

UNIT AGREEMENT

REED-SANDERSON UNIT

LEA COUNTY, NEW MEXICO

BEFORE EXAMINER UTZ	
OF CONSERVATION COMMISSION	
<i>Appl</i>	EXHIBIT NO. <i>1-9</i>
CASE NO. <i>3463-3464</i>	

8-21-66

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION OF THE
REED-SANDERSON UNIT
DEA COUNTY, NEW MEXICO

NO. _____

THIS AGREEMENT, entered into as of the 7th day of July, 1966, by and between the parties subscribing, ratifying or consenting hereto, and herein referred to as "parties hereto":

WITNESSETH: That,

WHEREAS, the parties hereto are the owners of working, royalty or other oil or gas interest in the Unit Area subject to this Agreement; and

WHEREAS, the Oil Conservation Commission of the State of New Mexico is authorized by law (Chap. 72, Laws of 1935, as amended by Chap. 193, Laws of 1937, Chap. 168, Laws of 1941, and Chap. 168, Laws of 1949, Chap. 65, Art. 3, Sec. 14, N.M.S., 1953 anno, to approve this Agreement, and the conservation provisions hereof; and

WHEREAS, the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Sections 181 et seq., authorizes Federal lessees and their representatives to unite with each other, or jointly or separately with others, in collectively adopting and operating a cooperative or unit plan of development or operation of any oil or gas pool, field or like area, or any part thereof for the purpose of more properly conserving the natural resources thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the parties hereto hold sufficient interests in the Reed-Sanderson Unit Area covering the land hereinafter described to give reasonably effective control of operation therein; and

WHEREAS, it is the purpose of the parties hereto to enable institution and consummation of secondary recovery operations, conserve natural resources, prevent waste and secure the other benefits obtainable through development and operation of the area subject to this Agreement under the terms, conditions, and limitations herein set forth;

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this Agreement their entire respective interests in the below-defined Unit Area, and agree severally among themselves as follows:

SECTION 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid pertinent regulations, including operating and unit plan regulations, theretofore issued thereunder and valid pertinent and reasonable regulations hereafter issued thereunder are accepted and made a part of this Agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to Non-Federal lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the State in which the Non-Federal land is located, are hereby accepted and made a part of this Agreement.

SECTION 2. UNIT AREA AND DEFINITIONS. The area described by tracts in Exhibit "B" and depicted on Exhibit "A"

attached hereto is hereby designated and recognized as constituting the Unit Area, containing 1,040.83 acres, more or less, in Lea County, New Mexico. Said land is described as follows:

T-20S - R-36E

Section 3:	W/2 and W/2 E/2	480.67
Section 4:	E/2 E/2	160.16
Section 9:	E/2 NE/4	80.00
Section 10:	NW/4, W/2 NE/4 NE/4 SW/4, and NW/4 SE/4	320.00

For the purpose of this Agreement, the following terms and expressions as used herein are defined as follows:

(a) "Commission" is defined as the Oil Conservation Commission of the State of New Mexico.

(b) "Director" is defined as the Director of the United States Geological Survey.

(c) "Secretary" is defined as the Secretary of the Interior of the United States of America.

(d) "Department" is defined as the Department of the Interior of the United States of America.

(e) "Supervisor" is defined as the Oil and Gas Supervisor of the United States Geological Survey.

(f) "Unitized Formation" is defined as the Queen formation, found between the subsurface depths of 3,557 feet and 3,968 feet in the Continental Oil Company Reed "A" 3 No. 15 Well located 1980 feet from the South line and 2310 feet from the East line of Section 3, Township 20 South, Range 36 East, NMPM, as shown on the Radioactivity Log run in said well on April 7, 1958.

(g) "Unitized Substances" means all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquefiable hydrocarbons within or produced from the Unitized Formation.

(h) "Tract" is defined as each parcel of land described as such and given a Tract number in Exhibit "B."

(i) "Tract Participation" is defined as that percentage of Unitized Substances produced from the Unitized Formation which is allocated to a Tract under this Agreement.

(j) "Unit Participation," of each Working Interest Owner, is defined as the sum of the percentages obtained by

multiplying such Working Interest Owner's fractional Working Interest in each tract by the Tract Participation of such Tract.

(k) "Working Interest" is defined as the right to search for, produce and acquire Unitized Substances whether held as an incident of ownership of mineral fee simple title under an oil and gas lease, or otherwise held.

(l) "Working Interest Owner" is defined as and shall mean any party hereto owning a Working Interest, including a carried working interest owner, whether by virtue of a lease, operating agreement, fee title or otherwise, whose interest is chargeable with and obligated to pay or bear, either in cash or out of production, or otherwise, all or a portion of the cost of drilling, developing and producing the Unitized Substances from the Unitized Formation and operating therefor hereunder. Any interest in Unitized Substances which is a Working Interest as of the date the owner thereof executes or ratifies this agreement shall thereafter be treated as a Working Interest for all purposes of this agreement.

(m) "Royalty Interest" or "Royalty" is defined as any interest other than a Working Interest in or right to receive a portion of the Unitized Substances or the proceeds thereof and includes the royalty interest reserved by the lessor by an oil and gas lease and any overriding royalty interest, oil payment interest, or any other payment or burden which does not carry with it the right to search for and produce Unitized Substances. "Basic Royalty Interest" is defined as the royalty interest reserved by the lessor by an oil and gas lease.

(n) "Lessee of Record" is defined as the holder of record title under a United States Oil and Gas Lease.

(o) "Royalty Owner" is defined as and shall mean the owner of a Royalty Interest.

(p) "Unit Operating Agreement" is defined as and shall mean any agreement or agreements (whether one or more) entered into (separately or collectively) by and between the Unit Operator and the Working Interest Owners as provided in Section 9, *infra*, and shall be styled "Unit Operating Agreement, Reed-Sanderson Unit, Lea County, New Mexico."

(q) "Paying Quantities" is defined as production of Unitized Substances in quantities sufficient to pay for the cost of producing same from wells on the unitized land.

(r) "Production during the period January 1, 1964 through November 1, 1964" is defined as the barrels of oil produced during said period from the Tracts in the Unit Area as reported to the New Mexico Oil Conservation Commission on Form C-115.

(s) "Remaining Primary Recovery" is defined as the estimated remaining recoverable oil reserves under primary recovery operations, expressed in barrels, as estimated by the Reed-Sanderson Unit Engineering Subcommittee, and set forth on the Schedule of Participation Parameters prepared by said Subcommittee.

(t) "Ultimate Primary Recovery" is defined as the estimated ultimate recoverable oil from inception of production to the economic limit of production under primary operations, expressed in barrels, as determined by the Reed-Sanderson Unit Engineering Subcommittee and tabulated on the Schedule of Participation Parameters prepared by said Subcommittee.

SECTION 3. EXHIBITS. Exhibit "A" attached hereto is a map showing the Unit Area and, to the extent known to the Unit Operator, the boundaries and identity of Tracts and leases in said Unit Area. Exhibit "B" attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each Tract, percentage ownership of each Working Interest Owner in each Tract, the Lessee of Record in each Tract, and the percentage of participation each Tract has in the Unit Area, together with the Royalty Interests in each Tract and the ownership thereof. Nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party.

Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes render such revision necessary, or when requested by the Supervisor, and not less than six copies thereof shall be filed with the Supervisor.

SECTION 4. EXPANSION. The above-described Unit Area may when practicable be expanded to include therein any additional Tract or Tracts regarded as reasonably necessary or advisable for the purposes of this Agreement. Such expansion shall be effected in the following manner:

(a) The Working Interest Owner of a Tract or Tracts desiring to commit such Tract or Tracts hereto shall file an application therefor with Unit Operator requesting such admission.

(b) Unit Operator shall circulate a notice to each Working Interest Owner of the proposed expansion, setting out the basis for admission, the proposed participation to be assigned to each such Tract, and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise), if 90 per cent of the Working Interest Owners (on the basis of Unit Participation) have agreed to such commitment of such Tract or Tracts, then Unit Operator shall, after preliminary concurrence by the Director:

- (1) Prepare a notice of proposed expansion describing the contemplated changes

in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional Tract or Tracts, and the Tract Participation to be assigned each such Tract. The effective date thereof shall be 7:00 a.m. of the first day of the month following final approval thereof as herein provided; and

- (2) Deliver copies of said notice to the Supervisor, each Working Interest Owner, lessee, and lessor whose interests are affected (mailing copy of such notice to the last known address of each such Working Interest Owner), advising such parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and
- (3) File, upon the expiration of said thirty (30) day period, as set out in (2) immediately above, the following: (i) Comprehensive statement as to mailing said notice of expansion; (ii) an application for such expansion in sufficient numbers for appropriate approval and distribution; and (iii) an instrument containing the appropriate joinders in compliance with the participation requirements of Section 14 (Tracts Qualified for Unit Participation) and 33 (Non-Joinder and Subsequent Joinder), *infra*; and (iv) a copy of any objections received.

The expansion shall, after due consideration of all pertinent information and upon approval by the Director and the Commission, become effective as of the date and hour prescribed above. The revised Tract Participations of the respective Tracts included within the Unit Area prior to such enlargement shall remain in the same ratio one to another.

SECTION 5. UNITIZED LAND AND UNITIZED SUBSTANCES. All oil and gas in and under the land effectively committed to this Agreement within and producible from the Unitized Formation are herein called "Unitized Substances." All land committed to this Agreement as to the Unitized Formation shall constitute land referred to herein as Unitized Land or "land subject to this Agreement."

SECTION 6. UNIT OPERATOR. Continental Oil Company, a Delaware corporation, is hereby designated as Unit Operator, and by signing this instrument as Unit Operator it agrees and consents to accept the duties and obligations of Unit Operator for the operation, development and production of Unitized Substances as herein provided. Whenever reference is made herein to Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interests in Unitized Substances, and the term "Working Interest Owner" when used herein shall include or refer to Unit Operator as the owner of a Working Interest when such an interest is owned by it.

SECTION 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners and the Supervisor and until all unit wells are placed in a satisfactory condition for suspension, or abandonment of operations, whichever is required by the Supervisor and the Commission, unless a new Unit Operator shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

The Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by 75 per cent of the committed Working Interest Owners (on the basis of Unit Participation) exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the Supervisor.

In all such instances of effective resignation or removal, until a successor to Unit Operator is selected and approved as hereinafter provided, the Working Interest Owners shall be jointly responsible for the performance of the duties of the Unit Operator and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a Unit Manager to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, title or interest as the owner of a Working Interest or other interest in Unitized Substances; but, upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all equipment, books, and records, materials, appurtenances and any other assets, used in conducting the Unit operations and owned by the Working Interest Owners (including any and all data and information which it might have gained or assembled by reason of its operation of the Unitized Land) to the new duly qualified successor Unit Operator or to the Unit Manager if no such new Unit Operator is elected, to be used for the purpose of conducting Unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment and appurtenances needed for the preservation of any wells. Nothing herein contained shall be construed to relieve or discharge any Unit Operator who resigns or is removed hereunder for any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the Working Interest Owners

shall select a successor Unit Operator by a majority vote of the Working Interest Owners (on the basis of Unit Participation), provided no Working Interest Owner who has been removed as Unit Operator may vote for self-succession. Such selection shall not become effective until (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator; and (b) the selection shall have been filed with the Supervisor. If no successor Unit Operator is selected and qualified as herein provided, the Director, at his election, may declare this Agreement terminated.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. Costs and expenses incurred by Unit Operator in conducting Unit operations hereunder shall be paid, apportioned among, and borne by the Working Interest Owners in accordance with the Unit Operating Agreement; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Unit Agreement or to relieve the Unit Operator of any right or obligation established under this Agreement, and in case of any inconsistency or conflict between this Agreement and the Unit Operating Agreement, this Agreement shall prevail. Required copies of any Unit Operating Agreement executed pursuant to this section shall be filed with the Supervisor prior to approval of this Agreement.

SECTION 10. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, including producing by secondary recovery methods, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Upon request, acceptable

evidence of title to said rights shall be deposited with said Unit Operator and together with this agreement shall constitute and define the rights, privileges, and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

SECTION 11. EASEMENTS OR USE OF SURFACE.

(a) The parties hereto, to the extent of their rights and interests, hereby grant to Working Interest Owners the right to use as much of the surface of the land within the Unit Area as may reasonably be necessary for Unit Operations; provided that nothing herein shall be construed as leasing or otherwise conveying to Working Interest Owners a site for a water, gas injection, processing or other plant, or camp site.

(b) Working Interest Owners shall have free use of brine or water or both from the Unit Area for Unit Operations, except water from any well, lake, pond, or irrigation ditch of a Royalty Owner.

(c) Working Interest Owners shall pay the owner for damages to growing crops, timber, fences, improvements, and structures on the Unit Area that result from Unit Operations.

SECTION 12. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances in paying quantities and that the object and purpose of this Agreement is to formulate and to put into effect a secondary recovery project in order to effect the

greatest economical recovery of Unitized Substances, prevent waste and conserve natural resources. The parties hereto agree that the Unit Operator may, subject to the consent to a plan of operation by the Working Interest Owners and approval by the Supervisor, inject into the Unitized Formation, through any well or wells completed therein, brine, water, air, gas, oil and any one or more other substances whether produced from the Unitized Land or not, and that the location of input wells and the rates of injection therein shall be governed by standards of good geologic and petroleum engineering practices and conservation methods. After commencement of secondary operations, Unit Operator shall furnish the Supervisor monthly injection and production reports for each well in the Unit. The Working Interest Owners and the Supervisor shall be furnished periodic reports on the progress of the plan of operation and any revisions or changes thereto; provided, however, that any major revisions of the plan of operation involving a basic deviation from the initial plan of operation shall be subject to the consent of the Working Interest Owners and approval of the Supervisor.

The initial plan of operation shall be filed with the Supervisor concurrently with the filing of this Unit Agreement for final approval. Said initial plan of operation and all revisions thereof shall be as complete and adequate as the Supervisor may determine to be necessary for timely operation consistent herewith. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for like approval a plan for an additional specified period of operation. Reasonable diligence shall be exercised in complying with the obligations of the approved plan of operation.

Notwithstanding anything to the contrary herein contained, the Unit Operator shall commence operations for the secondary recovery of Unitized Substances from the Unit Area within six (6) months after the effective date of this Agreement, or any extension thereof approved by the Supervisor. After such operations are commenced, Unit Operator shall carry on such operations as would a reasonably prudent operator under the same or similar circumstances.

SECTION 13. TRACT PARTICIPATION. In Exhibit "B" attached hereto there are listed and numbered the various Tracts within the Unit Area and set forth opposite each Tract is the Tract Participation of each Tract in the Unit Area calculated on the basis of 100 per cent commitment. The Tract Participation of each Tract was determined by the following formula:

Percentage of Tract Participation =

$$40\% \times \frac{\text{Tract Production during the period from} \\ \text{January 1, 1964 through November 1, 1964}}{\text{Unit Area Production during the period from} \\ \text{January 1, 1964 through November 1, 1964}}$$

+

$$30\% \times \frac{\text{Tract Remaining Primary Recovery after} \\ \text{November 1, 1964}}{\text{Unit Area Remaining Primary Recovery after} \\ \text{November 1, 1964}}$$

+

$$30\% \times \frac{\text{Tract Ultimate Primary Recovery}}{\text{Unit Area Ultimate Primary Recovery}}$$

In the event less than all of the Tracts within the Unit Area are qualified for unit participation as of the effective date hereof, Unit Operator shall, as soon as practicable after said effective date, prepare a revised Exhibit "B" setting forth the qualified tracts and showing the revised Tract Participation of each committed Tract, which Tract Participation shall be calculated and determined by using the factors and formulas set forth above, but applying the same only to the qualified Tracts. Unit Operator

shall promptly file copies of such revised Exhibit "B" with the Supervisor, and unless such revised Exhibit "B" is disapproved by the Supervisor within thirty (30) days after such filing, the revised Exhibit "B" shall be effective as of the effective date of this agreement, and shall thereafter govern the allocation of all Unitized Substances subject, however, to any further revision or revisions of Exhibit "B" in accordance with the provisions hereof.

Any Tract within the Unit Area not committed on the effective date hereof may thereafter be committed hereto in the following manner: The owner or owners of the Working Interest in such Tract shall initiate a request directed to Unit Operator for the commitment thereof hereto and such owner or owners, committed Working Interest Owners, and Unit Operator shall thereupon seek to determine the basis therefor, including a Tract Participation for such Tract and any appropriate adjustments of investments. When such matters have been agreed upon by the required vote of Working Interest Owners, as provided for in the Unit Operating Agreement, and upon compliance with the applicable provisions of Sections 14 (Tracts Qualified for Unit Participation) and 33 (Non-Joinder and Subsequent Joinder), then Unit Operator shall file with the Supervisor, the required copies of the instruments of joinder and the revised Exhibit "B," showing the revised Tract Participation; and upon approval by the Director or the Supervisor, such commitment shall be effective at 7 a.m. on the first day of the month following such approval. In any such event, the revised Tract Participations of the respective Tracts entitled to participation prior to such subsequent commitment shall remain in the same ratio one to another.

SECTION 14. TRACTS QUALIFIED FOR UNIT PARTICIPATION.

As the objective of this Unit Agreement is to have lands in the Unit Area operated and entitled to participation under the terms hereof, it is agreed that, notwithstanding anything herein to the contrary, no joinder shall be considered a commitment to this Unit Agreement unless the Tract involved is qualified under this section.

(1) On and after the effective date hereof the Tracts qualified for Unit Participation hereunder shall be the Tracts that qualify as follows:

(a) Each tract as to which Working Interest Owners owning 100% of the Working Interest have become committed to this agreement and as to which (i) Royalty Owners under oil and gas leases on fee land owning seventy-five percent (75%) or more of the Basic Royalty Interest; or (ii) Lessees of Record owning seventy-five percent (75%) or more of the record title interest, whichever is applicable, have become parties to this Agreement.

(b) Each tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become committed to this Agreement and as to which Royalty Owners under oil and gas leases on fee land owning less than seventy-five percent (75%) of the Basic Royalty Interest or Lessees of Record owning less than seventy-five percent (75%) of the record title interest have become parties to this Agreement and as to which (i) all Working Interest Owners in such Tract have joined in a request for the commitment of such Tract to the Unit Agreement, and as to which

(ii) seventy-five percent (75%) of the combined voting interests of Working Interest Owners in all Tracts that meet the requirements of Section 14(1)(a) have voted in favor of the commitment of such Tract.

For the purpose of this Section 14(1)(b), the voting interest of a Working Interest Owner shall be equal to the ratio that its Unit Participation attributable to Tracts that qualify under Section 14(1)(a) bears to the total Unit Participation of all Working Interest Owners attributable to all Tracts that qualify under Section 14(1)(a).

(c) Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working Interest have become committed to this Agreement regardless of the percentage of Royalty Owner or Lessee of Record commitment hereto, and as to which (i) the Working Interest Owner who operates the Tract and all of the other Working Interest Owners in such Tract who have become committed to this Agreement have joined in a request for commitment of such Tract to the Unit Agreement, and have executed and delivered an indemnity agreement indemnifying and agreeing to hold harmless the other Working Interest Owners in the Unit Area, their successors and assigns, against all claims and demands that may be made by the owners of Working Interests in such Tract who are not parties to this Agreement, and which arise out of the commitment of the Tract to this Unit Agreement; and as to which (ii) seventy-five percent (75%) of the combined voting interest of Working Interest Owners in all Tracts that meet the requirements of Section

14(1)(a) and 14(1)(b) have voted in favor of the commitment of such Tract and to accept the indemnity agreement.

For the purpose of this Section 14(1)(c), the voting interest of each Working Interest Owner shall be equal to the ratio that its Unit Participation attributable to Tracts that qualify under Section 14(1)(a) and 14(1)(b) bears to the total Unit Participation of all Working Interest Owners attributable to all Tracts that qualify under Section 14(1)(a) and 14(1)(b). Upon the commitment of such a Tract to this Unit Agreement, the Unit Participation that would have been attributed to the nonsubscribing owners of the Working Interest in such Tract, had they become parties to this Agreement and the Unit Operating Agreement, shall be attributed to the Working Interest Owners in such Tract who have become parties to such agreements, in proportion to their respective Working Interests in the Tract.

(2) Subsequent Commitment of Interest to Unit. After the effective date of this Agreement, the commitment of any interest in any Tract within the Unit Area shall be upon such terms as may be negotiated by Working Interest Owners and the owner of such interest.

(3) Revision of Exhibits. If any of the Tracts described in Exhibit "A" fails to qualify for inclusion in the Unit Area, Unit Operator shall recompute, using the original basis of computation, the Tract Participation of each of the qualifying Tracts, and shall revise Exhibits "A" and "B" accordingly. The revised exhibits shall be effective as of the effective date hereof.

SECTION 15. ALLOCATION OF UNITIZED SUBSTANCES. All Unitized Substances produced and saved (less, save and except

any part of such Unitized Substances used in conformity with good operating practices on Unitized Land for drilling, operating, camp, and other production or development purposes and for pressure maintenance or unavoidable loss) shall be apportioned among and allocated to the committed Tracts within the Unit Area in accordance with the respective Tract Participation effective hereunder during the respective periods such Unitized Substances were produced, as set forth in the then effective schedule of participation in Exhibit "B". The amount of Unitized Substances so allocated to each Tract (regardless of whether it be more or less than the amount of the actual production of Unitized Substances from the well or wells, if any, on such Tract), shall, for all intents, uses and purposes, be deemed to have been produced from such Tract.

The Unitized Substances allocated to each Tract shall be distributed among, or accounted for to, the parties executing, consenting to or ratifying this Agreement entitled to share in the production from such Tract in the same manner, in the same proportions, and upon the same conditions, as they would have participated and shared in the production from such Tracts, or in the proceeds thereof, had this Agreement not been entered into, and with the same legal force and effect.

No Tract committed to this Agreement and qualified for participation as above provided shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances, and nothing herein contained shall be construed as requiring any retroactive adjustment for production obtained prior to the effective date of the joinder of any tract.

If the Working Interest and the Royalty Interest in any Tract are or become divided with respect to separate parcels or portions of such Tract and owned severally by

different persons, the Tract Participation assigned to such Tract shall, in the absence of a recordable instrument executed by all owners and furnished to Unit Operator fixing the divisions of ownership, be divided among such parcels or portions in proportion to the number of surface acres in each.

The Unitized Substances allocated to each Tract shall be delivered in kind to the respective Working Interest Owners and parties entitled thereto by virtue of the ownership of oil and gas rights therein. Each Working Interest Owner and the parties entitled thereto shall have the continuing right to receive such production in kind at a common point within the Unit Area and to sell or dispose of the same as it sees fit. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose on Unitized Land, provided the same are so constructed, maintained and operated as not to interfere with operations carried on pursuant hereto. Subject to Section 16 (Royalty Settlement) hereof, any extra expenditure incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party receiving the same in kind.

In the event any party hereto shall fail to take or otherwise adequately dispose of its proportionate share of the Unitized Substances currently as and when produced, then so long as such conditions continue, Unit Operator, for the account and at the expense of such party and in order to avoid curtailing the operation of the Unit Area, may sell or otherwise dispose of such production to itself or others on a day-to-day basis at not less than the prevailing market price in the area for like production; and the account of such party

shall be charged therewith as having received such production. The net proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the party entitled thereto; provided, however, Unit Operator shall not make a sale into interstate commerce of any Working Interest Owner's share of gas production without first giving such Working Interest Owner sixty (60) days' notice of such intended sale.

The Working Interest Owners of each Tract shall be responsible for the payment of all Royalty on or affecting such Tract; and each such party shall hold each other party hereto harmless against all claims, demands and causes of action for such Royalty.

If, after the effective date of this Agreement, there is any Tract or Tracts that are subsequently committed hereto, as provided in Section 4 (Expansion) and Section 13 (Tract Participation) hereof, or if any Tract is excluded from the Unit Area as provided for in Section 32 (Loss of Title), the schedule of participation as shown in the current Exhibit "B" shall be revised by the Unit Operator and distributed to the Working Interest Owners, the Supervisor, and the Director to show the new percentage participation of all the committed Tracts; and the revised schedule, upon approval by the Supervisor under Section 32 (Loss of Title) or the Director under Section 4 (Expansion), shall govern all the allocation of Unitized Substances from and after the effective date thereof until the effective date of a new schedule so approved. The Tract Participations of all Tracts participating prior to any such revision shall remain in the same ratio one to the other.

SECTION 16. ROYALTY SETTLEMENT. The United States of America and all Royalty Owners who, under an existing contract,

are entitled to take in kind a share of the Unitized Substances produced from any Tract unitized hereunder, shall continue to be entitled to such right to take in kind their share of the Unitized Substances allocated to such Tract, and Unit Operator shall make deliveries of such Royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty Interest not taken in kind shall be made by Working Interest Owners responsible therefor under existing contracts, laws and regulations, on or before the last day of each month for Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any Royalty due under their leases, except that such Royalty shall be computed in accordance with the terms of this Unit Agreement.

If gas obtained from lands not subject to this Agreement is introduced into the Unitized Formation for use in repressuring, stimulation or production or increasing ultimate recovery in conformity with a plan approved pursuant to Section 12 (Plan of Operations), a like amount of gas, less appropriate deductions for loss from any cause, may be withdrawn from the Unitized Formation, Royalty free as to dry gas but not as to the products extracted therefrom; provided such withdrawal shall be pursuant to such conditions and formulas as may be prescribed or approved by the Supervisor, and provided further that such right of withdrawal shall terminate as of the effective date of termination of the Unit Agreement.

All Royalty due the United States of America and the other Royalty Owners hereunder shall be computed and paid on the basis of all Unitized Substances allocated to the respective Tract

or Tracts committed hereto, in lieu of actual production from such Tract or Tracts.

Royalty due the United States shall be computed as provided in the operating regulations and paid in value or delivered in kind as to all Unitized Substances on the basis of the amounts thereof allocated to unitized Federal land as provided herein at the rates specified in the respective Federal leases, or at such lower rate or rates as may be authorized by law or regulation; provided that, for leases on which the Royalty Rate depends on the daily average production per well, said average production shall be determined in accordance with the operating regulations as though the Unitized Land were a single consolidated lease.

Each Royalty Owner (other than the United States of America) that executes this Agreement represents that it is the owner of a Royalty Interest in a Tract or Tracts within the Unit Area as its interest appears in Exhibit "B" attached hereto. If any Royalty Interest in a Tract or Tracts should be lost by title failure or otherwise in whole or in part during the term of this Agreement, then the Royalty Interest of the party representing himself to be the owner thereof shall be reduced proportionately and the interest of all parties in the affected Tract or Tracts shall be adjusted accordingly.

SECTION 17. RENTAL SETTLEMENT. Rentals or minimum royalties due on leases committed hereto shall be paid by Working Interest Owners responsible therefor under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty in lieu thereof, due under their leases. Rental or minimum royalty for lands of the United

States of America subject to this Agreement shall be paid at the rate specified in the respective leases from the United States of America, unless rental or minimum royalty is waived, suspended, or reduced by law or by approval of the Secretary or his duly authorized representative.

SECTION 18. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to Federal and State laws and regulations.

SECTION 19. DRAINAGE. The Unit Operator shall take appropriate and adequate measures to prevent drainage of Unitized Substances from Unitized Land by wells on land not subject to this Agreement.

SECTION 20. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect; and the parties hereto hereby consent that the Secretary shall, and by his approval hereof, or by the approval hereof by his duly authorized representatives, does hereby establish, alter, change or revoke the drilling, producing, rental, minimum royalty and royalty requirements of Federal leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified

in accordance with the following:

(a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part or separately owned tract subject to this Agreement, regardless of whether there is any development of any particular part or Tract of the Unit Area, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling, producing or secondary recovery operations performed hereunder upon any Tract of Unitized Lands shall be accepted and deemed to be performed upon and for the benefit of each and every Tract of Unitized Land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on land therein embraced.

(c) Suspension of drilling or producing operations on all Unitized Land pursuant to direction or consent of the Supervisor or his duly authorized representatives shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every Tract of Unitized Land.

(d) Each lease, sublease, or contract relating to the exploration, drilling, development or operation for oil and gas which by its terms might expire prior to the termination of this Agreement is hereby extended beyond any such term so provided therein, so that it shall be continued in full force and effect for and during the term of this Agreement.

(e) Termination of this Agreement shall not affect any lease which, pursuant to the terms thereof or any applicable laws, shall continue in force and effect thereafter.

(f) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Sec. 17 (j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784):

"Any (Federal) lease heretofore or hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization: Provided, however, that any such lease as to the non-unitized portion shall continue in force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

SECTION 21. MATHEMATICAL ERRORS. It is hereby agreed by all parties to this Agreement that Unit Operator is empowered

to correct any mathematical or clerical errors which might exist in this Agreement and file such changes with the Supervisor.

SECTION 22. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be, and hereby is, conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any Working Interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument of transfer; and no assignment or transfer of any Royalty Interest subject hereto shall be binding upon the Working Interest Owner responsible therefor until the first day of the calendar month after said Working Interest Owner is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument of transfer.

SECTION 23. WAIVER OF RIGHT TO PARTITION. Each party hereto covenants that, during the existence of this agreement, it will not resort to any action to partition the Unit Area as to the Unitized Formation or the Unit Equipment, and to that extent waives the benefits of all laws authorizing such partition.

SECTION 24. EFFECTIVE DATE AND TERM. This Agreement shall become binding upon each party who executed or ratified it as of the date of execution or ratification by such party and shall become effective as of 7 a.m. on the first day of the

month next following:

(a) The execution or ratification of this Agreement and the Unit Operating Agreement by Working Interest Owners sufficiently to commit under Section 14 (Tracts Qualified for Unit Participation) hereof 85% (measured by surface area) of the lands comprising the Unit Area; and

(b) The approval of this Agreement by the Director and the Commission; and

(c) The filing of at least one counterpart of this Agreement for record in the office of the county clerk of Lea County, New Mexico, by the Unit Operator; and provided, further, that if (a), (b) and (c) above are not accomplished on or before January 1, 1967, this Agreement shall ipso facto expire on said date (hereinafter called "expiration date") and thereafter be of no further force or effect, unless prior thereto Working Interest Owners owning a combined Unit Participation of at least 75% have become parties to this Agreement and have decided to extend the expiration date for a period not to exceed six (6) months. If the expiration date is so extended and requirements of Section 24 (a) are not accomplished on or before the extended expiration date, this Agreement shall ipso facto expire on the extended expiration date and thereafter be of no further effect. For the purpose of this section, Unit Participation shall be as shown on the original Exhibit "B" attached to the Unit Agreement.

(d) Unit Operator shall, within thirty (30) days after the effective date of this Agreement, file for record in the county office where a counterpart of this Agreement is recorded, a certificate to the effect that this Agreement has become effective according to its terms and stating further the effective date.

The term of this Agreement shall be for and during the time that Unitized Substances are or can be produced in paying quantities from the Unitized Land and as long thereafter as drilling, reworking or other operations (including secondary recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days, and so long thereafter as Unitized Substances are or can be produced in paying quantities from the Unitized Land. Termination under this paragraph shall be effective as of the first day of the month after the Unit Operator determines, on confirmatory data satisfactory to the Director, that Unitized Substances are no longer being produced in paying quantities from the Unitized Land.

This Agreement may be terminated by Working Interest Owners owning ninety (90%) percent Unit Participation at any time for any other reason with the approval of the Director and the Commission. Notice of any such termination shall be given by Unit Operator to all parties hereto.

Upon termination of this Agreement, Unit Operations shall cease, and thereafter the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate tracts.

If not otherwise covered by the leases unitized under this Agreement, Royalty Owners hereby grant Working Interest Owners a period of six (6) months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations.

SECTION 25. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State statute. The Director is hereby vested with authority to alter or modify from time to time, in his discretion, the rate of prospecting and development and within the limits made or fixed by the Commission to alter or modify the quantity and rate of production under this Agreement, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification; provided, further, that no such alteration or modification shall be effective as to any privately owned lands subject to this Agreement as to the quantity and rate of

production in the absence of specific written approval thereof by the Commission.

Powers in this Section vested in the Director shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice.

SECTION 26. NON-DISCRIMINATION. In connection with the performance of work under this Agreement, the operator agrees to comply with all of the provisions of Section 202, (1) to (7) inclusive, of Executive Order 11246 (30 F.R. 12319), which are hereby incorporated by reference in this Agreement.

SECTION 27. APPEARANCES. Unit Operator shall have the right to appear for or on behalf of any and all interests affected hereby before the Department, and the Commission, and to appeal from any order issued under the rules and regulations of the Department or the Commission, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Department or the Commission, or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his or its own expense to be heard in any such proceeding.

SECTION 28. NOTICES. All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

SECTION 29. NO WAIVER OF CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State wherein said Unitized Lands are located, or rules or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive.

SECTION 30. EQUIPMENT AND FACILITIES - FIXTURES ATTACHED TO REALTY. Each Working Interest Owner has heretofore placed and used on its Tract or Tracts committed to this Agreement various well and lease equipment and other property, equipment and facilities. It is also recognized that additional equipment and facilities may hereafter be placed and used upon the Unit Area as now or hereafter constituted. Therefore, for all purposes of this Agreement, any and all such equipment shall be considered to be personal property and not fixtures attached to realty. Accordingly, said well and lease equipment and personal property is hereby severed from the mineral estates affected by this Agreement; and it is agreed that any and all such equipment and personal property shall be and remain personal property for all purposes.

SECTION 31. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue secondary recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while, but only so long as, the Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, acts of God Federal, State or municipal

law or agency, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 32. LOSS OF TITLE. In the event title to the Working Interest in any Tract of Unitized Land shall fail so as to render the Tract inoperable under this Agreement and the true owner cannot be induced to join this Unit Agreement, such Tract shall be automatically regarded as not committed hereto effective as of 7 a.m. on the first day after such title failure is determined and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title as to any Royalty, Working Interest or other interest subject thereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided that, as to Federal land or leases, no payments of funds due the United States of America shall be withheld, but such funds shall be deposited as directed by the Supervisor, to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

Unit Operator as such is relieved from any responsibility for any defect or failure or any title hereunder.

SECTION 33. NON-JOINDER AND SUBSEQUENT JOINDER. Joinder by any Royalty Owner or Lessee of Record, at any time, must be accompanied by appropriate joinder of the corresponding Working Interest Owner in order for the interest of such Royalty Owner or Lessee of Record to be regarded as effectively committed.

Joinder to the Unit Agreement by a Working Interest Owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement in order for such interest to be regarded as committed to this Unit Agreement.

Any oil or gas interest in the Unitized Formation underlying the Unit Area not committed hereto prior to submission of this Agreement to the Director for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Section and of Section 14 (Tracts Qualified for Unit Participation) hereof, at any time up to the effective date hereof on the same basis of participation as provided in said Section 14, by the owner or owners thereof subscribing, ratifying, or consenting in writing to this Agreement and, if the interest is a Working Interest, by the owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that from and after the effective date hereof the right of subsequent joinder by a Working Interest Owner, as provided in this Section, shall be governed by the provisions of Section 4 (Expansion) and of Section 13 (Tract Participation). Except as may be otherwise herein provided, subsequent joinder by a Royalty Owner pursuant to this Section shall be effective as of 7 a.m. of the first day of the month following the filing with the Supervisor for approval of duly executed counterparts of any and all documents necessary to establish effective commitment of his interest to this Agreement.

SECTION 34. OIL IN LEASE TANKAGE ON EFFECTIVE DATE. Unit Operator shall make a proper and timely gauge of all tanks on Unitized Land in order to ascertain the amount of merchantable oil above the pipe line connection in such tanks as of 7 a.m. on

the effective date hereof. All such oil which has then been produced legally shall be and remain the property of the Working Interest Owner entitled thereto the same as if the Unit had not been formed; and such Working Interest Owner shall promptly remove said oil from the Unitized Land. Any such oil not so removed shall be sold by Unit Operator for the account of such Working Interest Owner, subject to the payment of all Royalty to Royalty Owners under the terms and provisions of the Unit Agreement and any applicable lease or leases and other contracts. The oil that is in excess of the prior allowable of the wells from which it was produced shall be regarded as Unitized Substances allocated to such Tract.

SECTION 35. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and may be ratified or consented to by separate instrument in writing specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above-described Unit Area.

SECTION 36. TAXES. Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the Unitized Land; provided, however, that if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes

shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No such taxes shall be charged to the United States or to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

SECTION 37. CONFLICT OF SUPERVISION. Neither the Unit Operator nor the Working Interest Owners, nor any of them, shall be subject to any forfeiture, termination or expiration of any rights hereunder or under any leases or contracts subject hereto, or to any penalty or liability on account of delay or failure in whole or in part to comply with any applicable provisions thereof to the extent that the said Unit Operator or the Working Interest Owners, or any of them, are hindered, delayed or prevented from complying therewith by reason of failure of the Unit Operator to obtain, in the exercise of due diligence, the concurrence of proper representatives of the United States and proper representatives of the State of New Mexico in and about any matters or things concerning which it is required herein that such concurrence be obtained. The parties hereto, including the Commission, agree that all powers and authority vested in the Commission in and by any provisions of this Agreement are vested in the Commission and shall be exercised by it pursuant to the provisions of the laws of the State of New Mexico and subject in any case to appeal or judicial review as may now or hereafter be provided by the laws of the State of New Mexico.

SECTION 38. NO PARTNERSHIP. It is expressly agreed that the relation of the parties hereto is that of independent contractors and nothing in this Agreement contained, express or implied, or any operations conducted hereunder, shall create

or be deemed to have created a partnership or association between the parties hereto or any of them.

SECTION 39. BORDER AGREEMENTS. Subject to the approval of the Supervisor, the Unit Operator, with concurrence of 75% of the voting interest of the Working Interest Owners, may enter into a border-protection agreement or agreements with the Working Interest Owners of adjacent lands along the exterior boundary of the Unitized Land with respect to the operations in the border area for the maximum ultimate recovery, conservation purposes and proper protection of the parties and interests.

SECTION 40. LIMITATION OF APPROVALS. Notwithstanding anything herein contained to the contrary, if no Federal lands are committed to this Agreement, then no consents or approvals provided herein shall be required of the Department, the Secretary, the Director, or the Supervisor, and it shall not be necessary to file any instrument hereunder with said officers or agencies unless and until Federal Lands are so committed to this Agreement; likewise, if no fee lands are committed to this Agreement, then no consents or approvals provided herein shall be required of the Commission, and it shall not be necessary to file any instrument hereunder with said office unless and until fee lands are so committed to this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and have set opposite their respective names the date of execution.

Attest:

Secretary

Date: _____

CONTINENTAL OIL COMPANY

By _____
Its _____

UNIT OPERATOR AND WORKING
INTEREST OWNER

ATTEST:

PAN AMERICAN PETROLEUM CORPORATION

Date: _____

By _____
Its _____

ATTEST:

THE ATLANTIC REFINING COMPANY

Date: _____

By _____
Its _____

STATE OF _____ X
COUNTY OF _____ X

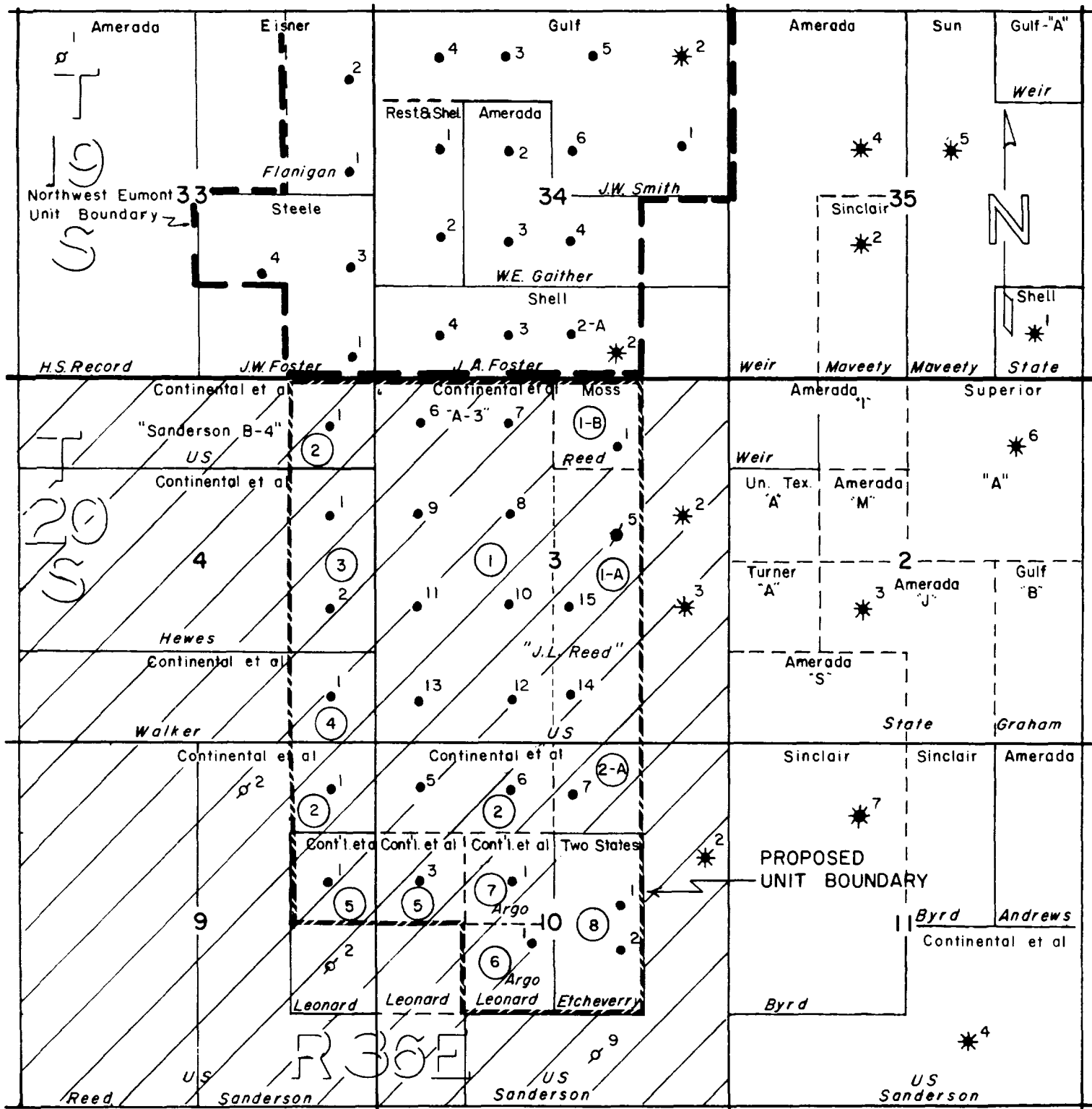
The foregoing instrument was acknowledged before me this
____ day of _____, 19____, by _____,
_____ of CONTINENTAL OIL COMPANY, a Delaware
corporation, on behalf of said corporation.

My Commission expires: _____
Notary Public, _____ County, _____

STATE OF _____ X
COUNTY OF _____ X

The foregoing instrument was acknowledged before me this
____ day of _____, 19____, by _____,
_____ of _____,
a _____ corporation, on behalf of said corporation.

My Commission expires: _____
Notary Public, _____ County, _____



CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT

HOBBS DISTRICT

REED-SANDERSON UNIT

Lea County, New Mexico

UNIT AREA

TRACT NUMBERS

SCALE
0 1000' 2000'

EXHIBIT A

EXHIBIT "B" TO UNIT AGREEMENT
REED-SANDERSON UNIT, LEA COUNTY, N. M.

Tract No.	Description of Land	No. of Acres	Serial No. & Exp. Date	Basic Royalty	Record Lessee	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage	Tract Participation (Percent)
1	Section 3 Lots 3 & 4 S/2 NW/4, SW/4 (T20S-R36E)	320.40	LC 030143(a) HBP	USA 12.5% J. L. Reed	(See Appendix Note #1)	Atl. Richfield Chevron Oil Co. Continental Oil Pan Am. Petro.	25.0 25.0 25.0 25.0	59.91898
1-A	Section 3 SW/4 NE/4 W/2 SE/4	120.00	LC 030143(a) HBP	USA Schedule C	J. L. Reed data	Atl. Richfield Chevron Oil Co. Continental Oil Pan Am. Petro.	25.0 25.0 25.0 25.0	8.91574
1-B	Section 3 Lot 2	40.27	LC 030143(a) HBP	USA Schedule C	J. L. Reed (See Appendix Note #2)	H. S. Moss	100.0	8.80272
2	Section 4, Lot 1 Section 9, NW/4 NE/4 Section 10, N/2 NW/4	160.16	LC 031622(b) HBP	USA 12.5% Helen Thompson Sanderson	None	Atl. Richfield Chevron Oil Co. Continental Oil Pan Am. Petro.	25.0 25.0 25.0 25.0	8.12698
2-A	Section 10, NW/4 NE/4	40.00	LC 031622(b) HBP	USA Schedule D	Helen Thompson Sanderson None	Atl. Richfield Chevron Oil Co. Continental Oil Pan Am. Petro.	25.0 25.0 25.0 25.0	8.65722
3	Section 4, NW/4 NE/4, SW/4 SE/4	80.00	HBP	(See Appendix A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ)	2.19263			

Five Federal tracts containing 680.89 acres or 65.41% of the Unit Area

Reed-Sanderson Unit
Exhibit "B"
Page 2

Tract No.	Description of Land	No. of Acres	Serial No. & Exp. Date	Basic Royalty	Record Lessee	Overriding Royalty Owner & Percentage	Working Interest and Percentage	Owner	Tract Partic- pation (Percent)
4	Section 4, <u>SE/4 SE/4</u>	40.00	HBP	(See Appendix Note 5)	Atlantic Richfield Chevron Oil Co. Continental Oil Pan Am. Petroleum	None	Atl.Richfield Chevron Oil Continental Oil Pan Am. Petro	25.0 25.0 25.0 25.0	1.88640
5	Section 9, <u>SE/4 NE/4</u> Section 10, <u>SW/4 NW/4</u>	80.00	HBP	(See Appendix Note #6)	Atlantic Richfield Chevron Oil Company Continental Oil Co. Pan Am. Petroleum	Apco 1.17187 J.H. Moore 0.39063	(See Appendix Note #7)	0.48881	
6	Section 10, <u>NE/4 SW/4</u>	40.00	HBP	(See Appendix Note #8)	Atlantic Richfield Chevron Oil Co. Continental Oil Pan Am. Petroleum	Apco 0.58594 J.H. Moore 0.19531	(See Appendix Note #9)	0.31137	
7	Section 10, <u>SE/4 NW/4</u>	40.00	HBP	Bradley Prod. Atlantic Richfield 3.12500% Chevron Oil Co. Atl.Richfld Continental Oil 0.62500% Pan Am. Petroleum Chase Manhattan Bank 11.87500% Ashland Oil & Refg. 3.12500%	None	Amerada Atl.Richfield Chevron Oil Continental Oil Pan Am. Petrol.	25.0 18.75 18.75 18.75 18.75	2.83730	
8	Section 10, <u>SW/4 NE/4</u> <u>NW/4 SE/4</u>	80.00	HBP	Josefa Etcheverry 4.16667% Mary Black 8.333333%	F. E. Vosburg	Gulf Oil Corp. 6.25000	Two States Oil Key States Oil Herman Crile	50.0 37.50 12.50	3.86180

APPENDIX TO EXHIBIT "B"

NOTE 1 - OVERRIDING ROYALTY OWNERSHIP UNDER TRACTS NO. 1 AND 1-A

Column A provides for an overriding royalty of 7-1/2% during the period or periods when the average production per well per day is more than 15 barrels on the entire leasehold or any part of the area thereof or any zone segregated for computation of royalties.

Column B provides for an overriding royalty of 5% during the period when the average production per well per day is 15 barrels or less on the entire leasehold or any part of the area or any zone segregated for computation of royalties.

<u>O. R. R. Owner</u>	<u>Col. A (%)</u>	<u>Col. B (%)</u>
Roy G. Barton	0.06250	0.04167
Continental Corporation	0.27300	0.18200
Hugh Corrigan	0.12500	0.08333
Rose Eaves	1.00000	0.66667
Elizabeth Hannifin	0.37500	0.25000
Donald L. Jones	0.25390	0.16927
Marjorie Cone Kastman, Guardian of the Estate of S. E. Cone	0.39062	0.26042
Harry Leonard	0.09375	0.06250
Mabel F. Leonard	0.09375	0.06250
Mabee Royalties, Inc	0.28125	0.18750
L. M. Mouser	0.04167	0.02778
Fary Ruth McCrory	1.00000	0.66667
W. E. Reed	1.00000	0.66666
O. L. Nislar	0.09766	0.06510
Hallie Carlton Posey	0.34766	0.23177
Robin Oil Company	0.72700	0.48466
Sabine Royalty Corporation	0.43750	0.29167
Sunshine Royalty Corporation	0.18750	0.12500
Hattie Cone Williams	0.37500	0.25000
J. H. Williams	0.16016	0.10677
W. A. Yeager & J. M. Armstrong	0.17708	0.11806
Total	7.50000	5.00000

NOTE 2 - OVERRIDING ROYALTY OWNERSHIP UNDER TRACT NO. 1-B

Column A provides for an overriding royalty of 7-1/2% during the period or periods when the average production per well per day is more than 15 barrels on the entire leasehold or any part of the area thereof or any zone segregated for computation of royalties.

Column B provides for an overriding royalty of 5% during the period when the average production per well per day is 15 barrels or less on the entire leasehold or any part of the area or any zone segregated for computation of royalties.

<u>O. R. R. Owner</u>	<u>Col. A (%)</u>	<u>Col. B (%)</u>
Roy G. Barton	0.06250	0.04167
Continental Corporation	0.27300	0.18200
Hugh Corrigan	0.12500	0.08333
Rose Eaves	1.00000	0.66667
Elizabeth Hannifin	0.37500	0.25000
Donald L. Jones	0.25390	0.16927
Marjorie Cone Kastman, Guardian of the Estate of S. E. Cone	0.39062	0.26042

NOTE 2 (Continued)

<u>C.R.S. Owner</u>	<u>Col. A (%)</u>	<u>Col. B (%)</u>
Harry Leonard	0.09375	0.06250
Mabel E. Leonard	0.09375	0.06250
Mabee Royalties, Inc.	0.28125	0.18750
J. M. Mouser	0.04167	0.02778
Mary Ruth McGroery	1.00000	0.66667
W. T. Reed	1.00000	0.66666
O. L. Nislar	0.09766	0.06510
Hallie Carlton Posey	0.34766	0.23177
Robin Oil Company	0.72700	0.48466
Sabine Royalty Corporation	0.43750	0.29167
Sunshine Royalty Corporation	0.13750	0.12500
Hattie Cone Williams	0.37500	0.25000
J. H. Williams	0.16016	0.10677
W. A. Yeager and J. M. Armstrong	0.17708	0.11806
Atlantic Richfield Company	1.25000	1.25000
Chevron Oil Company	1.25000	1.25000
Continental Oil Company	1.25000	1.25000
Pan American Petroleum Corp.	1.25000	1.25000

NOTE NO. 3 - BASIC ROYALTY UNDER TRACT NO. 3

Alfred E. Cooper	0.03906
G. H. Vaughn, Jr. and J. C. Vaughn, Trustees U/W of G. H. Vaughn	0.97656
June D. Speight	1.36719
Lon Salter Cooper Allan	0.03906
G. H. Vaughn, Jr.	0.48828
Jack C. Vaughn	0.48828
Margaret K. Hunker	0.19531
Estate of Frank Hewes	0.19531
Jim Hewes	1.75781
Charles B. Read	0.39063
Lee Carter	1.56250
John H. Ware	0.19531
Guy H. Hooper	0.39063
Mildred A. Wright	0.46875
Laura Kaempf	0.11719
Hazel Bruggman, Noble C. Enfield and Jessie LaCosta	0.01953
Bertha M. Rightmire and Elizabeth E. Wright	0.03906
Kenneth E. Wise and Georgia Wise	0.01953
Cecil E. Rooks and Ruby B. Rooks	0.03906
Howard V. Kratz and Bernice L. Kratz	0.01953
Edward H. Swasand	0.03906
Joseph W. McBride and Agnes J. McBride	0.07813
Lawrence C. Brua	0.01953
Andrew Berkedal	0.01953
Myrtle V. Madson	0.05860
Albert Esten	0.19531
Edward F. Hindman	0.15625
Ethel Hard Wring	0.13199
Frances Hard Kincer	0.13199
George Hard	0.13199
Jimmie Sue Hoge	0.13199
Margaret Hard Clement	0.13199
Ruby Hard	2.18277
Marion Ford	0.15030
Mary Belle Hard	0.13199

12.50000%

NOTE NO. 4 - OVERRIDING ROYALTY UNDER TRACT NO. 3

Guy H. Hooper and Mabel S. Hooper	0.195313
Ethel Hard Wring	0.065994
Frances Hard Kincer	0.065994
George Hard	0.065994
Jimmie Sue Hoge	0.065994
Margaret Hard Clement	0.065994
Ruby Hard	1.091385
Marian Hard	0.075150
G. H. Vaughn, Jr. and J. C. Vaughn, Tr. U/W G. H. Vaughn	0.488281
Mary Belle Hard	0.065994
G. H. Vaughn, Jr.	0.244141
Jack C. Vaughn	0.244141
	<u>2.734375%</u>

NOTE NO. 5 - BASIC ROYALTY UNDER TRACT NO. 4

Main Street Holding	6.250000
J. Hiram Moore	1.562500
Charles B. Read	0.390625
H. Dillard Schenck	0.390625
J. F. Simmons	0.781250
June D. Speight	3.125000
	<u>12.500000%</u>

NOTE NO. 6 - ROYALTY INTEREST UNDER TRACT NO. 5

Tenneco Oil Company	6.25000
Sunshine Royalty Company	6.25000
T. J. Jefferies	2.34376
Elizabeth Woolworth	1.30208
May Woolworth	1.62760
W. M. Beauchamp	3.12500
Martha Watkins Harris	0.32552
Myrtle Dean Watkins	0.32552
Mrs. Clyde W. Miller	0.32552
	<u>21.87500%</u>

NOTE NO. 7 - WORKING INTEREST OWNERSHIP UNDER TRACT NO. 5

Apco Oil Company	34.37500
Atlantic Richfield Company	15.62500
Chevron Oil Company	15.62500
Continental Oil Company	15.62500
J. H. Moore	3.12500
Pan American Petroleum Corporation	15.62500
	<u>100.00000%</u>

NOTE NO. 8 - BASIC ROYALTY UNDER TRACT NO. 6

Ashland Oil & Refining Company	1.56250
Bradley Production Corporation	1.56250
T. J. Jefferies	1.17188
Tenneco Oil Company	3.12500

NOTE NO. 8 (Continued)

H. L. Lowe	1.56250
Sunshine Royalty Company	3.12500
Atlantic Richfield Company	0.31250
The Chase Manhattan Bank	5.93750
Est. of Mr. J. E. Watkins	0.48828
Elizabeth Woolworth	0.65104
May Woolworth	0.81380
	<u>20.31250%</u>

NOTE NO. 9 - WORKING INTEREST UNDER TRACT NO. 6

Amerada Oil Corporation	12.50000
Apco Oil Corporation	4.68750
Atlantic Richfield Company	17.18750
Chevron Oil Company	17.18750
Continental Oil Company	17.18750
H. L. Lowe	12.50000
J. H. Moore	1.56250
Pan American Petroleum Corporation	17.18750
	<u>100.00000%</u>

SCHEDULE OF PARTICIPATION PARAMETERS

PROPOSED REED-SANDERSON UNIT

<u>Operator</u>	<u>Lease</u>	<u>Tract No.</u>	<u>Tract Current Prod. 1-1-64 to 11-1-64</u>	<u>40 x Tract Share of Total Current Prod.</u>	<u>Tract Estimated Remaining Prim. Reserves as of 11-1-64</u>	<u>30 x Tract Share of Total Remaining Prim.</u>	<u>Tract Est. Ultimate Primary Prod.</u>	<u>30 x Tract Share of Total Ultimate Prim.</u>	<u>Tract % Participation</u>
Continental	Reed A-3	1	28,603	22.47824	513,448	20.89305	1,180,000	16.54769	59.91898
Continental	Reed A-3	1a	3,727	2.92894	64,071	2.60715	241,000	3.37965	8.91574
Moss	Reed	1b	3,959	3.11126	75,595	3.07609	186,500	2.61537	8.80272
Continental	Sanderson B	2	5,600	4.40087	21,093	0.85831	204,500	2.86780	8.12698
Continental	Sanderson B	2a	1,193	0.93755	26,098	1.06197	46,900	0.65770	2.65722
Continental	Hewes	3	1,755	1.37920	4,483	0.18242	45,000	0.63106	2.19268
Continental	Walker	4	1,202	0.94461	7,912	0.32195	44,200	0.61984	1.88640
Continental	Leonard	5	400	0.31435	-0-	0.00000	12,441	0.17446	0.48881
Continental	Argo Leonard	6	310	0.24362	-0-	0.00000	4,831	0.06775	0.31137
Continental	Argo et al	7	1,855	1.45779	13,603	0.55353	58,900	0.82598	2.83730
Two States	Etcheverry	8	2,295	1.80357	10,949	0.44553	115,000	1.61270	3.86180
TOTAL UNIT AREA			50,899	40.00000	737,252	30.00000	2,139,272	30.00000	100.00000

THE WESTERN COMPANY
GAMMATRON
Subsidiary of the Radiochemical Laboratory (RCL)

COMPANY: CONTINENTAL OIL COMPANY LOCATION
WELL: REED A-3 # 15
FIELD: EUMONT
COUNTY: LEA STATE: N. MEX.
LOCATION: 1980' FSL-2310' FEL SEC. 3, T-20-S, R-36-E
LOG NO. 4561

LOG MEAS. FROM: 10' ABOVE GROUND LEVEL ELEV. 3625
DRLG. MEAS. FROM: 10' ABOVE GROUND LEVEL ELEV. 3625
PERM. DATUM: GROUND LEVEL ELEV. 3615

TYPE OF LOG	G/R	N/N
RUN NO.	ONE	ONE
DATE	4-7-58	4-7-58
TOTAL DEPTH (DRILLER)	4000	4000
EFFECTIVE DEPTH (DRILLER)	3995	3995
EFFECTIVE DEPTH (WESTERN)	3995	3995
TOP OF LOGGED INTERVAL	SURF.	SURF.
BOTTOM OF LOGGED INTERVAL	3982	3993.5
TYPE OF FLUID IN HOLE	OIL	OIL
FLUID LEVEL	FULL	FULL
SOURCE STRENGTH & TYPE		S10A3
SOURCE SPACING		13.5
DETECTOR CLASS	SCINT.	SCINT.
DETECTOR TYPE	D4G1	D6N1
DETECTOR LENGTH	4	4
O.D. OF INSTRUMENT IN.	3 5/8	3 5/8
TIME CONSTANT SEC.	2.0	2.0
LOGGING SPEED FT./MIN.	30-60	30-60
STATISTICAL VARIATION	RECORDED	RECORDED
SENSITIVITY REFERENCE	C-933	D-368
RECORDED BY	CARROLL	
WITNESSED BY	MR. ANDERSON	

BIT SIZE	CASING	WT. LB.	CASING RECORD		INTERVAL		FROM RA LOG
			FROM WELL RECORD	TO	TO	TO	
7 1/2	8 5/8		SURF.	TO 314		TO	
	5 1/2		SURF.	TO 3999		TO	
				TO		TO	
				TO		TO	

REMARKS

Reproduced By
West Texas Electrical Log Service

Dallas 2, Texas

REFERENCE A7670E

7 COMPLETION RECORD

SPUD DATE

COMP DATE

DST RECORD

CASING RECORD

PERFORATING RECORD

ACID. FRAC SHOT

IP

DCR

GR

TP

CP

REMARKS

Top of Queen

Top of Grayburg

RD3993.5
TD3995

CONTINENTAL OIL COMPANY
REED A-3 # 15
EUMONT
LEA CO., NEW MEXICO

GAMMA RAY

NEUTRON

RADIATION UNITS

ENVIRONMENTAL UNITS

EXHIBIT NO. 3

REED-SANDERSON UNIT - INJECTION WELL DATA

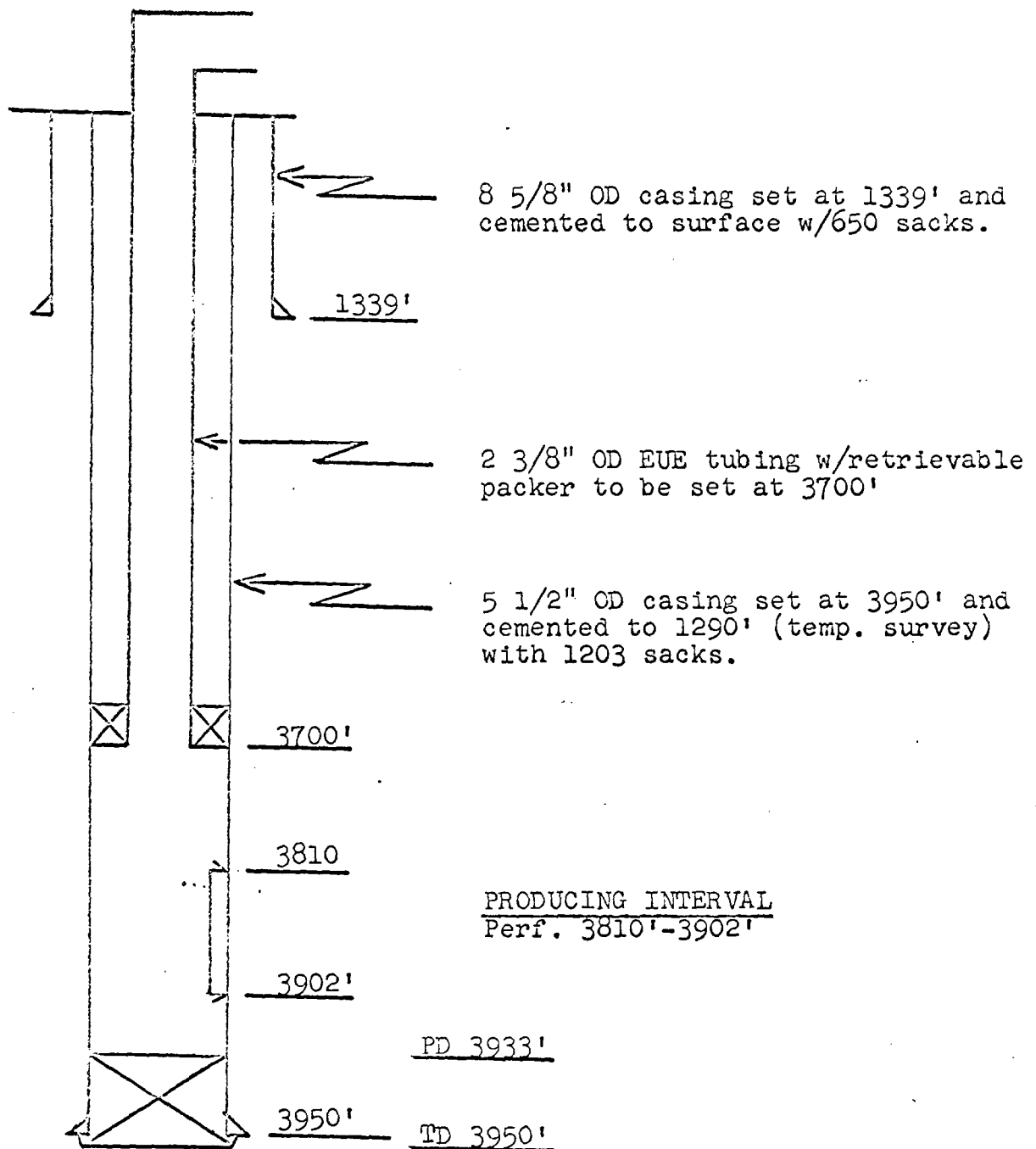
EXHIBIT 4

Company, Lease and Well No.	Total Depth and/or PBD	SURFACE CASING		PRODUCTION CASING		PRODUCING INTERVAL Perforations/OH		
		Size	Depth	Cement	Size		Depth	Cement
CONTINENTAL OIL COMPANY Reed A-3 No. 7 660'FNL&1980'FWL, Sec. 3-20-36	3950'/3933'	8 5/8"	1339'	650	5 1/2"	3950'	1203	3810'-3902'
Reed A-3 No. 9 1980'FNL&660'FWL Sec. 3-20-36	4010'/4000'	8 5/8"	1372'	600	5 1/2"	4009'	1402	3914'-36', 3946-78', 3988-98'
Reed A-3 No. 10 1980'FSL&FWL Sec. 3-20-36	3950'/3946'	8 5/8"	1334'	650	5 1/2"	3949'	1045	3806-46', 3862'-82', 3888-98', 3910-30'
Reed A-3 No. 13 660'FSL&660'FWL, Sec. 3-20-36	4000'/3992'	8 5/8"	334'	225	5 1/2"	3999'	1530	3793-3810, 3824-46', 3860-76', 3888-5, 30', 3944'-60', 3972-86'
Reed A-3 No. 14 660'FSL&2310'FEL Sec. 3-20-36	4000'	8 5/8"	318'	250	5 1/2"	3999'	1395	3784-3838', 3848'-82', 3892-3908', 3918-28', 3942-50'
Reed A-3 No. 16 (to be drilled) 1980'FNL&1980'FEL Sec. 3-20-36	3860'	7 5/8"	400'	250	4 1/2"	3860'	400	3790-3860' (overall)
Jim Hewes No. 2 1980'FSL &660'FEL Sec. 4-20-36	4100'/4092'	8 5/8"	343'	250	5 1/2"	4099'	1391	3866-98', 3908-24', 3929-38', 3972-84', 3989-4010', 4026-60'
Leonard No. 3 1980'FNL&660'FWL Sec. 10-20-36	4020'/4017'	8 5/8"	339'	250	5 1/2"	4019'	1225	3796-3805', 3811-27', 3910-14', 3920-75', 3980-98', 4006-14'
Argo Leonard No. 1 2310'FSL&FWL Sec. 10-20-36	4030'	8 5/8"	300'	200	5 1/2"	4029'	2300	3838-44', 3856-79', 3882-86', 3903-13 3918-30', 3946-48', 3958-62'
Sanderson B-1 No. 6 660'FNL&1990'FWL Sec. 10-20-36	4060'/3996'	8 5/8"	325'	225	5 1/2"	4059'	1439	3790-3800', 3810-34', 3870-86', 3902-08', 3917-24', 3928-32', 3954-75'
Sanderson B-4 No. 1 660'FNL&FEL Sec. 4-20-36	4100'/4090'	8 5/8"	322'	225	5 1/2"	4099'	1308	3894-3910', 3932-58', 4001-08', 4020-50', 4065'-79'
Sanderson B-9 No. 1* 660'FNL&660'FEL Sec. 9-20-36	10640'/4083'	13 3/8"	634'	650	7"	4099'	125	3950-65', 3981-4007', 4016-27', 4038-48'
TWO STATES Etcheverry Well No. 1 2510'FNL&1650'FEL Sec. 10-20-36	3894'	7 5/8"	243'	175	5 1/2"	3684'	250	OH 3684-3894'
Sanderson B-9 No. 1 also has intermediate casing - 9 5/8" set at 3360' w/1864 sacks cement.								

*Sanderson B-9 No. 1 also has intermediate casing - 9 5/8" set at 3360' w/1864 sacks cement.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 7
660' FNL & 1980' FWL Sec. 3-20-36
Elev.: BHF - 3616'
DF - 3626'

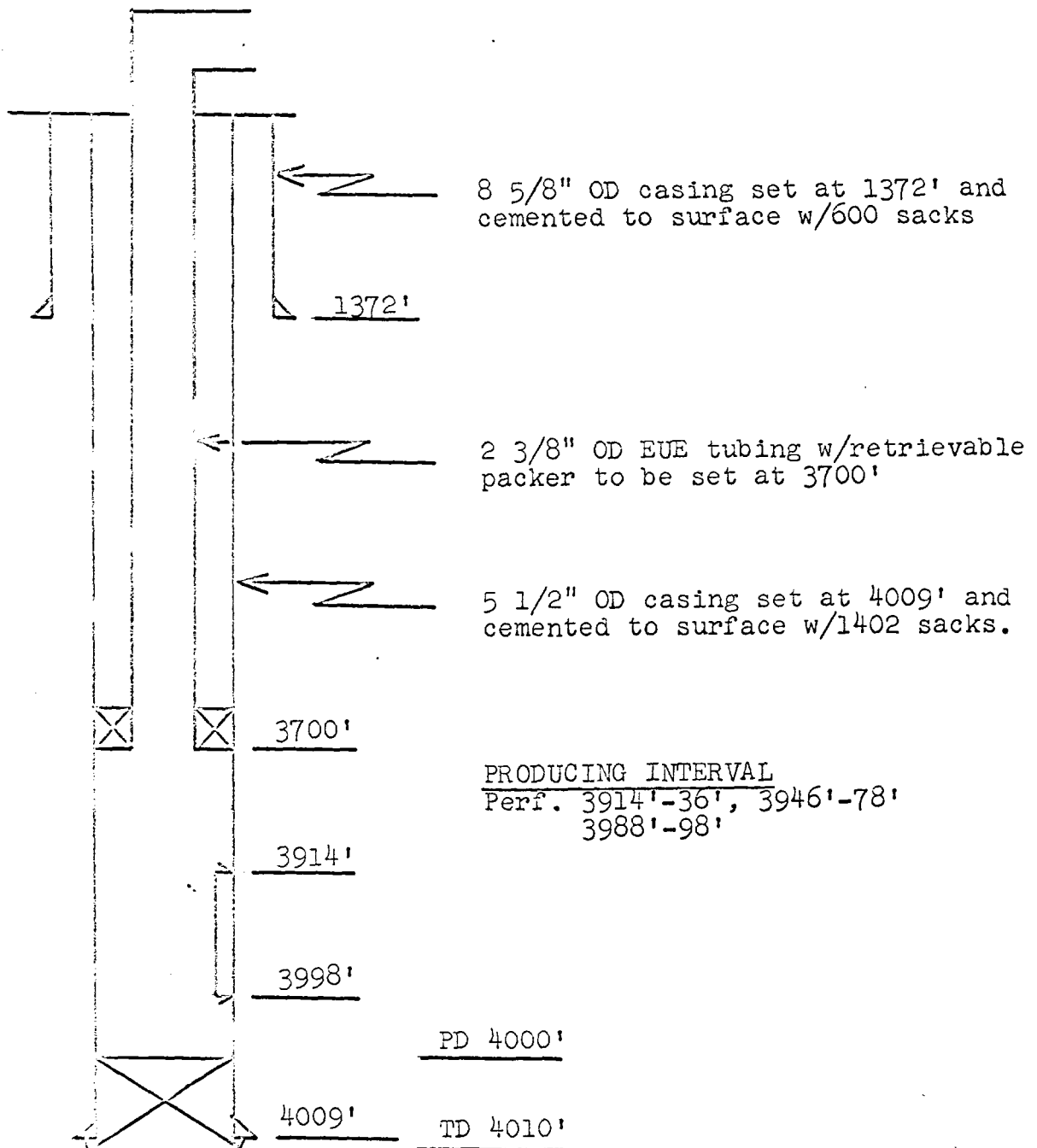


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3910'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 9
1980' FNL & 660' FWL Sec. 3-20-36
Elev.: BHF - 3621'
DF - 3631'

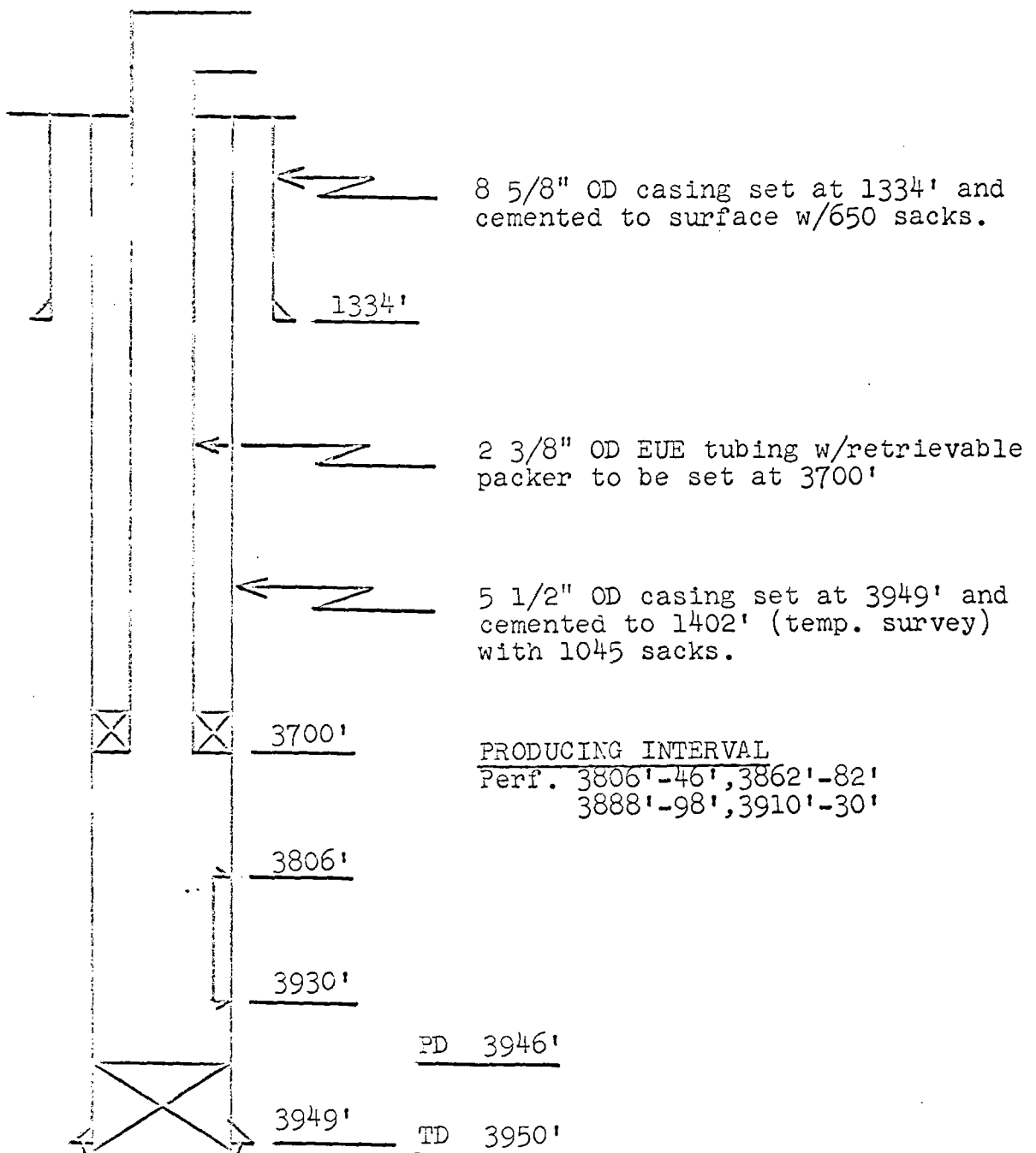


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to PD of 4000'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 10
1980' FSL & FWL Sec. 3-20-36
Elev.: BHF - 3616'
DF - 3626'

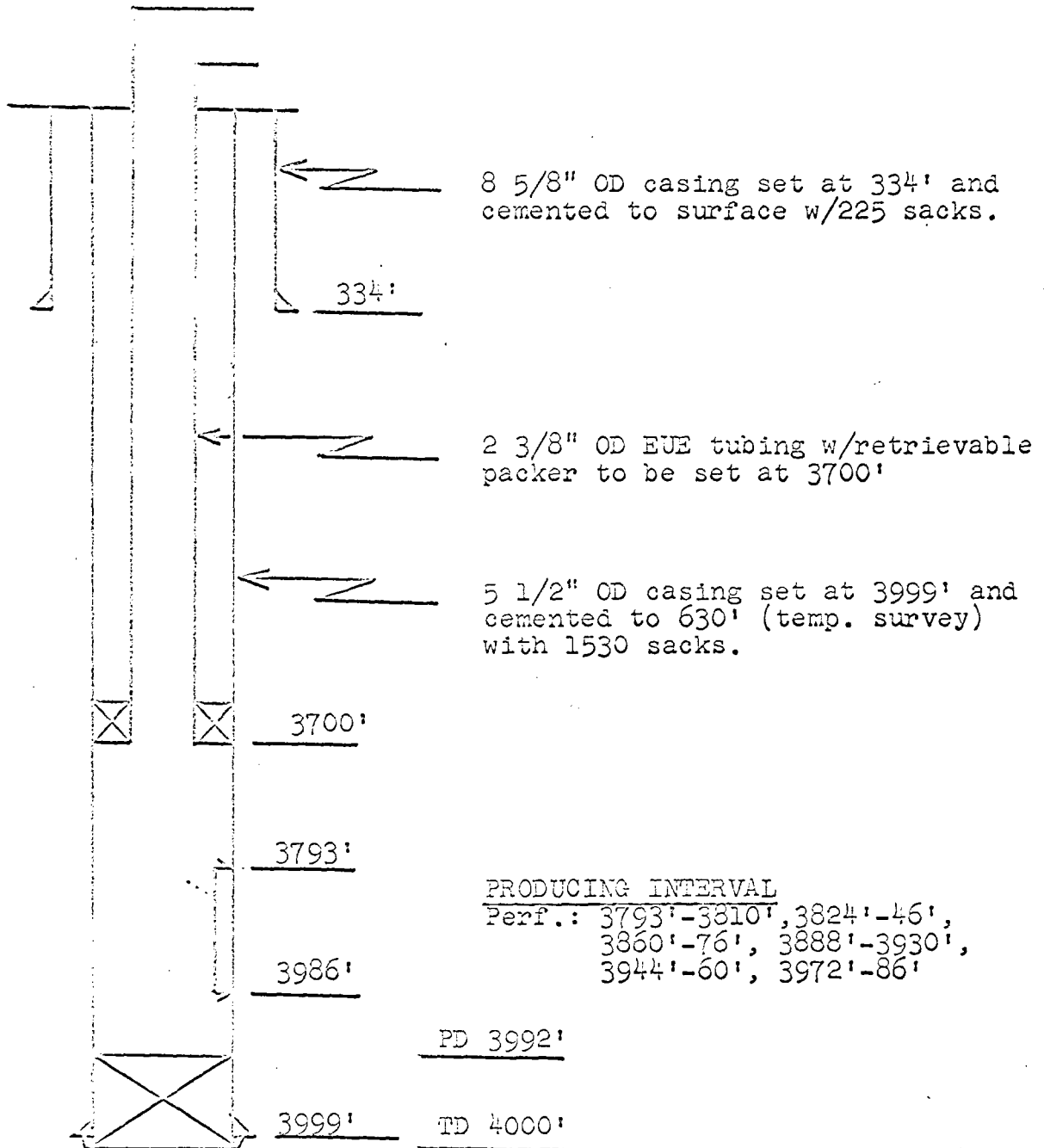


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3935'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 13
660' FSL & 660' FWL Sec. 3-20-36
Elev.: BHF - 3616'
DF - 3626'

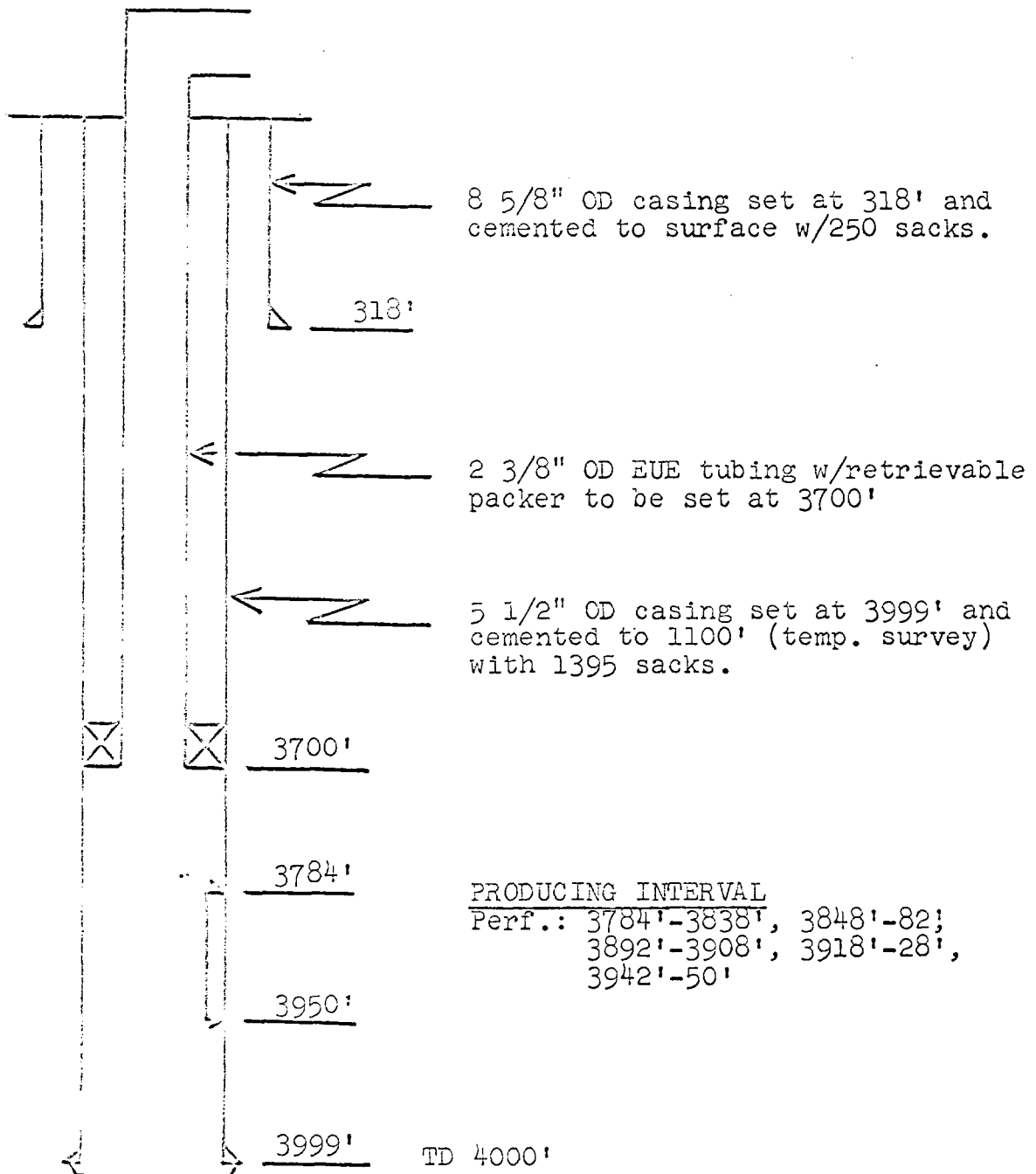


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to PD of 3992'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 14
660' FSL & 2310' FEL Sec. 3-20-36
Elev.: 3609' - BHF
3619' - DF

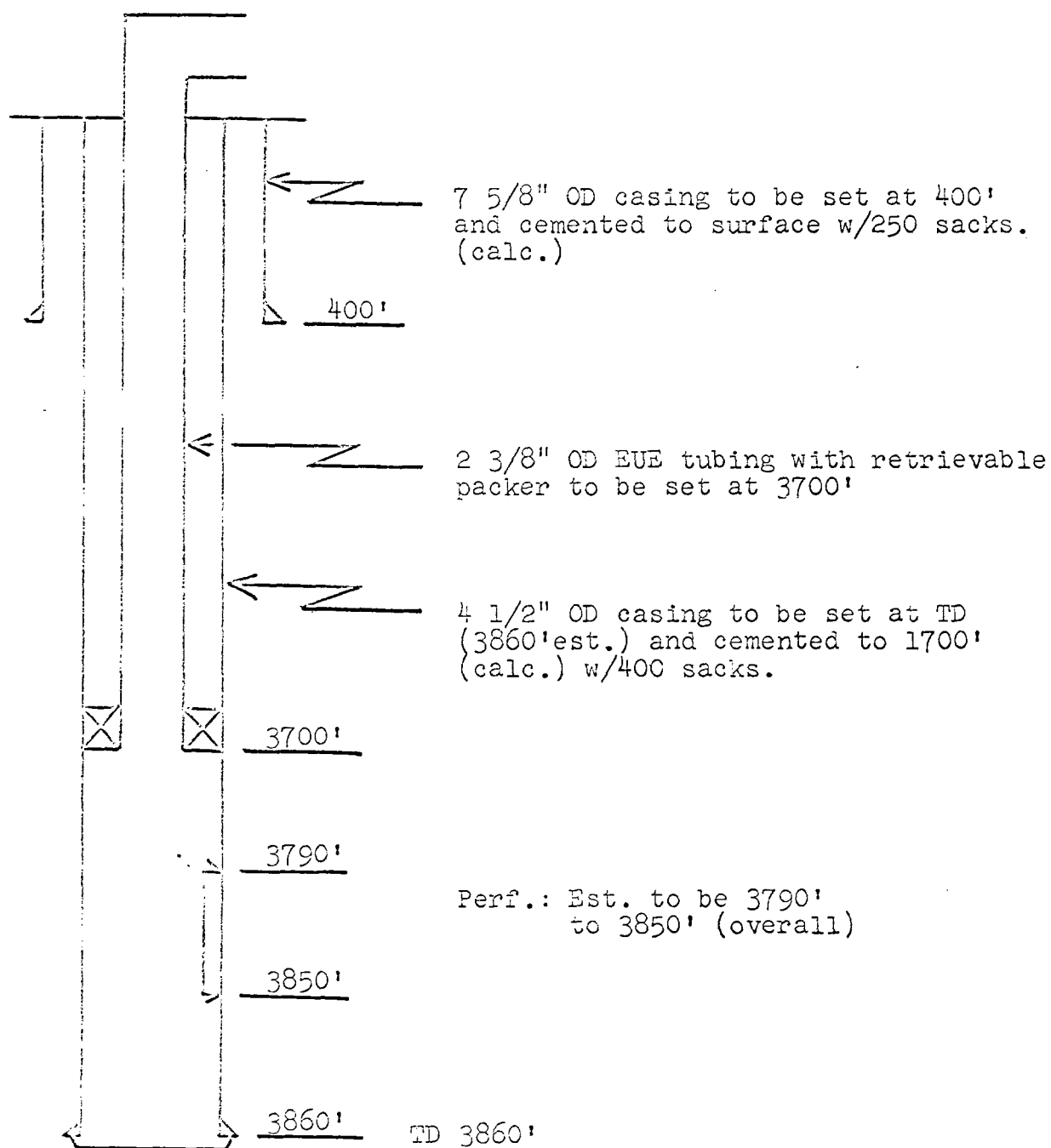


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3950'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 16
1980' FN&EL Sec. 3-20-36
(To Be Drilled)
Elev.: BHF - 3610' (E)
DF - 3620' (E)



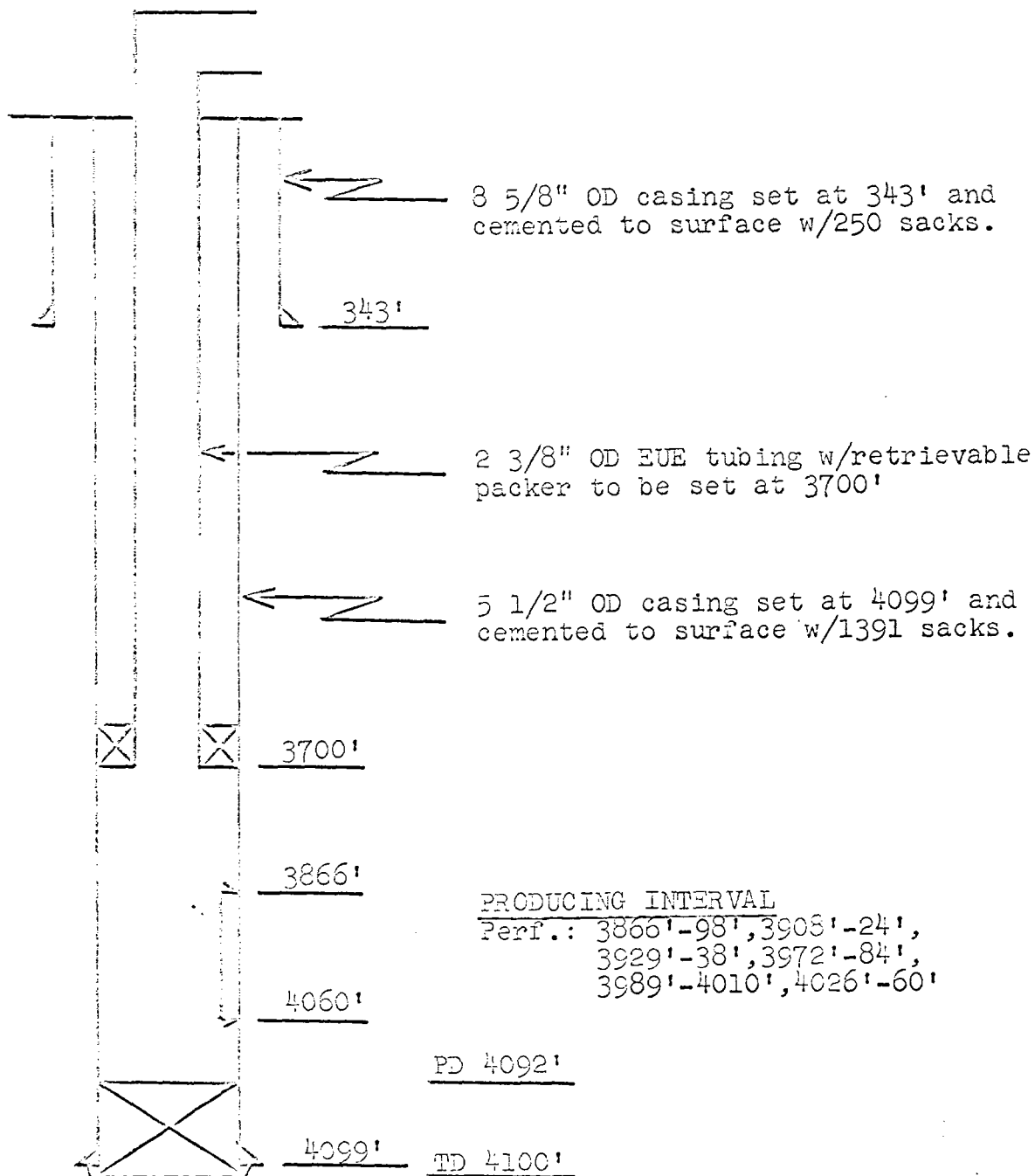
PROPOSED PROCEDURE

After well is completed (production string set
and pay zone perforated and stimulated).

1. Run tubing with retrievable packer to be
set 90' above top perforated zone (est.
3700').
2. Connect up well for injection down the
tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Jim Hewes No. 2
1980' FSL & 660' FEL Sec. 4-20-36
Elev.: BHF - 3625'
DF - 3635'

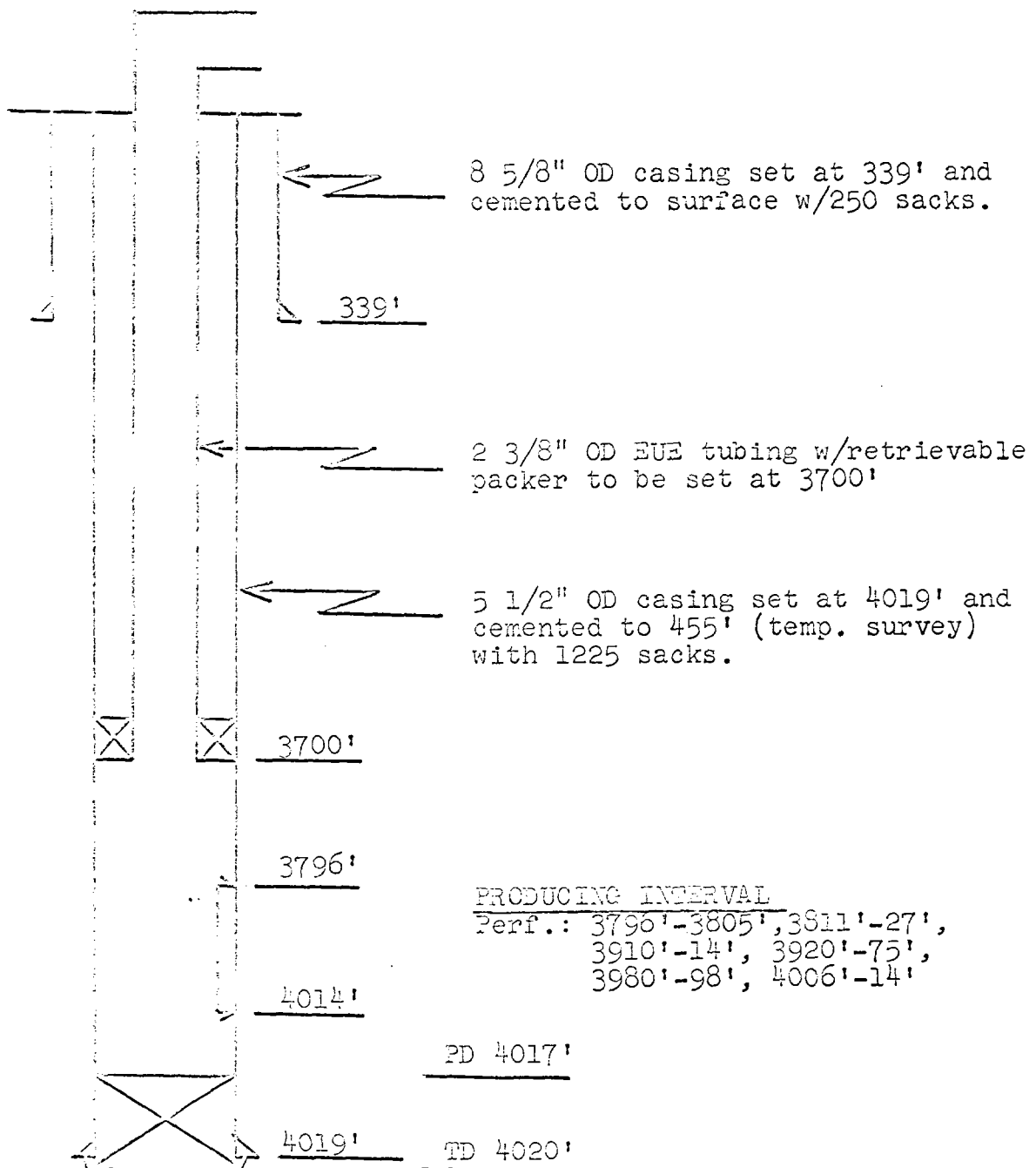


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 4065' (if necessary).
2. Run tubing w/retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Leonard No. 3
1980' FNL & 660' FWL Sec. 10-20-36
Elev.: BHF - 3598'
DF - 3608'

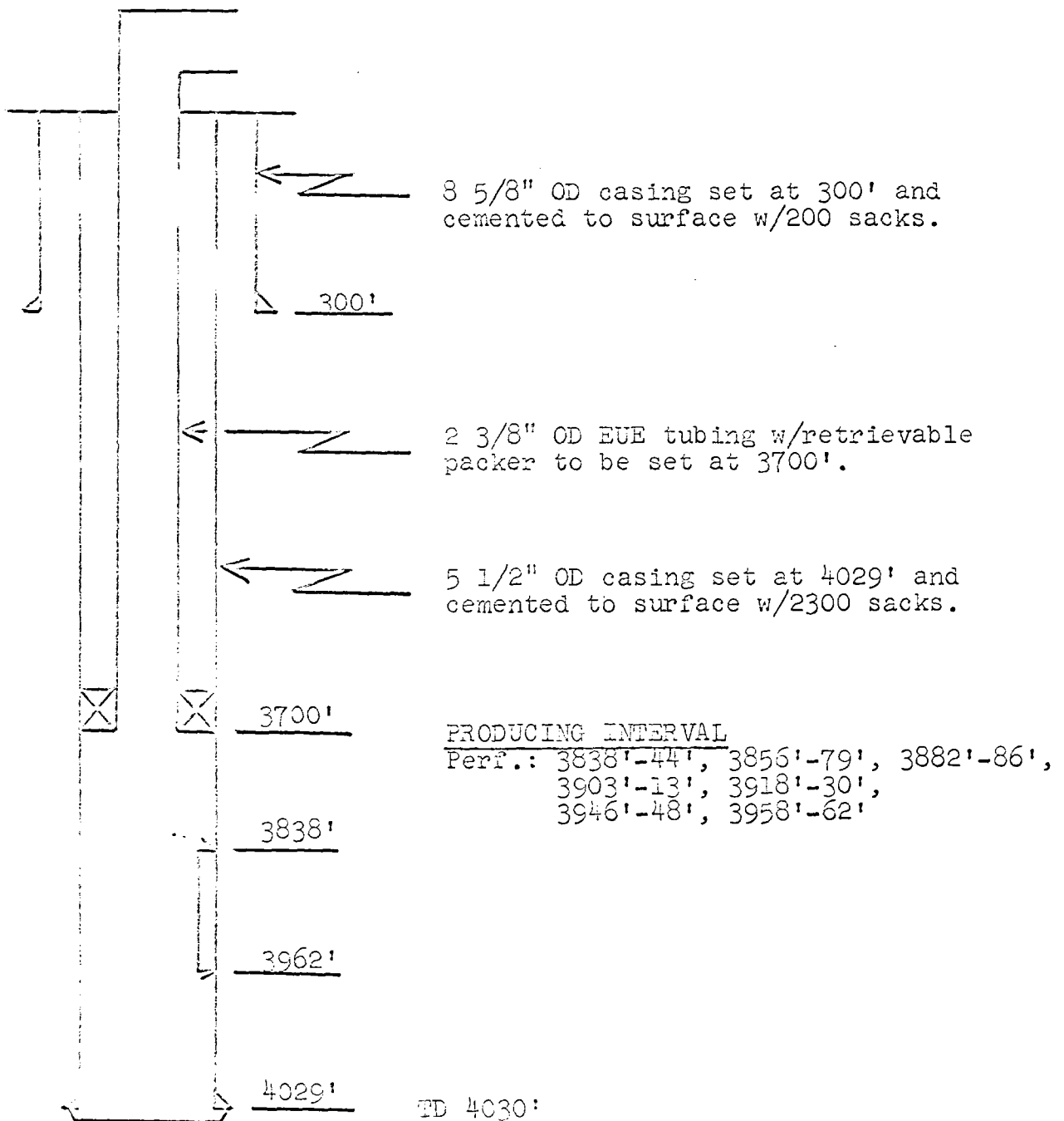


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to PD of 4017'.
2. Run tubing w/retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Argo Leonard No. 1
2310' FSL & 2310' FWL Sec. 10-20-36
Elev.: BHF - 3595'
DF - 3605'

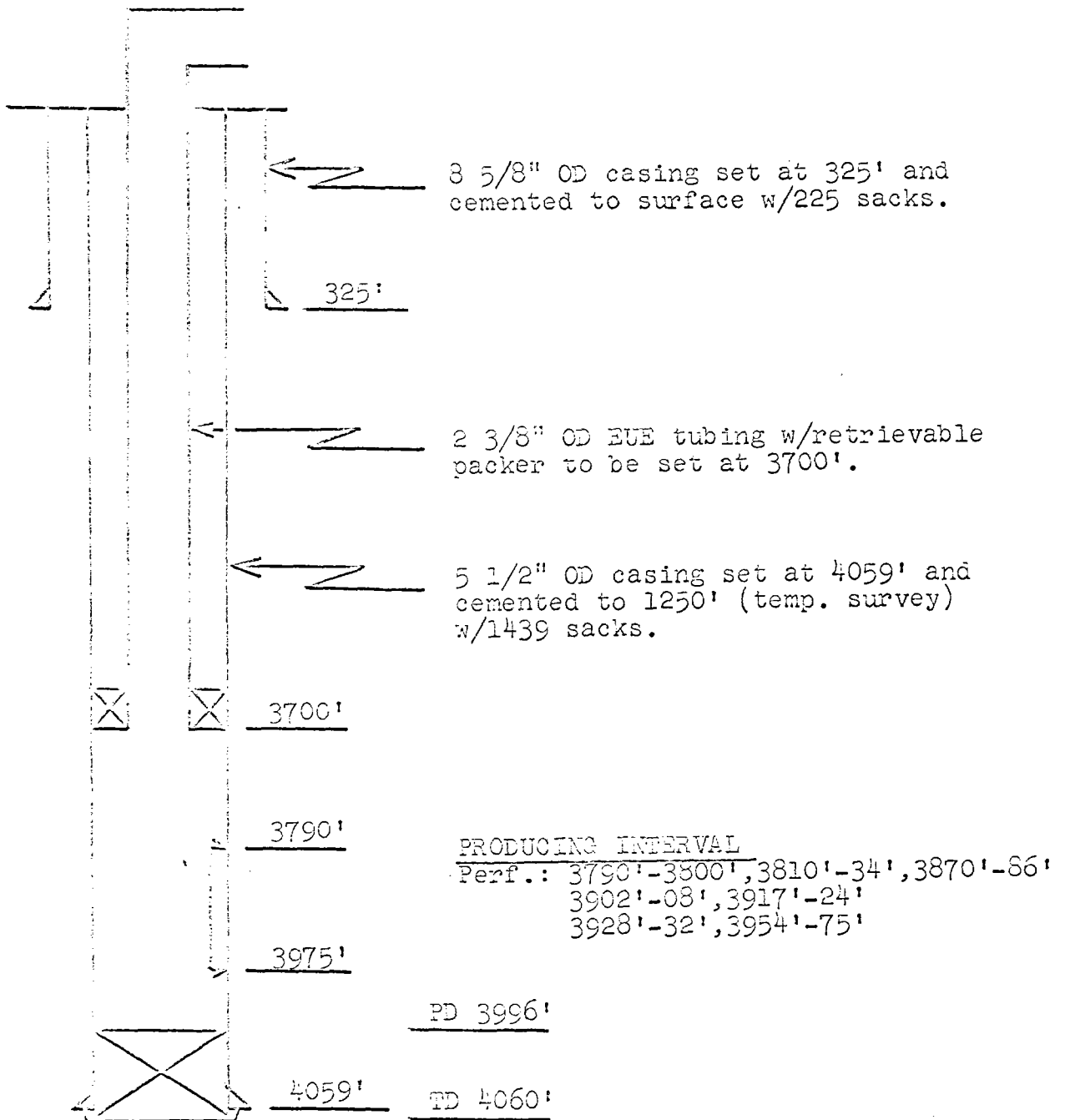


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3970'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Sanderson B-1 No. 6
660' FNL & 1990' FWL Sec. 10-20-36
Elev.: BHF - 3601'
DF - 3609'

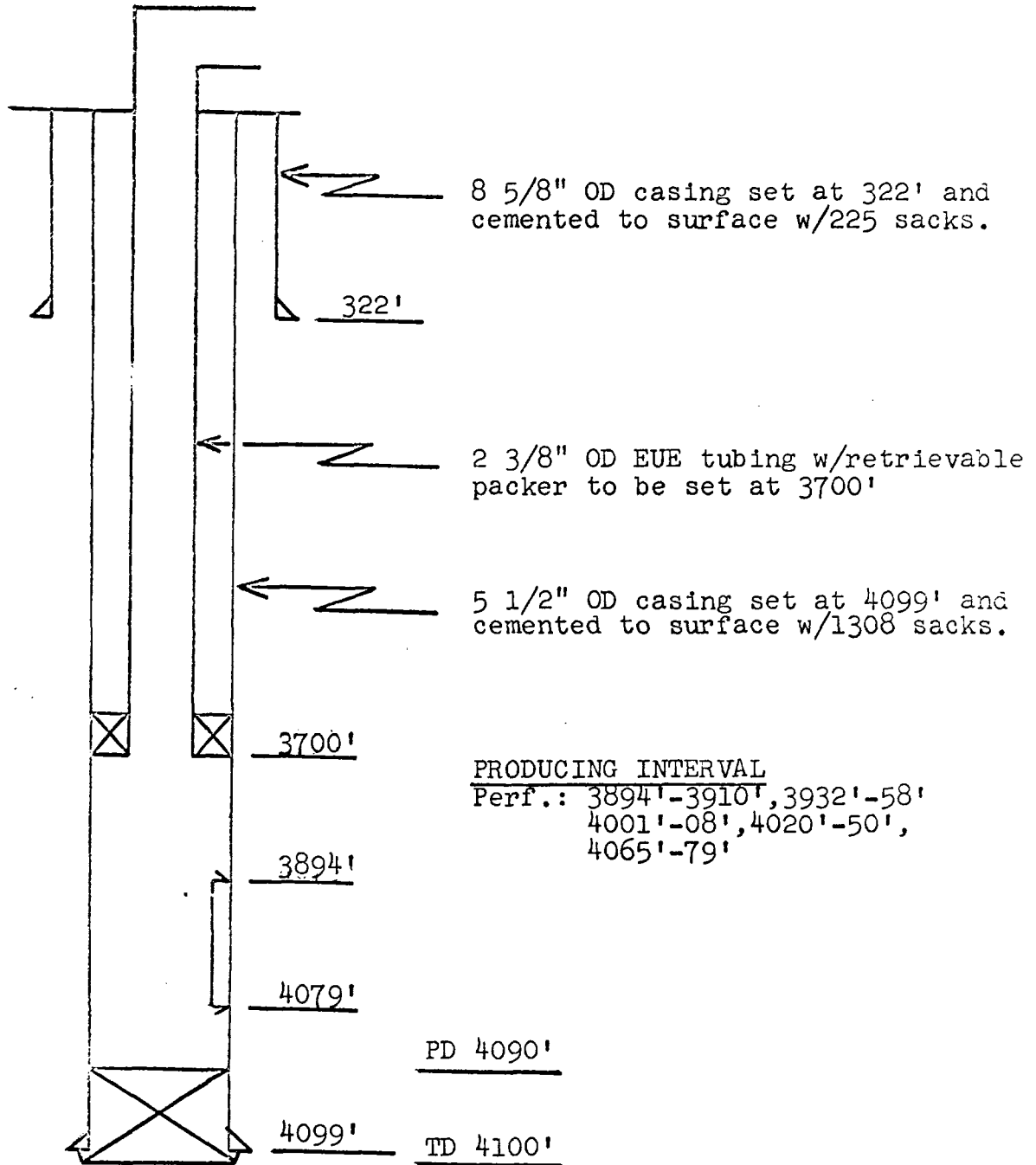


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3980'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Sanderson B-4 No. 1
660' FN&EL Sec. 4-20-36
Elev.: BHF - 3628'
DF - 3638'

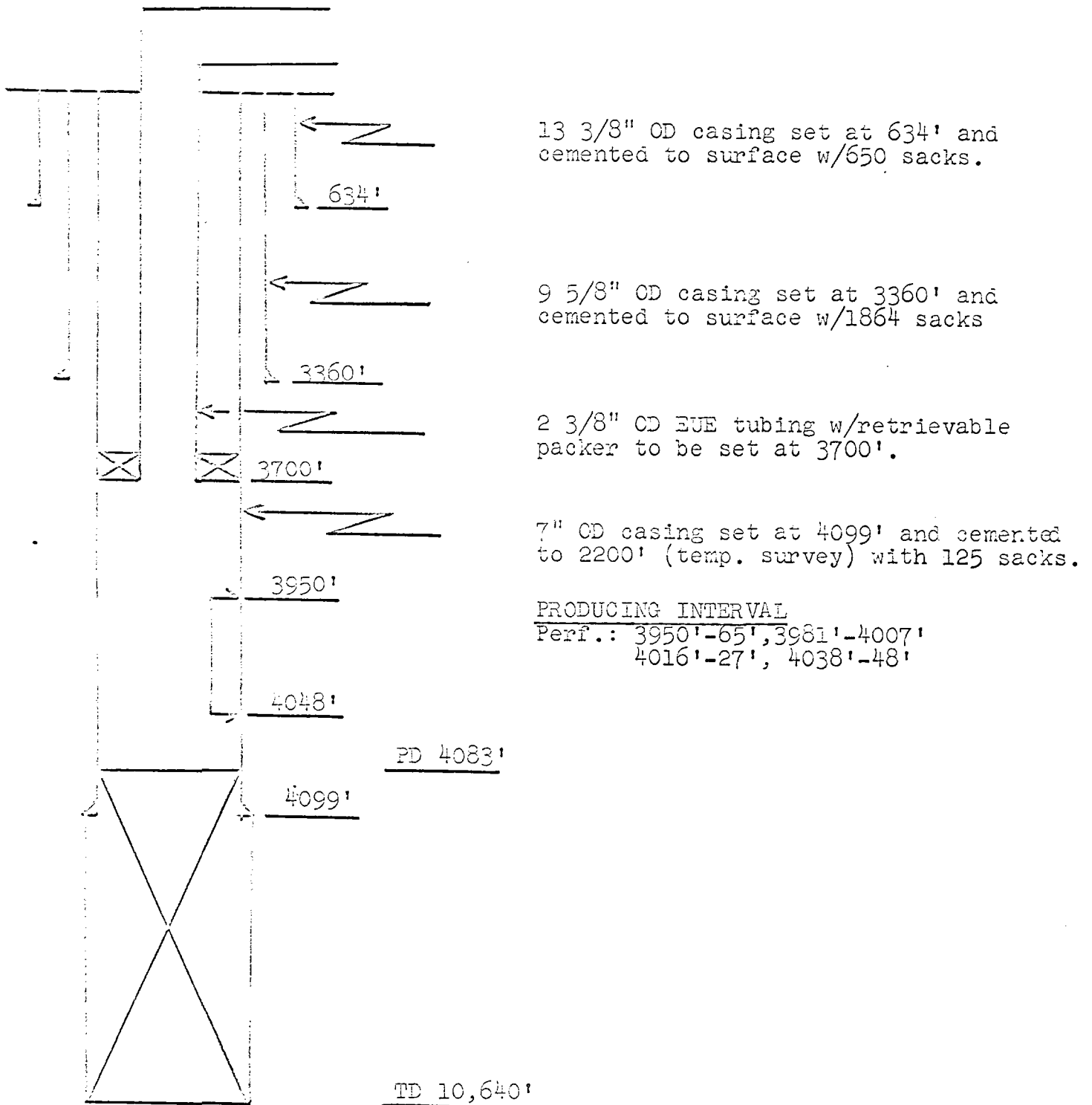


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 4085'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Sanderson E-9 No. 1
660' FNL & 660' FEL Sec. 9-20-36
Elev.: BHF - 3614'
DF - 3626'

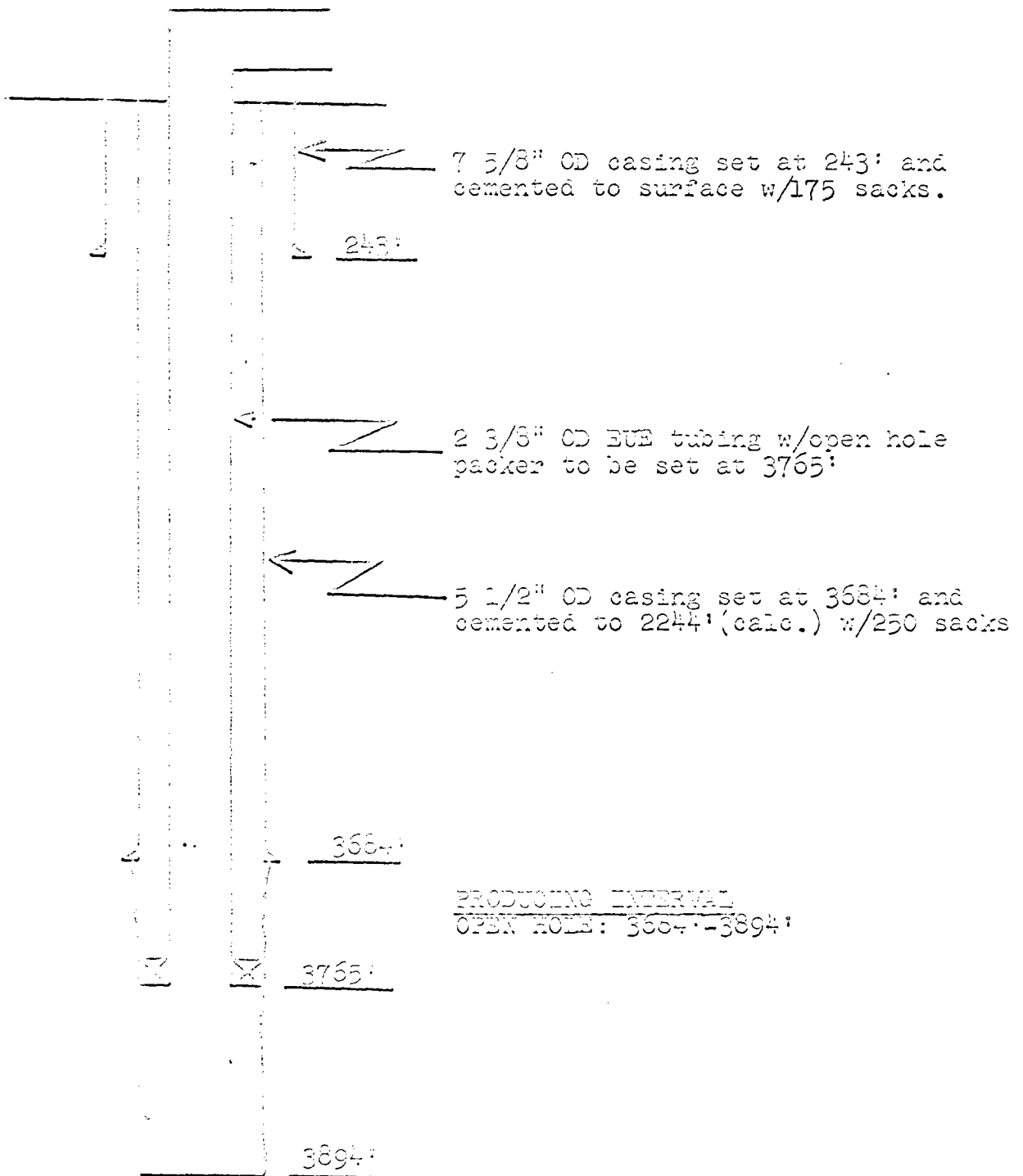


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 4055'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

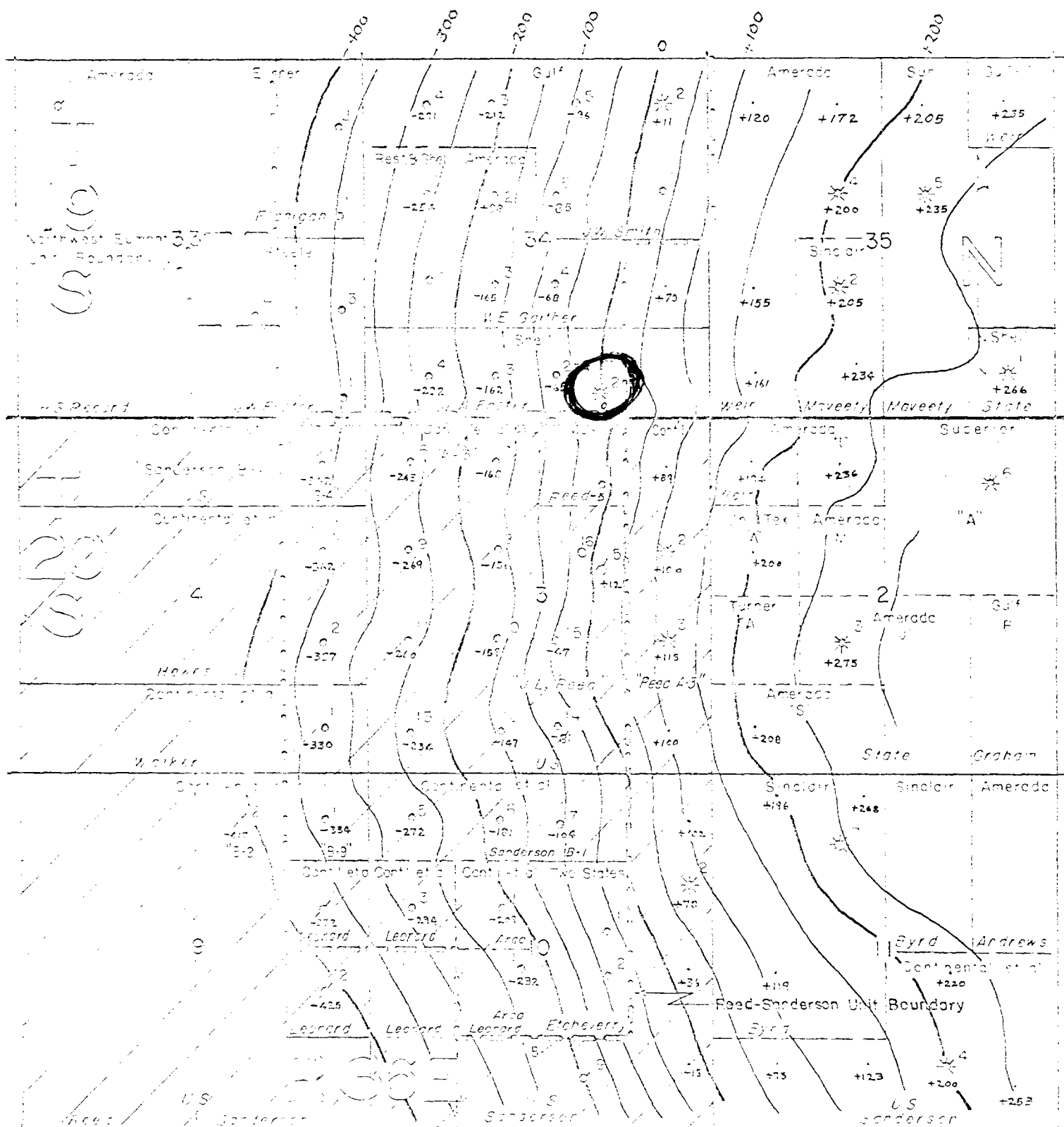
WATER INJECTION WELL DATA

Two States
Etcheverry No. 1
2310' FNL & 1650' FHL Sec. 10-20-36
Elev.: BEF - 3590'
DF - 3600'



PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3894'.
2. Run tubing with open hole packer to be set at approximately 3765' (-165').
3. Connect up well for injection down the tubing.



Only Eumont Yates, Seven Rivers, Queen (Oil)
and Eumont Queen (Gas) Wells Shown

CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT

HOBBS DISTRICT

EUMONT YATES, SEVEN RIVERS,

QUEEN OIL POOL

Lea County, New Mexico

REED-SANDERSON UNIT

LOWER QUEEN-PENROSE STRUCTURE MAP

Contour Interval: 50'

SUMMARY DATA SHEET

REED-SANDERSON UNIT

General

1. Area, Acres	1040.83
2. Number of Producing Oil Wells	24
3. Number of Plugged and/or Abandoned Wells	2
4. Cumulative Oil Production at 7-1-66, bbls.	1,483,403
5. Average Daily Oil Production Per Well, June 1966, bbls	5.2
6. Average Daily Water Production Per Well, June 1966, bbls	2.9
7. Average Gas-Oil Ratio, June 1966, CF/B	21,800
8. Estimated Life of Waterflood Operation, Years	10

Geological Data

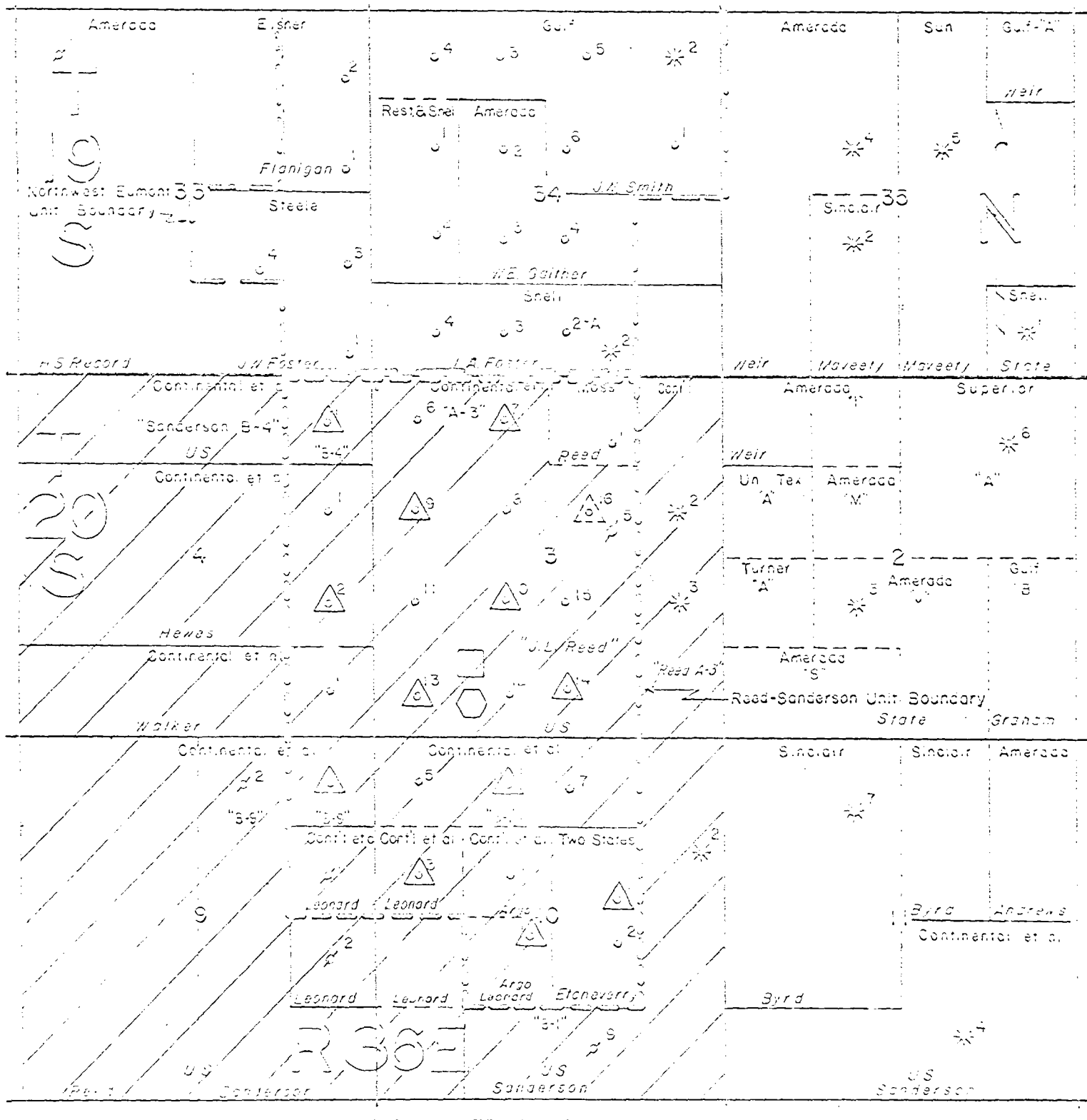
1. Producing Formation	Queen
2. Average Depth, Feet	3,875
3. Type Structure	Flank of Anticline
4. Estimated Gas-Oil Contact, Feet	-150
5. Primary Pore Volume Acre-Feet	14,354
6. Secondary Pore Volume, Acre-Feet	10,389

Reservoir Properties

1. Estimated Original Reservoir Pressure, psi	1,450
2. Estimated Reservoir Pressure, 1-1-67, psi	500
3. Average Rock Properties	
Porosity, Percent	15.4
Permeability (Air), Millidarcies	8.9
4. Reservoir Saturation	
Initial Water, Percent	37
Initial Reservoir Oil, Percent	63
Reservoir Oil Percent, 1-1-67	48.2
Residual Reservoir Oil, Percent (Swept Volume)	30
5. Reservoir Oil Properties	
Estimated Bubble Point Pressure, psi	1,450
Initial Formation Volume Factor	1.230
Waterflood Formation Volume Factor	1.133
Initial Solution GOR, CF/B	499
Initial Oil Viscosity, cp	1.18
API Gravity, Crude	37
6. Estimated Original Stock Tank Oil in Place	
Barrels	8,784,600
Barrels per Acre-Foot	612

Reserves Estimates

1. Estimated Ultimate Primary Recovery, Bbls.	1,627,403
2. Estimated Remaining Primary, 1-1-67, Bbls.	120,000
3. Primary Recovery, Percent of ST Oil in Place 1-1-67	17.1
4. Estimated Waterflood Volumetric Sweep Efficiency	0.55
5. Estimated Waterflood Recovery	
Barrels ST Oil	1,090,000
Barrels ST Oil Per Acre Foot	105
Percent of Initial STO In Place	17.1
6. Estimated Secondary Recovery, ST Bbls. Oil	970,000



-LEGEND-

- Central Tank Battery
- Water Injection Plant
- Injection Well
- Injection Well To Be Drilled
- Unit Boundary

CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT

HOBBS DISTRICT

EUMONT YATES, SEVEN RIVERS,

QUEEN OIL POOL

Lea County, New Mexico

REED-SANDERSON UNIT

Only Eumont Yates, Seven Rivers, Queen (Oil)
and Eumont Queen (Gas) Wells Shown

SCALE
0 1000

EXHIBIT NO. 8

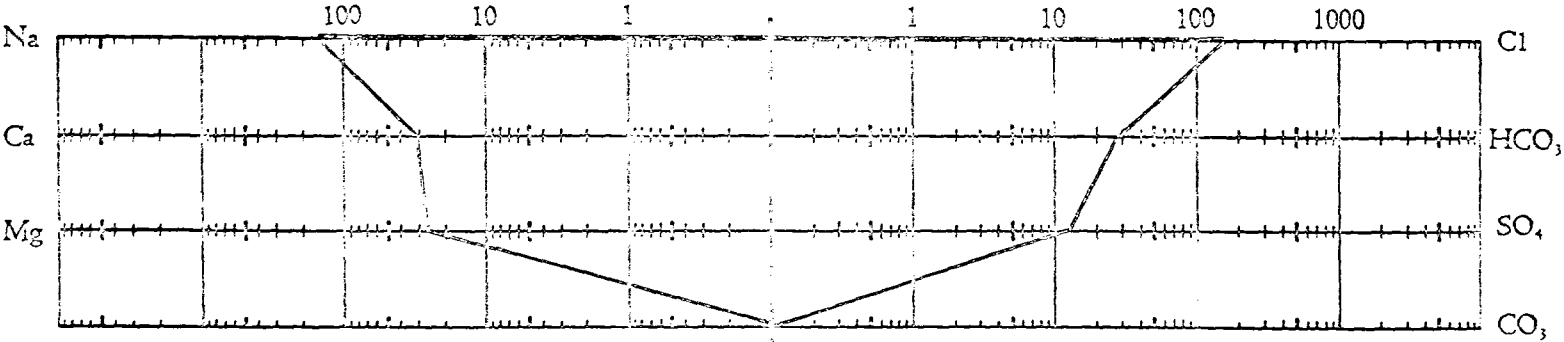
CONTINENTAL OIL COMPANY
PRODUCTION RESEARCH DIVISION
WATER ANALYSIS REPORT

RECEIVED
MAR 10 1966

Company Continental Oil Company Date March 1, 1966 No. W-6622
Well E-M-E SWD-I No. 1 Location _____
Field E-M-E SWD System Formation Mixture
State New Mexico County Lea Depth _____
Sample Source Wellhead Date Collected January 29, 1966

Specific Gravity	<u>1.009</u>	Resistivity at <u>73</u> °F	<u>.550</u> ohm Meters	pH <u>7.2</u>
	meq/L	mg/L (ppm)	meq/L	mg/L (ppm)
Total Dissolved Salts		<u>12,800</u>	Sodium (Na) . . .	<u>153.54</u> <u>3,530</u>
Hydrogen Sulfide		<u>330</u>		
Chlorides (Cl)	<u>166.11</u>	<u>5.890</u>	Magnesium (Mg) . .	<u>25.41</u> <u>305</u>
Sulfates (SO ₄)	<u>13.75</u>	<u>660</u>	Calcium (Ca) . . .	<u>30.40</u> <u>608</u>
Carbonates (CO ₃)		<u>0</u>	Ba	<u>0</u>
Bicarbonates (HCO ₃)	<u>29.18</u>	<u>1.780</u>	Iron (mg/L) Total	<u>0</u> Dissolved <u>0</u>
Free Hydroxyl (OH)			Suspended Solids . .	<u>23</u>

WATER ANALYSIS PATTERN
SCALE MEQ/LITER



Remarks: Sample No. 1 - Analysis for use in Reed Sanderson Unit waterflood

B. M. Casad
B. M. Casad
Supervisor
Production Chemistry Group

REED-SANDERSON UNIT - INJECTION WELL DATA

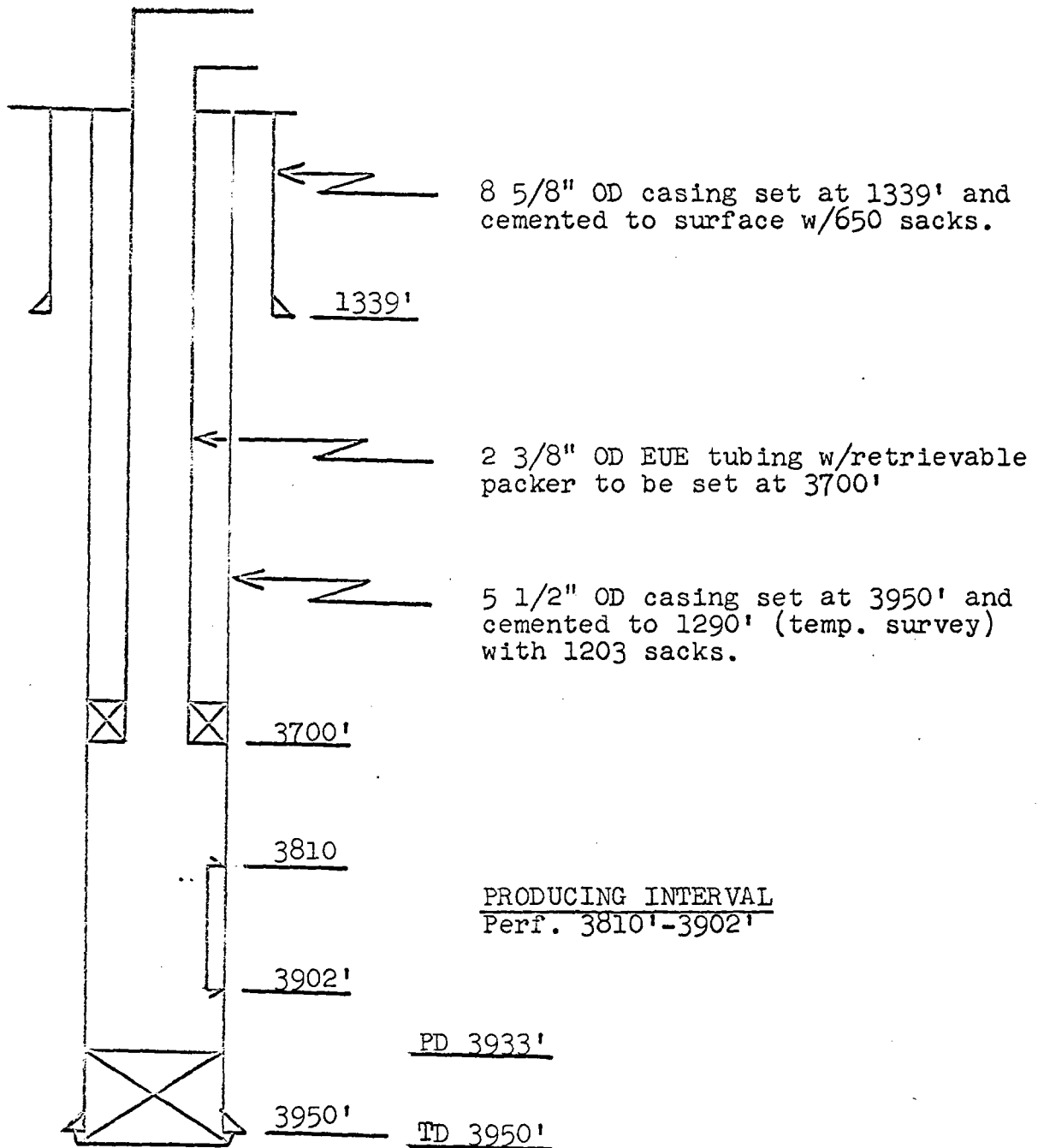
EXHIBIT 4

Company, Lease and Well No.	Total Depth and/or PBD	SURFACE CASING			PRODUCTION CASING			PRODUCING INTERVAL Perforations/OH
		Size	Depth	Cement	Size	Depth	Cement	
CONTINENTAL OIL COMPANY								
Reed A-3 No. 7 660' FNL&1980' FWL Sec. 3-20-36	3950' / 3933'	8 5/8"	1339'	650	5 1/2"	3950'	1203	3810'-3902'
Reed A-3 No. 9 1980' FNL&660' FWL Sec. 3-20-36	4010' / 4000'	8 5/8"	1372'	600	5 1/2"	4009'	1402	3914'-36', 3946-78', 3988-98'
Reed A-3 No. 10 1980' FSL&FWL Sec. 3-20-36	3950' / 3946'	8 5/8"	1334'	650	5 1/2"	3949'	1045	3806-46', 3862'-82', 3888-98', 3910-30'
Reed A-3 No. 13 660' FSL&660' FWL Sec. 3-20-36	4000' / 3992'	8 5/8"	334'	225	5 1/2"	3999'	1530	3793-3810, 3824-46', 3860-76', 3888-3930 3944-60', 3972-86'
Reed A-3 No. 14 660' FSL&2310' FWL Sec. 3-20-36	4000'	8 5/8"	318'	250	5 1/2"	3999'	1395	3784-3838', 3848'-82', 3892-3908', 3918-28', 3942-50'
Reed A-3 No. 16 (to be drilled) 1980' FNL&1980' FWL Sec. 3-20-36	3860'	7 5/8"	400'	250	4 1/2"	3860'	400	3790-3860' (overall)
Jim Hewes No. 2 1980' FSL & 660' FWL Sec. 4-20-36	4100' / 4092'	8 5/8"	343'	250	5 1/2"	4099'	1391	3866-98', 3908-24', 3929-38', 3972-84', 3989-4010', 4026-60'
Leonard No. 3 1980' FNL&660' FWL Sec. 10-20-36	4020' / 4017'	8 5/8"	339'	250	5 1/2"	4019'	1225	3796-3805', 3811-27', 3910-14', 3920-75', 3980-98', 4006-14'
Argo Leonard No. 1 2310' FSL&FWL Sec. 10-20-36	4030'	8 5/8"	300'	200	5 1/2"	4029'	2300	3838-44', 3856-79', 3882-86', 3903-13', 3918-30', 3946-48', 3958-62'
Sanderson B-1 No. 6 660' FNL&1990' FWL Sec. 10-20-36	4060' / 3996'	8 5/8"	325'	225	5 1/2"	4059'	1439	3790-3800', 3810-34', 3870-86', 3902-08', 3917-24', 3928-32', 3954-75'
Sanderson B-4 No. 1 660' FNL&FWL Sec. 4-20-36	4100' / 4090'	8 5/8"	322'	225	5 1/2"	4099'	1308	3894-3910', 3932-58', 4001-08', 4020-50', 4065'-79'
Sanderson B-9 No. 1* 660' FNL&660' FWL Sec. 9-20-36	10640' / 4083'	13 3/8"	634'	650	7"	4099'	125	3950-65', 3981-4007', 4016-27', 4038-48'
TWO STATES								
Etcheverry Well No. 1 2310' FNL&1650' FWL Sec. 10-20-36	3894'	7 5/8"	243'	175	5 1/2"	3684'	250	OH 3684-3894'

*Sanderson B-9 No. 1 also has intermediate casing - 9 5/8" set at 3360' w/1864 sacks cement.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 7
660' FNL & 1980' FWL Sec. 3-20-36
Elev.: BHF - 3616'
DF - 3626'

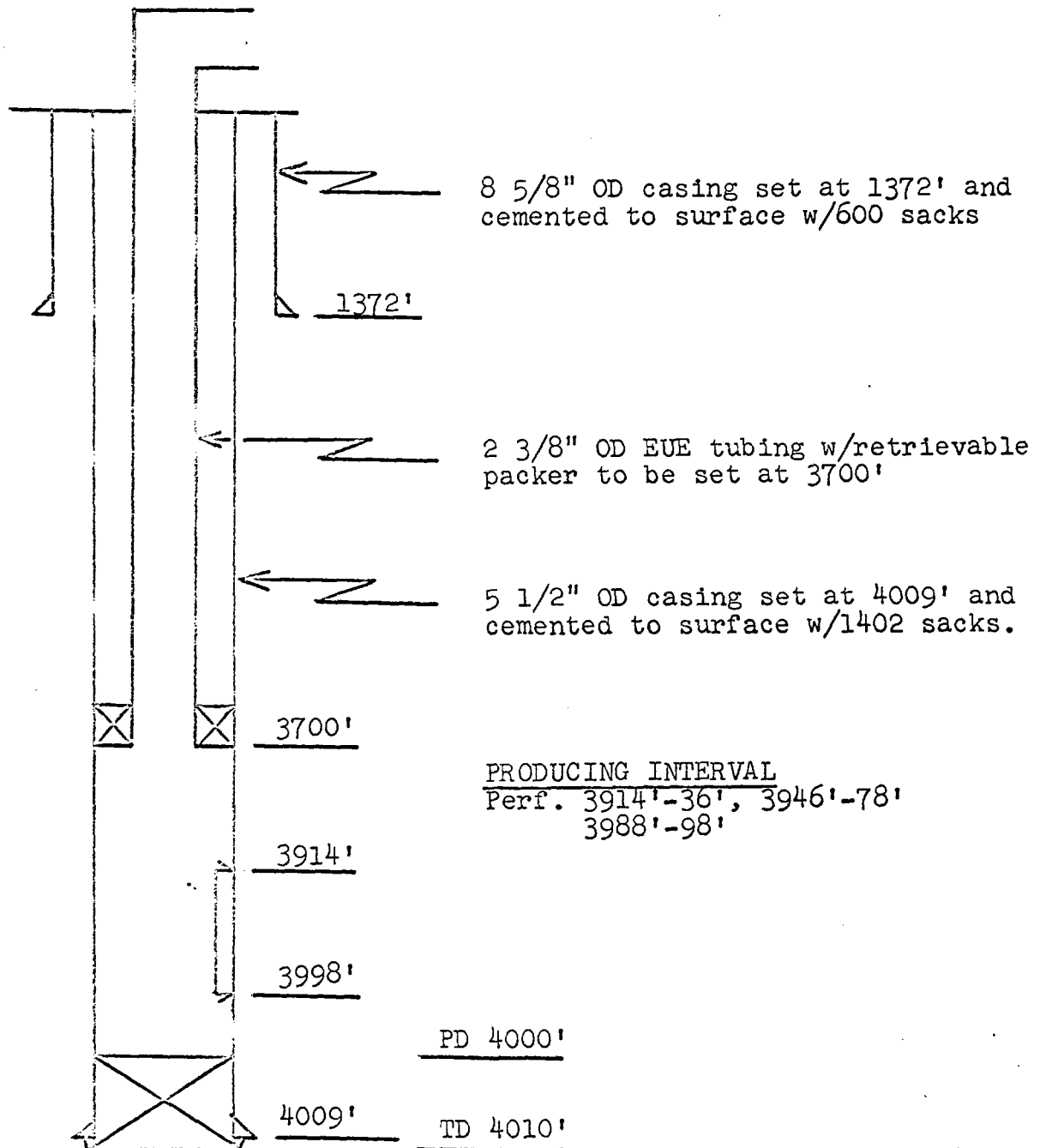


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3910'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 9
1980' FNL & 660' FWL Sec. 3-20-36
Elev.: BHF - 3621'
DF - 3631'

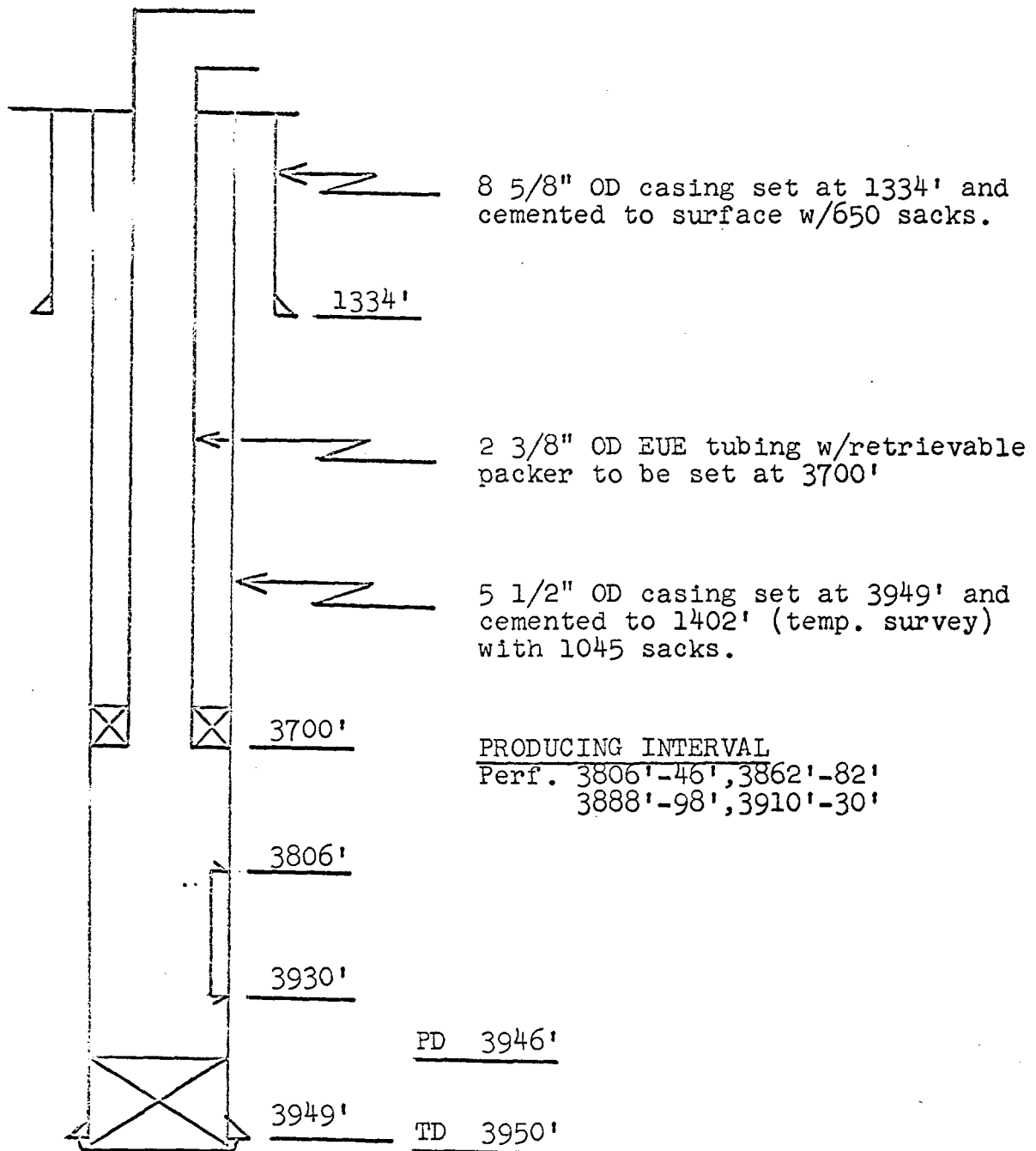


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to PD of 4000'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 10
1980' FSL & FWL Sec. 3-20-36
Elev.: BHF - 3616'
DF - 3626'

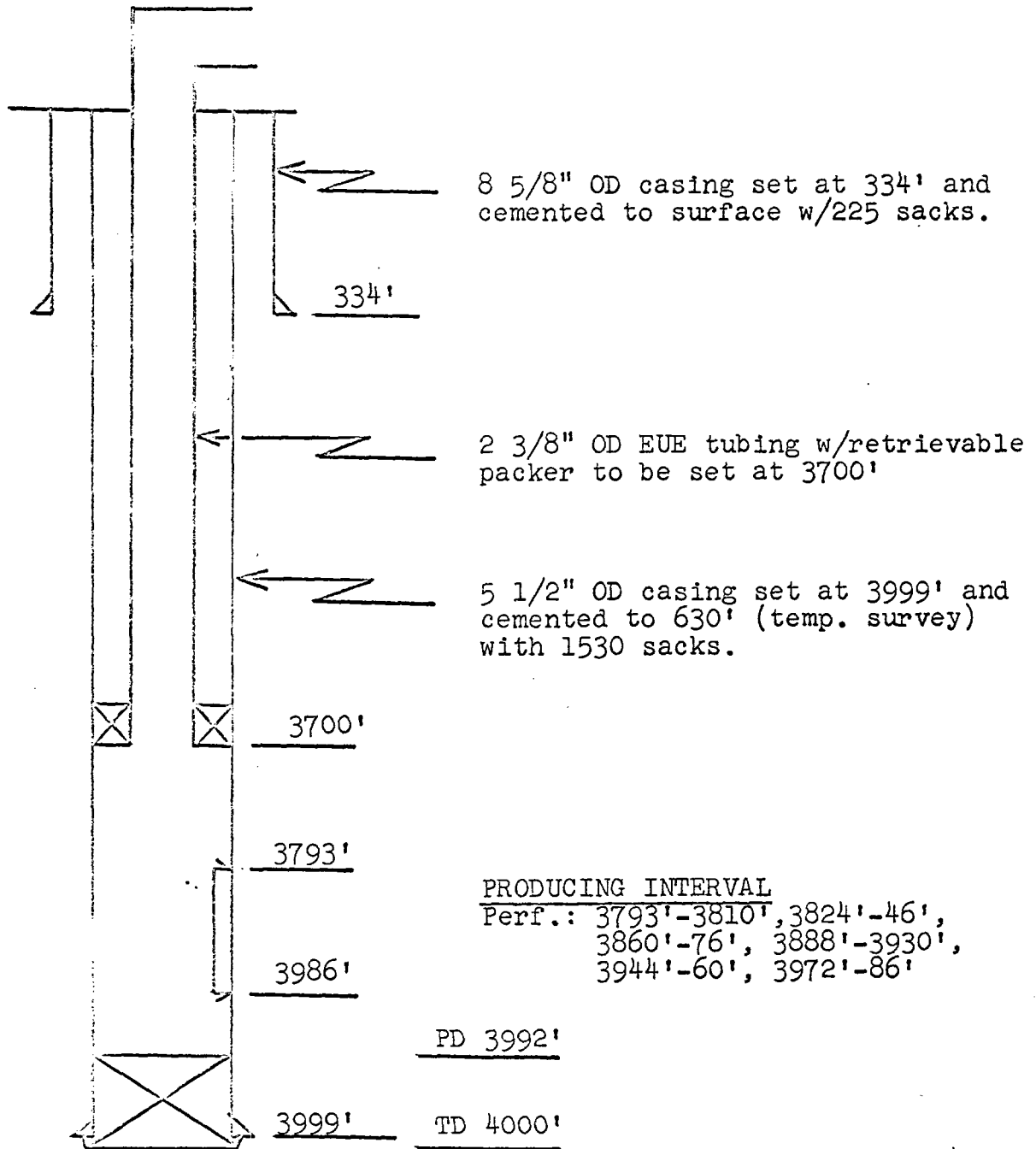


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3935'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 13
660' FSL & 660' FWL Sec. 3-20-36
Elev.: BHF - 3616'
DF - 3626'

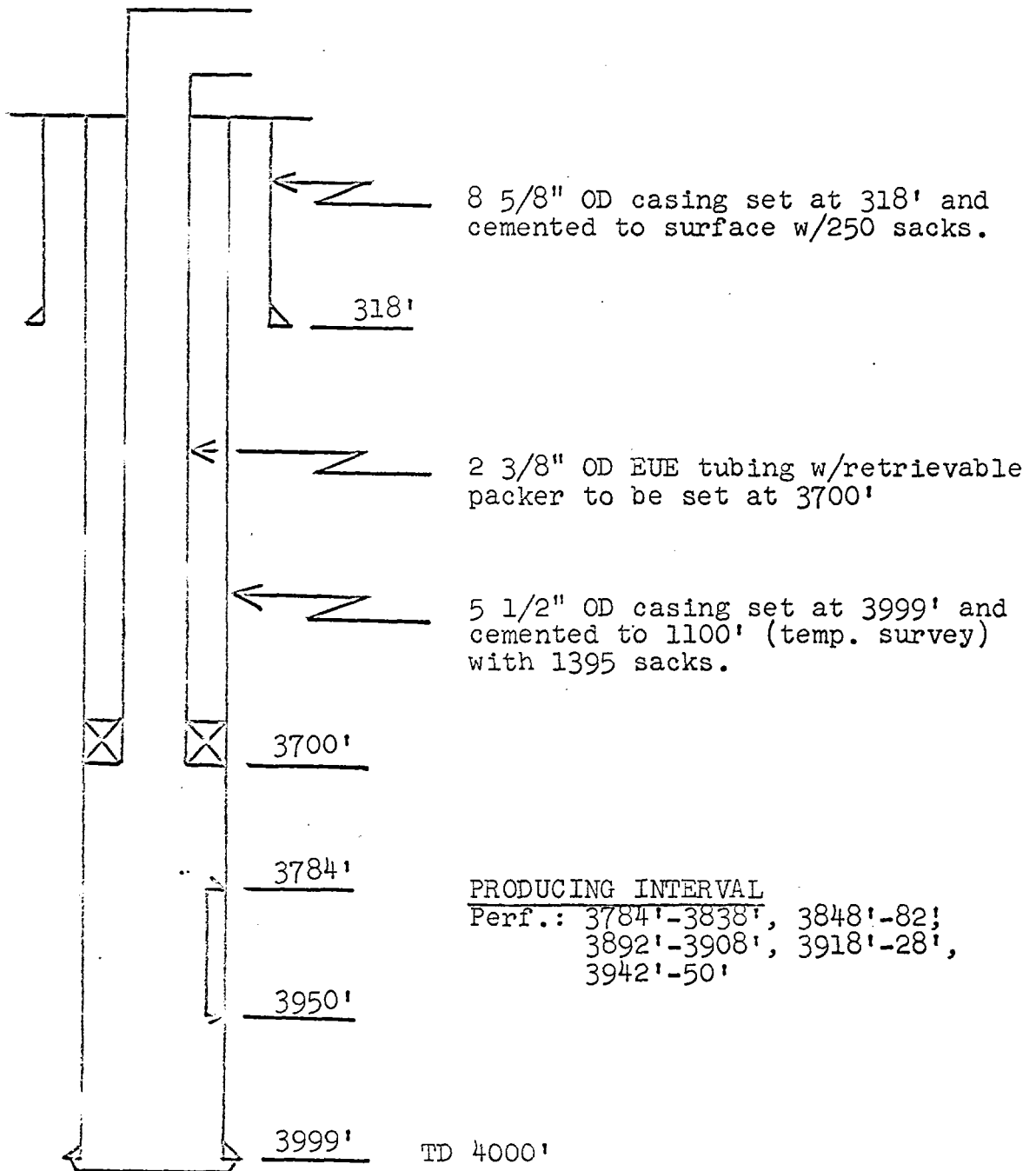


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to PD of 3992'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 14
660' FSL & 2310' FEL Sec. 3-20-36
Elev.: 3609' - BHF
3619' - DF

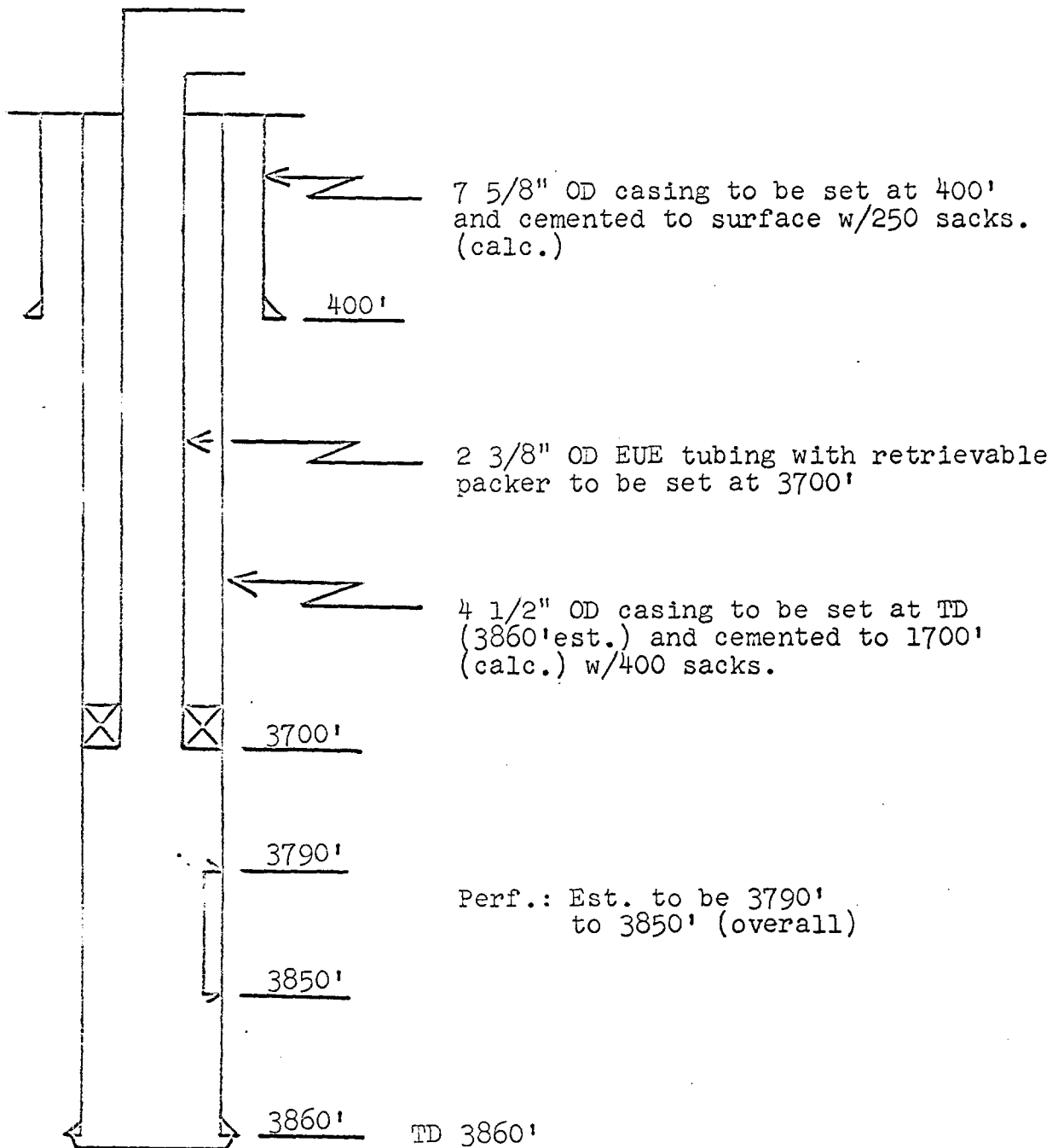


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3950'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Reed A-3 No. 16
1980' FN&EL Sec. 3-20-36
(To Be Drilled)
Elev.: BHF - 3610' (E)
DF - 3620' (E)



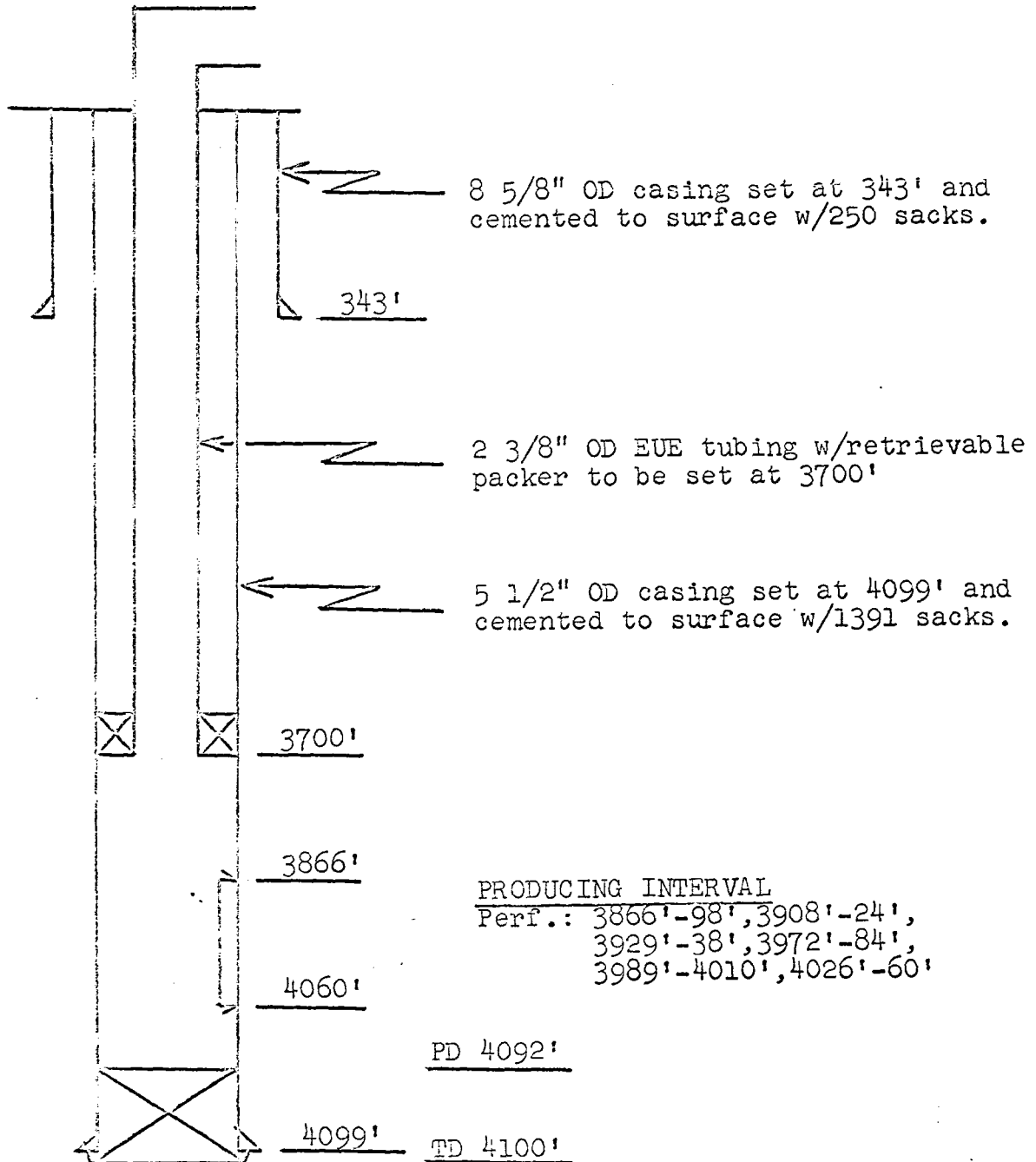
PROPOSED PROCEDURE

After well is completed (production string set
and pay zone perforated and stimulated).

1. Run tubing with retrievable packer to be
set 90' above top perforated zone (est.
3700').
2. Connect up well for injection down the
tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Jim Hewes No. 2
1980' FSL & 660' FEL Sec. 4-20-36
Elev.: BHF - 3625'
DF - 3635'

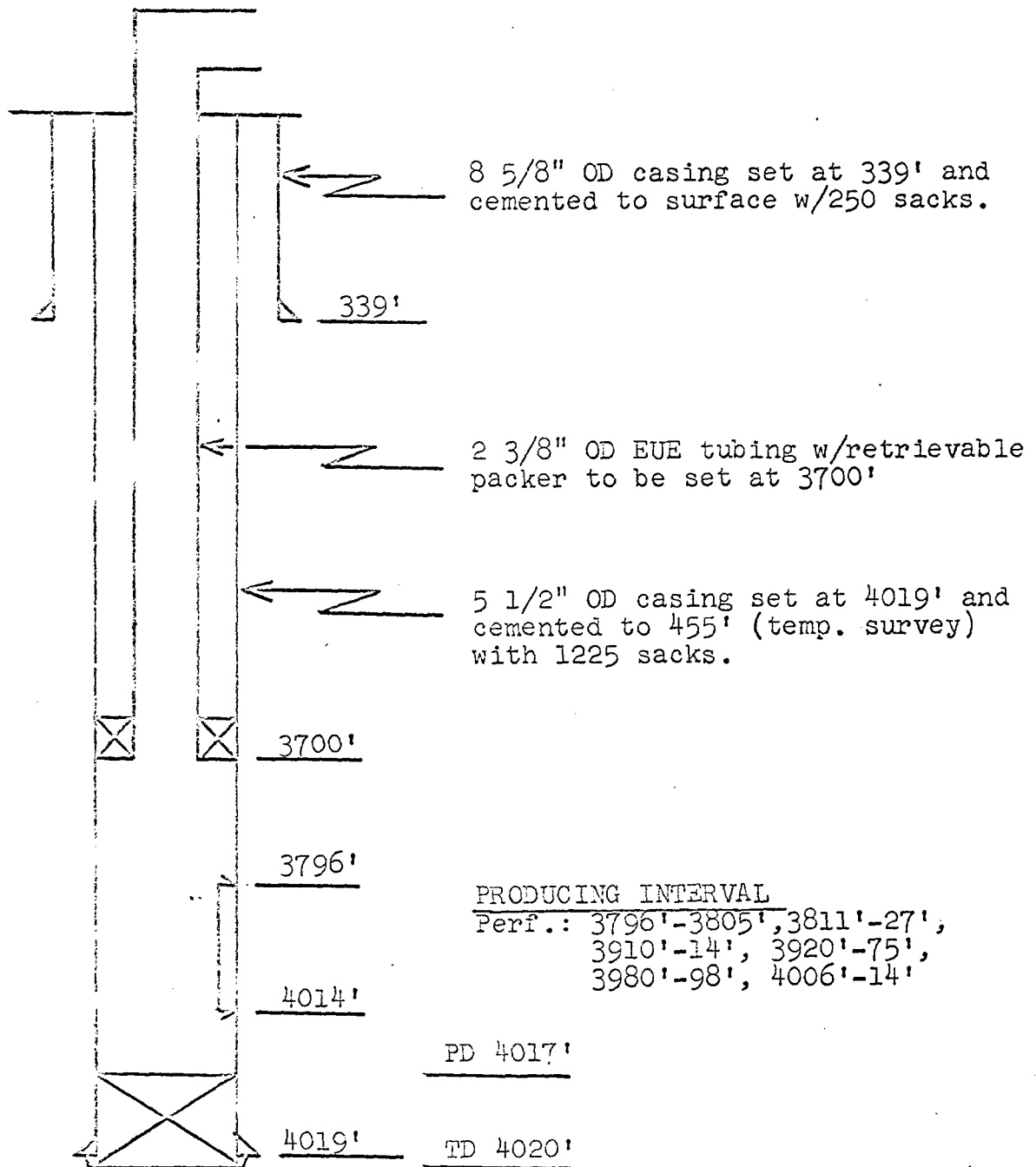


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 4065' (if necessary).
2. Run tubing w/retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Leonard No. 3
1980' FNL & 660' FWL Sec. 10-20-36
Elev.: BHF - 3598'
DF - 3608'

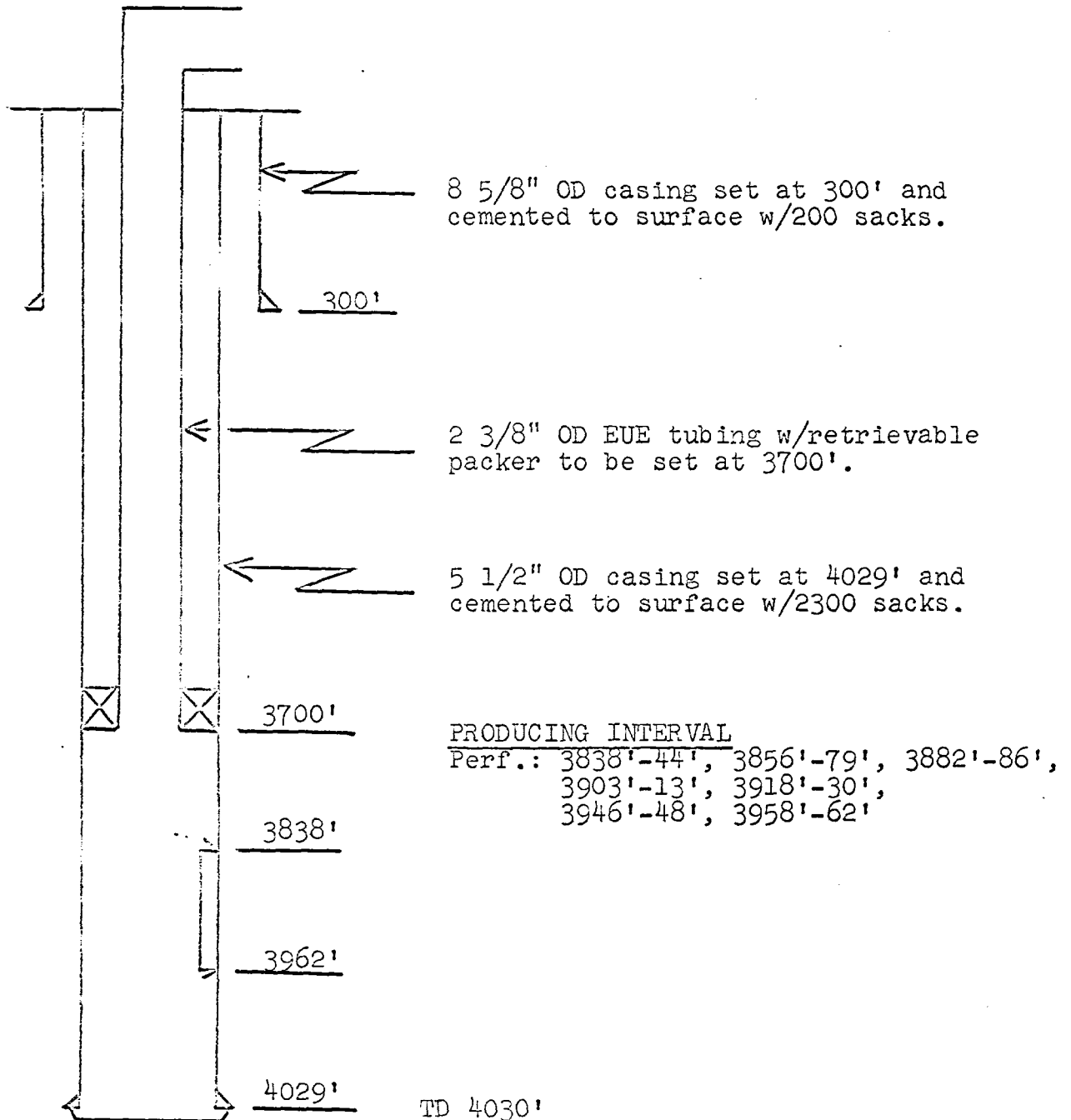


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to PD of 4017'.
2. Run tubing w/retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Argo Leonard No. 1
2310' FSL & 2310' FWL Sec. 10-20-36
Elev.: BHF - 3595'
DF - 3605'

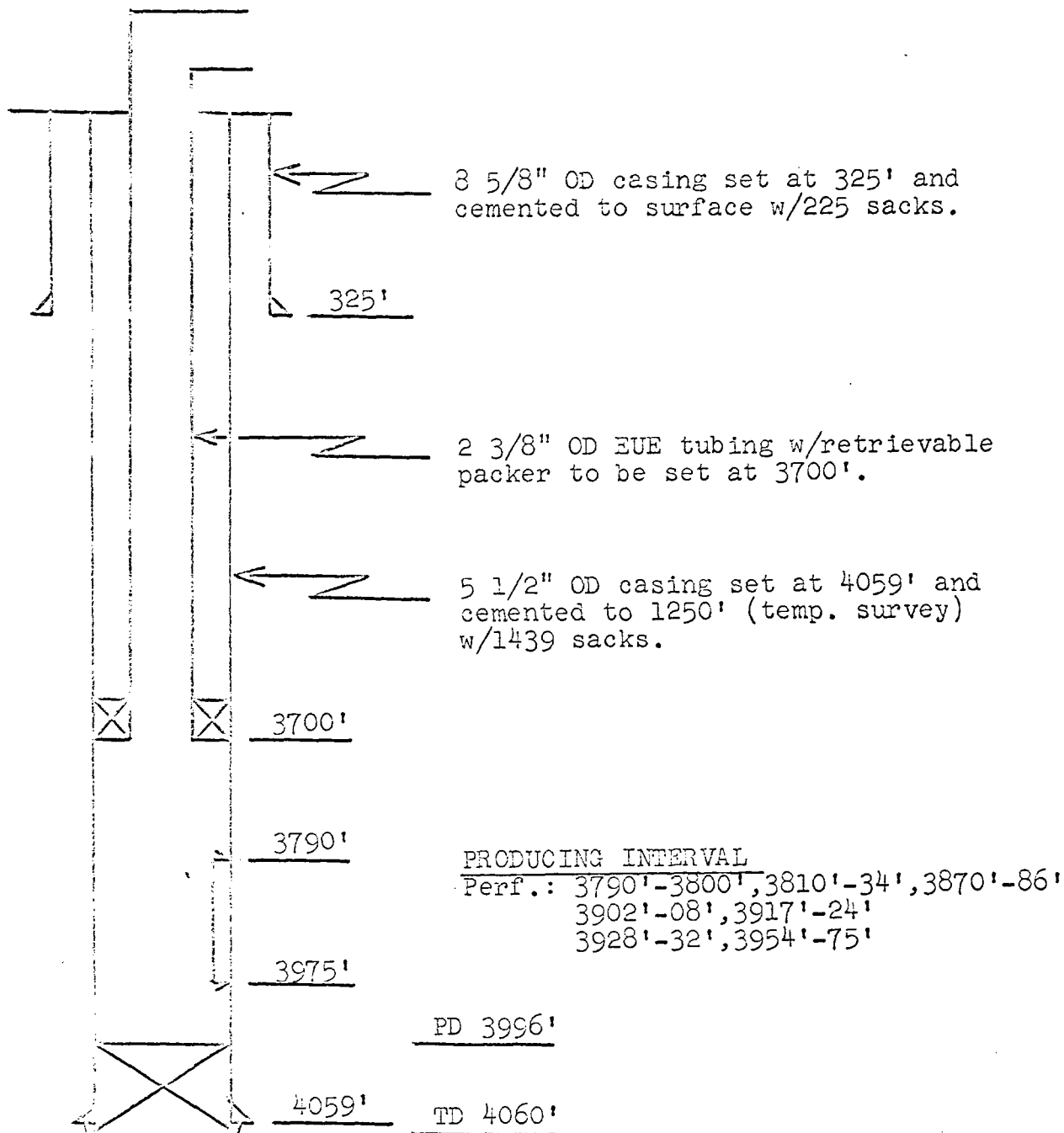


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3970'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Sanderson B-1 No. 6
660' FNL & 1990' FWL Sec. 10-20-36
Elev.: BHF - 3601'
DF - 3609'

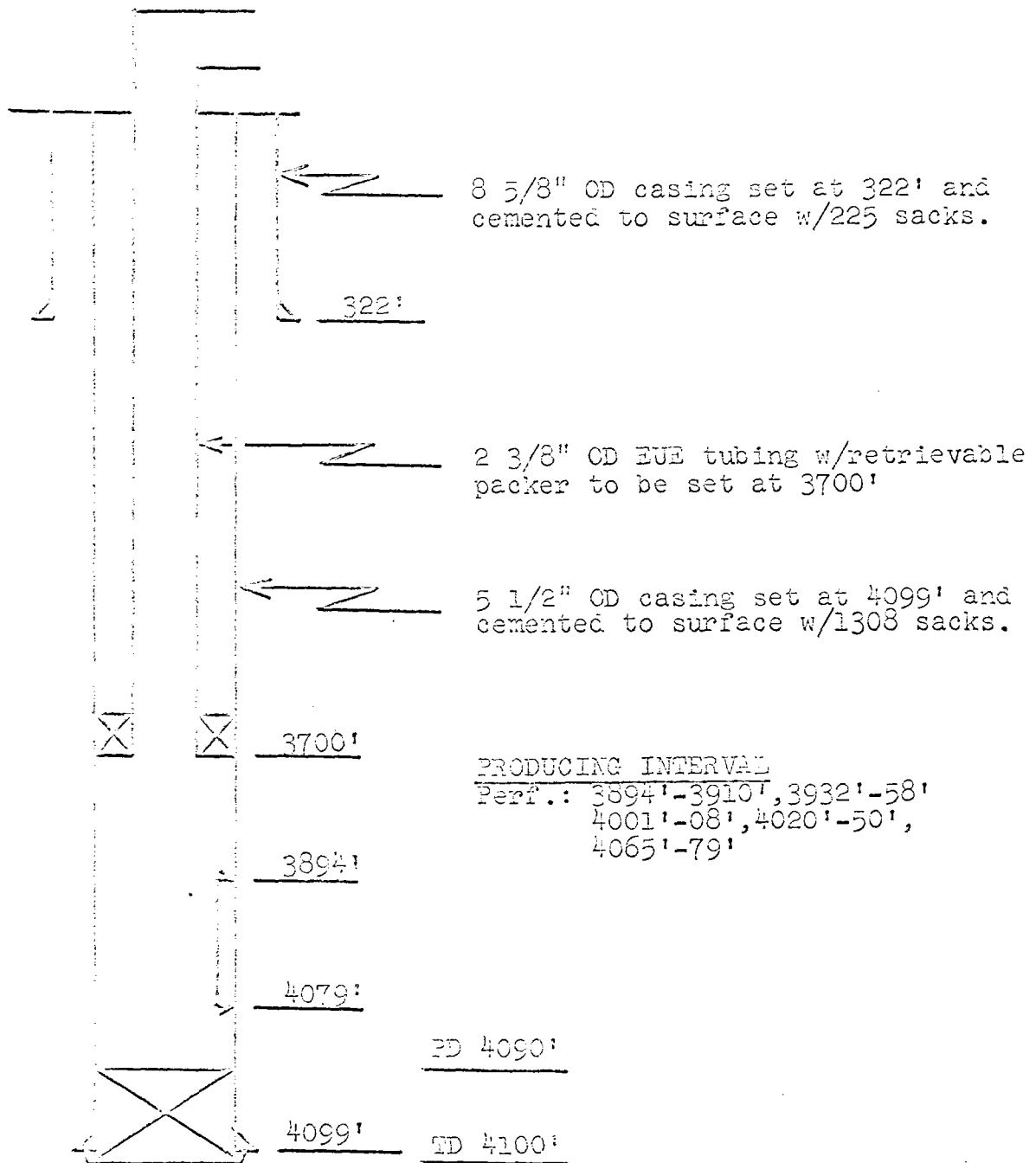


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3980'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Sanderson B-4 No. 1
660' FN&EL Sec. 4-20-36
Elev.: BHF - 3628'
DF - 3638'

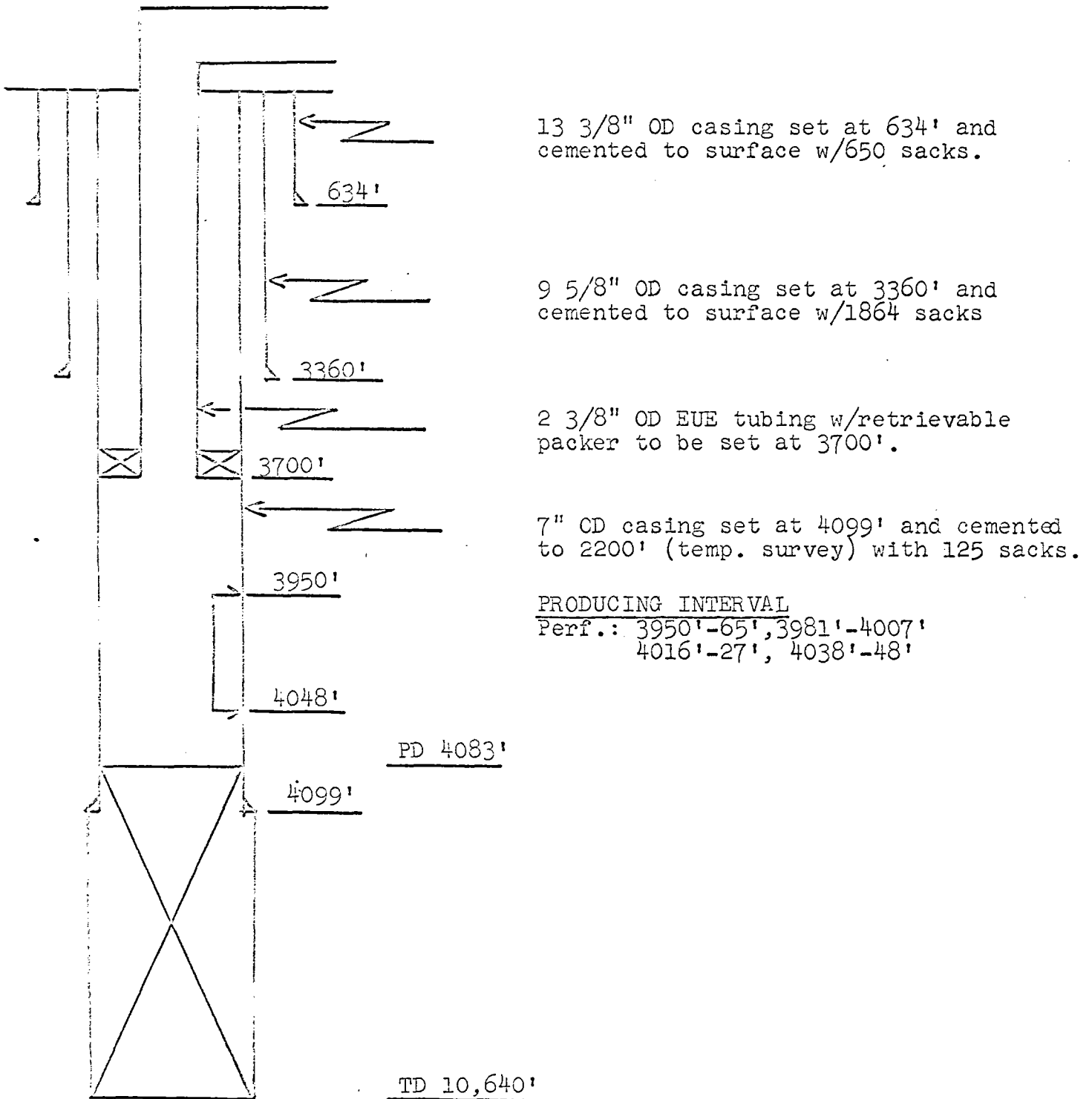


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 4085'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Continental Oil Company
Sanderson B-9 No. 1
660' FNL & 660' FEL Sec. 9-20-36
Elev.: BHF - 3614'
DF - 3626'

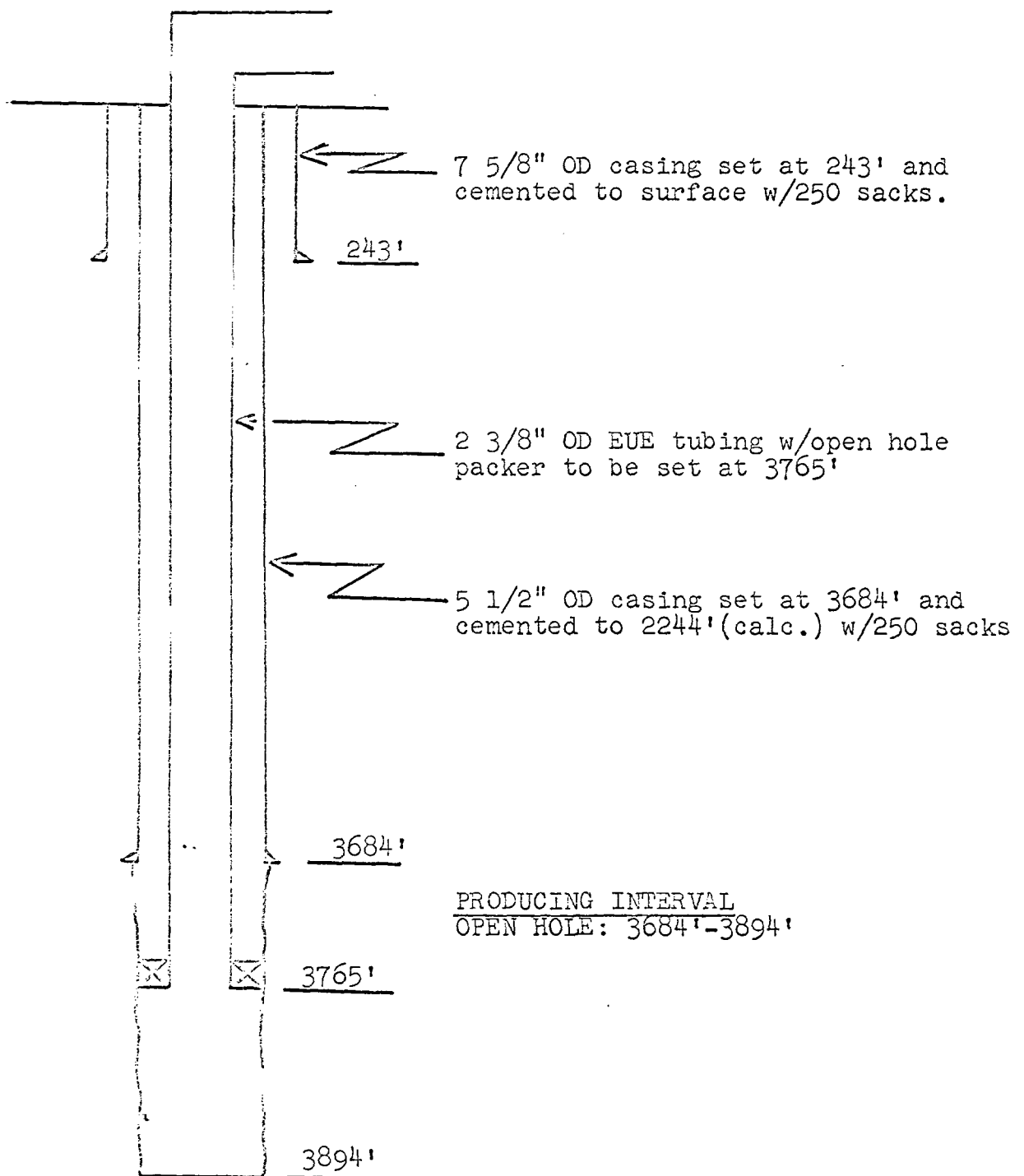


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 4055'.
2. Run tubing with retrievable packer to be set at approximately 3700'.
3. Connect up well for injection down the tubing.

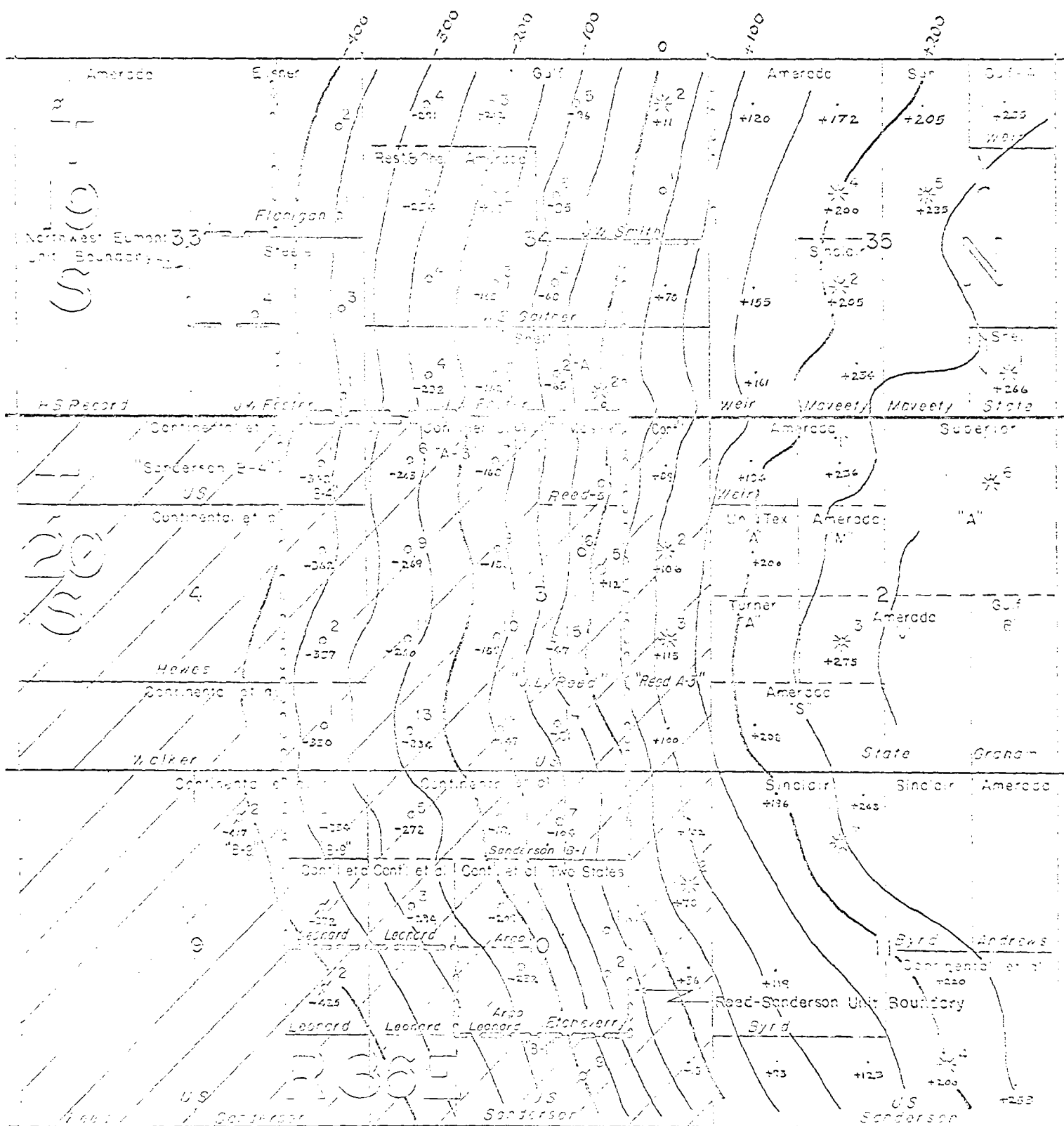
WATER INJECTION WELL DATA

Two States
Etcheverry No. 1
2310' FNL & 1650' FEL Sec. 10-20-36
Elev.: BHF - 3590'
DF - 3600'



PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3894'.
2. Run tubing with open hole packer to be set at approximately 3765' (-165').
3. Connect up well for injection down the tubing.



CONTINENTAL OIL COMPANY

PRODUCTION DEPARTMENT

HOBBS DISTRICT

EUMONT VATES, SEVEN RIVERS,

QUEEN OIL POOL

Lea County, New Mexico

REED-SANDERSON UNIT

LOWER QUEEN-PENROSE STRUCTURE MAP

Contour Interval: 50'

Only Eumont Yates, Seven Rivers, Queen (Oil)
and Eumont Queen (Gas) Wells Shown

SUMMARY DATA SHEET

REED-SANDERSON UNIT

General

1. Area, Acres	1040.83
2. Number of Producing Oil Wells	24
3. Number of Plugged and/or Abandoned Wells	2
4. Cumulative Oil Production at 7-1-66, bbls.	1,483,403
5. Average Daily Oil Production Per Well, June 1966, bbls	5.2
6. Average Daily Water Production Per Well, June 1966, bbls	2.9
7. Average Gas-Oil Ratio, June 1966, CF/B	21,800
8. Estimated Life of Waterflood Operation, Years	10

Geological Data

1. Producing Formation	Queen
2. Average Depth, Feet	3,875
3. Type Structure	Flank of Anticline
4. Estimated Gas-Oil Contact, Feet	-150
5. Primary Pore Volume Acre-Feet	14,354
6. Secondary Pore Volume, Acre-Feet	10,389

Reservoir Properties

1. Estimated Original Reservoir Pressure, psi	1,450
2. Estimated Reservoir Pressure, 1-1-67, psi	500
3. Average Rock Properties	
Porosity, Percent	15.4
Permeability (Air), Millidarcies	8.9
4. Reservoir Saturation	
Initial Water, Percent	37
Initial Reservoir Oil, Percent	63
Reservoir Oil Percent, 1-1-67	48.2
Residual Reservoir Oil, Percent (Swept Volume)	30
5. Reservoir Oil Properties	
Estimated Bubble Point Pressure, psi	1,450
Initial Formation Volume Factor	1.230
Waterflood Formation Volume Factor	1.133
Initial Solution GOR, CF/B	499
Initial Oil Viscosity, cp	1.18
API Gravity, Crude	37
6. Estimated Original Stock Tank Oil in Place	
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Barrels per Acre-Foot	612

Reserves Estimates

1. Estimated Ultimate Primary Recovery, Bbls.	1,627,403
2. Estimated Remaining Primary, 1-1-67, Bbls.	120,000
3. Primary Recovery, Percent of ST Oil in Place 1-1-67	17.1
4. Estimated Waterflood Volumetric Sweep Efficiency	0.55
5. Estimated Waterflood Recovery	
Barrels ST Oil	1,090,000
Barrels ST Oil Per Acre Foot	105
Percent of Initial STO In Place	17.1
6. Estimated Secondary Recovery, ST Bbls. Oil	970,000

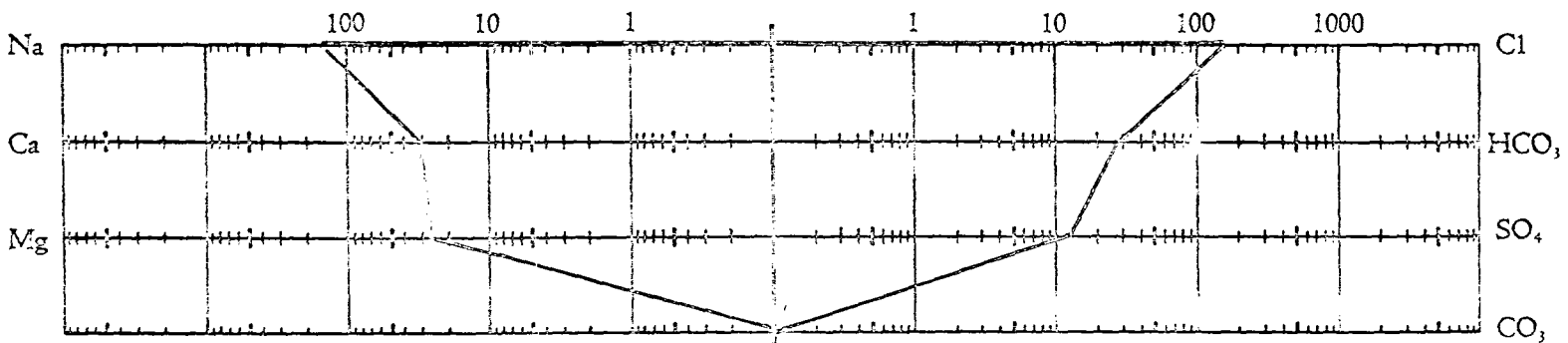
CONTINENTAL OIL COMPANY
PRODUCTION RESEARCH DIVISION
WATER ANALYSIS REPORT

RECEIVED
MARCH 16 1966
No. W-6622

Company Continental Oil Company Date March 1, 1966 No. W-6622
Well E-M-E SWD-I No. 1 Location
Field E-M-E SWD System Formation Mixture
State New Mexico County Lea Depth
Sample Source Wellhead Date Collected January 29, 1966

Specific Gravity	<u>1.009</u>	Resistivity at <u>73</u> °F.	<u>.550</u> ohm Meters	pH	<u>7.2</u>
	meq/L	mg/L (ppm)	meq/L	mg/L (ppm)	
Total Dissolved Salts		<u>12,800</u>	Sodium (Na)	<u>153.54</u>	<u>3,530</u>
Hydrogen Sulfide		<u>330</u>			
Chlorides (Cl)	<u>166.11</u>	<u>5,890</u>	Magnesium (Mg)	<u>25.41</u>	<u>305</u>
Sulfates (SO ₄)	<u>13.75</u>	<u>660</u>	Calcium (Ca)	<u>30.40</u>	<u>608</u>
Carbonates (CO ₃)		<u>0</u>	Ba		<u>0</u>
Bicarbonates (HCO ₃)	<u>29.18</u>	<u>1,780</u>	Iron (mg/L) Total	<u>0</u>	Dissolved <u>0</u>
Free Hydroxyl (OH)			Suspended Solids		<u>23</u>

WATER ANALYSIS PATTERN
SCALE MEQ/LITER



Remarks: Sample No. 1 - Analysis for use in Reed-Sanderson Unit waterflood

B. M. Casad
B. M. Casad
Supervisor
Production Chemistry Group

65 SEP 22 PM 1 1



CONTINENTAL OIL COMPANY

P. O. BOX 460
HOBBS, NEW MEXICO

PRODUCTION DEPARTMENT
HOBBS DISTRICT
L. P. THOMPSON
DISTRICT MANAGER
G. C. JAMIESON
ASSISTANT DISTRICT MANAGER

September 21, 1966

1001 NORTH TURNER
TELEPHONE: EX 3-4141

File 3464

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

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

Re: Approval of Reed-Sanderson
Unit and Waterflood

Gentlemen:

My letter of August 26, 1966, forwarded three copies of our application for approval of the Reed-Sanderson Unit Agreement and Waterflood project. Mr. Frank Irby of the State Engineer's office called to our attention that there was an inconsistency on the information shown on Exhibit 4 as compared to that shown on Exhibit 4-13. Upon checking we find that Exhibit 4-13 was in error in regard to the amount of cement used for the surface casing on the Two States' Etcheverry No. 1. Consequently, I am forwarding herewith a corrected copy of Exhibit 4-13.

I sincerely appreciate Mr. Irby's calling this error to our attention and I am pleased to submit the correct exhibit at this time. Please substitute this exhibit for the one previously furnished you with the application.

Yours very truly,

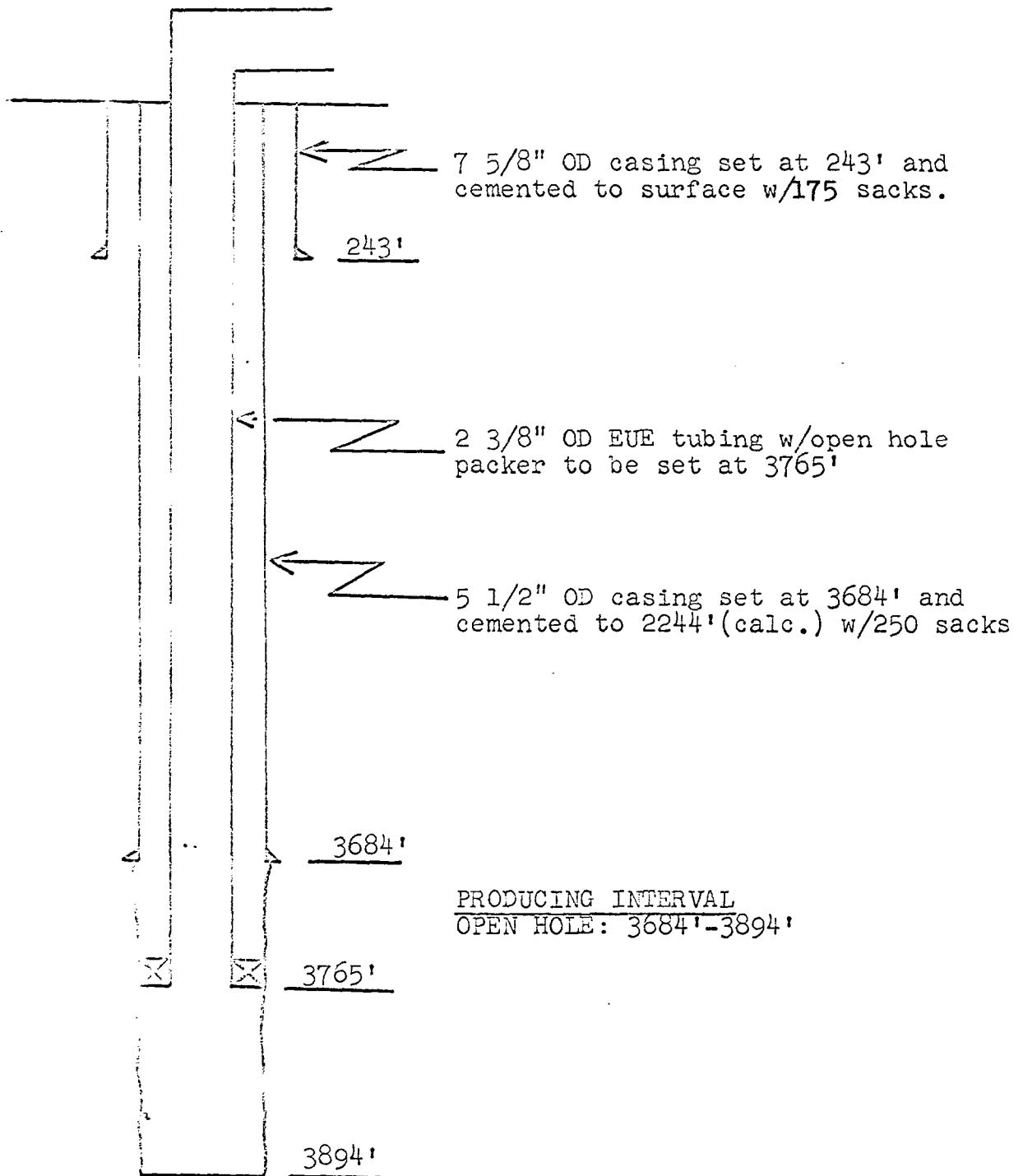
V. T. LYON

VTL-JS
cc: State Engineer
Capitol Building
Santa Fe, New Mexico

RGP GW JWK

WATER INJECTION WELL DATA

Two States
Etcheverry No. 1
2310' FNL & 1650' FEL Sec. 10-20-36
Elev.: BHF - 3590'
DF - 3600'

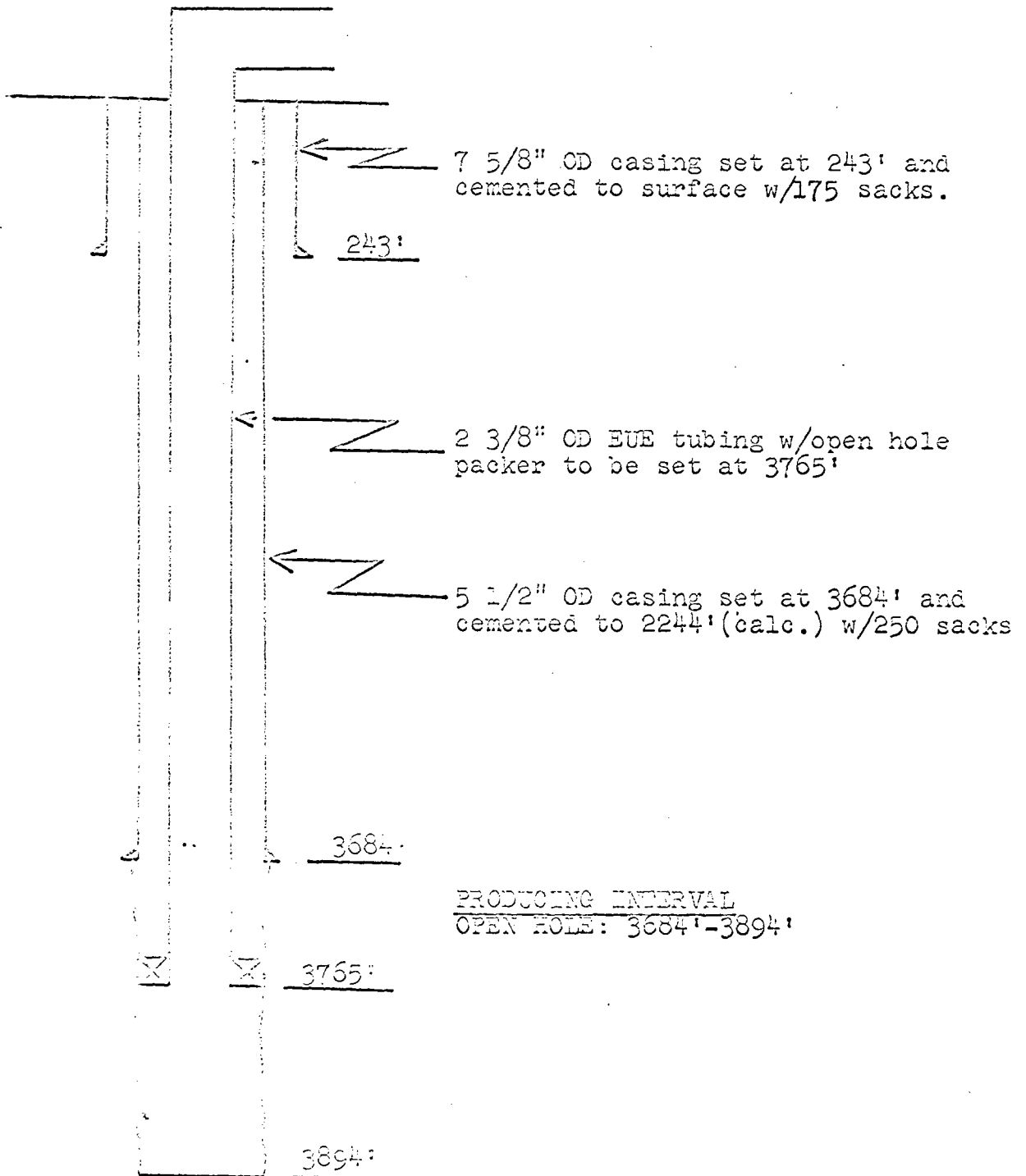


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3894'.
2. Run tubing with open hole packer to be set at approximately 3765' (-165').
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Two States
Etcheverry No. 1
2310' FNL & 1650' FEL Sec. 10-20-36
Elev.: BHP - 3590'
DF - 3600'

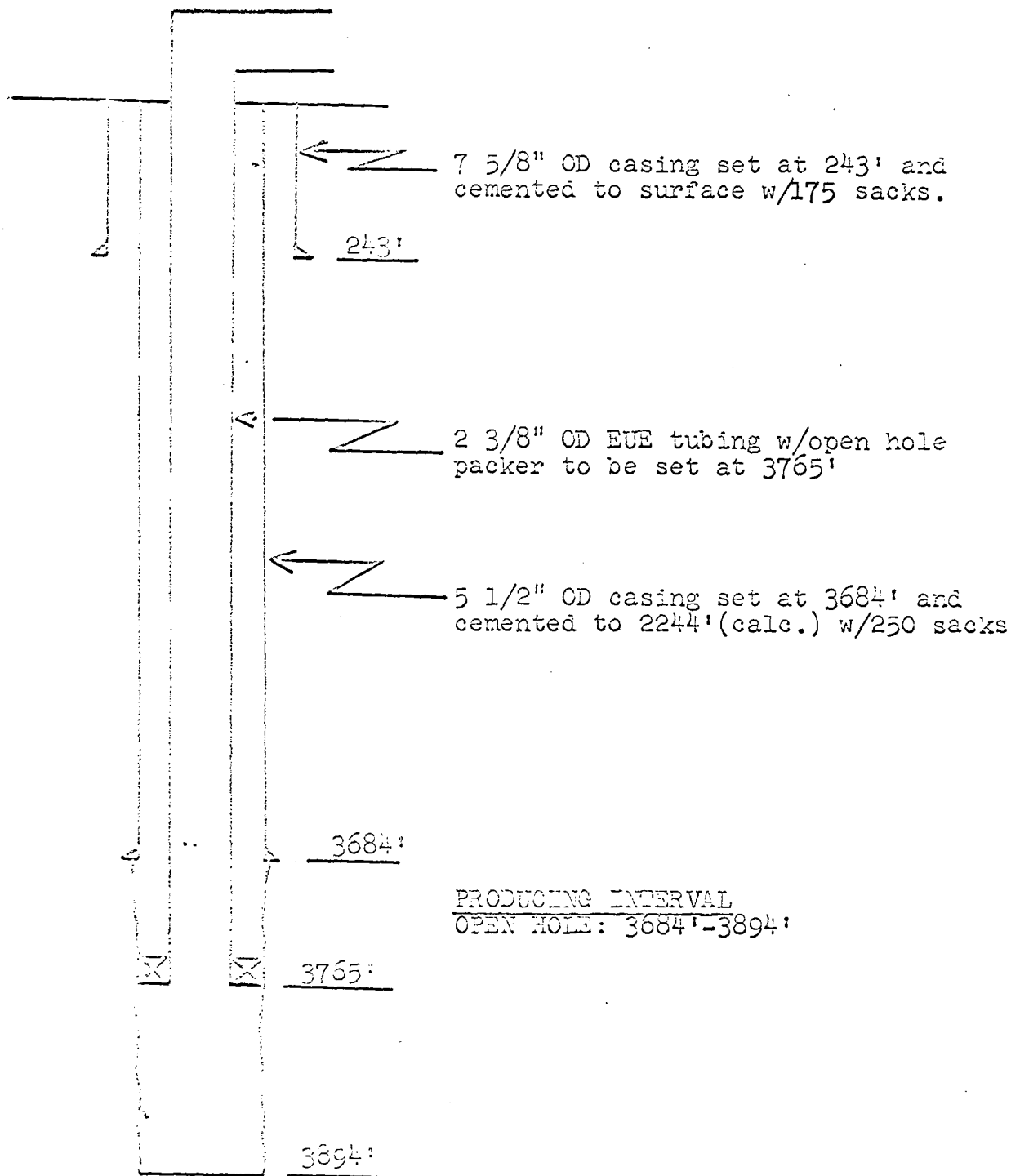


PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3894'.
2. Run tubing with open hole packer to be set at approximately 3765' (-165').
3. Connect up well for injection down the tubing.

WATER INJECTION WELL DATA

Two States
Etcheverry No. 1
2310' FNL & 1650' FEL Sec. 10-20-36
Elev.: BHF - 3590'
DF - 3600'



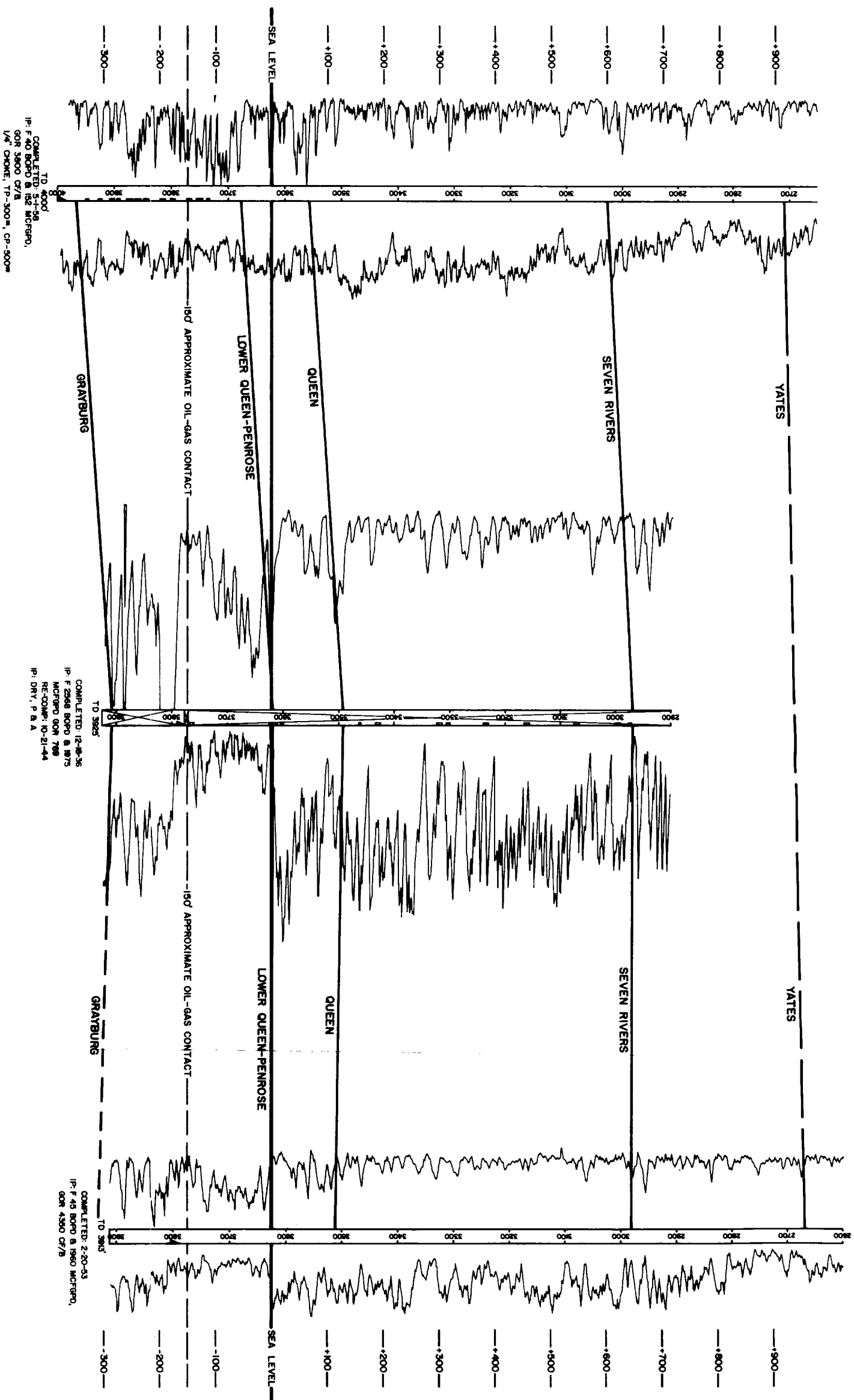
PROPOSED PROCEDURE

1. Tag bottom and tally out. Circulate and cleanout to 3894'.
2. Run tubing with open hole packer to be set at approximately 3765' (-165').
3. Connect up well for injection down the tubing.

CONTINENTAL OIL COMPANY
 REED A-3 NO. 15
 1960 FSL & 2310' FEL, Sec. 3, T20S-R36E
 Elev. 3622' DF

CONTINENTAL OIL COMPANY
 REED A-3 NO. 5
 2310' FSL & 1650' FEL, Sec. 3, T20S-R36E
 Elev. 3622' DF

H. S. MOSS
 J. L. REED NO. 1
 1000' FSL & 1635' FEL, Sec. 3, T20S-R36E
 Elev. 3623' DF



CONTINENTAL OIL COMPANY
PRODUCTION DEPARTMENT-HOBBS DISTRICT
CROSS SECTION
EUMONT YATES SEVEN RIVERS QUEEN POOL
REED-SANDERSON UNIT AREA
SCALE
VERTICAL: 1" = 100'
HORIZONTAL: NONE