing will come to order, please.
Are the representatives of El Paso Natural here at this time?
We'll proceed with Case Number 3714.

MR. HATCH: Case 3714 continued from January 24, 1968,
Examiner Hearing, Application of Continental Oil Company for a
dual completion, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin,
Kellahin and Fox, Santa Fe, appearing for the Applicant. I
have one witness I would like to have sworn, please.

(Witness sworn.)

J. D. STORTS,

called as a witness, having been first duly sworn, was examined
and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Will you state your name, please?

A J. D. Storts.

Q How do you spell that, Mr. Storts?

A S-t-o-r-t-s.

Q By whom are you employed and in what position?

A Continental Oil Company as supervising production
engineer.

Q Where are you located, Mr. Storts?

A Hobbs, New Mexico, division production office.

Q Have you ever testified before the Oil Conservation Commission?

A No, sir, I haven't.

Q For the benefit of the Examiner, would you outline briefly your education and experience as a petroleum engineer?

A Received my B. S. degree in chemical engineering from Louisiana Polytechnic Institute in Ruston, Louisiana, in 1955. Upon graduation, I went to work for Continental as a production petroleum engineer for a short period before going into the Service. I was in the Service for three years and came back out and went back to work for Continental as a production engineer, petroleum engineer, worked in the Gulf Coast area in south Louisiana for nine years, up through 1967, at which time I moved to Hobbs as a supervising production engineer for Continental's division office.

Q In connection with your work at Hobbs, does the well which is the subject of this application come under your supervision?

A Yes, sir.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (By Mr. Kellahin) Mr. Storts, are you familiar with the application of Continental Oil Company in Case Number 3714?

A Yes, sir. Case 3714 is the application of Continental Oil Company for approval to dually complete its State "O" Well Number 1 located 1980 feet from the North line, 1980 feet from the West line of Section 16, Township 17 South, Range 32 East, Lea County, New Mexico, as a water injection well in the Maljamar-Grayburg-San Andres Pool and for production of gas from the Maljamar-Queen Pool.

(Whereupon Applicant's Exhibits 1 and 2 were marked for identification.)

Q Referring to what has been marked as Exhibit No. 1, would you identify that exhibit and discuss the information shown on it?

A Exhibit No. 1 is a location and ownership plat showing the State "O" No. 1 and the surrounding area. The MCA Unit waterflood, shown by triangles for injection wells, is in the process of expansion, and administrative approval has been received under Administrative Order WFX-281, to include the North half and the North half of the Southeast Quarter of Section 16, Township 17 South, Range 32 East, Lea County, New Mexico, in the waterflood project. Closed

triangles are wells on injection and open triangles are wells approved but not converted.

The State "O" No. is located on pattern for a water injection well in the extension of the MCA Unit waterflood. It is the only producing well located on this forty-acre tract as shown on Exhibit 1. We therefore propose to deepen the well to the Grayburg-San Andres and dually complete it with the Maljamar-Queen gas pool.

Q Have you prepared an exhibit showing the proposed completion of this well?

A Exhibit No. 2 represents our proposed schematic diagram of our completion. The exhibit shows 8 5/8-inch casing set at 848 feet with fifty sacks of cement and 7-inch casing set at 3493 cemented to 2,000 feet. The Queen gas is shown to be producing from perforations from 3140 to 3160. After deepening approximately to 4100 feet, a 4½-inch liner will be run and cemented and the Grayburg-San Andres will be perforated based on logs and other information after drilling is completed. Two strings of 2 3/8-inch tubing will be used. The lower tubing string, to be set at approximately 3600 feet, will be cement-lined for corrosion protection. Separation will be achieved by setting a Baker Lok-Set retrievable packer at approximately 3600 feet. The upper tubing string will be set at approximately 3150 feet.

Q What procedures do you propose to follow in completing this well?

A We propose to kill the gas zone, which has a bottom hole pressure of approximately four hundred pounds, with oil to prevent damage to the gas zone, drill to a new T. D. of 4100 feet with gas, run our logging instruments, run 350 feet of the 4½-inch liner, and set with sufficient cement to isolate from the upper Queen gas zone; take extreme care to see that no cement slurry comes in contact with the gas zone. The lower Grayburg-San Andres zone will be then selectively perforated and stimulated with a 20,000 gallon sand-water frac to insure a suitable water injection rate.

Dual strings of tubing will then be run, with the injection string to consist of 2 3/8-inch OD cement-lined tubing and the upper string to be 2 3/8-inch to be hung open ended.

Q You are using a Baker Lok-set packer, is that correct?

A Yes, sir.

Q How does that type of packer set?

A This packer has two sets of rubber seal units and two slip elements. You get your packer into your setting depth, slack off on it, rotate to the right, which releases

the slips, makes them available for setting, set down weight on the packer sets, the upper packer sets, the upper, the pickup tubing on it and set the lower slips. This packer is then set and your tubing string is then free to either be set in tension or compression or hung neutral.

Q What pressures do you find in this Queen gas zone?

A Our shut-in bottom hole pressure is approximately four hundred pounds. We anticipate a flowing bottom hole pressure of around three hundred pounds.

Q On the basis of your experience in this waterflood, what injection pressure are you using?

A We anticipate a maximum injection wellhead pressure of 2950 pounds. That, coupled with the hydrostatic head of the fresh water which will be used, would give us a 4500 pounds bottom hole injection pressure. On the basis of the three hundred pound Queen gas flowing pressure, we would expect about 4200 pounds differential across the packer from underneath.

Q Is the type of packer you are using sufficient to prevent communication across the packer?

A Yes, sir, this packer has the capability of withstanding over five thousand pounds differential from either above or below.

Q Are you producing any liquids from this Queen gas

zone.

A No, sir. The Queen gas is an extremely dry gas. It makes no liquid. Analysis shows us that it has sixty percent nitrogen content, which gives an extremely low BTU content, 580 BTU's per cubic feet. For this reason, we mix the Queen gas with gas produced through our Maljamar gasoline plant to raise the BTU content sufficiently for sales purposes.

Q Would the Queen gas cause any corrosion problems?

A No, sir, it has no hydrogen sulphite or carbon dioxide, so we have experienced no corrosion problems from the Queen gas.

Q In the injection portion of the well, what type of water will you be using and what is the source of the water?

A It's fresh water produced from the Ogallala formation. It is oxygen-saturated, does present a corrosion problem, however. Our plans include cement lining of the injection string and plastic, internal plastic coating of the packer to prevent any corrosion problems.

Q Do you anticipate that any produced water will be reinjected in this particular well?

A No, sir, we do not.

Q Were Exhibits 1 and 2 prepared by you or under your supervision?

A Yes, sir, under my supervision.

MR. KELLAHIN: At this time, I offer in evidence Exhibits 1 and 2.

MR. NUTTER: Exhibits 1 and 2 will be admitted in evidence.

(Whereupon Applicant's Exhibits 1 and 2 were offered and admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination.

CROSS EXAMINATION

BY MR. NUTTER:

Q I see you are going to cement this liner with seventy sacks of cement. Is that sufficient cement to circulate from the shoe up to the seven-inch casing?

A Yes, sir, we think so. However, we do anticipate running a caliper log and this seventy sacks may be increased or decreased based on calculation.

Q You will want cement to come up all the way into the seven-inch, at any rate?

A Definitely. Then we will want to drill out the top of the liner to insure that we get circulation there, yes, sir.

Q You will have an overlapping of the liner from

3250 to 3493?

A Yes, sir.

Q And you have already obtained the administrative approval for the conversion of the well to water injection, haven't you?

A Yes, sir.

Q Is this acreage unitized and is it included with the rest of the unit; then the portion, you said, the North half of 16 and the North half of the South half has been authorized for injection in the project area?

A No, sir, this particular forty-acre tract is not part of the Maljamar participating area. It is not unitized.

Q Now, this forty-acre tract is part of the Donohue lease, is it?

A No, sir, it's Continental State "O" lease.

Q Well, in examining Exhibit No. 1, which is the State "O" lease here --

A The particular forty-acre tract we're talking about is outlined in red, I believe.

Q Is that the only part of this lease that's here, or do you have producing wells on the leases as well as injection wells?

A Yes, sir, the adjacent acreage to the north and

to the west is the State "O" lease; however, it is within the Maljamar participating area unit. It is the State "O" lease, the same lease, however, part of it with the producing wells on it has been unitized.

Q Why isn't this forty in the participating area?

A This was done quite sometime ago, and I am not sure why this particular section was left out.

MR. KELLAHIN: Do you want me to call Mr. Lyon?

MR. NUTTER: The only thing, Mr. Kellahin, I am wondering about now, this particular forty evidently is not sharing in the participating area, as far as the rest of the flood is concerned. However, this forty would be earning credit as far as the waterflood allowable is concerned because it's an injection well. Where does it receive credit for earning this allowable?

MR. LYON: If I can answer that question --

MR. NUTTER: If you would, please.

MR. KELLAHIN: Do you want to have him sworn?

MR. NUTTER: No.

MR. LYON: When this unit was being negotiated, we had many problems and so arbitrarily they set a date as to wells that were completed as of such and such a date would be included in the participating area. This is the reason

that all of the wells in there are not in the participating area and the area is so complicated as far as unitization is concerned, that we have not seen fit so far to enlarge the participating area.

Now, of course, this well not being completed in the Grayburg-San Andres at that time could not have been included in the participating area and the rest of this lease, which comprises the Northwest Quarter of that section is in the participating area and so the NCA unit participating area will benefit from the injection from this well; and this has been discussed fully with the Commissioner of Public Lands and he is in accord with it.

MR. NUTTER: Now, which is the State "O" lease, then, Mr. Lyon, the Northwest Quarter?

MR. LYON: The State "O" lease is the Northwest quarter but all except the Southeast quarter of the Northwest is in the participating area, as far as Grayburg-San Andres is concerned. As far as the gas proration unit for the Queen well, it will consist of the Northwest quarter, the Queen formation not having been unitized.

MR. NUTTER: Are there any other questions of Mr. Storts? He may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: That's all I have.

MR. NUTTER: Does anyone have anything further they wish to offer in Case 3714? We will take the case under advisement.

* * *

I N D E X

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<u>EXHIBIT</u>	<u>E X H I B I T S</u> <u>MARKED</u>	<u>OFFERED AND</u> <u>ADMITTED</u>
Applicant's 1 and 2	4	10

STATE OF NEW MEXICO)
) ss.
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 6th day of March, 1968.

Ada Dearnley
 Notary Public

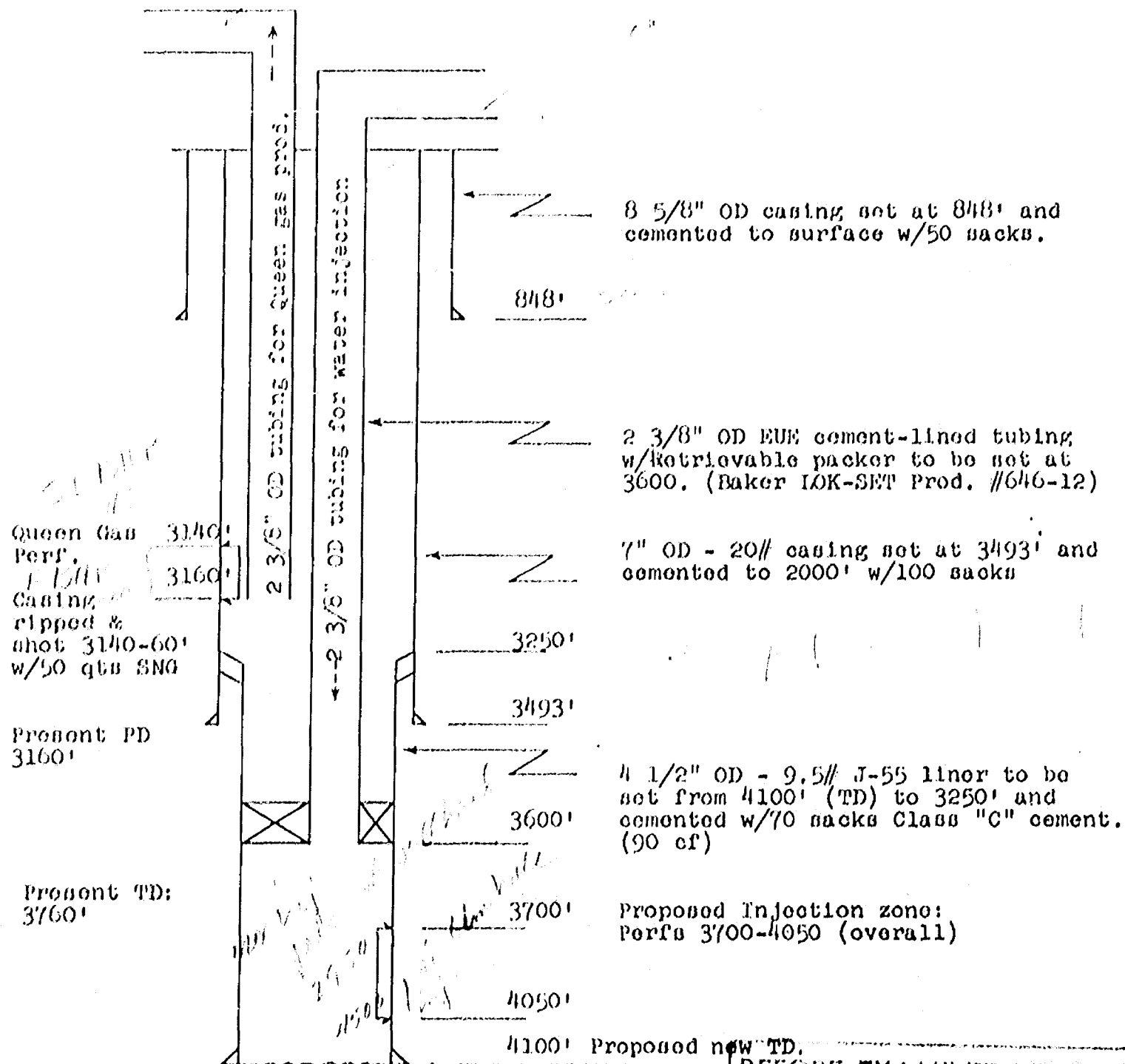
My Commission Expires:

June 19, 1971.

I do hereby certify that the foregoing is
 a complete and correct transcript of the
 hearing held before the New Mexico Oil Conservation
 Commission on March 28, 1968, at 10:00 a.m.
 heard by the Commission.

[Signature]
 Notary Public
 New Mexico Oil Conservation Commission

WATER INJECTION WELL DATA
 STATE "O" NO. 1
 (Queen Gas Well)
 Unit P - 1980' FHL & 1980' FHL
 Sec. 16-173-32E - Elev. DP-4065'



Proposed Procedure

1. Kill well with oil.
2. Rig up to drill w/gas.
3. Drill to new TD of 4100'. Load hole with oil.
4. Run gamma ray-neutron log w/calliper 4100 (TD) to 3100'.
5. Run 850' of 4 1/2" OD 9.5// J-55 liner and set from 3250' to 4100'. Cement w/70 sacks Class "C" cement (as determined from calliper survey).
6. Perf. selected intervals and treat w/20,000// 20,000 gal sand-water frac w/400// Quar 500// ADMETITE AQUA and 20 gal ADMETITE ADMALL. Swab back load for 8 hours.
7. Run tubing with packer to be set at 3600' for water injection.
8. Run tubing to be set at 3150' for gas production. Swab in gas.

BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 2
 CASE NO. 3774